



CONSERVATION JOURNAL AUTUMN
2001

£2.50 @ point of sale

Contents

V&A Conservation Journal No.39

- 3 Editorial**
Jonathan Ashley-Smith, Head of Conservation
- 4 A Concise Approach: Managing Information for the British Galleries Conservation Programme**
Timothy Carpenter, Information Systems Manager & Vicky Oakley, Head of Ceramics & Glass Conservation, Conservation Liaison for the British Galleries.
- 6 Reverse Painting on Glass in the British Galleries**
Fi Jordan, Senior Ceramics Conservator
- 7 Book Display in the British Galleries**
Bridget Mitchell, Senior Book Conservator
- 8 Too Big For His Boots – The Relocation of the Wellington Monument Model**
Charlotte Hubbard, Head of Sculpture Conservation
- 10 An Overview of the Gilded Objects Treated for the British Galleries.**
Christine Powell, Senior Furniture Conservator,
Fi Mallinson, Furniture Conservator, Zoe Allen Furniture Conservator
- 12 East Meets West: the Althorp Triad**
Shayne Rivers, Senior Furniture Conservator
- 14 A Gun-Shield from the Armoury of Henry VIII: Decorative Oddity or Important Discovery?**
Simon Metcalf, Senior Metalwork Conservator, Anthony R E North, Curator, Department of Metalwork and Jewellery, Derek Balfour, Senior Upholstery Conservator
- 21 Conservation or Restoration? The Treatment of an 18th Century Clock**
Christopher Powell, Clock Restorer, Sophy Wills, Metalwork Conservator
- 23 The British Galleries Project from a Paintings Conservation Perspective**
Nicola Costaras, Head of Paintings Conservation
- 25 Chinese Wallpapers in the British Galleries**
Pauline Webber, Head of Paper Conservation
- 28 The Weld Censer: Making Sense of an Object**
Donna Stevens, Metalwork Conservator
- 29 Ephemeral or Permanent? Illuminating the Bullerswood Carpet**
Boris Pretzel, Materials Scientist
- 31 The Conservation of a Crewelwork Bed Curtain**
Marilyn Leader, Textile Conservator
- 33 RCA/V&A Conservation; New Students for the Academic Year 2001/02**
Alison Richmond, Tutor, RCA/V&A Conservation
- 36 Staff Chart**

Editorial Board

Jonathan Ashley-Smith
Head of Conservation Department

Mike Wheeler, Senior Paper Conservator
Conservation Department

Esther Jones
Conservation Administration Assistant

Sophy Wills, Metalwork Conservator
Conservation Department

Perdro Gaspar, PhD Student
RCA/V&A Conservation

Alison Richmond
RCA/V&A Conservation Tutor

Helen Jones
Deputy Head RCA/V&A Conservation

Lynda Hillyer
Head of Textile Conservation

Designed by the V&A Print Unit
& Danny Norman, Conservation Mounting

Photographs are credited individually

All enquiries to:-
Conservation Department
Victoria and Albert Museum
London SW7 2RL, UK
Telephone +44 (0)20 7942 2131
Fax: +44 (0)20 7942 2092
e.mail conservation.journal@vam.ac.uk

Editorial

Jonathan Ashley-Smith
Head of Conservation

Project management is so much a part of life these days that it is hard to believe that conservation in a major national museum has not always been planned as a continuing series of projects. The idea of assessing the necessary resources, and then working with a team drawing expertise from different sections of the Museum to reach an agreed goal by an agreed deadline, did not occur until the early 1980s. By the mid-1990s, the Department was so used to working this way that I boldly announced to my senior management colleagues that the British Galleries project induced no worries – it was after all merely a bit bigger than anything we had tackled before.

The British Galleries has been the biggest project that the V&A has tackled for fifty years. It is the sort of major endeavour that encourages record statistics, numbers of years of planning, thousands of object moves, tens of thousands of conservator hours. Its very size and complexity meant that it was, in the event, like nothing the Department had experienced before. This probably means that the Department will never be the same again.

Fortunately, the necessary basic skills of estimating and planning were there. The Department's competence at estimating the necessary resources was checked on two occasions. The first estimate of conservator-hours needed was compared, object-type by object-type, with historic records of how long similar tasks had actually taken. At the end of the project, the number of hours spent was compared to the estimate. Both tests showed that the Department's estimating skills are extremely good.

The British Galleries project also showed that a conservation department is a good training ground for project managers. The Head of Major Projects, Gwyn Miles, started at the V&A as the Deputy Keeper of Conservation. Nick Umney, at one stage Head of the Organics Group in the Department, was seconded to organise the object and people-related parts of the project. His years of experience in conservation, added to these last three years of looking at us as a service provider from the other side of the transaction, were probably key in ensuring his recent selection as Director of Collections Services.

This issue of the Journal is a celebration, both of the completion of a major museum project, and of the Department's contribution to it. Contained within are some highlights of the immense range of conservation and scientific activity undertaken over the last five years.

A Concise Approach: Managing Information for the British Galleries Conservation Programme

Tim Carpenter, Information Systems Manager

Victoria Oakley, Head of Ceramics & Glass Conservation, Conservation Liaison for the British Galleries

Introduction

The sheer scale of the British Galleries project presented the Conservation Department with unprecedented challenges. As well as practical treatment of objects, conservators undertook a wide range of other related activities. These included assessing object condition, estimating time required for treatment, technical examination, first aid treatments, preparation for photography and final display. Conservators also advised on design, display materials and methods and environmental issues. However, the recurring question was, "Will the required conservation be completed in the right sequence and on time?"

It was apparent from the outset that the methods previously employed by the Conservation Department for planning and co-ordinating resources were insufficiently advanced to cope with the volume and diversity of the work required. The system and processes that evolved to address these issues stemmed from a number of factors:

- availability of appropriate hardware and software
- conservators need to be able to operate the system with ease
- existing systems used by the Museum to track and record objects
- changing requirements and expectations of the system from both internal and external parties
- use of the information gathered and plans for development of the system after the British Galleries project.

Initial assessment

To gain a clear picture at the start of the project of the extent of the Conservation Department's involvement, a condition assessment of objects in the former British Art and Design Galleries was undertaken. This information formed an important element of the Museum's funding bid to the Heritage Lottery Fund (HLF) as well as the backbone for the planning system.

The assessment determined:

- overall condition of the objects selected for British Galleries
- estimated time required for practical conservation of individual objects
- estimated input to prepare objects for movement from the old galleries to stores
- any special packing requirements
- environmental susceptibilities and requirements for vulnerable objects
- objects requiring technical analysis
- objects requiring treatment prior to photography for the flagship British Galleries publication
- the feasibility of working on objects in offsite stores.

The development of Concise

Initially, a local database was used for gathering information using standard survey methodology. Basic descriptive information on objects was imported from the Museum's Collections Information System (CIS), then conservation-specific information was added. The resulting conservation database (*Concise*) was designed to allow sharing of information between departments. However, each department used this information in a different way. Whereas Conservation required information on every object and part of object, the project team was interested in the larger picture. For example, a reconstructed period room may consist of hundreds of parts, but for installation purposes the project team would consider it as one item.

In the course of development, *Concise* underwent a gradual systems evolution, originally a FileMaker database, later in MS Access, and finally into Oracle. The metamorphosis was not without problems and involved considerable time expenditure to resolve data inconsistencies. The result is a database that not only 'speaks' to other systems in the Museum but also is able to generate information for analysing and tracking progress. Once the issues of levels of recording and consistency of Museum numbering had been resolved, *Concise* was linked to the British Galleries own database and made available Museum-wide on a 'read only' basis.

Concise was structured in various 'layers' including:

- assessments – describe the original condition and estimates for treatments
- requisitions – a 'contract' between the Collections Department and the Conservation Department
- proposals – outline the proposed treatment
- treatments – document methods and materials
- technical notes – note discoveries of a technical nature potentially of interest to Museum visitors for inclusion in the on-line gallery database.

Concise also allowed several other important functions: printing forms, filtering information, generating lists and reports. HLF required monthly reports on the progress of conservation as a condition of the funding award. Information was presented in a format that clearly demonstrated the amount of progress made each month and the time required to ensure satisfactory completion of all objects on time.

Calculating resource

There were a number of 'knowns' that could be used to calculate the amount of conservation resource available:

- estimated hours required: total hours recorded in the assessments on *Concise*
- the number of full-time staff available: part-time staff were recorded as a fraction of a full-time post
- practical conservation capacity of the Department: the proportion of time conservators can spend on practical conservation without compromising other activities (the capacity) is just over 60%.

The following formula was applied:

Hours available = Number of full-time staff x Annual working hours (1,672) x Capacity

This formula was first applied in October 1999 and the results were:

Total hours required to complete all conservation	= 82,368
Total hours available	= 52,522
Deficit	= 29,846

By relating the deficit to staffing levels, a good case was submitted for making part-time staff full-time, taking on extra contract staff or contracting out certain projects. An additional £350,000 was allocated to the Conservation Department as a result of this exercise.

In a project of this duration and size, there are factors that cannot be anticipated at the outset. These include changes to the list of selected objects, accuracy of estimates, demands from elsewhere, staffing levels, available funds for additional assistance and external constraints. Consequently, a margin of error was applied to calculations and resultant plans.

Lessons learned

Throughout the project the nature of the information needed has changed, reflecting different stages of the work. While in the earlier phases of the project it was important to track progress on a general level, by the final few months detailed information on specific groups, or even individual objects, came to the forefront and had an increasing impact on planning. Secondly it is important not to underestimate the value of the experienced conservator's judgement in this process. Systems are only as good as the information entered onto them and a balance has to be struck between the need for accurate electronic information and ensuring that conservators maximise their time spent conserving and advising on objects.

Way forward

Concise has been thoroughly tried and tested over a period of two years. Its value as a basic data-capturing tool for documentation and day-to-day recording of information been demonstrated and it has proved its worth as a reliable, robust management tool. The life of the database will be extended well beyond the British Galleries project and it can be further refined and built upon. The possibility of adding images of work-in-progress and the ability to send individual records and images electronically will be built into a revised system. The information on processes, treatments and time taken will enable the Museum to plan future projects more accurately. Finally, by liaising with other departments within the Museum over the development of the system, *Concise* has been integrated with other Museum-wide applications, making it a valuable tool for the Museum at large as well as Conservation. The future is exciting for *Concise*.

Reverse Painting on Glass in the British Galleries

Fi Jordan

Senior Ceramics Conservator

A reverse painting on glass relies on light reflected from its surface for its unique appearance. It therefore differs from stained glass with translucent colours viewed by transmitted light. Examples in the new galleries include small panels inserted into a three-dimensional object, pictorial works and decorative borders. Although there is diversity in the origin, execution and style of applying colour to glass, the physical problems of paint on a glass substrate remain essentially the same.

Unfired and inherently fragile paint and metal leaf is weakly attached to the reverse of the glass. Alongside degradation from mechanical damage, there are adhesion problems from the use of poor binding mediums and adverse reactions to fluctuations in relative humidity. As the paint layers age, they begin to lift, leaving a gap between the glass and paint, significantly distorting its appearance. Eventually flakes may detach from the surface. This is especially true of objects in unsuitable environmental conditions and where paint is thickly applied.

The objects chosen for the new galleries all displayed some degree of degradation. Treatments to stabilise the unfired decoration are highly intrusive. Traditional, current and new treatment methods were evaluated. The objects requiring immediate treatment were identified alongside those to be considered for future treatment or research. All the objects were made structurally sound, e.g. broken glass was bonded and mounts and supports secured.

Consolidation was undertaken if decorative layers were unstable or actively flaking. A small painting backed with metal foil depicting the Great Exhibition (CIRC.801-1969 in Gallery 122) displayed localised flaking. After testing a number of consolidants, a low viscosity resin, Aquazol 500 (poly(2-ethyl-2-oxazoline))10% (w/v) in Industrial Methylated Spirits, was chosen.¹ It was introduced by brush to the gap between the lifting paint and glass. Slight pressure was applied to the painting during solvent evaporation.²

Aquazol 500, 20% (w/v) in water and IMS (95:5), was also used to reattach flakes on a small painted and gilded corner panel bordering a large nineteenth century painting on glass from Guangzhou, China (P.I.1-1936 in Gallery 120). Over one-third of the decoration on the

corner panel had detached with extensive cleavage and actively flaking paint. Areas of loss were not in-painted but reproduced on layered backing sheets: one sheet of Melinex contains the outlined design, another is water-gilded with gold leaf and a third is acid free card coloured with acrylic paint. These were attached to the original glass and sealed around the edges with goldbeater's skin (figure 1).



(Photography by Fi Jordan)

Figure 1. The panel (left) prior to attaching the 3 backing sheets (right).

The conservation of friable materials continues to present a challenge to conservators. In this case, problems are exacerbated by the juxtaposition of materials used to create the objects. Further collaboration between conservation disciplines can only help increase our understanding of the unique qualities and inherent fragility of paintings on glass.

References

1. Wolbers, R.C., McGinn, M., Duerbeck, D., Poly (2-ethyl-2-oxazoline): A New Conservation Consolidant, *Painted Wood History and Conservation. Proceedings of the Symposium organised by the Wooden Artifacts Group of AIC*, 1994, Williamsburg.
2. Sundström, R., Conservation Report: Reverse painted glass 'Crystal Palace' detailing work undertaken by Ricard Sundström, RCA/V&A Conservation Student, April 2001

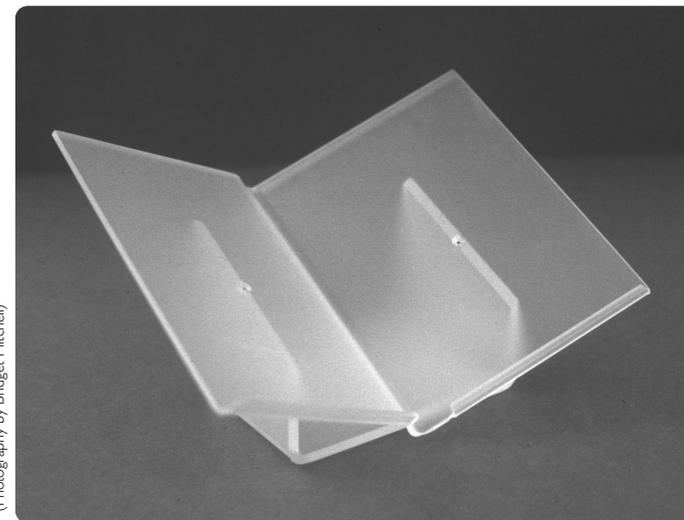
Book Display in the British Galleries

Bridget Mitchell

Senior Book Conservator

The new British Galleries contain 97 book and book-related objects. Each of these require a tailor-made cradle or support to allow optimum viewing of each volume within the V&A's own guidelines for book display. Following is a brief description of solutions we found for balancing the design briefs with the care of the items.

In order that the book cradles fulfill the aesthetic criteria of the new galleries, the designer expressed an interest in investigating the use of a more natural looking material than the clear Perspex usually used for book display. Roy Mandeville¹ presented the designers with a range of alternative acrylics from which was selected one with a frosted appearance (figure 1). The satin finish of this acrylic overcomes the problem of visual distraction caused by the characteristic highlights (due to the materials' ability to channel light) seen at the edges of cradles formed in clear acrylic. Though seemingly opaque, the satin acrylic on contact with objects gives good visibility which allows the binding to be viewed. This acrylic was used almost exclusively for the book supports throughout the new galleries.



(Photography by Bridget Mitchell)

Figure 1. Satin finish acrylic book cradle.

The majority of supports were standard in nature: lecterns for closed books; cradles with or without a ledge for books displayed flat or with an angled upstand. The introduction of books displayed within drawers however, required the designing of new supporting structures.

Books displayed flat and closed within a drawer had to be supported at head and tail, spine and fore-edge to prevent the book 'walking' should the action of the drawer prove more vigorous than promised by manufacturers. A Perspex book tray was designed that was slightly deeper than the volume. The walls of the tray at the head and tail extend and bend around the book to secure the spine and fore-edge. These walls do not run the full length of the volume to allow the book to be placed in the tray with greater ease. All sharp edges on the inside of the tray are sanded away and each volume has text block supports at both head and tail.

Only one volume proved suitable to be displayed open within a drawer. The cradle was designed with a shaped ledge at head and tail, to accommodate the left and right parts of the text block, both parts of which are strapped with polyethylene tape to ensure that no pages slip free. Between the text block and the ledges are precisely fitting text block supports. The left-hand section of the text block is allowed to open with a high arch onto the front board to compensate for the greater angle of opening than would normally be allowed for an open book. It is imperative that all the elements of these supports fit perfectly to prevent the book moving within the support as the drawer is opened and closed.

Acknowledgements

My thanks to Roy Mandeville and my colleagues in Book Conservation for all their help during this project.

References

- 1 Roy Mandeville, Associate Director Exhibitions at Plowden and Smith.

Too Big For His Boots - The Relocation of the Wellington Monument Model

Charlotte Hubbard

Head of Sculpture Conservation

The British Galleries project has provided us all with an interesting range of objects, some with complex problems and/or construction. In the Sculpture Conservation studio the list of objects we have treated ranges through a disintegrating marble fireplace, a vase of flowers made from numerous materials including shell and velvet, to lacquer combs and a lifesize portrait of a well-fed Newfoundland dog. About a third of the objects we have treated have required particular care in handling on account of their large size or heavy weight. One of the most extreme examples of this was the model for the monument to the first Duke of Wellington, by Alfred Stevens, which measures 310x118x84cm. This article describes the model and some issues surrounding its relocation.

The model, made of plaster and wax, was made after the announcement, in 1856, of a competition to design a national memorial to the Duke, who had died in 1852. Of the fifty-three quarter-size entries (the final size was not to exceed 13 feet by 9), nine were awarded prizes. Despite not winning first prize, Stevens's model was eventually chosen for the Monument in St Paul's Cathedral. The model remained in Stevens's possession until his death in 1875, after which the Office of Works passed it over to the South Kensington Museum (the forerunner of the Victoria and Albert) in 1878. It has been displayed on the ground floor since that time. None of the other competition models survives.

The model is rather architectural, made up in three stages. The first stage bears a sarcophagus and corpse, with twelve columns supporting an

entablature rising to an arch. The second stage has figures seated at either end, and four further columns rising to a plain entablature which bears a pedestal with an equestrian statue of the Duke. The whole impression is of a rather spindly structure, weighted down by the massive plinth on which it sat.

No records remain of how the model was constructed, although it is clear it has been built up in separate parts. Repeat elements, such as the columns and the entablature, had been cast and then stuck together with plaster. The components were built up with spots of plaster as adhesive at each stage, although some joints were more heavily filled. At the time of the move, some joints were beginning to open up, while running cracks could also be seen in a few of the elements. The whole structure was therefore fragile and liable to separation on moving. The mass of the central level meant the centre of gravity was raised, and although the columns supporting it were numerous, they were likely to be vulnerable to stress, resulting in crack formation and propagation. In order to identify the existence and position of armatures, x-radiography was carried out at selected points. Since the issue was the safe movement of the object based on a good understanding of its construction, the model could not be taken to the x-ray machine. The hired mobile x-ray equipment was brought to the model, to be used when the gallery was closed.

The images revealed only small amounts of armature spanning a few of the joints. Since the height of the model matched the tallest lift exactly, the most obvious route to the new site

was effectively barred. Numerous discussions followed, outlining more or less fantastic options for moving the structure through the building and up two levels from the ground floor. The suggestions included crating it and lying it on its side; hoisting it up various short flights of stairs then through an oculus between floors; removing the mullions from the window in the new site and craning the model in from outside the building; separating the model into two more manageable parts, and, as discussions wore on, the increasingly attractive idea (from an increasingly reluctant conservator's point of view) of not moving it at all.

This interesting exercise in negotiations between a group of people with very different agendas was resolved step by step by arriving at a shortlist. Two suggestions were to be attempted: the separation of the equestrian figure from the rest of the model and the building of scaffold at various points in the Museum to accommodate winching the crated model in its entirety. The primary drawback to the former was that it involved cutting up an otherwise sound object, with the secondary worry that doing it successfully once would run the risk of increasing requests to cut up awkward objects in the future. The drawbacks to the second option were the time the move would take, particularly in galleries that remain open to the public, the cost of building the numerous scaffolds and the potential for unchecked damage to occur to the crated object during moving.

In the event, after a pilot investigation, it was clear that the first option could be carried out. The equestrian statue's pedestal had a fairly thick joint below, which allowed cutting away with a scalpel blade without affecting the component parts. Concern about the depth of the joint, and whether the two surfaces to be separated would be flat was unfounded, since it emerged that the components were both hollow and the plaster joint was extremely soft. The top stage was thus easily separated, and then lowered down to be carried on its own. The shortened model could now travel in the lift. Bracing it with foam-padded battens in an open-sided crate meant that any detrimental effects of movement would be visible, and thus could be immediately attended to. The smooth transfer of the braced model onto a pallet truck using Teflon slips,

effective support and a clear route through the Museum meant that there was no sway in the model, and it arrived safely at its destination.

Thus, the problem of height was solved in what was apparently the most convenient way, achieving agreement by all parties concerned. However, the decision to cut the object was not taken lightly, and was taken only after other possible avenues were looked at. The movement of the model took place towards the end of a long and complex project involving a major proportion of the Museum's gallery space. A new checklist, similar the one we developed for ethics, should be designed to be used from the initial stages of any gallery project. It would lead all parties concerned to consider possible outcomes before any final choice of object is arrived at. In this way, we should be able to avoid the objects themselves being held to ransom.



Photography by Claire Partridge

Figure 2: Braced-off model being lowered onto corner wheels, after removal of upper section.

Figure 1: Wellington Memorial Model
(Photography by V&A Photographic Studio)

An Overview of the Gilded Objects Treated for the British Galleries.

Christine Powell, Senior Furniture Conservator
Fi Mallinson, Furniture Conservator
Zoe Allen, Furniture Conservator

During the British Galleries project we have worked on over fifty objects, treating materials such as gilded wood, composition, leather, metal, japanned surfaces, silvered wood and mirror backs. The treatments have ranged from light surface cleaning and minor consolidation to structural intervention, repairs, and replacement of losses.

Initially, thorough treatment proposals were drawn up for each object; however, sometimes this "ideal" treatment proposal could not be carried out. This was due to time limitations, and also to the pressures placed on the conservator by the large complex nature of the project, such as the need to work to photography deadlines and installation schedules. The first priority for conservation was the object's long term stability. Once this had been ensured, it was decided what could be done in the available time. The following case studies illustrate some of the varying approaches to treatment.

Adam style overmantel mirror surmounted with carved griffins (1770-75)

The frame retained much of its original water gilding on pink bole on a very thin white ground, although the gilding was flaking and friable with many small losses. There were also many areas with poor or failing old repairs, including bronze paint and use of red filler or composition to replace missing elements. The first priority was the protection of the fragile original surface and this governed the treatment undertaken. The frame was dusted and consolidated, bronze paint was removed and the gilded surface cleaned. Existing repairs were improved if this was possible, or removed if not. The most obvious losses were filled. In one area, the lost carving was modelled up with a paste of 2/3 whiting (calcium carbonate) with 1/3 yellow ochre pigment (iron oxide) with micro-balloons (50:50) and rabbit-skin glue (1:10). Once set, this wood-substitute material was light and easy to carve with minimum pressure. This protected the adjacent and fragile woodworm-affected material from further damage. Before gilding and toning the new fills and replacement carving, the surrounding areas were isolated for protection with a layer of Paraloid B72. This was removed with IMS at the end of treatment.



(Photography by Zoe Allen)

Figure 1. Modelling up replacement ornament.

Four dragons from the Badminton Bed, (mid-18th century).

The dragons had been over-painted with bronze paint, under which two periods of gilding were present: the scheme immediately below the bronze paint (scheme no.2) consisted of areas of flaking and cupping oil gilding on a white ground; and areas of burnished water gilding on grey bole on a white ground. Below this there was water gilding on a dark red bole on cut gesso which is the earliest and probably original scheme (scheme no.1). There were losses to both the gilded finish and carved wood as well as many previous structural breaks and crude repairs.

After removal of the bronze paint, the first issue was to decide which gilding scheme to retain. The water gilding of scheme no.2 was in sound condition and was left. However the oil gilding of scheme no.2, was not in a sound condition with much de-lamination. In order to reveal the crispness of the original water gilded cut gesso below, it was decided to remove this later oil gilding. A protective coating of Paraloid B72 was applied to the original surface. Then small losses showing white were coloured out with watercolours and mica powder.

When considering losses to the object, only the most obvious carved loss, a missing wing from one of the dragons at the front of the bed, was replaced, due to limited time. A cast was taken from the wing of another dragon. The mould was made with flexible silicone rubber with a plaster jacket to reinforce it. Papier-mâché (made with Japanese paper and wheat starch paste) was used for the cast (figure 2). The new wing was water gilded and toned to match the surrounding area.



(Photography by Christine Powell)

Figure 2. Papier-mâché replacement wing.

'The Stork Table' (similar to a table by Morant's, London, illustrated in the Great Exhibition catalogue of 1851).

The surface of the object was very dirty, with some areas having many layers of de-laminating over-paint. Many elements were lost, or broken, with some elements having poor repairs. Seventeen broken rushes had been restored to incorrect locations using nails and liberal amounts of putty and bronze over-paint. Two of the storks' beaks had been poorly repaired.

The surface was consolidated, cleaned, and bronze paint removed where possible. The de-laminating over-paint layers were removed to reinstate the undercut detail around the foliage composition ornament. The most obvious lost composition ornament was replaced using moulds cast from original details. The replacements, made of composition, were oil gilded and toned to match the surrounding surface.

The putty repairs were removed from the leather rushes. The rushes were transferred to their original locations using entomological pins as fine dowels (figure 3). The pins were inserted into the hardened leather and fixed with Paraloid B72 adhesive. To avoid damaging any exposed leather a non-aqueous gesso substitute

(Aquazol 500 in ethanol + whiting + kaolin + barium sulphate) was used to fill any losses. Due to its non-aqueous properties it was also used to replace water gilded losses on the storks' metal legs. The poor repairs on the birds' beaks were removed and the beaks re-fixed using polyvinyl acetate and acrylic (Perspex) dowels. Barium sulphate, an x-ray dense material, was added to all white-ground fills, to make these repairs obvious to conservators in the future. All fills were smoothed, gilded and toned to match the original surface.



(Photography by Fiona Mallinson)

Figure 3. The Stork Table during conservation.

Conclusion

As the case studies above illustrate, treatment of objects has varied. Both traditional and non-traditional methods have been employed during treatment. Time pressures have caused treatments to be streamlined, with non-essential work minimised or cut out of treatment programmes. In short, the combination of external pressures and the unique nature of each object, has resulted in a tailor-made solution being found for every object.

Further Reading

Shelton, C., The Use of Aquazol-Based Gilding Preparations, in Post-prints from AIC Wooden Artifacts Group Conference, 1996, Virginia.

Acknowledgements

With thanks to: Rowan Carter; Alice Kleybolt & Genevieve Cuesta Romero; Nanke Schellmann.

East Meets West: the Althorp Triad

Shayne Rivers

Senior Furniture Conservator

The Far East had an enormous impact on the decorative arts in Britain. Objects from the Far Eastern Collection are displayed in the British Galleries alongside the European objects whose design was inspired by them. The Althorp triad, now on display in the British Galleries, is a particularly fine example of furniture that incorporates both oriental lacquer and western japanning.

The term 'triad' is used by some historians to describe a set of furniture consisting of a table, looking glass and pair of stands. Such groups of furniture were used as a decorative focal point in grand rooms during the Baroque period. The Althorp triad (Figures 1 and 2) consists of a large mirror (W.74-1981), table (W.74A-1981) and two candlestands (W.74B and C-1981). Whilst the mirror, table and one candlestand have been dated to c.1680, the second candlestand (W.81C-1981) is a reproduction made in 1981 to complete the set.

The 17th century witnessed a growing European fascination with decorative art from the Far East in general, and lacquerware in particular. The earliest lacquerware arrived in Europe via overland trade routes and later larger quantities were imported by ship by maritime nations such as Holland, Portugal and Britain. The prevailing ignorance of the Far East led to a promiscuous characterisation of all lacquer articles as 'Indian', regardless of their geographical origin. Lacquerware was known in Elizabeth I's reign (1558-1603) and 'Japann' articles began appearing in inventories by the early 17th century¹.

Oriental lacquer is produced in China, Korea, Japan, Vietnam, Thailand and Burma, from the sap of the local *Rhus* species of tree (family *Anacardiaceae*). Once processed, the sap can be used to create an extremely durable coating. The traditional production of good quality lacquerware was a time-consuming process. John Quin², who set out the materials and techniques used to produce lacquer in Japan at the end of the 19th century, described the thirty three stages necessary to produce a plain black lacquer background. Depending on the complexity of the decoration applied to this background, high quality articles of lacquer took many months to complete. The finished piece usually incorporated a background that combined lustre and a translucent quality. Contrast was provided by mother-of-pearl inlay and gold decoration that depicted both Japanese pictorial scenes (e.g. figures and pagodas), as well as floral and geometric designs.

Such was the 17th century enthusiasm for these exotic articles that demand soon outstripped supply. European craftsmen responded by imitating lacquer designs using Western materials, a technique known as japanning. They used pigmented spirit varnishes that dried rapidly and allowed the japanner to use multiple layers to create a translucent glossy background which could be decorated with chinoiserie designs.

Lacquer objects imported into Europe could either be displayed intact (e.g. the Coromandel screen 130-1885, also on display in the V&A's new British Galleries) or dismantled, cut up and incorporated into Western

furniture forms. European cabinetmakers often employed both Eastern lacquer and Western japanned surfaces on a single piece of furniture. In many cases lacquer was used for the primary decorative elements whilst japanning was utilised for secondary elements (e.g. underframes or turned components). Where lacquer was incorporated into a Western form, the European cabinetmaker was often primarily interested in the exotic decorative effect of the contrasting black and gold decoration and only marginally interested in the coherence of the original pictorial designs.

probably more) different Japanese lacquer objects of varying styles and quality that were produced in Japan between c.1590 and 1660. On the mirror frame, for example, several pictorial panels, probably originally part of a chest (or chests) have been cut into strips. Although the strips have been arranged symmetrically on the frame itself, the original design has been rendered meaningless. Similarly, lacquer has been used in the oval panel in the centre of the underframe of the table. Several strips of lacquer have been added to bring the oval to the required dimensions. Although all the lacquer used in the oval is in the same general *namban* style, the additional strips have been added without any particular regard for the original pictorial design.

The overall quality of the triad is very high. Several pieces of good quality lacquer were incorporated into the triad and the use of lacquer was not limited to the main decorative areas. Plain and decorated lacquer panels were used not only on the table top, for example, but also on the rails and drawer fronts. An unusual feature of the drawers is that the interiors were also constructed from lacquered components. Curiously, the components of the dovetail joints on the drawers appear to be to have been reversed, with the pins cut on the drawer sides and the tails cut on the drawer fronts. European japanning was limited to areas such as the scroll legs, parts of the stretcher and bun feet.

Long exposure to light causes lacquer surfaces that were originally lustrous and glossy to become dull and matte. In common with many other materials, light can also cause changes in the colour of lacquer. In the case of the Althorp triad, remnants of the original colour were found where overpaint was removed from the mouldings on the candlestand (W.74B-1981). These remnants suggest that the original appearance of the candlestand (and perhaps similar areas on the table top) was a rich and striking orange-red, rather than the present silver-grey.

Many objects have suffered repeated restoration over the years. Conservation treatment aimed to stabilise the original decoration. The triad is now displayed in a condition that honestly represents the passage of time.

References:

1. Edwards, R, *The Shorter Dictionary of English Furniture*, Spring Books, 1987, p 224.
2. Prendergast, H., Jaeschke, H. and Rumball, N., *A lacquer legacy at Kew: The Japanese collection of John J Quin*, 2001, Royal Botanic Gardens, Kew.



Figure 2. Mirror.

The original parts of the Althorp triad are a testimony to this decorative and material tradition. In common with similar objects of the period, the triad incorporates both Japanese lacquer and European japanning and is a good example of the fusion of Far Eastern influence and European design in the production of luxury goods. The Althorp triad incorporates lacquer from at least five (and



Figure 1. Table and candlestands.

A Gun-Shield from the Armoury of Henry VIII: Decorative Oddity or Important Discovery?

Simon Metcalf, Senior Metalwork Conservator

Anthony R E North, Curator, Department of Metalwork and Jewellery

Derek Balfour, Senior Upholstery Conservator

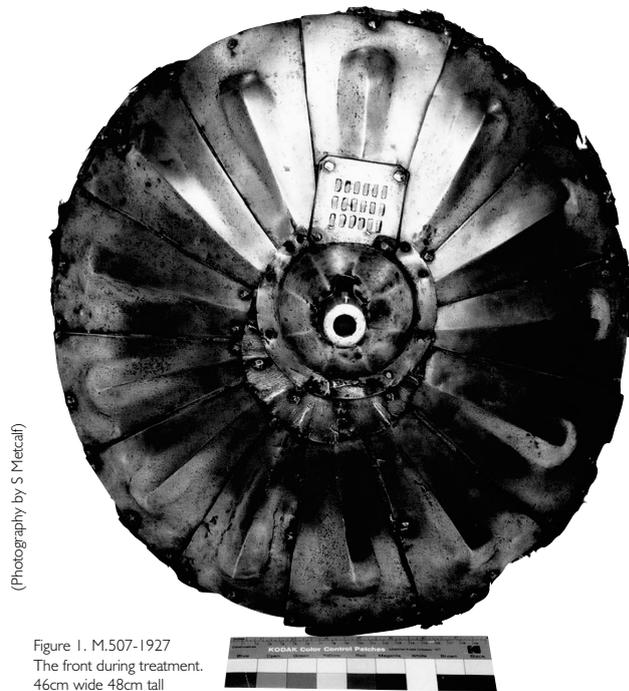
This is a preliminary report on the technical investigation and conservation of a 16th century gun-shield, now at the V&A, which was treated for the British Galleries project. The work is an example of the value of collaborative research across disciplines. It illustrates the importance for the conservator of understanding the object to be treated and how, by taking a collaborative approach, new historical information and conservation methods can be found.

The V&A's gun-shield is from a group of some 46 surviving examples originally from the armoury of Henry VIII at the Palace of Westminster, the Tower of London and other Royal sites. Eight gun-shields have also been found on the wreck of the *Mary Rose*. The gun-shields are listed in the inventory of 1547 taken after Henry VIII's death as "targettes steiled wt gonnes xxxv" (targets steeled with guns 35)¹. They have been thought to be Italian in origin, as they were offered to Henry VIII in a letter of 1544 from a painter of Ravenna named Giovanbattista². They are described as "several round shields and arm pieces with guns inside them that fire upon the enemy and pierce any armour". They are an unusual example of a short-lived technological innovation and Henry VIII's interest in new inventions.

The V&A gun-shield has been on display in the arms and armour gallery for many years. Apart from interest on the part of arms and armour scholars, it had become a decorative oddity largely ignored by the Museum. The selection of the gun-shield for display in the new British Galleries and the subsequent programme of conservation and research has changed this view. It has resulted in new discoveries, which have emphasised the importance of these objects both for the British Galleries project and for historians.

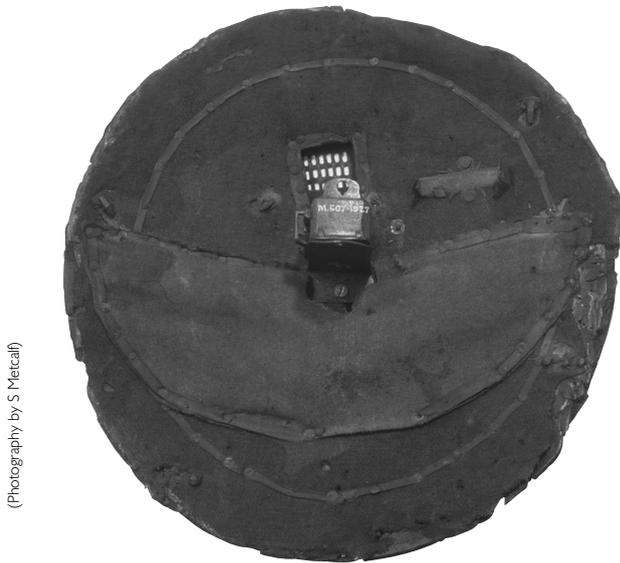
Preliminary investigation and condition

The V&A gun-shield consists of a breech loading matchlock pistol surrounded by a wood shield. The front of the shield (figure 1) is armoured with ferrous plates and a central boss through which the gun points. Above the gun there is a metal grill for sighting. The back of the gun-shield (figure 2) is upholstered with a red textile lining, a yellow textile pad for the arm of the user and traces of carrying straps.



(Photography by S Metcalf)

Figure 1. M.507-1927
The front during treatment.
46cm wide 48cm tall



(Photography by S Metcalf)

Figure 2. The back of the
gun-shield after treatment.

Overall the object was in poor condition. The ferrous plates were covered in rust, degraded grease and oil. Areas of wear, dents and minor splits were evident. Under the base of the boss there was an old repair or alteration. The boss and gun were loose and crudely attached with modern nails. The reverse and edges of the shield were covered in dirty and friable textiles. Attached to the upholstery were the remains of leather straps, upholstery tacks and linen tape. Under the pad, stuffing could be seen. Areas of the edge were damaged with losses to the wood carcass, leaving the textile unsupported. Traces of paint were noted on the metal plates and on the textile.

During this first examination many features were unclear. The exact age of the upholstery was unknown. It was uncertain how the gun-shield actually worked or what precisely the paint traces were.

Technical investigation and research

As the gun-shield was so complex it was important to understand the object historically and technically to develop an appropriate conservation treatment. To achieve this it was essential to use expertise across several disciplines. Two approaches were taken. Firstly, expert opinion was invited to examine, and discuss the gun-shield. Secondly, other examples of gun-shields were examined and information collected by the authors. Fifteen gun-shields from the Royal Armouries collection at the Tower of London and seven from the Royal Collection at Windsor Castle were examined. Information on gun-shields in collections abroad was obtained by correspondence. In total the investigation involved eight museums/institutions and eighteen individuals. The research and analysis of all the various elements is on-going, due to the importance of the object in the light of new discoveries.

The key discoveries, which have caused the re-evaluation of the gun-shields are:

- There are two distinct types of gun-shield. One of Italian manufacture and one (like the V&A example) an English version of heavier construction. The Italian examples have different features, including lighter calibre barrels offset to the upper half of the shield, gilding and engraved decoration in some cases and a much smaller sighting hole, if any. They are generally of better quality in both construction and ornament.
- A maker's mark (as yet unidentified) has been found on some of the barrels.
- There is evidence to suggest that the English gun-shields were converted from plain targets. At least two unconverted examples have been located; one, significantly, at the Tower of London.

- The English version is probably for use on ship, rather than hand-held like the lighter Italian version. It could be attached in rows to the ship's gunwale, for example, to act as a shield and anti-personnel weapon. Some examples have a hole in the matchlock serpentine for the attachment of a lanyard. This may explain why some were found on the *Mary Rose*.
- All the upholstery and textiles on the V&A gun-shield (and others) are circa 1540s, most probably of English manufacture, and are extremely rare. This reinforces the argument for this type of gun-shield being English.
- The red and yellow textiles may be Royal Household livery, as new red and yellow livery was issued to the Royal Household in 1544.
- Differing styles of textile trimming or metal strip decoration have been noted.
- Evidence of use, such as gunpowder residue, burns and repairs to the gun-shields, may be observed on some examples.
- The paint traces on the V&A example are part of an earlier paint scheme still found on other examples examined. Paint analysis has identified Prussian Blue which was not manufactured before 1704, thus giving an earliest date for the painting of the gun-shields.

The work has resulted in the discovery of some important examples of English wool cloth for textile historians. It has added to the story of Henry VIII's innovative approach to acquiring and developing new weapons by classifying the gun-shields into Italian and English types. It has also provided a new English context to an object being displayed in a project telling the story of British art and design.

Conservation treatment

Understanding the technical features, the importance of such elements as the upholstery and the wider significance of the objects in the history of English materials and design were crucial to the conservation treatment. The treatment in turn also fed back into the research, providing new discoveries; for example:

- The examination and repair of the loose boss and gun supports other evidence that the gun-shields were fired from a fixed position rather than hand held. The damage and old repairs on the V&A gun-shield and others of this type suggest that the fixed shield could not absorb the recoil energy of repeated shots, and that this is why the gun-shields were a short-lived innovation.

- Knowing that the V&A gun-shield was probably completely painted in the past has led to traces of paint being identified on ferrous parts so the earlier paint scheme has been recorded and conserved.
- Being aware before treatment that the V&A gun-shield may have had textile trimmings meant that the small fragments of textile tape found under the boss and on the shield edge have been correctly interpreted. These suggest that the iron plates were originally bordered with a particular style of trimming.
- Knowing the construction of the upholstery edge found on other gun-shields has meant that the loose textiles on the V&A gun-shield edge have been appropriately supported, using a new method. Plastazote inserts were pinned into position between the laths of the wood carcass. The textiles were then attached to the foam with wheat starch adhesive (figure 3).
- Detecting evidence of use before treatment allowed analysis of the possible gun-powder residues.

Conclusion

This article has outlined some of the discoveries and conservation methods used during the treatment of what was thought to be an oddity in the V&A's collection. The study of other examples of gun-shields was essential in developing an appropriate conservation treatment for the V&A gun-shield and has avoided the inadvertent loss of important historical information. The collaborative approach across disciplines has proved invaluable. It has ensured that a sympathetic treatment has been undertaken and that the information an object can provide during conservation has been utilised, making a misfit into a valuable addition to the British Galleries.

Acknowledgements.

We are grateful to the many institutions and individuals who have contributed expertise and information to this project.

References

1. Blair, C. B.T., *European Armour*, 1958, Batsford Ltd, London, pp 182-183
2. *Archaeologia*., Vol LI, p.246



(Photography by S Metcalf)

Figure 3. Detail of the back of the gun-shield. Plastazote inserts were constructed to support the textiles on the damaged areas of the edge. This allows the textile to curve round to the front of the object as originally constructed.



- Clockwise from top left corner:-
- Tapestry: *Neptune and Cupid plead for the Lovers* from the *Vulcan and Venus* series (T.170 – 1978)
 - Dress: Christie Mantua (T.260: to a-1969)
 - Spinet: Queen Elizabeth's Virginals (19-1887)
 - Tapestry: Detail of (T.170 – 1978)

All photography by V&A Photographic Studio



Clockwise from the top left corner:-
 • Flower pyramid: tin glazed earthenware painted in blue (C.615-925)
 • Miniature and case: *Elizabeth I* by Nicholas Hilliard (4404-1857)
 • Detail of mirror: from Hinton House, Somerset by Matthias Lock (W.8 - 1960)
 • Armchair with tapestry upholstery by Richard Wright & Edward Elwick (W.36 - 1964)
 • Clock by William Carpenter (M.1108-1926)
 • The Sackville Pedigree Manuscript (MSL.1981:41)

All photography by V&A Photographic Studio



Clockwise from the top left corner:-
 • Rhinoceros Vase: detail of cover (47-1869)
 • Portrait of Edward Howard with his dog by Pompeo Batoni (W.36:1 - 1949)
 • *Bashaw, The Faithful Friend of Man* by Mathew Coles Wyatt (A.4 - 1960)
 • Portrait of Peg Woffington by Van Loo (601-1882). During varnish removal.
 • Portrait of a woman, formerly thought to be the Countess of Derby During varnish removal. (565-1882).
 • Overmantel mirror in the style of Robert Adam made for the drawing room at Bradbourne, Kent (W.66 - 1938)

All photography by V&A Photographic Studio



Conservation or Restoration? The Treatment of an 18th Century Clock

Christopher Powell, Clock Restorer
Sophy Wills, Metalwork Conservator

This clock, made by William Carpenter in the late 18th century (figure 1), has four moving elements and was to be filmed in action for an "Object in Focus" video.

An initial visual check revealed that the clock was dirty and dusty, with patchy and sometimes heavy corrosion products over most of the copper alloy and gilt copper elements, and some losses to the painted elements. The only part of the movement missing was one part of the fly vane. When power was cautiously applied to the lower part of the mechanism to see if the clock would function, it seemed to be capable of running.

The clock was dismantled for treatment and to enable further examination of the movement. The whole mechanism was coated with a fine black dust which had combined with the residues of degraded lubricating oils to form a sticky paste, and many parts were corroded. The springs seemed serviceable for the purpose of filming, although in commercial restoration the music spring would have been replaced because the coils had contracted and weakened to such an extent that it wouldn't provide sufficient power.

The treatment carried out on the various external elements conformed to Museum practice. The surfaces were solvent-cleaned following tests of various solvents in unobtrusive areas. Then corrosion products were mechanically removed. The heavy corrosion around the pastes on the dial were treated with an ethylene diamine tetraacetic acid gel which helped to soften

and partially dissolve the corrosion, enabling it to be mechanically removed. Areas of flaking paint were consolidated, and the metal surfaces were given a protective coating.

In standard commercial practice, dismantling would be followed by "washing" all the working parts by placing them in an ultrasonic tank with a commercial non-ammoniated solvent mixture. In this instance, the components were swabbed with IMS to remove surface and old oil residues, and more intricate elements were dry brushed, and then brushed with IMS. Powdery corrosion products were removed using very fine wire wool on swabs, and working surfaces only were rigorously cleaned, to enable the mechanism to run freely. Here the treatment undertaken departed from commercial practice, where all corrosion products would be removed from all elements back to a metal surface.

The missing vane of the fly or governor was made from brass, and was copied in appearance and construction from the remaining original. It was lightly riveted in place so as to avoid damaging the surrounding metal. This is in line with commercial practice, except that the replacement part would not be as visually evident because the original parts would be brightly polished. It is



- Clockwise from top left-hand corner:-
- Painted glass panel: *The Descent from the Cross* by Abraham van Linge (C.62-1927)
 - The Badminton Bed made by workshop of William and John Linnell (W.143-1921)
 - Two sections of wallpaper produced in China for export to Europe (E.413-1924)
 - Honiton lace wedding dress (T.43-1947)
 - Tile panel: hand-painted and hand-made tiles by William Morris and William de Morgan (C.36 - 1927)

All photography by V&A Photographic Studio

(Photography by V&A Photographic Studio)

Figure 1. The Carpenter clock, Museum No. M.1108-1926, after conservation.

the intention that the replacement fly vane be stamped with "VA" and the date of installation, so that it is evident that this is a replacement part. In addition, a hammer was made for one of the gilt copper alloy figures, and attached using Paraloid B-72 adhesive. This adhesive is, widely used in conservation as it does not crosslink; it would not be used commercially as it is not strong enough to withstand day-to-day running. The parts of the movement requiring lubrication were oiled with a commercially-used oil, and the movement was reassembled. Although the treatment of the movement was complete, the clock still needed considerable work in order to get it functioning. When the springs were partially wound to provide power, it was seen that the going and striking mechanisms worked correctly, but the musical mechanism didn't. It became apparent that the main spring was too weak to power it, and therefore additional power was applied by a key turned by hand. The gilt copper alloy figures were connected to the musical mechanism, and the bells which they play were moved around until the correct order was found, so that a recognisable tune could be played.

Before filming the clock was partially dismantled to show the movement, as the film director wanted to show the mechanism as part of the "story" of the clock. The movement was operated and filmed. Then the clock was reassembled and repeatedly operated so that the director could film the automaton figures, the pendulum and the moving figures on the dial.



Figure 2. Elements of the mechanism disassembled, before conservation.

In the description of examination and treatment of the clock, we have identified differences between a restorer's approach to the object, whose aim is to restore the clock to reliable day-to-day running, and a conservator's approach, where the object is stabilised and brought to a condition where it is visually understandable, in this case as a high status object, valued for its bright colours and shiny surfaces. The treatments undertaken on the movement represent a compromise between the two approaches, where the absolute minimum amount of mechanical cleaning and replacement of parts were effected, to ensure that the clock would be able to function safely on one occasion. The process of preparing it for filming and then filming it also falls between these two approaches, and raises the issue of risk. The Carpenter clock, as a museum object, would not normally be subject to the risks of physical damage posed by the repeated assembling, disassembling and running of the object. Justification for taking this risk lies in the nature of the clock itself. It was designed and built, not only to be decorative in appearance, but to amaze the onlooker by the various moving elements such as the gilded copper alloy figures, the moving figures on the dial, and to please the ears with the five tunes it could play. By filming the clock in action, we are able to provide the onlooker with a greater understanding of the object, of the maker's intentions, and its effect on people who saw it.

The British Galleries Project from a Paintings Conservation Perspective

Nicola Costaras
Head of Paintings Conservation

I was introduced to the British Galleries project within days of starting at the V&A in March 1996. The first task was to survey the condition of the 120 paintings and all the painted furniture then on display in the galleries of British Art & Design, as well as in the gallery stores, which all had to be emptied. Paintings not previously in the galleries, were also considered for display. The list was added to over the years as the designs took shape. In all, more than 500 paintings and painted objects were surveyed. Over the ensuing five years 124 paintings were prepared for display in the new galleries, including 16 new loans most of which were conserved by the lending institution. There is a great variety in type and scale from a three metre square fragment of 17th century oil-on-plaster wall-painting by Laguerre, a painted and gilded plaster relief by Burne-Jones, 17th century wallcloths thinly painted in distemper to an oil-on-panel reattributed to Holbein (figure. 1) measuring 126mm in diameter,

(photography by V&A Photographic Studio)



Figure 1. Attributed to Holbein, *Unknown man, possibly Hans of Antwerp* (P. 158-1910). After treatment

besides many more conventional oil paintings. Close examination and analysis has led to discoveries that, allied to art historical research, tell us a great deal more about the objects. Some have been reattributed, others re-dated with the result that they could no longer be included. The treatments varied from straightforward surface cleaning and preventive conservation framing to the removal of discoloured varnish and overpaint, mending split panels, torn canvas and consolidating flaking paint.

It is always satisfying to see a painting's colours emerge from beneath obscuring layers of extremely discoloured varnish or thick dirt. Lely's portrait of the 2nd Earl of Rochester (491-1882), Peg Woffington by Van Loo (601-1882), the 17th century full-length portrait formerly thought to be the Countess of Derby (565-1882) and the 18th century oil-on-paper roundel from the Northumberland House drawing-room (W.3-1955) are a few of those that showed a dramatic difference (see page 19). There were also some interesting problems concerning display; for example, the 17th century panel entitled 'Man Grasping the Hind Legs of a Stag' (W.19-1945). The panel consisted of two parts: an image panel with vertical grain and a text panel with horizontal grain. After repairing the splits that had been caused by conflicting grain alignment, a method was sought to enable the panels to be displayed in their original configuration without rejoining them. A shelf for the upper panel to sit on was devised and was made by Katharine Donaldson, Frames Conservator. She also converted the existing frame into a microclimate. There were many instances where advice and assistance was sought from other Sections notably Paper, Textiles and Furniture. A few objects were treated jointly; the oil-on-paper roundel mentioned above was given structural treatment by Victoria Button in Paper Conservation, while a very discoloured varnish and ingrained dirt layer were removed in the Paintings studio.

Among the interesting discoveries were duty stamps on the reverse of two painted cloths (Loan: Eggar.3 & 4) previously thought to be 17th century in date. Research² revealed that it was a stamp for 'growing duty', a tax on luxury goods that was introduced in 1701-2, and that this particular stamp dated from 1712. The cloths, painted in distemper with hunting scenes, are two sections from a scheme that would have decorated a whole room. (figure. 2) The background shows a distinctive stylised landscape. Unfortunately, the re-dating meant they were no longer suitable for the Tudor & Stuart display.

Infrared examination revealed a great many *pentimenti* of varying degrees of significance on numerous paintings. A nice example was the discovery of grid lines and detailed under-drawing on the panel of Orpheus and the Beasts (W.156-1923), chosen to show how images were spread through prints. This was a perfect demonstration of the method used to accurately transfer the printed image to the panel and it became the basis for an interactive display. In the case of the portrait of Dudley, 3rd Baron North, the infrared images showed that a later restorer had painted out the Baron's elaborate garters.



Figure 2. Unknown artist, Landscape with Hunter (Loan:Eggar.3). After treatment

I would like to mention the personnel who have taken part. The initial assessments and survey were organised by the former Head of Paintings Conservation, Susannah Edmunds. These estimates made it possible to employ Fran Griffin for almost the whole duration of the project. Fran personally prepared 34 of the paintings as well as making an invaluable contribution to the work of the Section in general. Katharine Donaldson was responsible for the frames of all the paintings as well as gilded frames of prints, watercolours, pastels and textiles. She has undertaken a great range of work including cleaning, structural repairs, re-carving lost ornament, replacement of composition and plaster mouldings and advising on panel treatments. She was assisted by Véronique Jamet and Genoveva Cuesta Romero on three-month internships and successive short-term contractors: Albertine de Nerée, Chris Luther and Philip Kevin. Katharine also liaised between the gallery curators and Timothy Newbery, awarded the contract to make replica period frames for a number of paintings where no suitable frame existed. Greg Howarth, a freelance conservator treated the four wall-paintings. A very important contribution was made by interns in the Paintings Section each of whom worked unpaid for around six months: Carole Fierle, Annabelle Mills, Eowyn Kerr, Katharina Kardorf, Gaia Girard, Alejandra Castro, Johanna Palm-Avis, Petra Gibler, Wiebke Lübsen and currently Sharon Tager.

As the British Galleries are installed it is possible to see how the different types of object complement one another. The paintings have much greater impact juxtaposed with the artefacts, textiles and costumes they depict as well as bringing figures to life in the many stories told throughout the Galleries. How much easier it is to imagine an 18th century teapot in use when you can see *The Gough Family*³ taking tea with an almost identical pot; or to relate to the person who wore this colourfully embroidered 17th century jacket when she is there before you wearing it.⁴ The scope of the project and the period it covers from 1500 – 1900 have provided a wonderful opportunity to appreciate the range and scale of the V&A's paintings collection.

References

1. For a full account of the treatment see Annabelle Mills article in Vol.35 of this Journal.
2. Dagnell, H., *The Marking of Textiles for Excise & Customs Duty*, 1996, London, pp.10-11
3. *The Gough Family* by Verelst (Loan:Calthorpe.1)
4. *Portrait of Margaret Laton* attributed to Marcus Gheeraerts (E.214-1994).

Chinese Wallpapers in the British Galleries

Pauline Webber

Head of Paper Conservation

The V&A has one of the finest collections of Chinese wallpapers. The examples selected for the British Galleries aim to show the range of styles and subject matter of Chinese wallpapers rather than trying to re-create a room. They are all from the first half of the 18th century:

- **E.2083-1914 Flowering Plants and Birds**
From Eltham Lodge, Kent
- **E412 & 413-1924 Scenes from Everyday**
- **E.51-1968 Fragment – Chinese Gentleman and Woman**
from Hampden House, Great Missenden

Chinese export wallpapers

Like decorated porcelain and paintings, wallpapers were manufactured in production-line workshops. Working to a copied design and with labour divided according to skill, a team of painters would produce sets of wall papers to decorate entire rooms. There could be as many as forty rolls in a set, each roll measuring 3.5x1m, plus extra sheets of birds, butterflies and branches. Subject matter included floral sprays and arabesques; life-size flowering shrubs and trees with birds and insects; figures in architectural settings; panoramic landscapes with architectural details; figures depicting festivals, agricultural activities and trades.

Materials and techniques of Chinese wallpapers

Chinese wallpapers are made up from large sheets of paper (average 56x91cm) joined and laminated together with a starch-based adhesive. The papers are very thin and flexible. Research has identified Xuan paper fibres from the *than* tree (*Pteroceltis tatarinowii maxim*), paper mulberry bast fibres (*Broussonetia papyrifera*) and bamboo fibres (*Bambusa sp.* or *Dendrocalamus sp.*).

In many cases the support paper onto which the design is executed had been coated with white pigment bound in animal glue and alum and dusted or mixed with mica, which gave it a shimmering appearance like silk. This type of paper coating was developed in China in the fourth century to improve the paper's smoothness, whiteness, opacity and uniformity and to reduce the hygroscopicity and ink absorption. A black carbon ink outline of the design was drawn onto the prepared sheet and then filled in with flat colour (organic and mineral pigments bound in animal glue). Details and glazes were added last. Where translucent colour was required – e.g. for faces – colour was sometimes applied to the back of the paper.

Other methods for executing the design or adding detail include the use of small printing blocks for repeating foliage texture, multiple brushes for grass, stencils, line block printing and decoupage.

The joined and painted lengths of paper were often sized with alum, causing the binding media to harden and making the colours resistant to water. Backing papers were applied to the painted lengths, smoothing out wrinkles and distortions. After drying and flattening on boards, the wallpapers were trimmed, organised into sets and numbered in the sequence in which they were to be hung.

In historic houses wallpapers were often pasted to textile linings tacked onto wooden strainers secured to the unfinished walls with nails. The use of a textile support not only provided a flat surface but also enabled the wallpaper to be removed if the decorative scheme was changed.

E.2083-1914 Flowering Plants and Birds (figure.1) The design was drawn in black ink and filled in with colour. Small wood blocks had been used to create the texture of the foliage. Rocks, trailing branches, leaves, butterflies and birds had been cut out from other sheets of paper and pasted onto the wallpaper in order to make repairs, hide faults or enhance the paper. The sections conserved for the British Galleries had remains of two textile linings that had once held them to the wall of the dressing room at Eltham Lodge, Kent.



Figure 1 E2083 Flowering Plants and Birds wallpaper, detail showing damage

E.412 & 413-1924 *Scenes of Everyday Life* These were originally part of a series depicting Chinese figures and buildings in a rural landscape. This wallpaper is unusual in that the outlines were not drawn in ink but printed. Examination revealed information about the size and method of use of the printing blocks. Sheets of paper measuring 166 cms x 82 cm were joined and laid across the inked-up design. The design had then been coloured in by hand. Other, smaller wood blocks inked with colour, had been applied to areas where the image was repeated, such as leaves and grass.

E.51-1968 (date 1730-1740) *Fragment Chinese Gentleman and Woman in a Rural Scene* Stylistically this wallpaper is very different to the other two. It shows a Chinese gentleman and lady in a rural setting surrounded by a shell cartouche. The catalogue entry suggests that the Chinese painter copied the ornamental framing from a print of 1710-1720 by Jean Antoine Watteau. To make up a complete length, fragments of the wallpaper, together with their original backing of bamboo paper and mulberry paper, had at some time in the past been lined with cream wove paper and textile and attached to a wooden board.

Condition of the wallpapers

All three wallpapers had suffered extensive damage. The paper that was originally white and shimmering with mica had become brown and brittle. What were once vivid colours were faded and dull, the subtle glazes having disappeared. De-lamination of the thin top layer of the Chinese paper was widespread; the paper was easily shattered and losses were severe. Losses had been previously patched and the excessive amounts of adhesive used were now discoloured and unsightly. Coarse, heavy European papers had been used as lining papers. The wallpapers were heavily soiled and had sustained some water damage. Past attempts to clean

away disfiguring stains had resulted in an uneven and abraded surface. The papers had been patched and over-painted in attempts to hold them together and try to preserve what remained of their original beauty. E.51-1968 *Fragment – Chinese Gentleman and Woman*, showed evidence of mould damage with fine black spots throughout.

Conservation and display

The aims of the conservation treatment were the consolidation of the fragile structures of the wallpapers, the selection of a mounting method appropriate for long-term display and to use the repairs to re-integrate the design, thereby minimising disfigurement and improving legibility.

Conserving large paper objects on this scale requires good planning, adequate space and time. Experience and expertise in treating large wet sheets of degraded paper was also essential since they measure 285 x 170 cm and are as thin and as delicate as cigarette paper! Knowledge of Japanese and Chinese mounting techniques has also contributed to an efficient and effective method of working with objects of this type and scale.

Treatment of the wallpapers involved:

- surface cleaning
- removal of textile backings
- removal of paper linings
- washing
- relining
- flattening
- repairing losses
- preparation of Hexalite panels for mounting
- attaching the wallpapers to the panels
- reintegration of missing areas and retouching

Each procedure listed can be further broken down into numerous processes. Some of the more complex procedures will be outlined.

Removing the old linings and applying new backings

Removing the linings from degraded wallpapers is the most difficult and risk-laden procedure. It is only carried out as a last resort. It is essential that enough uninterrupted time is given to the process of removing linings and that it be followed immediately with re-lining.

E.2083-1914 *Flowering Plants and Birds* and E.412&413-1924 *Scenes from Everyday Life* both had their textile, and European papers removed. Only the buff-coloured Chinese bamboo paper was retained where possible as it was part of the original laminate. The wallpapers were first sprayed with water from the back and then on the front and then faced with Rayon paper for protection and cleaning. The Rayon paper held the de-laminating paper in place, helped to draw out discoloration and cushioned the surface of the paper. The textile linings were removed dry; all other paper linings were removed after humidification. When the paper is wet it is almost transparent and it is difficult to distinguish between the painted paper substrate and

the linings. At this stage the paper is extremely fragile and is easily damaged and if left to dry out it would fracture. For this reason, re-lining was carried out almost immediately while the papers were damp. The wallpapers were lined with sheets of Japanese hand-made paper using wheat starch adhesive.

Mounting the wallpapers onto Hexalite

Hexalite was the chosen method of support for wallpapers and textiles in the British Galleries. It is made from an hexagonal aluminium core between fibre glass sheets. The board is considered to be chemically inert, is lightweight, rigid and dimensionally stable. Devising a system suitable for the conserved wallpaper and the display environment was time-consuming.

The Hexalite sheets were joined to make up panels of the required dimensions. The boards were first covered with Melinex and then with a woven polyester fabric. The nap of the polyester was raised to give a better key for the adhesion of the subsequent layers of paper. The textile was covered with a layer of soft, lightweight Japanese hand-made paper, brushed and tamped to achieve a good bond. The next paper layer is one traditionally used in the construction of Japanese screens. It is known as the *ukekake* from *uke* meaning floating and *kake* meaning to hang. These papers were applied as quarter sheets with the fibre direction running horizontally. They were pasted at the edges, each overlapping the last sheet by 6 to 10 cm, creating air pockets for cushioning and a separation layer that would enable the wallpaper to be removed from the panel if necessary in the future. The final layer, onto which the wallpaper was finally pasted, is called the *ukeshibari*, *shibari* meaning to fasten.

Repair and integration

This was carried out in two stages. Cracks and abrasions were toned with watercolour to the buff background colour of the paper. Coloured Chinese Xuan paper was used to repair losses to the wallpapers. Each loss was traced and the repair was then cut from the dyed repair paper, pasted and fitted. Large areas of repair were made to the lower section of E.412 & 413-1924 *Scenes from Everyday Life*. The wallpaper E.51-1968 *Fragment – Chinese Gentleman and Woman* that, prior to the current conservation, had been lined with a cream European paper, was given more sympathetic in-fills of appropriate colour and texture. Final retouching was carried out with watercolour and Carbothelo pastel pencils to allow the design of the wallpapers to read more easily.

Special thanks to Victoria Button who worked with me on the project.



(Photography by Pauline Webber)

Figure 2 Removing the old lining papers from the wallpaper



(Photography by V&A Photographic Studio)

Figure 3. E.2083 *Flowering Plants and Birds* wallpaper, after conservation

The Weld Censer: Making Sense of an Object

Donna Stevens
Metalwork Conservator



a



b



c



d



e



f

(Photography by V&A Photographic Studio)

Figure 1. Stages in the manufacture of loop-in-loop chain

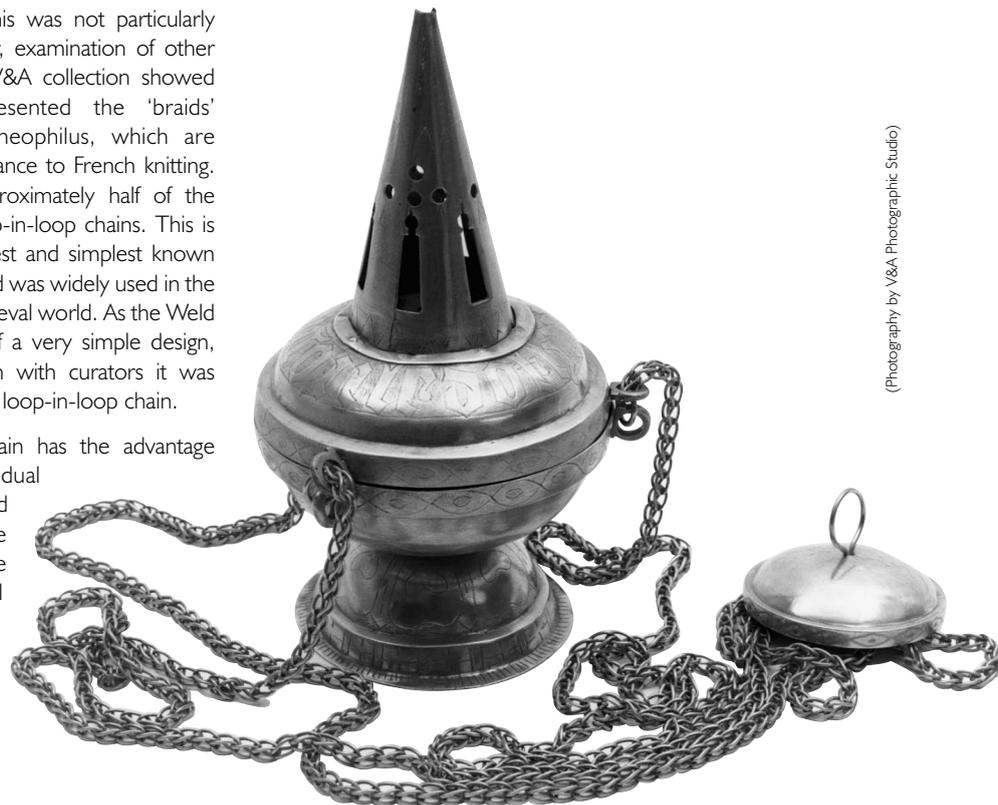
The Weld censer, (Loan: Weld.1) is a 15th century censer found walled up in a house where it was probably hidden during the reformation in the 16th century. Originally, it would have had chains enabling it to be swung, however these were missing and the decision was made by the British Galleries team to replace them to enable the function of the censer to be more readily apparent.

The medieval treatise *On Divers Arts* by Theophilus was consulted for further information on the censer's manufacture. It states 'draw thin or thicker wires of copper or silver and intertwine them, using an awl, in three braids, or in four, five or six, depending on the thickness you want for the size of each censer.' This was not particularly helpful; however, examination of other censers in the V&A collection showed that some presented the 'braids' described in Theophilus, which are similar in appearance to French knitting. In addition, approximately half of the censers had loop-in-loop chains. This is one of the earliest and simplest known types of chain and was widely used in the ancient and medieval world. As the Weld censer itself is of a very simple design, after consultation with curators it was decided to make loop-in-loop chain.

Loop-in-loop chain has the advantage that each individual ring is soldered separately before it is linked to the next. Figure 1 shows several stages of construction. Soldering each

loop separately removes the risk of accidental melting of previous solder joints while adding loops (and inadvertently ending up with a solid lump of metal instead of a flexible chain). Different sized chain samples were made, and one was chosen to be made up into the censer chain. After manufacture, one end of each of the 3 chains was attached to the censer using a jump ring, while the other end was attached to the lily from which the censer was swung. This also had to be made from brass sheet, with simple 'wriggle work' decoration similar to that on the censer itself.

Figure 2 illustrates the object after treatment. The lily and chains can easily be removed from the object and are all stamped with a V&A stamp to be readily identifiable in the future.

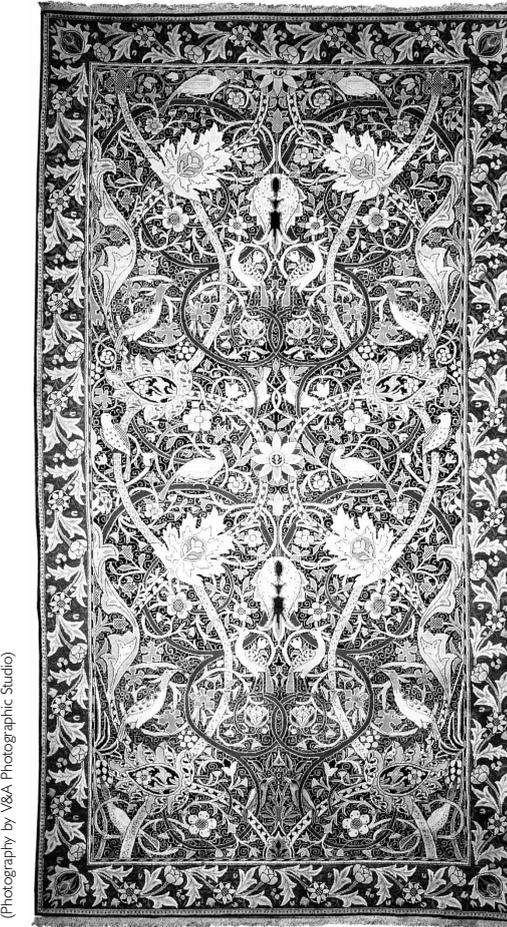


(Photography by V&A Photographic Studio)

Figure 2. Censer with chains attached.

Ephemeral Or Permanent? Illuminating the Bullerswood Carpet

Boris Pretzel,
Materials Scientist



(Photography by V&A Photographic Studio)

Figure 1: The Bullerswood carpet.

Introduction

The Bullerswood carpet (T31-1923, measuring approximately 4 m wide by 7.5 m long, see figure 1) is one of the objects on display in the V&A's British Galleries. The carpet was designed by William Morris (1834–1896) and woven by Morris & Co, Hammersmith, London, in about 1889. It has a cotton warp, jute weft, and woollen pile coloured with a range of natural dyes. The richly-coloured complex design consists of scrolling arabesques with stylised flowers and birds and a border with repeat motifs of leaves and flowers. It has only rarely been displayed and is still virtually unfaded. Due to the size of the carpet, it will be displayed vertically with only the lower half visible.

The dyes used in the carpet are all vegetable dyes. These range from reasonably light-fast to very fugitive. The impact of fading on the colours is an important factor in determining the acceptability of conditions chosen for its display. The brighter the illumination, the easier the object will be to see but the greater the rate of light-induced deterioration.

Experiments outlined in this paper use equipment specifically adapted to determine the light-fastness properties of the carpet. They allow an informed choice to be made for its display. Data generated using this technique can be used to determine responses to different gallery illumination conditions and can be extrapolated well beyond the measured exposures.

Accelerated fading

Traditionally, the light-fastness of artefacts would be determined from the behaviour of facsimiles made of the same material and subjected to intense exposure such as sunlight. However, this type of approach has several drawbacks: it is well known that the light-fastness depends not only on the substrate and dye product but is also critically dependent on the exact dying process, the concentrations and dying conditions. In addition, the light-fastness of dyes will change with their exposure history.

For the carpet, accurate predictions of the response of different areas to gallery illumination were desired, as was determination of the exposure after which the two halves of the carpet (i.e. the lower half on display and the upper half shielded from illumination) would become noticeably different. To fulfil these requirements, a technique was developed that allowed selected areas to be illuminated, at 50klx, for up to eight days (equivalent to approximately 50 years in a gallery at 50lx) and to measure changes in their reflectance spectra during exposure.

The idea of using discrete areas on artefacts directly to evaluate (relative) light fastness was first described by the Canadian Conservation Institute (CCI) using visual assessment. More recently, the technique has been refined to use the same light source to expose an area and, by collecting the reflected light, to determine the colour changes at the same time. However, the principal desire in these procedures has been to obtain relative light-fastness rankings in a very short time and the

processes cannot be used to model actual response to gallery illumination with any confidence (the illumination is too intense to be correlated back to gallery conditions and the light sources, at least in the more recent development, do not correspond to ones used in museums).

In this study, areas of four of the principal colours present (blue, green, red and burgundy) were investigated on the reverse of the carpet. The results were used to predict the response of the equivalent areas on the front. Three areas of each colour were chosen at different locations to ensure reproducibility of the results. The modelling of the response of the obverse of the carpet was checked by investigating two areas on the front for very short exposures (limited to 3000 klx.h).

Experimental procedure

A Hitachi dual beam spectrophotometer was used to measure reflectance spectra. The fading illuminant was a UV filtered tungsten halogen (i.e. continuous spectrum) lamp. The spectrometer is linked to an external integrating sphere, with a 10 mm sample port in contact with the area undergoing testing, by a special fibre-optic assembly. The fading lamp is housed in a Schott microscope illumination system. One of the two tails was directed through the integrating sphere's viewing port onto the measurement area (achieving illumination levels up to 50 klx), while the other was directed onto a lux logger to monitor the lamp output. The experimental set-up eliminates uncertainties associated with relocation (as the integrating sphere is not moved between readings) and with fluctuating light output (as this is monitored) and avoids local heating during exposure. The procedure gives an estimated precision of 0.2% relative reflectance.

Reflectance spectra were used to calculate the best estimate for the CIE tristimulus co-ordinates. These, in turn, were converted to CIELAB colour space for further analysis. Colour changes are expressed using the CIE94 colour difference equation. Finally, the responses of areas on the obverse of the carpet are predicted by portioning measured responses from the reverse into contributions from the dyed woollen pile and exposed parts of the warp and weft. All uncertainties are derived directly from the precision of the reflectance spectra.

Results and discussion

The initial results and a fuller description of the experimental techniques and procedure have been published elsewhere¹ and are summarised here.

The different areas on the carpet all fall broadly into ISO blue wool category 3 according to data published by Michalski or between ISO blue wool category 4 to 5 according to data published by Bullock and Saunders.

Surprisingly, blue areas on the carpet were shown to fade the most with the least fading occurring for burgundy. Traditionally, red and yellow vegetable dyes are considered the most light sensitive, with blue dyes being amongst the most stable, so this result seems contrary to the rule. The blue dye was identified as indigo (probably woad) which is expected to be particularly light fast on wool! The differences were particularly marked for the early portions of the fading (up to 2000 klx.h) after which the rates for all the colours converged. The colour balance in the carpet (the colour difference between different colours) is considerably more stable than any individual colours (between ISO blue wool 6 and 7).

The V&A is developing a new lighting policy which establishes acceptable fading rates for artefacts and proposes that changes be limited to one "just noticeable fade" (JNF) in 50 years. The size of a colour difference corresponding to just noticeable has not satisfactorily been determined but is assumed, in the policy, to be about equal to grey-scale 4 (corresponding to a CIE94 colour difference of 1.7), as used by Michalski for the data on which the policy is based. Experiments currently underway at the V&A suggest that it probably corresponds to a CIE94 colour change of perhaps 0.8, at least under ideal laboratory conditions and when comparing two simple colour swatches side by side. Although there is a considerable variation in response between different people and for different colours, colour differences ≥ 2 CIE94 units were invariably detected by all participants so far included in the experiments. It seems, therefore, *faute de mieux*, that a colour change corresponding to grey-scale 4 is not an unreasonable estimate for the onset of just noticeable differences, especially as most artefacts do not consist of blocks of simple, uniform colours, the illumination in galleries is less than ideal, and an unchanged "original" is not usually available with which to make comparisons.

Accepting for the moment that changes would become noticeable once they reach grey-scale 4, the exposure for the carpet would need to be limited to 3.4 Mlx.hrs in 50 years (corresponding to 19 years of display at 50 lux) to conform to the policy. As it is planned to display the carpet at 100 lux, it should be taken off permanent display within 5 years, allowing a contingency for error and reserving up to a further five years display in the ensuing 45 years.

Reference

- ¹ Pretzel, B.C., "Determining the light-fastness of the Bullerswood carpet" in, Roy, A., and Smith, P., (editors), *Tradition and Innovation: Advances in Conservation, Contributions to the IIC Melbourne Congress, 2000*, pp 150 – 154.

For further references please contact the author on: boris.pretzel@vam.ac.uk

The Conservation of a Crewelwork Bed Curtain

Marilyn Leader
Textile Conservator



(Photography by V&A Photographic Studio)

Figure 1. The curtain after conservation.

Introduction

The curtain, (Museum No. 72C-1897), shown in figure 1, is part of a set of bed hangings comprising four curtains and three valances. Originally there may have been more pieces in the complete bed set. One of the curtains bears the embroidered date 1755. The design reflects the influences of a flourishing trade with India and is worked in the traditional English embroidery technique of crewelwork which was popular at that time for domestic furnishings.

The design depicts rolling hillocks with animals, insects and a repeating motif of a hound chasing stag. From the hillocks, branches rise upwards supporting floral motifs. The polychrome wool embroidery is worked on three widths of an off-white linen and cotton 3.1 twill fabric (the ground). The top of the curtain has a band comprising three panels of a linen and cotton fabric in a broken twill weave. Button-hole stitched holes are visible along the very top edge, perhaps for hanging. The curtain has a plain weave linen lining.

Condition before conservation

Before conservation the curtain was in a very poor condition and could not be handled safely. Both the curtain and lining were heavily soiled, yellowed and stained. The crewelwork technique had created disparities of tension and weight between the embroidered areas and unworked ground resulting in puckering and distortion of the ground fabric around the embroidered motifs. This had been exacerbated during hanging, causing the warp threads to split along the embroidery/ground interface in many areas, most notably the lower half (figure 2). Darned repairs to some of the tears, worked through both the ground and lining in a thick thread, were also producing distortions. Some of the larger holes had been patched unsympathetically and crudely, as had a large rectangular 'window' in the lining. The cut and unturned edges of the curtain had frayed.



(Photography by V&A Photographic Studio)

Figure 2. Splits in the linen warp.

The crewelwork embroidery, however, was in very good condition, almost completely intact and unfaded. The only visible repairs were in brown wool in the hillock pattern where probably dark brown or black wool threads had been lost through the deteriorating effects of an acidic tannin used in the dyeing process.¹

Treatment

A pivotal decision was whether or not the lining should be removed to facilitate conservation treatments. Removing the lining would make it easier to reduce the puckering and distortion caused by the embroidery, so that any stitched support would be more effective; it would also facilitate the removal of soiling during wet-cleaning. After testing in a range of cleaning solvents² it was decided to remove the lining in order to wet-clean and re-align the curtain. This could not have been achieved with the lining attached although it meant losing those repairs worked through both layers. The lining did not have enough fullness to provide adequate support and where repairs pulled on the weak ground, the weight of the lining when wet would add even more strain.

Separation exposed large amounts of dust and debris trapped under the lining. Both layers were surface cleaned using low-powered vacuum suction. The lining was treated first. It was wet-cleaned in a solution containing the anionic surfactant Hostapon in deionised water at room temperature. Hostapon can be used at a low concentration and is very good at soil suspension. A chelating agent, tri-sodium sulphate was added later to encourage soil removal. After rinsing, the lining was laid out flat and excess water blotted. The weave was eased into alignment and the lining left to dry naturally. A weak edge and the rectangular hole were given patch supports of a fine linen fabric dyed using Ciba Geigy Solophenyl dyes.

The crewelwork curtain was wet-cleaned with a solution containing the non-ionic surfactant Synperonic N. Hostapon, although very effective with cellulose fibres is considered difficult to rinse out of protein fibres (such as the embroidery wool) and may remove natural wool oils. After rinsing, laying flat and blotting, the curtain was manipulated to ease out the puckering and held with pins. A current of cool air was directed at the dense embroidered areas to assist drying. Further easing out and alignment was done by using an ultra-sonic humidifier to produce cold vapour. The humidified areas were then re-pinned. This was particularly effective and the curtain was noticeably flatter. A fine linen fabric had been dyed and prepared for a full support by marking a grid with tacking stitches. The grid included a one centimetre allowance per thirty centimetres, in both length and width, for ease. Linen was chosen for its ability to creep and mould into the undulations of the

curtain. The support and a few dyed cotton infill patches were correctly positioned and tacked to the curtain in the grid to avoid movement and misalignment during treatment. Herringbone stitches were then worked along the two seam lines for overall support. Some stitches were also worked through the embroidered floral motifs to support their weight. Areas of loss and splits were secured with lines of laid and couched polyester thread. Fraying side edges were overlaid with dyed nylon net before the lining was stitched back on to the curtain. Velcro was attached to the reverse top edge for display over a padded mount

Conclusion

The curtain was chosen for the British Galleries as a fine and charming example of English embroidery of the late seventeenth century. Although bright and intact it was visually and structurally marred by soiling, tears and holes. The aim of the conservation treatment was to ensure that the curtain was "stable, in optimum visual condition and technically understood"³. Separating the layers meant that the treatment could meet those objectives. The bed curtain is now on display in Gallery 56 as an example of "exotic styles" influencing British design in the late seventeenth and early eighteenth centuries.

References

1. Timár-Balázs, Á., & Eastop, D., *Chemical Principles of Textile Conservation*, Butterworth-Heinemann, 1998, p95.
2. Samples of each colour were wet-tested for fastness in deionised water pH5.5; a 0.2% solution of 3.7g/l of the non-ionic surfactant Synperonic N™ and 0.5g/l sodium carboxymethylcellulose in deionised water pH6.5; a 0.25% solution of the chelating agent tri-sodium sulphate in deionised water pH7.0; industrial methylated spirits; Stoddard solvent
3. Umney, N., & Oakley, V., *The British Galleries 1500-1900: An Overview*, V&A Conservation Journal 33, October 1999, p5

RCA/V&A Conservation New Students for the Academic Year 2001/02

Alison Richmond
Tutor, RCA/V&A Conservation

Before introducing the new students I would like to take this opportunity to review some of the highlights of the past year – and there have been many. RCA/V&A Conservation was awarded the Queen's Anniversary Prize for excellence in higher education. This award came at an opportune moment – the end of an "era" – when Professor Alan Cummings, the founder and first Director of the Course, was appointed Pro Rector of the Royal College of Art. In his place RCA/V&A Conservation has a new Head, William Lindsay, formerly Head of Conservation in Palaeontology at the Natural History Museum, and a part-time PhD student at the Royal College of Art. Alan Phenix has also joined us from the Courtauld Institute of Art as Research Fellow in science-based conservation research. Last, but certainly not least, is Jonathan Ashley-Smith's appointment as Visiting Professor to the RCA. This reflects Jonathan's key role in founding the RCA/V&A Conservation programme and his continuing close involvement with its development and success.

Graduation is certainly a highlight of the year, followed by graduates finding positions in conservation. Among this year's graduating MA students, Ricard Sundström has gone on to a one-year paid internship in Paintings and Polychrome Sculpture at Stichting Restauratie Atelier Limbourg in Maastrich. Heather Porter is doing a one-year internship at the Colonial Williamsburg Foundation, Upholstery Conservation Lab, to research historic American and British upholstery practices and study upholstery conservation techniques. She is going as a Research Scholar and a Smithsonian-sponsored exchange visitor. Annie Hall is currently on a six-month contract as a Metals Conservator in the V&A's Metalwork Conservation Section. MPhil graduate Christos Maris is about to establish a professional co-operation with the Museum of Modern Greek Art in Rhodes as a consultant for risk management and is waiting for a contract with the Greek Ministry of Culture. Our second PhD graduate, Dr. Angela Geary, has a number of roles at the moment. She is a research supervisor for an MPhil student, Hugh Halpin, and has various roles in technical set-up and assistance for the Humanities Department at the RCA.

As for the future, we are currently publicising our studentships for 2002/03 as widely as possible. For further information please visit our website at www.conservation.rca.ac.uk or www.rca.ac.uk or contact Joanna Baden, Administrator, Conservation Department, School of Humanities, RCA, Kensington Gore, London, SW7 2EU. Joanna.Baden@rca.ac.uk

We are also looking forward to celebrating the 10th anniversary of the graduation of our first students. We will be holding a series of ten evening lectures in November and December 2002 on the subject of conservation now and in the future. Further details will follow and we hope you will be able to come.



Sherrie Eatman
Aged 34, American
**Stained Glass
Conservation**
(3 Year MA)

BSc in Business Administration, University of North Carolina at Chapel Hill, 1989.

Sherrie has come to the field of Conservation through a background in Business and Technology. After obtaining her degree she travelled throughout the UK and Europe before moving to London in 1991. Sherrie worked as an IT project manager in the banking industry for seven years before leaving to pursue her long-term interest in the arts.

Sherrie was fascinated by the stained glass encountered on earlier cathedral and museum visits and decided to pursue this particular interest further. During the past two years she has attended college to learn traditional stained glass techniques, gaining two City & Guilds certificates in Decorative Stained Glass. She also worked as a coloured glass sales manager at a local glazier.

Working in the conservation profession will enable Sherrie to combine her enthusiasm for stained glass with the skills gained through her previous work experience. She is looking forward to working with the wide-ranging collection of stained glass at the V&A and exploring the role of technology in conservation during her course of study.



Pip Laurenson
Aged 36, British
Care and Management of Time-based Media Installations
(2 year MPhil)

BA in Philosophy, Kings College, London
Diploma in Conservation, City and Guilds of London Art School, 1992

Pip Laurenson is on study leave from the Tate where she is a sculpture conservator for Electronic Media and Kinetic Arts. She has a BA in Philosophy from Kings College London and completed the conservation program at the City and Guilds of London Art School in 1992. She was the Henry Moore Foundation Intern in the Sculpture Conservation Section of the Tate from 1992 until 1994. Since 1994 she has specialised in the conservation of time-based media installations. She is an accredited member of the UKIC.

Her research is focused on establishing guidelines for the care and management of time-based media installations for large and small institutions and private collectors. The guidelines will be supplemented by six case studies and six artists interviews. She will be undertaking this research in partnership with Tate, San Francisco Museum of Modern Art and New Art Trust. Her supervisor will be Professor Jonathan Ashley-Smith, Head of Conservation, V&A.



Titika Malkogeorgou
Aged 35, Greek
How Does Conservation Affect The Meaning Of Objects?
(2 year MPhil)

BA (Hons) in Fine Art, University of Northumbria, Newcastle upon Tyne

MA in Principles of Conservation, Institute of Archaeology, University College London

Titika first came to England to do a BA(Hons) course in Fine Art at the University of Northumbria, Newcastle upon Tyne, before moving to Florence to study Museology and Theory of Restoration specialising in frescoes and decorative stonework (Museologia and Teoria del Restauro dei Affreschi e Arredo Lapidario). Subsequently, she worked as a conservator on site in Italy and Spain, and on conservation projects for the Ministry of Culture around Greece.

Titika has just completed an MA in Principles of Conservation at the Institute of Archaeology, UCL. For her dissertation project she worked with the National Trust designing and conducting a site survey, examining the role of conservation in relation to the use and interpretation of the object. Through her research, she wants to pursue investigating the meaning of objects and how this relates to their conservation.

Titika's research at the RCA will be supervised by William Lindsay, Head of RCA/V&A Conservation.



Allyson McDermott
Aged 46, British
Examination of the Methods and Materials Used in the Manufacture and Use of Wallpapers in the English House 1680 - 1830
(4 year MPhil, part-time)

BA(Hons) History of Art and Design, Newcastle.
Diploma in Conservation, Works of Art on Paper, Gateshead

Having been fortunate to attend school at Blackwell, one of the finest Arts and Crafts houses in Britain, Allyson developed an early interest in the historic interior. Having trained and subsequently lectured in paper conservation it was perhaps inevitable that she became a specialist in the conservation of historic wallpapers. After five years teaching conservation at Gateshead Technical College (now the University of Northumbria) and running annual training workshops in Zanzibar, she established the Lintz Green Conservation Centre. In 1990 Allyson was also appointed Conservation Advisor to Sothebys and established the Sothebys Conservation Centre in West Sussex. In 1996 she set up a second independent studio at Petworth House and subsequently became Advisor in Paper and Wallpaper Conservation to the National Trust.

Allyson now works as a freelance Conservation Consultant and Project Manager and has recently helped set up the UKIC Historic Interiors Section. (All new members welcome!)

The aim of this research project is to aid the identification, interpretation and re-creation of original wallpaper schemes by gathering scientific and historical data from surviving examples.



Camilla Schaper
Aged 31, Danish
Sculpture Conservation
(2 year MA)

BSc in Restoration and Conservation of Monumental Art, The Royal Danish Academy of Fine Arts, School of Conservation, 2001

Camilla has been working with Sculpture since 1992. She has completed art courses at Skolen for Billedkunst (The School of Pictorial Art) in 1993 and at Københavns Kunsthøjskole (Copenhagen School of Art in 1997. At Københavns Kunsthøjskole she specialised in sculpture, learning the techniques of modelling, casting and stone carving. Her passion for sculpture and the materials from which they are made – stone, plaster, concrete and metal – led to her vocation in the conservation of sculpture.

In 1998 Camilla entered the school of conservation in Copenhagen studying the conservation of Monumental Art. She gained "hands on" experience working under Professor Siri Sande, from the Department of Archaeology, Oslo University, at an archaeological site in Greece, securing the walls of a Byzantine ruin. She spent the summer of 2000 working for the City Parks Foundation in New York, maintaining and restoring outdoor sculpture. Camilla's dissertation for the school of Conservation was a bronze plaster bust from 1795 which had broken into 250 pieces.

Camilla will be supervised by Charlotte Hubbard, Head of Sculpture Conservation at the V&A.



Marie Vest
Aged 40, Danish
Effects of Laser Cleaning on Parchment Documents
(5 year PhD, part-time)

BSc and MSc in Conservation, School of Conservation, Royal Danish Academy of Fine Arts, Copenhagen, Denmark

Marie finished her apprenticeship as a bookbinder in 1986. After studying at Centro del Bel Libro in Switzerland, under Edwin Heim she enrolled at the School of Conservation in Copenhagen, graduating in 1990 with a BSc degree. From 1991 to 1996 she worked as a research assistant at the two European Research projects on Leather: STEP and Environment. In 1996 she received her MSc degree in the deterioration of white tawed leather. She was later employed as a full time lecturer/researcher in paper, parchment and book conservation at the School of Conservation. She took part in the European research project, Micro Analysis of Parchment 1996-1999, and she worked at the Conservation Centre in Liverpool to investigate the use of laser cleaning of parchment documents.

This project is a collaboration between several institutions and is co-supervised by staff from each: Dr. Martin Cooper, The Conservation Centre, Liverpool; Dr. Rene Larsen, School of Conservation, Copenhagen; and Dr. Peter Andersen, Optics and Fluid Dynamics Department, Risø National Laboratory, Denmark. The aim of this research is to establish a broader understanding of laser cleaning and possible damaging effects of laser radiation on parchment documents.

Conservation Department

Staff Chart Autumn 2001

Head of Conservation

Jonathan Ashley-Smith

Annabel Swindells

Science

Graham Martin
Boris Pretzel
Brenda Keneghan
Richard Kibrya
Lucia Burgio

RCA/V&A Conservation

William Lindsay (RCA)
Helen Jones (V&A)
Alison Bracker (RCA)
Esther Jones (V&A)
Alan Phenix (RCA)
Alison Richmond (V&A)

Administration

Tim Carpenter

Furniture

Albert Neher
Tim Miller
Christine Powell
Nigel Bamforth
Shayne Rivers
Zoe Allen
Henriette Stuchtey
Fi Mallinson

Textiles

Lynda Hillyer
Marion Kite
Val Blyth
Albertina Cogram
Frances Hartog
Zenzie Tinker
Marilyn Leader
Flora Nuttgens
Martina Krueger
Susana Hunter

Students

Computer Visualisation

Nicholas Frayling, *PhD*
Athanasios Velios, *PhD*
Hugh Halpin, *MPbil*

Furniture

Nanke Schellman, *MA*

Stained Glass

Sherrie Eatmann, *MA*

History, Ethics & Management

Lars Bjork, *MPbil*
Pip Laursen, *MPbil*
William Lindsay, *PhD*
Titika Malkogeorgou, *MPbil*

Historical/ Technical study

Victoria Doran, *PhD*
Allyson McDermott, *MPbil*
Magdalena Kozera, *PhD*

Interns

Ceramics & Glass

Olivier Omnes

Furniture

Clara Von Engelhardt

Paintings

Sharon Tager

20th Century Materials

Harriet Standeven, *MPbil*
Fotini Koussiaki, *PhD*
(with Tate)
Francesca Cappitelli, *PhD*
(with Tate)

Sculpture

Neil Wressell, *MA*
(with Tate)
Camilla Schaper, *MA*

Social History Objects

(with Museum of London)
Kirsten Kruse, *MA*

Techniques for Wood Identification

Maggie Roberts, *MPbil*

Ceramics & Glass

Victoria Oakley

Fi Jordan

Juanita Navarro

Stained Glass

Drew Anderson

Metals

Diana Heath
Simon Metcalf
Joanna Whalley
Donna Stevens

Sophy Wills

Annie Hall

Sculpture

Charlotte Hubbard
Alexandra Kosinova
Metaxia Ventikou

Books

Jane Rutherford
Bridget Mitchell

Paintings

Nicola Costaras

Frames

Katharine Donaldson

Publication of the Victoria & Albert Museum Conservation Department

ISSN 09670273