

## PLAIN PLASTICS

## TAKING A BASIC APPROACH TO UNDERSTANDING PLASTICS

Plastic is a modern convenience that is proving to be more than an inconvenience in museums and galleries. As plastics hide amongst collections they deteriorate unnoticed. More often than not it is a flustered curator who brings a deteriorated plastic to the conservator's attention, having sought it out by aid of a bad smell or worse still a slight acid burn. The ability of plastics to undergo rapid change is a pressing concern for conservators. Slowing the rate of deterioration, dealing with the by-products of degradation and preserving what remains are generally the focus for coping with plastics in collections. This article briefly explains some polymer chemistry terms and how they apply from a conservation perspective and includes a quick reference chart that summarizes some plastics likely to be found in collections, their features, characteristic deterioration and conservation considerations.

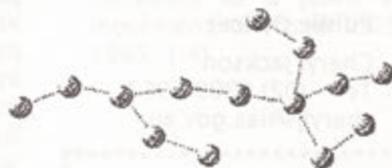
## Simple Polymer Chemistry

*Polymers* are a class of chemical compounds of long-chain bonded atoms, of which plastics make up a significant group. A single chemical unit is called a *monomer* and when joined in succession forms a polymer. If the polymeric chains are made up of only one monomer type it is called a *homopolymer*. A *copolymer* is derived from the use of two monomers and a *terpolymer* from three monomer types. Polymeric chains can be linear, branched or cross-linked, arranged in amorphous, crystalline and semi-crystalline structures.

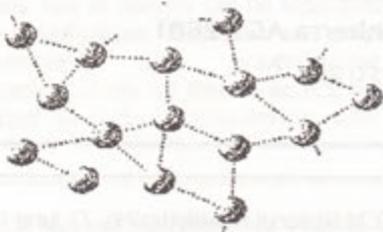


'flow'. Cold flow occurs under the influence of the plastic's weight, pushing the chains past each other allowing the plastic to creep. Linear polymers in general are readily affected by solvents which can soften and/or dissolve them. (Baker 1995, 307; Brady & Clauser 1986, 628). Example: polymethyl methacrylate.

**Branched polymeric chains** form bonds along the sides of the long-chain units. Branched polymers can be arranged in several different structural patterns. Branching produces a plastic with a greater resistance to impact and abrasion. (Barron 1946, 81). Example: low density polyethylene.



**Cross-linked polymeric chains** do not form long-chain units. They instead form interlinking bonds between the chains creating a networked structure. The degree of cross-linking produces polymers with different properties. Low density cross-linking produces a plastic with the capacity to undergo stress eg. stretching, and return to its original shape. This occurs because the networks allow the chains to stretch out, but not so far that they become miss-aligned. When the stress is removed the chains return to their original position. These polymers are referred to as elastomers. As the number of cross-links increase the polymer becomes more rigid and hard.



**Linear polymeric chains** are made up of countless polymeric chains with no side bonding. Plastics of linear chain compounds have the capacity for 'cold

flow'. Cold flow occurs under the influence of the plastic's weight, pushing the chains past each other allowing the plastic to creep. Linear polymers in general are readily affected by solvents which can soften and/or dissolve them. (Baker 1995, 307; Brady & Clauser 1986, 628). Example: polymethyl methacrylate.

**Cross-linked polymeric chains** do not form long-chain units. They instead form interlinking bonds between the chains creating a networked structure. The degree of cross-linking produces polymers with different properties. Low density cross-linking produces a plastic with the capacity to undergo stress eg. stretching, and return to its original shape. This occurs because the networks allow the chains to stretch out, but not so far that they become miss-aligned. When the stress is removed the chains return to their original position. These polymers are referred to as elastomers. As the number of cross-links increase the polymer becomes more rigid and hard.

(continued on page 3)

## Inside This Issue

Feature	1
Plain Plastics	
From the Editor	3
Lab Profile	9
Australian National Maritime Museum	
AICCM News	10
Opinion	12
People and Places	15
Further Afield	19
Report from the Fiji Museum	
The Galle Harbour Project, Sri Lanka	
Special Interest Groups	20
Information	22
Grants and Funding	24
Technical Exchange	24
Reviews	26
AICCM Paintings Group Symposium 1999	
Conservation of Waterlogged Wood	
Advertisements	27

The AICCM National Newsletter is the quarterly newsletter of the Australian Institute for the Conservation of Materials (Inc.)

It is issued to all members as part of a membership entitlement in March, June, September and December.

Deadlines for copy are:

1 February

1 May

1 August

1 November

Contributions are welcomed and should be sent to:

Alice Cannon, Editor

Artlab Australia  
70 Kintore Avenue  
Adelaide SA 5000  
Australia

Tel: (08) 8207 7520  
Fax: (08) 8207 7529  
acannon@bigpond.com

Advertising is accepted.

#### Positions Vacant

half column \$50.00  
full column \$100.00

#### Commercial

half column \$100.00  
full column \$200.00

Advertising for inclusion in body of Newsletter accepted until the 7th day of the month in which the Newsletter is due. Early booking preferable. Special rates for multiple advertisements. Insertions also carried.

**Disclaimer:** Publication of technical notes or articles with reference to techniques and materials does not necessarily represent an endorsement by AICCM. Whilst every effort is made to ensure the accuracy of content, the Editor and the AICCM National Council accept no responsibility for the content or opinions expressed in the AICCM National Newsletter which are solely those of individual contributors.

The AICCM National Newsletter is published with the assistance of a grant from the Commonwealth Department of Communications, Information Technology and the Arts.

### AICCM National Council 1998-1999

#### President

Robyn Sloggett  
Tel: (03) 9344 7989  
Fax: (03) 9347 7448  
r.sloggett@art-  
museum.unimelb.edu.au

#### Vice President

Marcelle Scott  
Tel: (03) 9291 2145  
Fax: (03) 9291 2159  
mscott@mov.vic.gov.au

#### Secretary

Margaret Alexander  
Tel: (02) 6254 8695  
Fax: (02) 6278 4363  
alexand@dynamite.com.au

#### Treasurer

Julian Bickersteth  
Tel: (02) 9417 3311  
Fax: (02) 9417 3102  
j.bickersteth@ibm.net

#### Publications Officer

Position Vacant

#### Ordinary members

Jenny Dickens  
Tel: (03) 9628 5913  
Fax: (03) 9628 5837  
jenny.dickens@doi.vic.gov.au

Vinod Daniel  
Tel: (02) 9320 6115  
Fax: (02) 9320 6070  
vinodd@amsg.austmus.gov.au

#### Public Officer

Cheryl Jackson  
Tel: (02) 6209 6967  
cherylj@naa.gov.au

### State Representatives

ACT - Kim Brunoro  
Tel: (02) 6240 6463  
Fax: (02) 6240 6529  
KimB@nga.gov.au

NSW - Catherine Akeroyd  
Tel: (02) 9417 3311  
Fax: (02) 9417 3102  
c.akeroyd@ibm.net

QLD - Carolyn Murphy  
Tel: (07) 3842 9296  
Fax: (07) 3844 8865  
Carolyn.Murphy@qcc.qld.gov.au

VIC - Jude Fraser  
Tel: (03) 9291 2105  
Fax: (03) 9291 2159  
jfraser@mov.vic.gov.au

SA - Joanna Barr  
Tel: (08) 8207 7520  
Fax: (08) 8207 7529  
artlab@senet.com.au

TAS - Linda Clark  
Tel: (03) 6331 6777  
Fax: (03) 6337 1117  
linda@qvmag.tased.edu.au

WA - Sophie Lussier  
Tel: (08) 9492 6733  
Fax: (08) 9492 6655  
conserva@artgallery.wa.gov.au

#### AICCM Bulletin Editor

Vinod Daniel  
Tel: (02) 9320 6115  
Fax: (02) 9320 6070  
vinodd@amsg.austmus.gov.au

#### AICCM Secretariat Officer

Sue Mayrhofer  
Tel: (02) 6270 6504  
Fax: (02) 6273 4825  
smayrhofer@ieaust.org.au

#### AICCM Home Page:

<http://www.vicnet.au/~conserv/aiccmhc.htm>

All correspondence should be addressed to:

AICCM Inc.  
GPO Box 1638  
Canberra ACT 2601  
Australia



**Thermosets** are cross-linked or cured plastics that are relatively unaffected by heat. These plastics do not have the capacity to be reprocessed through the use of heat. The degree of cross-linking between chains affects the thermal dynamic properties of the polymers. Some flexibility remains between the bonded molecules providing a limited and usually insignificant degree of temperature response. A thermoset plastic may become rubbery under sufficient heat but with extensive cross-linking the heat required to produce flexibility is in the range of the decomposition temperature, producing a plastic that will remain resistant to heat to the point of deterioration. Ebonite, epoxies, vulcanised rubber, phenolics, polycarbonate and unsaturated polyester are examples of thermoset plastics. (Brydson 1975, 47; Saechtling 1983, 1-4).

**Glass transition temperature (T<sub>g</sub>)** is an important thermodynamic concept in relation to polymers. The glass transition temperature is that point at which there is a change between a solid and flexible state and only occurs in the amorphous regions of a polymer's structure. Below the T<sub>g</sub> a plastic will become increasingly brittle, while above the T<sub>g</sub> a plastic will become more flexible.

Hard plastics are used below their T<sub>g</sub> where they are rigid and strong, while elastomers are used above their T<sub>g</sub> where they are flexible. Plastics with a T<sub>g</sub> close to ambient temperature generally have a surface that is neither hard nor resistant to abrasion and soiling. (Baker 1995, 306-307; Tennent 1988, 6). Plasticisers used in the manufacture of many plastic materials readily affect the glass transition temperature. Plasticisers are included in the processing to improve the working properties of plastics and in addition alter the T<sub>g</sub>.

**Melt temperature (T<sub>m</sub>)** indicates the temperature at which there is a change in a polymer's crystalline regions. When sufficient heat is applied to a plastic molecular movement increases and the polymer chains become disordered and begin to flow.

#### Plastic Deterioration

From the initial manufacturing process, through to the end of an object's useful life, any number of environmental and mechanical factors can influence the stability of plastic. Production using impure or poor quality chemicals, trace metals picked up during manufacture, residual chemicals and manufacturing stress can create inherent vice, influencing early deterioration. Environmental conditions such as exposure to heat, light and moisture also induce deterioration and in some cases hasten degradation. Plastics deteriorate in many ways with environmental weathering, oxidation, hydrolysis, plasticiser migration and auto-catalytic deterioration being common degradation processes.

**Environmental weathering** is a recognised term in the study of polymer degradation and refers to the combined effects of light and heat, and to a lesser extent oxygen and water. Environmental weathering causes changes in the chemical

structure of the polymeric chains, leading to weakening and embrittlement of the plastic. It can alter the surface appearance of plastics through any number of possible degradation types, including discolouration, fading, loss of luster, chalking, crazing and cracking. (Kennet 1982, 6-8).

**Oxidation** is chemical degradation initiated or exacerbated by an interaction with oxygen. Oxidation occurs with a reduction in an atom or molecule's electron charge. The reaction is considered to be auto-accelerating as the initial stages are slow and relatively undetectable leading to faster, self-sustaining reactions. Oxidation reactions produce hydroperoxides which break down under certain conditions creating 'free radicals'. Free radical species are highly reactive and will interfere with the polymeric chains. (Shelton 1978, 215). Chain scission with a subsequent loss of the mechanical properties is one of the main symptoms of oxidized plastics. Photo-oxidation, thermal oxidation and ozone attack are three distinct oxidative reactions.

**Hydroperoxides** are compounds containing O<sub>2</sub>H groups and begin to be formed in the early stages of oxidation, with an increasing amount produced as the auto-accelerating oxidation reaction proceeds.

**Photo-oxidation** is the combined action of oxygen and light (including total solar and ultraviolet radiation), and is a key factor in environmental weathering.

**Thermal oxidation** is the combined affect of oxygen and heat. Thermal stability is dependent on the structural bonding of the polymeric chains. This structure also influences the rate of oxidation and the subsequent physical changes of oxidative deterioration.

**Ozone** is a molecule of three oxygen atoms. It is a highly reactive form of oxygen that occurs naturally through a photochemical reaction and is a strong oxidizing agent.

**Plasticiser migration** occurs because these additives, included to increase the flexibility of polymers, do not chemically bond to the polymeric chains. (Calmes 1993, 97). Environmental weathering and heat are known to promote the movement of plasticisers. (Kennett 1982, 7-8). These additives generally migrate to the surface where they deposit as powdery, crystalline or sticky residues. Camphor plasticisers used in the production of cellulose nitrate can undergo sublimation, converting directly to a vapour phase leaving no visible surface residues. As plasticiser migration continues the plastic becomes increasingly brittle and is likely to distort and crack.

**Hydrolysis** is chemical decomposition involving bond splitting with the addition of the hydrogen cation and hydroxide anion of water. Hydrolysis causes chain scission which is the breaking of bonds along the polymeric chains. (Crighton 1988, 14; Reilly 1991, 153-155). Hydrolytic deterioration is generally initiated by acidic or alkaline environments, oxidation reactions,

moisture and high relative humidity. This process initiates a reaction in some polymers that is characteristic of depolymerisation, a reversal of the original formation process. Cellulose based plastics and polyester are particularly prone to this type of deterioration. Hydrolytic reactions involved in de-nitration of cellulose nitrate and 'vinegar syndrome' of cellulose acetates have been well documented.

**Auto-catalytic deterioration** refers to the self-perpetuating and sometimes accelerated degradation of a plastic due to the reaction and by-products of its deterioration. For example polyvinyl chloride undergoes auto-catalytic deterioration through the cleaving of bonded hydrogen chloride, which triggers the further splitting of neighboring HCl in a manner that has been termed 'un-zipping'. (Grassie & Scott 1985, 18; Shashoua 1996, 962). Both cellulose nitrate and cellulose acetate produce acidic degradation by-products. If left to accumulate, the acidic environment influences the chemical reactions taking place, speeding up the deterioration process.

#### **Terms used to describe plastic deterioration**

It is extremely important to correctly describe an item's condition, as in a short period of time further changes can take place altering the appearance of the object. To maintain accurate documentation of an object's conservation history, recording meaningful and correct statements of the visual appearance is crucial. Therefore conservators must tune their descriptive vocabulary to suit.

There are many generic terms used to describe the aged or degraded appearance of materials in general, such as friable, stained, fragile, distorted and weak. The characteristics of aged and deteriorated plastics are many and varied and may well be accurately defined by many of the common terms. The following short glossary provides some of the more particular descriptions of deterioration specific to plastics.

**Chalking** occurs as the outer surface of a plastic oxidises causing the surface layers to become dry and powdery. This in turn reduces the surface luster or sheen and leaves the plastic susceptible to ingrained and sometimes permanent soiling.

**Corrosion** can occur when metal is in contact and sometimes in close proximity to deteriorated plastics. Acidic vapours produced by some deteriorating plastics generate the corrosion. The corroding metal, when in contact with the plastic in turn accelerates the rate of plastic deterioration. (Reilly 1991, 159).

**Cracking** refers to splits in the plastic that in general follow the grain or direction of manufacture. These openings often provide an easier pathway for migrating plasticisers and stabilisers.

**Crazing** is the term used to describe fine networks of cracks that develop on the surface or within the plastic but do not completely penetrate the material. Crazing is a consequence of chemical and environmental degradation causing highly directional or

completely non-directional crack patterns.

**Deformation** occurs when an area of plastic loses its strength creating an area of collapse. Deformation can also occur as physical damage where external impact or pressure causes a depression.

**Discolouration** is often represented as yellowing or darkening of the plastic surface and is generally the first indication that a plastic is undergoing deterioration. This is often an indication of environmental weathering.

**Embrittlement** refers to a loss of strength and or flexibility resulting in structural weakness. It is often caused by plasticiser loss and environmental weathering.

**Ferrotyping** occurs when two smooth surfaced materials, one being plastic, come into contact under pressure. The result being that a shiny surface is passed to the other material. (Calmes 1993, 97). This is frequently seen on the surface of photographs stored in plastic sleeves.

**Gelation** is the culmination of the deterioration process of cellulose nitrate that has undergone harsh environmental, chemical and/or physical degradation. The chemical reaction that originally produced the plastic in a sense reverses and the plastic is reduced to a soft, gooey mess.

**Offsetting** occurs when plastics adhere to the ink and toner of paper documents or the image layer of photographic prints. Most commonly noted with polyvinyl chloride, the plasticiser, dioctylphthalate, acts as a solvent which dissolves and attracts the toners and dyes. (Calmes 1993, 97).

**Stress-cracking** is cracking induced and/or furthered by externally applied forces such as mechanical pressure, heat and the presence of certain chemicals.

**Stress-crazing** is crazing induced and/or furthered by externally applied forces such as mechanical pressure, heat and the presence of certain chemicals.

**Sweating** appears as substances exude from a plastic. Plasticisers, stabilisers and fire retardants often sweat out of plastics causing the surface to become moist and tacky. These substances, particularly if they are acidic, can cause adverse reactions with other materials with which they come in contact.

**Verdigris staining** can occur if copper in contact with plastic, particularly polyvinyl chloride, begins to corrode. The copper leaves distinctive, disfiguring green stains in the plastic.

**Warping** results in a change of an object's original shape and dimensions. Warped plastics often twist along lines of stress introduced during the manufacturing process.

#### **Quick Reference Chart**

The accompanying chart is drawn from information in a number of references. It has been compiled as an easy reference index, providing summarised information covering a number of plastics commonly found in museum and gallery

PLASTIC	COMMON OR TRADE NAMES	FIRST PRODUCED	CHARACTERISTICS	APPLICATIONS	THERMAL DYNAMICS	ENVIRONMENTAL WEATHERING
cellulose nitrate	Parkesine Celluloid Xylonite	1870s	excellent toughness fair chemical resistance soft and supple films camphor plasticiser odour inflammable imitation ivory, tortoise shell, amber, hard rubber	photographic / cine film lacquers, adhesives grooming accessories jewellery false teeth Ping-Pong balls	thermoplastic  Tg 71°C	discolouration and embrittlement on moderate exposure; increases the rate of deterioration of already degraded material; induces plasticiser migration; warping
casein	Galalith Erinoid	1899	rigid polishes to a high gloss imitation tortoise shell, jade, pearl, ivory, bone, amber, horn	ornaments buttons knitting needles cutlery handles	thermoplastic  softens ~150°C	discolouration dehydration shrinking colour fading
phenol formaldehyde	Bakelite Catalin Resinite	1907 (varnish) 1920 (moldings)	excellent rigidity excellent heat resistance fair chemical resistance glossy, dense and hard dark coloured mouldings castings could be clear	domestic appliances and commodities; electrical equipment automotive parts	thermoset  general stability 149-260°C	surface chalking that is considered to be a 'possible protective' oxidised layer/patina; discolouration (generally brown); loss of surface luster
amino formaldehydes thiourea formaldehyde urea formaldehyde melamine formaldehyde	Beatware Beetle ware (as in - beat all)	1926	excellent scratch resistance sound chemical resistance translucent	unbreakable tableware picnic accessories domestic commodities	thermoset  distorts ~138°C	discolouration (generally brown) loss of surface luster surface chalking
cellulose acetate	Lumarith Vuelite Celastoid	1910 (film) 1927 (moldings)	poor chemical resistance fair toughness firm and supple films some flexibility in moldings transparent non-flammable	photographic/cine film lacquers, coatings domestic items fabric	thermoplastic  Tg 50°C Tm 96°C	discolouration warping surface chalking
hard rubber	Ebonite Vulcanite	1830s	excellent chemical resistance excellent rigidity excellent toughness black; red/black ripple colour	electrical insulation battery casings jewellery, fountain pens pipe stems, wind instruments	thermoset  distorts ~78°C	loss of luster surface chalking crazing
polymethyl methacrylate	Acrylic Perspex Lucite	1930s	excellent transparency and light transmission; sound rigidity fair impact strength fair heat resistance poor scratch resistance	light fixtures lenses signage case constructions fittings	thermoplastic  Tg 115-120°C	resistant to weathering, although prolonged exposure induces discolouration and crazing leading to eventual reduction in light transmission; early coloured material tends to fade
polyvinyl chloride	PVC	1930s (plasticised) 1950s (rigid)	sound rigidity and flexibility fair chemical resistance poor heat resistance transparent conductive	appliance housings bottles, squeeze tubes piping packaging automotive trim	thermoplastic  Tg 80-85°C	HCl evolution can occur at ambient temperature; promotes plasticiser migration; reduction in impact strength; increased stiffness
polyethylene	LDPE (low density) HDPE (high density) Tyvek	1933 1953	excellent toughness excellent chemical resistance poor heat resistance transparent, conductive odourless, waxy feel	food, drink packaging bags, toys, piping, disposable commodities	thermoset thermoplastic  Tg 80-130°C Tm 137°C	highly sensitive to UV light; discolouration (sometimes in patches); influences stress cracking; embrittlement colour fading
polyester polyethylene terephthalate	Dacron Mylar Melinex	1941 (fibre) 1950s (resin)	excellent wear resistance excellent heat resistance excellent toughness sound physical properties sound abrasion resistance some chemical resist. types	computer fittings automotive fittings electrical components archival storage packaging, bearings	thermoset (unsaturated) thermoplastic  Tg 50-70°C Tm 265°C	discolouration with age
polypropylene	Coreflute	1959	excellent chemical resistance sound rigidity poor physical properties poor heat resistance transparent, waxy feel	carpeting, packaging automotive trim battery casings hinged packaging disposable commodities	thermoset thermoplastic  Tg -17°C Tm 175°C	discolouration and embrittlement on failure of UV absorbers

MOISTURE & %RH	HYDROLYSIS	OXIDATION	OTHER	CONSERVATION CONSIDERATIONS
limited resistance to moisture and fluctuating %RH; nitrogen oxides, sulphates and oxalates combine with moisture to form acids that promote autocatalytic degradation	readily susceptible to alkaline hydrolysis (de-nitration) and acid hydrolysis; crazing	photo-oxidation occurs in combination with environmental weathering	camphor plasticiser is prone to sublimation at ambient temperature leading to embrittlement, cracking and warping; severe chemical and physical degradation leads to softening and gelation; releases a pungent deterioration odour; decomposed by alkalis	avoid washing, particularly alkaline baths; cellulose nitrate adhesives may be useful in repair; soluble in alcohols and other solvents; low %RH and $\alpha C$ (40% and 20 $\alpha C$ ); allow for air circulation; do not place in contact with buffered acid-free tissue; use an acid vapour sorbent if necessary References: 4, 5, 11, 12, 15, 19, 20, 25
hygroscopic and therefore prone to swelling and shrinking; continued dimensional changes lead to crazing		susceptible to photo-oxidation; discolouration; crazing	softens on exposure to alkalis and acids; easily stained	avoid washing, particularly as some dyes are water soluble; extremely stable moderate %RH and low $\alpha C$ References: 5, 15
prolonged contact with moisture and frequent severe fluctuation in %RH can induce surface deterioration; deteriorated material can swell with prolonged contact with water	considered to be resistant to hydrolysis, although impurities may form weak acids in reaction with water	susceptible to thermal and photo-oxidation leading to surface chalking	excessive heat causes discolouration, blisters and cracks; not resistant to acids and alkalis	PVA adhesives may be useful in repair; moderately dry storage conditions; use non-buffered acid-free tissue in storage References: 4, 5, 15
prolonged contact with moisture induces crazing; contact with boiling water can cause decomposition		susceptible to thermal and photo-oxidation	amino formaldehydes share similar characteristics of deterioration, with melamine being the most stable and thiourea the least stable	formaldehyde and ammonia are by-products of deterioration and should be considered in storage; use a vapour sorbent if necessary References: 4, 5, 15
limited resistance to moisture and fluctuating %RH; moisture contributes to acid formation which promotes autocatalytic degradation; swells in water	readily susceptible to acid hydrolysis; sweating moderate crazing	photo-oxidation occurs in combination with environmental weathering	plasticiser readily migrates leading to shrinking, warping and embrittlement; releases a vinegar-like deterioration odour; decomposed by acids and alkalis	soluble in ketones, alcohol, chlorinated solvents; PVA adhesives may be useful in repair; low %RH and $\alpha C$ (40% and 20 $\alpha C$ ); allow for moderate air circulation; use an acid vapour sorbent if necessary References: 4, 5, 15, 18
moisture combines with the sulphur oxide (oxidation by-product) to form sulphuric acid		susceptible ozone attack, thermal and photo-oxidation leading to the formation of sulphur oxides; indicated by discolouration	contact with some metals, particularly copper can accelerate oxidation; deterioration is often focused on the surface layers	low %RH and $\alpha C$ References: 1, 5, 9, 15
high resistance to moisture	susceptible to hydrolysis in the presence of sulfur dioxide	undergoes photo-oxidation in combination with environmental weathering	subject to stress-crazing in the presence of some chemicals, particularly alcohol (especially ethanol) tendency to cross-link with age; residual monomer and solvents may off-gas	Perspex is often used as a support material; several adhesives may be useful in repair with selection dependant on the requirements: Hxtal NYL-1, Norland OAS4, 1:1 Paraloid B56 & F9 in petroleum spirits References: 2, 4, 5, 15, 22, 27
can contribute to plasticiser migration; moisture can combine with vaporous HCl to form acids	readily susceptible to acid hydrolysis inducing autocatalytic cleaving of HCl molecules from the polymeric chains; progressive discolouration from white - red - brown - black	both thermal and photo-oxidation processes are involved in dehydrochlorination reactions	trace metals e.g. iron and copper can catalyze deterioration; plasticisers are volatile and readily lost causing stiffening and embrittlement; plasticiser that collects on the surface attracts particulate matter	avoid the use of solvents and detergents as they can increase the rate of plasticiser migration; acrylic adhesives may be used for repair; susceptible to soiling; low %RH and $\alpha C$ ; allow for moderate air circulation; use an acid-adsorbent if necessary References: 4, 5, 9, 15, 23, 27
fairly resistant to moisture	fairly resistant to hydrolytic deterioration	highly sensitive to oxygen; susceptible to thermal and photo-oxidation which induces autocatalytic deterioration; generally pigment stabilised to prevent oxidation reactions	surface active agents e.g. detergents, can induce stress-crazing	Tyvek fibre bonded sheeting useful for storage covers and support linings; noted as extremely difficult to adhere References: 2, 4, 9, 15, 21, 27, 28
fairly resistant to moisture although some types have little resistance	some susceptibility to hydrolysis	susceptible to oxidation and progressive photolysis	resistant to stress-crazing; decomposed by alkalis; not resistant to many solvents	methylcellulose, acrylic cyanoacrylates and epoxy adhesives may be considered (in that order) for use in repair; organic acids are a by-product of deterioration therefore use an acid vapour sorbent if necessary References: 2, 4, 15, 21, 27
extremely low water sorption; sound stability during fluctuations of %RH		susceptible to photo-oxidation leading to crazing; generally pigment stabilised	contact with copper will promote deterioration; will develop a high level of static charge; may off-gas additives; some grades resistant to radiation	Coreflute useful in custom box construction, although the static charge attracts dust; avoid contact with metals in general; some distortion may occur in moulded storage boxes; References: 2, 4, 14, 15, 16, 21, 27

collections. The information contained in the chart is abridged. For clarification and further information search the references listed at the end of each row.

There are minor discrepancies between sources, particularly in the listings of 'date of production' and 'thermal dynamics'. The production dates listed should be used as a guide only as sources list numerous and sometimes conflicting dates, due to different patents and manufacturing periods. The temperatures listed in 'thermal dynamics' should also only be used as a guide. It is important to remember that plasticisers, stabilisers and the polymeric structure all influence the response to temperature.

It should also be noted that while some plastics are listed as having resistance to environmental weathering, moisture etc., the level of resistance is significantly reduced as the plastic ages. Therefore, aged plastics are likely to react unexpectedly to environmental conditions and treatment procedures.

### Conclusion

This article and the quick reference chart are intended to be a starting point or a point of reference when digging through more comprehensive texts. Polymer chemistry is a complex and perplexing science. The reactions and changes that take place as plastic deteriorates influences the way in which the material will respond to the surrounding environment. This is one of the most important aspects of polymer science and well worth considering, in regard to plastic conservation and preservation.

Conservators should exercise caution and carefully test all materials proposed for conservation treatments. Deteriorated plastics are likely to respond to solvents, cleaning solutions and adhesives in unexpected and adverse ways. This has led to investigative studies in the safe storage of deteriorated plastics, which have provided some useful passive approaches in prolonging the life of plastics.

### References

- 1 Bacon, L. (1988) *The Deterioration of Four Giorgi Flutes Made of Ebonite and a Possible Method for their Conservation* in 'Conservation Today: papers presented at the UKIC 30<sup>th</sup> Anniversary Conference, 1988 London: United Kingdom Institute of Conservation pp. 96-100
- 2 Baker, M. (1995) *Synthetic Polymers* in 'Storage of Natural History Collections. Vol. 1, a preventive conservation approach' Ed. C. Rose, C. Hawks, H. Genoways pp. 305-323
- 3 Barron, H. (1946) *Modern Plastics* London: Chapman & Hall Ltd
- 4 Blank, S. (1990) *An Introduction to Plastics and Rubbers in Collections* in 'Studies in Conservation' Vol. 35:2 pp. 53-63
- 5 Brady, G. & Clauser, H. (1986) *Materials Handbook* New York: McGraw-Hill
- 6 Brydson, J. (1975) *Plastic Materials* London: Newnes-Butterworth
- 7 Calmes, A. (1993) *Plastics Found in Archives in 'Saving the Twentieth Century: the conservation of modern materials'* Ed. D. Grattan Canada: Canadian Conservation Institute pp. 95-102
- 8 Crighton, J. (1988) *Degradation of Polymeric Materials* in 'Modern Organic Materials' Edinburgh: Scottish Society for Conservation and Restoration pp. 11-19
- 9 Davis, A. & Sims, D. (1983) *Weathering of Polymers* Essex: Applied Science Publishers
- 10 Grassie, N & Scott, G. (1985) *Polymer Degradation and Stabilisation* Cambridge: Cambridge University Press
- 11 Katz, S. (1986) *Early Plastics* United Kingdom: Shire Publications
- 12 Kaufman, M. (1963) *The First Century of Plastics, celluloid and its sequel* London: Plastics Institute
- 13 Kennet, A. (1982) *Degradation of Plastics (Causes and Mitigation)* New Zealand: Australasian Corrosion Association
- 14 Larkin, N.; Makridou, E. & Comerford, G. (1998) *Plastic Storage Containers: a comparison* in 'The Conservator' No. 22 pp 81-87
- 15 Morgan, J. (1991) *The Conservation of Plastics - an introduction* London: Museums and Galleries Commission
- 16 Plastics Institute of Australia (1980) *Know Your Plastics* Plastics Institute of Australia Inc
- 17 *Polymers* in 'PLC Virtual Textbook' <http://plc.cwru.edu/tutorial/enhanced/files/textbook.htm>
- 18 Pullen, D. & Heuman, J. (1988) *Cellulose Acetate Deterioration in the Sculptures of Naum Gabo* in 'Modern Organic Materials' Edinburgh: Scottish Society for Conservation and Restoration pp. 57-66
- 19 Quye, A. (1998) *Saving Our Polyesterdays: historical plastics conservation* in 'Chemistry & Industry' Vol. 15 pp. 599-603
- 20 Reilly, J. (1991) *Celluloid Objects: their chemistry and preservation* in 'Journal of the American Institute for Conservation' Vol. 30 pp. 145-162
- 21 Saechtling, Dr. H. (1983) *International Plastics Handbook* Munich: Hanser Publishers
- 22 Sale, D. (1993) *An Evaluation of Eleven Adhesives for Repairing Poly(methyl methacrylate) Objects and Sculpture* in 'Saving the Twentieth Century: the conservation of modern materials' Ed. D. Grattan Canada: Canadian Conservation Institute pp. 325-339
- 23 Shashoua, Y. (1996) *A Passive Approach to the Conservation of Polyvinyl Chloride* in Postprints, 'ICOM 11<sup>th</sup> Triennial Meeting, Edinburgh' Vol. 2 London: James & James pp. 961-966
- 24 Shelton, J. (1978) *Stabilization Fundamentals in Thermal Autoxidation of Polymers* in 'Stabilization & Degradation of Polymers' Ed. D. Allara & W. Hawkins Washington DC: American Chemical Society pp. 215-225
- 25 Stewart, R.; Littlejohn, D.; Pethrick, R.; Tennent, N. & Quye, A. (1995) *Degradation Studies of Cellulose Nitrate Plastics* in 'Marble to Chocolate, the conservation of modern sculpture' Ed. J. Heuman London: Archetype Publications pp. 93-97
- 26 Tennent, N. (1988) *An Introduction to Polymer Chemistry Relevant to Plastic Collections* in 'Modern Organic Materials' Edinburgh: Scottish Society for Conservation and Restoration pp. 3-9
- 27 *The Macrogalleria* <http://www.psrc.usm.edu/macrog/>
- 28 Walker, S. (1988) *Using Tyvek in Protective Covers for Artifacts* in 'Museum Quarterly' 16:4 pp 23-25, 32.

## CONSERVATION SECTION AUSTRALIAN NATIONAL MARITIME MUSEUM

### Sarah Slade, Head of Conservation

It is a great honour to be asked to write the third Lab Profile for the Newsletter. It is also wonderful timing - as we are in the process of moving into a new conservation laboratory. This move is taking up much of our time and thoughts and as a result it will take up much of this profile!

This profile, although written by me, describes the work of the whole Section: **Sue Bassett, Sue Frost, Elizabeth Hadlow, Bronwyn Cosgrove, Veronica Bullock and Kim Tough**. By the time this Newsletter is published we will be established in the Museum's new Maritime Heritage Centre, and in this profile I thought that it would be interesting to outline what this new facility will provide and how the Conservation Section forms part of it.

### Wharf 7 Maritime Heritage Centre

The National Maritime Museum has always had a very distinctive exhibition building next to the water at Darling Harbour. Anyone who has been to this part of Sydney over the last year will have noticed a four-storey building being constructed adjacent to the exhibition building on Wharf 7 - the Museum's Maritime Heritage Centre.

The Centre complements the exhibition building by providing a showcase for the 'behind-the-scenes' work undertaken by the Museum's collections and exhibitions staff, and has been designed to retain the appearance of the original wharf sheds. In addition to the Conservation Section and Laboratory, the building houses the National Maritime Collection in storage; Exhibition Preparators' Workshop; and Registration, Curatorial, Design, Records, Finance and Human Resources sections. Space is also being provided within the Maritime Heritage Centre for the Sydney Heritage Fleet (previously Sydney Maritime Museum) who will house their vessels, Boat Restoration Workshop, and offices there.

The Centre will open to the public in October this year, enabling them to see first-hand the work undertaken to care for the collection and prepare for exhibitions. The building has been carefully designed to ensure that this public profile does not detract from the care given to the collection or create an uncomfortable working environment for Museum staff.

Collection storage areas comprise the majority of the space within the Centre and the Conservation and Registration Sections have been closely involved in the design and specifications for the building, stores, storage systems, environmental control systems and lighting systems - ensuring that they all combine high standards of collections care while enabling sections of the storage areas to be viewed by the public. In line with the move into the Maritime Heritage Centre, Conservation has also been reviewing and upgrading its Disaster Preparedness Plan and Integrated Pest

Management Plan.

### A Brief Tour

Public spaces are present in the Centre on the ground floor, level one, and level two. On entering the building visitors will see Sydney Heritage Fleet vessels in the Main Foyer. A number of the vessels will be fully rigged, and the rest will be in display/storage on a vessel racking system.

On level one there is a public corridor from which visitors can look down into the Museum's Large Object Store, Exhibition Preparators' Workshop, and Sydney Heritage Fleet's Boat Restoration Workshop. The windows onto the Large Object Store and the Exhibition Preparators' Workshop are glazed so that visitors can observe but not interact with staff working in the areas. However, the windows onto the Boat Restoration Workshop are uncovered to enable visitors to discuss the work being undertaken with the volunteers from Sydney Heritage Fleet.

Level two is the uppermost level with public access. From the top of the stairs visitors can look down into the Main Foyer to observe the Heritage Fleet vessels from above. There is then a public corridor from which they can look into areas of collection storage, the Heritage Fleet's Ship Model Restoration Workshop and the Museum's Conservation Laboratory.

The work in the Conservation Laboratory will be observed through two strip windows that have been positioned at bench height. Only the work at one end of the laboratory will be seen and the windows have been placed at a height where the emphasis is on the bench top not the conservator. Conservator's hands and work can be clearly seen, but eye contact is not easily achievable. These observations into the Laboratory are to be supplemented with displays and information throughout the public corridor about the work of the Conservation Section. Facilities have also been included for monitors playing videos of completed treatments to be installed in the future. The information and displays about the work of the Conservation Section will outline both conservation treatments and the preventive conservation approaches undertaken, in the Museum.

### The Conservation Section

The heightened profile Conservation now has, due to the creation of the Maritime Heritage Centre, is reflected in the manner in which the Section works. As with other institutions, the Conservation Section has staff with skills in the key areas of paper, photographic, textiles, inorganic and organic objects and preventive conservation: as well as the allied skills of diving and corrosion technology. These skills complement the vast range of object types within the collection and will continue to provide the core conservation expertise within the Museum. In addition to the core staff, private conservators and conservators on contract are used at times when an expanded range of skills

is required. These are most commonly in the areas of paintings and boat conservation.

The Conservation Section divides its work into three allied areas: conservation treatments, preventive conservation strategies, and awareness raising programs. These three areas of work underpin the range of work undertaken by Conservation in support of the Museum's ever expanding range of activities, including: exhibitions (in-house, core and travelling); object loans; acquisitions; maritime archaeology expeditions, education and school visits; major events and venue hire.

As with other institutions, Conservation works closely with Registration and Curatorial to ensure the care, examination, treatment, packing and transportation of new acquisitions and loans. As well as with Design and Exhibition Preparators to ensure that all material used in the construction of displays are suitable for use with collection and loan items.

Core and temporary exhibitions are created and co-ordinated by Exhibition Teams, and these teams contain a Conservation representative. In addition,

Conservation has started becoming more involved in the organisation of Major Events held by the Museum with representatives on upcoming Major Events Teams.

Conservation is also heavily involved in the education and school visits programme. The Section, has written and currently runs a Maritime Archaeology Workshop and a Making History Workshop aimed at year 11 and 12 secondary school students, and a Hands-On History Workshop for primary school students. This is soon to be supplemented with a Preventive Conservation Workshop called Aquatic Atoms which is based on the new Science Curriculum for Secondary Schools.

So this has been a brief snippet, of the Maritime Museum's Conservation Section's activities and its new location within the Maritime Heritage Centre, I hope that it provides a flavour of the Section and its work. On a final note, when I took over from my dynamic predecessor Barbara Reeve, she had left me a box of Fortune cookies as part of a welcoming present. When I opened mine on the first day it said "May you live in interesting times". So far it has been totally accurate ... and I hope that it will continue to be so for me and the Section as a whole.

## AICCM NEWS

### President's Report

Council is preparing a final document for the Skills Gap Audit which was commissioned by the Collections Management and Conservation Working Party of the Heritage Collections Council. The preparation of this document was a very interesting exercise and produced some extremely interesting material. The issue of standards in conservation training courses and the appropriate coverage of issues in course content were raised, as were issues relating to the need for a broader skills base training - an issue which has been raised by the Textiles Special Interest Group - and which we hope will be addressed as a result of this Audit. Of particular interest were the replies received from small museums and other representatives of our professions' client base. Issues of skill availability, timeliness and standards were of particular concern to this group.

The Draft Code of Practice is currently being prepared for publication. The Sub-Committee is currently working with Council to prepare a guide for testing the Code, and for reporting back with comment on its use. We ask all members to treat this as a very serious exercise as this is the beginning of providing stricter control of the use of the term 'conservator' and for ensuring coherent industry standards in a way not achievable previously.

Funds have also been received from HCC for a Research Audit. Again this presents an important opportunity for the profession to address issues relating to our ability to undertake meaningful research. The grant provides funds to "audit research activity within Australia relating to the conservation, preservation, care and management of, and access to, heritage collections and a research needs assessment of the sector". This

is something that I know many of you have been interested in for some time and I would appreciate you contacting me if you feel you can contribute in any way to this project.

Finally although next year seems millenniums away it will soon be upon us. After the official announcement of Melbourne as the host city for the 2000 IIC Congress (now known as "IIC MELBOURNE 2000") we can proceed at full steam. An announcement regarding IIC appears in this newsletter. Please give consideration to how you would like to be involved in the Congress. If you have any queries or thoughts please speak to a Council member or if you have particular interests please contact Julian Bickersteth.

Finally thanks to Alice Cannon for the excellent job she is doing on the Newsletter. The AICCM is entirely dependent on the efforts of its members and Alice's work on the Newsletter is of benefit to all of us.

**Robyn Sloggett**  
President, AICCM

### Notices

Georgia Larkey is working on a contractual basis for two days a week with Therese Mulford in the Paintings Conservation Department of the Queen Victoria Museum and Art Gallery, Tasmania.

### Family Membership

The possibility of "family membership" in cases of married or partner conservators was recently put to Council. It was decided that membership is an individual thing and no special category will be made, as Council encourages membership of AICCM for all practicing conservators.

### HCC National Conservation Strategy Launch

The HCC National Conservation Strategy is due to be launched. Council would like to see the AICCM take an active role in the launch, and suggested State Divisions may like to conduct an event to introduce it to people in that state. Contact your State President for details.

### The Bulletin

Back issues of *The Bulletin* are due to be published around the end of June.

### IIC Conference

The IIC 2000 Conference is due to be held in Melbourne from 10<sup>th</sup>-14<sup>th</sup> October 2000.

The AICCM IIC Conference organising committee intends to establish working committees to undertake a wide range of activities under its overall co-ordination. The committees currently proposed include:

- ◆ Fundraising
- ◆ Venue & catering
- ◆ Trade fair
- ◆ Lab tours
- ◆ Satchels/badges
- ◆ Poster session
- ◆ Signage
- ◆ Functions
- ◆ Accommodation and travel
- ◆ Tours and support program
- ◆ Registration and information desk

AICCM members who wish to actively participate in the organisation of the conference are now asked to contact Julian Bickersteth, the Chair of the AICCM IIC Conference Organising Committee identifying which committee(s) are of particular interest.

The Organising Committee intends to formally appoint these committees with appropriate terms of reference by 1st August 1999.

Contact Julian Bickersteth at ICS on tel. (02) 9417-3311, fax (02) 9417-3102, j.bickersteth@ibm.net.

### New AICCM Members

- |                                  |                    |             |
|----------------------------------|--------------------|-------------|
| Artbank                          | Katherine Campbell | Ingrid Ford |
| Adam Godijn                      | Siew Wah Lee       | Kylie Roth  |
| Noel Turner                      | Julie Whittlam     | Wendy Dixon |
| Ros Currie                       | Monique Pasqua     | Diana Glynn |
| James Ward                       | Stephanie Raco     | Tasha Brown |
| Kent Jarman                      | Ruth Shervington   |             |
| National Trust of Australia (WA) |                    |             |

### Secretariat Phone Number

Sue Mayrhofer's phone number has changed again to (02) 6270-6504.

### AICCM NATIONAL CONFERENCE

24th-25th September 1999. Sydney NSW.

The national conference will be held in Sydney at the Quarantine Station Conference Centre, Sydney Harbour National Park, North Head, Manly. This venue is quite unique and commands beautiful views of Sydney Harbour. The centre was the first designated area for human quarantine in Australia, where many ships carrying sick immigrants spent their time before entering the Sydney colony. The Station has been converted into a conference centre, retaining much of the original fabric of the quarantine station.

The conference program will commence at 9.30 am on Friday 24th September and will focus on the practice of conservation. There will be a guided tour of the Station in the afternoon, which will be followed by the AICCM Annual General Meeting and dinner.

There is plenty of parking at the centre. Delegates can also arrive by water taxi, which takes you to the Quarantine Station wharf. Very reasonably priced overnight accommodation with a buffet breakfast is available.

On Saturday, 25th September the special interest groups will hold meetings. All SIG co-ordinators have been contacted and are planning their sessions. If you would like to know more about your SIG program please contact your local co-ordinator. The National Network for the Scientific Analysis of Works of Art will hold a Committee Meeting at the same time as the SIG sessions.

For more information about the conference please contact:

- Donna Midwinter or Julie Potts  
 GPO Box 3762, Sydney NSW 2001  
 Donna Midwinter: tel: (02) 9225 1783  
 donnam@ag.nsw.gov.au;  
 Julie Potts: tel: (02) 9225 1782  
 fax: (02) 9221 6226  
 juliep@ag.nsw.gov.au.

Prior to the annual conference, there will be a one-day Infrared Reflectogram Workshop held in the Conservation Department, at the Art Gallery of NSW on Thursday, 23 September 1999. The morning session will include an introduction to the infrared vidicon and the digital capture of images. The afternoon session will include the correction of tonal and geometric distortions and the assembly of the captured images using Adobe Photoshop software. Contact: Stewart Laidler, Art Gallery of NSW, (02) 9225 1747, stewartl@ag.nsw.gov.au.

*A continuing issue in conservation is how much specialised information we should make available to the public. Many books and publications aimed at non-conservators incorporate details of quite complicated treatment methods, and many of us have had uncomfortable conversations with people who want to "do it themselves". The Internet is now a prime source of such information also. Most of us worry that this kind of information could damage objects or people if used incorrectly; however, denying access to information could have similar effects, or be damaging in other ways.*

*The issue raises many questions: Are conservators morally responsible or legally liable if damage does occur as a result of incorrect use of such information? Is it really possible to prevent people from gaining access to this kind of information, and is it morally acceptable to even try? By limiting access to such information are we protecting culture, or only our own jobs? What impact does limiting access to conservation information have on the professional status or public opinion of conservation? Is conservation seen as something anyone can do, and if so, why?*



Conservators have to realise and appreciate that it is ultimately up to private owners as to what they do with their own objects - whether good or bad (and I must say that museum, galleries etc. are not always the best examples). We cannot stop people from hanging their precious tapestries above fireplaces or displaying watercolours in full sunlight or repairing their books with sticky tape.

What conservators can do, however, is to give information to owners who seek advice as to what is best practice in prolonging the life and well being of those artefacts. From then on it is up to the custodian to heed that advice or not. Indeed, it is my opinion that conservators - who in many cases are public servants - have the obligation to provide guidance and recommendations to the public.

Personal experience has also shown me that most people treat information given to them with respect, become more cautious with their artefacts and are more prepared to seek advice before taking matters into their own hands. Conservators are not keepers of secrets.

Advice given to the public, however, should focus mainly on preventive conservation, proper display and storage methods, care and support, environmental conditions, good house keeping practices etc. and how best to achieve this. I find workshops a very good way of providing that information to the public as participation in particular exercises, such as the handling of objects, encapsulation, manufacture of storage folders and boxes, light reducing methods etc. generally instills more confidence as well as caution. People should also been given the option to approach the conservator again in case they are unsure about the information they have received. Advice should not include invasive treatments which need professional expertise, qualifications and experience, and people must be warned accordingly. Having taken these precautions I do not believe that conservators could be held legally liable or morally responsible in case something goes wrong.

**Ulrike Broeze-Hoernemann, WA**

The subject of how much information to give to non-conservators is a subject dear to my heart. In my 16 years working as a textile conservator I have seen and heard enthusiastic young conservators giving some quite detailed advice to members of the public. I have often wondered how this advice is interpreted and the results of the advice. At the AICCM conference in Sydney a few years ago, Sue Gaardboe and I gave a demonstration at the Textile Special Interest Group meeting of how difficult it is to give advice over the telephone. We simulated a query from a member of the public with the textile item visible to the audience to demonstrate how the knowledge base of the enquirer influences how the advice is interpreted.

I think textile conservation can be particularly prone to difficulties when giving advice because everyone feels they are familiar with textiles. They are worn and washed by everyone.

There are many basic preventive measures that can be carried out by unskilled or untrained people to protect their textile treasures. This is where the emphasis should be. I strongly advocate that these measures should be widely available in a printed form.

Advice on techniques that involve any intervention or actual treatment will depend on the knowledge base and skill of the owner. You must be able to see the item, explain the risks that are involved and try to ascertain the skill level before giving advice on treatment. If you feel that the owner does not have the skills to do the

### 1999 Metals Symposium

Presented by the AICCM (Victorian Division) Inc  
**First Call for Papers**

Following the success of last year's Metals Symposium, planning is underway for this year's symposium, to be held in Melbourne, Victoria on Thursday and Friday 24th-25th November 1999. (venue to be confirmed).

The theme of the symposium will be the *Conservation of Historic and Archaeological Metals, Artworks and Working Objects*. Emphasis will be placed on objects encountered in land-based indoor and outdoor environments.

The two-day symposium will introduce and outline conservation problems associated with these metals and their alloys. It will include discussions of various treatment approaches and presentation of case studies.

Speakers are invited to present papers related to the theme, between 15 and 45 minutes in length. Those wishing to present a paper should submit a brief synopsis of 150-250 words to the symposium organiser by the end of July 1999. Along with your synopsis, please indicate the length of your presentation and provide a provisional title together with your address, phone and fax numbers.

Please send synopses by mail or fax to: Barbara O'Brien, Conservator, Museum Victoria, 10/108 Lonsdale Street, Melbourne, Victoria 3000, fax (03) 9219-2159. If members have enquiries please contact Barbara O'Brien at Museum Victoria on (03) 9291-2195, bobrien@mov.vic.gov.au.

work the options open to them must be explained. If you give no advice and no options the chances are the owner will go ahead and do something anyway.

#### Wendy Dodd, ACT

I will have to start my response by saying that I don't have a clear position on this issue. It is an issue that I continue to find perplexing and that I sometimes feel quite emotional about - but my emotions seem to shift as I look at it from different points of view.

Put simply, I think the problem arises from a conflict between our desire to educate the broader community about our work - for a range of reasons - and the interest and enthusiasm that conservation work generates.

The conservation profession has taken very positive steps to raise awareness of its existence and its importance. I believe that there have been many reasons behind this, but most of them have their basis in the protection of our material culture. Raising people's awareness of the work we do and of the specialised knowledge that we have has benefits for the long-term preservation of important cultural material. Conservation has come out of the backroom and has been recognised as a key component of collections management, with conservators being consulted to a

greater degree than ever before. Our profession has grown - in size, in status and in the scope of our influence. To achieve this we have actively promoted our work and provided advice, training and assistance to a broad range of people.

This has created a double-edged sword. Not surprisingly some people want a piece of the action. Conservators are very privileged people. Everyday we work on objects and with collections that most of the rest of the population pay to see or make special trips to see. We have close physical access to those objects/collections and most of us get immense satisfaction out of being able to touch, examine, learn from, treat and care for these things. In many ways we get closer to the objects in our care than anyone other than the original makers of the objects. In addition, a great deal of conservation and preservation work allows us to exercise our creativity, in combination with a very pragmatic approach to problem solving. Members of the public who visit conservation labs invariably comment on how rewarding our work must be - not all want to pick up a swab and start cleaning but there are inevitably some who do.

Where does the desire come from? From the same source as the desire to buy up old bits of furniture and "restore" them; or to restore cars, dolls, rocking horses, old prints, books etc. People love old things - they love to touch them, they love to research them and they love the sense of being in direct contact with the past. They enjoy the satisfaction of working with the materials; they enjoy the creative outlet; they love the feeling of a job well done and they derive great satisfaction from the knowledge that they have preserved something. People have been doing this for a long time. And although most of this work is not done to what we would accept as a conservation standard, there are many people that do a thoroughly good job. I am sure that, had I not trained as a conservator, I would probably have a serious hobby of this kind.

So why do I have mixed feelings about non-conservators doing work that I would see as conservation work? I will be brutally honest and get the negative feelings out of the way first - yes, there is part of me that wants to protect my patch and have my training and experience recognised. But that really is only a fleeting emotional response.

More importantly, I do have more than a little knowledge and so I have become aware of how complex the task of treating an item is. I mourn the loss of historic information when an item is over-zealously treated. I have to bite my tongue when people describe - with pride - their work, which to me has destroyed the integrity of the object. I know of too many cases where the combination of misplaced confidence and a little knowledge are a dangerous combination. Conservators are called on to fix these problems all the time. Problems such as:

- ◆ incorrect application of a technique.
- ◆ poor application of a technique.
- ◆ complete misunderstanding of the information given.
- ◆ use of inappropriate materials.
- ◆ complete removal of all historic evidence - "to take it back to the original".

A most galling case was one where we (Artlab) were asked to repair some fairly extreme damage to an object. The damage was the result of a treatment gone wrong.

### Call for Papers for the

### First Australian Book & Paper Symposium

March 2000, Canberra, Australia

The AICCM Book and Paper Special Interest Group, and the Special Interest Group Photon, are calling for papers in the areas of book and paper conservation, library and archives preservation and conservation of photographic materials.

Topics may range from specific examination and treatment methods to the broader issues of preservation and collections management.

Abstracts (approx. 150 words in length) are due by August 30th 1999. Submissions will be reviewed by a panel at the AICCM National Conference in Sydney, September 1999.

Please send your abstracts to:

Kerry McInnis  
Director  
Art and Archival  
PO Box 998  
Queanbeyan NSW 2620.

For enquiries, or to discuss your ideas, please contact:

Kerry McInnis  
Tel/Fax: (02) 6297 7670

Detlev Lueth  
Tel: (02) 6208 5025, d.lueth@nma.gov.au

Tracey Golds  
Tel: (02) 6201 2018,  
golds@science.canberra.edu.au

The work was done by a practitioner who had promoted him/herself to the client as having been trained by Artlab - they had in fact attended a half-day preventive conservation course. We had provided "a little knowledge" that was obviously very dangerous. You have to watch both sides of that double-edged sword!

Conservators are not alone in this. Many professions are facing challenges to their exclusive positions of authority and I suspect that things will get worse as academic status and professional standing are eroded in our increasingly globalised and deregulated society. (Sometimes it seems that we are in the grip of an anarchic revolution led by the establishment, where people who have ideals and want to preserve standards of practice are damningly described as "elites", while multi-skilling leaves people with less depth of knowledge and skill and society more homogenised in the long-term.)

But I don't think the solution is to shut the door. The information is available to anyone who wants it enough to seek it out, as is information on open-heart surgery, conveyancing, dentistry, librarianship etc.

Perhaps the solution lies in providing more information and using the special skills that conservators have to continue to promote our profession and to ensure our survival.

I strongly believe that we should continue to provide preventive conservation information - making people aware of the complex nature of the interaction of the environment with heritage material. We should also continue to provide training in practical preventive conservation techniques. We are not going to stop people trying to treat things for themselves, but by actively creating a greater awareness of the pitfalls of undertaking complex treatments and of the potential for irreversible damage and loss we may be able to discourage some.

In general conservation has moved away from being treatment focussed and we have developed very good skills in problem solving, project management and communication. We should use all of these tools to continue to educate and raise awareness of the broader conservation issues and to ensure that we continue to be heard.

We have become more flexible, more influential and more relevant - we have matured as a profession. Shutting the door to restrict information could threaten all of this. If we make the double-edged sword work for us, we may even raise awareness enough that "practitioners" like the one described above are more cautious of undertaking treatments that they don't fully understand.

We should also remember that as a profession we have used information from a large range of other disciplines, including in some cases, the hobby restorers. I'd say we want to keep the exchange of information flowing. And if some curious methods and materials are used somewhere along the line, think of the fun future conservators can have researching the history of the items. After all, some of our more intriguing projects are those where the historic evidence of past treatments by conservators and non-conservators has to be documented and possibly preserved. Then again, how will our treatments be viewed in years to come? What we are using now may be the soluble nylon of the future.

**Vicki Humphrey, SA**

**In Australia (and we are not alone in this)** anyone can call themselves a conservator. Anyone can practice conservation. There is no impediment to the damage that can be wreaked on the items of cultural significance by the ill-prepared nonprofessional. There are a number of adages that relate to this issue: "knowledge is power" is one that springs to mind, as does "a little knowledge is a dangerous thing". Nevertheless there are a range of conservation publications on the market which provide overviews of 'how to', and it would be obviously ludicrous to attempt censure of such material.

The AICCM has long been cognisant of these issues. The formation of the professional body in 1973 indicates the level of awareness of such issues, and the system of accreditation put in place in 1988 was an attempt to deal with issues relating to professional standards and conduct.

The fact is that we need conservation to have a high profile, and to do this we need information about conservation practice to be available so that a discourse can develop around the profession. We live in the information age and it is a nonsense to suppose that we could in any way control or limit access to information about conservation, - which after all most people find fascinating.

Apart from the need to profile the profession through the availability of a critical weight of publication material there is also a professional responsibility for us to be an 'information rich' rather than 'information poor' profession. The AICCM Code of Ethics and the Draft Code of Practice are very clear on the responsibility of the conservator to provide appropriate documentation to the owner or custodian of the object. It is very difficult to have an informed discussion about treatment options with a client (the 'shared responsibility' identified in the Code of Ethics) if they do not have a base level of awareness to bring to the discussion. The more sophisticated our client base is in terms of their understanding of the conservation process the easier our job. (I am sure most of us can recall having difficult discussions with a client or curator about levels of treatment or finish which need never have taken place if the client had had a better understanding of conservation). On a very practical level clients are more willing to pay for meticulous and difficult conservation treatments if they understand what is involved.

Nevertheless this still begs the question of professional standards, and for this reason the AICCM Draft Code of Ethics and Code of Practice provide the best means to date for the profession to deliver information to the public yet maintain control of professional standards. The Draft Code of Practice has been published in previous newsletters and is currently being printed for circulation. While the previous accreditation system has acknowledged levels of expertise, the Code of Practice will provide 'teeth' for the accreditation process. It will enable an accreditation process that can deliver professional standards and limit the abuse of the term 'conservator'.

To be an effective profession we need to do work on two fronts. We need to maintain a high profile, and engender a wide understanding of what we do and how we do it; and we need to have high professional standards and a system of professional recognition so that the term 'conservator' has an accredited, limited and effective use.

**Robyn Sloggett, VIC**

# CALENDAR



## AUSTRALIA

### Pacific Science Conference (19<sup>th</sup>) - Science for Pacific Posterity: Environments, Resources & Welfare of the Pacific People.

4-9 July, 1999. Sydney.

Contact: XIX Pacific Conference Congress Secretariat, GPO Box 2609, Sydney NSW 2001, reply@icmsaust.com.au. (C69)

### National Museums: Negotiating Histories

12-14 July, 1999. Canberra.

Contact: Ms Arwen Blackwood Ximenes, tel. (02) 6249-2434, arwen.ximenes@anu.edu.au (C71).

### Legislation, Litigation and Lust: Museums and the Law

12-13 August, 1999. Canberra.

Theme: Legislation and legal issues governing cultural material heritage. The Australian Registrars Committee 1999 Professional Development Seminar. Contact: Lesley Arjonilla, tel. (02) 6240-6636. (C71)

### 10<sup>th</sup> World Congress Friends of Museums: New Century, New Museums, New Friends.

13-17 September, 1999. Sydney NSW.

The Congress theme reflects the dramatic changes that are taking place in museums as we approach the year 2000. Session titles include: *Greeting the New Century*; *The Big picture: Museums Responding to Cultural Diversity*; *Malraux Revisited - Musee Imaginaire or Virtual Museum?*; *Sharing a Global Story; Implications of Emerging Technologies for Museums and their Friends*; Panel discussion: *New Museums in the Pacific Asia region*. Workshops include: *Marketing and Communications; Fostering Good Relations; Fundraising and Development; Volunteers; New Technologies - the Internet*. Contact: WFFM99, GPO Box 2609, Sydney NSW 2001, Tel. (02) 9241-1478, fax (02) 9251-3552, wffm@icmsaust.com.au, http://www.wffm-congress.aust.com.

### Conservation versus Commercialism: 3rd National Remote Area Museums Conference

20-23 September, 1999. Tennant Creek, Northern Territory.

Contact: Joanna Seczkowski, Manager/ Curator, tel. (08) 8962-1281, tennantmining@switch.com.au. (C71)

## AICCM National Conference 1999

24-25 September, 1999. Sydney.

Theme: *The Practice of Conservation*. The two day Conference will be held at the Quarantine Station Conference Centre, Sydney Harbour National Park, North Head Scenic Drive, Manly. Contact: The National Secretary, alexand@dynamite.com.au (C71)

## ICOMOS Australia Conference

November 1999.

Theme: *Rural Heritage*. Contact: marilyn.truscott@ea.gov.au, www.icomos.org/australia (C71).

## 1999 AICCM Metals Symposium

24-25 November, 1999. Melbourne.

Call for Papers

Theme: the Conservation of Historic and Archaeological Metals, Artworks and Working Objects. Emphasis will be placed on objects encountered in land-based indoor and outdoor environments. Abstracts of 150-250 words are required by the end of July 1999. Send abstracts to Barbara O'Brien, Conservator, Museum Victoria, 10/108 Lonsdale Street, Melbourne 3000, tel. (03) 9291-2195, fax (03) 9219-2159, bobrien@mov.vic.gov.au. (C71).

## AICCM Book and Paper Symposium

March 2000. Canberra.

Call for Papers

Presented by the AICCM Book and Paper and Photon Special Interest Groups. Topics may range from specific examination and treatment methods to the broader issues of preservation and collections management. Abstracts approx. 150 words in length are due by August 30th 1999. Send abstracts to Kerry McInnes, Director, Art and Archival, PO Box 998, Queanbeyan NSW 2620, tel./ fax (02) 6297-7670. (C71).

## IIC Eighteenth International Congress

10-14 October, 2000. Melbourne.

Theme: *Tradition & Innovation: Advances in Conservation*. Contact: Julian Bickersteth at International Conservation Services, 53 Victoria Avenue, Chatswood, NSW 2067, Tel. (02) 9417 3311, Fax. (02) 9417 3102, j.bickersteth@ibm.net. (C70)



## INTERNATIONAL

### Toning Materials for Conservation Repair Work

Summer 1999. London, UK.

Subject: the dyeing and colouring of paper and other materials for use in the conservation treatment of paper and related artefacts. Contact: Ann Spreadbury, The Wellcome Institute Library, The Wellcome Trust, 183 Euston Road, London NW1 2BE, tel. +44-171-611-8731, fax +44-171-611-7225, a.spreadbury@wellcome.ac.uk. (C70)

### Pictorialist Processes of the Photo-Secession

June 1999. New York, NY, USA.

Five-day workshop. Contact Nora Kennedy, tel. +1-212-650-2168, nora.kennedy@nyu.edu, or Debra Hess Norris, tel. +1-302-831-3489, dhnorris@udel.edu. (C70)

### Specialised Short Seminar on Graphic Documentation Systems for Mural Paintings.

June 1999, 1 week. (Tentative). Rome.

Contact: ICCROM Training & Fellowship Programme Office, 13, Via di S. Michele, 1-00153 Rome, Italy, tel. +39 6-585-531, fax +39 6-585-3349; training@iccrom.org. (C69)

### CEA Beadwork Conservation Workshop & Seminar.

June 1999. Venue: TBA (UK).

Contact: Rowena Hill, School of Conservation Sciences, Bournemouth University, Poole BH12 5BB, UK, tel. +44 1202 595267/519010, fax. +44 1202 595255. (C68)

### Photographic Workshop

21-25 June 1999. London, England.

There will be an additional extension week from 28 June to 1 July for those who wish to gain practice in the techniques presented. Tutor: Stuart Laidlaw. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### Courses at the Centre for Photographic Conservation

21 June-16 July, 1999. London, UK

Conserving photographs. Contact: Angela Moor, The Centre for Photographic Conservation, 233 Stanstead Road, Forest Hill, London SE23 1HU, England UK, +44 181-690-3678, fax +44 181-314-1940, xfa59@dial.pipex.com, http://dSPACE.dial.pipex.com/cpc/moor/. (C69)

### 14th Annual Meeting of the Society for the Preservation of Natural History Collections

27 June - 2 July, 1999. Washington, DC.  
Contact: Sally Y Shelton, Museum of Natural History, Washington DC, fax +1-202-786-2328, Shelton.Sally@nmnh.si.edu. (C71)

### An Introduction to Early & Medieval Bookbindings

27 June - 2 July, 1999. Oxford, UK.  
Tutor: Christopher Clarkson. Contact: The Institute of Paper Conservation, Leigh Lodge, Leigh, Worcester, WR6 5LB, tel. +44-1886-832323, fax +44-1886-833-688, clare@ipc.org.uk. (C70)

### Examination of Historic Paints & Wallpapers

28 June - 1 July, 1999. London, England.  
Tutor: Allyson McDermott. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### Drawing Archaeological Finds

28 June-2 July, 1999. London, England.  
Tutor: Nick Griffiths. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### Society for the Preservation of Natural History Collections 14th Annual Meeting.

28 June - 3 July, 1999. Washington DC.  
Contact: David von Endt, Smithsonian Center for Materials Research and Education, Smithsonian Institution, Washington DC 20560-0534, tel. +1-301-238-3700 ext. 126, fax +1-301-238-3709. CvE@scmre.si.edu. (C69)

### From East to West: Japanese Conservation Techniques for Western Prints & Drawings

28 June - 9 July, 1999. Paris, France.  
Contact: Claude Laroque, MST CR, Universite Paris 1, 17 rue de Tolbiac, 75013, Paris, France, tel. +33-1-4583-3357, fax +33-1-4424-5976. (C70)

### Society of Bookbinders Silver Jubilee Conference

1-4 July, 1999. Telford, UK.  
Contact: Roy Fell, 19 Scott Road, Walsall, West Midlands W5 3JN, tel. +44-1922-627975, royfell@compuserve.com. (C70)

### ICTOP Annual Meeting: New Developments in Museum & Heritage Education & Training

1-7 July, 1999. Barbican, City of London.  
Call for papers.  
Contact: Patrick Boylan, ICTOP 1999, City University, Frobisher Crescent, Barbican, London EC2Y 8HB, UK, fax +44-171-447-8887, P.Boylan@city.ac.uk. (C70)

### Conservation of Glass Vessels

5-9 July 1999. Amsterdam.  
Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### New Methods for Cleaning Painted Surfaces

12-16 July 1999. London, England.  
Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### Pigments & the Polarising Microscope

12-16 July, 1999. Somerset, England.  
Tutor: Peter McTaggart. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### Conservation of Gilded Surfaces

12-16 July, 1999. London, England.  
Tutors: Sophie Budden & Frances Halahan. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### Rare Book School 1999

12 July - 6 August, 1999. Virginia, USA  
The Rare Book School's summer program consists of 27 five-day, non-credit courses on topics concerning the history of books and printing, manuscripts, and special collections. See <http://www.virginia.edu/oldbooks> for further information.

### Colour Theory

19 July, 1999. London, England.  
Tutor: Ray Osborne. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### Identification of Wood

19-23 July, 1999. Durham, England.  
Tutors: Dorothy Catling and Rowena Gale. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### Technology and Preservation of Glass, Ceramics, Pottery and Metals

19 - 23 July, 1999. USA.  
Contact: the George Washington University Appraisal Studies Program, tel. +1-202-973-1175. (C71)

### Conservation & Preservation of Photographs

20-22 July, 1999. London, England.  
Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### Examination of the Cross Sections of Paint Layers

20-23 July, 1999. London, England.  
Tutor: Nicholas Eastaugh. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### Photographic Materials Conservation Group Conference

22-23 July, 1999. Birmingham, UK.  
Theme: the Preservation and Conservation of Photographic Albums and Photographically Illustrated Books. Contact: Angela Moor, Programme Secretary, xfa59@dial.pipex.com. (C69)

### Identification of Plant Fibres

26-28 July, 1999. Durham, England.  
Tutor: Dorothy Catling. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### Spot Testing for Materials Characterisation

26-30 July, 1999. Aberdeen, Scotland.  
Tutors: Nancy Odegaard and Scott Carroll. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### The 5th annual Introduction to the Conservation of Outdoor Bronze Sculpture

26 July - 6 Aug, 1999. New York, NY, USA.  
See <http://palimpsest.stanford.edu/byauth/lowengard/syllabi/scott.html> for further information. (C71)

### Preservation of Medieval Books

July/August 1999. Montefiascone, Italy.  
Workshops to be held on-site include: *Pigments and the Techniques of their Application to Medieval Manuscript* 26-30 July; *Vellum Bindings*, 2-6 August; *Archaeology of the Medieval Book and Rebacking Leather Bindings*, 9-13 August and 16-20 August. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

### West Dean College Professional Development Courses 1998/99

August-September, 1999. Chichester, West Sussex, England.  
*Issues and Approaches in Upholstery Conservation*. 29 Aug-3 Sept. 1999.  
*Teaching Skills for Conservation*. 11-16 September 1999.  
*Stone treatments*. 21-23 September 1999  
*Conservation and Repair of Stone Masonry*. 19-22 October 1999.  
Contact: West Dean College, West Dean, Chichester, West Sussex PO18 0QZ, UK. Tel. +44-1243-811301; Fax: +44 243-811343. Westdean@pavilion.co.uk, <http://www.westdean.org.uk> (C68).

**Smithsonian Center for Materials Research & Education Optical Microscopy Series**

August-November, 1999. USA.

9-13 August: *Wood Anatomy and Identification*.

15-19 November: *Plant Anatomy and Morphology for Objects Conservators and Archaeologists*.

Contact: Ms. Francine Lewis, Smithsonian Institute, Tel. +1-301-238-3700 x102. (C70)

**Eleventh International Biodeterioration & Biodegradation Symposium, International Biodeterioration Association**

1-6 August, 1999, Arlington, Virginia, USA.

Contact: Mary M. Hawkins, Corresponding Secretary, 1950 Tobsal Court, Warren, MI 48091-1351, U.S.A., +1 810-755-8970, fax: +1 810-755-8978, Biosan@aol.com. (C69)

**Indoor Air '99: Triennial Conference of the International Academy of Indoor Air Sciences**

8-13 August, 1999, Edinburgh, Scotland.

Contact: ia99@bre.co.uk. (C71)

**Wood Anatomy and Identification**

9-13 August, 1999, Suitland, MD, USA.

Contact: SCMRE Courses, Museum Support Centre, SI MRC 534, 4210 Silverhill Road, Suitland, MD 20746 USA. (C71)

**Preserving Photographs in the Digital World**

14-19 August, 1999, Rochester, New York.

Contact: Rochester Institute of Technology, T&E Center Registration, 67 Lomb Memorial Drive, Rochester, NY 14623-5063, fax +1 716-475-7000. (C69)

**IADA Conference: Trends in Research & Practice**

15-21 August 1999, Denmark.

Contact: Mogens Koch, Konservator-skolen, Esplanaden 34, DK-1263 Kobenhavn, Denmark. Fax +45-33-744-777, msk@kons.dk. (C69)

**Collecting & Safeguarding Oral Traditions: An International Conference**

16-19 August 1999, Khon Kaen, Thailand

Participants attending this Conference may also wish to attend the 65th IFLA Council and General Conference in Bangkok from 20-28 August 1999. Contact: IFLA Headquarters, P.O. Box 95312, 2509 CH The Hague, Netherlands, tel. +31-70-3140884, fax +31-70-3834827, ifla@ifla.org. (C70)

**Natural History Collections: Banks of Biodiversity**

15-21 August 1999, Pretoria, South Africa.

Contact: Paul Bayliss, Transvaal Museum, PO Box 413, Pretoria 0001, South Africa, tel. +27-12-322-7632, fax +27-12-322-7939; bayliss@tm.up.ac.za, http://www.tm.up.ac.za/info/cmmtg.htm. (C69)

**15<sup>th</sup> Triennial Meeting of IIC, Nordic Group**

23-26 August, 1999, Helsinki, Finland.

Theme: *Conservation Without Limits*.

Contact: Hannele Heporauta, The National Gallery, Kaivokatu 2, 00100 Helsinki, Finland, hheporau@fin.g.fi. (C71)

**ICOM-Committee for Conservation 12th Triennial Meeting**

29 August-4 Sept. 1999, Lyon, France.

Contact: Jean-Pierre Mohen, Laboratoire de Recherche des Musees de France, 6 rue des Pyramides, F-75041 Paris, France; mohén@culture.fr. (C66)

**Urushi: Conservation of Japanese Lacquer**

Autumn 1999. (Tentative). Japan.

Contact: ICCROM Training & Fellowship Programme Office, 13, Via di S. Michele, 1-00153 Rome, Italy, tel. +39 6-585-531, fax +39 6-5855-3349; training@iccrom.org. (C69)

**Association of British Picture Restorers Triennial Conference**

Autumn 1999, London, UK.

Contact: Jan Robinson, Association of British Picture Restorers, Station Avenue, Kew, Surrey TW9 3QA, Tel./Fax: +44 181-948 5644. (C68)

**Preservation of the Engineering Heritage: Gdansk Outlook 2000**

7-10 September, 1999, Gdansk, Poland.

For information: <http://www.pg.gda.pl/~pehgD2000/>, attew@pg.gda.pl. (C70)

**Reversibility - Does It Exist?**

8-10 September, 1999, London, UK.

Contact: Sara Carroll, Department of Conservation, The British Museum, Great Russell Street, London WC1B 3DG, Fax: (0171) 323 8636; Conservation@britishmuseum.ac.uk (C65)

**IPC Workshop on Tape**

13-17 September, 1999, Newcastle, UK.

Contact: Institute of Paper Conservation, Leigh Lodge, Leigh, Worcester, WR6 5LB tel. +44 1886-832323 fax +44 1886-833688 clare@ipc.org.uk. (C69)

**Artificial Intelligence & Cultural Heritage**

14 September, 1999, Bologna.

The workshop will analyze how artificial intelligence and other technologies contribute to the way we produce and interact with culture. The workshop aims to bring together academic and research bodies, industries and companies working on new technologies in the Cultural Heritage sector.

Contact: Luciana Bordoni, ENEA/Studi, Via Anguillarese 301, 00060 S. Maria di Galeria (Roma), tel. +39 6 30483503, fax: +39 6 30484055, bordoni@casaccia.enea.it. (C71)

**UNESCO Landslide Prediction & Mitigation for Cultural Heritage Sites & Sites of High Societal Value.**

20-22 September, 1999, Paris, France.

Contact: UNESCO World Heritage Centre 7, place de Fontenoy, 75352 Paris 07 SP, France, tel. +33-1-4568-1876, fax +33-1-4568-5570, wh-info@unesco.org (C70).

**UNESCO International Congress on Risk Preparedness & Disaster Mitigation for Cultural Heritage**

23-24 September, 1999, Paris, France.

Contact: UNESCO World Heritage Centre 7, place de Fontenoy, 75352 Paris 07 SP, France, tel. +33-1-4568-1876, fax +33-1-4568-5570, wh-info@unesco.org (C70).

**UNESCO Meeting of States Parties to the Hague 1954 Convention for the Protection of Cultural Property in the Event of Armed Conflict.**

October/November 1999, Paris, France

Contact: UNESCO World heritage Centre 7, place de Fontenoy, 75352 Paris 07 SP, France, tel. +33-1-4568-1876, fax +33-1-4568-5570, wh-infor@unesco.org (C70).

**Conservation of Wallpaintings & Architectural Surfaces**

October 1999, Venice, Italy.

Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, iap@archetype.co.uk. (C70)

**New Frontiers in Grey Literature GL'99 - Fourth International Conference on Grey Literature**

4-5 October, 1999, Washington DC, USA.

Contact: GreyNet, Grey Literature Network Service, Koninginneweg 201, 1075 CR Amsterdam, Netherlands, fax: +31 20 671 1818, GreyNet@inter.nl.net, <http://www.konbib.nl/infolev/grey.net/>. (C70).

**The Broad Spectrum: the Art & Science of Conserving Colour on Paper**

5-9 October, 1999, Chicago, USA.

Contact: Harriet Stratis, Department of Prints and Drawings, The Art Institute of Chicago, tel. +1-312-857-7662, fax +1-312-443-0085, hstratis@artic.edu, or Elizabeth Sobczynski, Voitek Conservation, 9 Whitehorse Mews, Westminster Bridge Road, London SE1 7QD. Ph: +44 171 928-9920, Fax: +44 171 928-6094; VOITEKCWA@Binternet.com. (C68)

**6th Baltic-Nordic Conference on Conserved & Restored Works of Art**

6-9 October, 1999, Tallin, Estonia.

Contact: Heige Peets, Chemist Conservator, Conservation Centre KANUT, Pikk Street 2, EE0001 Tallin, Estonia, tel. +372 6442-563. (C69)

### Master Inpainting

13-16 October, 1999. Mt Carroll, Illinois, USA.

Tutor: Jim Bernstein. Interdisciplinary, hands-on workshop for paper, objects, and paintings conservators. Registration deadline August 1, 1999. Contact: Mary Wood Lee, Campbell Centre, www.campbellcenter.org. (C71)

### ICOMOS: 12th General Assembly: The Wise Use of Heritage.

17-23 October, 1999. Mexico City, Mexico.

Contact: Arq. Carlos Flores Marini, ICOMOS Mexicano, Mazatlan 190, Col. Condesa C.P., Mexico, DF 06140, Mexico; icomosnex99@compuserve.com.mx. (C69).

### Association for Preservation Technology Conference

20-23 October, 1999. Banff, Canada.

Theme: *Winds of Change*. Contact: Larry Pearson, Head, Planning and Preservation Program; Historic Sites Service, Alberta Community Development, 8820 112th Street., Edmonton, Alberta, Canada T6G 2P8, tel. +1-403-431-2307, lpearson@mcd.gov.ab.ca. (C71)

### South Eastern Museums Conference Annual Meeting

20-24 October, 1999. Birmingham, Alabama, USA.

Theme: *2000 and Beyond - Museums' Response to the Millenium*. Contact: Scott M Brown, Director, Davenport House Museum, Savannah, GA, tel. +1-912-236-8097, fax: +1-912-233-7938. (C71)

### Second Pan-American Course on the Conservation & Management of Earthen Architectural & Archaeological Heritage

31 October - 10 December, 1999. Chan Chan, Trujillo, Peru.

Contact: PAT99, The Getty Conservation Institute, 1200 Getty Center Drive, Suite 7000, Los Angeles, California, 90049-1684, USA, fax +1 310-440-7702. (C69)

### Conservation of Historic Horse-drawn Vehicles

7-8 November, 1999. Stony Brook, New York, USA.

Contact: Merri Ferrell, Museums at Stony Brook, 1208 Route 25A, Stony Brook, NY 11790-1992, tel. +1 516-751-0066, ext. 222 (C68)

### Human Remains: Conservation, Retrieval & Analysis

7-11 November, 1999, Williamsburg, VA, USA.

Contact: Emily Williams, Department of Conservation - BHW, The Colonial Williamsburg Foundation, PO Box 1776 Williamsburg VA 23187-1776, fax +1 757-565-8752, ewilliams@cwf.org. (C69)

### Short Courses: The Structure & Decay of Ancient & Historic Materials

13-17 December, 1999. University of Bradford, UK.

Subject: *Ancient and Historic Textiles*. Other modules to follow: *Microscopy and Instrumental Analysis* (Easter 2000), *Metallic Corrosion* (June 2000), *Conservation & the Care of Collections* (December 2000), *Experimental Design in Conservation Science* (Easter 2001). See www.brad.ac.uk/acad/archsci/depart/pgrad/strucdec/, or contact: The Postgraduate Secretary, Department of Archaeological Sciences, University of Bradford, W. Yorks, UK, BD7 1DP, tel. +44 1274 235534, fax: +44 1274 235190, or John McIlwaine, Co-ordinator for Continuing & Professional Education, j.j.mcilwaine@bradford.ac.uk. (C70)

### Unmounting and Mounting of Photographs: Treatment Alternatives and Ethical Considerations

January 2000. Pittstown, New Jersey, USA

Contact Nora Kennedy, tel. +1-212-650-2168, nora.kennedy@nyu.edu, or Debra Hess Norris, tel. +1-302-831-3489, dhnorris@udel.edu. (C70)

### The Society for Historical Archaeology Meeting

4-9 January, 2000. Quebec City, Canada.

Call for Papers  
The conservation session will focus on issues around the development of conservation strategies, and will investigate the role of preventive conservation as well as minimal treatment for archaeological materials. See <http://www.sha.org/meet20.htm>. Contact: Andre Bergeron, Centre de conservation du Quebec, 1825 rue Semples, Quebec QC G1N 4B7, Canada, tel. +1 418 643 7001, fax: +1 418 646 5419, andre\_bergeron@mcc.gouv.qc.ca. (C71)

### 88th Annual Conference of the College Art Association

23-26 February, 2000. New York, NY, USA.

AIC sponsored session theme: In *Retrospect: The History of Art Conservation*. Contact: Rebecca Rushfield, 66-10-149th Street, Apt. 4C, Flushing N.Y. 11367, wittert@juno.com. (C71)

### North American Textile Conservation Conference Textile Symposium 2000

29-30 March 2000. Asheville, NC, USA.

Contact: NATCC Symposium 2000, attn: C. McLean/C. Varnell, L.A. County Museum of Art, 5905 Wilshire Blvd., Los Angeles, CA 90036, USA, cmclean@lacma.org. (C69)

### Conference on Bookbinding

May 2000. Rochester Institute of Technology, USA.

Contact: David Pankrow, RIT, 90 Lomb Memorial Drive, Rochester, NY 14623-5604, tel. +1-716-475-2408; dppwml@rit.edu. (C69)

### Symposium 2000 - The Conservation of Heritage Interiors

17-20 May, 2000. CCI, Ottawa, Canada.

Theme: the professional collaboration required to plan and execute successful conservation projects in historic interior spaces. Contact: Symposium 2000, Canadian Conservation Institute, Department of Canadian Heritage, 1030 Innes Road, Ottawa ON K1A 0M5, Canada, tel.: +1-613-998-3721, fax: +1-613-998-4721, james\_bordeau@pch.gc.ca. (C70)

### Contemporary Photographic Processes

June 2000. Chicago, USA.

Five-day workshop. Contact Nora Kennedy, tel. +1-212-650-2168, nora.kennedy@nyu.edu, or Debra Hess Norris, tel. +1-302-831-3489, dhnorris@udel.edu. (C70)

### AIC 2000: 28th Annual Meeting

9-10 June, 2000. Philadelphia, USA.

Call for papers.  
Topic: the preservation of electronic art and cultural material. Abstracts due by August 2, 1999. Contact: AIC, 1717 K Street NW, Suite 301, Washington DC 20006, tel. (202) 452-9545, fax: (202) 452-9328; infoaic@aol.com. (C69)

### Colloquium on Collection Photography: Past-Present-Future

Spring 2000. Dresden, Germany.

Contact: Wolfgang Hesse, Rundbrief Fotografie, P.O. Box 21-02-56, D-01263 Dresden, Germany, +49 351-316-09 90, Fax: +49 351-316-09 92, rundbrief@dresden.nacamar.de, <http://www.foto.unibas.ch/~rundbrief/> (C69)

### Nineteenth & Twentieth Century Finishing of Photographs Materials & Techniques

January 2001. New York, NY, USA.

Five-day workshop. Contact Nora Kennedy, tel. +1-212-650-2168, nora.kennedy@nyu.edu, or Debra Hess Norris, tel. +1-302-831-3489, dhnorris@udel.edu. (C70)

# NATIONAL GALLERY OF AUSTRALIA

**Head of Conservation  
Executive Level 2  
\$62,660 to \$73,490 pa**

Applications are invited from suitably qualified people for the challenging position of Head of Conservation at the National Gallery of Australia.

We are looking for a person with professional qualifications in conservation, extensive practical experience in the development and application of conservation techniques, and with a substantial background in the management of resources and professional staff.

This position is available on a fixed term basis for up to five years and a six month probationary period will apply.

Applications should address the selection criteria, a copy of which can be obtained by telephoning Manolita Ramsey on (02) 6240 6447, or accessing the Gallery's website <http://www.nga.gov.au>

Further information about the position can be obtained from Erica Persak, General Manager, Collection Services on (02) 6240 6407.

The Gallery's terms and conditions of service are set out in its Certified Agreement. Financial assistance for relocation from a locality other than the Canberra area will be considered.

Applications for this position should reach the Recruitment Officer by cob 12 July 1999 at the address below or facsimile (02) 6240 6436.

**Parkes Place, Parkes ACT, GPO Box 1150, CANBERRA ACT, 2601  
AUSTRALIA**

**THE NATIONAL GALLERY OF AUSTRALIA IS AN EQUAL OPPORTUNITY EMPLOYER**



## Expanding Range

As promised, our range of heated spatulas and lining irons is increasing with the addition of a Miniature Spatula and Tacking Strip Iron. The Miniature Spatula is a fixed head spatula the same shape and 1/3 the size of the Standard Spatula. Like the Standard Spatula, it has a 3 mm thick, flat, copper alloy base coated with Teflon™. The new Tacking Strip Iron is as the name suggests, primarily intended for attaching tacking strips, it measures 160 mm x 55 mm. As with the Standard Lining Iron, the new iron has a Teflon™ coated 6 mm thick copper base with fully rounded edges. All RH Heated Spatulas and Lining Irons are designed for minium heat conduction to the handle for operator comfort.

We have one further spatula in development for this range, after which we will be adding to it as need arises.

**12 reasons why you should reconsider the vacuum pump you currently use for low pressure treatments, if you are not already using an RH Suction Unit.**

- 1 The RH Suction Unit is suitable for use in all conservation treatments, including those involving solvents.
- 2 The pump at the heart of our Suction Unit was designed in house specifically for the needs of the conservation profession. Powered by an industrial single phase electric motor, it is suitable for continuous operation.
- 3 The exhaust air is removed from the work environment through a flexible duct to your fixed fume extraction system, or just out a window.
- 4 The control panel, unique to RH Conservation Engineering, is user friendly and made of stainless steel with sealed flush membrane switches with indelible lettering and graphics.
- 5 Easily maneuverable on its castors.

- 6 Clear digital readout of operating pressure.
- 7 The operating pressure is easily controlled by 2 buttons.
- 8 The largest pumping capacity of any pump available standard to the conservation field, 85 l/sec and a maximum of -170 hectopascal.
- 9 Noise emission of only 59 dBa @ 1 metre in full operation when connected to an RH Suction Table Worktop.
- 10 Sleek and aesthetic appearance to compliment your lab or studio.
- 11 Tested for safety to international standards IEC 335-1:1991 and meets the requirements of the CE regulations.
- 12 Backed by a company committed to customer service.

No other conservation vacuum source can claim even 1/2 these attributes.

*Shouldn't you now be replacing your current vacuum pump on Health and Safety grounds, if no other reason?*

## The RH Suction Platen for Those Difficult Areas to Get to

The RH Suction Platen offers all the features of an RH Suction Table Worktop, but in a small portable form. Available in two sizes 300 mm x 100 mm & 450 mm x 375 mm, it is the most versatile and affordable suction device available to the conservation profession. With its wedge shaped cross section, it can be used up to the binding in a book, a fold in a garment or to the edge of a painting under most stretchers.

The RH Suction Platen connects to an RH Suction Unit or in many cases, as an economical alternative, wet/dry vacuum cleaner. The solid construction of the RH Suction Platen ensures it remains flat, even under full vacuum. The top suction surface is a very durable fine stainless steel mesh, that together with the stainless steel sub-surface ensure very even suction in all applications and good airflow characteristics for cross flow drying

Supplied in a polished wooden case for between treatment storage, the RH Suction Platen has become an invaluable part of the labs and studios it now resides.

*Why not increase the treatment options you have to hand and make it an invaluable part of your lab equipment?*

### ADDRESS:

#### Head Office;

"East Creek Farm",  
Paringa Road  
Red Hill South, Vic 3937  
AUSTRALIA

Telephone (03) 5989 2919  
Facsimile (03) 5989 2203  
International Code (+61 3)  
Mobile 0419 892919

#### European Office;

Vosnøesvej 16  
DK-8541 Skødstrup  
DENMARK

Tel / Fax +45 86 99 37 45

#### American Office;

640 Broadway Ave  
Holbrook NY 11741  
USA

Telephone (516) 218-9499  
Facsimile (516) 567-4007  
International Code (+1)

## Students to Train on RH Equipment

RH Conservation Engineering has always ploughed a large proportion of its profits back into the development of new products and has always been on the look out for ways to support the development of the conservation profession. To this end we recently offered the Conservation of Cultural Materials Course at the University of Canberra, Australia, the opportunity to have a range of our equipment on permanent loan to give the students a wider variety of conservation equipment to train on.

After initial telephone discussions with Benita Johnson, Course Convenor for the Conservation of Cultural Materials Course, Division of Science and Design, a meeting was organized in Canberra attended by Roselyn Hill, David Wise and Benita Johnson, together with Robin Hodgson and Helle Kaufmann of RH Conservation Engineering, a "wish list" to the value of AUD\$18,000 worth of RH equipment was drawn up. The equipment on permanent loan is:

- RH High Pressure Suction System
- RH Heated Spatulas and Linning Irons
- RH Suction Table Worktop
- RH Table Frame
- RH Suction Unit
- RH Microtome
- RH Suction Platen

We look forward to this closer involvement with the University of Canberra.

### STOP PRESS:

We have recently noticed that some clients, when using the RH Heated Spatula, were resting it under the handle of the controller unit, this can chip the Teflon™ coating on the edge of the sole. The spatula may, however, be rested safely on the top of the controller unit handle. We will soon be releasing a special spatula rest that includes a drip tray, in case the spatula has been in contact with liquified wax or resin.

## Australian Capital Territory

### Australian War Memorial

While the pressure to prepare items for exhibition has eased for some sections of Conservation at the War Memorial, the Objects Lab, with the aid of the "Large Technology Team" from Registration, continues to prepare items for the re-development of Bradbury Aircraft Hall. After that there will be Anzac Hall ...

**Ruth van Tienen** has been appointed Volunteer Co-ordinator for the Conservation Annexes. We have volunteers working in most sections of conservation with the greatest number assisting with work on large technology items at Treloar C.

Other sections such as Paper and Textiles are working on preventive and remedial programs trying to moderate the backlogs that formed during the exhibition push of the last 18 months. One of the Paper Lab's remedial programs is to flatten dozens of rolled WWI panoramic prints. As some of these are over four metres long, some interesting techniques are developing. **Adrian Lautenbach** and **Ian Fulton** are trying to put on a positive face despite being inundated with negatives.

**Judith Andrewartha** has been doing her professional practice unit in the Textile Lab. She has worked on a number of objects, assisted with the freezer program and gallery maintenance, and has built up an impressive reproducible dye sample collection. **Gina Drummond** has been teaching the textile units at Canberra University this year. The textile course is under threat of closure due to financial cuts to the university.

The Memorial's travelling exhibition program which has eight exhibitions touring the country at present has also kept us on our toes. While these exhibitions are travelling they are serviced by conservators and members of the Memorial's Travelling Exhibition Team. **David Keany** has recently visited Port Pirie to condition report items in the *Up front: faces of Australia at war* exhibition.

### National Archives of Australia Canberra Office

Preservation Staff in the ACT recently held a 'Conservation Clinic' as part of a 'Family History Day' run by the National Archives. Members of the public were encouraged to bring in their personal objects for preservation advice. There was a steady stream of people through the clinic throughout the day, and a wide range of objects - by far the most common were photographs, but there were also vellum documents, certificates, postcards, newspaper cuttings and others.

Of particular interest were: A seaman's log book belonging to a person's great uncle that indicated that he had been aboard the Titanic - although it showed no signs of having been wet; Letters home from soldiers at Gallipoli and in the trenches in WWI; Land leases on parchment from Tasmania dated from the 1840s complete with wax seals.

It's amazing what's out there in the Distributed National Collection.

National Archives also had a presence at the **Amazing World of Science National Science Festival** (30 April to

9 May), where we had a similar information booth. Members of the public were invited to bring their collections in for Preservation advice. Lots of take-home information and show bags kept everyone happy.

Preparations are beginning for the display of our "birth certificates of the nation" - some of the most important documents in the country are in our collection, and they will soon be on exhibition for the **Centenary of Federation**. Items include the *Royal Commission of Assent*, signed by Queen Victoria granting permission for Australia to become a Federated Nation. Most of the documents are parchment manuscripts written with iron gall or carbon black ink and have silver-cased, wax seals attached. Several are folded into presentation cases, so we are reacquainting ourselves on treatments for VIPs (Very Important Parchments). The NAA has received a grant from the **Council for the Centenary of Federation** to enable the safe (both preservation and security) display of these documents.

Staff movements include the loss of **Kate Woollett** to the Ian Potter Conservation Centre as their next intern. **Katy Glen** joined us in March, but she too is leaving soon to take up a 3 year internship at the National Gallery of Victoria. Thanks and best wishes to both of them.

**Ian Batterham** has been made permanent as Assistant Director, Preservation, so congratulations to him too.

**Tania Riviere** has returned from Maternity Leave, and we recently received news that **Karen Caldwell** and husband **Marcus** have had their second child, **Cameron Gerhard Zellner**. Cameron was born in Switzerland, and all the family are doing well.

### National Library of Australia

During the last year Preservation Services has experienced an unexpected increase in resources which meant that a number of new projects have started and many ongoing ones have been completed. To help us, we have employed several recent University of Canberra graduates to work on a variety of projects.

**Lisa Jeong** has been working on nitrate rehousing. This involved surveying a large number of nitrate negatives from the Pictorial collection and preparing them for cold storage.

**Joy Tonkin**, Paper and Book Conservator, has been surveying a number of important and valuable collections in the Asian Collection. She is following up these surveys by undertaking restoration and conservation of items highlighted in the surveys. Joy is also conducting book repair training for a number of staff.

Preservation has also undergone some staff changes and reshuffling. **Colin Webb** is acting Head of Preservation Services since **Maggie Jones** left for the UK late last year. **Kim Morris** has gone on a well deserved 7 months long service leave and won't be back till November. **Chesley Engram** has moved across to fill his position enabling **Rowena Jameson** to join us.

In December last year **Alison Duck** headed back to Ireland with her husband David. She has taken up a year long contract at Delmas Conservation Bindery at Marsh's Library in Dublin. **Rachel Stoneham** joined Preservation in January to fill Alison's position.

**Amelia Arcidiacono** has decided to take a retirement package and will leave the Library in early June. We will all miss Amelia and her cheery presence in Preservation Services. Good luck!!

**Lydia Preiss** has been investing a lot of time into preparing a joint Disaster Training Session for cultural agencies in Canberra. This will occur over two days in early June.

You all might be interested to know... anyone who has worked at the Library in the last eight years can probably remember the seemingly endless Ellis Rowan gouache watercolours of Australian flowers (approx. 600 required treatment). Well, guess what... AT LAST THEY'RE FINISHED!! Hooray!

The Preservation Reformatting Unit has also completed a number of projects including microfilming the Victorian Commonwealth Electoral Roll (1905-1989) which is now accessible on microfiche. Arrangements are being made to make this microfiche available for sale.

## New South Wales

### Art Gallery of NSW

**Susie Bioletti** from the National Gallery of Australia and **Rose Peel** are working with curators **Vivienne Webb**, **Martin Terry** and **Roger Butler** to produce a joint publication and focus exhibition at the Art Gallery NSW in 2000. *Joseph Dufour 'Les Sauvages de la mer Pacifique' French panoramic wallpaper, c.1805.*

Rose is finally (and it could possibly be true this time) finishing off the Counter Disaster Manual for the Gallery. As the format is a ring binder additions can be made at a later date, otherwise writing a disaster plan turns into a similar activity as painting the Harbour Bridge.

**Mark Nizette**, National Film and Sound Archive, is giving a one-day workshop in May on photographic techniques and identification for staff at the Gallery.

**Stewart Laidler** is preparing an infrared workshop to be held Thursday 23 September 1999 at the AGNSW. This will be the day before the AICCM AGM. In May he will travel to the Kimbell Museum in Fort Worth Texas to return the *Nude in a rocking chair* by Picasso.

The Frame Conservation section welcomes **Tom Proctor**, Dulwich Picture Gallery, London, who will be with us for six months to gain advance training in the frame conservation field. Dulwich Picture Gallery provides full support for this project. Under supervision of **Malgorzata Sawicki**, Tom has carried out conservation of the carved original frame for the *Pastoral Landscape*, by Claude Lorraine, and at present undertakes removal of bronze overpaints, surface cleaning and consolidation treatment of the Louis XV carved frame for the *Madame De La Porte*, 1754, by Jean Marc Nattier. In July, the Frame Conservation section will be joint by another internship trainee, **Anne Niemela**, a third year furniture conservation student from the EVTEK Institute of Arts and Design, Vantaa, Finland. Anne would like to specialise in frame conservation and will do her final examination project and thesis on frames. Anne's three month training will be sponsored by her University.

**Barbara Dabrowa** has recently finished restoration of the frame for the von Guerard painting *Figtree at the American Creek*, and continues working on other

frames from the Australian Collection in preparation for the major *Australian Icons* exhibition in 2000. **David Butler** divides his time between making new reproduction frames for two other von Guerard paintings and a very elaborate frame for the painting *Widower*, by Tissot. Design of the frames for the von Guerard paintings will be based on archival photographs and the frames of other paintings by the same artist, of a similar period. The elaborate frame for the Tissot painting will be based on the original frame for *A Portrait (Miss Lloyd)* at the Tate Gallery, and will involve carving new moulds for several ornamented sections.

Between coordination of the frame conservation program and providing training for Tom, **Malgorzata Sawicki** removes patiently bronze overpaints from a Whistler frame, which originally was oil-gilded on the bare wood. The frame could provide evidence that the Whistler painting *Nocturne in Silver and Grey: The Thames* (in the collection of the AGNSW), which is not signed, is authentic. Malgorzata is also conducting research into synthetic materials and methods which can be used as a substitute for the mat water gilding technique in the conservation of gilded frames.

### International Conservation Services

**James Crawford** has formally joined ICS as objects conservator, after providing invaluable assistance at Swifts over the past year. He is currently working on a wide range of material including artefacts from the Conservatorium of Music archaeological work, encaustic tiles from St. Andrews Cathedral and a jade tree from Townsville.

Meanwhile **Detlev Lueth** has left us to join the National Museum. We shall miss his presence and wish him well at NMA. Our other new arrival is in the form of baby Angus, born to **Catriona Angus** on April 22nd.

**Barbara Soudah** and **Alice Fuller** have been braving occasional hailstorms to conserve the painted signs on the historic Haymarket façade of the University of Technology, Sydney.

**Catherine Akeroyd** is busy organising a major exhibition for the Snowy Mountains Hydro-Electric Authority to celebrate their 50<sup>th</sup> Anniversary.

**Fiona Tennant** and **Claire Wilde** have been working on a significant private collection of 16<sup>th</sup> and 17<sup>th</sup> ecclesiastical vestments

### State Library of NSW

The Preservation Branch has been busy helping **Agata Rostek's** team prepare works for the exhibition, *Sydney Eccentrics, A Celebration of Individuals in Society*. The exhibition is a celebration of those individuals outside the mainstream of society - those who stand out in a crowd - and features an eccentric selection of photographs, manuscripts, posters, a trolley, a bicycle and some fascinating bird-calling instruments. The exhibition is on display until 29 August 1999.

Welcome to **Narelle Jarry**. Narelle joins us for 3 months and is already in the thick of the exhibitions program. Her first project is to change over a display of cricket memorabilia from the exhibition *The Summer Game*.

For the next 3 months Anna Higgs will be acting Team Leader in the SRL Lab whilst Nicky Parshall is on long service leave. Steve Bell has just returned from a short

trip to Artlab. Steve spent a few enjoyable weeks with Anthony Zammit on a professional development opportunity. Meanwhile, Cath Thomson and Alex Philp in Conservation Access are very busy assisting Sydneysiders with their hail-damaged belongings.

## Queensland

### Queensland Museum

The conservation staff from the Queensland Museum would like to welcome **Andrew Viduka** to our 'extended' department. Andrew has been employed as the Maritime Conservator for the new Museum of Tropical Queensland (MTQ) in Townsville. He arrived just in time to be swamped by the return of the *Pandora* expedition and the arrival of material from the *Bounty*.

**Jessica Turner** and **Amanda Pagliarino** have returned after a month away on the 1999 Port of Townsville *Pandora* Expedition. The month-long expedition involved spending time in Townsville helping Andrew set up in the new MTQ conservation labs. Both Jessica and Amanda were thoroughly impressed with the new labs, which look beautiful, and just a little envious of all the space Andrew has to work in.

**David Hallam** was in Townsville to meet the *Pandora* Expedition's main vessel *Pacific Conquest* on its return. David spent a couple of weeks at MTQ helping Andrew organise and initiate the treatment of the 1999 artefacts. David has also made a trip to Cooktown to assess the condition of a Cook cannon for the National Museum of Australia, where he experienced the wettest wet for a long time first hand.

**Jennifer Blakely** has been busy with the installation of the *Life and Death under the Pharaohs* exhibition. Jennifer was fortunate to have been able to work on one of the artefacts. She re-treated an old repair on an intricate ointment spoon.

Christine Ianna's involvement in two upcoming workshops has taken up much of her time. As part of the Conservation Department's Outreach program, Chris has been developing workshops for the wider community. Preservation of Historic Machinery and a Disaster Training Program are scheduled for midyear.

## Victoria

### Heritage Victoria

The Heritage Victoria laboratory has been particularly busy lately. Our archaeologists conducted two excavations between November and February - a maritime excavation of the SS City of Launceston near Queenscliff, and a land excavation of Viewbank Homestead near Heidelberg. These resulted in many artefacts requiring treatment, the most challenging of which consists of large sections of wall plaster with the wallpaper still attached, which had been buried since 1920.

At the same time the lab database collapsed and the re-build has taken five months. We have also been preparing, installing, and taking down artefacts, and generally managing a travelling exhibition called *Underground Underwater, Archaeology in Victoria*.

Luckily we have/had several new staff to help with it all.

**Stephanie Ward** was working with us during the height of the excavation period. Stephanie is a UK trained archaeological conservator visiting Australia for a year. **Nicki Smith** came back for six weeks on special loan from Museum Victoria to work as a diving conservator on the maritime excavation. **Karina Acton** started in March and is bravely slogging through the mountains of muddy or concreted artefacts.

### Ian Potter Art Conservation Centre, The University of Melbourne

The opening of the new gallery building for the Museum of Art at the Ian Potter Centre late last year has provided much excitement for the conservation laboratory. With new exhibitions going up and coming down every few weeks there has been a lot of work in the condition reporting side of things. The upcoming *Melbourne International Biennial* has also provided a lot of work for conservation staff as many of the shows for this event will be held at the Ian Potter Gallery.

The laboratory bade farewell to four staff members earlier this year. **Beth Curry** and **Dana Khabka** finished their Paintings and Paper Internships respectively, and **Rosie Fremantle** has left us to take up a position in Paper Conservation at the Tate Gallery, London, couriering exhibitions to Paris and attending conferences in Toronto - she seems to be enjoying the transition. **Caroline Fry** has also moved on to work at the VCCCM. **Jude Fraser** has now joined the laboratory as the new Grimwade Conservator and **Kate Woollett** (Paper) and **Catherine Nunn** (Paintings) have taken up positions as the new Interns. **Sally Carew-Reid** has joined us as a Paintings Conservator after training at the Courtauld and working in England.

There seems to have been a rush on rolled paintings and aboriginal works (or combinations thereof) at the Ian Potter laboratory lately. Sally is in the final throes of treating an extensively damaged rolled painting and Carrie and Catherine have been successfully consolidating friable aboriginal bark painting media. Nicole is undertaking some research into Gamelan Digul orchestra instruments from Indonesia for the Monash University Music Department, identifying the pigments, fibres, wood and metal of which these instruments are constructed.

Sally has been using optical microscopy for pigment analysis of a triptych oil on panel of uncertain age. With assistance from the Fine Arts Department, the age of the panel is being narrowed down and at this stage may be as early as seventeenth century. **Robyn Sloggett** is continuing her research in to forgeries in the Australian Art market as well as the Infra Red examination project. Catherine is researching the materials and techniques of E Phillips Fox works in the Museum of Art Collection as well as Phillips Fox works from other collections.

The Graduate Certificate Course in Art Conservation Studies for museum professionals was also presented by the Ian Potter Centre and the Fine Arts Department in February.

### Jeavons Baillie & Associates

I have now been working freelance for nearly two years. The work I have been doing and the places have been varied - Darwin, Hobart and Auckland define the geographical limits. The work has ranged from

developing preservation strategies, advising on collection preparation and relocation, and all aspects of disaster management, including training.

There is an increasing interest in drafting formal agreements between institutions to prepare cooperatively now and to act together in the event of emergencies. This is a healthy development which seems to indicate greater interest by senior management in disaster preparedness.

My Melbourne office address is Suite 3, Ground Floor, 24 Albert Road, South Melbourne, VIC 3205, tel. (03) 9694 3224, mobile 0417 563 006, jeavonsb@bigfoot.com.

### National Gallery of Victoria

All the conservators at the NGV are presently occupied with preparing the collection for relocation prior to the redevelopment of the St Kilda Road site. This includes checking the condition of works and undertaking any necessary treatments to stabilise a piece prior to packing. Relocation Conservator **Jude Schahinger** is kept busy with a new challenge arriving on her doorstep almost daily, hourly, by the minute! Although the relocation increasingly dominates, the following events may also be of interest.

Painting conservator **Carl Villis** has completed his 10 month conservation treatment of Anthony van Dyck's *Rachel de Ruvigny, Countess of Southampton*. In May the painting will be sent to Antwerp and London for inclusion in the van Dyck retrospective exhibition, commemorating the 400<sup>th</sup> anniversary of the artist's birth. Carl, **Linda Waters** and **John Payne** recently addressed fellow AICCM members as part of the *Conservation Conversations* program. The title of their presentation was *Working Big! Three projects from the Paintings Laboratory of the National Gallery of Victoria* and the venue was the Museum of Art at the University of Melbourne. **Michael Varcoe-Cocks** and John have also been working on the NGV's component of the infra-red project.

In the paper lab, **Ruth Shervington** has been consolidating 15 remarkable works on paper by Aboriginal women from Lajamanu. **Lyndsay Knowles** has been surveying the paper and photography collection. **Cobus van Breda** has been consolidating works on paper by Fred Williams.

**Holly McGown-Jackson** is glad to be joined by two new staff members in the Frames and Decorative Wooden Arts Section. We welcome back **Lisette Burgess** who is treating two frames in preparation for loan and is continuing the program of stabilisation treatments prior to relocation. **Louise Clarkson**, a recent graduate from the Manchester College of Arts and Technology with a degree in furniture conservation/restoration, specialising in gilding, has been appointed Project Frame Conservator. Initially, Louise will focus her attention on the conservation of items in the furniture collection in preparation for relocation.

In the Objects lab, **Catherine Millikan** has been joined by **Kylie Roth**, a recent graduate of the University of Canberra. Kylie has been appointed Art Foundation of Victoria Development Conservator of Objects. Catherine and Kylie have finished cleaning the Venetian glass collection and are presently working on Aboriginal bark paintings. **Carol Campbell** is busy preparing the fashion and textile collection for relocation.

Exhibitions Conservator **Catherine Earley** was involved

with the installation of *Treasures of Asian Art: Selections from the Mr & Mrs John D. Rockefeller 3<sup>rd</sup> Collection of the Asia Society, New York*. Catherine is presently in Washington at the Corcoran Museum and will courier back a consignment of works belonging to the NGV.

**Tom Dixon** and private conservator **Andrew Thorn** worked in conjunction with BMS Steamatic in the recovery from an incident where salt came through the air conditioning system leaving a fine deposit on objects. Fortunately, this was a localised event and only 5 areas within the gallery were affected.

## Western Australia

### Museum of Western Australia

In November 1998, the Federal Government donated the submarine *HMAS Ovens* to the WA Museum. *HMAS Ovens* was commissioned in 1967 and decommissioned in 1995, since which time it has been used as a fully operational training submarine (propellers removed) by the navy at Garden Island off Perth.

To illustrate the enormity of the artefact, here are some statistics. The submarine is 89.9 metres long, 8.1 metres across its beam and had a 2070 tonne displacement. It was slipped onto Swan Dock, Fremantle in January 1999.

For the two months prior to the WA Museum receiving the submarine, it was closed down and the ensuing humidity build up has caused mould to grow extensively throughout the inside of the submarine; on metal, wood, glass, vinyl, textiles, paper surfaces. **Nikki King-Smith**, as supervising conservator, had to first establish a stable environment inside the submarine using forced air ventilation and dehumidification. 300 tonnes of batteries have been removed and shortly 20 tonnes of pig iron ballast will be removed.

Besides the conservation of the submarine itself, there will be the conservation of all the movable artefacts necessary to fit a company of 64 persons. It is programmed to be open to the public in three years time when some of the bunks will be decorated with submariners' personal belongings and photographs to present a more emotive experience to visitors.

### Paper Conservator's Opportunity

An opportunity exists for a paper conservator, and/or textile conservator, to establish a business in Melbourne close to the city.

We can offer fully equipped (lab equipment, benches etc), good size, secure premises in an environment that also includes paintings conservation, frame conservation and conservation mounting and framing. Each of the businesses is autonomous and has its own premises in the one complex.

Another benefit would be the already established client base, much work would be provided by referral.

For further information please contact Sandra Cockburn by telephone on (03) 9482-1726 (W) or 9481-3960 (AH).

## Report from the Fiji Museum

Frances Fitzpatrick

This will be my last report from the Fiji Museum, before my return to the Powerhouse Museum, Sydney, in September. The end of my contract is looming up ahead and my list of things to do before then seems to be increasing rather than decreasing.

Unfortunately I received a very poor response to my request for interested parties in the Conservation Partners Proposal. Perhaps I'm flogging a dead horse here but one of the great joys of my time here has been the opportunities for interaction with conservators or collections managers, working in very different and difficult environments. Again I'm requesting interested parties to step forward before I begin a campaign of personal harassment. After September I plan to continue my involvement in the Pacific conservation community, particularly through the Pacific Island Museum Association, currently based at the Fiji Museum.

The past few months have been hectic, with the opening of an exhibition on conservation on the 20 April. This is a variation of the exhibition held at the Powerhouse Museum in 1996, *Ageing with Attitude - the private lives of museum objects*. The Fijian version of this exhibition was developed with the help of the Powerhouse Museum, in particular with assistance from Roger Parris. It is hoped to develop this into a travelling exhibition for the Pacific region at a later date. If anyone has any funding ideas, please let me know.

As a final message I'd like to thank all those who have provided me with support in many forms over the past two years, Vinaka Vakalevu.

## The Galle Harbour Project, Sri Lanka, March-April '99

Jon Carpenter  
Senior Conservator  
Western Australian Museum

Jon Carpenter from the Department of Materials Conservation, WA Museum, recently returned to Sri Lanka with colleagues Patrick Baker and Corioli Souter from the Department of Maritime Archaeology.

Soon after our arrival preparations were underway to prepare artefacts recovered from underwater sites in Galle Harbour (expeditions 1992-1999) for an exhibition in the Sri Lankan National Maritime Museum. This was duly opened by the Dutch Ambassador and the Mayor of Galle. The museum is housed in the original commissariat warehouse built by the Dutch. All show-cases were made locally - recent finds from the wreck of the Dutch vessel *Avondster* (lost 1659) were exhibited in sealed fish tanks.

Objects on display included a beardman jug, a small grey and cobalt blue jug, probably from Westerwald potteries, which was still corked. Prior to recovering this container, a plastic vial was placed over the cork and

held in place with some electrical tape (the salt glaze was sound) and it remained this way until opened. Assuming that it still held some original liquid, the cork was carefully extracted with gloved fingers, and the mouth quickly covered to prevent too much light falling on the contents, as a precautionary measure. A small sample was quickly taken with a pipette, revealing a disappointing clear liquid with some fine sediment. Small yellow particulates were also present - analysis is planned.

Rope, turtleshell combs and apothecary jars recovered in 1998 were also exhibited in purpose-made 'fish' tanks. Two of the jars contained some original contents. Free flowing mercury in one jar was separated out from intrusive sediments - this process was carried out in a container of water, using a pipette, to avoid inhalation of poisonous vapour.

The underwater visibility on the wrecksite itself is usually very poor. Maritime archaeologist Karen Millar thought she had put her hand on a bowl, and as she drew it close to her mask to examine it and was shocked to find herself staring into the face of a human skull! Archives referring to the *Avondster* indicate there was no loss of life associated with this wreck so it is a bit of a mystery. We decided not to exhibit the skull less it offend the sensitivities of people.

The Galle Conservation Laboratory has been established, although it still requires work to finish the refurbishment of the building. Essentially conservation treatments are concerned with the removal of marine encrustation from mainly ceramic materials, but the acquisition of rope and other organic materials is leading toward more sophisticated treatments.

A seminar was held for representatives from the tourist industry to illustrate the tourism potential of the underwater cultural heritage of Sri Lanka. This included a temporary exhibition of artefacts and the work involved.

Just before departing from Sri Lanka we examined a 20-metre long *chine strake*, a single trunk of wood being the base of the hull of a river craft, which had recently been recovered from a freshwater site. The surface was probed to ascertain the extent of degradation, penetration varied between 5-10mm. Our organics specialist Dr Ian Godfrey will be advising the Sri Lankan conservators on the most appropriate treatment.

The Galle Harbour Project is a tripartite program involving Sri Lanka, the Netherlands and Western Australia.

### Next Issue

Moving is the proposed theme of the September issue of the Newsletter, so if you have any reports regarding packing, crating, moving and organization of collections these would be very welcome. It sounds like we should all be pretty good at it by now! Very short tips will be amalgamated into a "Tips Sheet" - no piece of advice is too small.

Contributions to regular features are welcome as always. Please send contributions to Alice Cannon at [acannon@bigpond.com](mailto:acannon@bigpond.com), by fax to (08) 8207-7529, or by post to: 70 Kintore Avenue, Adelaide SA 5000.

## SPECIAL INTEREST GROUPS

### Special Interest Group Co-ordinators

#### Antarctic Heritage

Janet Hughes  
Tel: (02) 6208 5253  
Fax: (02) 6208 5299  
j.hughes@nma.gov.au

#### Book and Paper

Kerry McInnis  
Tel: (02) 6297 7670

#### Conservation Picture Framers

June Anderson  
Tel: (02) 9564 5576  
Fax: (02) 9564 5578  
pnj@ozemail.com.au

#### Conservation Science

David Hallam  
Tel: (07) 3840 7681  
Fax: (07) 3846 1918  
davidh@qm.qld.gov.au

#### Gilded Objects Conservation

Malgorzata Sawicki  
Tel: (02) 9225 1766  
Fax: (02) 9221 6226  
margarets@ad.nsw.gov.au

#### Objects (incorporating Wet Organics)

Sophie Lussier:  
Tel: (08) 9492 6733  
Michelle Berry:  
Tel: (03) 9628 5924  
Fax: (03) 9628 5235  
mberry@mov.vic.gov.au

#### Paintings

David Wise  
Tel: (02) 6201 2302  
Fax: (02) 6201 5419

#### Photon

Detlev Leuth  
Tel: (02) 6208 5025  
Fax: (02) 6208 5167  
Kim Tough  
Tel: (02) 9298 3776  
Fax: (02) 9298 3780

#### Preventive Conservation

Sarah Slade  
Tel: (02) 9298 3764  
Fax: (02) 9298 3780

#### SMOCM (Sculpture, Monuments and Outdoor Cultural Material)

Donna Midwinter  
Tel: (02) 9225 1735  
Fax: (02) 9221 6226  
Donnam@ag.nsw.gov.au

#### Textiles

Fiona Tennant  
Tel: (02) 9417 3311  
Fax: (02) 9417 3102

## Conservation Framing

### June Anderson

Since the formation of the Conservation Framing SIG we have had enthusiastic response from those keen to join. One of the objectives of the group is to interact with the framing industry. We hope to make a start at the **Art & Framing Trade Fair** at Homebush Bay, NSW, on August 6-8. We will be encouraging framers to join the AICCM, enabling access to conservation practices and guidelines. In the future we want to provide workshops, seminars and newsletters. At the Trade Fair I will be asking framers about their wants, needs, and problems in conservation. The results of our survey I will publish in the AICCM newsletter. We are also looking forward to hearing from current AICCM members. A big thanks to those who have already made contact with us. See you at the Trade Fair.

## Gilded Objects

### Malgorzata Sawicki

The AICCM Special Interest Group Convenors have recently received a letter from the AICCM Honorary National Secretary with the request to comment on the update of the integrated AICCM Strategic Plan for 1999-2000. We have been asked which of the goals of the previous plan have been achieved and which tasks we would like to include in the plan for this year. It has been also stressed to us that at the National Council Meeting CM 80 (12 March 1999) it was noted that few SIGs were fulfilling their reporting requirements to National Council. In order to improve the communication between the SIGs and National Council, it has been decided that at each Annual General Meeting and election of new Council Members, one member will be appointed as SIG Coordinator. **Kim Brunoro** has volunteered to undertake this task this year. Below I include my response, which I sent to the National Council on behalf of the Gilded Objects group.

During its three years of existence, the AICCM Gilded Objects Conservation Special Interest Group has fulfilled the following activities:

- ◆ Endorsement and promotion of conservation standards and practices by encouraging members to apply for the professional membership, by publicising the professional treatments and techniques in the GOCSIG Newsletters, and during seminars and conferences, and by promoting professional publications related to the conservation of gilded objects.
- ◆ Exchanging information within the profession through publications, and during conferences and seminars.
- ◆ Promoting recognition of the profession and raising public awareness of the conservation issues through seminars and publications.

- ◆ Facilitating access to conservation advice and services by producing and distributing the list of GOCSIG members, which can provide assistance for referral services.

Since 1996, the group has had two fruitful seminars in association with the AICCM National Conferences, Sydney 1996 and Canberra 1998, and has published five issues of the *GOCSIG News*, and strongly promoted the group during two seminars on *Picture Frame Conservation*, Auckland 1997, and Sydney 1998. The aims of the group are to continue its activities and service to the members.

Gilded object conservation represents a relatively narrow field in the conservation profession. Nevertheless, the AICCM Gilded Objects Conservation SIG comprises presently 45 members in Australia and New Zealand, and the numbers are still growing. Many painting conservators and conservation students show interest in conservation of gilded objects, particularly frames.

However, there is a strong view between the members that the group is too small to be able to attract participants for separate seminars and meetings outside of the national conferences. The GOCSIG members are spread across the states and many members belong to other SIG groups, which relate to their major specialisations. In addition, many members are self-employed, and the group resources and supports are limited.

Therefore the exchanges of information and professional contacts are mostly kept by the GOCSIG Newsletter, *GOCSIG News*. It is published twice a year with great assistance from the GOCSIG members, who supply relevant articles and information, and the Art Gallery of New South Wales, which continues in its support for the AICCM by allowing time for editing, photocopying and postage. The *GOCSIG News* distributes information on relevant publications and events, web-sites, present research and conservation treatments, and includes papers presented during GOCSIG seminars at the AICCM conferences.

The growing worldwide interest in the field of gilded objects conservation, particularly frames, attracts new members and indeed shows the need for the existence of the group within the AICCM structure. Nevertheless, it should be stressed that the operation of the group strongly depends on the support and conferences organised by the AICCM National Council. Not conducting the AICCM National Conference in 1999 would mean that the GOCSIG could not meet this year. Therefore, I welcome and strongly support an initiative of SMOCM, which volunteered to organise the AICCM National Conference giving all SIG's opportunity to organise their sessions and discuss relevant issues.

PS. The next issue of the *GOCSIG News* - first this year - is on the way, and every GOCSIG member should have received it by now. If anybody has been missed, please contact me, as it means that your address must have changed.

## Paintings

### The 1999 Paintings Symposium Novotel Alpine Resort Lake Crackenback.

The Snowy Mountains was the venue of the most recent Paintings Symposium. From March 13th to 16th paintings conservators from around Australia and overseas converged on the Lake Crackenback Novotel resort near Jindabyne for three days of lectures, infilling and retouching as well as the odd game of golf, pool, Ping-Pong or tennis, or for a sauna, swim, horseride, canoe trip, bushwalk, and archery.

With a healthy balance of students, recent graduates and established conservators, the symposium proved to be very successful and a fun event for all concerned. Lectures were given by conservators from the large major galleries as well as those in private practice, providing an interesting contrast between the very different types of treatments undertaken in laboratories across the country, yet all with the same underlying values of preservation, conservation and respect for the artwork.

Papers concerning recent research projects were also presented, involving Infra-Red reflectography for the examination of paintings, Regalrez 1094 for inpainting and the time frame for removing and reapplying varnishes to paintings. **Therese Mulford** gave a fascinating presentation concerning the production of a **Bea Maddock** work and demonstrations of the latest conservation gadgets and technology were also presented.

The workshop section of the symposium consisted of a lesson in traditional egg tempera retouching, presented by **Bronwyn Ormsby** who was flown back from PhD studies in England especially for the event. While many conservators may have enjoyed the feeling of long-chain egg polymers running through their fingers and the satisfaction of burnishing a layer of egg tempera without it flaking off as soon as a burnisher was anywhere near it...the technique requires much practice and may not be used by many conservators as a replacement for B-72 in the near future. However, it was an interesting technique to which to be introduced and worth persevering with to master the art of egg tempera painting.

Many thanks go to the organising committee of **David Wise, Natalie Scoullar, Cushla Hill, Kim Brunoro, Kathryn Ferguson, Sheridan Roberts** and **Bronwyn Ormsby** who pulled off a fantastic, though not inexpensive event. The next symposium has been designated to be a Sydney event and good luck goes to the New South Wales organising committee as the 1999 Paintings Symposium will be a tough act to follow.

## PHOTON

The Draft Mission Statement and Aims of PHOTON put forward to the National Council have been approved. If anyone would like to receive a copy please contact Detlev Lueth or Kim Tough. (Please note that contact numbers have changed for both of us).

Discussions are currently being carried out for a combined BPG and PHOTON symposium. Watch this

space for further developments.

### New contact details:

Detlev Lueth  
National Museum of Australia  
tel. (02) 6208-5025, fax (02) 6208-5167,  
d.lueth@nma.gov.au

Kim Tough  
Australian National Maritime Museum  
tel. (02) 9298-3776, fax (02) 9298-3780,  
ktough@anmm.gov.au.

## Preventive Conservation

After somewhat of a hiatus we are hoping to get the Preventive Conservation Special Interest Group more active again. Could anyone, who has expressed an interest in being a member of this SIG in the past or would like to express an interest now please contact **Sarah Slade** by the end of July 1999 at the following:

Sarah Slade  
Head of Conservation  
Australian National Maritime Museum  
GPO Box 5131  
Sydney, NSW 1042  
tel: (02) 9298 3764  
fax: (02) 9298 3780

## PROFESSIONAL EXPERTISE REQUIRED

The AICCM has funds available for a major research project, and wishes to employ people with an in-depth knowledge of the profession to deliver the outcomes required.

The project, an **Audit of Research Activity within Australia Relating to the Conservation, Preservation, Care and Management of, and Access to, Heritage Collections and a Research Needs Assessment of the Sector**, has just been approved by the Department of Communications Information Technology and the Arts. This is a large project, with a number of components. In the first instance Council would like to talk with professionals who are interested in contributing to this project. It is likely that the project will be broken into a number of smaller projects predicated on funding bases and funding models.

Professionals who are interested in tendering for a component of this project, or who may like to contribute in other ways, are asked to contact:

Robyn Sloggett  
r.sloggett@art-museum.unimelb.edu.au  
tel: (03) 9344 7989  
fax: (03) 9344 4484.

**Publications**

***Ferrous and Copper Alloys: Conservation of Historic, Industrial and Archaeological Objects in Indoor and Outdoor Environments.*** Melbourne, 3 and 4 December 1998.

The edited and illustrated transcript of this stimulating AICCM symposium with contributions from **Dr Ian MacLeod, David Hallam, Jenny Dickens and Ruth van Tienen** will be available at the end of July 1999. It includes interesting discussions of case studies presented by practising objects conservators from around Australia.

Topics covered at the symposium include: cleaning of ferrous and copper alloy objects; corrosion removal; corrosion inhibition; coatings for indoor and outdoor exposure.

To reserve a copy of this publication, please send a cheque/money order for \$AU20.00, payable to AICCM (Victorian Branch) Inc, to Sally Groom, Organiser, Metals Symposium 1998, Level 10, 108 Lonsdale Street, Melbourne, 3000. After 31 August 1999, the price will rise to \$AU25.00. Please include your name and address with your order as the publication will be posted to you.

**1998 Student Conference Postprints**

A limited number of copies of the Postprints of the 1998 Association of Graduate Programs in Conservation student conference are available for \$CA18.00 from: Art Conservation Program, Art Centre Extension, Queen's University, Kingston, ON K7L 3N6. Price includes shipping; US and Canadian currency are both accepted.

**Net News**

**Conservation Framing Mailing List**

Stephen Todd, UK, is starting a moderated conservation and framing mailing list. It will be open to the global community, but with an emphasis on the UK. The mission of the news group is to create a separate forum for picture framers to discuss conservation issues and to seek advice from other framers, paper conservators etc. and to create a better understanding between conservators and framers.

Anyone interested in joining the list should send an e-mail to [frameconnews-subscribe@egroups.com](mailto:frameconnews-subscribe@egroups.com). Your name will then be added to the list, and full details of how to use the list forwarded to you. The list will be circulated in digest form. The archives of this list are available in Conservation OnLine <http://palimpsest.stanford.edu/>.

**Australian Funding Information**

A good general index to funding bodies available for Australians is: [http://www.ro.unsw.edu.au/linkpage.htm\(hash\)m](http://www.ro.unsw.edu.au/linkpage.htm(hash)m). Funding bodies are listed alphabetically, with links to relevant home pages.

**On-line manual: Preservation of Library & Archive Materials**

The Northeast Document Conservation Center's

(NEDCC) third edition of its publication *Preservation of Library & Archival Materials: A Manual*, edited by Sherelyn Ogden, is now available at <http://www.nedcc.org/>. The manual is approximately 350 pages in length and consists of a series of 51 technical leaflets. The third edition contains eight new leaflets, including *Digital Technology Made Simpler*; *Preservation Assessment and Planning*; and *An Introduction to Fire Detection, Alarm, and Automatic Fire Sprinklers*.

For information about ordering the printed version, contact Gay S. Tracy, Public Relations Coordinator, Northeast Document Conservation Center, 100 Brickstone Square, Andover MA 01810-1494, tel.: +1-978-470-1010, fax: +1-978-475-6021, [tracy@nedcc.org](mailto:tracy@nedcc.org).

**Conserve O Grams available on the web**

The National Park Service (USA) *Conserve O Grams* can now be viewed at <http://www.cr.nps.gov/csd/publications/>.

**Natural History Collections Discussion List**

The Natural History Collections List (NHCOLL-L) has moved to Yale University's Peabody Museum of Natural History. NHCOLL-L is a general-purpose electronic forum or those with an interest in the care and management of natural history collections.

NHCOLL-L is an unmoderated list, therefore we depend on the list members to provide only those postings that are appropriate to the subject matter. To subscribe send the following message to [listproc@lists.yale.edu](mailto:listproc@lists.yale.edu):  
subscribe nhcoll-l yourname.

**Audio Visual Media Discussion List**

*Audio Visual Media Matters* is a moderated discussion list about Audio Visual Media (i.e. Audio Tape, Video Tape, DVD). To subscribe to this list you may send a message directly to the address [AV-Media-Matters-subscribe@topica.com](mailto:AV-Media-Matters-subscribe@topica.com). No subject or body is necessary - you will get an email back with subscription directions. List host and moderator: Jim Lindner, VidiPax, The Full Service Magnetic Media Restoration Company, +1-212-563-1999 ext. 102.

**Suppliers' Corner**

**RH High Pressure Suction System**

After trials at the National Gallery of Victoria, RH Conservation Engineering has released the RH High Pressure Suction System. The suction system features a superfine copper/nickel suction surface aimed to improve porosity, and a higher pump capacity aimed to reduce treatment times and use of solvents. It can operate safely with all solvents used in adhesive and stain reduction and is available with a range of suction surfaces. Contact RH Conservation Engineering for further information on tel: (03) 5989 2919, fax: (03) 5989 2203.

**New Address for Barcham Green**

After 186 years Barcham Green & Company Limited are moving from Hayle Mill to Hill Farm, Linton, Maidstone,

Kent ME17 4AL, England, tel./fax +44 1622-749797, Simongreen@aol.com, <http://members.aol.com/bar-chamg/>.

Barcham Green's mediaeval laid demy 25 lb. paper carried the name "Linton" as a synonym for "Tovil", where Hayle Mill is located. Linton is a small village about 3 miles from Tovil so they have not moved far.

Please note the web address has changed also, as it proved impossible to update the old one.

## Training Courses

### Internet classes, University of New South Wales

The School of Information, Library and Archive Studies at the University of New South Wales in Sydney is about to commence its third year of Internet classes. Two preservation courses are offered for either academic credit or for continuing education:

- ◆ *Preservation Management in Libraries and Archives* (two offerings: March - June, 1999 and late July - November, 1999)
- ◆ *Preservation and Conservation of Audiovisual Materials* (one offering: late July - November, 1999)

Each course has either 13 or 14 weekly modules which students complete during the semester. In total, each course represents the equivalent of 42 hours of face-to-face teaching. For further information about the program go to <http://www.silas.unsw.edu.au/silas/dist-edu.htm> or contact **Paul Wilson** at [P.Wilson@unsw.edu.au](mailto:P.Wilson@unsw.edu.au) or **Maureen Henninger** at [M.Henninger@unsw.edu.au](mailto:M.Henninger@unsw.edu.au).

## Fellowships

### William R. Leisher Memorial Fellowship for Research and Treatment of Modern Paintings National Gallery of Art, Washington DC, USA

The painting conservation department will host a one-year fellowship, renewable for a second year, commencing in the fall of 1999 and including a \$23,000 stipend. The fellowship will be devoted to conservation examination, maintenance, and treatment of paintings in the twentieth-century collection and research on contemporary artists' materials. A significant portion of the fellowship will be directed toward completing an inventory of the collection of modern artists' materials. The fellow will be encouraged to produce a publishable paper.

Graduates from recognized training programs or candidates with equivalent training will be considered. Applicants should have no more than five years of work experience. A proven record of research and writing ability as well as English language skills are required. Fellowships are awarded without regard to age, sex, nationality, or race. Selected finalists who are not United States citizens must provide proof of their own health insurance coverage during the fellowship period.

Interested candidates must submit the following material in English:

- ◆ Transcripts of both undergraduate and graduate

courses of academic study (although official transcripts are preferred, unofficial copies are accepted)

- ◆ A curriculum vitae including basic biographical information, current and permanent addresses, and telephone numbers
- ◆ A short statement of the applicant's interests and intent in applying for the fellowship
- ◆ Offprints of any publications or lectures
- ◆ Two supporting letters of recommendation from conservation professionals familiar with the candidate's work and one letter of personal reference (sent directly to the address below).

The material should be postmarked no later than 30 June 1999 and sent to: Michael Skalka, Conservation Administrator, Conservation Division, National Gallery of Art, Washington, D.C. 20565, USA. E-mail address for inquiries only: [m-skalka@nga.gov](mailto:m-skalka@nga.gov). Formal applications must be postmarked and mailed.

After a preliminary selection, final candidates may be invited for an interview. A portfolio of conservation treatments and research should be presented by the candidate at the interview. All applicants will be notified by 28 July 1999 of the decision of the selection committee.

## OZCONS: AUSTRALIAN CONSERVATION RESEARCH MAILING LIST - THE AUSTRALIAN CONSDIST LIST?

The OzCons mailing list is expanding to become a more general AICCM mailing list - still focussing on Australian issues, but carrying news of events, talks, and jobs within Australia.

Conservation in Australia suffers from a scattered profession and difficulties in finding local sources of information and materials. OzCons' primary purpose is to provide a local forum for the exchange of information and resources.

Ozcons is intended to provide a forum both for Discussions of Large Questions of National Importance, and for "Hey look what I found in the fumehood" or "the quick tests wot we did in six lunchboxes in the window" kinds of research - the kind of useful information that never gets beyond the lab because it wasn't earth-shattering or because nobody got around to writing it up.

The subject matter of OzCons includes but is not limited to: technology transfer, conservation ethics, research techniques, meetings, jobs, resources and anything else anyone can think of.

OzCons can be subscribed to either as a straight mailing list or as a digest. To subscribe to the list, send mail to [majordomo@coombs.anu.edu.au](mailto:majordomo@coombs.anu.edu.au) with the message body *subscribe ozcons*. Do not put this command in the Subject line. To subscribe to the digest, send mail to [majordomo@coombs.anu.edu.au](mailto:majordomo@coombs.anu.edu.au) with the message body *subscribe ozcons-digest*. An authorisation message will be sent to you, and return the authorisation message in a completely new email message (do not use reply function), and then you will be subscribed.

### 1999 Community Heritage Grants

The National Library is offering grants of up to \$7000 to assist community organisations, such as historical societies, multicultural, ethnic and indigenous people's groups, in order to preserve significant documentary remnants of the nation's history.

Applications close 30 July 1999. Application forms are available from: Coordinator, Community Heritage Grants, Public Programs Division, National Library of Australia, Canberra ACT 2600, tel: (02) 6262-1147, fax: (02) 6273-4493, [chg@nla.gov.au](mailto:chg@nla.gov.au), [www.nla.gov.au/niac/chg/](http://www.nla.gov.au/niac/chg/).

### The Queen's Trust for Young Australians

Established in 1977, The Queen's Trust relies on government, corporate and private funding to help further the development of young Australians and in doing so to perpetuate and honour the Silver Jubilee of Her Majesty Queen Elizabeth II.

Grants of up to \$15,000 are available to help young Australians aged 18 to 28 years to further their development and the pursuit of excellence in their chosen fields. Organizations with a special project supporting youth are also eligible. These awards are to fund educational and material costs but will not fund motor vehicles or normal living expenses.

The key objectives of the Queen's Trust are the promotion of the pursuit of excellence, the development of leadership potential, and redressing disadvantage. The annual programs include the *Achiever Awards program*, *National Competition Awards*, *Leadership Development*, and *Redressing Disadvantage*.

The Queen's Trust has offices in all states. The National Secretariat is located at 12<sup>th</sup> Level, 600 Bourke Street, Melbourne, Victoria 3000, GPO Box 239E, Melbourne, Victoria 3001, tel: (03) 9670-5436, or see <http://www.ozemail.com.au>. Application forms are available online or by sending a self-addressed stamped envelope to the above post office box.

Applications for 1999 closed on April 30<sup>th</sup>, but that gives you a whole year to plan for next year's deadline.

### Other Programs

#### Fulbright Scholarship Program

The Australian Fulbright Program offers scholarships to Australians wishing to study in the USA. The competition opens on 1 July of each year, and closes on the 30 September of each year. For further details and application forms, contact: Australian-American Educational Foundation, GPO Box 1559, Canberra ACT 2601, tel: (02) 6247-9331, fax: (02) 6247-6554, [amanda@aaef.edu.au](mailto:amanda@aaef.edu.au), <http://sunsite.anu.edu.au/education/fulbright>.

#### International Specialized Skills (ISS)

ISS is a national enterprise which provides opportunities for Australians to gain skills and knowledge in areas that are not currently available through accredited courses in Australian educational institutions. Contact Carolynne Bourne, Director, ISS, c/o AMF, PO Box 538, Carlton South 3053, tel: (03) 9349-4554, fax: (03) 9347-2218, or Owen Eckford, Managing Director, Insearch, UTS, Tel: (02) 9330-2151, fax: (02) 9330-2109.

#### Australian Museums On-Line (AMOL)

Australian Museums On-Line (AMOL) regional grants program aims to help install Internet hardware and give training to regional museums. Contact: AMOL Co-ordination Unit, Powerhouse Museum, 500 Harris Street, Ultimo NSW 2007, tel: (02) 9217-0346, fax: (02) 9217-0616, [amol@amol.phm.gov.au](mailto:amol@amol.phm.gov.au).

#### The Churchill Trust

The Churchill Trust aims to help Australians to undertake overseas study programs that will enhance their usefulness to the Australian community. For information, send a self-addressed stamped envelope (12x24cm) to The Winston Churchill Memorial Trust, 218 Northbourne Avenue, Braddon ACT 2612, or see [http://sunsite.anu.edu.au/churchill\\_fellowships](http://sunsite.anu.edu.au/churchill_fellowships).

## TECHNICAL EXCHANGE

### Synperonic N and NDB banned from domestic use

An article published by Vincent Daniels in *Paper Conservation News* (Institute of Paper Conservation, Number 89, March 1999, page 15) reports that the popular surfactants Synperonic N and Synperonic NDB have been banned from domestic use in the UK since January 1998.

The reason for this is that some of the breakdown products are resistant to biodeterioration and that metabolites are weakly oestrogenic. Tests on male rats and male fish have demonstrated reproductive abnormalities.

Synperonic N, an ICI product, is a nonyl phenol ethoxylate and is a 27% solution of Synperonic NP8. Synperonic NDB is a double-strength solution of Synperonic N. These products along with some other similar ones have

been banned for industrial use as from the year 2000. While it may be debatable as to whether conservators are industrial or domestic users, Daniels suggests that most conservators may wish to cease using these products immediately.

There is some hope, however, as ICI has suggested two alternatives as replacements - one for paper and textiles, Synperonic A7, and one for hard surfaces (e.g. ceramics), Synperonic 91-6. In these products the non-biodegradable nonyl-phenol part of the molecule has been replaced by linear, saturated, primary alcohols, making the whole molecule biodegradable.

These products will have to be tested of course to establish that they are safe to use in conservation and Daniels suggests that a review of the use of surfactants in general would be beneficial.

I have not heard if the same ban will also apply in Australia, but I think it is useful to know about the

apparent danger involved in the use of these very popular products.

Ulli Broeze-Hörnemann, WA

### A preliminary study into the use of slugs in conservation?

A recent article in *The Sydney Morning Herald* (16/3/99) *Slimy army of the night cleans up as Martyn sleeps*, by James Woodford, Science Writer, reveals that yellow garden slugs are a dab hand at eating away the mould in shower recesses and on shower curtains, and are especially handy for crevices and other areas that are a bit tricky to clean using normal methods. According to **Martyn Robinson**, an Australian Museum scientist, the most effective way to control pests is to open your doors to natural predators - although most life forms adapt quickly to pesticides, no species adapts rapidly to being eaten. Though this approach is probably not wise for cultural institutions (free-range geckoes, frogs, ants and bats, for instance), maybe slugs could find a use in conservation....

Apparently slugs, snails and insects that feed on mould, such as booklice, can be found on outdoor structures such as gravestones. As many of these species feed only on particular mould species, identification of the insects can lead to identification of the mould species also. As different mould species require certain humidity levels to grow, this can also give you a good idea of the humidity levels around that particular object.

### Sculptures made from Weathered Steel

Are you interested in conserving sculptures made from weathering steel? The Art Gallery of New South Wales has two outdoor sculptures made from weathering steel - commonly called *Lyten* in Australia and *Cor-ten* in North America). I am interested to know where other such sculptures are, and how they are deteriorating and being maintained. If you'd like to discuss the issues associated with conserving weathering steel please call Donna Midwinter on (02) 9225 1735.

### On the DistList: Year 2000 Problem

William Real of the Carnegie Museum of Art recently attended a panel discussion on the Year 2000 problem and reported back on the Conservation DistList. He states that predictions for disruptions on the arrival of the year 2000 range from "no problem" to "the end of the world as we know it", but it is most likely that what will happen will be somewhere in the middle, from minor, brief disruptions to major, extended ones. It is probable that there will be at least brief regional and/or local power outages.

The bug will affect hardware, operating systems, and application software. Ninety percent of the computer chips in existence are present in things other than computers.

When a manufacturer says their product is "Y2K compliant" it is not necessarily so. For example, the hardware might be compliant but the operating system not compliant, or vice versa. Also, manufacturers who claimed compliance for some of their products are now retracting the claim - including Microsoft.

The strategy recommended is to identify the critical systems of an organization and focus on them. The Getty discovered that of its critical systems, the

collections management system, the facilities system, and the security system were not compliant. The collections management software had to be scrapped altogether and replaced.

The only way to be assured of compliance is to test everything. The tests have to be run on a dummy system so that if there is in fact a remaining problem, the actual system is not affected.

Organizations can request replacement chips and/or patches for non-compliant hardware and software from the manufacturers. These "fixes" should then be tested, however.

Property Insurance companies will not pay for lost data or information since it is not a tangible asset. If there are tangible losses to an insured organization as a result of Y2K problems outside of its control (e.g. a power outage leading to a sprinkler pipe freezing and bursting, causing damage to collections), they would pay.

Essentially the recommendation is to create failure scenarios, assess the resulting risks to the organization, and create a contingency plan as needed to reduce the risk. Examples of internal risks would be accounting, payroll, donor records, personnel records, security systems, collections records, and climate control. External risks include infrastructure, suppliers, financial vendors, legal services, and national and international partners. Finally, it was suggested that any critical data be copied by Dec 31, 1999.

*Conservation DistList: <http://stamford.palimpsest.edu>  
William Real, 3rd May 1999. Year 2000 Problem.*

### Passages from John Ruskin: 'The Seven Lamps of Architecture', 1849, p.185.

Do not let us talk then of restoration. The thing is to lie from beginning to end. You may make a model of a building as you may of a corpse, and your model may have the shell of the old work within it as your cast might have the skeleton, with what advantage I neither see nor care but the old building is destroyed, and that more totally and mercilessly than if it had sunk into a heap of dust, or melted into a mass of clay; more has been gleaned out of desolated Nineveh than ever will be out of re-built Milan. But, it is said, there may come a necessity for restoration! Granted. Look the necessity full in the face, and understand it on its own terms. It is a necessity for destruction. Accept it as such, pull the building down, throw its stones into neglected corners, make ballast of them, or mortar, if you will: but do it honestly, and do not set up a Lie in their place...

Watch an old building with an anxious care guard it as best you may, and at any cost from every influence of dilapidation. Count its stones as you would jewels of a crown; set watches about it as if at the gates of a besieged city; bind it together with iron where it loosens; stay it with timber where it declines; do not care about the unsightliness of the aid better a crutch than a lost limb, and do this tenderly, and reverently, and continually and many a generation will still be born and pass away beneath its shadow.

## AICCM Paintings Group Symposium 1999

Sheridan Roberts, NGA

45 people attended the Paintings Group Symposium held at Lake Crackenback in the Snowy Mountains from 13<sup>th</sup> to 16<sup>th</sup> March this year. Participants included paintings conservators from institutions and private practice in Australia and New Zealand, as well as third year students from Canberra University, and **Robin Hodgson** from RH Engineering. The theme was infilling and retouching with the focus on egg tempera as a retouching material.

Papers relevant to the theme and some on general topics were given in the mornings. One of the highlights was a presentation given by **Therese Mulford** on the work *Terra Spiritus... with a darker shade of pale* by artist **Bea Maddock**. Practical workshops were held in the afternoons.

At the first practical session everyone prepared a sample panel; attaching a piece of previously painted canvas to a canvas board, distressing the paint film and then experimenting with different types of fill. On Monday morning **Bronwyn Ormsby** gave a lecture and demonstration on preparing egg tempera. At the afternoon workshop we all made egg tempera and retouched the fills prepared the day before.

If you can imagine a smallish resort conference room with 45 conservators, deliberately making holes in a paint film, industriously beating eggs, mixing pigments and chatting, you may have some idea of the shock apparent on the faces of the resort staff, who confided that they had never seen anything like it. A feed back session on the last day indicated that most people had enjoyed the introduction to a technique which is used routinely at the Hamilton Kerr Institute in England, but had reservations about its value in an Australian context. **Bronwyn** offered to do further research in England regarding long-term performance.

The venue was a very beautiful place. Once the business of the day was accomplished people were free to enjoy each other's company and talk shop during swimming, gym workouts, saunas, tennis and golf or to go on lovely walks in the countryside. We were delighted to have the company of **John Harper's** vivacious wife **Penny** at dinner to steer the conversation back towards more general matters.

**Bronwyn** was able to come back from England for the Symposium courtesy of a grant from the Gordon Darling Foundation. The committee would also like to thank the AICCM ACT Branch, Langridge Artist Colours, Eckersley's, NGA, AWM, University of Canberra, Canberra Paintings Conservation Service, and Cahill Conservation. The next Symposium will be based in Sydney and while **Paula Dredge** is overseas, **Sian Griffiths** will be taking over as chairperson for the Symposium Committee and as Convenor for the Paintings Special Interest Group.

## Nassholz-Konservierung III Conservation of Waterlogged Wood

Stade, Germany

Vanessa Roth

Planning to visit Germany in October 1998, I enquired about attending a two day conference held by the Arbeitsgemeinschaft der Restauratoren. While my German is somewhat limited, my friendly correspondent assured me that I would be very welcome and that a translator would be provided for me.

Much of the waterlogged wood in Germany is from land sites, rather than the sea. One archaeological team is using disposable nappies to wrap waterlogged materials for transport. The advantage of synthetic nappy material is that it does not interfere with later analysis of the excavated material.

**Helmut Preuß** from Archäologisches Landesmuseum Konstanz has researched the penetration of sugar and PEG solutions into wood. Pieces of wood which had been sealed at the ends actually lost weight in treatment solutions because the water in the wood was displaced by the solution. It was shown by density examination that the solutions penetrated through the surface of the wood, crushing the cell structure and causing the wood to shrink. The penetration of solutions was identical in both sealed and unsealed wood, even with PEG 4000 (although the wood samples used were in poor condition). Treating long pieces of wood with few capillaries is problematic because, as with the sealed samples, the pressure of the solution penetrating through the surface may damage the cells in the centre of the piece.

During question time a heated, though somewhat off-topic, discussion broke out between the proponents of sucrose and those of PEG. Apparently, this happens at every conference, much to the amusement of my translator. Sucrose is the most common treatment for waterlogged wood in Germany, probably because such large quantities are being excavated every year that PEG would be prohibitively expensive. **Preuß** also caused controversy by suggesting that the penetration of solutions into wood could be determined by adding a contrast material to the solution and using an x-ray or tomograph. Conservators who had been drilling into wood to determine solution penetration wanted to know what was wrong with their method. A case of sour grapes, perhaps, for those whose institutions were less well-funded?

Unfortunately, my translator was called away for kitchen duty during a paper by **Dr András Morgós** of Ungarisches Nationalmuseum in Budapest which presented the case for the use of lactitol as a bulking agent. **Dr Morgós** (perhaps shocked at my lack of language skills, despite Hungarian and German ancestry) seemed unwilling to discuss with me the superior properties of lactitol, but I gather it is recommended for unique objects as less shrinkage occurs than with sucrose or PEG 4000.

Several interesting papers were given on low toxicity methods of controlling bacteria in treatment tubs. Disposing of solutions containing toxic biocides has

become very expensive in Germany. **Dr Volker Koesling** from the Museum für Verkehr und Technik in Berlin has had some success using borax and boric acid as fungicides. A representative from the company Schülke and Meier presented some promising experimental results for their products Parmentol K40 and Quartasept B/F. Both products are non-toxic, Parmentol being used in cosmetics and Quartasept in jams. Parmentol has the added advantage that it will vanish by itself in a few weeks. The representative pointed out that it is important to test the type of bacteria you have before adding biocides, as some are able to use certain products as food. It is also important not to exceed the recommended percentage of biocide (here there was an interjection from the flamboyant **Dr Giancarlo Strigazzi** of the 'more is better school').

**Dr Karin Petersen** from Universität Oldenburg found that bacteria in treatment tanks comes from both the object and the air. However, over long periods of time, the air becomes more important as a source of bacteria, so it is important to keep tanks sealed. Bacteria were found to feed both on sugar solutions and on the lignin in wood. Dr Petersen has been using a combined system of UV light and ozone to kill bacteria in treatment tanks. The addition of 0.1% caffeine to the tank was a later refinement, which could also work well on its own to kill bacteria (good news for coffee drinkers maybe?). When there is a lot of bacteria in the tank, the solution becomes acidic and the sugar is destroyed. Bacteria can only exist in sugar solutions with a concentration below 30 - 40%. Dr Petersen has also developed a quick test for bacteria, giving results within one and a half hours. Enzymes and fluorescein diacetate (FDA) are added, showing the bacteria as a fluorescent green colour.

**Dr Henriette Mietke** and **Dr Hans-Joachim Kühn** found that a lot of bacteria comes from insects landing in treatment tanks. They recommended that tanks be covered with flyscreen rather than solid plastic because the evaporation on the inside of the plastic will have a lower concentration of sugar, making it more vulnerable to bacterial attack. They found that treatment tanks with a brown colour or fungus floating on the top did not accurately reflect the amount of bacteria in the wood, as there may be little bacteria at the bottom of the tank. They recommended keeping solutions as cold as possible, with an optimum of 4° C. A solution pH of 8-9 was recommended, but a new theory is currently being tested. It is thought that in low concentration sugar solutions bacteria don't like acidity, whereas in higher concentration solutions bacteria prefer acidity.

A specially adapted Excel spreadsheet developed by **Günther Niederwanger** is used by several institutions in Germany. The spreadsheet calculates the amount of sugar or PEG needed to raise the concentration of a solution to a certain percentage. It can also calculate the amount of sodium hydroxide necessary to keep the pH stable, document treatments and work out how much bulking agent has been absorbed into the wood.

An evening presentation on the computer tomography of a mummy was given by **Dr Otto Stengele** from Konstanz hospital. A tomograph is similar to an x-ray but it scans around objects, producing a three dimensional image on computer. The image can then be rotated and sliced in any direction. Tomography has been previously used to examine paintings, virtually removing layers of different densities (sounds like all

conservators should have one of these toys). It was found that at some point in the mummy's history, a male death mask had been put onto the female body. Dr Stengele realised that the shape of the male's face would be preserved on the underside of the death mask. The tomograph was reprogrammed to show the most dense areas in black, so that the gap underneath the death mask (the least dense area) would be shown in white, producing a face.



### EXPRESSIONS OF INTEREST Paper/Textile/Objects Conservators

Expressions of interest are sought for conservation temporary employment contracts in the areas of paper, textiles and objects conservation over, the upcoming year.

The National Maritime Museum has relocated the National Maritime Collection, its collections and exhibitions staff, and conservation laboratory into the recently constructed Maritime Heritage Centre at Wharf 7 Darling Harbour.

Over the upcoming year the Conservation Section will be undertaking a wide range of exhibition preparation and collections care activities, in addition to their involvement in the museum's public programs. Temporary employment contracts that become available will support this range of activities.

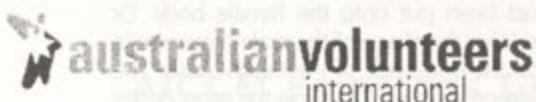
**Qualifications:** Relevant training and/or qualifications in conservation, A sound knowledge and expertise in conservation methods and techniques and the ability to apply this knowledge to the treatment and care of collection and loan items.

**Contact Officer for Enquiries:** Sarah Slade, Head of Conservation tel: (02) 9298 3764, fax: (02) 9299 3780, email: sslade@anmm.gov.au

**How to Respond:** Expressions of interest should be forwarded to:

Sarah Slade  
Head of Conservation  
The Australian National Maritime  
Museum  
GPO Box 5131  
Sydney NSW 1042

*The Australian National Maritime Museum is an equal employment opportunity employer. Selection for any positions will be made on the basis of relative merit which will be assessed against specific selection criteria.*



## CONSERVATORS AND CURATORS FIJI AND THE PACIFIC

**Australian Volunteers International** is a not for profit organisation that provides opportunities for Australians to live, learn, and work alongside with people in developing communities. It is Australia's volunteer sending agency and manages the **Australian Volunteers Abroad (AVA)** program. **Australian Volunteers International** is attempting to fill volunteer positions for Conservators and Curators with the Fiji Museum in Suva, and other areas of the Pacific.

**Australian Volunteer** lengths of assignment vary, but are usually up to two years. Salaries are modest but cover overseas living costs. As an **AVA** you will be living in, and learning about another culture and environment. You will need to be self reliant and resourceful. The challenge is there and the rewards of a cross cultural experience are immense.

If you're interested in finding out more about the **Australian Volunteers International** and the **AVA** program mail us the section below, visit our web site at [www.ozvol.org.au](http://www.ozvol.org.au), or contact your nearest state office:

VIC/TAS (03) 9279 1777  
SA (08) 8410 2770  
NSW/ACT (02) 9211 1277  
WA (08) 9382 3503  
QLD (07) 3891 1168  
NT 1800 675 896

Email: [avaenq@ozvol.org.au](mailto:avaenq@ozvol.org.au)

*Australian Volunteers Abroad receives funding support from the Commonwealth through the aid program.*

YES, I/we want to find out more about the  
AVA program.

Mr./Mrs./Ms/Dr

D.O.B.

Address

P/code

Occupation:

**Australian Volunteers International**

## VACANCY FOR CONSERVATION ADVISER HONG KONG

The Government Records Service Division, Hong Kong Special Administrative Region Government, is seeking an experienced conservator to fill the position of Conservation Adviser in its Public Records Office.

Candidates should (a) have a recognized degree or equivalent in conservation and (b) have at least 5 years post-qualification working experience in an archival environment.

The Conservation Adviser is required to develop and administer a comprehensive conservation program for the archives, which includes the coordination of all in-house treatment activities; planning and implementation of a disaster preparedness program, and training of staff in conservation techniques. As such, the Conservation Adviser is expected to be able to institute and execute a conservation program that includes at least the following components:

- ◆ environmental control of an archives
- ◆ conservation measures and treatments for a wide range of records media: paper, micro-forms, audio tape cassettes, VHS video tapes, films, photographs, computer disks and tapes, etc
- ◆ professional development, i.e. building up a technical library and providing staff training.

The successful candidate will be appointed as Conservation Adviser for a period of two and a half years and paid a salary in arrears in local currency, i.e. Hong Kong dollars (HK\$). On appointment, the candidate will enter Master Pay Scale (MPS) point 34, currently pitched at HK\$47,970 which is subject to annual adjustment. The conditions of service to be offered are subject to the provisions prevailing at the time the offer of appointment is made.

Interested candidates are invited to apply with a curriculum vitae, copies of certificates and supporting documents, names and addresses of referees to the following address not later than 9 July 1999:

The Personnel Office  
Departmental Administration Unit  
Government Secretariat  
8/F West Wing, Central Government Offices  
11 Ice House Street  
Central, Hong Kong.

Candidates who are selected for an interview will normally receive an invitation about eight weeks from the closing date for application. For inquiries, please telephone Miss Fiona Yeung of the Government Records Service Division at 852-2195-7813.

*Note: (i) This is a non-civil service vacancy and is not a post in the civil service permanent establishment. The Candidate appointed is not on civil service terms of appointment and conditions of service. The Candidate appointed is not a civil servant and will not be eligible for posting, promotion or transfer to any posts in the Civil Service. (ii) Persons who are not permanent residents of the Hong Kong Special Administrative Region may also apply for this position but will be appointed only when no suitable and qualified candidates who are permanent residents are available.*