V&A

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# Contents

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The cover shows:
Detail of IS.49-3-1956: White Breasted Kingfisher
Photography by Mike Wheeler
Detail of MS 989 (805-1894), Initial 'A' from choir book
Photography by Danny Norman
Additional photography/graphics by Danny Norman
The contents page shows:
Detail of IS.4657: A Party of Four Male Musicians and a Dancing Girl
Photography by Mike Wheeler



# Editorial

Jonathan Ashley-Smith
Head of Conservation

If you keep on doing the same thing you won't stay in business, to stay in business you have to keep developing. The world outside is changing rapidly and you have to keep up if not stay one jump ahead. Changes outside the Museum increasingly need to be reflected within the Museum. Any external consultant will tell you these things if only because management gurus such as Charles Handy have been saying them for so long it has become gospel. Such consultation is becoming more prevalent within institutions, perhaps because rapid change may increase the need for consultancy. The question that arises is how much do you have to change and in what way?

In the past quarter I have been away from work and from home at two management residentials – two separate groups in need of a new focus and both looking to find out the direction and speed of change necessary for survival. Both believed that by listening to the views of a small number of outsiders, and by concentrated structured discussion well away from the distractions of everyday Museum life, they could arrive at a consensus and a strategy. The first group consisted of around twenty (mostly senior) conservators from the V&A Conservation Department in search of 'quality'. The second was a slightly larger group of the senior managers of the whole Museum in search of 'the big idea'. The strategic focus for the Museum was deemed to be 'improving the visitor experience'. This necessarily stems from government policy about access and social inclusion and follows from our Director's encouragement that all activities in the Museum should be seen to have an educational content and be visitor-centred.

The conservators' search for a relevant definition of 'quality' trod similar ground. This is not surprising because all definitions of public sector quality are about continuous improvement in service and attention to customer needs. The difficulty with both the Museum and its subset, the Conservation Department, is that it is always possible to find someone to say that what youare doing at the moment is perfectly alright, indeed positively brilliant. The fact that not a lot of people know how brilliant you are is not seen as a criticism but merely a failure of communication. The truth may actually be that a few key people are not aware of successes and achievements. The 'performance gap' is between planned service and 'perceived' service notbetween planned and actual delivery. Altering the perceptions in only one or two individuals may lead to a large and apparent improvement in quality.

This edition of the Journal confirms that we are not afraid of change, that we are willing to accept new ideas and challenges such as the deterioration of unusual materials used in contemporary art. We are willing to collaborate with others to arrive at new standards for the study of light ageing of objects and conservation materials. We set ourselves high standards by aiming for high academic qualifications and national awards. We discuss amongst ourselves, and with others, ways in which we could change what we do. Above all we communicate this widely and in the hope that those few key people may receive and understand the message.

# Oh, The Shark Has Pretty Teeth, Dear

Dr Alison Bracker
Research Assistant, RCA/V&A Conservation

The past decade has witnessed substantial and well-documented developments within British art practice and art history. The Turner Prize and its attendant exhibitions at the Tate Britain, successful and highly publicised exhibits at the Saatchi and Serpentine Galleries,[1] and the infamous *Sensation* shows in London (1997) and New York (1999-2000) have led to certain British artists and artworks acquiring international reputations and critical praise. Notably, however, these artists have created their most acclaimed works to date by using ephemeral or unconventional materials such as lambs, cows, and blood, pushing their materials' boundaries in ways that, until the end of the 20th century, were alien to fine art practice. The rates and deterioration mechanisms of such materials are virtually unknown to conservators and thus provoke challenging questions within the arenas of conservation, curating, collecting, and artistic practice.

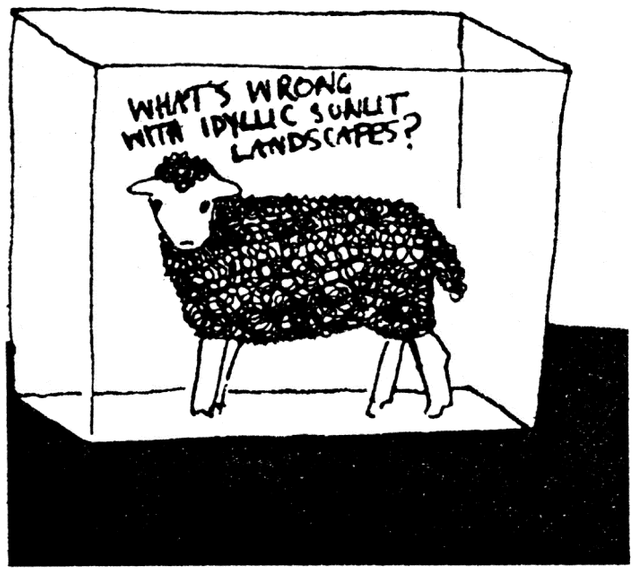


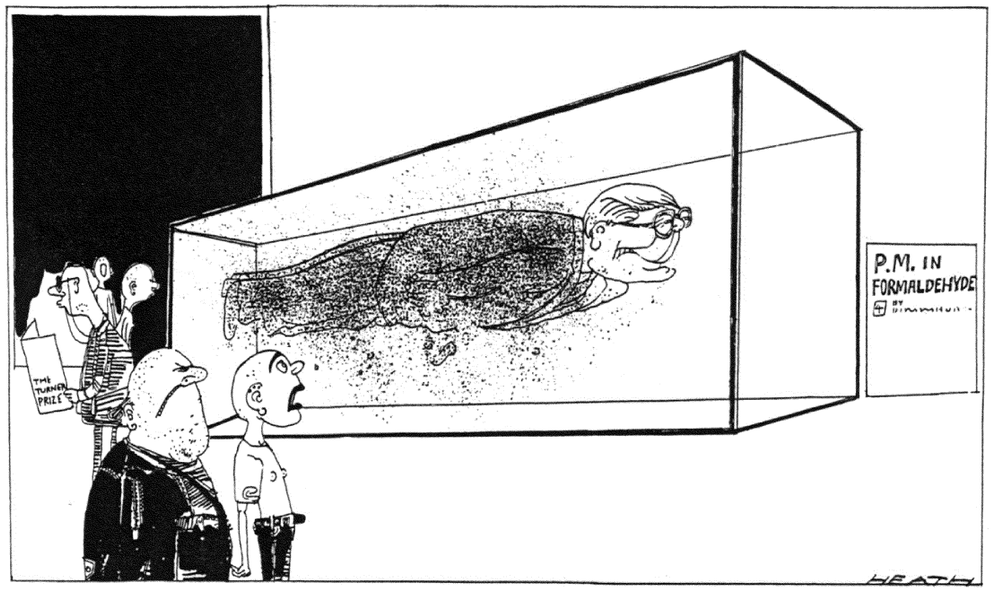

Figure 1. Min Cooper, *What's Wrong with Idyllic Sunlit Landscapes?* Reproduced with kind permission from Min Cooper.

One artist whose work prompts analysis of the ramifications of employing unusual materials is Damien Hirst. Hirst's work arguably epitomises the vicissitudes of contemporary artistic media, famously transmuting the tradition of landscape painting into sinister gallery installations (Figure 1). His most notorious sculpture, *The Physical Impossibility of Death in the Mind of Someone Living,* features a 14-foot tiger shark suspended within a glass tank filled with a 5% formaldehyde solution. Viewed from the front, the shark confronts the viewer with his teeth bared, seemingly poised for attack. "A shark is frightening, bigger than you are," Hirst declared,[2] and it is indeed these notions of power and danger that critics originally ascribed to the sculpture and often cited as one of its most important elements. Yet Hirst's shark has deteriorated noticeably since its creation in 1991. By 1997, when it secured the first gallery of the Royal Academy's *Sensation* exhibition, even casual observation revealed it to be straining its seams. I have yet to determine when this decomposition began, but Michael Heath's cartoon of a disintegrating John Major suspended in a Hirst-like tank (Figure 2) suggests that news of the shark's decay entered the public arena as early as 1992, only a year after the work's completion. In any event, it didn't take long for media comments about the shark's dilapidation to circulate. David Lee reported, "No sooner had the papers tired of [the shark] than further reports of it leaking and rotting…were drip-fed like plasma to news desks."[3] Norman Miller described it as "going soft" and noted that the formaldehyde formula Hirst employed was "not quite cutting the mustard. Unless a new formulation is found soon, the shark will droop."[4] And Kitty Hauser, in a caustic critique of *Sensation,* advised *New Left Review* readers to "look closely through the formaldehyde at Damien Hirst's shark…It is more than a little moth-eaten; the surface of its skin has been patched and retouched."[5]

I would argue that this decay potentially undermines the vital concepts of power and menace that the sculpture originally inspired. Its perceived softness blunts its power; its moth-eaten skin negates its element of danger. As Waldemar Januszczak lamented in 1997, "A sadder, smaller, less aggressive beast stares slowly at you from inside its mysterious glass coffin."[6] Stripped of its threat by deterioration, the shark no longer conveys Hirst's idea of menace contained. Nor does it realise his stated intention of making the shark look life-like in order








*'OH GOD! IT'S DISINTEGRATING!'*

Figure 2. Michael Heath, *Oh God! It's Disintegrating! The Independent,* 24 November 1992. Reproduced with kind permission from *The Independent.*

to represent "the obsession with trying to make the dead live or the living live forever" (Morgan, p. 24). Crucially, then, by weakening the sculpture's ability to embody its core concepts, the decay damages that which has rendered it one of the most important artworks of the past ten years.

Amazingly, *The Physical Impossibility of Death in the Mind of Someone Living* achieved cultural prominence almost immediately, a breathtaking achievement for a work by a relatively unknown artist. It was displayed at the Saatchi Gallery in 1992 for only a few months before disappearing from public view until 1997's *Sensation* exhibition. Yet a wide range of critics and art historians attest to its primacy within contemporary British art history. Januszczak, for example, has commented that the work "has been photographed so often, commented upon so frequently, that its place in the art history books is already guaranteed. Even those that have never seen it will probably have heard of it" (Januszczak, p. 4). Richard Cork described the sculpture as "one of the defining works of the decade"[7] and Gordon Burn related that,

> Photographers were constantly despatched to Boundary Road in North London and their pictures reproduced with the kind of frequency which invested the shark with considerable power as an image and deepened its mystery: silent, immobile, latently lethal, suspended for eternity in its secure vitrine, it became a kind of logo of the times; a blank and yet peculiarly charged emblem.[8]

Public fascination with the sculpture inspired myriad parodies, further emphasising its cultural eminence. Meyrick Jones' cartoon of 'Hirst's Mother' (Figure 3) especially reinforces the art historical significance of both artist and artwork by invoking the canonical stature of James McNeill Whistler and his most famous painting, *Arrangement in Grey and Black* ("Whistler's Mother"). Jones's allusion to Whistler seemingly accords Hirst and *The Physical Impossibility of Death…* the lofty cultural position enjoyed by Whistler and his painting, implying that the contemporary artist's work succeeds in the tradition of the earlier artist. The challenge that the sculpture's deterioration presents to conservators is therefore considerable. Not only must they face restoring to the work its ability to incarnate the concepts Hirst has endeavoured to convey, but they must also negotiate the thornier issue of the work's decay in relation to its iconic status.

Another conservation dilemma the sculpture generates involves its owner, Charles Saatchi, and the extent to which we expect him to assume liability for preserving the work. In fact, the shark's deterioration highlights the implications for the private collector of retaining responsibility for conserving impermanent works of art in general, and those currently deemed to be of national cultural value in particular. Whilst the confines of this article prevent me from fully exploring this issue here, it is important to note that whether Saatchi ultimately repairs, replaces, or relinquishes the work, embedded within all of these options are a complex array of ethical consequences. However, having commissioned Hirst's sculpture in 1991 and supported its exhibition

internationally ever since, we may presume that Saatchi sustains both a personal and a communal interest in preserving its integrity.

For Hirst, part of the work's integrity lies in its use of a 5% formaldehyde solution, a formula that may have hastened *The Physical Impossibility of Death…*'s dilapidation. Conservation scientists have queried the wisdom of employing a weak formaldehyde solution to preserve an entire shark, especially long-term. Yet a stronger solution would render the liquid cloudy, obscuring the shark, and might prove equally incapable of prolonged preservation. Hirst himself seems unconcerned. Speaking to Stuart Morgan, he revealed:

> I did an interview about conservation and they told me formaldehyde is not a perfect form of preservation…what are you going to do about it? I said I'm not going to do anything, that's the piece. They actually thought I was using formaldehyde to preserve an artwork for posterity, when in reality I use it to communicate an idea (Morgan, p. 61).

Additionally, he has claimed that the shark is incidental to the work, the formaldehyde crucial. "The huge volume of liquid is enough. You don't really need the shark at all," he wrote in his book *I Want to Spend the Rest of My Life Everywhere, with Everyone, One to One, Always, Forever, Now* (p.282). But in 1995, Hirst rejected a stronger (25-30%) formaldehyde solution for another formaldehyde-based work, *Mother and Child, Divided,* as unsuitable for his purposes, presumably due to its murkiness.[9] Hence, Hirst poses a dilemma for conservators contemplating his work. Whereas the sheer volume and opaline appearance of the liquid might be achieved through other stable, shark-friendly means which retain the actual effect of the work, he could credibly maintain that eliminating or adjusting the formaldehyde solution would alter the meaning of his work, and thus its integrity. As the shark continues to decay, and interventive measures seem ever more unavoidable, such ethical concerns will spring to the fore.

Whilst being interviewed in his Bloomsbury office in 1998, Hirst demonstrated his love of art by referring his interviewer to eight Andy Warhol silkscreen paintings. "'That man is dead,' he said, pointing to the Warhols, 'but his work is still here.'"[10] Ironically, the notion of immortality Hirst delights in may elude his own practice unless we evaluate the extent to which collectors, conservators, curators, and artists understand the unusual materials he and his contemporaries utilise, the ethical and practical problems they may engender, and potential solutions to their disintegration.

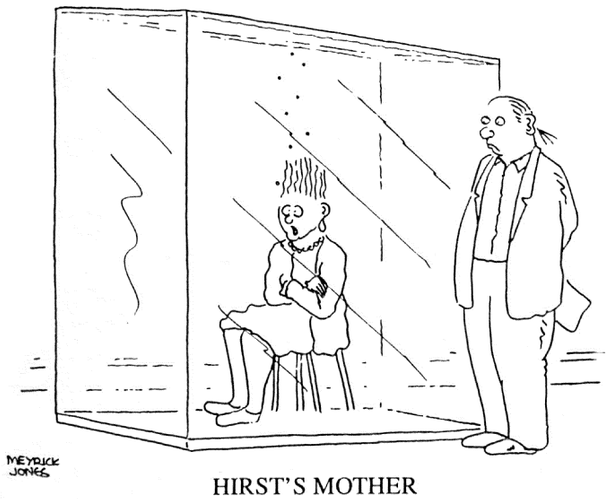



Figure 3. Meyrick Jones, *Hirst's Mother. Private Eye,* 17 June 1994. Reproduced with kind permission from *Private Eye* Magazine.

**Acknowledgements**
I am grateful to the Arts and Humanities Research Board and the Royal College of Art's Conservation Department for supporting my research into the conservation of ephemeral and unconventional materials in contemporary British art.

**References:**

[1] In particular, 'Young British Artists' and 'Young British Artists II' at the Saatchi Gallery in 1992 and 1993 respectively, 'Some Went Mad, Some Ran Away' at the Serpentine Gallery in 1994 (and then to Helsinki, Hannover, Chicago, and Copenhagen), and Cornelia Parker in collaboration with Tilda Swinton at the Serpentine in 1995.

[2] Stuart Morgan, 'Life and Death,' *Frieze*, pilot issue, Summer 1991, p. 24.

[3] David Lee, 'Damien Hirst,' *Art Review,* June 1995, p. 8.

[4] Norman Miller, 'Open-Art Surgery,' *The Independent on Sunday,* 6 December 1998, Review, p. 62; 63.

[5] Kitty Hauser, 'Sensation: Young British Artists from the Saatchi Collection,' *New Left Review,* no. 227, January-February 1998, p. 160.

[6] Waldemar Januszczak, 'Facing the Scary Art of Our Time,' *The Sunday Times,* 21 September 1997, Culture, p. 4.

[7] Richard Cork, 'Everyone's Story is So Different: Myth and Reality in the YBA/Saatchi Decade,' in *Young British Art: The Saatchi Decade,* eds. Robert Timms, Alexandra Bradley, Vicky Hayward (London: Booth-Clibborn Editions, 1999), p. 18.

[8] Gordon Burn, 'Is Mr. Death In?' in *I Want to Spend the Rest of My Life, Everywhere, with Everyone, One to One, Always, Forever, Now* by Damien Hirst (London: Booth-Clibborn Editions, 1997), p. 298.

[9] Dr Joyce H. Townsend, e-mail to the author, 11 April 2000.

[10] Peter Aspden, 'A Book, to Judge by Its Cover,' Financial Times, Weekend, 5-6 September 1998, p. iv.





# Wolbers' Course – A Review

Alan Derbyshire
Senior Paper Conservator, Paper Conservation

Following on from a suggestion by Senior Furniture Conservator Shayne Rivers, Richard Wolbers was invited to the Museum to give a course on his cleaning methods, funded jointly by the Conservation Department and the RCA/V&A Conservation. Richard Wolbers is an Associate Professor on the Winterthur/University of Delaware Program in Art Conservation in the U.S.A. He is also a practising paintings conservator. For the past twenty years or so, Wolbers has been developing cleaning methods that involve making solvent and water-based gels which are engineered to act in a way specific to the problem at hand.

The course was held over five days, from the 6th to the 10th of March inclusive. The morning sessions were held at the V&A and at the RCA and consisted of lectures from Wolbers on the chemistry behind his methods. (Most participants had attended a series of pre-course lectures on basic chemistry and Wolbers' theories, given by RCA/V&A Conservation Director, Professor Alan Cummings and Shayne Rivers in February.) These morning sessions were followed by practical sessions at the V&A's off-site store, Blythe House, in the afternoon. Some twenty six people attended Wolbers' morning lectures, with the afternoon practical session limited to twenty. Those attending the practical sessions were asked to bring along objects or mock-ups on which they could try out a variety of what, at first, seemed rather arcane recipes.

The first morning began with Wolbers questioning why conservators from different disciplines use methods and materials which are often thought of as being mutually exclusive. Paper conservators avoid the use of surfactants; textile conservators use them. Are there really valid reasons for these anomalies? The precedent was set – we would be required to think during this course! Wolbers then went on to give a general introduction to the theory of his cleaning gels. An initial and vivid case-study was described involving the treatment of a nineteenth century oil on canvas painting. This object was unvarnished but covered in a heavy layer of surface dirt and grime. Wolbers' approach to this cleaning problem was as instructive as the final choice of reagents. What is dirt? Answer: mixture of organic and inorganic materials (e.g. carbon, iron oxide etc) of different particle sizes. If the particles are greater than one micron in diameter then water alone is probably sufficient to remove them. If less than one micron, the bonding is not just electrostatic and the dirt is more difficult to remove with water and mechanical action alone. We may need chelating agents and/or surfactants. At what pH should we be working? Oil films can be more readily broken down at alkaline values. Pigments may be affected at acidic values. Therefore we need to buffer the solution in order to control its possible affects. Cleaning can easily leave behind an electrically charged surface which would attract more dirt. So we also need to take into account the conductivity of the materials involved. Ideally surface pH and conductivity readings should be taken before proceeding with the making of the alchemical potion.

As the week progressed and our understanding increased, the reasoning behind the choice of ingredients became much clearer and less mysterious. A typical recipe may consist of a solvent, a buffer, a salt, a surfactant, a chelator and a thickener. The other morning sessions were spent going over, in great detail, the thinking behind each genre of ingredient. Some people found this a little repetitive and felt that more time could have been devoted to practical work. However, most people found that the repetition was actually very useful in grasping the, at times, complicated chemistry. The afternoon sessions at Blythe House were very useful although the space available proved somewhat inadequate especially considering the number and variety of chemicals that were in use at any one time. At certain times it seemed that everyone was vying for Wolbers' attention concurrently – but he managed to cope with this very well. Most people had the opportunity to make and try out water, solvent and enzyme based gels with varying degrees of success. More importantly the exposure to the Wolbers' methods gave one confidence to try out previously unexplored approaches. Further, the course proved once again the benefits of inter-disciplinary learning. Tomorrow we turn lead into gold…

**Further reading:**

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Lang, S., A Review of Literature Published in Response to Wolbers' resin Soaps, Bile Soaps and Solvents Gels, Final Year Research Project, RCA/V&A Joint Course in Conservation, 1998.

Lang, S., Not So New Methods of Cleaning, V&A Conservation Journal, No. 32, pp15-16

Wolbers, R., Aqueous Methods for Cleaning Painted Surfaces, edited by J. Townsend published by Archetype Books, London 2000

**Acknowledgements:**
I would like to thank participants in the course for their feedback, reflected in this review. Special thanks to Richard Wolbers and to Shayne Rivers, Alison Richmond and Abigail Wright for organising the venues and materials.

# Conservation of Indian Mica Paintings

Mike Wheeler,
Senior Paper Conservator, Paper Conservation

**Introduction**

The V&A has a collection of about seven hundred paintings on mica originating from India which include examples from Murshidabad, Patna and Benares in eastern India and from Trichinopoly in southern India. Most of the examples at the V&A date from the mid-nineteenth century. Popular subject matter included Hindu gods and goddesses, religious events, trades-people and flora and fauna of the sub-continent. The majority of these paintings were produced in standard sets for the colonial tourist market. They imitated paintings on glass, which were popular in Europe and were also used in India by artists for preserving tracings of their family paintings and to decorate glass for temple lanterns[1]. The paintings from Trichinopoly are small in size (120 x 90 mm) and are painted on one side of very thin, flexible sheets of mica. A particularly interesting series from Patna dating from 1860 show the production of opium, (Figure 1). These are painted on slightly larger (160 x 200 mm) thicker sheets of mica and are painted in thick watercolour on both sides of the transparent support. The mica paintings were identified as a priority for treatment and re-housing in a survey of works of pictorial art in the Indian department carried out by Paper Conservation in 1994.

**Mica**

Mica is a transparent mineral composed of complex mixtures of potassium silicates. The variety of mica used most frequently by these Indian artists is Muscovite ($H_2KAl_3$ $Si0_4)_3$ which is found widely throughout south India. The mica is formed between strata of granite and the transparency of the material is a result of the heat and pressure created between the layers of rock during formation. Mica consists of many interlocking platelets, resulting in a laminar structure which can be split easily into thin sheets.

Mica presents many problems as a support for painting on due to the smooth surface as this provides very little key for the paint to adhere to. Examination of a sample of the paintings on mica in the V&A has revealed a variety of painting techniques, but little or no preparation of the mica prior to the application of paint. The pigments used were mixed with varying quantities of binding medium and thickly applied with a brush. In a few instances paint has been brushed on to both front and back surfaces of the mica sheet to increase the opacity and give a more three dimensional appearance to the painting. The relatively thick nature of the applied paint implies that the artists did not necessarily intend the paintings to be viewed by transmitted light.

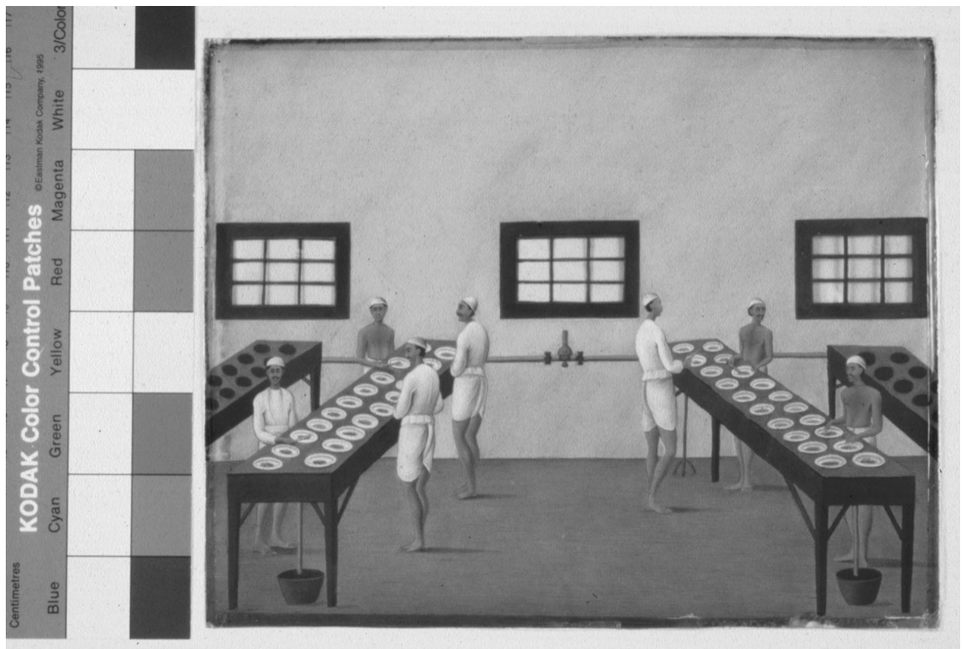



Figure 1: *Opium Factory at Gulzarbagh, Patna*, I.S 07361, by Shiva Lal c.1857

Photography by: M. Wheeler





**Condition**

Considerable damage has occurred to these mica paintings as a result of the way in which they had been previously mounted and stored. Small blobs of adhesive had been used at the corners of the paintings to attach them to sheets of thin card. The smaller paintings were mounted together in pairs and the front of each sheet was wrapped around the back and secured with self-adhesive tape. The mounted paintings were then crammed into three filing cabinet drawers. The creation of the new Indian Study Room in 1989 allowed for extended, on-site storage for Indian objects and gave the opportunity to act on the findings of the 1994 survey.

The adhesive used to attach the paintings to the old mounts had discoloured considerably causing unsightly brown marks at the corners of the mica. There were some instances of cracking or de-lamination due to the movement of the card in response to changes in humidity causing the mica attached to it to bend. De-lamination of the mica, which results in a loss of transparency, may also occur as a result of careless handling and this may account for the damage observed on unmounted objects. Mounted objects were more prone to complete fracturing of the mica in areas where it was attached to the card, whereas unmounted objects showed signs of slight de-lamination around all of the edges.

Most examples in the collection have some paint losses, (Figure 2). Distortion of the mica sheets had caused detachment of the watercolour from the smooth surface of the mica. The relatively large proportion of gum arabic medium and any humectant added may have rendered the paint layers more or less hygroscopic. Differences between the paint layers could cause peeling and paint loss. In addition the paint layer may have been damaged by the cellophane covering material sticking to it, exacerbated by the heavy compression during storage.

**Paint Consolidation**

Before embarking on the consolidation of the paint film two different consolidants and treatment strategies were tested. The lack of adhesion to the mica support and between paint layers necessitated the choice of a consolidant with low viscosity, but reasonably high strength. The two chosen consolidants were 5% (w/v) Paraloid B-72 (ethyl methacrylate/methyl acrylate co-polymer) in acetone and 2 % (w/v) isinglass (fish glue) in water to which a small amount of Industrial Methylated Spirits had been added. The relative gloss of the consolidant films at this degree of dilution was not considered a problem, as the solution was being applied to areas of loss and lifting flakes, rather than being applied over the surface. Two or three brush applications were usually sufficient to anchor unsecured

Photography by: M. Wheeler

Figure 2: Detail showing paint loss, *Group of Female Musicians*, I.S 02198, by Shiva Lal, 1860.

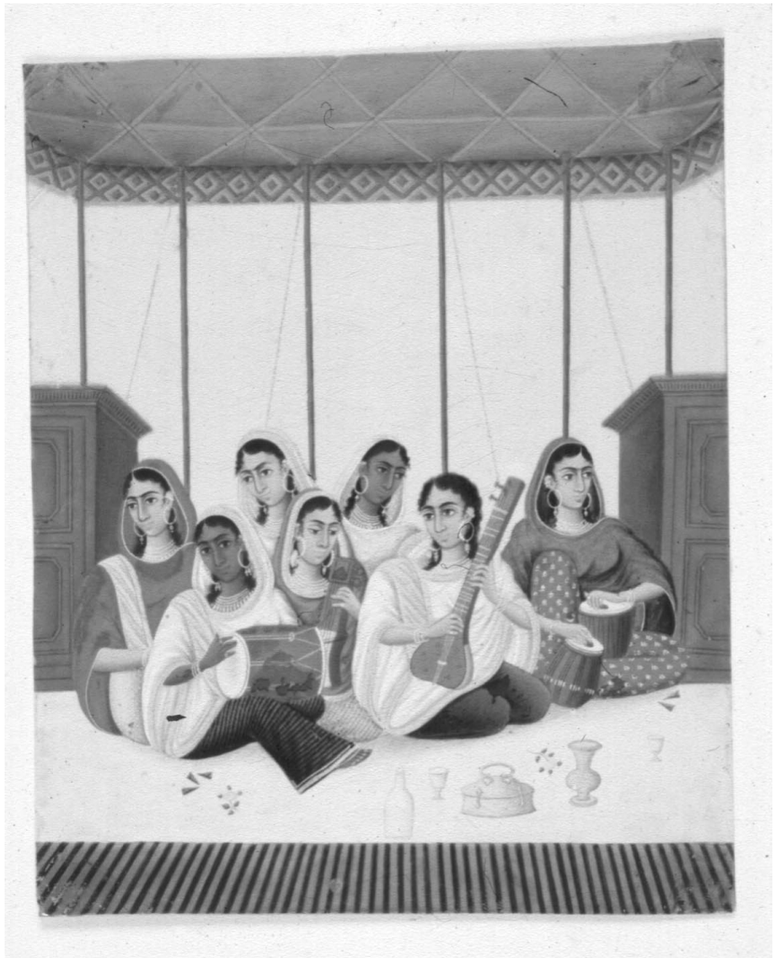
flakes of paint. After each application the area was covered with thin, non-woven polyester (Bondina™) and a strip of felt and weighted down to help re-adhere flakes. When Paraloid B-72 was used, excess was removed from the surface of the paint with acetone on cotton wool swabs. Surplus isinglass was harder to remove without disturbing the paint surface. Swabs moistened with water or saliva were used for this purpose. Paraloid B-72 was finally chosen to secure loose flakes of paint. It was selected in preference to isinglass because of its superior strength and its ease of removal from the paint surface. The treatment of a small number of mica paintings was carried out and the results assessed.

**Removal of Paintings from Supports**

This stage was only begun once the paint film had been thoroughly consolidated. It was then possible to handle the paintings safely. This enabled the mounts to be split with a palette knife and the remaining patches of adhesive and card on the back side to be pared away with a scalpel. Remnants were then wetted locally with water and rolled away from the back of the mica. Residual adhesive was reduced with water on cotton wool swabs.

**Repairs**

Adaptations of techniques used for conventional paper repair were used to help strengthen weakened and damaged areas of mica. A slightly more concentrated solution of Paraloid B-72 (10% w/v in acetone) was used as an adhesive to repair de-laminated areas of mica around the edges of the paintings. This was fed between the mica layers using a brush and the area was then weighted down. Splits and tears in the mica were reinforced on the verso using thin clear polyester (Melinex®: 25 micron) adhered with 10% Paraloid B-72 in acetone. These reinforcing strips were cut 5-10 mm larger than the area requiring strengthening to provide an overlap. The Melinex® proved transparent enough to provide an aesthetically pleasing repair, whilst giving sufficient strength to prevent further flexing or tearing. Nylon gossamer was also tested as a repair material, but proved to be too visible due to its greater opacity when coated with adhesive. Missing areas of mica could also be in-filled with different thicknesses of transparent polyester sheet. In the case of the paintings from Trichinopoly an in-fill of 75 micron Melinex® was inserted into a small loss with a sparing application of adhesive to the edges of the break and to the repair. This area was then reinforced with the 25 micron Melinex®, which overlapped slightly onto the verso of the mica. The lighter weight polyester was pasted out all over with 10% Paraloid B-72 adhesive. After positioning the repair and the backing the painting was protected with Bondina® (spun-bonded polyester) and a light weight put in position to assist adherence of the layers whilst drying.



Photography by: M. Wheeler

Figure 3: *Group of Female Musicians,* after conservation, showing retouching on Melinex®.

**In-painting**

Small losses were retouched with artists pigment mixed with Paraloid B-72 dissolved in methyl proxitol, a solvent with a slow evaporation rate. This proved very satisfactory for in-painting small missing areas, especially when the retouching was applied with short hatching strokes to build up the required opacity. Compensating for large areas of loss necessitated a different approach to achieve an aesthetically satisfactory result. In such cases the re-touching was applied to a sheet of 125 micron Melinex®, which was then slipped behind the painting (Figure 3). This technique allowed the eye to appreciate the painting as a whole without being distracted by the damaged areas, but was only suitable for those paintings with major paint losses which were later encapsulated. The painting and the backing sheet with the retouching painted on it were held securely in position within the encapsulation by spot welding the polyester at the corners.

**Mounting**

After some experimentation, three basic options were considered – encapsulation, partial encapsulation, and inlay into a sheet of Melinex® of the same thickness as the painting. In most cases, for reasons of speed and for maximum protection of the pigment surfaces, the paintings in this collection were encapsulated between sheets of 125 micron Melinex®, which was then sealed with an ultrasonic welder. A gap of about 5mm is left between the edge of the object and the welded seam. Two spot welds are made at each corner to prevent the painting slipping inside the enclosure. This allows the edges of all of the paintings to be shown without seeing the edge of the top sheet of the polyester enclosure. A further advantage of this method is that it allows the accession number of each object to be incorporated into the enclosure beneath the painting in an area which is hidden by the window mount.

A technique of partial encapsulation – where the centre portion of the encapsulation is removed – has already been used successfully at the V&A for the display of fragile gouache paintings on tracing paper with very friable surfaces. It has the disadvantage that the edge of the polyester is visible when the object is positioned in a window mount, but does allow the surface of the painting to be seen without covering it.

Inlaying the painting into a sheet of Melinex® of a similar weight and thickness is another option. The mica painting is held in position in the inlay with 5mm wide strips of 25 micron polyester, attached to the verso with Paraloid B-72 adhesive. This method is only suitable for those paintings with paint on one side only. The inlaid painting is then attached by the top edge of the inlay to a backing sheet of a thicker, stiffer Melinex®(125 micron) to provide overall support. The advantage of this method is that the polyester does not contact the fragile paint surface, but allows the painting to be mounted back to the edge of the image.

The smaller encapsulated paintings from Trichinopoly were mounted together in groups of four in standard sized Museum mounts. These were fixed to the backing boards of the window mounts with transparent photographic corners using double sided tape (*3M 415*®) The larger paintings from Patna and from Benares were mounted together in pairs using the same system. In all cases the system of total encapsulation was used at the V&A because of the greater protection it afforded to the paintings and in order to have a single unified mounting system. The inlay and partial encapsulation options show promise when smaller numbers of paintings are involved. The remounted objects are now stored in solander boxes in compact shelving units in the Indian Study Room[2].

**References:**

[1] Archer, M. *Company Paintings. Indian Paintings of the British period.* Victoria and Albert Museum, 1992, pp 193-201.

[2] Visits to the Indian Study Room can be arranged by appointment

# Conservation Scientists' Group Meeting: Accelerated Light Ageing

Graham Martin
Head of Science, Conservation Department

Another successful and popular meeting of the Conservation Scientists' Group was held at the Tate Gallery, London on Wednesday 23rd February 2000. The particular topic of discussion for this session was 'Accelerated Light Ageing in the UK' – an all day meeting with the morning session dedicated to presentations from eight users of light ageing equipment. The afternoon session was given over to open discussion on the topics raised in the morning session.

Participants attended from across the UK with an obvious bias towards the London based groups due to the ease of travel. Thirty six delegates were registered to attend. The titles of the morning presentations had a remarkable resemblance to each other in that they all followed the format of 'Accelerated light Ageing at …….' and one could fill in the name of the various institutions. However, this uniformity of title did not reflect the varied content.

The host organisation made the first two presentations with Joyce Townsend (Tate) describing the history of the subject at that organisation and the reasons for undertaking such testing. Christina Young (Tate and Imperial College) followed with the work of the team concerned with the mechanical deterioration of paintings and introduced the fundamental question of the need to control temperature and relative humidity. René Hoppenbrouwers (Stichtung Restauratie Atalier Limburg, Maastricht) described a bespoke light ageing chamber designed specifically to answer the queries raised from the MOLART[1] Dutch project – a unit derived from a wine storage system. Alan Phenix (Courtauld Institute of Art) covered the reasons why it is necessary to undertake accelerated light ageing and these may be summarised as follows:

- to evaluate durability
- to investigate mechanisms of decay
- to prepare appropriate aged material.

Alan also highlighted the practical difficulty of undertaking light ageing experiments in the student context where there are very fixed deadlines and often short time periods in which to complete the work. The next presentation was from David Saunders (National Gallery, London) describing the different models of light box that have been used at the National Gallery – how each successive model achieved its target of bringing the exposure temperatures down to a more realistic and acceptable level. Vincent Daniels (British Museum) also presented the progression through the different models of light box used but he also introduced material other than painted/pigmented film to the meeting in the guise of 'Peat Bog Man', paper bleaching and coin corrosion issues. The Bullerswood carpet fading experiments were presented by Boris Pretzel (V&A) giving experimental detail and some early results of the micro-fading process. Marianne Odlyha (Birbeck College) presented the EU funded Environmental Research for Art Conservation project and the damage dosimeters that this team were preparing for general usage.

The afternoon session was dedicated to open discussion. In particular the following key points were tabled:

- UV versus UV filtered light source
- Temperature control
- RH control
- Pollutants
- Illuminance measurements
- Commercial production of a suitable unit

Without giving a detailed account of the discussion, the outcomes can be summarised as follows:

- It is easier to design a system that includes the UV portion of the spectrum and then add filters to remove it if not required
- Temperature control – no agreement on set point could be reached but some means of control was essential
- The discontinuance of the Blue Wool standards from the Society of Dyers and Colourists could cause difficulties
- A standard dark time after light exposure would be preferable – no agreement was reached on the actual dark time
- An appropriate range of suitable lamps could help to establish conformity within the community
- A round robin series of tests to establish system comparison should be undertaken

I formed one opinion in particular during the day concerning the use of accelerated light ageing apparatus. Only the British Museum presentations and the V&A presentation dealt with media other than paints or films. I appreciate that it is in the area of pigments that light damage is of concern but the British Museum presentation dealt with possible corrosion processes caused by, or accelerated by, light. Any apparatus that we do come to some agreement on should be capable of use for these other materials.

**References:**

[1] Molecular Aspects of Ageing in Painted Works of Art: MOLART is a 5-year co-operative project between art historians, restorers, analytical chemists and technical physicists funded by the Netherlands Organisation for Scientific Research (NWO). The object of MOLART is the development of a scientific framework for the conservation of painted art on the molecular level.





# Conservation Treatment of a 17th Century English Panel Painting

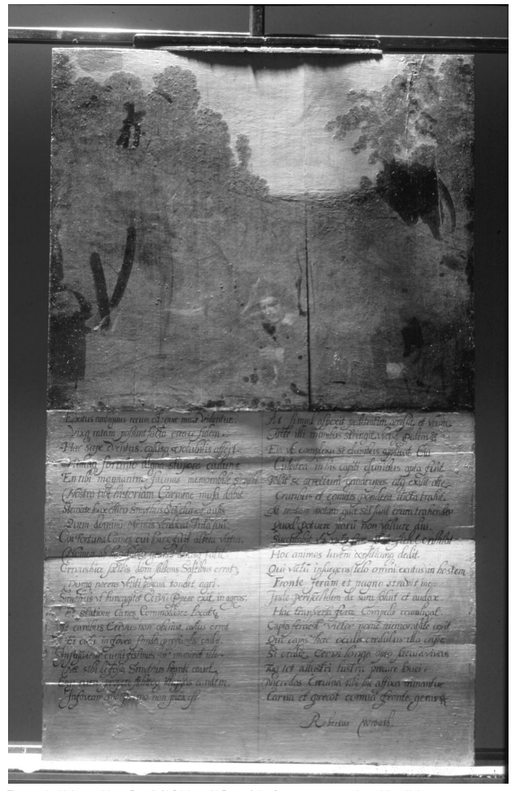
Annabelle Mills
Intern, Paintings Conservation

**Introduction**

In 1945 the Museum acquired an unusual English, 17th Century oak panel painting (W19 -1945) from Hill Hall in Essex. The painting consists of two parts: a picture panel depicting a man grasping onto the hind legs of a stag; and a panel with twenty lines of verse describing the event, (Figure 1). It tells the tale of Colonel Sir William Smith (1550-1626) of Hill Hall and how he gained a reputation for bravery when he chased a stag, which had strayed into his grounds. As the stag attempted to escape its hunter, it fell into a pit and so did the hapless Colonel Smith. Seizing his opportunity, Colonel Smith grabbed hold of the stag's hind legs and as it leapt from the pit, he held on and was dragged out too. Being unarmed, he beat the animal with his fists and tied it up with his garter. And so the story was committed into verse by Robert Wroath, a poet and neighbour of the brave Colonel.

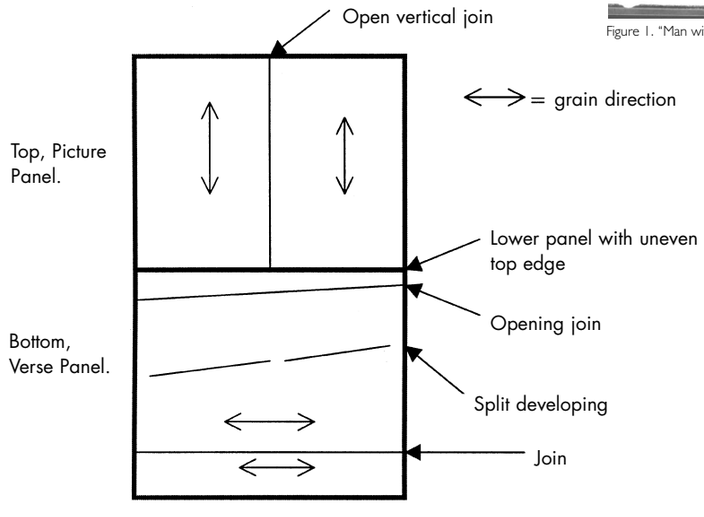
**Structure and Condition of the Painting**

The painting had severe structural problems mainly due to its crude panel construction. The whole object was made up of five pieces of oak of varying sizes and widths. These had all been butt joined together as seen in the diagram below.



(Photography by V&A Photographic Studio).

Figure 1. "Man with a Stag" (1011 x 613mm) before treatment in raking light.




The join between the image panel and the verse panel did not appear to be original since the upper part of the letters of the top line were missing, suggesting it had been planed down.

An X- radiograph of the join showed that it had originally been reinforced with metal dowels but these had since been cut when the two panels were separated. When they were re-glued, the join and the edges of the whole panel were reinforced on the reverse with a series of wooden battens. These were attached with animal glue. By joining together two panels with

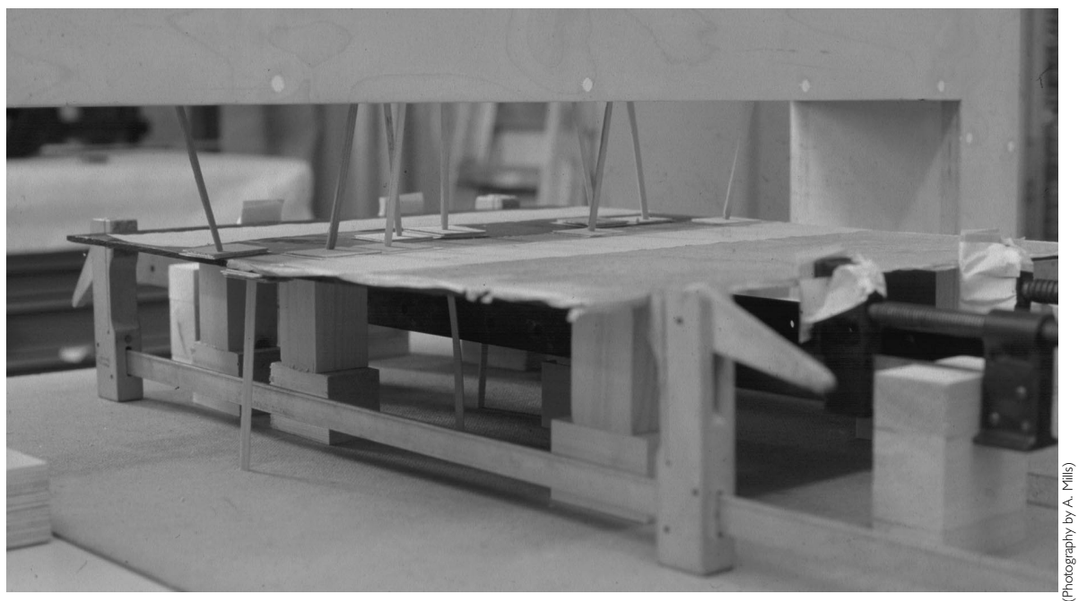
conflicting grain direction, problems within the structure were always going to arise because of the stresses caused by expansion and contraction of the panels in response to environmental changes. This was compounded by the series of battens on the reverse. Also, as the top panel had a concave warp and the lower panel convex, the stresses produced caused the splits in the panels. To prevent further damage, the series of battens had to be removed to allow the panels to find their 'natural' shape again. The movement in the wood had caused flaking and loss in the paint and ground layers. Layers of overpaint were found along the joins and a discoloured varnish covered the whole surface.

**Treatment**

Before any structural work took place, the flaking paint was consolidated with isinglass. The varnish was removed with a mixture of Stoddard Solvent and propan-2-ol (5:3 ratio); the overpaint with an Industrial Methylated Spirit (IMS) gel. To protect the paint layer a brush coat of Ketone N varnish was applied followed by a facing of Eltoline tissue adhered with Beva 371. Areas along the joins and splits remained uncovered so that it was possible to check they were flush before allowing the adhesive to set. The panel was laid face down onto a Plastazote® cushion and the wooden battens removed by injecting IMS with a syringe at the point where they joined the back of the panel. Once all the battens were removed, the join between the two panels failed and they were separated. The top picture panel divided into two when its vertical join failed and the lower verse panel also separated into two horizontal pieces. All the glue around the edges of the panels was softened using water gelled with Laponite and removed by a cotton swab.

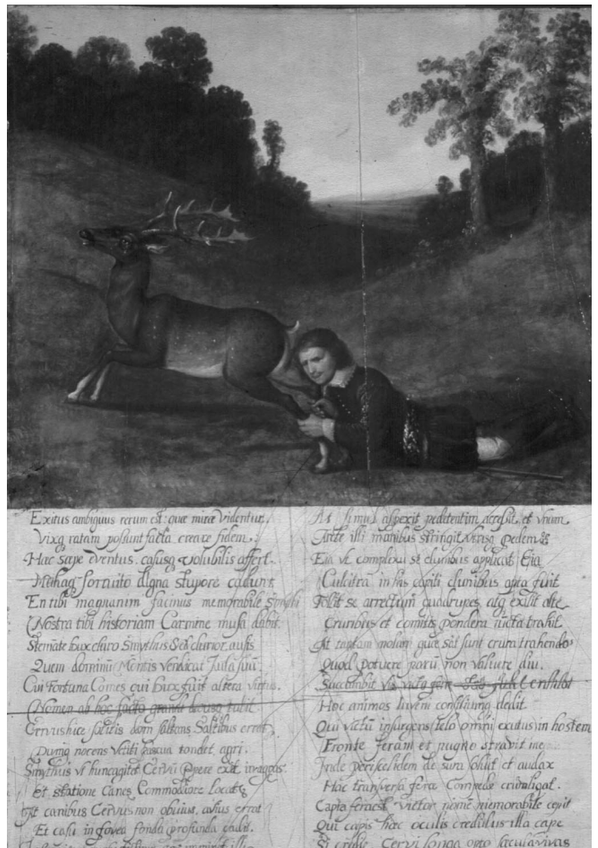
The panels were then placed in a humidity chamber at 54% RH[1] for three weeks to allow them to adjust to ideal environmental conditions. Once stable, the panels' shape would be maintained by framing them in a microclimate of the same conditions. To glue the panels back together a "re-joining" jig was constructed[2] (Figure 2). This consisted of a wooden bridge that spanned the join or split that required re-gluing. The panel rested on a series of blocks keeping it equidistant from both the table and the "jig bridge". Thin wooden sticks were positioned above and below the panel wedged between the table and the bridge. They were cushioned with paper and silicone release paper. By exerting a little pressure at strategic points they provided a simple method of allowing small adjustments to be made to either side of the panels to achieve an accurate level join. Sash clamps were used to close the join or split. By using a cold setting fish glue the working time was extended to thirty minutes and allowed longer handling of the panels to achieve the best join.

With both the image and verse panels now re-joined it was decided not to glue them back together as the structural problems caused by the grain of one panel running perpendicular to the other would recur. Although the join was not original, the remains of the metal dowels indicated they had once been one complete piece. A photograph from a 1905 edition of Country Life featuring Hill Hall showed the picture displayed as one piece in its current frame[3]. Although, as this frame is not original to the panel, it was felt that careful framing of the two panels together would be the solution to their display.



(Photography by A. Mills)

Figure 2. Rejoining the top panel using the "jig-bridge"



(Photography by V&A Photographic Studio)

Figure 3: The panel after treatment

The facing and varnish were both removed using Stoddard Solvent and an isolating layer of MS2A varnish in white spirit was applied. The joins in the panels were filled with a mixture of chalk bound together with Mowiol 4-98 (Polyvinylalcohol) in water. Retouching of the fills was carried out using egg tempera with dry pigments. Three words in the verse panel had to be left incomplete because insufficient original paint remained to replace the words correctly. Despite help from Latin scholars no one could determine what the words should be to fit both the meter and the meaning of the verse.

**Artist's Technique**

Cross section analysis and XRF were used to determine the technique and pigments used by the artist. These indicated the use of a white chalk ground to cover the panels followed by a grey oil priming. The blue pigment used in the sky was found to be smalt. This was commonly used in the seventeenth century being much cheaper than ultramarine but by the 1730s it had been overtaken in use by the discovery of Prussian blue In the foliage the artist employed a combination of lead tin yellow, azurite, vermilion and earth colours. Lead tin yellow was in common use until the mid-eighteenth century. The pigments suggest that the painting is more likely to date from the seventeenth than a later date. Infrared Reflectography and XRF analysis of the red lettering in the verse panel revealed them to be painted in two different pigments. The red letters on the left side contain vermilion, red lead and earth pigments whereas the red letters on the right side only contain red lead. There doesn't appear to be any clear reason why this should be, perhaps just an artist's whim. There is a large s pentimento clearly visible when viewed with Infrared Reflectography. The original position of Colonel Smith was further to the right of the picture. Had he remained there his legs would have ended up crushed into the composition. The artist realised his mistake and moved him accordingly.

**Framing**

Since the two panels were not going to be re-joined it was important that their framing would maintain the integrity of the object and not produce any obvious changes from its original display. The frame was not original so it was felt it could be modified to accommodate two separate panels. An L- shaped wooden strip was cut to fit across the width of the existing frame and was countersunk into the rebate providing a "shelf" for the top panel to rest on. The strip was lightly gessoed and painted black to match the frame and to minimise its visual impact. The slips of the frame were lined with velvet ribbon and Plastazote® blocks were placed in all the corners to allow for any movement in the panels. The panels were held with brass strips. A microclimate was created for the panels by achieving a good seal between the frame, the low-reflective glass and a non-porous backboard. The frame rebate was lined with aluminium barrier foil attached with Beva film to minimise air transfer.

**Acknowledgements**

I am grateful to Raymond Marchant, Simon Bobak and Tony Reeve for their advice; Katharine Donaldson and Fran Downie; Jeremy Morse for his translation of the Latin verses (If you wish to see the full verse please contact the Painting Conservation, V&A).

**References**

1. Goddard, P., *Humidity Chambers and their Applications to the Treatment of Deformations in Fabric – Supported Paintings,* The Conservator 13, 1989.

2. Original idea by painting conservators in private practice, Simon Bobak and Ray Marchant

3 Latham, C., *Hill Hall, Essex, In English Homes,* Country Life, Vol 11, 1907.

# Review of the Conservation Staff Residential Meeting

Zenzie Tinker
Senior Textile Conservator, Textile Conservation

With such wonderful sea front views, the Queen's Hotel, Brighton would have been a good base for beach-combing and shopping along the lanes. But when about one third of the Conservation Department met there on a bright, cold February morning it was for the more weighty task of a two day residential meeting, to discuss some of the key issues facing the Department at the start of the new century. The participants were chosen to represent a range of experience and responsibilities across the Department including the Senior Management Group and Section Heads together with newer members of the Department and students.

In his introduction, Jonathan Ashley-Smith mentioned that this Department residential forum, like the previous two in 1991 and 1994, coincided with periods of great change within the Museum. He said that we should not be unduly worried by change because, as a Department, we are well used to coping with it. The changes we currently face are two-fold. Externally the Museum is adapting to meet new Government policies concerning, amongst other things, greater access and wider social inclusion. Whilst internally the Museum is evolving a new management structure that places the Conservation Department within the soon-to-be-created Collection Services Division. A more project-based way of working is also being adopted by the Museum. Within this context, we were in Brighton principally to discuss quality; how we define it in terms of our work, how we can maintain it and how we can improve it. Guiding us through our heavy schedule was Kathryn Cornish from the V&A Training Section, our facilitator for the two days.

Quality is one of those 'spin' words we are used to hearing but high quality work is also something conservators care passionately about. Quality is after all, at the centre of our profession's new accreditation scheme, a competence-based assessment by our peers. We discussed how it might be useful, internally as well as externally, to define quality conservation and to explore the possibility of a *Conservation Charter.* If we can define quality conservation as we see it, we can then use it as a benchmark to judge ourselves against. We could then communicate it to others for the same purpose. Our clients were represented by Gwyn Miles, Head of Major Projects at the V&A and Laura Drysdale, Head of Specialist Services at the Museums and Galleries Commission, now incorporated into Re:source. Deborah Swallow, Senior Chief Curator at the V&A was unfortunately, at the last moment, unable to attend.

Our discussions examined what we perceived to be our strengths and weaknesses as a Department. It was of great interest then to hear what our client representatives thought of us and their views added greatly to the discussions, both during the official sessions and after. Perhaps reassuringly, Gwyn Miles felt that the Department is fulfilling the expectations of the V&A as a whole but she thought that we suffered from an "island mentality" within the Museum. Whilst Laura Drysdale described us as iconic for our excellence, she questioned our relevance outside the Museum – to regional museums and to the public – and felt that we should be questioning our relevance too. The island metaphor was discussed at length particularly as communication came up as a key issue, as it has done before. Communication is probably at the root of an interesting dichotomy that seems to exist about Conservation. Whilst it seems that conservators and the Conservation Department are perceived by others as always saying "no", conservators themselves feel they are constantly saying "yes" and are accommodating increasing demands for compromise. It was acknowledged that real or imagined conservation concerns could be used by others as an excuse to say "no" in order to serve their own purposes.

Gradually our discussions were honed down, with the help of Kathryn Cornish, to a series of action plans to be taken back for further discussion with the rest of the Department, within the Sections and at a follow-up day involving the whole Department. On a personal alevel and as a relatively new member of staff, I found the residential extremely encouraging. It is good to talk and the themes were very relevant and therefore useful. For those of us who are not Section Heads, the opportunity to discuss such issues and to do so outside of our own Sections was perhaps particularly welcome. The varied format of the discussions both in the full group and in smaller teams, encouraged everyone to contribute. In his summing up, Jonathon Ashley-Smith said that he felt that the Department was already good at transmitting its message but that it was aimed at too limited an audience. Improving our scope will necessitate our becoming better receptors.

The residential was hard work and whilst the sea air and the excellent dinner at the Strand Restaurant helped to alleviate the strain, it is a shame that for economic reasons the whole department could not have been included. Before and after the residential, I have heard expressions ranging from disappointment to relief from colleagues who were not invited; both ends of the scale would have benefited from going. Hopefully, given time and some further development, the positive effects of the residential will be felt by the whole department and subsequently the Museum.

The success of the residential meeting had much to do with Alison Richmond's (Tutor, RCA/V&A Conservation) excellent planning and organisation of the event. Thanks are also due to Kathryn Cornish who guided us quietly but firmly and to Gwyn Miles and Laura Drysdale for their stimulating contributions.


Photography by Clair Batisson

Carousel, Brighton Beach

# Improved Methods of Storage for Illuminated Manuscript Fragments on Parchment

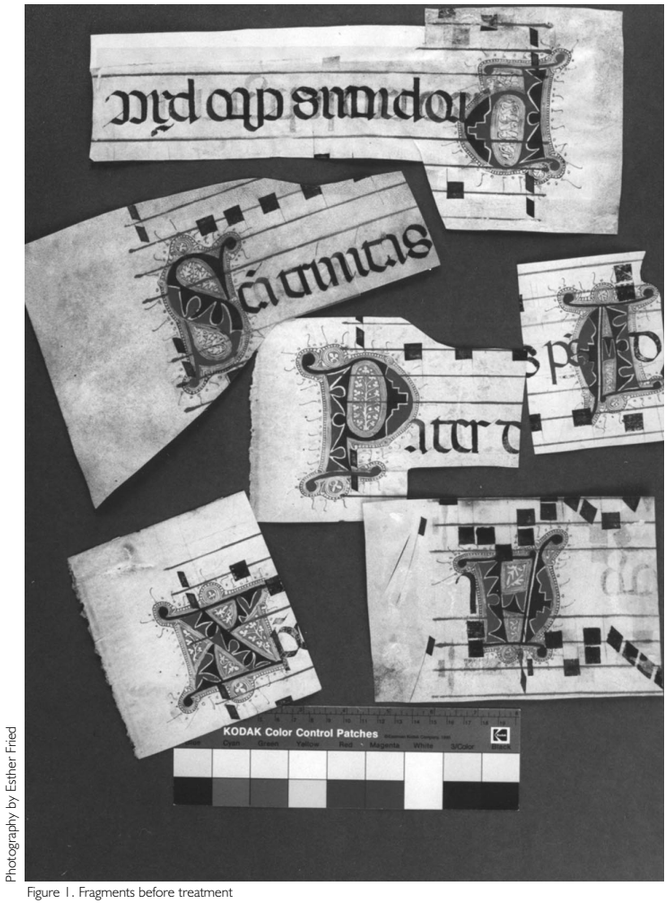
Esther Fried
Intern, Paper Conservation

**Introduction**

The collection of illuminated manuscript fragments in the National Art Library (NAL) at the V&A, reveals the 19th century enthusiasm for Medieval illuminated manuscripts both as a work of art and as a subject for research and study. It consists of highly decorated initials and images which were cut from texts, and of whole pages taken from choir books or holy scripts[1]. The collection is comprised of many fragments of different sizes, and prior to this project were stored in the NAL's archive in six drawers of a plan chest. One hundred and forty seven larger items were mounted on acidic boards, hinged to or loose in their mounts. These needed cleaning and minimal conservation treatment. Labels and inscriptions on the mounts gave information about their circulation. They were grouped according to their country of origin. Two hundred and thirty three smaller fragments were stored loose in archival envelopes without any interleaving. Many of these were flat, decorated letters and initials, but some envelopes contained high relief illuminated letters in pigments and gold. The main aim of the project was to re-house the collection and to allow improved, safe and convenient access to it for research purposes. The NAL staff and the curator, Dr Rowan Watson, were consulted throughout the process of planning and work.

**Design and Construction of Storage Enclosures**

The primary need prior to re-housing the collection was to carry out a thorough survey to establish fragment type and condition, as well as recording their dimensions and any historical information. A representative sample of object types were taken to the studio and studied in order to design various storage solutions. During the design phase various characteristics of the fragments were considered. For example, parchment tends to move and distort when exposed to changes of environment – fluctuation in relative humidity and temperature being of prime influence. The media (iron gall ink, pigments and gold) are sensitive to manipulation of the support or abrasion, especially when in a degraded or friable state. The weight of the paper support and the method of hinging were also considered so as to allow adequate space for possible movement in the parchment. Tests were made to find the ideal mechanism for opening the page and observing the objects on both sides, as well as protecting them before turning the page over. Size, weight and media sensitivity of the objects dictated their placement in the different enclosures, as well as safe handling requirements. In consultation with Book Conservation, Conservation Mounting and NAL curators, three storage solutions were developed:




Photography by Esther Fried

Figure 1. Fragments before treatment

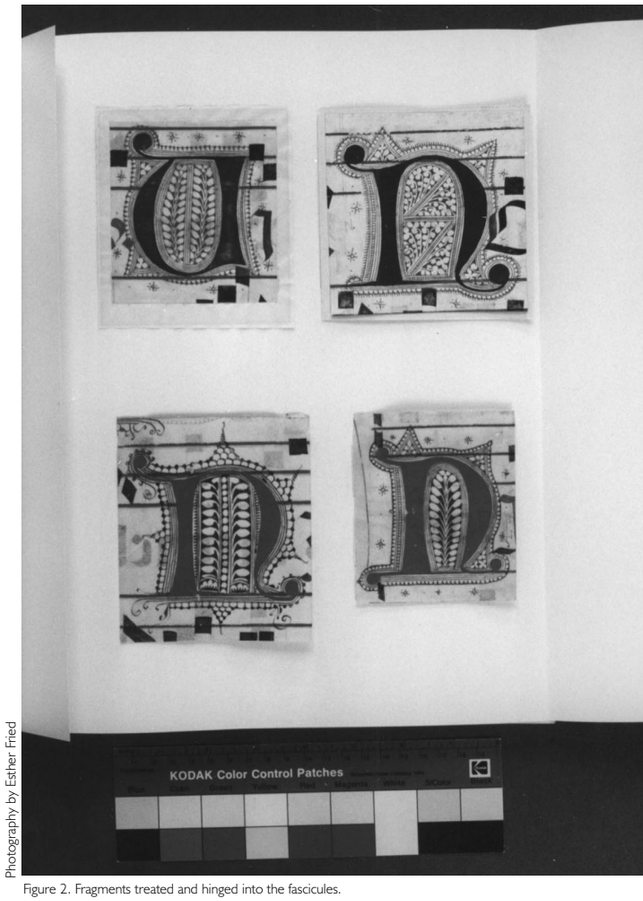
1. *Fascicules:* Fragments which were simply illuminated initials in blue and red and where the parchment surface was mostly flat and stable, were to be placed in fascicules. Fascicules are a single section binding developed by Christopher Clarkson, at the Bodleian Library, Oxford, in 1980[2]. (The fascicule is sewn to a five hole pamphlet binding with a cover of manila grey card, 225gsm) This binding consists of bifolios and extended single leaves to form the stubs. A special jig[3] was made in the V&A Joiners' workshop to Christopher Clarkson's specifications to assist with the accurate positioning of the folios. Eleven made of 160gsm archival rag endleaf paper were sewn, creating a wider stub and an extra flap to cover the objects for their protection. The fragments were hinged with plenty of space around each fragment, to be viewed on both sides, with the stub providing the protective space above them. The fragments took up eight fascicules which were then stored in groups of four in Archival Die Cut™ storage boxes (Type C7 P).

2. *Enclosures:* – Careful handling and additional protection was required for those fragments which were cockled, had friable pigments, or which had ornament in high relief and applied gilding. This type of enclosure was also appropriate for borders and pages which were in a weak condition where the iron gall ink had been abraded or where the parchment surface itself was damaged by mould or friction. Two-flap folios were designed to accommodate these factors. A heavier paper (315gsm Heritage) was used as a backing sheet on which to hinge the objects, and a lighter weight paper (160gsm archival rag endleaf) was used as a cover sheet. This was adhered along the long edge of the heavier backing paper to create a folio. Ten folios were stored in each tray, (made of archival quality corrugated paper and card) and each tray had an access slot in the long edge, to make it easier to lift the folios from the tray. The trays were then stored in the Archival Die Cut™ boxes (see above) – two trays to a box. Larger folios were created for pages in larger dimensions and placed into large trays, which were in turn stored in Solander boxes.

3. *Mounts:* The biggest and most highly illuminated pages were mounted in Museum Board. Some were simply hinged in with 'V' hinges (see below), and some were attached using a system developed in V&A Conservation Mounting , which uses Melinex® expandable slotted hinges and Japanese paper tabs to attach the object . A deep three-sectioned mount, incorporating a Melinex® "window" was used to reveal both sides of the object. The mounts were stored in a Solander box.

**Treatment**

After the preparation of the enclosures, the rest of the objects were transferred to the studio and the whole collection was treated. Most of the loose, flatter fragments that had been housed in the envelopes were in good condition. All of the fragments had remnants of hinges of various tapes adhered to them. The iron gall ink and red and blue pigments for initials were tested with water and found to be stable. A poultice of very thick methyl cellulose swelled with water was used as this allowed for the controlled application of moisture to remove the hinges. The fragments were then hinged into the fascicules with V-hinges, made of a Japanese Kozo paper of a similar weight to the parchment. These were attached with a dilute wheat starch paste. The fragments were arranged two or four to a page, according to their size, with enough distance from the stub to avoid abrasion when being turned over. The fascicules were stored four to a box, which provides enough space to allow the parchment fragments to move and adjust to the new supports.




Photography by Esther Fried

Figure 2. Fragments treated and hinged into the fascicules.


Figure 3. Fascicules and boxes

The gilded fragments with high relief were found attached, in most cases, to a paper secondary support or small paper mounts. As the parchment looked flat and well supported, the supports were left intact. Old hinges which concealed the image were removed. Some letters or initials illuminated with pigments and gold had areas which were abraded and tarnished in some places, and under the microscope, the gold relief was seen to be cracked. Fragments that had losses or friable areas were consolidated using isinglass glue (inner membrane of the swim bladder of the Sturgeon fish), which has a low viscosity and adheres quickly. Tiny amounts of acetone were applied just beforehand to encourage the penetration of the isinglass. Successful re-adhesion of the flaky pigments was achieved, and the risk of loss of the image in the future was reduced. These were then hinged into the two-flap folios using wheat starch paste and Japanese Kozo paper. The heavier card support and the cover of the paper on top provided a comfortable cushion to the relief pigment on the often cockled parchment due to the weight of the media. The folios were placed in the trays, according to their size, and then in the storage boxes. The previously mounted illuminated borders, some of them up to 420mm in length, required the same treatment as the gilded letters. These were also placed in larger paper folios (420 x 520mm) and trays, of a size (570 x 470mm) that could contain them conveniently. Many of the mounted objects were not fragments but whole pages taken from choir books, prayer books, the Bible, and other texts. The parchment was slightly cockled and discoloured at the edges, but the inks and the pigments were stable and in good condition. They were unhinged from the acidic mounts, then cleaned and re-hinged into the bigger folios. Larger objects invariably weigh more and this required an increase in the number of hinges applied as well as the use of T-hinges to strengthen the attachment of the parchment to the paper and to allow safe turning of the page. The hinges were attached to the parchment at only a few points, so as not to restrict any movement of the parchment on its new support. Gelatine repairs (using parchment pared to the thickness of the original, and 10% gelatine in water) were carried out on four of the pages which were weakened by mould and losses. The whole collection is now house in four standard box-board boxes – one royal, one imperial and three half imperial Solander boxes.



## Conclusion

Prior to this project, the collection had been stored in envelopes in piles in a plan chest and drawers in the NAL. This made it difficult to find a particular object, to monitor the condition of the fragments, as well as to study the historical and aesthetic value of the collection. The collection was studied carefully beforehand, in order to plan and execute efficient and adaptable solutions to its preservation and storage.

As a whole, the results are satisfactory from both practical and aesthetic aspects. The fragments have been treated and are now arranged and numbered, hinged in proper enclosures and are to be catalogued soon. The collection is stored economically and safely and with improved access to the public. The boxes, when shelved, will take only a third of the space previously occupied. The beauty of the objects can be appreciated and their historical information can be studied.

## References:

[1] Watson, Dr Rowan., Vandals and Enthusiasts: Views of Illumination in the 19th Century. Introduction to an exhibition in the V&A, January 1995

[2] Lindsey, H. and Clarkson, C., Housing single-sheet materials – the development of the fascicule system at the Bodleian Library. *The Paper Conservator,* Vol 18, 1994 pp.40-48

[3] jig: a wooden frame with metal sewing bar, made to the dimensions of the paper, see Lindsey, H. and Clarkson,C., *ibid*

[4] Norman, D., The mounting of single leaf parchment and vellum objects for display and storage. *V&A Conservation Journal*, no 9 October 1993

## Suppliers

All papers listed are available from John Purcell Paper, 15 Rumsey Road, London, SW9 OTR

All commercial archival boxes from Conservation by Design, 6 Pembroke Street, Bedford, MK40 3RH

## Acknowledgements

I am very grateful for the help and generous advice of my supervisor throughout this project – Merryl Huxtabe, and to the very supportive colleagues in the Paper Conservation studio. Danny Norman and Clair Battisson in the Conservation Mounting studio. Bridget Mitchell in the Book Conservation studio. Dr Rowan Watson, Elizabeth McMurray and the staff in the National Art Library. Bill Johnson and collegues, V&A Joiners for construction of the jig.

# From Strength to Strength: Recent Successes for RCA/V&A Conservation Students

Helen Jones
Deputy Director RCA/V&A Conservation

**Dr Sandra Grantham**

Sandra graduated in July 1999 with the first ever PhD for RCA/V&A Conservation and, so far as we are aware, the first conservation doctorate in the UK. Sandra's research brought an holistic approach to an area of paper conservation – the Japanese screen. Her thesis, which is available as a CD-ROM (another first), is entitled *"Byōbu & Fusuma: Developing an approach to the Conservation of Japanese Screens Through Historical and Technical Study and an Investigation of Current Practices"*.

After reviewing relevant literature from diverse sources, the thesis outlines attitudes to paper conservation in Japan and in the West and describes the history, manufacture and use of screens in their country of origin. A summary of the deterioration processes which may occur on painted screens and their possible treatments leads to the description of a new consolidation treatment for flaking and powdering gouache paint layers. This involves the use of a nebuliser for the application of the consolidant and will have wider applications in other fields of conservation.

Since graduation, Sandra has taught on the conservation courses at Camberwell College of Arts and CREPAC in Brussels. She has presented several practical workshops on the nebuliser consolidation technique and delivered a paper at the recent conference, "The Broad Spectrum: the Art and Science of Conserving Coloured Media", in Chicago. She is currently employed in the V&A Conservation Department for the conservation of paper-based objects for exhibition and loan. (For details concerning the CD ROM contact: s.grantham@vam.ac.uk or sandra-g@dircon.co.uk).

**Student Conservator of the Year 1999**

RCA/V&A Conservation is pleased and proud that Laura Davies won this award, organised by the Museums & Galleries Commission and supported by English Heritage, the National Preservation Office, the Pilgrim Trust and the British Library. The award of £2500 (plus £2500 for the training organisation) was presented at a ceremony at the British Library in March.

Laura graduated in 1999 with an MA in the Conservation of Social History Objects. She was based at the Museum of London for her three-year programme, where her supervisor was Robert Payton. The winning project was Laura's final year Research Project on the technology and conservation of cuir bouilli, a hard tough leather used for, . helmets, buckets and flasks for example. Laura's investigation was very thorough, including experiments to reproduce the manufacturing process and a survey of materials and techniques used for maintenance and preservation of cuir bouilli objects which led to a successful conservation strategy. The judges seemed to appreciate the enthusiasm and insight Laura brought to this relatively mundane and heretofore neglected class of object.

Congratulations are also due to Elizabeth-Anne Haldane, a 1999 MA graduate in Textiles Conservation, who was one of only three other short-listed entrants for this award. Her project was the conservation of a highly complex embroidered Tudor cushion cover for the new British Galleries at the V&A and it included digital imaging as an aid to decision-making. Elizabeth-Anne's principal supervisor was Lynda Hillyer and both Laura and Elizabeth-Anne received assistance from Marion Kite.

From left to right: HRH the Duke of Gloucester, Mrs Mary Moore, Ms Laura Davies and Mr Loyd Grossman.

Photography by: Richard H. Smith



# New Staff

## Donna Stevens
Metals Conservator

I came to the V&A from the National Maritime in Greenwich, where I originally specialised in the conservation of shipwreck material whilst taking the Diploma in Archaeological Conservation at the Institute of Archaeology part-time. Re-organisation of the Museum found me working on metals, and in 1990 I joined the Royal Armouries at the Tower of London. During this time I travelled all over the UK monitoring several hundred loans from the Armouries that had been borrowed by museums and army bases during the previous sixty odd years. Taking guns to Londonderry on one trip was particularly memorable.

Knowing that the Armouries were to move to Leeds and wanting to stay in London, I trained as a 'Blue Badge' guide. I worked part-time as a London guide in 1996 and 1997 whilst also working on the re-display of arms and armour at the White Tower, Tower of London. I returned to the National Maritime Museum in 1998 to work on new displays which opened in May 1999, shortly before I joined the V&A. I have been working on phase two of the Silver Galleries and by the time this appears I should be working on material for the British Galleries.

## Marilyn Leader
Textile Conservator

I have spent many years involved in textiles in one way or another, both as a practitioner of the craft of weaving and also as a teacher of weaving, spinning and dyeing techniques. I developed a broad range of skills to satisfy my inquisitive students. At the same time, an interest in knitting techniques led to a period of about five years in which I designed and sold knitwear to individuals and companies.

After a natural career break, (ie: having three children in fairly quick succession), I was drawn to textile conservation as a means of continuing and developing my interest and experience in the textile field. I studied at the Textile Conservation Centre, graduating in June 1999.

I feel extremely fortunate to be offered a two-year contract working at the Victoria and Albert Museum at this point in my career. The British Galleries project has presented me with a fascinating range of textiles as well as conservation decisions. In the four months I have been in Textile Conservation, I have already learned much from the expertise of fellow conservators and I have also had the opportunity to liaise with colleagues from other disciplines on some projects. In return I contribute my enthusiasm and regard for textiles, as well as my experience.

# Conservation Department
# Staff Chart Summer 2000

**Head of Conservation**
Jonathan Ashley-Smith

**Secretary**
Annabel Swindells

**Head of Science**
Graham Martin

**Science**
Boris Pretzel
Brenda Keneghan
Richard Kibrya

**RCA/V&A Conservation Director**
Alan Cummings

**RCA/V&A Course**
Helen Jones
Alison Richmond

**Administration**
Tim Carpenter
Abigail Wright
Laura Martin

## Students

**Conservation Science**
(with British Museum)
Kathryn Hallett, *MA*

**History, Ethics & Management**
Lars Bjork, *MPhil*
Christos Maris, *MPhil*
William Lindsay, *PhD*
Nicky Ingram, *MPhil*
(with English Heritage)

**Techniques for Wood Identification**
Maggie Roberts, *MPhil*

**Display Cases**
Paul Cadman, *MPhil*

**Furniture**
Rowan Carter, *MA*

**20th Century Materials**
(with Tate Gallery)
Fotini Koussiaki, *PhD*
Francesca Cappitelli, *PhD*

**Cleaning Inorganic Materials**
Pedro Gaspar, *PhD*

**Composition Frames**
Victoria Doran, *PhD*

**Computer Visualisation**
Nicholas Frayling, *PhD*
Angela Geary, *PhD*
Athanasios Velios, *PhD*

**Metals**
Annie Hall, *MA*

**Ethnographic Materials**
(with Horniman Museum)
Hannele Hentula, *MA*

**Photograph Mounts and Frames**
Magdalena Kozera, *PhD*

**Upholstery**
Heather Porter, *MA*

**Metal Patination**
Kirstie Reid, *MPhil*

**Japanese Prints**
Shiho Sasaki, *MA*

**Painted & Decorated Surfaces**
Ricard Sundström, *MA*

**Internships**
*Books*
Yuko Hirata

*Paintings*
Alejandra Castro

*Paper*
Dominique Viars

**Furniture**
Albert Neher
Tim Miller
Christine Powell
Tim Hayes
Nigel Bamforth
Shayne Rivers
Zoe Allen
Henrietta Stuchtey
Fi Mallinson

**Ceramics & Glass**
Victoria Oakley
Fi Jordan
Juanita Navarro

**Stained Glass**
Drew Anderson
Perry Choe

**Metals**
Diana Heath
Simon Metcalf
Joanna Whalley
Ingrid Barré
Donna Stevens
Sophy Wills

**Sculpture**
Charlotte Hubbard
Alexandra Kosinova
Metaxia Ventikou

**Books**
Bridget Mitchell
Pascale Regnault
Jane Rutherston

**Textiles**
Lynda Hillyer
Marion Kite
Val Blyth
Anne Amosford
Derek Balfour
Albertina Cogram
Audrey Hill
Frances Hartog
Zenzie Tinker
Marilyn Leader
Flore Nuttgens
Martina Krueger
Susana Hunter

**Paper**
Pauline Webber
Alan Derbyshire
Elizabeth Martin
Michael Wheeler
Victoria Button
Sandra Grantham
Merryl Huxtable

**Mounters**
Clair Battisson
Danny Norman
Simon Fleury
Chris Gingell

**Paintings**
Nicola Costaras
Fran Griffin

**Frames**
Chris Luther
Katherine Donaldson

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