Ham House stands on the River Thames at Ham, near Richmond, just southwest of London. It was originally built in 1610 for Sir Thomas Vavasour, then passed to William Murray, who became the first Earl of Dysart in 1642, and continued down the generations of the family until it passed to the National Trust in 1948.

The house was extended and refurbished by the Duke and Duchess of Lauderdale in the 1670’s. Anticipating a visit by Queen Catherine of Braganza, they created a suite of rooms on the first floor, known as the State Apartment, and comprising an Antechamber, a Bedchamber and a Closet. The suite was never used by its intended visitor, but it exists to this day, approximately in its original construction.

The Queen’s Antechamber is still furnished with the set of 17th century wallhangings which were already described in the Inventory of 1683 as “hunge with foure Pieces of blewe Damusk, impaned and bordered wth. blew velvet embroidered wth. gould and fringed”[1]. To our knowledge they are the only set of wallhangings of this date, still in their original and documented location.

Today one sees embroidered, dark blue, velvet borders around golden-yellow damask panels with blue appliqué motifs in the outer corners. Until recently the hangings were believed to be unaltered, and the golden-yellow colour was simply put down to fading[2].

It was evident in the variety of stitching, couching and adhesive treatments that the hangings had been repaired and conserved at different times in the past[3]. However, their condition continued to deteriorate and by the early 21st century The West wallhanging, in particular, was in urgent need of treatment. It had suffered extensive light damaged, and loose weft threads of the damask were hanging down. On the North Wallhangings, in their south-facing position, were also extremely vulnerable; the adhesive applied in a previous treatment had discoloured to dark brown and had become brittle so that the damask fibres were lifting and had become unsightly.

In 2007 the National Trust commissioned me to carry out the conservation treatment of the large West wallhanging and two narrow hangings, the North-West and the East wallhangings, at my studio in Suffolk, UK, during 2009-2010.

The National Trust clearly outlined the preferred treatment method, indicating that the original 17th century constructions should be maintained. The damask panels should be conserved in position, and no adhesive treatment should be applied, to avoid the problems seen on the North Wallhangings.

INVESTIGATION AND DISCOVERIES

INVESTIGATION
During the initial investigation of the West wallhanging at the studio, we did not quite understand its construction, and could not relate it to the earlier descriptions[4]. Out of curiosity, we carefully examined the edges of the golden yellow damask panel and noticed a tiny slip of blue damask. When we then opened one corner of the panel, we discovered to our surprise that the fabric was originally a bright-pink, two-tone, damask!

The West wallhanging in 2007 before conservation treatment

Detail of one corner of the replacement damask opened and showing the unfaded pink damask and remains of the blue damask. Note also the way the linen backing was cut when the embroidered motif was cut out.
After the National Trust had given permission to remove one panel, it became clear that the original blue damask had simply been cut away - quite crudely - leaving the blue linen backing in place. The embroidered corner motifs had been removed entirely with the blue linen backing fabric, leaving a square gap in each corner.

It became apparent that the hanging had not just been conserved but indeed heavily restored in the past and that this restoration had been completely overlooked. At first, it seemed disappointing that these - supposedly - unaltered examples of 17th century wallhangings, and described as such for decades to visitors of the house, students and experts alike, suddenly turned out to be not so authentic after all!

Once we had taken in this new set of facts, we focussed on the road ahead, and there were two immediate consequences. In the first place, we now wanted to find out about this restoration, and with that:
- who carried out this restoration, and when?
- what was the original damask like?

Secondly, we needed to review the conservation treatment plan. Now that we realised that the hangings had been altered in the past, we might change our view on the principle of treating the damask panels in situ, without removing them from the hanging.

At this stage, meetings and in-depth discussions with the client took place in order to decide on the way forward. Their textile conservation advisor, Ksyria Marko, ensured that the importance of these findings was recognised and this allowed the necessary funds to be made available to carry out the research.

Below I will take you through the process of discovery, investigation and explain how we reached the conclusions we did.
ANALYSIS

As the colour of the pink, on the reverse, was so bright, and had so dramatically faded on the face, we suspected it might be a synthetic dye and analysis was commissioned. It proved indeed to be a synthetic dye, and so we were now completely sure that this fabric dated from a much later period than the 17th century.

At the same time, the blue dyes of all the different materials were tested and shown to be indigotin. This finding could not confirm the dating as this dyestuff could be either of synthetic or natural origin, being chemically indistinguishable [5]. It is, however, entirely in keeping with a seventeenth century date.

The various metal threads were also tested and shown to be silver gilt threads.

DAMASKS

Next, we examined the damasks to find out what the pattern of the original blue silk damask would have been like.

BLUE DAMASKS

Gerda Koppatz carried out weave analysis and took meticulous tracings of the pattern in the remaining fragments. The original damask remained only in the appliqué corner motifs and in the narrow strips of cut fabric along the panel edges. In the motif, which had been meticulously cut around the outline, the fabric had become distorted by the process of cutting and re-application; during the tracing adjustments needed to be made to correct these distortions. The pattern was extracted from the two appliqué motifs in the best condition, at the top and right hand side, away from the south-facing windows. The pattern repeat was calculated from the long fragment found beneath the panel on the far right, although it should be pointed out that the repeat length varies according to the beating of the weft in hand-weaving.

Replacement damask

Richard Humphries of the Humphries Weaving Company was contacted to assist us with the identification of the 19th century panel [6]. Humphries identified the weft as wet-spun linen, which was commonly used in the nineteenth century as a weft for damasks with a silk warp, to increase the ‘body’ of the fabric and to keep down costs.

Comparison

In comparing the available pattern details of the damasks we realised that we were in fact dealing with a good reproduction of design, and not just a simple replacement fabric.
The original blue damask has a silk warp and silk weft, with a pattern indicating the mid-17th century, and a French origin (7). It had been replaced with silk warp, linen weft, two-tone replacement in a completely different colour; the pattern is a close copy, but mirrored. This damask is referred to as Dysart.

**THE RESTORATION OF HAM**

The date of the later damask, and the fact that its design was copied, pointed towards the period of the Restoration of Ham House in the late 19th century.

The 9th Earl of Dysart inherited Ham in 1884, in a terrible condition, after years of neglect. He was by interest a great antiquarian and he set out to fully restore the house. For this he engaged George Frederick Bodley and Thomas Garner, who at the time were a young team of architects making a name in the restoration of churches. They became extremely successful, and had a great influence on English church architecture, as well as on ecclesiastical and domestic interiors alike.

The commission to restore Ham House was carried out in the period 1886–1893. Certain parts of the work by Bodley and Garner at Ham had long been known about, for example the wallpapers in the White Closet, supplied by their company Watts & Co (8). However, there was no indication that the Queen’s Antechamber had been worked on by them, and this discovery has shed a new light on the extent of their work.

Bodley, Garner and George Gilbert Scott junior founded Watts & Co. in 1874, to design, commis-
tion and sell furnishing materials. They were extremely successful, and Watts & Co still exists today, mainly supplying churches [9].

We found that Watts & Co sold a fabric of the design on the Queen’s Antechamber wallhangings under the trade name of Dysart, which linked it firmly to Ham and its Restoration. We therefore refer to this pink & drab damask, and all colour versions of this design, as Dysart [10]. Even today Watts & Co sells a fabric that is similar in design to the erstwhile Dysart pattern, but it is now called Holbein.

THE WALL BEHIND AND ATTACHMENT OF THE HANGING

The wall behind the hangings is covered with paper adhered onto hessian fabric, which the paper conservation advisor of the National Trust believes to be 19th century paper; therefore the walls may have been covered at the time of the Restoration [11].

Numerous tack and nail holes can be found around the edges of the wall, as there are along the edges of the hanging. We conclude that the hanging was originally tacked directly onto the wall, without any lining. There are stains consistent with the metal hooks on the reverse of the blue linen, indicating that the hooks may at first have been stitched directly onto the hanging; now the metal hooks are stitched onto the lining fabric. The hanging is attached to the wall by U-bend staples, tacked into the wooden surrounds.

DESCRIPTION OF THE WALLHANGINGS

The wallhangings are a set of five hangings which cover three walls; there are two narrow jib doors in the corners of the North Wall, and the hanging is divided to allow them to open. The East wallhanging is a narrow panel to the left of the Fireplace.

The wallhangings were constructed as follows: first the vertical velvet borders and damask panels were joined together, then the horizontal upper and lower borders were attached and all were secured in silk back-stitching. The whole was applied onto a full blue linen backing, for embroidering which was all carried out through this linen backing.

The velvet borders are elaborately embroidered. The outer borders have repeated sections of stylised, symmetrical floral arrangements which meet in a flower motif, set at forty-five degrees in the corners. The vertical borders between the damask panels differ with a vertical design of waving floral stems with foliage and flowers rising upwards. The main West and North walls
have large corner motifs positioned at a forty-five degree angle in line with the corner joins of the outer borders \(^{(12)}\).

The embroidery was designed to appear continuous along the outer borders, although the fringe trimmings applied all round the edges of each hanging, including along the jib-door openings, interrupt the continuity of the design on the North wall.

The design for the embroidery was drawn onto the velvet in a white chalk-like substance and can be seen in places on the tips of the velvet pile. For the under-drawing on the silk damask a black ink was used. The embroidery was carried out mainly in laid couching, using three types of silver gilt metal-thread \(^{(13)}\):

The damask panels have a stylised floral design, in a pattern of flowers, leaves and pomegranates intertwined at the stems and grouped together as a large motif. The motifs are placed close together and appear to merge. In fact they alternate in direction, leaning to the right in one row and to the left in the next. This style of damask pattern is usually dated to the mid-17th century.

The corner motifs were originally embroidered directly onto the blue damask panels, through the linen backing, like the embroidery of the borders. In the restoration of the hangings these corner motifs were cut out and re-used as appliqué motifs onto the replacement damask. The edges of the hangings are trimmed with a silver-gilt metal thread gimp heading with a dense fringe of bell-shaped tassels of blue silk.

**CONSERVATION TREATMENT METHOD ADJUSTED**

The National Trust had clearly outlined the preferred method of conservation treatment at the start of the project. As far as the treatment of the damask panels was concerned, this meant maintaining the original 17th century constructions and conserving the damask panels in position, by stitching treatment alone.

Now that it had been established that the damask panels were not original, there was not the same reason to keep them in situ. Various options were now considered and it was finally decided that the damask panels should be removed and conserved separately. The damaged fabric was supported onto silk fabric and secured by laid couching with a very fine polyester thread. Each panel was also covered with nylon net to provide additional protection.
FURTHER CONNECTIONS

This project had required an unusually detailed examination of the damask design, and this allowed a number of interesting connections to be made. The following findings are the result of accidental discoveries and coincidences in the course of our work as conservators, rather than of foreseen research. However, on each occasion our examinations have led to further questions and this is now developing into a more directed exploration.

VOLURY ROOM HANGINGS AT HAM

The pattern of the blue damask was also recognised in a group of textile fragments at Ham, known as the Volury Room hangings and which are described in the 1679 inventory as “Three pieces of hangings of green & white Damask embroidered with gould silver scarlet & black impaned with hayre colour damask”.[14]

The hangings are made up of vertical silk damask panels, surrounded by silk damask borders with diagonal joins at the corners. All joins are stitched in silk backstitching and the joined panels were applied onto a full linen backing. The borders are embroidered with a design of symmetrical floral motifs, carried out in silk floss thread and some laid metal thread. In each of the outer corners of the main field a corner motif placed at a forty-five degree angle was embroidered through the linen backing. The trimmings along the outer edges of the hangings are of pink silk fabric, edged with narrow metal thread trimmings, and ruched by gathering at regular intervals.

The surviving elements comprise eight border pieces of varying sizes, which together form the outer borders of a set of hangings for three walls; the hanging for the largest wall is divided into two with a narrow hanging on the left hand side, to allow for a jib door. Despite some obvious differences in appearance, the construction and design of these hangings is so similar to those in the Queen’s Antechamber as to suggest that they were made in the same workshop. The warp counts of the silk damasks are the same.

THE GREEN CLOSET AT HAM

The Green Closet at Ham is also furnished with a later reproduction of this pattern design. The version in the Closet today, dates from the 1990’s. We believe that at the time of the late 19th century restoration Bodley and Garner replaced the remaining fabric with another version of the Dysart fabric. Pieces of an earlier fabric from this room are now in Colonial Williamsburg in the United States[15]. The earlier fabric has a similar but different and larger design, which dates perhaps to the earlier decoration by William Murray in the 1630’s, and there are plans to study this further in 2012.
By coincidence at this time, the James II bed at Knole was undergoing conservation treatment at the Textile Conservation Studio of the National Trust; fragments of a green-blue damask of the same pattern were found, used as repair patches. We were commissioned to analyse the fragments, and established that we were dealing with fragments of the same pattern and weave count. This, in turn, led to the discovery of a number of chairs at Knole covered in different colour versions of the same design. So far the fabrics have been examined and compared, finding that while they are extremely close in design and in weave count, they do have tiny differences in details that could indicate different weavers working to the same design pattern, perhaps all weaving to the order of the same merchant. This will be the subject of further study.

Dysart Elsewhere

The same fabric as the Dysart damask of the Ham Hangings has been noticed in a number of other houses throughout the UK, but we have not yet had the opportunity to investigate this in depth.

Curtain Lining at Powis Castle, Wales

After the treatment of the West wall hanging from Ham, we were commissioned to carry out the conservation treatment of a pair of large curtains at Powis Castle in Wales, also for the National Trust. The curtains were known to have been made by Bodley who carried out an extensive res-

<table>
<thead>
<tr>
<th>COMPARISON</th>
<th>Queen's Antechamber Hangings</th>
<th>Volury Hangings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linen backing</td>
<td>Blue</td>
<td>Undyed</td>
</tr>
<tr>
<td>Panels joined, then applied onto linen backing</td>
<td>Half-width velvet for borders; wider damask for panels; joined with silk backstitch.</td>
<td>Alternating full-width damask for main field, with narrower for borders; joined with silk backstitch.</td>
</tr>
<tr>
<td>Damask</td>
<td>Blue single tone</td>
<td>Yellow single tone, and blue-green &amp; white two-tone</td>
</tr>
<tr>
<td>Embroidery technique and Underdrawing</td>
<td>Laid silver-gilt metal thread embroidery with laid cord; stitched through to linen backing. Underdrawing: white chalk on velvet; black ink on damask</td>
<td>Floss silk embroidery with laid silk-wrapped cord; stitched through to linen backing. Underdrawing: black ink on damask</td>
</tr>
<tr>
<td>Embroidery design</td>
<td>Borders, floral design in silver gilt metal thread, with matching corner motifs at 45°</td>
<td>Borders, floral design mainly in silk, with matching corner motifs at 45°</td>
</tr>
<tr>
<td>Trimming</td>
<td>Fringe, of silver gilt metal woven heading, with blue silk tassels, and stitched with white silk thread</td>
<td>Ruched trimmings of pink silk taffeta, edged on two sides with narrow metal braid</td>
</tr>
<tr>
<td>Lining and Fixings</td>
<td>Originally no lining. First fixed with tacks; later fixed with hooks directly onto reverse along the edges; later backed with a lining with hooks, which attach into u-bend metal staples on the wall</td>
<td>No lining. Tack holes found; hooks found stitched directly onto the reverse along the edges</td>
</tr>
<tr>
<td>Jib door opening</td>
<td>Designed from the beginning; fringe fitted along split edges</td>
<td>Designed from the beginning; no trimmings along the split</td>
</tr>
</tbody>
</table>

Comparison of the construction of the wall hangings
The remains of the lining of the Oak Drawing Room curtains at Powis Castle. The pattern is clearly the ‘Dysart’ design, but woven in cotton and hemp.

The conservation programme of Powis Castle, c. 1904. The curtains are of heavy patterned green velvet, and the original linings had been replaced. During conservation treatment, we encountered fragments of the original lining in the heading and recognised the same Dysart pattern! This fabric was woven with the design on a larger scale, and with a cotton warp and hemp weft.

The discovery of the original lining had a direct consequence for the conservation treatment: The lining fabric is now being reproduced at Humphries Weaving Company, working from the scraps of material left in the heading.

While working at St Peter’s Church at Deene in Northamptonshire, I found yet another example of this lining fabric; on this we were able to trace certain details that were missing the Powis lining, and which have been incorporating into the reproduction.

**FUTURE**

This story of discovery and connections continues:
- Ham House recently celebrated its 400th Anniversary, and a publication by Yale Press on the house is due in 2013, where this research will be included as an Appendix
- at the May Berkouwer Textile Conservation studio, the treatment of the large North Wallhanging has just commenced, and is programmed to be completed by February 2013. We intend to seek publication of the full conservation treatment afterwards
- next we plan to examine the associated silks in the collection at Colonial Williamsburg, USA, in 2012
- the date and origin of the wallhangings continues as a subject of investigation
- the connections with the other associated damasks are still under investigation.
CONCLUSION

This project has proved to be extremely interesting with wide-reaching implications. The main conclusion I have drawn from all this is, that one should never be too sure, and one should keep on questioning with an open mind. All too easily incorrect conclusions are drawn from small misinterpretations, and repeated in print from one author to another. The other conclusion is that has been surprising how much information small details can yield with accurate observation. It is a rewarding exercise.

ACKNOWLEDGEMENTS

The National Trust has been a generous and interested client, supporting and commissioning the necessary research at each stage of this project. I wish to thank the National Trust for permission to present and publish this work, and the BRK-APROA/ Flanders Heritage Agency for inviting me to do so at the Colloquium.

I wish to thank the National Trust, and in particular: Victoria Bradley, House and Collections Manager, National Trust, Ham Ksyznia Marko, Textile Conservation Advisor, National Trust Victoria Marsland, Conservator, London and South East Consultancy, National Trust and last, but not least, my colleague Gerda Koppatz at May Berkouwer Textile Conservation.

NOTES

(1) 1683 Ham inventory, BPA 666.
(2) MOORE C., ROWELL C. and STRACHEY N., Ham House (National Trust Guidebook), London, 1995 (and subsequent editions).
(3) From 1948 to 1990 the Victoria & Albert Museum cared for the contents of Ham; during the 1970-80’s the art historian and furniture specialist Peter Thornton took a passionate interest in the house, caring for it and publishing on it. The textile conservation department worked on the hangings twice. The damask panels on North wall were supported by adhesive treatment in the 1960’s. Further treatment, was carried out in the 1980’s and published at the time.
(5) ROGERS W.R., Metal Thread and Dyes from a Hanging at Ham House, Analysis by the Anglo-Saxon Laboratory, York, June 2009, including analysis by Jo Jones at Durham University; included as appendices in Conservation Report of the Queen’s Ante chamber Wallhangings, National Trust Archive, Ham House, 2010 (unpublished).
(6) Richard Humphries of Humphries Weaving Company, Sudbury, Suffolk, specialises in the weaving reproductions and has specialised knowledge of early hand-weaving techniques of 19th century.
(10) In communication with David Gazeley, artistic director at Watts & Co Ltd, 2010
(11) Andrew Bush, National Trust Paper Conservation Adviser, Notes from a brief visit on 30 April 2009.
(12) ROGERS W.R., op. cit.
(13) Santina Levey, textile historian and specialist in embroidery of 15-17th century, dated the composition and construction of the design to the mid-17th century. This recent assessment will be followed up and may lead to further adjustments to our understanding on the date and origin of these wallhanging.
(14) 1679 Ham inventory, BPA 222
(15) Three lengths of green damask at Colonial Williamsburg, USA, Colonial Williamsburg Foundation, CWF 1967-696, 1, 2, 3.
EEN VERGETEN RESTAURIATIE: DE 17DE-EEUWSE QUEEN’S ANTECHAMBER IN HAM HOUSE

In Ham House, ten zuidwesten van London en nu in het bezit van de National Trust, zijn drie wanden van de Queen’s Antechamber bekleed met een ensemble van 17de-eeuwse geborduurde wandbehangen. Deze zijn genoemd en beschreven in de Inventarisatie van 1683: “hunge with foure Pieces of blewe Damusk, impane and bordered wth. blewel velvet embroidered wth. gould and fringed”. Thans ziet men geborduurde donkerblauw fluweelen borders rondom goudgele damasten panelen met geapliqueerde motieven in de hoeken. Lange tijd zijn deze textiel door autoriteiten beschreven als authentieke 17de-eeuwse wandbehangen. Tijdens de conservering van deze objecten hebben wij echter geleerd dat een laat 19de-eeuwse intensieve restauratie gehele en al vergeten en over het hoofd gezien was.

Middebs intensief onderzoek en weef- en verfana-lyse hebben we kunnen bewijzen dat de oorspronkelijk blauwe, zijden damasten panelen, van Franse afkomst zijn en in 1889-1890 vervangen door een uitstekende Engelse replica. Dit heeft een geheel nieuw inzicht verschaft op het werk ondernomen door de 9de Earl of Dysart, de antiquairisch geïnteresseerde eigenaar van Ham House (1884-1935) die de architecten G.F. Bodley en T. Garner opdracht gaf zijn huis te restaureren. Bodley en Garner zijn zeer invloedrijke figuren in de kunstgeschiedenis van zowel kerkelijke en huisselijke ontwerpen, wat betreft de gebouwen alsook de interieurs en hun werk in Ham House is in afgelopen jaren onderzocht, maar dit onderdeel van hun werk was nog niet bekend.

Het feit dat wij hier nu een belangrijke replica bleken te hebben, heeft invloed gehad op de conservering en het werksplan werd daaraan aangepast. De ontdekkingen in deze wandbehangen heeft tot belangrijke ontdekkingen geleid van andere textiel in het huis, en studies op dat vlak zijn nog lopend. De eigenaar en opdrachtgever, de National Trust, heeft veel steun en publiciteit gegeven aan dit onderzoek en aan het werk van de conservatoren/restauratoren door middel van informatiepanelen, publicaties en openbare lezingen. Een en ander wordt geïllustreerd met weefanalyse, werki- to's en publicaties.

UNE RESTAURATION OUBLIÉE: L'ANTICHAMBRE DE LA REINE À HAM HOUSE


Grâce à des recherches intensives et des analyses du tissage et de la teinture, nous pouvons prouver que les panneaux originaux bleus en soie damassée, d’origine française, ont été remplacés en 1889-1890 par d’excellentes répliques anglaises. Cela a permis une nouvelle compréhension du travail entrepris par le 9ème comte de Dysart, le propriétaire passionné d’antiquités de Ham House (1884-1935) qui commanda la restauration de sa demeure aux architectes G.F. Bodley et T. Garner. Bodley et Garner sont des personnages très influents dans l’histoire de l’art, pour leurs projets tant ecclésiastiques que domestiques. En ce qui concerne les bâtiments et les intérieurs de Ham House, des recherches ont été menées ces dernières années, car cette partie de leur travail n’était pas encore connue.

Le fait que nous sommes maintenant devant une réplique importante a eu des conséquences sur la conservation, et le plan de travail a été ajusté en conséquence. La découverte de ces tentures a permis de découvrir d’autres textiles dans la maison. Les études dans ce domaine sont en cours. Le propriétaire et le promoteur, le National Trust, ont beaucoup soutenu cette recherche et ont fait beaucoup de publicité autour du travail des conservateurs-restaurateurs, à l’aide de panneaux d’information, de publications et de conférences, le tout illustré par les analyses du tissage, des photos de travail et des publications.