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The cover shows
A detail of the Cosimo Panel, an object in the exhibition *Grinling Gibbons and the Art of Carving*, at the V&A from 22 October 1998 to 24 January 1999.
Photo: Scala Picture Library

Editorial – Communication

Lynda Hillyer
Head of Textiles Conservation

The subject of this editorial is communication. Seven years ago, the editorial of the first issue of this publication was also about communication. Jonathan Ashley-Smith explained that the origin of the journal was probably a suggestion made at the first ever meeting of the whole of the Conservation Department in July 1978, and the main topic of that meeting was - guess what - communication! The idea of producing a journal evolved slowly over a number of years but its beginnings lie in discussions among conservators about the need to improve channels of communication within the Department, within the profession as a whole, and to others with an interest in conservation. From these small beginnings the Journal has grown into an important platform for disseminating information about our current activities; it is eagerly read both within the Museum and well received by an international audience. Why then, are we talking about communication once again?

The last seven years have seen enormous changes both within the Museum and within the Conservation Department. A huge programme of international loans, gallery rotations and refurbishment, and an increased number of departmental displays have been carried out in a climate of economic restraint. We have had to achieve more in limited time. We succeeded in doing this by learning to be more flexible and by spending more time planning in order to achieve a balance between the complex needs of the Museum, our rôles within the Conservation Department and our external professional lives. These programmes of work have given us positive opportunities to develop innovative skills and techniques. Many of these advances have been published in past issues of the Journal.

Much new energy has been injected into the Department by the success of the RCA/V&A Joint Course in Conservation which actively promotes original research. It is flexible and creative enough to accommodate a huge variety of proposals, either in the museum or in partnership with other museums. At a lunch held for invited guests to the Course Symposium in July, one of the delegates enthusiastically remarked that the work of the graduating students had expanded the boundaries of conservation by giving us new insights into the way in which we examine and perceive objects. The brilliant and exciting work on computer imaging carried out by Nick Frayling and Angela Geary is an obvious recent illustration of the way in which the Course contributes to the life of the Museum. The result of all this activity is a rich, complex and diverse Department which has a unique place in the conservation world and offers wonderful opportunities for staff development.

Are we making the most of these opportunities or are we spoilt for choice? A senior management meeting in Brighton last year discussed issues of communication and the need for a more focussed and structured approach to existing staff development programmes. Concerns have also been expressed on many levels that there is a need for more lateral communication across the Department. Accelerated work programmes and increased level of activity have meant that there are fewer opportunities to keep in touch with what may be happening in other sections.

The outcome of discussions was the formation of a small group which meets every month to coordinate development programmes throughout the Department. Members of the Communications Group represent the Journal (Sophy Wills), students (Helen Jones), interns (Alison Richmond) and permanent staff (Lynda Hillyer). Alice Rymill provides a link with Science Group and gives administrative support; meetings are chaired by Jonathan Ashley-Smith. The rôle of the group is to provide an overview of activities in the Department and draw on these to initiate a framework programme every six months. This may consist of RCA/V&A Course events, invitations to outside speakers, or study days involving issues which are relevant to everyone in conservation, such as research methods or current initiatives on accreditation. The framework builds on the programmes of communication which have been in existence in the Department for a number of years and incorporates staff seminars as well as providing free spaces which can be used for a variety of spontaneous events.

One new idea is to provide more opportunities for experiential learning in the form of practice exchange. The most essential function of the Department is practical work and each section contains an enormous well of experience and expertise. Many areas overlap and in a recent survey a number of common areas of interest were identified such as chelating agents, consolidation, adhesives, poultices, washing, metal cleaning etc. By the time this issue is published, the first workshop will have been held based on research carried out by one of our PhD students, Sandra Grantham, on the consolidation of fragile painted surfaces. Places were quickly filled by conservators from paper, textiles, ceramics and sculpture conservation. The idea of workshop practice is essentially participatory and some preparation is needed so that a real exchange of experience can take place. For example, conservators may need to be familiar with relevant literature, prepare case histories for discussion or spend some time making facsimile samples in their own medium so that new approaches can be more realistically incorporated into their work.

The success of staff development programmes depends not only on the Communication Group but on the commitment of every member of the Department to continuing professional development. It is easy to complain about lack of communication but takes much more work to do something about it. The Group provides not only a planning mechanism but a forum for constructive ideas. Suggestions are welcome from anyone in the Museum. The aim is:

- to encourage everyone to think creatively about current issues;
- to be open to opportunities;
- to learn more about resources, and about practice and techniques;
- to be more aware of professional issues and policy discussions, not only in the Department but in the conservation world as a whole.

Our current involvement in the British Galleries project means that effective communication is more important than ever. The project offers a wealth of opportunities for productive discussion. It is up to us to make the most of it.

The Cosimo Panel

Jonathan Ashley-Smith
Head of Conservation.

After many years of hoping, and several more of planning, a large number of works by the 17th century woodcarver, Grinling Gibbons, will be gathered together at the V&A this autumn. Gibbons' carving can be found in palaces, churches and country houses throughout England. The easily recognisable cascades of lifelike flowers, fruit, foliage and birds, carved in limewood, are too delicate to be moved on a regular basis. This exhibition is likely to be the first and last occasion for many years where so many pieces are shown side by side.

The star of the show, a large piece (1701 x 1346 x 330 mm) commissioned from Gibbons by Charles II as a gift for the Duke of Tuscany, is not resident in England. Known as the Cosimo Panel, it is on display at the Pitti Palace in Florence, Italy. This article describes the discussions and actions that were necessary to ensure that the star could be in London, unharmed, for the opening of the exhibition. It is a measure of the confidence in those thoughts and deeds that this article was written before the panel began its journey.

Considerations
The questions to be answered were familiar. Is the object in a fit state to travel? If not, can it be put into a fit state? What are the most likely hazards on the journey? Can we guard against these? Is the difference in environment between its present location and the proposed display environment very large? Can we realistically maintain the promised display environment? Does it matter?

We believe that, as borrowers, we should be confident that an object is fit to travel to us. It took visits by three conservators and a packer to convince us that we could safely ask for this large, complex and delicate panel to be moved across Europe. We also believe that we should not encourage interventive treatments that are only necessary to enable an object to travel. If an object could remain on public view without treatment, and not deteriorate, then as a general rule we would avoid intervention. We had to discuss the treatment we thought the object needed as an issue separate from the desire to borrow the panel. Money was available for conservation but we did not want to appear to use this as a bribe to facilitate the loan.

Photo: Scala Picture Library

Figure 1 Detail of the Cosimo Panel

History
The panel has gone through a rough time in the last fifty years. It was severely damaged during the Florence floods in 1966 when it was buried in mud. After a two year restoration treatment it was put on display where it suffered minor damage from a leaking window. Later it was installed in the Pitti Palace where a gas heater in the room exploded. This resulted in scorching of much of the surface and charring of some of the finer detail. During several years on open display some further mechanical damage had occurred, especially to delicate detail. Several links of the chain had become detached.

Environment
The panel is hung in a room with thick stone walls, marble floors and heavy wooden doors. There is one North-West facing window which is usually shuttered. It was easy to believe the prevalent view that the panel had become accustomed to a stable environment much more humid than the proposed exhibition space. Electronic data loggers were left in the vicinity of the panel. Over a period of nearly two years the environment was shown to have fluctuated as wildly as any uncontrolled gallery at the V&A. The data told us that the object had withstood many much greater fluctuations than we intended to expose it to, and had not equilibrated to a high moisture content. This turned out to be the case at the locations of other proposed loans in England. We were thus not worried about transfer to a stable environment between 45 and 55% RH.

We were still concerned about the possibility of a plant failure in the exhibition space which in mid winter could lead to humidities below 20%. Since the wood is not painted and generally not constrained, given the recent history of the carvings even this calamity should not result in irreversible deformation - in theory. However we were keen not to test the theory. Airtight display cases would have provided the necessary security but were not thought appropriate to the exhibition of material designed to be part of large decorative schemes. The solution was to check that systems to register deviations from specification would be acted on immediately, that replacement parts were on hand and that emergency humidification back up was available.

Intervention.
Although there was a great deal of discussion about treatments to return the scorched surfaces to their original light colour, and some desires to correct the misplacement of parts during the 1967 68 restoration, these ideas were rejected as being too interventive. There were a few detached pieces that needed reattachment. There were sections that moved which were not designed to move and needed securing. There was concern that as long as the object remained on open display at the Palace it would need to be dusted and occasionally handled. It was felt that some of the charred details were not sufficiently robust to withstand this forever. A search was made for an appropriate consolidant that would strengthen sufficiently without darkening or adding gloss.

Photo: Scala Picture Library

Figure 2 Detail of the Cosimo Panel

Photo: Scala Picture Library

Figure 3 The Cosimo Panel (1701 x 1346 x 330 mm)

Per Hoffmann, research scientist and head of conservation of archeological wood at the German Maritime Museum, Bremerhaven, tested a range of consolidants for us. Six materials, including cellulose ethers, acrylics and poly(vinyl butyral)s, were assessed for degree of consolidation, visual acceptability, reversibility and ease of application. The success of the consolidation process was tested by drawing filter paper at a standard pressure across uniformly charred fluted beechwood rods. The degree of rub-off for each sample was compared to the others and to that from an unconsolidated section. The visible acceptability was tested on limewood samples shaped to expose a range of angles to the grain. Although the aim was to consolidate only the charred areas, it was predicted that a low viscosity solution would spread uncontrollably on a raw wood surface due to capillary forces. It was necessary to ensure that there was no change to the appearance of uncharred surfaces affected by the treatment. The final recommendation was for a poly(vinyl butyral), of a medium degree of acetalisation, dissolved at 2-3% in ethanol. The treatment was carried out at the Pitti Palace by David Luard. He is a conservator with experience of both Grinling Gibbons and fire damaged surfaces, having worked on limewood carvings rescued from the fire at Hampton Court Palace.

Transport

The final question was how to transport it, the biggest puzzle being whether it would be safest on its bottom edge, its side or its back. It would be easier to move the case through doorways if the panel were packed in a vertical plane. On its side rather than upright would make a more stable case, easier to handle. Some of the carved detail such as the feather is connected at one end only and by a very thin section of wood. If the panel were on its back and received a vertical shock there might be sufficient moment to snap the joint. Yet again, transit on its back is the only way that pressure from packing materials on the fragile carved detail could be avoided. This is the orientation that was chosen. It will travel on its back, in a case, in an environmentally controlled air-ride vehicle.

I was unable to determine whether being consumed by a fire in the Channel Tunnel or immersed in water in a sinking ferry was the greater risk. The Cosimo Panel probably has sufficient experience to overcome either.

Grinling Gibbons and the Art of Carving, an exhibition at the V&A from October 22nd 1998 to January 24th 1999. A book of the same title by the curator of the exhibition, David Esterley, is available from V&A Publications.

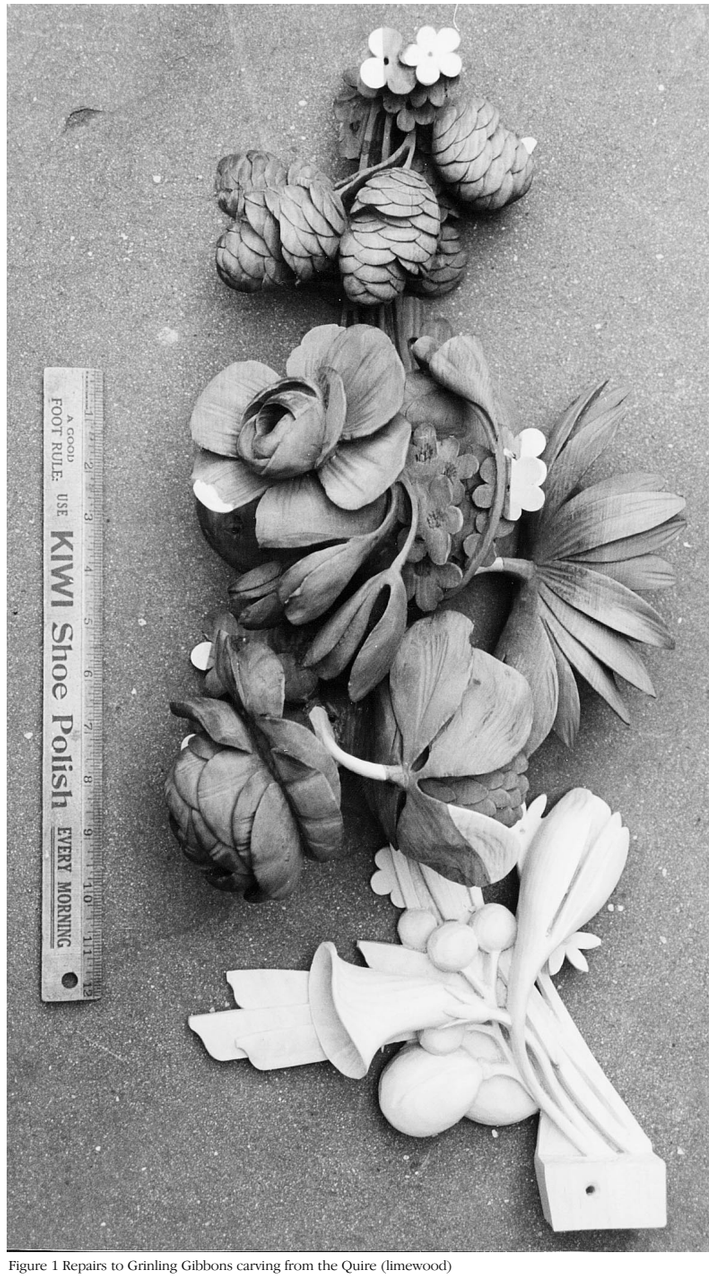
50 Years of Following in Grinling Gibbons' Tool Cuts

Tony Webb
Master Carver, St Paul's Cathedral.

In 1951 the word 'restoration' was a word I always associated with fund raising, whilst 'conservation' was never used at work. We were simply 'repairing' the damage caused by the bombs during the war. The word 'repair' at that time covered a wide spectrum, from collecting and reassembling small fragments of carving from the rubble, to carving what someone thought might have been there before. I can never remember a carver 'researching', what could have been there.

Those were the "good old days" with many beautiful Wren churches to rebuild and decorate with their Grinling Gibbons style of carving. The long tradition of each firm having its own interpretation of an architectural style meant that journeyman craftsmen would have to change their style to suit. Good examples of this in St Paul's Cathedral are the twentieth century woodcarvings by J.Walker in the St Michael & St George Chapel, the Rattee and Kett work in the American Chapel and the E.J.Bradford's limewood carvings on the Pulpit, all done within a forty year period.

In 1972 I joined the carving team at St Paul's under Ken Gardner who had trained me at Bradford's, so it was therefore natural for us to continue in the same style. Outside on the South Portico, compare the four



Photography by Hannah Hartwell

Figure 1 Repairs to Grinling Gibbons carving from the Quire (limewood)

Photography by Hannah Hartwell

Figure 2 Repairs to Grinling Gibbons carving from the Quire in progress (limewood)

new 'incense potts' carved by us with the originals carved by Caius Cibber in a style almost indistinguishable from Gibbons, two of which are displayed in the crypt. Their silhouette may be similar, but their delicacy and finesse are lost. This freedom for interpretation is certainly not acceptable these days, and while I have illustrated this with examples from St Paul's, there are certainly other examples.

In the early eighties I took control of the carving department and with the Surveyor to the Fabric agreed to make changes. At this time, whilst working on Wren's Great Model, I became involved with the Conservation Department at the Museum of London, a totally new experience for me and probably the biggest single change in my working life. From now on, all decisions would have to be questioned, and no longer could it be said, "that's how we've always done it".

Recently there has been a restoration to the Grinling Gibbons carvings in the Quire at St Paul's, where a major change in philosophy has taken place. I knew that when the carvings were returned from safe keeping during the war, they had been refixed in a hurry and were in a sorry state as a result. Most of the carvings had been fixed with too many iron nails (up to five in one flower), most of which have rusted and expanded, splitting the wood. The old animal glue was drying out and the joints were opening up. The oak carvings had been treated with generous amounts of linseed oil and turps to five them a shine, which is unacceptable now.

Now, after the carvings are taken down, they are dusted before being lightly washed. As many nails as possible are removed without damaging the wood, and they are then repaired using new limewood fixed with PVA adhesive. New pieces are only added when evidence is available from old photographs, where there is an identical pair or a repeated pattern. They are then refixed in the Quire with a minimum number of brass screws, which we try to keep to a system, by fixing all the swags with the same number of screws in the same place according to size and design. A lot of damage has been caused in the past by taking down and refixing the carvings without any regard to previous fixings or future removal. This is, after all, the fourth time they have been fixed in the Quire, and, no doubt they will come down again, but at least we have eliminated this major cause of damage.

The carvings are no longer fixed in a random way, but according to a grand plan which I believe is suggested by the design. For example, swags of oak leaves alternate with swags of acanthus leaves, and swags of flowers which have an identical pair now sit opposite each other across the aisle. Many pieces are right- or left- handed and once you know this, it is very annoying to see two right handed pieces together. It is also amazing how many have been fixed either upside down or totally in the wrong place. We may not get it right every time, but at least we are aware now. The Quire was photographed before we started making these alterations and we now have a conservator on the staff who is recording everything, so I feel comfortable with rearranging the carvings. Working as a team, we spend time debating where a piece should fit, and how to deal with a particular problem, and still we make changes when new evidence is found. This is one big advantage of having a permanent team.

There has always been discussion as to how Wren intended the woodwork to be finished and I have heard talk of ox blood being used to stain the wood. However the facts as I see them are:

1. The original surplus oak carvings which have been left untouched in the store since the 1861 alteration are not as dark in colour as the carvings in the Quire.
2. Where oak mouldings are out of easy reach they are lighter than the ones that are easy to stain.
3. When applied limewood carvings are removed they leave a lighter shadow.

These observations give rise to the question, is this due to natural ageing or deliberate staining.

The current policy is to colour the new carved pieces, which will be undertaken later as a single project rather than individual pieces, to obtain a uniform colour across the Quire.

While working at St Paul's it is important to remember that we are not a museum but a working Cathedral, which happens to have some of the world's finest seventeenth century carvings. After they have been cleaned, repaired and refixed they will get dusty and may be accidentally damaged, because they are part of the fabric, not objects in glass cases.

Over the last fifty years attitudes have changed enormously to restoration, and no doubt will continue to do so. Although I miss the opportunity to carve new work, the more I work on the Grinling Gibbons carvings, the more new discoveries I make about them, and the more stunning I find them.

Cracking Crizzling – Eight Years of Collaborative Research

Simon Hogg, PhD student, Department of Materials, Imperial College
David McPhail, Senior Tutor, Department of Materials, Imperial College
Victoria Oakley, Head of Ceramics and Glass Conservation
Philip Rogers, Senior Research Fellow, Department of Materials, Imperial College

For seven years, the Conservation Department of the Victoria and Albert Museum has collaborated with the Department of Materials at Imperial College, to investigate the causes of, and possible treatments for glass disease. Glass disease, also known as glass sickness or crizzling, had been identified as a major conservation problem for the Museum after extensive surveys by the Ceramics and Glass Conservation Section in 1988 and 1991-2, prior to the development of the new Glass Gallery. To explore the impact this collaboration has had on the treatment of crizzling glass, it is first necessary to review the nature of glass and the reasons it may suffer from this serious problem.

Glass is a term that can be applied to many different materials, but is usually taken to mean silica-based amorphous materials. Glass objects are commonly formed from a mixture of silica (SiO_2); the alkali oxides, soda (Na_2O) or potash (K_2O); and alkaline earth oxides such as lime (CaO). Such glasses are often referred to as 'soda-lime-silica' or 'potash-lime-silica'. Other elements may also be present, usually at lesser levels. The proportions of silica, alkali and alkaline earth may be varied to form glasses with different properties; a high-silica glass will tend to have a high melting-point (and hence be hard to work at moderate temperatures). Increasing the amount of alkali chemically disrupts the silica network, and lowers the working temperature of the glass. Historically, furnace design and economic considerations have limited the temperature at which glass can be worked, and so it was necessary to formulate glasses having lower viscosities at moderate temperatures. This required adding increased amounts of alkali oxides to the formulation; but while this is successful in lowering the viscosity, these 'high alkali, low lime' glasses also suffer from poor chemical durability.

This poor durability manifests itself in a number of ways, but one of the most distressing is crizzling. A crizzled surface will become covered with minute surface cracks, which over time will grow and penetrate the whole body of the glass and lead to its physical collapse. Before cracks are seen to form, the initial stages of the processes may be identified by the production on the surface of the glass of a wet surface that feels 'slippery'. Droplets of moisture may be seen to form and these droplets lend the term 'weeping' to glasses exhibiting this behaviour. This wetness occurs at higher humidities (usually above approximately 50% relative humidity). When the humidity falls, the surface can dehydrate, and crystals may form on the surface of the glass. As the glass dehydrates further, moisture can be lost from the sub-surface layers of the glass itself and

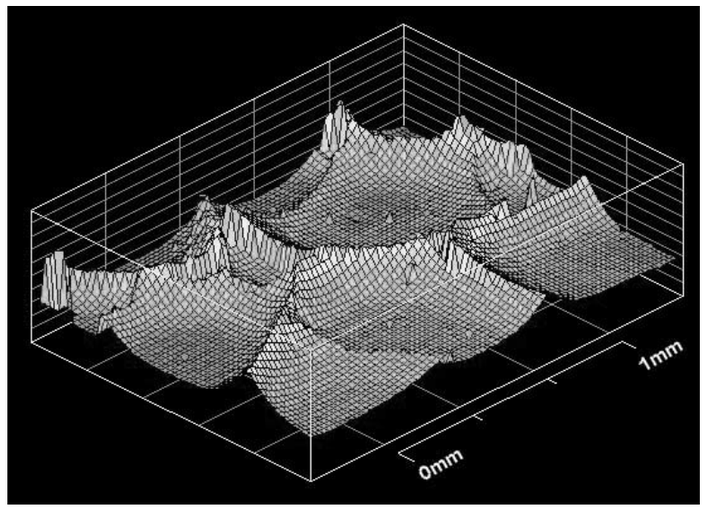


Figure 1 An image from an optical interferometer showing the development of surface features on a severely crizzled glass. The raised ridges are where cracks have appeared in the surface due to buckling. The optical interferometer is a non-contact technique which offers a vertical resolution of 0.1nm

it is this cycle of hydration and dehydration that occurs during environmental fluctuations which leads to the formation of surface cracks. The surface swells as it absorbs moisture, and shrinks as it loses moisture. The effect can be seen in Figure 1 which shows an image of the glass surface taken with an optical interferometer, capable of high resolution three dimensional surface imaging. The swelling of the surface has caused the surface to 'buckle' and rise in ridges along the line of the cracks.

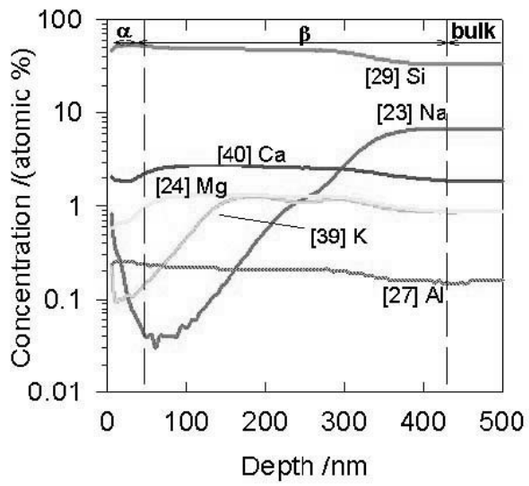


Figure 2 A SIMS depth profile of crizzled glass surface showing three distinct regions. a is the surface region, ß the alkali-depleted region and the bulk is the main body of the glass. The lines are labelled according to their atomic masses in brackets, and chemical symbol.

In order to treat glass sickness, or prevent crizzling from occurring, it is important to understand the chemical processes involved. This was the thrust of the work for the first period of the project[1]. The Department of Materials at Imperial College has a number of analytical techniques that are particularly suited to the study of these very slow corrosion processes. Secondary Ion Mass Spectrometry (SIMS) and Atomic Force Microscopy (AFM) in particular offer excellent methods for these investigations[2]. SIMS can be used to analyse elemental concentrations as a function of depth and possesses a vertical resolution of under one nanometer[3]. The technique also has a very wide dynamic range and can measure elemental concentrations ranging from parts per hundred to parts per billion. This corresponds to a concentration range of 10^7. A plot of elemental concentration vs. depth (a depth profile) is shown in Figure 2 and this clearly shows the presence of three distinct areas. At the left hand side is the surface and the sub-surface region, a. In this region, the concentrations of the alkalis are enhanced slightly. The next region is the alkali-depleted layer, ß. In this region, the concentrations of the alkali ions are greatly reduced and the concentrations slowly rise to the values of the concentrations in the bulk of the glass. This is explained in terms of the diffusion of the alkali ions through the glass, from the bulk toward the surface under the influence of a chemical potential caused by water adsorbed on the glass surface.

SIMS depth profiles have shown that the thickness of the depleted layer, ß, corresponds to the amount of ageing the glass surface has undergone. Thus, it was found that SIMS could be used as a direct comparative measure of the degradation experienced by the glass. This, in turn, could be used as a measure of the efficacy of conservation treatments. The behaviour of the surface can also be viewed directly with an AFM[4]. This technique allows for high-resolution imaging of the material surface. Figure 3 shows an AFM image of a corroded glass surface. By studying the changes in the surface as corrosion progresses, we can directly estimate the amount of corrosion occurring on the glass. Again, this is very important when it comes to measuring the efficacy of treatments.

The treatment of crizzled glass may take a number of routes, using either chemical alteration of the near-surface layer, or of the surface itself. Initially, the use of aqueous solutions of multi-valent ions as a means of restoring lost chemical durability to the glass surface was investigated[5].The ions (such as aluminium) diffuse from solution into the surface of the glass, where they form bridging bonds between disparate silica units. SIMS may be used to directly follow the diffusion profile of the ions into the glass, as well as determining the difference in corrosion rates between treated and untreated glasses.

While the application of aqueous ions alters the chemistry of the subsurface, the second phase of the project focussed on the use of monofunctional silane compounds to provide protection to the surface itself. These are designed not as coupling agents or consolidants, but to provide chemical protection at the surface, with a single molecular layer. One end of the molecule binds to the glass surface, while the other is made hydrophobic so it repels water.

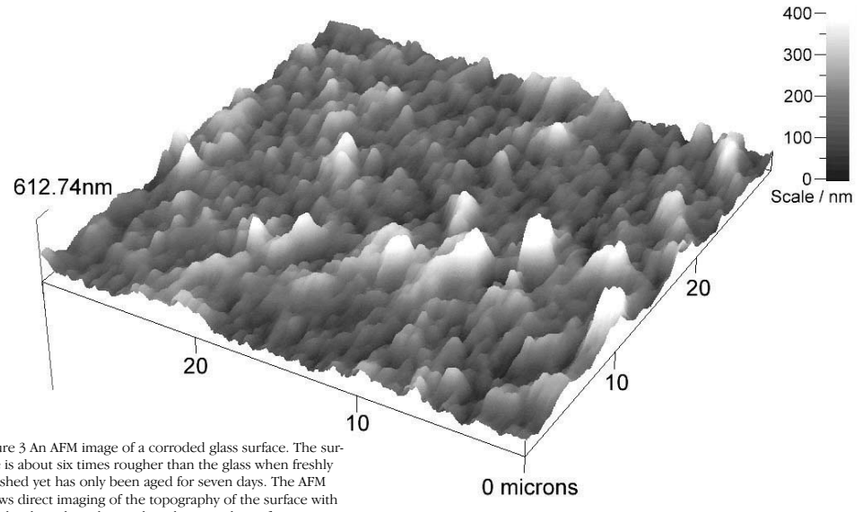


Figure 3 An AFM image of a corroded glass surface. The surface is about six times rougher than the glass when freshly polished yet has only been aged for seven days. The AFM allows direct imaging of the topography of the surface with a higher lateral resolution than the optical interferometer but with higher constraints on the roughness of the surface to be measured.

This has been used to retard the rate of corrosion by a factor of ten in short-term accelerated ageing. The coated surface is stable against desorption and hydrolysis, but further in *situ* tests are needed to ensure the long term photochemical stability of the treatment.

The past seven years have been particularly successful in elucidating the causes and effects of crizzling, and offering a possible treatment for objects with this condition. Particular emphasis has been placed upon the novel application of surface science techniques to problems in conservation. The successful collaboration between the Victoria and Albert Museum and Imperial College has helped to ensure that glass has a sparkling future.

The Department of Materials is always keen to develop new research collaborations. David McPhail may be contacted at

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The Power of the Poster and Paper Conservation

Pauline Webber, Head of Paper Conservation
Alison Norton, Paper Conservator, Paper Conservation

Following the recent *Power of the Poster* exhibition, this article aims to describe the wider role of the Paper Conservation Section before, during and after the exhibition.

Posters at the V&A

The Victoria and Albert Museum collects posters on an international scale, with over 10,000 objects in the Prints and Drawings Department, and significant holdings in other departments. The Museum has had an active collecting policy throughout the twentieth century and now holds the national collection. Posters have an immediate impact and as a medium of communication have a fascinating appeal. They can be active forces for change, as propaganda, social documents and as an art form. The history of posters demonstrates the application of art to commercial and industrial printing, resulting in a liberating and exciting art form. The importance of the Museum's collection lies in its technical and artistic merit, the emphasis of collecting policy being the 'artist poster'; thus the collection can be seen as not only an archive of social and political change but as a history of lithographic art.

The Poster

A poster is defined as "a placard posted or displayed in a public place as an announcement or advertisement"[1]. Although the poster, in various guises, is not a modern development - very early posters were produced using a variety of techniques - it was the innovation and use of high speed colour lithography by Jules Cheret in the nineteenth century that brought the art form to the masses. The majority of posters are printed by offset lithography. Posters have general characteristics of size, shape and material, usually being printed onto standard formats of machine-made woodpulp paper; but the variety of messages and styles is staggering. In recent years the deployment of posters has become increasingly inventive with adverts that use lights, optical and even olfactory illusions [2]. The size of posters is dictated by the space they might fill, from small advertisements to huge roadside hoardings and *The Power of the Poster* has attempted to reflect the breadth and wealth of poster design.

Poster Exhibitions at the V&A

The *Exhibition of British and Foreign Posters* held in 1931 recognised the active collecting policy of the V&A. The display of 650 posters was in itself a further impetus to acquisition, and many posters were received as gifts and bequests. Numerous smaller specialist poster exhibitions have been held since, such as *London Transport Posters* in 1949 and the *Mucha* exhibition of 1963, but *The Power of the Poster* exhibition this year was only the second major exhibition of posters to be held. *The Power of the Poster* aimed to show approximately 350 posters from the Museum's own holdings and to offer some of the best examples of poster art from the nineteenth and twentieth centuries.

The exhibition was divided into three key areas, each being individually curated. "Leisure and Pleasure" focussed on the development of arts and entertainment posters; "Protest and Propaganda'"showed powerful images used to promote political, moral and social messages; "Products and Services" showed commercial advertising posters. Approximately half the V&A's collection is of British posters, although all the sections included familiar and unfamiliar images from throughout the world.

Exhibition Planning

An exhibition of this scale requires a great deal of planning, communication and time, and preparations for the poster exhibition began well in advance of its formal agreement; for example with a survey of 'oversize' works on paper in 1993. Information gained from this and further surveys assisted in the projection of conservation estimates. Although the list of posters for the exhibition was constantly changing, the majority were surveyed during the summer of 1997. Condition ratings from 1(Good) to 4(Unacceptable) were used[3], and the results were as follows:- Condition 1 - 11%, Condition 2 - 43%, Condition 3 - 34%, Condition 4 - 4%. All the

Photography by Pauline Webber

Figure 1 Chris Gingell preparing the strips of japanese paper with Lascaux as described in the text.

posters were measured at this stage as well to enable the mounts to be made in time. Recommendations to the exhibition designer regarding the mounting and display of the posters were made during regular project team meetings between Conservation, Design, Exhibition, Curatorial and other staff concerned. These meetings were a time of patience, diplomacy and flexibility and were usually positive, clearing any misunderstandings and allowing the project to progress smoothly.

Conservation

By September 1997 the final list had been drawn up and a full assessment was made of the conservation required. Work was prioritized and time-tabled. Planning was essential due to the large scale of the exhibition itself and of the objects. The 'average' poster was approximately 1000 x 750mm and the largest 4100 x 3100mm, so space in the studio was at a premium and good organization critical. The posters chosen for the exhibition ranged in date, size and condition. Most of the more modern examples required little except mounting, yet the majority needed some treatment.

Posters are generally lithographically printed onto fairly poor-quality short-fibred paper. Due to their nature the vast majority of posters have previously undergone restoration or conservation before or after acquisition. This is generally some form of lining with, over time, a wide range of backing methods having been applied. Some retain the cloth that was often applied by the printers when selling directly to dealers, others have laminated backings of canvas and heavy machine made papers. Occasionally an impregnated starched cotton has also been used, and more recently treatment tends to be linings of western wove or oriental papers. The majority of adhesives tend to be water soluble, ranging from manufactured starch pastes used in the 50's, to carboxy methyl cellulose. Nowadays, wheatstarch paste is commonly used.

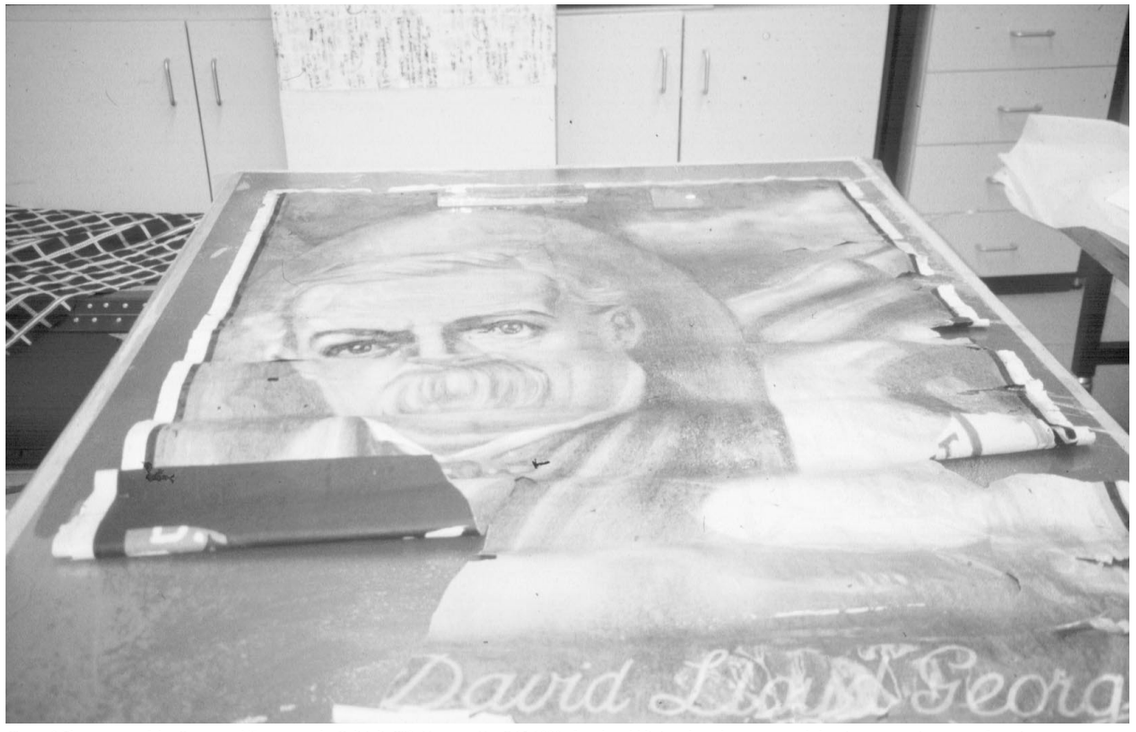
Many of the posters required re-lining due to the failure of the adhesive which resulted in delamination. Previous lining methods were often too heavy, which caused distortion and deformation. Other problems included discolouration and increased brittleness of the paper, surface and ingrained dirt, splits, cracks, tears and losses. Poor handling and poor storage

have also contributed, with damage resulting from repeated flexing, folding or rolling. Full treatment of the posters involved surface cleaning, the removal of old linings and adhesive, 'blotter washing', relining with a japanese paper, repair, infilling of losses and some retouching. The majority of treatments were, however, fairly standard. The printing inks used can generally withstand wet treatment, although the red inks, especially on the continental posters, were more susceptible. The posters were lined with *sekishu* japanese mulberry paper and *zin shofu* paste (a purer, japanese form of wheat starch). Infills and losses were retouched using watercolour, pastel and coloured carbon pencils. Interesting exceptions to this 'standard treatment' included a Russian *okno* (a window poster of 12 panels produced with a stencil), a Japanese *Kabuki* theatre poster, the original collage for the Sex Pistols' *Never Mind the Bollocks* and hand-coloured suffragette posters.

The size and flexibility of the new Paper Conservation studio were used to the full. Fixed furniture had been kept to a minimum in the design, which enabled the large central floor space to be used with trestle worktops in a variety of configurations forming large work surfaces. The specifications for the floor had included the ability to tolerate water treatments, and in the case of the largest posters the floor was used as a working surface. However, the largest posters did have to be mounted in the exhibition area because, despite a large studio, the lift was too small.

Exhibition Design and Mounting

Liaising with the exhibition designer was a critical part of the preparation process, and ensured that the mounting and presentation of the posters in the space provided had an aesthetic coherence. Early suggestions of coloured walls and curved ceilings were abandoned, partly for lack of funds but largely for aesthetic considerations, and it was agreed to 'let the posters do the talking'. The overall atmosphere was clean and sharp, with the walls painted an off-white. The North Court glass roof was covered and a white fabric stretched across to bounce light back into the gallery. Sight lines were kept open throughout the gallery and information panels were kept simple. The posters were hung in groups within the three distinct sections, and the height of some internal walls reduced to make the overall design less overpowering. The effect of the number and size of posters was intense.



Side runner: Photography by Pauline Webber

Figure 2 The reverse of the *Derry and Tom* poster by Bylitiplis WS, Museum No. E.15-1920,after the old linings have been removed showing a campaign poster featuring Lloyd George. Size 152.2cm x 102.5cm.

It had been decided at an early stage to mount the posters in an untraditional way, unframed and unglazed, to maximise their impact and allow them to be presented in a suitably sympathetic fashion which reflected their form and function. The majority of the posters were thus displayed on rigid supports or 'subframes'[4] made of a wooden strainer with Gatorfoam™ attached. The edges of the 'subframes' were sanded and covered with Archive Text™. The posters were positioned onto the subframes and mounted with further strips of Archive Text™ pasted with wheatstarch, holding them flat and taut but without tension. The more modern and unlined posters (without reinforcing strips of a putative lining by which to hold them), were attached to the subframes using *minogami* or *usimino* japanese paper strips attached to the object with Lascaux Acrylic Adhesive 360HV™, a heat-activated adhesive.

This simple, effective method of mounting allowed the posters to be presented in a manner that contributes to, rather than diminishes their being understood. It could be seen as a prototype for a standard form of display facilitating both attachment and later removal. The mounts are easy to construct and can be used for travelling exhibitions, although Gatorfoam™ is not at present recommended for long-term storage. The largest posters were suspended from the roof vaulting on wires which could each carry 130kg. Wooden strainers covered in Theatex™ - an imported 5m wide polyester often used in theatre backdrops - acted rather like 'cami-linings'[5]. They were used as supports for the posters and were attached using strips of japanese mulberry *minogami.* Some of the posters had to be framed, for example those with sensitive media, working drawings, those in areas where space was tight or access required (eg. fire exits), and those with loan and museum restrictions. A distance of 1.2m had to be kept between the visitor and unglazed objects, which in this case was provided by a low stretch barrier, and warding staff prevented any vandalism or damage. The use of the 'subframes', and the opportunity to view the objects unglazed, enhanced the exhibition and harmonised well with the overall design, contributing to the general success of *The Power of the Poster.*

Exhibition and Environment

The exhibition was open for almost four months and has been one of the Museum's most successful, with attendance figures of almost 200,000. Conservation and Exhibition staff monitored the posters throughout, and there was no obvious damage or change to any of the works on display. All that was required was simply the brushing away of a light covering of dust from the top edges of the 'subframes'. Although the exhibition areas do not at present operate under the strictest environmental controls, fluctuations in humidity and temperature were not extreme; the largest posters - where any change would be reflected in dimensional movement - remained unaltered and well mounted, without either sagging or cockling.

Photography by Alison Norton

Figure 3 Posters ready for hanging being stored in the preparation area in the North Court.

Future Plans

The de-installation of the poster exhibition has just been completed. The original plan had been to remove the posters from their 'subframes' and encapsulate them before their return to the poster store. However it is likely that the exhibition will be travelling to Sheffield for display within the next two years. Therefore, after condition checking, the objects will be stored in their present condition as a unit. Each poster on its 'subframe' was wrapped in Archive Text™ and bubble wrap, the framed objects simply protected with bubble wrap, and the larger objects removed from their strainers, carefully rolled around large plastic tubes and protected on the outside.

Photography by Mike Wheeler

Figure 4 Caffaro, by Franz Laskoff, Museum No. E.1414-1963, on display in the exhibition

The exhibition has offered the opportunity to spend a concentrated period of time working on the poster collection, not just on those chosen for the exhibition, and it is hoped that this can be continued. In May 1998 a further survey of the Poster Store on level F of the Henry Cole Wing was carried out. This store holds over 1000 objects including the largest works. An ongoing programme of work has begun, prioritising those posters in poorest condition.

Posters are a very public art form and the V&A strives to keep its posters accessible, through major exhibitions, temporary displays and loans. It is also planning to develop a new storage and permanent display area.

References

1. The Shorter Oxford English Dictionary, Oxford University Press, 1973.

2. Timmers, M., Introduction in Timmers, M., ed. *The Power of the Poster,* V&A Publications, London, 1998, pp7-25.

3 . Keene, S., 'Audits of Care: A Framework for Collections Condition Surveys', in *Storage: Papers given at UKIC Conference, Restoration 91,* UKIC, London, 1991.

4. 'Subframe' was coined by exhibition designer Mike Malham to distinguish between this and other mounting methods.

5. 'Cami-lining' was developed by Peter Booth at the Tate Gallery and described in Booth, P., Stretcher Design: Problems and Solutions, *The Conservator,* 13, 1989, pp31-40.

Acknowledgements

With thanks to all in the Paper Conservation studio, Margaret Timmers and all those involved in the Poster exhibition.

Suppliers

Zin Shofu and Archive Text paper, 85gsm - Conservation by Design, Timecare Works, 60 Park Road West, Bedford MK41 7SL

Sekishu, Minogami, Usomino paper - Masumi Corporation, 4-5-2 Sugamo, Tokyo 170, Japan

Gatorfoam - Europoint Display, Units 1&2, Bricklayers Arms, Mandela Way, London SE1 5SL

Lascaux 360HV - Lascaux Restauro, CH-8306 Bruttisellen, Switzerland

Theatex - 'Trevyra White' (Polyester White), 5 m wide - Spoorlaan 8a, 3645 EJ Vinkereen, Holland

The RCA / V&A Conservation Course Study Trip

Vicky Doran, RCA/V&A Conservation Course, MPhil student
Helen Jones, RCA/V&A Conservation Course, Course Tutor

Lucky you! That's the usual response when we announce the annual Course study trip to foreign parts for first year students and Course staff. Not everything is paid for, of course, but the trip is heavily subsidised from Course budgets. Each year, when the time comes to pay the bills, we have to ask ourselves - is it worth it? It's hard to answer in strictly accountable terms as, while the costs are clearly evident, the benefits are intangible. Nevertheless, our gut feeling is that the trip is 'a good thing' and should continue.

The benefits include: seeing wonderful collections, monuments and sites; observing and discussing conservation practices in new contexts; making contacts for potential placements, internships and future visits; acting as ambassadors for the Course, the V&A and UK conservation. We should not be shy about admitting that we all enjoy it, too! The most valuable benefit, though, comes from having all the first year students together with the staff for a sustained period. During the busy term-time, when students work in their own studio or laboratory and are geographically separated, they can feel very isolated. The study trip counters this; students discover links between their study areas and form friendships which will, we hope, sustain them beyond the trip itself.

So, in May 1998, 12 students and two staff went to Barcelona. Official visits included the regional training school for Catalonia, set on a hill on the city's outskirts. Students there take three-year programmes specialising in sculpture, paintings, graphic works and archaeology. There was lot of building work going on which was inconvenient at the time, but will improve their facilities. At the Museu Nacional d'Art de Catalunya we were shown the storage and conservation facilities by S. Benoit de Tapol. The Museum itself houses a superb collection of early wall paintings; the processes of their removal and re-display were explained and debated.The University of Barcelona runs a paintings restoration course, but, unfortunately, we did not see their studios because we spent so long in the University's comprehensively equipped - and enviably accessible - Scientific-Technical Services Department. Silvia, researching synthetic textile fibres, had to be dragged forcibly from the infra-red spectroscopy lab!

The Miro Foundation and Picasso Museum were visited by most, while the amazing, singular architecture of Gaudi and his contemporaries was hard to miss. The highlight of the first was a hastily-arranged tour of the stores, conservation studio and archive. The sheer quantity of Miro's work was impressive, if nothing else. The two students researching metal patination sadly missed this visit, having ventured deep into the Spanish hinterland to find the foundry where many of Miro's works were cast.

Trips were planned to the Dali Museum and his recently-opened house, or to the mountain monastery of Montserrat. We chose to brave the cable car journey to the latter and queued to see the famous "Black Madonna". We're ashamed to say that we couldn't decide whether it had been painted black or been "patinated" by years of worship and candle soot. We did discover, however, that platform shoes are not ideal for mountain-climbing. A valuable lesson, indeed!

Science Surgery

Science and Information Section
Conservation Department

Welcome to this new and regular feature of the Conservation Journal. This page is produced by the Science and Information Team and presents some of our smaller tasks. The content will vary - sometimes reporting facts gleaned from the examination of an object (or group of objects) whilst on other occasions the focus may be a question that has sparked debate.

One particular source for this regular page will be the 'Science Surgeries' that we hold every Thursday afternoon. The concept of this afternoon was to allow members of the Museum to 'walk-in' with a query or so that the smaller jobs could proceed. Alternatively, individuals have used these afternoons for chats about potential projects. Once a month these sessions are given a theme where a member of the team targets a particular subject in an informal manner. The success of these sessions has led us to think about how we could expand - this page is one example.

We cannot offer a free consultancy service to those outside of the Museum but if you have interesting queries that fit with our own tasks we will bring them into the overall equation. You may then find the answers on this very page.

V&A changes colour

We have been measuring discolouration of the V&A's facade. In 1989, the building was cleaned by a combination of damp and dry abrasive techniques.

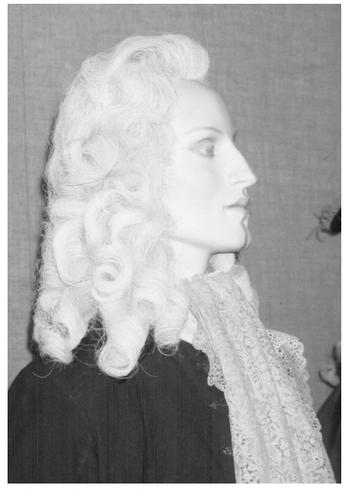
Portland stone, used on V&A's front, is known to re-form stains and discolouration after cleaning. Each face lift costs three million pounds and takes about 18 months. Colour measurement will help determine the effectiveness of the cleaning technique.

Boris taking colour measurement.

Colour measurements are taken at various points on the building. From this data colour changes are calculated. The graph represents changes for sheltered areas (measurement site facing North at roof height). A fuller report on this work will follow.

What is this Dandruff ?

An outbreak of dandruff was noticed on the shoulders of some mannequins in the Dress Court at the V&A. Facsimile wigs, that formed part of the costume display, were found to be the source. The dandruff contained titanium suggesting that the white deposit was the pigment, titanium white. This investigation by the Conservation Science section solved the mystery of the dandruff and reassured the textile conservators and curators, that although somewhat unsightly, the dandruff posed no chemical hazard to the costumes.



A facsimile wig in the Dress Court.

New Students for the Academic Year 1998/99

Helen Jones
Course Tutor, RCA/V&A Conservation Course

The start of a new year is a time of excitement and anticipation because it is a time of change. First and foremost, each intake of students brings a new "flavour" to the Course and new challenges. There are also some changes for the staff to report.

1998/99 will be a truly international year for us, with seven of the nine new students introduced here hailing from Europe, Scandinavia, Japan and New Zealand. Living as a student in London is never easy, but it is especially hard for foreign students, and most difficult of all for those coming from outside the European Economic Area (EEA). UK students are eligible to apply for bursaries from the RCA to help with both tuition fees and maintenance (though not all those who are eligible are guaranteed to get one). EEA students pay the same tuition fee as UK students and may apply for a bursary, but are not eligible for maintenance bursaries. Overseas students are required to meet the full cost of their tuition - currently over £15,000 per year - and maintenance themselves. Some are lucky enough to raise funding from their home countries, but others rely on savings, family and loans. Joining this Course can require huge sacrifice and commitment: we do our best to ensure that it is worth it.

The new intake will take the total number of students on the Course to a new high of twenty four. This is a somewhat daunting prospect, but in order to cope we are glad to welcome Alison Richmond back as Course Tutor. She will spend about half of her time devoted to the Course and the other half dedicated to Departmental responsibilities such as the internship programme. Sarah Dodman, Course Secretary at the RCA becomes full-time - so that she can now work through vacations as well as term time! The final announcement does not relieve the workload, but is very good news - in 1998/99 the Course Director, Alan Cummings, will be Professor of Conservation. Congratulations!

Paul Cadman

Aged 43, British

Preventive Conservation Research: The Design and Performance of Display Cases

(2 year MPhil by Thesis)

BSc (Hons) Restoration and Conservation, London Guildhall University (1998)

Paul's early career was as a Lloyd's broker specialising in marine reinsurance. From the City he moved to Munich, joining Germany's largest reinsurance company and was subsequently moved to Africa where he was responsible for business in countries in the south of the continent.

Exposure to the museum environment came as a result of a career change. He joined a specialist fibre optic lighting company, where, as well as large architectural projects, he designed schemes and equipment for a number of British conservation projects and European national collections.

For many years Paul has been a furniture restorer, having been in continuous training with Alexander O'Neil at Wadhurst, East Sussex. Whilst working on his own collection he has also undertaken work for private clients.

Work in these fields led him to seek academic qualifications at London Guildhall University where he completed a BSc in Restoration and Conservation. In his final year he specialised in developing new procedures for removing paint from period furniture and conducted research into museum display lighting.

Paul's research will begin by examining the specification procedures for display case design and manufacture. Much of the work will be aimed at enabling conservators to make more informed decisions as to what constitutes appropriate display case performance.

Paul will be supervised by Graham Martin, Head of Science and Information at the V&A.

Francesca Cappitelli

Aged 26, Italian

Twentieth Century Materials in Art, Craft and Design (collaboration with Tate Gallery)

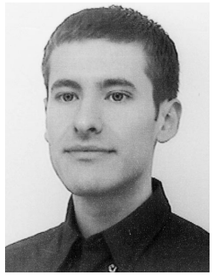
(2 year MPhil by thesis)

MA in Food Science, Universita' degli Studi di Milano, 1996

Francesca's main interests are arts and travel. At the end of her biological and chemical studies when she had to decide the subject of her thesis, the opportunity to study and identify some microorganisms which cause the deterioration of art objects appealed to her. The objects studied were the façades of Ca'd'Oro (Venice) and Certosa di Pavia, and some frescoes of Signorelli (Orvieto).

After her degree, Francesca initially worked for some months writing up her studies for publication, and teaching Biology in a school of restoration. After this, she worked as a researcher in the scientific laboratory of the "Museo del Collezionista d'Arte" in Milan. Her work there involved improving a new technique for dating wooden objects using their infrared spectra. Recently Francesca has been translating articles about DNA computing for the University of Bocconi.

Francesca will be working on oils and synthetic paint materials from the first half of the 20th century. Her supervisor will be Dr Tom Learner, Conservation Scientist, Tate Gallery.



Pedro Gaspar

Age 25, Portuguese

Methods of Cleaning Sculptural and Ceramic Materials

(2 year MPhil by Thesis)

BSc (Hons) Materials Science and Engineering, Instituto Superior Técnico, Portugal (1998)

During his degree course Pedro became very interested in conservation. He participated as a teacher in a course on "Materials Science and Technology" (specialising in conservation of gilded wood) and in the final project for his degree he began his research in conservation science by studying the effects of laser radiation on the cleaning of works of art.

His final year project concerned the laser cleaning of 18th century Portuguese tiles and was developed at the Laser Group of the Mechanical Engineering Department of the University of Liverpool with the collaboration of the Portuguese Tile Museum (Museu Nacional do Azulejo). In Liverpool Pedro also conducted research on the laser cleaning of sculptural, ceramic and other materials.

Pedro's supervisors will be the RCA/V&A Course Director, Prof Alan Cummings and the Senior Tutor of the Department of Materials at Imperial College of Science, Technology and Medicine, Dr David McPhail.

Annie Hall

Age 31, New Zealander

Metals Conservation

(3 year MA)

BA Anthropology, University of Auckland, New Zealand (1991)

Diploma in Visual Arts, Manukau Institute of Technology, New Zealand (1994)

Annie first became interested in conservation when working on a research paper at Auckland Museum for her Anthropology degree. She particularly enjoyed the object-based component of the degree.

While studying at University she also began making jewellery at night classes, working mostly in sterling silver. After finishing her degree she decided to focus on her interest in materials and making by undertaking a diploma in Visual Arts specialising in Contemporary Jewellery. She then became a self-employed jeweller, but still maintained an interest in conservation. She worked voluntarily in the Conservation Department of Auckland Museum in 1995. While working for an experienced goldsmith in 1996, she gained fuller appreciation of the properties of precious metals.

Annie has been employed as a Conservation Technician at Auckland Museum since the beginning of 1998. Her first activities in this position involved treating objects of a number of different materials for one of the new Applied Art galleries. Annie has been more recently working on Pacific jewellery due for display in the new Pacific Galleries.

Annie's supervisor will be Diana Heath, Head of Metal Conservation, V&A.

Fotini Koussiaki

Aged 28, Greek

Twentieth Century Materials in Art, Craft and Design (collaboration with Tate Gallery)

(2 year MPhil by Thesis)

Ptychion (degree) in Conservation of Antiquities and Works of Art, Technological Educational Institution of Athens (1995)

Fotini studied for five years at the T.E.I. of Athens covering the conservation of easel paintings, wall paintings, icons, wood and woodcarvings, books and paper.

The subject of her thesis was the technical and art-historical study of works by the early 20th century artist N N Lytras from the National Gallery of Athens. Following her six months practical exercise there, she was accepted as an intern in the Conservation Department working on a diverse group of easel paintings.

From October 1994 until August 1998, Fotini undertook a placement at the Directorate of Conservation of Antiquities of the Greek Ministry of Culture. Focusing on documentation and technical examination of painted surfaces and as a conservator of wall paintings in Macedonian Tombs (3rd century BC), she was involved in projects aimed at a physical-chemical characterisation of painting materials (Ministry in collaboration with National Center for Scientific Research, "Demokritos") and monitoring environmental parameters.

Fotini feels that the RCA/V&A Conservation Course offers her a great opportunity to be engaged in scientific and historical research on the use of modern materials in art. She is fortunate to have been awarded a scholarship from the Greek State Scholarship Foundation.

Fotini's supervisor will be Dr. Tom Learner, Conservation Scientist, Tate Gallery.

Heather Porter
Aged 23, British

Upholstery Conservation

(3 year MA)

BA(Hons) in Furniture Restoration and Craftsmanship, Brunel University

Heather's enthusiasm for upholstery began while she was studying for her BA(Hons) in Furniture Restoration and Craftsmanship at Buckinghamshire College of Brunel University. Traditional Upholstery became her major area of practical study in her final year and the subject of her thesis. Heather researched the developments of the spring before its introduction into upholstered furniture.

After graduation Heather worked for a traditional upholsterer and also enrolled on a placement training scheme at the Rural Development Commission in Salisbury. This course gave her the opportunity to further develop her practical skills and historical knowledge of traditional upholstery. Heather is a member of the Guild of Traditional Upholsterers and was elected onto the committee earlier this year.

Heather's keen interest in conservation began when she was invited by the Textile Conservation Studio to help with the cleaning programme of Queen Caroline's State Bed (c1733) at Hampton Court Palace. She was introduced to the techniques involved in the care and preservation of objects through documentation and cleaning, and decided she would like to apply this to upholstered furniture.

Heather looks forward to drawing from all her previous experience and applying her skills into learning specifically about the conservation of upholstery.

Heather's supervisor will be Derek Balfour, Senior Conservator (Upholstery), V&A

Shiho Sasaki
Aged 32 Japanese

Japanese Prints

(2 year MA)

Certificate in Fine Arts, Bunka Gakuin College (1988)

Shiho developed an interest in Japanese prints while studying a wide variety of printmaking techniques such as lithography, etching, silk-screen and woodcut at Bunko Gakuin College and the Yoshida Hanga Academy. She has worked for dealers in woodcut prints in Japan. She knew from an early stage that this was the area in which she wished to specialise.

Because opportunities to study paper conservation are limited in Japan, Shiho came to London to join the BA in Conservation at Camberwell College of Art. In the middle of this three year programme, the MA in the Conservation of Japanese Prints on the RCA/V&A Course was announced. Shiho felt that such an opportunity could not be missed and, having been accepted, left Camberwell before taking her final year there. She looks forward to specialising in her chosen field and working on the V&A's collections.

Shiho will be supervised by Pauline Webber, Head of Paper Conservation, V&A.

Ricard Sundström
Aged 27, Swedish

Painted and Decorated Surfaces

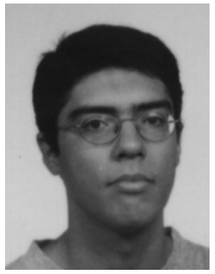
(3 year MA)

Apprenticeship with the Institute for Conservation, Central Board for National Antiquities, Sweden (1992-1995)

Ricard had accumulated several years of practical conservation experience before joining the RCA/V&A Course, but felt that he needed to complement this with a sound theoretical training and a recognised qualification. During his apprenticeship he was based in the Department for Polychrome Sculpture which is responsible for the conservation of medieval painted sculptures and panels in Stockholm's National Historical Museum and in churches maintained by the Central Board for National Antiquities. Ricard participated in all aspects of interventive and preventive conservation.

Since then, Ricard has been employed on various conservation projects in both the private and public sector in Sweden and Norway. Most recently he worked for the Swedish National Heritage Board, in the division for the conservation of church collections.

Ricard was attracted by the combination of practical and theoretical training on the RCA/V&A Course and by the prospect of sharing experiences with other students. He will be based primarily in the V&A's Furniture Conservation Studio, supervised by its Head, Albert Neher. It is expected that Ricard will also spend some time in the V&A Sculpture Conservation Studio and perhaps with external institutions.



Thanasis Velios
Aged 22, Greek

Computer Applications in Conservation

(2 year MPhil by Project)

Ptychion (degree) in Conservation of Antiquities and Works of Art, Technological Educational Institution of Athens (1998)

1 year course 3D Animation and Computer Visualization, Anodos S.A., Athens (1998)

The idea of becoming a conservator first came to Thanasis during an excursion to the Monastery of Dafni, when he was in the third grade of primary school.

Having completed the 4-year course at the T.E.I. Thanasis was able to work as a conservator in several conservation projects and excavations. The materials he has worked on are mosaics, metals and stone although he had the opportunity to work on ceramics, glass, stained glass, waterlogged wood and bones. Thanasis' thesis dealt with the mechanical properties of corrosion layers on copper and its alloys.

As well as Conservation Thanasis has been very interested in computers for many years. He finally studied 3D modelling along with several digital image processing techniques, with the intention of applying this new technology to the conservation of antiquities.

Thanasis feels that the Royal College of Art and the V&A provide a very good environment in which to study this particular area. Thanasis hopes that he will be able to help solve difficult conservation problems. He believes that the Course will broaden his knowledge on conservation and will give him all the necessary tools to progress the work that has already been done and to produce new work on this field.

Thanasis will be supervised by Prof Alan Cummings, Conservation Course Director.

V&A New Staff

Frances Hartog
Textile Conservator, Textile Conservation

At the start of 1989, following a career change, I began an apprenticeship in textile conservation with Ksynia Marko (ex V&A). The training covered a wide range of textiles including tapestry and attendance at various conservation science courses. At the end of the three years I came to the V&A for an internship in Textile Conservation which was both instructive and enjoyable.

Following my training I moved to Hampton Court, where I fulfilled a short contract at the Textile Conservation Studios (HRPA) before taking up a more permanent post with the Textile Conservation Centre in the tapestry department. Then, in search of more three-dimensional experience, I undertook a contract at the Museum of London where I spent two happy years preparing costume for the exhibition In Royal Fashion. At the end of the contract I moved to Norfolk, returning to work with Ksynia Marko, now managing the National Trust Textile Conservation Studio at Blickling Hall. The work there was extremely varied with collections from the diverse houses forming the core. As well as bench work, it entailed a certain amount of travel around the UK examining objects for condition reports and estimates, and carrying out first aid work. However, the call of the big city and the opportunity of working at the V&A as a permanent member of staff proved too strong and after two years in rural England I have returned to London, and, much to my delight, to the outstanding patisseries of South Kensington. I hope to put my experience to good use and, with the support of my colleagues and the incentive of a wonderful collection, to expand it considerably.

Conservation Department Staff Chart

Head of Conservation
Jonathan Ashley-Smith

Secretary
Annabel Swindells

RCA/V&A Course Director
Alan Cummings

Head of Science and Information
Graham Martin

RCA/V&A Course
Helen Jones

Conservation Library
Alice Rymill

Science
Boris Pretzel
Hannah Eastwood
David Ford
Paula Mills

Information/ Interns
Alison Richmond

Administration
Abigail Wright

Students

*Furniture**
Rowan Carter *(MA)*
Victoria Doran *(MPhil)*
Ricard Sundström *(MA)*

*Metals**
Annie Hall *(MA)*
Lyndsey Morgan *(MPhil)*
Kirstie Reid *(MPhil)*

*Paper**
Sandra Grantham *(PhD)*
Magdalena Kozera *(PhD)*
Cecilia Rönnerstam *(MA)*
Shiho Sasaki *(MA)*

*Textiles**
Elizabeth-Anne Haldane *(MA)*
Heather Porter *(MA)*

Computer Visualisation
Nicholas Frayling *(PhD)*
Angela Geary *(MPhil)*
Thanasis Velios *(MPhil)*

Risk Assessment
William Lindsay *(PhD)*

*Sculpture**
Metaxia Ventikou *(MA)*
Deborah Morey *(MA)*
(With Holden Conservation Services)

Social History Objects
Laura Davies
(With Museum of London)

20th Century Materials
Francesca Cappitelli *(MPhil)*
Fotini Koussiaki *(MPhil)*
(with Tate Gallery)
Silvia Valussi *(MPhil)*

Science
Paul Cadman *(MPhil)*
Pedro Gaspar *(MPhil)*

Ethnographic Materials
Victoria Hobbs *(MA)*
(With Horniman Museum)

*denotes discipline, not necessarily the V&A Conservation Department Section

Internships

Paintings
Filipa Cordiero
Annabelle Mills
Gina Garcia
Eowyn Kerr

Furniture
Henriette Stuchtey
Therese Dahlerus

Paper
Chandrahasa Bhat
Lisette Kampmann

Furniture
Albert Neher
Tim Miller
Christine Powell
Tim Hayes
Nigel Bamforth

Ceramics & Glass
Victoria Oakley
Fi Jordan
Juanita Navarro

Metals
Diana Heath
Simon Metcalf
Joanna Whalley
Sophia Wills
Ingrid Barré

Sculpture
Richard Cook
Charlotte Hubbard
Alexandra Kosinova

Books
Jane Rutherston
Bridget Mitchell

Textiles
Lynda Hillyer
Marion Kite
Val Blyth
Anne Amos
Derek Balfour
Albertina Cogram
Audrey Hill
Frances Hartog
Zenzie Tinker

Paper
Pauline Webber
Alan Derbyshire
Merryl Huxtable
Elizabeth Martin
Michael Wheeler
Alison Norton
Amanda Larratt

Mounters
Danny Norman
Clair Battisson
Simon Fleury
Chris Gingell

Paintings
Nicola Costaras
Katharine Donaldson

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