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## The Leicester Gallery Suite: An Interdisciplinary Conservation Approach

### Abstract

The establishment of the National Trust's Knole Conservation Studio allowed Knole House's extensive collection of 17<sup>th</sup> century furniture to be reviewed in an on-site studio setting with a multi-disciplinary conservation team. One of the larger sets of objects assessed during the HLF funded Inspired By Knole project was the suite of upholstered seat furniture from the Leicester Gallery. Despite a long association with the Knole showrooms, the history of these objects is sparsely documented. Their conservation history since the Trust took over management of the property in 1946 has generally consisted of in situ assessments, carried out by specialists addressing the frames or upholstery separately. Bringing them into the studio enabled a more holistic approach to the objects both individually and across the set.

The set, with crimson velvet upholstery and beechwood frames decorated with paint over gilding, was very much in need of stabilization. The frame decoration required urgent consolidation treatment. But before starting, further research through old reports, historical documents and analysis were needed to better understand the set and establish the most appropriate conservation treatment. Like the history of this collection throughout the centuries, the history of the decoration itself was unclear and the surface layer was likely to be modern. Hence research was carried out to ascertain its age, materials used, their condition, and what might remain beneath.

Close inspection of the top cover textiles during cleaning and stabilisation treatments also revealed deliberate alterations and reconfigurations. The work done on the frames gave insight into how the individual textile elements are likely to have contributed to a consistent decorative scheme across the suite. In addition the information it provided on the generations of alterations throughout the collection's history proved a useful reference in assessing the broader set of upholstered furniture at Knole.

Collaboration between specialists in this project has resulted in a more rounded and nuanced understanding of how the objects have changed through time and their relationship as a suite.

### Keywords

Upholstery, velvet, decorative surface, structure, filling, retouching,

### Introduction and Historic Context

Knole House is one of the most important historic houses and collections in Britain, amongst its unique 17<sup>th</sup> century furniture collection is the Leicester Gallery suite of furniture, formed by a group of 6 chairs, 4 high stools, 4 short stools plus 2 sofas. It dates from the first quarter of the 17<sup>th</sup> century and is described as a group of furniture in red crimson velvet upholstery with beechwood frames decorated in red glaze over gilding.

Since the late 17<sup>th</sup> century, when the Sackville family created their own living apartments the state rooms became a destination for visitors, and it seems that by 1874 some ten thousand people were visiting Knole every year (Sackville- West, 2010). The collection therefore reveals the impact that visitors have had on it, and this led to inevitable need for repair and early attempts for conservation and preservation.

In 2017 the Leicester suite of furniture was brought to the conservation studio and before any treatment it was decided to know some more about the objects and their history. Research led to early graphic documentation from the Knole House archives. Thanks to the photographs and documents kept by the Sackvilles and in the National Trust, we can state that the set has been displayed in the same room, and in the same way at least since the 1800's and that the appearance of it has decayed significantly since then.



Fig. 1. Photographs taken in 1890 by Charles Essenhigh Corke (Sevenoaks 1852- Sevenoaks 1922).



Fig. 2.



Fig. 2-3. Images from the same author, dated 1890. The advanced deterioration of the decorative surface on the frames is visible. The upholstery has decayed much more since then.

The Leicester suite of furniture also appears in publications since at least 1864, when Mr Eastlake visited Knole and quoted the set in his book *Hints of the Household* (Eastlake 1867, fig. 4). There are many other interesting references in different publications. Some of these publications also contain historic photographs where we can see in more detail the poor condition of the furniture decoration at different dates (fig. 5 & 6).

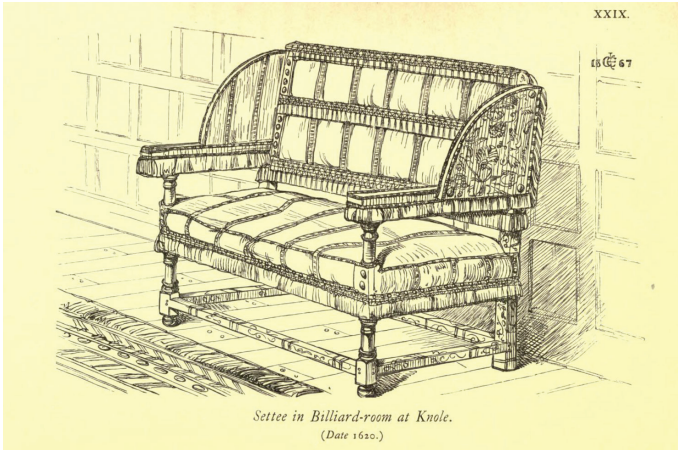


Fig. 4. Eastlake's illustration of one of the sofas, found in his book *Hints of Household* dated 1867.



Fig. 5. Digitalised image from *Old Furniture Magazine*, 1928.

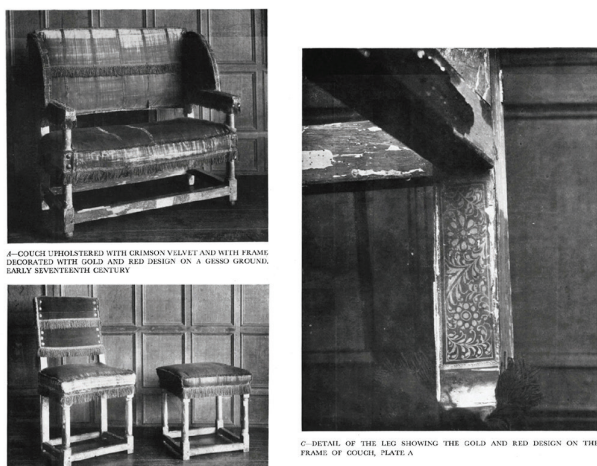


Fig. 6. Digitalised image from *the Burlington Magazine*, May 1945.

And we get to 2018, when the set looks like this and is very much needed of stabilisation:



Fig. 7. Before treatment pictures of the suite. Photographs: Laurence Pordes.

The Inspired by Knole Project started in 2016 as both the house and its collection were at significant risk following years of gradual deterioration. The aim has been to secure the future of the house and collection while carefully retaining Knole's unique atmosphere. Because of this the treatment guidelines consisted of giving the objects minimal intervention, with the emphasis of stabilising and preserving them for the future, but also preserving their unique story through time and preserving the 'Spirit of Place' – an idea central to the ethos of the National Trust.

#### PART 1: Conservation Of The Frame Decoration

The sofas and chairs have turned front legs, joined by square section stretchers to plain back legs, and the stools have turned legs that end on ball feet. The set has a decoration of arabesque on a red glaze over gilding, and a marbled decoration in the inside face and the outside back (fig. 7).

#### Past Conservation

The conservation history since the Trust took over management of the property in 1946 has generally consisted of in situ assessments: the first condition report from 1979 makes an important statement:

“Nearly all the frames were repainted by the Rural Industries Bureau in the 1960's and again in 1979 by Mr Barns, who did them for the R.I.B. before”

Only two pieces were not treated, (perhaps they were in better condition) and it is possible they still have original decoration: a chair and a stool, not on display (fig. 9).

In the 1945 photographs it is clear that the decoration was in really poor condition and



Fig. 8. Top left image: possible remnants of original in top square section under tassels. The stool and detail of its 1960's decoration on the right side.

already had many losses (Symonds 1945, fig. 6). It is easy to imagine it had become much worse almost 70 years later

Despite the not so ethical reputation of the RIB in regards to conservation procedures when compared to modern day principles and ethics, it was impossible whilst working on these objects not to gain some respect for their work mimicking the original decorations, materials and techniques (fig. 8). However, it is sad that very little from the original decoration was preserved, having been stripped almost completely with only remnants of the original remaining (fig. 9).



Fig. 9. The only chair and stool not redecorated by the RIB are not in display (centre). On the sides, pictures of details of possible original decoration.

### Examination and Decision Making

Looking at the evidence with Textile Conservator Isobel Harcourt, we agreed that the upholstery had not been removed to redecorate the frames. To ascertain which was decoration from the 60's and if there was any original left, more examination was needed. Raking light, a dino-lite (digital microscope) and UV light were used to analyse the surface. By comparing the actual decoration scheme with the remnants of the earlier one these revealed differences, such as a different oil gilding colour, different punch-work, and that the new gesso seems much thicker with a striped finish.

The set was in urgent need of stabilisation: the decorative surface on the furniture frames was literally falling off during handling, so it was necessary first to intervene and consolidate it with Isobel later continuing with the same task on the upholstery. It was discussed between the National Trust conservators, the Knole Project curator, Isobel and myself, which would be the best treatment for these, trying to accomplish remedial treatment while following Knole guidelines about minimal intervention and preserving the "Spirit of Place". At Knole the objects of the house and also the decay, repairs and changes they undergo are valued as these are part of their history.

### Types Of Deterioration

As mentioned before, the collection has decayed with the passage of time and environmental conditions, and objects have been modified in attempts to preserve them for future generations. All the condition assessments since 1979 until 2018 state two main issues:

- The very active woodworm (active until 2017 when finally, the whole set was treated by Thermolignum to eradicate this problem).
- The very active flaking of the decoration.

Different types of deterioration were present on the decorative surface and/or structure including:

- The ground white layer is very thick and friable
- Severe cleavage between decoration and wood in the turned legs
- Delamination between different layers of gesso
- Big losses and risk of many new ones as a result of the separation in between layers

- Severe flaking and cleavage in the marbled decoration
- Water damage: damaged structure and surface decoration
- Insect damage: this has severely damaged most of the set of furniture (now inactive)

Other types of damage:

- Nails substituting dowels
- Roughly made retouches all over the set

Despite the woodworm damage, the structure is fairly sound and is not in need of any structural treatment as it is intended just for display. The types of deterioration are illustrated in fig. 10-12 below.



Fig. 10. general view of one of the chairs and some examples of deterioration in close-up.

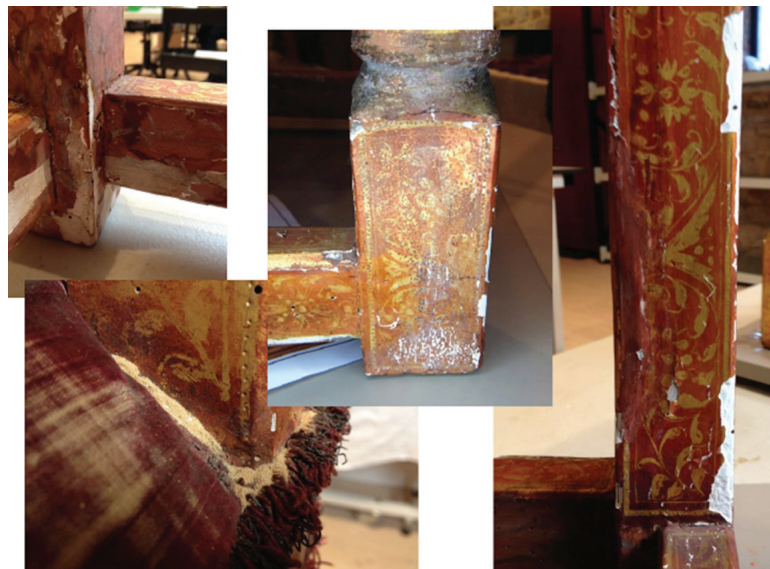


Fig. 11. In detail, different types of deterioration produced by woodworm, water damage, old retouches, etc.



Fig. 12. The delamination has caused big losses of the whole number of layers to the wood (left). Most commonly, the losses of decoration in the set are losses of the paint layers, revealing white gesso (right).

### Treatment

After careful examination, solubility and adhesives tests were done for the two types of decoration (the marbled finishing and the gilded surface) to choose the right materials for the consolidation treatment.

The gilded decorative surface was consolidated with Lascaux® 4176, an acrylic dispersion with excellent penetration ability. It has been applied using brushes or syringes for cleavage and blisters, sometimes pre-wetting the area. Once softened, the raised decoration was pushed back into place manually or helped with clamps in specific areas (fig. 13).

The consolidation of the marbled decoration was not possible with the Lascaux® medium as this adhesive left some staining on the matt finish paint test. The best results to preserve the finish was obtained by using diluted isinglass and facing: the protection with Japanese paper holds the fragile decoration in place avoiding any more losses during treatment, but it also proved to be efficient preventing the appearance of adhesive stains or residual rings on surface. The decoration was adhered back into place whilst softened until dried with the use of a heated spatula (fig 13).



Fig. 13. Different moments during consolidation treatment.

The in-painting of the losses was done with watercolours, as the pigments have excellent permanence and reversibility. This treatment consisted of choosing a neutral colour for the whole set to dissimulate the distracting white gesso, and another neutral tone for the areas where the lost decoration had uncovered the wooden support (fig. 13).

After the treatment, the Leicester furniture suite had its decoration stabilised and the losses made much less noticeable to the eye thanks to the optical effect of the in-painting (fig. 14). The minimal treatment to the set of furniture gives a more honest aspect of natural decay through the passage of time and tries to preserve the spirit of Knole.



Fig. 14. One of the two sofas, before and after treatment. Detail of the marbled decoration at the back.

## PART 2: Conservation Of The Upholstery

Once the treatment of the frames had been completed focus turned to the upholstery for stabilisation and cleaning. The suite on display in the Leicester gallery now consists of six stools of different heights, four chairs, and two sofas with full-length cushions topped with elaborately embroidered panels that are not original to the upholstery scheme. However, it is documented that additional chairs and at least one stool were removed from display many years ago because of poor condition, and the asymmetrical assortment of stools suggests that there were originally more of these in the set.



The top covers are consistent across the suite. They are made from fine silk velvet with crimson pile on a yellow ground. The chairs and sofas have a plain yellow silk outside back covering. The set is ornamented with four related types of trim:

- A Ladder braid applied at intervals along the velvet panels from front to back on horizontal surfaces and up and down on all vertical surfaces. This also runs along the top of the sofa arms.
- A deep knotted and fringed trim running around all the lower seat edges, and horizontally across the centre- back on the chairs and sofas.
- A looped trim sewn into the joining seams.
- A narrow fringed trim sewn into corner seams and on back margins.

All four trims have similar header tape and each type combines plied red silk threads with metal wrapped threads. The metal wrapped threads, now uniformly tarnished grey, have yellow silk cores suggesting that they were originally gold in colour. Traces of gold silk highlights in the ladder trim support this hypothesis.

The nails securing the top cover and trim to the frame also form part of the decorative scheme: Small nails are evenly spaced along all of the upholstery margins, neatly applied in the middle of the trim header tapes, holding these in place.

Large nail heads with a tooled flower motif are applied to the front face of the chair and sofa stiles, and to the velvet on the sofas front legs.



Fig. 15. Elements of the decorative scheme.

From left to right: ladder braid, deep fringed trim, looped trim, small nails with gilding, large nails with tooled flower motif.

Both nails types are non-magnetic and can be identified as being made from copper alloys by the characteristic corrosion products. Both retain traces of original gilding.

The indications that the metallic elements throughout would once have been gold in colour tie in well with the findings of an earlier red and gold paint scheme beneath the R.I.B.'s surface decoration on the frames.

### The Leicester Gallery Textiles

As had happened with the frame decoration, it was necessary to look at the context provided by the Leicester Gallery to better understand the upholstery scheme and define treatment goals. In addition to this set, the gallery houses other significant early 17th century objects.

These include two pieces of upholstered furniture of particular interest:

-The famous Knole sofa (fig 16), which sits en suite with the Leicester set, shares many elements of frame and upholstery design with the set, but features a full skirt and ratchet arms (Porter & Vida, 2019).

The X-frame Chair of State, with a Royal Stuart provenance indicated by an inventory stamp reading "HC 1661" from Hampton Court Palace, is also upholstered in a very similar crimson silk velvet and with similar loop trim sewn into the seams and gilding traces on its decorative nails (fig. 17). A portrait of James I hangs adjacent. He is painted seated on a chair closely resembling the Chair of State, dressed in matching regal red velvet (fig. 18).

Because of its recognised high significance within the collection and the differential treatment it had received and continues to receive under the Trust's stewardship, the Knole sofa was treated separately from the rest of the Leicester Gallery furniture. Although the treatment programmes were closely related the Knole sofa is not included in this discussion of the Leicester set.



Fig. 16. *The Knole Sofa circa 1635-1640, centrepiece of the Leicester Gallery Suite.*  
Photograph: Jane Mucklow, NT Collections Online.



Fig. 17. *The Leicester Gallery X-frame Chair of State from Hampton Court circa 1600-1625.*  
Photograph: Jane Mucklow, NT Collections Online



Fig. 18. *The portrait of James I by Mytens, seated in a chair closely resembling the Leicester Chair Of State, 1621.*  
Photograph: Jane Mucklow, NT Collections Online

Following the findings regarding interventions and reinterpretations of the decoration on the frames, there was a possibility that the Leicester suite upholstery had also been adapted during its history at Knole to engineer a consistent regal appearance across the showroom. The visible upholstery materials are certainly antique but there are numerous instances throughout the Knole collection of materials being repurposed. Information gained through close inspection of the upholstery materials and techniques strongly suggests that the majority of the upholstery in the Leicester suite does indeed date from the early to mid-17th century, although incorporating a number of historic repairs and alterations.

#### Evidence uncovered during conservation

The objects in the suite certainly give the general impression of retaining the original 17th century upholstery. The seats have the characteristic shape of feather-filled cushions nailed to the frames and supported by webbing, which can be seen in well provenanced examples from the Victoria & Albert Museum collection pictured below (fig. 19). On the Leicester suite, feather quills working their way through the stuffing covers supported this interpretation.

The plain red silk velvet with a contrasting gold ground can be found on many pieces from the period, including the neighbouring Chair of State from the Leicester gallery, whose upholstery showed strong evidence of having been original, and a second example (fig. 20) from the V&A collection.



Fig. 19-20. Two examples of chairs dating from the first half of the 17th century, Victoria and Albert Museum collection. Image credits V&A Collections Online.

The placement of the nails and trim is also characteristic of the era, including the counter-intuitive placement of the deep fringed trim running across the inside backs of the chairs and sofas. A similar trim can be seen on James I Chair of State in the Knole portrait (fig. 18). Many of the nails across the set are very evenly placed and consistently and securely driven in. This strongly suggests that the frame rails were not damaged by accumulated nail and tack holes from previous upholstery generations when these nails were applied.

There are however, some elements that clearly did not fit with an early 17th century origin. The wing pieces on the two sofas are constructed from a large grained wood in slabs that have warped after their covering textile was applied. These contrast strongly with the carefully cut and fitted finer grained wood from which the rest of the frames have been made. Although their inside and front faces are covered in a similar silk velvet to the backs and seats, the out-sides have an inferior velvet with a coarser, greyer ground and a tufted woollen trim that can also be found on sofas from an 18th century suite elsewhere in the house (fig. 21). The wings have been fitted over the top of the expensive velvet and deep-fringed trim that decorates the arms, partially obscuring them. They definitely appear to be an afterthought.

There are further fragments of mismatched trim throughout the set including a pink fringed trim found on one of the sofa backs and one of the chair backs and a tawny trim, that appears to belong to the 20th century, on one of the sofa seat fronts (fig. 22 & 23). The top seat panel of one of the stools has been completely replaced with a more recent mixed-composition velvet with a poorly stamped decorative pattern. There are a few smaller replacement pieces in crimson ground silk velvet very similar to that found in larger quantities as non-original velvet on the Knole Sofa. In areas of high wear a variety of mismatched textiles have been introduced, presumably as patches and reinforcements. These ranged from fine silk velvets through cotton velvets and plain cloth to adhesive cast Stabiltex, the latter obviously a conservation intervention from the second half of the 20th century.



Fig. 21. The sofa wing constructed with inferior materials and fitted over the top of earlier decoration.  
Photograph: Laurence Pordes.



Fig. 22-23. Rogue elements of mismatched trim distributed throughout the suite.

### Past Repairs and Alterations

One of the sofa seats has an odd colour cast and unlike the other pieces in the suite has no front seat seam (fig. 24). Close inspection revealed that the velvet on this seat is applied with the nap running backward, again unlike the others in the suite and contrary to upholstery convention. The seat top piece has been extended along the back edge with a piece of a plain red textile, not identified in any of the other seat upholstery, but present in the two mismatched sofa cushion covers. It seems likely that this seat panel was removed from the sofa seat and turned 180° to correct areas of wear along the front edge at the same time that the two cushions were covered with repurposed embroidery adapted from larger panels.

Splits in the top cover of the chair inside back panels revealed another panel in a very similar velvet beneath. Impressions showing through from below indicate that this under-panel has the lines of ladder trim that decorated the inside backs and seats across the set, but which now only exist as fragments and ghostly lines of red pile on the current top covers (fig. 25).

The discovery of the under layer lead to speculation that original velvet from elements now lost to the set had been repurposed to cover worn panels on the remaining objects. This could

also account for the presence of what appears to be original textile and trim on the front and inside faces of the sofa wings. Holes found at the ends of the sofa and chair backs in the top of the top back rail, now concealed by the top cover, indicate that the set once had finials like those on the Chair of State (fig. 17). The second layer of velvet may have been applied in part to cover the holes when these ornaments were removed.



Fig. 24. The seat top cover on one of the sofas applied with the velvet nap reversed and no front seam, indicating the cover has been removed and turned.



Fig. 25. impressions outlined in red from lines of ladder trim on an underlying layer of velvet on a seat back.

### Stabilisation of the Top Cover

Stabilising the textiles in the Leicester suite top covers was difficult due to the extreme fragility of the aged silk, and at times complicated by past repair and conservation interventions, many of which had ceased to be effective.

While there was extensive loss of velvet pile and decorative fringing throughout, the impact of long-term exposure to environmental stressors varied both within objects and across the set. As previously mentioned there is documentary evidence that the objects in the Leicester gallery have been displayed in a fixed configuration for well over a century. Textile elements that had been facing windows or were adjacent to draughty doorways were in significantly worse condition than those in more sheltered positions.

All velvet surfaces required careful in situ surface cleaning to remove accumulated ingrained soiling. Some areas were treated with the application of conservation net to protect further damage in areas of splits and loss. The painfully fragile silk fringes could only withstand gently brush vacuum cleaning and detangling with a micro-spatula. The metal-wrapped knotted fringe and ladder trim needed realignment and careful stitching to reinforce the structural and visual integrity. The brass nail heads were dry cleaned and buffed with cosmetic sponges to remove particulate soiling and corrosion products, resulting in a darker glossier surface, with the decorative tooling more visually apparent. However, some areas, like the seat front faces of the two sofas, required more complex treatments. In these cases light exposure from

the facing windows in combination with the distorting pressure from the heavy squab cushions and the failure of past repairs had caused extensive fragmentation and displacement of the top cover textiles.

An early attempt to repair the splitting had been made with what appeared to be hide glue fixing the original silk and some coarser velvet patches to the stable linen stuffing cover. A more recent attempt involved the insertion of adhesive cast Stabiltex support patches. In both these cases the adhesives had partially failed causing fresh tensions as the materials continued to distort, and the patches had become visually disruptive as the materials aged.

To reconstruct the sofa seat fronts it was first necessary to remove as much of the patching and adhesives as possible and re-open the splits. Independent solid seat supports were installed underneath, which hung from the frame and could be height adjusted to correct the distortion along the front edge. With these in place, a cotton support patch running the length of the front panel was inserted behind the velvet. The velvet could then be sandwiched between this and a conservation net overlay, securing the fragments in their original positions. As the upholstery textiles on one of the sofas were too fragile to take stitches, a cotton covered rail facing was attached to a portion of the seat rail with stainless steel staples so that the net overlay could be fixed at the bottom edge.

This operation uncovered further evidence for an original 17th century upholstery scheme. The attractive striped linen stuffing cover was visually consistent with a 17th century date and the seat rail was indeed clean and largely free of redundant tack holes. A fragment of velvet marked with a deep impression from trim header was found tacked to the rail of the sofa with the reversed velvet seat cover (fig. 27). Whilst visually identical to the current top cover velvet, this was clearly not part of the current cover piece. Its presence supports the hypothesis that the cover had been removed and turned.



Fig. 26-28. Before, during, and after treatment of the fragmenting seat front of one of the sofas



Fig. 27.

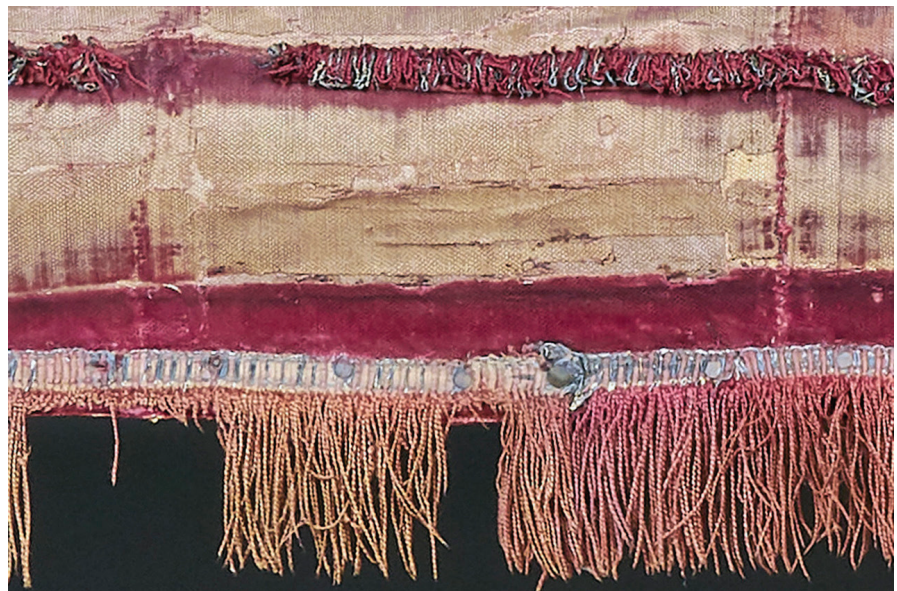


Fig. 28.

Through this programme of treatment it has become apparent that the Leicester suite has had a more complex upholstery history than previously understood from the documentation alone. While these are still effectively 17th century upholstered objects there has been significant reworking of old materials. The generations of repair with their relatively faithful adherence to the original decorative scheme reflect the high esteem in which this particular suite has always been held. They remain extremely fragile but this conservation treatment has helped to secure their immediate future and restore some of their regal colour and shine.



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Before (right) and after (left) treatment. Photographs: Laurence Pordes



Before (right) and after (left) treatment. Photographs: Laurence Pordes



Before (right) and after (left) treatment. Photographs: Laurence Pordes

## Conclusion

The large number of objects needing remedial treatment and the necessity of keeping the house partially accessible to visitors throughout, strictly limited the time and resources available for research during the Inspired By Knole project. However, the cleaning and stabilisation treatment of the Leicester suite's frame decoration and upholstery offered an excellent opportunity for investigation.

Working together in an interdisciplinary studio gave conservators from different specialities the opportunity to discuss findings as they arose and compare notes. It helped the conservation team members see beyond their own material focus and allowed them to combine their newly informed understanding of particular chapters in the living history of these objects. This broader understanding was useful in developing treatments that were appropriate to the context of Knole and that embraced the long and sometimes messy history of the collection, and which in consequence fulfilled the National Trust's objective of preserving not just the fabric, but the 'Spirit of Place'.

#### Acknowledgements

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#### Biographies

Maria Sanchez Carvajal obtained a degree in Fine Arts, followed by a Master's degree in Paintings Conservation and Restoration from the University of Granada. Her work experience has taken place mostly in Spain, and later here in the UK, working on various cultural heritage projects both privately and within the public sector, including mural paintings and many altarpieces. She has worked for the National Trust at the Knole Conservation Studio on decorative and gilded surfaces since the beginning of 2018.

Isobel Harcourt worked in the cultural heritage sector in various capacities in Sydney and Melbourne following an undergraduate degree in Plant Science. She obtained a master's degree in Cultural Materials Conservation from the University of Melbourne specialising in textile-based objects, and has subsequently worked as a freelance conservator in both Australia and the UK. Since relocating to the UK she has worked in the Historic Royal Palaces Costume Conservation studio and with the National Trust on upholstery textiles for the Inspired By Knole Project. Since March 2019 she has worked as a Textile Conservator specialising in Upholstered Furniture for the V&A.