

Special Issue on Mould

Mould is the featured topic of this issue of the AICCM Newsletter. Articles include discussions of treatments from AICCM members, an interview with Allsa Hocking, a CSIRO mycologist, a list of interesting references and a summary of mould-related information from the Conservation DistList. Regular columns and features follow this material.

MOULD CLEANING PROJECT AT THE STATE LIBRARY OF VICTORIA

Mary Cox, General Preservation Services Manager, State Library of Victoria

The State Library of Victoria houses bound and unbound newspapers at an off-site two-level store. The lower level has a concrete retaining wall, as the store is built into a sloping block of land. The store does not have environmental controls.

During a period of high humidity we had an outbreak of mould on the lower level. In a collection of 89,000 volumes, the mould grew on 500 buckram bindings and on 220 leather bindings. Subsequent to the growth, dry conditions were experienced and the mould apparently died. We had various mould samples taken from the collection which were then tested by an independent laboratory. None of the samples grew in the agar medium under prescribed conditions, and there was no apparent growth of the mould in the collection after the first sighting.

There were a small number of requests for mould affected material. Patrons were told the material would be unavailable until after it had been treated by preservation staff. Staff were advised of occupational health and safety precautions to be taken if working in the affected area.

The collection was surveyed for obvious evidence of mould and an estimate was made of the number of volumes affected. Specifications were then drawn up for the cleaning of the mould, and an experienced collection cleaner was contracted to undertake the work.

In the first instance the mould was removed from the collection by using an adjustable air gun connected to an air compressor. The amount of airflow could be adjusted at the nozzle of the air gun. The mould was blown into a hood fitted with a HEPA filtrated vacuum system. Through testing we found that using the blowing technique was more effective than directly vacuuming. Dye solubility testing was carried out on the bindings prior to cleaning with a pH neutral liquid cationic sanitiser (non-phosphate detergent).¹ This solution was only used if more stubborn mould residue needed to be reduced.

We found that the highest concentrations of mould occurred closer to the concrete retaining wall that holds back earth on the sloping site. We also found that some particular buckram bindings produced in the 1960s contained glue or sizing in the spine that was an especially favourite nutrient for some mould spores.

In all, 173 bays of material were cleaned. Even if only a few volumes in a bay were obviously affected, the whole bay of material was cleaned plus its associated shelving. The shelving was vacuumed and then damp wiped using a sanitising solution. The whole floor area of the store was thoroughly cleaned using HEPA filtrated vacuuming.

To improve air circulation at the store, fans are being installed to assist in mould control. Environmental conditions are being monitored, in conjunction with an ongoing regular inspection of the collection material.

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Melbourne 2000 - Call for Papers

¹ Microcat 751N Gibson Chemicals. Diluted 1:200 with deionised water.

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(Mould Treatments, continued from page 1)

REPORT ON MOULD IN THE SEMINARIO BARBARIGO LIBRARY, MONTEFIASCONE, ITALY

David Parker, Photographic Conservator. The
Public Record Office, London, UK

The lure of an inexpensive working holiday in one of the most beautiful parts of the world was too much to resist when I joined the Montefiascone Project in the summer of 1993. This project, running for over ten years, aims to save a unique collection in the library of the Seminario Barbarigo in Montefiascone, a small medieval town perched on a hillside overlooking Lake Bolsena, Italy.

Practising conservators and students alike had an ideal opportunity to observe first-hand how years of obscurity and neglect had left their mark on the collection, consisting of mainly vellum bound books. I was assigned to deal with the mould problem.

The library at the seminary stands as an excellent case study of how mould can effectively be treated, both during a major outbreak and from a preventive standpoint.

For mould to grow and flourish the following three requirements must be met:

- A suitable source of nutrients. Moulds aren't particularly fussy when it comes to food; anything organic will suffice. Hence libraries are a positive *ristorante* for moulds.
- High humidity. Generally mould will only grow when the relative humidity rises above 65%.
- Suitable temperature. Although there are many exceptions, moulds that affect library materials tend to only thrive when the thermometer rises above 22°C.

Preventing mould from forming is a matter of eliminating the conditions that encourage its growth. Obviously the exclusion of nutrient sources is out of the question. Conservators, working in public institutions, often have the benefit of a purpose-built repository capable of

controlling the environment. At the Seminario we have no such luxuries – so how has it fared?

Any conservator knows that libraries have something in common with oil – they simply don't mix with water. Modern library design takes this into account, unfortunately old seminary design doesn't. Libraries are built to ensure that the water systems (apart from sprinklers) are kept well away from areas where archive or library material may be stored.

The problem we had in Montefiascone is that the main bathroom was built directly above the library. The inevitable happened, and a serious flood occurred. In the absence of any trained conservators the books were free to be attacked by mould. When my predecessors on the project discovered this veritable fungi frenzy the damage had already been done. But at least the worst was over as the material had completely dried out – effectively deactivating the mould. As a precaution the affected material was removed to the *mould room* in another part of the seminary, isolating it from the remainder of the collection, until treatment could be carried out.

Of primary concern were the Health and Safety risks. Different moulds have different levels of toxicity and different people have different sensitivities to them, therefore precautions should always be taken. When handling this

From the Editor

Thanks to all of you who contributed this time. Special thanks to Ailsa Hocking, of the CSIRO, for agreeing to be interviewed for *Interview with a Mycologist*, Walter Henry and all the DistList participants who allowed their words to be reprinted here, and to Kerry McInnis for providing us with this issue's Lab Profile. Thanks also to Vicki Humphrey, Gina Drummond and Rita Bachmeyer for their help and advice.

I thought I'd better put in a note about the "People and Places" column, as I've been having trouble with my mailing list and not everyone might have received all of the messages I sent out. I **was** going to axe it (I prefer the term "re-arrange"), but due to public demand it is here to stay – so please continue to send in your submissions as you would normally. If you would like to focus on two or three projects you are working on and give more details about these, that would be very welcome, but please feel free to pass on the gossip also.

The next deadline for copy is **1 May 1999**. Comments are welcome – please contact me at acannon@bigpond.com or on (08) 8207-7520, fax (08) 8207-7529.

Alice Cannon

Correction

The Antarctic feature article published in the December 1998 edition of the Newsletter is an abridged version of a paper presented by Wallace Ambrose at the conference of the *Wet Organic Archaeological Materials Working Group of ICOM-CC*, in Grenoble, France, Oct 19-23, 1998. The full paper, including all data, will be published as part of the conference proceedings. This acknowledgement was omitted in the December edition.

(Mould Treatments, continued from page 3)

material it was recommended that the students wear suitable gloves and a dust mask. One year a group of Finnish students amazed us all with their high-tech wrap-around dust masks - looking more like props from a Sci-fi movie. This would raise a puzzled, but polite, smile from the occasional passing Padre.

Upon closer inspection I soon realised that the damage varied considerably - some books were only slightly affected whilst others had been reduced to a solid black block. To avoid cross-contamination and in an attempt to contain the spores I decided to wrap the items individually in paper, marking in pencil the item's reference.

The suggested course of treatment was to remove as many of the spores as possible to minimise the future risks. Any treatment must, of course, safeguard the students as well as the books. For this reason it is always recommended to work 'al fresco'. We had the advantage of a large courtyard in which to work - this made an otherwise unglamorous task far more appealing to the students.

The treatment tables were set up in the shade and covered in sheets of waste paper. We worked on one book at a time, dusting with squirrel-hair brushes or shaving brushes. The areas of the books that seem to be mostly affected were the covers (both inside and out) and the exterior of the book blocks. Mould finds it difficult to penetrate into the compacted pages of a book, especially when they have been tightly stacked together. After treatment each book was re-wrapped, marked as untreated and returned to the 'mould room' for temporary storage until the repair work to the damaged presses had been completed.

During the course of the project the students were encouraged to look out for signs of any mould-infected material and to remove them to the *mould room* to await treatment. Thankfully there were very few such cases. It became clear that other phenomena can easily be confused with mould. These include dust, dirt, cobwebs, natural blooms on vellum, edge decoration and especially foxing.

Apart from the flood disaster the library has been very lucky in being virtually untouched by the hand of mould. The explanation for this is unclear; and I would welcome any other suggestions. I've concluded that this may be due, in part, to the extreme climate experienced in Montefiascone's wonderful location; a recording instrument such as a thermohygrograph will be needed to prove this. In summer the strong Italian sunshine is capable of heating the library, effectively reducing the RH to a level well below the activation point for mould germination. During the winter the humidity levels may well exceed danger levels, but because of the library's exposed position temperatures may drop. Low

temperatures, as observed in some libraries in Parish Churches in the UK, are enough to inhibit mould growth. The periods between summer and winter should be a vulnerable time for the collection, but the great age of the collection is probably its salvation; the paper it contains has a high cellulose content, few impurities and a fairly neutral pH. These properties seem to resist mould best.

Even though the conditions in the main part of any library may be within safe limits, without proper ventilation, pockets of stale air with high RH can build up in areas with poor air circulation. This is particularly true against outside walls exposed to the elements. All but one of the library walls at the Seminary are outside walls. The craftsmen responsible for the construction of the presses had the foresight to install very deep shelving with open fronted doors allowing plenty of air movement around the books, thus discouraging these *pockets* from forming. Apart from when the students are present the balcony doors at either end of the library are kept firmly closed. This is beneficial in preventing too many active spores from outside entering the library.

To win the war against mould the campaign to create a safe atmospheric environment must first be successful; secondary to this is good housekeeping. When handling library material it is always advisable to wear cotton gloves to prevent finger grease soiling the surfaces. Grease is hygroscopic and can become a little oasis for mould growth.

The students have done valuable work in the library, cleaning and dusting. This also provided the opportunity to expose problem areas. Dust and general grime that is allowed to accumulate inevitably contains spores, and can be food for insects. The cleaning program involves brushing of books, wiping down shelves and vacuuming the floor. Many of the spores are captured this way, as they tend to attach themselves to dust particles.

My experiences working on the project have been extremely enjoyable and valuable. Mould is not the sexiest of subjects but its study provides a good insight into the vulnerability of library materials. Mould behaves in a very fickle way. Much more research is needed before we can fully understand its behaviour. But it is clear that prevention is the main weapon against mould, both by reducing the amount of spores and by creating an environment to prevent them from germinating. This has been successfully achieved at the library due to a lot of hard work and diligence from the students and a little blessing from certain higher powers. I have many happy memories from my time in Italy and have earned myself the honourable title of *Capitano de Muffa*.

(This article is an abridged version of an article written for the 10th anniversary publication about the Montefiascone project. David Parker will be immigrating to Australia in June.)

INTERVIEW WITH A MYCOLOGIST

Ailsa Hocking

Section Leader in the Food Safety and Quality Group, Food Science Australia - a division of the CSIRO.

What is involved in your job?

Actually my job at the moment is not a mycology job - I'm heading up the microbiology and hygiene production section at the CSIRO Food Science Laboratory. But before that I was a research mycologist in the Mycology and Mycotoxin section. There I was involved in directing research projects in a number of areas, but mainly in assisting the food industry with problems caused by yeast and moulds in processed and packaged foods.

Is yeast a mould too?

Yes, but they have a simpler structure - they're called unicellular fungi. They're not normally a problem with museum artefacts.

What training and experience did you undertake to become a mycologist?

I completed a general science degree in microbiology and biochemistry, and then a PhD studying the physiology of fungi that grow in reduced moisture environments. There are a lot of species that do this - they are common in stored grains and spices. Mildew on leather is another example. Actually this is the kind of mould that is normally encountered in conservation. Most moulds grow in very wet environments where the moisture content is above 98%, for example, fruit and vegetables, which have a very high moisture content. Then there are those that grow in things like hard cheeses - like cheddar - where the moisture content is around 85-90%. Then there are those foods that are encrusted in salt, with about a 75% water activity. Dried grains are generally dried to below 60% for stability. Moulds can grow from about 62-65% up to 100% relative humidity. There is much less variety of species that grow in the lower moisture environments and they are more specialised species.

If something got really wet, like in a flood, would those higher moisture species grow, then die back as the object dried out?

Yes, in Darwin after Cyclone Tracy the samples we took showed that the moulds growing on the archives there were those that grow at the very high RH. The higher temperature there would also have had an effect on the species that grew. As the archives dried out these moulds stopped growing, but they had already done the damage.

What other fields or jobs would a mycologist work in?

There is a wide range of fields that mycologists work in - the agriculture and plant pathology area is very big, figuring out what causes plant diseases and working with plant pathogens. Soil ecologists and agricultural industries also look at mycorrhiza, which are fungi that form a symbiotic relationship with plant roots. Also there are mycologists working in the medical and veterinary fields, looking at species that are pathogenic and cause diseases.

Then there are people who are into mushrooms, which we call macrofungi - the ones you can see. Mycology is also very important in forest ecology, and in some industrial applications - for example, some fungi produce citric acid or various enzymes. The President of the Australasian Mycological Society works for the Plant Quarantine Agency at Australian Quarantine & Inspection Service (AQIS), so obviously it is a concern there too. Then there are those that classify and name species, or study their genetics and reproduction processes. So there is a wide range of applications, from the research-based to very applied jobs. I don't know of any mycologists that specialise in the moulds found in museum collections, but the types of mould that generally concern conservators are similar to those in the stored grain industry.

What's the best way to find your local mycologist?

There aren't many of us around - you could try contacting local departments of agriculture or agricultural research laboratories. This laboratory at the CSIRO is the only one of its kind in Australia - there are probably about half a dozen specialised laboratories like it in the world.

The Internet does have a lot of mycology pages, and lots to do with collecting the mushroom types of fungi. There are also scientific mycological societies such as the Australasian Mycological Society, which produces a Newsletter called the Australian Mycological Newsletter.

Could you describe the basic types and lifecycle(s) of mould species?

There are moulds that grow at high and low moistures, but basically they all reproduce by forming spores. There are different types of spores too, but essentially they are like pollen or a seed. The spores are dispersed in air or sometimes through water, land in a suitable substrate with enough moisture to support it, and then germinate. Hyphae, which are like roots only thread-like, grow out from the spore and proliferate in all directions, and then go on to produce more spores. This is the simplest life cycle encountered, and generally the most

common one, where dry spores are produced that are carried by air.

What does mould require to grow and live?

A certain level of humidity is critical – generally at 60% RH, or preferably 55%, there will be no mould growth. This is probably the most critical factor. They also require certain temperatures – if you freeze mould to below -5°C it doesn't grow, but isn't necessarily killed. Not many moulds grow above 65°C. 15-35°C is their best range, which of course is the most ideal range for people too. They don't need any complex nutrients, but they do require a source of carbon and a source of nitrogen, moisture, and a suitable temperature. They are very tolerant to a wide pH range, and are generally quite tolerant to both very acidic and alkaline conditions – about 1.5 to 12.0 pH. Not all moulds will grow throughout this range, but you can get growth of some species throughout. So you can't kill mould with acidity or alkalinity.

Can mould actually be "killed", or is it just rendered inactive?

Oh yes, it can be killed – heat kills most species – some have heat resistant spores, but above 65°C will kill most. Some can resist boiling or even up to about 110°C. Most are killed at 75°C, which is the normal pasteurisation temperature for food. They can be killed by some chemicals as you know, such as ethylene oxide and methyl bromide, but these have certain health implications for people also. When a mould becomes dried out it is probably initially just inactive, but they do die eventually at low humidities. Spores stay viable for a long time, but the hyphae dry out and die. Some spores can last weeks, some years or decades. We have freeze-dried cultures and when rehydrated 30-40 years later the spores have still been viable – so some can last at least this long.

How do you ensure mould doesn't grow in the food industry?

Mainly through a heating process, such as pasteurisation, or by drying – for instance, ensuring that grain is stored at the correct temperature and humidity. Sometimes food preservatives are added as inhibitors – such as benzoic, acetic or sorbic acids. These are used to prevent mould growth, but they don't necessarily kill mould.

Obviously conservators are limited in what techniques we can use to kill mould. Do you think any of these techniques could be applicable to the conservation profession?

I think the your main weapon is moisture control. Getting rid of mould that is there already is more difficult.

What species do you work with mostly?

In grains, the two main genera we work with are *Aspergillus* and *Penicillium* – a lot of these often produce toxins that of course we don't

want on grain. There is a special group of *Aspergillus* called *Eurotium* – also called the *Aspergillus glaucus* group – that are very important to stored grains. *Aspergillus restrictus* is another common species we encounter – this is one of the main ones affecting museum objects and paper. This and a close relative – *Aspergillus penicillioides* – I believe may be responsible for foxing. The reason I think they might be at least partly responsible is because these organisms grow at quite low humidities, so they are likely candidates. I haven't done any research on it myself, and I'm not familiar with the conservation literature on the subject, so you may have more idea of what is happening in current research.

Are these the same kinds of mould that are found in buildings, for example, in air conditioning systems?

There is another type of mould that is often found in air-conditioning systems – *Cladosporium* – which is a very fine black mould that grows in much damper environments. It has very dark hyphae.

Is this the one that can make people very ill?

Any mould can cause allergies in those who are susceptible – with air conditioning the mould gets distributed throughout the building and people breathe in the spores, so it's easier to get this effect. *Cladosporium* is not pathogenic – it doesn't invade body tissue. There are some moulds that do, but these would generally not be found in the conservation field.

Is there any way for the "layman" to identify various mould species?

You can put bits under the microscope, and if you can see the structure supporting the spores and you have a suitable textbook you can probably identify the specimen down to genus. If you want a more detailed ID you would need to consult someone with expertise – and luck! If the sample is young and intact you can often tell, but old samples tend to fall apart and only the spores can be seen – you need the complete structure for identification. When we want to identify mould, we generally culture the mould sample onto agar and look at the culture instead of the original.

What health and safety precautions do you recommend or take when working with mould?

Generally you're reasonably safe unless there are a lot of spores shedding into the air – it's very bad to inhale large quantities of spores. Spores are allergenic and can cause allergic reactions, like hay fever does. They may produce conditions like *allergic alveolitis*, which affects your lung functions. Moulds contain antigens, which can produce an antibody response in your body. We breathe small amounts of spores all the time, but not large quantities and often our bodies cannot handle this.

If we are dealing with something very mouldy, we work with it in a fumehood or a biohazard cabinet. Its important that the air is being drawn from behind you and up into the fumehood, and not being blown out of the fumehood towards you. Biohazard chambers circulate air internally, so none comes out. We also might wear lab coats, gloves and eye protection but not always – like I said before, the moulds conservators would be dealing with are generally not pathogenic or infectious, but can cause allergic reactions. Some dust masks are quite useful if they filter out particles of that size.

So some mould species more dangerous to people than others?

Yes some are – the ones you would encounter on objects aren't very as they are generally not pathogenic – they don't produce toxic substances.

Did you/do you use ethylene oxide or any other fumigants? What is your opinion of their effectiveness and safety?

We don't use any fumigants so I can't really comment on this – I know ethylene oxide is quite effective but is also quite toxic so there are problems with its use. When we dispose of mould affected material we usually autoclave the whole lot – we don't need to save the substrate. Obviously it's more difficult when you are trying to preserve the affected item. Chlorine solutions are also quite effective against mould but of course have rather drastic effects on materials.

Can you suggest some resources that might be useful to the conservation profession?

There are a few textbooks that I know of – generally, you would need to look into the literature involving biodeterioration – that's where you would get information on moulds growing on funny substrates. I'm not aware of any resources that deal specifically with mould in the conservation profession. If you did a library search I'm sure you would find a large amount of information if you used the right search terms. The couple of books I can recommend as general resources are *Smiths Introduction to Industrial Mycology* – I have the seventh edition, which was published in 1981. There may have been a reprint since then. It's published by Edward Arnolds and the authors are Onions, Allsopp and Eggins. The other is a book I co-authored – *Fungi and Food Spoilage* – it has a chapter on the fungi which affect grains, which would be largely the types conservators would encounter. That's published by Blackie Academic and professional, the authors are Pitt and Hocking.

How do you tell if mould is "dead"?

We would subculture it, and if it didn't grow we would assume it was dead! There is no easy

way – you can't just look at it and tell.

We often will use UV light – if it fluoresces under UV we assume its alive, if not it's dead – is this true?

No, I don't think UV fluorescence has any relevance – I don't think that is a reliable indicator.

In paper conservation we often get things in that just look like they've been there for ages, and assume that it's probably dead. Is this valid?

It probably is dead if it has been there for a long time – once the spores get knocked off, the hyphae die after a certain time. If you pressed the paper onto a suitable agar growth medium you would soon find out if anything was viable – press it on, incubate it and see what grows.

If mould has been dead or inactive for a long time, can it be reactivated if conditions become suitable again, or would new mould grow instead?

If it got wet again two things could happen – the original mould could grow again if it was still viable – if it was a few months old it would be quite feasible that growth could occur, if it was years old, probably not. Secondly, if conditions were suitable, new mould could grow instead or as well as the old mould – certainly the surface won't be sterile.

Is previously mould-damaged material more susceptible to mould growth?

Yes, I think it may be – a certain breakdown of cellulose could provide a good growth substrate for the next mould coming along – it's hard to say; it's a bit iffy. It depends on the substrate.

If paper becomes damp or wet and becomes mouldy, it usually also becomes distorted and cockled. A common treatment to reduce the distortions is to humidify the paper – say to about 85% RH – and press it between felts and weights to dry. Do you think this treatment would risk activating the mould again? Similarly, do you think that immersing previously mould-damaged paper in water would have the same effect?

The comment I can make is that a humidity of 85% will encourage the growth of certain types of mould, therefore it's quite possible that you will get growth again – similarly with immersion. But if you have to treat these problems, I'm not sure of an alternative method, unless you could humidify it in an atmosphere that contains an antifungal such as ethanol – I have no idea what percentage would be needed to inhibit growth. It also depends how long it takes to dry out the object – if it's relatively quick it probably wouldn't be a problem, but if it takes weeks then it could be.

One method sometimes used to kill insect infestations is to heat objects to about 52°C for 1-4 hours. According to one source I read, heating to 40-75°C from 5 minutes to 5 hours can cause activation and some other things. Should this method not be used on mould-affected materials?

I don't think this would have an effect. At 52°C not many moulds grow so you'd be pretty safe.

Another method used to kill insects is to freeze objects for a certain period of time and to thaw them later once the insects have been killed. Freeze-thaw cycles are also said to activate germination - should this treatment also be reconsidered, or not applied to mould-affected material?

I have no information that suggests that this occurs - I don't think it would really have any effect on mould growth so I can't see that this treatment shouldn't be applied to mould-affected documents.

Relating to the last question, in disaster response situation when there is a great deal of wet material, it is common for some objects - such as paper archives - to be frozen, if they cannot be air-dried immediately. Often a vacuum freeze drier will be used to thaw and dry the objects - I think these sublimate the water so that it is not actually present as liquid within the materials. Does this pose any risks in terms of mould growth?

Freezing materials is fine in itself - moulds won't grow at these temperatures. The use of a vacuum freeze drier sounds like a very good way to dry out material, as the humidity is controlled also.

Should ethanol, methanol and industrial methylated spirits - used to deactivate mould on objects - only be used pure, and not diluted with water? (These alcohols are used to deactivate mould on objects.)

70% is the usual concentration we use - it's supposed to be more effective because of the water present. I'm not sure of the scientific basis for this. Certainly I don't think you should dilute it any further than this.

Do you have any information pertaining to tropical climates? Are different methods used in the food industry in these areas? Museums rely a lot on good air circulation to prevent mould growth, but insects are also a problem in humid environments and so plastics are a popular storage material - to prevent insects from getting to the objects. Do you have any comments on this?

Yes, moulds do grow very well in tropical climates! Because of the combination of RH and temperature, of course. Your comment on air circulation is important - there is a body of evidence that suggests that air circulation

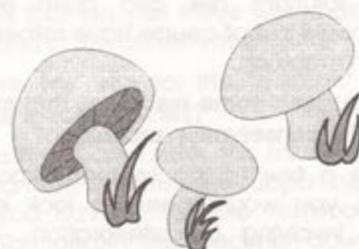
prevents mould from establishing itself. I don't know the scientific basis for this effect. Obviously if you can dehumidify to around 55% this is very good but of course that is not always practical.

Air circulation also works with stored grains - we aerate grains by blowing air through the stacks, and they aren't so affected by mould as non-aerated grains. We think this is partly because you don't develop little pockets of heat in the stacks where mould can grow easily - this could apply to stacks of paper too, I guess.

There has been talk of manufacturing paper that contains something that will resist mould growth. Similarly, Thymol was added in the past to starch pastes - used to repair paper - to prevent mould from growing. Are there any materials or substances that are naturally resistant to mould? Any substances, not just chemicals - e.g. wood species, plant species etc.

I'm not aware of any - all natural materials are susceptible to mould growth - even material like plastics can succumb with time. Synthetic materials are more resistant than natural materials of course, but I don't know of any naturally resistant materials.

(Ailsa Hocking spoke to Alice Cannon on February 8 & 9 1999.)



Mouldy Reading List

The following are some mould-related references drawn from a search of the on line Conservation Information Network (BCIN).

Anon., 1992. *Control of lichens, moulds and similar growths*. Garston, UK: Building Research Establishment Digest. Explains how to treat building materials and surfaces affected by lichens, moulds and other biological growths. The use of surface biocides and fungicidal paints and brushing is illustrated. A list of active ingredients contained in products cleared as biocides safe for use is provided.

Becker, R, M Puterman and J. Laks, 1986. *The effect of porosity of emulsion paints on mould growth*. *Durability of Building Materials*, Vol. 3 No. 4, July 1986. An investigation of the effect of a paint's microstructure and porosity on mould growth. Emulsion paints may enhance

mould growth as their organic components can serve as nutrition for the fungi. Very porous paints were found to be much more prone to mould growth.

Brezner, Jerome, and Phillip Luner, 1990. *Preservation of Library Materials by Microwave radiation. Paper preservation: current issues and recent developments. Tappi Preservation Symposium, Washington DC 1990.* Atlanta, USA: TAPPI Press. Evaluates the effects of microwave radiation on treating library material affected by insects and mould. Books and papers treated incurred minimal damage.

Dhawan, Shashi, 1995. *Essential Oils for prevention of mould growth on palm leaf manuscripts. Biodeterioration of Cultural Property 3: Proceedings of the 3rd International Conference on Biodeterioration of Cultural Property, July 4-7, 1995, Bangkok, Thailand.* Bangkok: Office of Archaeology and National Museums. Some essential oils, such as camphor, citronella, clove, lemon grass, and eucalyptus were tested for their anti-mould activity. These oils were also tested on dried palm leaf to observe any prevention of mould growth. Change in leaf colour due to treatment was also considered. On the basis of these studies a few oils are recommended.

Florian, Mary-Lou E., 1993. *Conidial fungi activity on artifact materials: a new look at prevention, control, and eradication. ICOM Committee for Conservation Tenth Triennial meeting, Washington DC, 22-27 August 1993, Preprints.* Paris: International Council of Museums Committee for Conservation. A review of literature on fungus activity, to determine what is relevant to its prevention and eradication on cultural property. Review of this literature shows that conservators need to consider all aspects of the life cycle of mould, rather than just the vegetative growth of fungus, that some conservation treatments may be putting objects in jeopardy of future mould growth, and that the absolute moisture content of the material is as important as the relative humidity or their water activity.

Florian, Mary-Lou E., 1994. *Conidial fungi biology: a basis for logical prevention, eradication and treatment for museum and archival collections. Leather Conservation News, Vol. 10, No. 1.* Describes the lifecycle of conidial fungi and reviews literature on mould growth. General preventive and control methods are offered to assist the reader in designing their own fungi control program.

Grant, Tara, 1993. *Field conservation in the eastern Arctic. CCI Newsletter, Issue No. 12, September 1993.* Ottawa: Canadian Institute for Conservation. Discusses the two main problems when conserving artefacts from Arctic sites: uncontrolled drying and mould growth. Discusses field conservation methods for sites

within Canada and the problems encountered in two case studies.

Hart, Ruth, 1997. *Recommended Reading: An Approach to the Treatment of Works of Art on Paper Infested with Fungal Colonies. The Paper Conservator, Vol. 21, 1997.* Leigh, England: The Institute of Paper Conservation. A summary of the conditions required to activate mould growth and some conservation treatment methods recommended for fungal damaged art on paper. Isolation of affected material, drying of substrate, and the physical removal of fungal material using a vacuum aspirator or a fine pointed brush dipped in Industrial Methylated Spirits is the treatment method recommended in this paper.

Kenjo, Toshiko, and Hideo Arai, 1995. *Studies on aged starch paste for the traditional mounting of hanging scrolls. Biodeterioration of Cultural Property 3: Proceedings of the 3rd International Conference on Biodeterioration of Cultural Property, July 4-7, 1995, Bangkok, Thailand.* Bangkok: Office of Archaeology and National Museums. Furu-nori - aged paste - is made from pure starch, containing no protein, extracted from wheat starch. One of its characteristics is its resistance to mould growth. An analysis of aged paste shows that furu-nori contains several water-soluble sugars, and organic acids such as lactic, acetic, and malic acids, which may explain its resistance to mould growth.

MacLeod, Ian, and Philip Haydock, Don Tulloch and Bruce Ford, 1995. *Effects of microbiological activity on the conservation of aboriginal rock art. AICCM Bulletin, Vol. 21, No. 1.* Discusses the causes of biological activity on pigments and rock surfaces in the West Kimberly region of WA during both wet and dry seasons.

Toishi, Kenzo, 1995. *A possible cause of mould growth in a close package in transit. Biodeterioration of Cultural Property 3: Proceedings of the 3rd International Conference on Biodeterioration of Cultural Property, July 4-7, 1995, Bangkok, Thailand.* Bangkok: Office of Archaeology and National Museums. Changes in temperature in sealed cases or frames may cause the wood to release moisture so that the sealed air space becomes increasingly humid, often sufficient for mould to grow. A few examples of oil paintings damaged by such causes are described.

Wood Lee, Mary, 1988. *Prevention and treatment of mold in library collections with an emphasis on tropical climates: a Ramp study.* Paris: UNESCO. Intended as a practical guide to aid in the prevention and basic treatment of mould growth in tropical climates where library-wide environmental control is not always possible. The sections in the report are: Introduction; Mould; Implications for library materials; Prevention; Fungicides and

Fumigation; Treatment; Equipment and Supplies; Selected Bibliography.

Xie, Wei, 1992. Identification and prevention of mould on the frescoes from Chinese Tang tombs. *Proceedings of the EEC China workshop on preservation of cultural heritages, Xian, Shaanxi, People's Republic of China, September 25-30 1991. Napoli, Italy: Teti. 11*

species of mould were identified growing on frescoes from ancient Chinese Tang tombs. Organic substances such as botanical fibres, animal glue and the coating materials used for the frescoes were found to have provided the nutrients supporting the mould growth. A chemical ameliorated fungicide was used to inhibit future mould growth.

WHAT TO DO ABOUT MOULD...

When faced with a mouldy object, do you:

- (a) give it to someone else;
- (b) wonder again why you didn't go for a career in computer science;
- (c) feel itchy, or
- (d) feel inadequate?

Alternatively, you could find out what other people have done. The following notes have been extracted from the *Conservation DistList Archives*, the full texts of which can be accessed as part of *Conservation OnLine* (<http://palimpsest.stanford.edu/>).

The *Conservation DistList* is a service of Stanford University Libraries.

Karen Motylewski (16 Dec 1993) reported her understanding of a phone conversation with Mary-Lou Florian, who has done extensive research on mould growth. One of the most interesting points was that the moisture content of the artefact may be a factor in mould outbreaks, even when the ambient relative humidity appears adequately controlled. Also, if there is an outbreak of mould, the mould colony itself may be able to store enough water to continue growth. The levels of ultraviolet light effective for mould eradication could cause damage to the substrate, so UV is usually, if not always, an appropriate mould treatment for artefacts. Florian also discussed the importance of sterilisation of lab equipment, tools and work surfaces, to prevent contamination from previous treatments.

Ala Rekrut (14 Nov 1997) provided some information she obtained from a mycologist working with the Province of Manitoba's Workplace Safety and Health Division. Non-viable contaminants (i.e. "dead" mould) should be considered as retaining antigenic/allergenic properties, so equal care should be taken when handling inactive mould as with live mould.

Ellen McCrady (12 August 1992) talked briefly about various approaches taken by museums when faced with widespread mould growth. She also warned about the **OH&S problems** associated with working with mould and thought that dust masks might not be suitable for long-term exposure as they might not filter out particles of sub-micron size.

Karen Potje wrote asking for advice on how to approach copying a large collection of mould-damaged postcards. Removing the mould prior to copying was too time-consuming and costly so the material is to be documented and then either disposed of or sealed away. **Gary D. Saretzky** (10 Nov 1998) suggested colour Xeroxing as an inexpensive quick method of copying, but recommended against placing the postcards in plastic bags prior to copying, as this would degrade the image, and would also make the mould worse unless it was frozen. **Frank A. Reynolds** (13 Nov 1998) wrote to suggest that cheap flatbed scanners were now of a size to fit under the fumehood where the postcards were being dealt with.

A number of people discussed the use and composition of Lysol. **Glenda B. Stevens** (16 Nov 1998) wrote that they only used Lysol to wipe the metal shelving from which mouldy books had been removed for cleaning. The books were cleaned either with a HEPA vacuum cleaner or brushing and lightly wiping with an alcohol solution before their replacement on the shelf. Lysol was recommended earlier for use because it contained orthophenyl phenol, but apparently no longer contains that ingredient. It is still recommended for cleaning contaminated floors and shelves but not artefacts.

Michael Trinkley (11 Nov 1998) discussed his approach to mould clean up as 'conservative'. He did not recommend the use of chemicals, as they may have damaging effects on artefacts, many use water carriers that would increase the relative humidity, absolute humidity and water activity of the affected space or collections, many are toxic, and many kill vegetative mould but do not affect the conidia. Also, even if the mold is killed by the chemical, it still retains its allergenic affects, and will still be easily airborne. He believes mould can be dealt with most effectively and safely by HEPA vacuuming. He also recommended trying to control the root cause of mould - moisture - rather than trying to create a 'sterile' environment, an aim he saw as being beyond library capabilities anyway.

Jack C. Thompson (6 Jan 1999), answering a query of **Martin Strebel** (4 Jan 1999) about how to treat a mould-damaged incunabulum with

fragments of paper stuck to the back cover, suggests a few different treatment alternatives. First he would try **drying** the artefact to well below what is considered appropriate for paper or parchment. At a reduced moisture level, the pieces may separate themselves from the cover. Alternatively, he said it may be possible to spray **alcohol** onto a piece of Mylar and onto the mouldy fragments, join them together, and carefully separate the mouldy fragments from the cover.

As a last resort, if it was the last page of text, and if nothing else works, he suggested removing the back cover (with the mouldy page of text attached), **remove the leather** from the back cover; spray or brush an **acrylic**

varnish onto a piece of Mylar and while it is still wet press it onto the mouldy page. After it is dry, the board/mouldy page/Mylar is placed in a warm bath of water. All of the water soluble adhesives should give way, and the acrylic varnish/adhesive should remain and permit removal of the mouldy fragments.

The board can then be dried under light pressure and the mouldy fragments can be pasted to a sheet of paper. Later, the Mylar can be removed with a solvent which does not affect the adhesive used to attach the paper to the incunabula leaf. **Leaf casting** can be used at the end. He has separated leaves of mouldy paper that seem to be one solid piece with this method.

President's Report

On 5th February the AICCM National Council, which now includes State Presidents, had a teleconference to discuss a number of issues. In particular we looked at the two projects for which we have Heritage Collections Council funding:

- the Skills Gap Audit, and
- the publication of the Draft Code of Practice and Revised Code of Ethics.

There has been very good response to the Skills Gap Audit. If however you have not yet replied to Marg Alexander and feel you have something to contribute please send your comments to her as soon as possible. You may like to ring her if you feel that you would prefer to discuss the issues.

The areas where comments are sought include:

- Are there any obvious gaps in training – for example are you aware of areas where there is difficulty in obtaining qualified people, either in terms of training or level of skill?
- Are you aware of people professing to be conservators who obviously do not have sufficient skills?
- Are there training courses of which you are aware which are not providing a proper skills base?

This Audit supports the development of strengthened accreditation through the development of the Code of Practice, by highlighting the value of proper training as a benchmark of good conservation practice to key Government bodies. It is an important step in ensuring support for further training programs, including training in treatment skills as well as professional training for mid-career conservators.

The Code of Practice will be published within the next two months. After this there will be a

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series of workshops explaining how to use the document.

Please start thinking seriously about how the introduction of a Code of Practice may affect you as either a professional conservator or a user of conservation services.

Council members have also had a number of enquiries regarding an AICCM Conference for 1999. As no Division has a desire to host a conference for 1999 and much strength and energy is needed for IIC in 2000 it was decided by Council not to attempt a 1999 Conference but put all energy into IIC.

All the best for 1999. I hope it's a relaxing and productive year.

Robyn Sloggett

Conservation Student Award 1998

The AICCM and the University of Canberra are pleased to announce that **Stephanie Bailey** was the winner of the award for 1998. The AICCM congratulates Stephanie on her achievement and hopes she enjoys the year of complimentary membership!

1999 Conference and AGM

No one has been able to volunteer to run a conference or symposium in late 1999, so the AICCM will not be conducting a conference this year. Therefore we will need to consider an event to which the AGM can be attached. Please consider this matter when planning events for around September, October, /November, and let the National Secretary know if there is an event where at least 25-30 members will be present.

Conservator of the Year

A reminder that nominations for the Conservator of the Year Award must be received by the National Secretary by the 30th of March. The award winner will be announced at the AICCM National AGM later in the year. For guidelines and nomination forms, please contact the National Secretary, AICCM, GPO Box 1638, Canberra ACT 2601.

New Professional Members

The AICCM is pleased to announce that **Cobus van Breda**, of Victoria, has been accredited as a Professional Member of the AICCM.

Tasmanian Division News

At our November meeting, **Erica Burgess** presented a fascinating talk with slides on *Supplying Artists' Materials to Australia 1788-1850*. Erica and **Paula Dredge** had presented the talk previously at the IIC Conference in Dublin last year.

At our December meeting, **Bea Maddock**, **Therese Mulford** and **Vicki Warden** spoke about the process of artists and conservators working together on Bea Maddock's huge work, *Terrus Spiritus...with a darker shade of pale*, a circumlateral incised drawing of the entire coastline of Tasmania.

The February meeting was an informal discussion of the issues involved in packing heritage items for transport. Guest speaker **Ron Spiers** from Tasmanian Art Services talked about packing the oil painting *The Last Muster of the Aborigines at Risdon Cove* by John Glover for moving to venues in the USA for the *New Worlds from Old* exhibition. **Linda Clark** talked about packing the *Sydney Cove* exhibition and **Michael Staples** talked about the preparation of ships and boats for transportation.

New AICCM Members

ACT

Prof Dudley Creagh	Georgina Element
Emma Gwynn,	Lisa Jeong
Alex Purdon	Susanna Shaw
Catherine Smith	David Thorrowgood
Katie Webbe	Julia Williams

NSW

Jennifer Butler	Ms C Chemello
Gregory Dabrowa	Florida Dry Cleaners
Anne Gaulton	Sian Griffiths
Duncan Harty	Anna Higgs
Gillian Mitchell	Painting Doctor
Helen Privett	Agata Rostek
Sarah Slade	Nick Stapelton
Wendy Tressider	
Newcastle Region Library	

NT

Sandra Yee

QLD

Maria Kubik	Barry Maguire
Monique Jane Buchbach	

TASMANIA

Sophie Brain	Anthony Colman
Archives Office of Tasmania	

UNITED KINGDOM

David Parker	Karen Vidler
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USA

Sally Kneebone	Joanna Morton
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VICTORIA

Sally Carew-Reid	Jane Gillman
Raafat Ishak	Sean Loughrey
Bryan Steenhuis	

WA

Katie Major	
Pamela Najar-Simpson	

Art and Archival Pty Ltd

Kerry McInnis

Second cab to peel off the very long line of admirable service organisations (loosely called conservation laboratories), I am delighted for the opportunity to wind this window down and am honoured to have followed the Museum of Victoria's ride. Art and Archival is headed in a different direction, is fuelled by different resources, and is driven by a defined imperative of survival. So hang on (there are no shock absorbers in this cab), listen up (it's a short story), and chill out (only one of us can be on the edge).

THEN

In 1982, I (Kerry McInnis) was a full-time employed conservator at the Australian War Memorial, not long back from a one-and-a-half-year internship at the Library of Congress (Washington DC) and at the Conservation Centre for Art and Historic Artefacts (Philadelphia). A bit restless and with few alternative employment prospects in the ACT, I decided to set up a private paper conservation service. My initial vision was that this service would be a commercial venture, operating from a leased public space. It might one day expand to include other non-paper based materials. It might be challenging. My "market research" was nothing more than an idea born of a few key observations - existing services in the area were low public profile operations, largely in domestic environments, and although most of the national public collections were, even by 1983, serviced by in-house laboratory conservators and assistants, it was apparent to me that the possibilities for contract work in our national capital were as real as they were inviting.

With the support of the AWM in granting me permanent part-time employment, I had financial security during the early low-income years, enabling me to invest earned monies into the purchase of operating equipment, tools, and laboratory furniture. A modest parental loan of \$2,000 financed my first piece of equipment - a C&H mount cutter, to give my "product" appeal. Art and Archival was officially opened by Dr Colin Pearson in 1982 in our inaugural lab space - a large room above the Queanbeyan Age. Dusting off the event in my mind, I recall the (French) expression, "the more things change, the more they remain the same". Art and Archival was to move to another rental location in Queanbeyan within 2 years, offering strong room storage, improved water services, and parking.

Initial set-up costs were kept to a minimum by my fortuitous partnership with an industrial

designer, Mike MacGregor, who designed and built most of my laboratory furniture (benches, sinks, and light table) and equipment (one of Australia's first suction tables, and a pneumatic press a la Bob Futernick).

In 1985 I began my full-time commitment to Art and Archival. Now, eighteen years later, with a superannuation policy that just covers bank service fees, I can say that I would choose the same cab again.

The first few years were buoyed up by reasonable government contracts, with private sector work and repeat referrals steadily increasing, enabling me to hire one, then two, then three part-time conservators to assist with conservation work. At this stage, the work was predominantly originating from the Canberra region. By 1987 I had developed a more active public profile, giving public lectures for historical societies and genealogy groups, setting up display tables at antique auctions, and making routine calls at galleries and framing businesses. The learning curves were steep, discovering all the while what would generate a result and what could be classified as a 'learning experience'.

Interstate collections enticed me with their forbidden allure, so I travelled more widely and sought work actively outside the ACT. Art and Archival was now regularly training on-the-job student conservators from Canberra University and I extended that association with occasional part-time lecturing. Seven years down the track, the business became a company and everything became more expensive and more complicated. (Enter the accountant). In a flurry of bicentennial commitments, Art and Archival purchased an industrial block for a permanent home, and by 1991 our present conservation laboratory was standing - anything but still!

The nature of the work passing over our benches might be similar to that encountered in our public conservation laboratories. The treatment methodologies, too, are universal. But of course there are distinctions. These are found in the broader range of the private sector's clientele, in the nature of the relationship that exists between the owner (as opposed to the custodian) and the conservator, and possibly also in the degree of accountability (as distinct from responsibility) that distinguishes the role of the private and public sector conservators. The private cab has no air bag; the suspension system has been removed; there are no third parties - and it's terrific!

A sampling of some of our passengers and their treasures: The National Library of Australia - Donald Friend Diaries Conservation Project; the National Film and Sound Archives - Billboard Posters; A philatelist and his laminated \$1000

note; The Queensland Museum's Ellis Rowan Project; A grandmother and her newspaper clipping paying me lay-by; The National Museum of Singapore's Farquhar Collection of watercolours, conserved on-site in Singapore; The tip owner and his Margaret Preston salvage; The private collector and his papyrus from the 2nd century; Historic Houses Trust photographs from Rouse Hill; A Yass family's parchment signed by Oliver Cromwell; and the British Museum's Bicentennial Travelling Exhibition "First Impressions" conservation project.

NOW AND WHEN

All the while operating Art and Archival's busy programmes, I developed other interests, equally as compelling but not, perhaps, as feasible financially. The company was offered for sale in 1995, and although some discussion was proffered by various individuals/organisations, the company remained in my care. I do not regret this as the fantastically challenging Singapore project

followed soon thereafter and I was back in the driver's seat again, having shelved (for the moment anyway) my other caps.

The lab continues at a busy pace with occasional part-time contract assistance to meet the periodic surge of ASAP work. The lapsing of time has brought maintenance and replacement issues to the fore, with the over-rated 'upgrade' syndrome lurking about. The challenge continues, of course.

A profile of Art and Archival would necessarily include the numerous individuals who have been the natural resource sparking this voyage since 1982. I name in thanks those who were here for significant periods of time and I salute all the others.

Alison Clugston Cornes, Kathryn Ferguson, Kim Morris, Ranson Davey, Robin Tait, Jan Begg, Carolyn Murphy, Beryl Free, Nicole Rowney, Narelle Jarry, Jill Sterret, Jane Hinwood, Lisa Stoddard, Joanne Alcock, Gajendra Rawat, Dana Kahabka, and Cheryl Jackson.

HEALTH & SAFETY

Useful Equipment for Working with Mould

The recommended precautions to take when working with mould seem to vary according to different sources. At the least, it is recommended that you work in a fumehood to avoid mould contacting your skin, eyes and lungs. Protective clothing should be worn when working outside the fumehood - this should include gloves and protective eyewear. The use of HEPA (High Efficiency Particulate Air) filtered respirators and vacuum cleaners is also advised. If the work is particularly dirty, a Tyvek body suit should be worn. Dispose of mould-affected material in plastic bags marked: *Contaminated: Mould*

We have two pieces of equipment that we initially purchased to work on materials suspected to have been treated in the past with mercuric and arsenic substances, but that are also very useful when treating mould-affected material. (Certainly the paper lab keeps stealing them).

The first is the Nilfisk 80 prof suction cleaner, which has a four-stage filtering system, including HEPA exhaust filters, to retain 99.999% of microscopic, hazardous and toxic dusts and particles - including mould spores. This filter is an optional extra. Use the lowest effective suction and protective screening if applicable.

It is also reasonably small and quiet (for a vacuum cleaner) and has a "dimmer" switch so that you can gradually increase or decrease the strength of the suction. Mini-vacuum

attachment brushes and nozzles can be attached to the nozzle.

We have been extremely happy with our Nilfisk vacuum cleaner (we call him "Dusty") and can't imagine life without him. He has been well worth the investment. For information contact your local Nilfisk representative, or the Head Office in Sydney at 17 Leeds Street, Rhodes, NSW 2138, tel. (02) 9736-1244.

The second are Ansell-Edmont Touch 'n' Tuff disposable nitrile gloves that were also recommended to us for use with toxic particulates, instead of the usual latex ones. They are more comfortable, offer better resistance to chemical penetration (in terms of splash resistance or short contact), and are also a bit more expensive. As they are more resistant, they would also be useful for working with mould, as well as avoiding possible allergic reactions due to contact with latex.

Some useful reference articles relating to health and safety and mould can be found on the Conservation Online web page, under "Mold" (<http://pallimpsest.stanford.edu/bytopic/mold/>)

Kaplan, Hilary A., *Mold: A Follow-up*

Nyberg, Sandra, *The Invasion of the Giant Spore*, SOLINET Preservation Program, Leaflet Number 5, November 1987

Mold as a Threat to Human Health, Abbey Newsletter, Volume 18, Number 6, October 1994.

J F Danson & T J K Strang, *CCI Technical Bulletin 12: Controlling Museum Fungal Problems*.

Holly Jones, Artilab Australia

Another Arts Minister

National Party MP Peter McGauran was sworn in as the new minister for the Arts and the Centenary of Federation in late 1998. Senator Richard Alston will continue to represent the Arts in Cabinet, and Mr McGauran will have the day-to-day responsibility. In an interview with Cinden Lester for *Artbeat* (January edition '99 – online at www.dcita.gov.au) he said that the development of the National Museum in the ACT, reforms to intellectual property laws, and building up regional arts programs were all priorities for the department. Contact the Minister's office at (02) 6277-7350 or at www.dcita.gov.au/mcgauran for more information.

Up there in the sky...it's PICMAN

The Mitchell Library's database of pictures and manuscript collections is now available on <http://www.slsw.gov.au/picman/picman.htm>. PICMAN contains around 97,000 catalogue records of material in the picture and manuscript collections of the Mitchell Library, Dixon Library and Dixon Galleries. It includes records of personal papers and private archives, paintings, drawings, photographs, objects, posters, architectural plans, and six of the Library's digitised photographic collections – for example, the 1870s Holtermann collection of photographs of regional NSW and Sydney, and the Australasian Antarctic collection.

Arts of Asia Lecture Series at the Art Gallery of New South Wales

If you're in Sydney, The Centre for Asian Art Studies at the Art Gallery of NSW is running a lecture series on the *Arts of South and Southeast Asia: Eighth to Fifteenth Century*, on Tuesdays 1-2pm. Lectures began on the 16th of February and will continue throughout the year.

The course will focus on "the pivotal monuments, movements and moments that

shaped Asia's artistic heritage", and lectures will be accompanied by slide lists and bibliographies. Those attending the full course will be eligible to sit for a slide test and submit an essay leading to a diploma awarded by the Centre for Asian Art Studies. Lecture topics include: *Indian Painting on Paper up to the Time of Emperor Akbar* (March 23), *Textiles and Kingship at the Khmer Court, Angkor* (May 18th), and *The Development of Chinese Porcelain* (August 24th).

Single lectures cost \$15.00 each. Contact: The Centre for Asian Art Studies, Art Gallery of NSW, Art Gallery Road, Domain, Sydney, NSW 2000, tel. (02) 9225-1893, fax (02) 9225-1894.

The Open Museum Journal

Late last year saw the launch of the *Open Museum Journal*, a joint project by the Research Institute for Cultural Heritage Studies at Curtin University and Australian Museums On-Line. The Journal is a peer reviewed publication, and aims to engage in critical debate and reflection on museum-based activities both in Australia and throughout the world. Please think about contributing to the journal, or at least subscribing. See http://amol.org.au/craft/omjournal/journal_ind_ex.asp. Any email regarding the journal may be sent to journal@amol.org.au.

New bleaching agent for paper

Xylanase enzyme will be produced by a new factory in Western Australia – the Belmont plant, currently under construction – as an environmentally friendly alternative to chlorine gas and soluble organo-chlorines, which are currently used as bleaches in paper manufacturing. The strain of bacillus that produces the enzyme will also be exported to overseas markets. (*The Weekend Australian*, January 23-24 1999, p48).

Fulbright Scholarship Program

The Australian Fulbright Program offers scholarships to Australians wishing to study in the USA, as part of an international program of education exchange which operates between the US and 140 countries world-wide. Fulbright scholarships are awarded annually by national competition. Funding is provided by the Government of Australia, the Government of the USA and by private donors. Applications

from all academic fields and professional backgrounds are encouraged.

The competition opens on 1 July of each year, and closes on the 30 September of each year. Applications will only be accepted between these two dates. Applicants must be Australian citizens. Generally candidates must possess a first class Honours degree to be competitive, but other applicants who have gone on to excel in their field will be considered. There are four types of awards: Postgraduate Student Awards, Postdoctoral Fellow Awards, Senior

GRANTS & FUNDING DEADLINES

Scholar Awards, and Professional Awards. The amount of funding and number of places available varies under each category.

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, <http://sunsite.anu.edu.au/education/fulbright>.

International Specialised Skills (ISS)

ISS is an enterprise of the Australian Multicultural Foundation, RMIT and the Palladio Foundation. It 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.

ISS operates across industry sectors. To date the following industries have been targeted: Conservation and Restoration; Building and Construction; Textiles, Clothing and Footwear; and Entertainment. Since 1991 ISS has awarded 26 Fellowships – 23 to Australians to undertake overseas study programs, and 3 to overseas experts to come to Australia to conduct training programs. Education and training activities are also conducted by Fellowship winners, on their return.

Applicants will need to detail the skills and knowledge gaps related to the training required, where the training can be acquired overseas (if known), and the benefits to the Australian community as well as to your own professional and personal development.

For more information and application forms, 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.

Other Programs:

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.

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.

Notices

Moving? Changing jobs? Off on travels or maternity leave? Let people know where you are – post a Notice in the Newsletter.

Natalie Scoullar has arrived at the Art Gallery of Western Australia and is busy helping install the *From Russia With Love* exhibition with her friends from the NGA. She has taken over from **Lisette Burgess**, who took over temporarily from **Errol Allen**, who has retired from AGWA and the conservation profession.

The University of Canberra would like to announce that the *National Centre of Cultural Heritage Science Studies (NCCHSS)* no longer exists. The Conservation of Cultural Materials and the Cultural Heritage Management courses are now two distinct entities, which run separately. **Professor Colin Pearson** is now a co-director of the Cultural Heritage Research Centre. **Benita Johnson** is Course Convenor of the Conservation of Cultural Materials course, Division of Science and Design.

After ten years in private practice, **Eric Archer** takes up his appointment as Manager Conservation at the National Museum of Australia in Canberra. Eric commences in this position in April 1999. **Candida Baskcomb**, also on the move, travels to New Zealand in April to work in the paper conservation section at the Auckland City Art Gallery. This is a temporary position, after which she returns to practice in Melbourne. **Melanie Paramor** will continue in her position with Noel Stoff at Adam Galleries. **Peter White** takes over the environmental monitoring instruments business, Hanwell Asia Pacific Pty Ltd. All Hanwell enquiries should be directed to Peter on (03) 9387 8549.

News from the Northern Territory: **Mary Gissing** is working at the Museum and Art Gallery of the Northern Territory on a six-month contract. And congratulations are in order for **Sandra Yee** who is expecting twins. The next newsletter may well have an update!

Australian Capital Territory

Australian War Memorial

Conservation Gallery Re-development at the Australian War Memorial

Wendy Dodd

After years of planning and two solid years preparing collection items for display, the first stages of re-development of the Australian War Memorial have been completed. The Memorial in its landscaped grounds has a completely new look and atmosphere. State of the art display techniques, multi-media, interactive exhibits and experiences have been included. There is particular emphasis on personal stories to enhance the Australian experience of war and to engage visitors who have no personal experience of our involvement in wars. Some essentials like a large lift have made moving objects and people around the building much easier. The post-WW2 galleries have been relocated to the lower ground floor; there are completely new WW2 galleries and the Orientation Space and circulation areas make visiting the Memorial easier. The Research Centre has been refurbished and is now accessible from the galleries.

Conservation and Collection Services negotiations have achieved a lot in this re-development process: old familiar items are now better displayed, other items have been conserved and prepared for display. We have had a say in specifications for materials and environmental conditions. Some issues have not been addressed to our satisfaction and we were not able to avoid the last minute rush and clashes between the work of contractors and installation. Many of the difficulties we encountered have come from the number of things happening at the same time at the Memorial and because the exhibition designers were not Canberra based. We will continue to negotiate to protect the interests of the collection.

To achieve these first re-development stages the Memorial has employed a number of conservators on contract. We are greatly indebted to these conservators who have worked hard and fitted happily into the Treloar Complex. We are extremely sorry to see them go. They have brought skills and experience with them and we hope they have taken away new skills and a variety of new experiences. We could not have completed the preparation and installations without these conservators. The future seems to hold more contract work for conservators and the challenge is to make the work satisfying while finding ways of ensuring that skills developed and knowledge

of a project don't leave the institution with the contract conservators.

The next stage - redevelopment of the Bradbury Aircraft Hall has commenced, and the planning for Anzac Hall for display of more of the technology collection has commenced. We hope you will all take time when you are next in Canberra to see the changes to the Australian War Memorial.

National Archives of Australia, Canberra Office

Social News: **Tania Riviere** and her husband Craig, are proud new parents of Chelsea May. Chelsea was born on Monday January 18 and weighed in at 6lb, 14oz. **Robyn Lowe** and her husband John also recently welcomed Morgan Louise into the world. Morgan was born on Wednesday, 16/12/1998 and weighed 8lbs 2oz with a height of 51cm. Both new families are doing well.

Laboratory news: It's finally come through - the NAA Canberra Lab is now, officially, a National Association of Testing Authorities (NATA) Accredited Testing Facility. (We have our framed Certificate to prove it). We can now test papers and photographic material enclosures and be confident we are providing high quality results. We also recently took delivery of a new moist ageing oven for carrying out our Photographic Activity Tests (PAT). The oven is from *Contherm Scientific*, New Zealand, and is capable of maintaining the high temperature and relative humidity levels required by the PAT (70°C and 86 % for 15 days). The National Library of New Zealand also has one of these ovens, and thanks to **Mark Strange** for his advice and answers to our questions.

As part of the same overall project the Archives have also created a 'Certification Trademark' which has been registered with Industrial Property Australia. The trademark, which is in the form of a capital letter 'Q' with an infinity sign attached, is designed to be applied to archival quality products, initially products of paper and board. A 'Certification Trademark' has a set of rules attached to its use. The rules relating to our trademark set out the qualities the product must possess in order to be allowed to use the trademark. Should a manufacturer wish to use the trademark they must submit their product to the Archives for testing, and the testing must confirm that the product meets the standards set out in the rules. It is likely that a copy paper bearing the trademark will be available in the near future.

Our latest exhibition, *Eye to Eye: Observations by F E Williams, Anthropologist in Papua, 1922 - 43*, has recently opened. The exhibition

comprises prints produced from original negatives created by Williams and captioned with entries from his diaries. Items in the exhibition include ethnographic material on loan from the Australian Museum. This is the NAA's second temporary exhibition in the new National Office and it will travel after closing in Canberra.

New South Wales

International Conservation Services

Julian Bickersteth has been continuing his work on the Dome mosaic at the Australian War Memorial, Canberra, and St Andrews Cathedral, Sydney. He recently undertook a survey of the finishes of the Hill End house, Craigmoor.

Catherine Akeroyd has been very involved in organising exhibitions including those for the Australian Army, the Sydney Jewish Museum and Sydney City Council. **Fiona Tennant** has spent most of her time on these exhibitions recently but now textiles are beckoning her again!

Cathy Lillico-Thompson, Michelle Wassall, Arek Werstak and **Maria Hromkova** have virtually completed the conservation of interior finishes in a large heritage property in the Eastern Suburbs.

Catriona Angus is completing a report on the Cameron Park Fountain in Wellington, undertaking ongoing monitoring of the excavated material from the Conservatorium of Music and assessing the condition of stonework on several heritage buildings. She is off on maternity leave from mid March.

Lee Hardcastle and **Andy Blundell** have been working on marquetry panels in New Parliament House, Canberra. **Nicole Rowney** has been conserving sections of wallpaper at Rouse Hill House and **Detlev Lueth** has been assisting with the installation of various exhibitions.

Claire Wilde has joined ICS to work in the Textiles Department with Fiona. **Kent Jarman, Catherine Nunn, Sophie Brown** and **Tasha Brown** have been working on contract at St Andrew's Cathedral, Farmers and Graziers Woolstore, and at Parliament House.

State Library of New South Wales

The new year has found **Nichola Parshall** and **Heather Mansell** involved in the re-housing of the *Sydney Morning Herald* Mint Set. This is a joint project with other sections of the Library, but the Preservation department is managing the project. The Library has a complete bound set of the *Herald* from its inception in 1831. This set has always been held in reserve in case the need for refilming of microfilm masters arises. It was decided to preserve the Mint Set and free

up some much-needed space on-site. The volumes are boxed and stored in air-conditioned comfort, off-site at the Government Record Repository (GRR) at Kingswood.

The large and heavy bound volumes are stored in custom-built food-grade polypropylene boxes. The boxes are made from corrugated sheets for strength and are welded in a clamshell design. They are numbered sequentially and are bright yellow to distinguish them from on-site use blue boxes. Given the size of the storage space at GRR, it is also advantageous to have bright yellow boxes to distinguish our items. The project involves the removal of 2500 bound volumes, one per box, and we aim to be finished by the end of February.

On the 11th January **Avryl Whitnall** moved to the Exhibitions Branch to take up the 1 year temporary position of Curator of Exhibitions. *Conservation Access* has been reorganised and now comes under the umbrella of the Preservation Branch.

South Australia

Artlab Australia

In the paper lab, **Fred Francisco** is preparing Japanese ukiyo-e prints for the exhibition *Japan: Three Worlds* at the Art Gallery of South Australia. He has been disguising worm holes in the prints by tipping on coloured paper tabs to the (loose) lining paper behind the holes. Before that he was working on some dried flower samples from the State Library that he matted and attached to the backboard by adhering tiny strips of Japanese tissue over various parts of the plants' stems. **Anne Dineen** has been removing heavy paper inlays from the front of Dürer prints belonging to the Gallery, using a methyl cellulose poultice. **Vicki Humphrey** has just recently begun working four days a week instead of five, which we all hear is very nice. She is giving a seminar at the Australian Society of Archivists Inc Indigenous Issues Special Interest Group, about caring and protecting documents, photographs, paintings and objects held within Aboriginal communities. The rest of us have been making ourselves ill by eating all the figs and plums brought in by **Martin Deckys** from his garden. (And his mum's).

Tasmania

Archives Office and State Library of Tasmania

Penny Carey Wells has been working in the Conservation Lab on special projects for the Heritage Collections of the State Library. Penny has an exciting background as an artist and running the Papermill at the Tasmanian School

IIC CONGRESS MELBOURNE 2000

Call for Papers

IIC's eighteenth international congress will take place in Melbourne, Australia, at the invitation of the AICCM from Tuesday 10 October through Saturday 14 October 2000. Celebrating IIC's fiftieth anniversary year, this will be the first IIC Conference to be held in the Southern Hemisphere and its theme will be a broad one. Appropriately, at the beginning of the new millennium, the subject of IIC's first conference in Rome (1961) will be revisited with a wide survey of developments in conservation theory and practice, under the title *Tradition & Innovation: Advances in Conservation*. Topics to be covered will include:

- Methods of examination
- Preventive conservation
- Cleaning
- Coatings and consolidants
- Materials research
- Techniques of conservation: case histories
- Theory, ethics and history of conservation

Whilst the scope of the conference is international, it will also pay close attention to matters of concern to the AICCM. In Rome, there was a section on Italian methods of fresco transfer; in Melbourne we would expect to see an emphasis on the care and treatment of ethnographic materials and conservation issues arising from colonialism. The conference is not just about cutting-edge technology; as the title suggests, we are interested in papers which review traditional methods and materials in the light of more recent advances – which may not necessarily be improvements.

To a great extent, the scope of the conference will be determined by the proposals received in response to the call for papers. Clear trends will emerge, and the programme which results will genuinely reflect the current interests and concerns to conservators. The congress aims to bring together conservators and restorers, whether in museums or in private practice, together with conservation scientists and historians, curators, collection managers, educators and students. As always, we are especially interested in those proposals which demonstrate an interdisciplinary approach.

The official language of the Congress will be English.

Those wishing to present a paper should submit a provisional title and a 150-word summary by **30 April 1999**.

The summaries will be reviewed by a Technical Committee consisting of Bob Barclay (Canadian Conservation Institute), Colin Pearson (University of Canberra), René de la Rie (National Gallery of Art, Washington), David Saunders (National Gallery, London) and Nicholas Stanley-Price (Institute of Archaeology, University College London). David Bomford, Secretary-General of IIC, will chair the committee. Selected authors will be invited to submit a draft text of their full paper by 30 September 1999. On the basis of these drafts, the Technical Committee will make the final selection of papers to be accepted for publication in the preprints and presentation at the Congress. Final manuscripts for the preprints will be required for editing by 15 January 2000.

A separate call for posters will be made at a later date.

Send your abstract – which should not exceed one side of a page in length – by mail to IIC, 6 Buckingham Street, London WC2N 6BA, UK; by fax to 0011 44 171 976 or by e-mail to iicon@compuserve.com.

It should be made clear that this invitation is to both IIC and AICCM members. AICCM members may like to join IIC, but this is NOT a requirement for either attending the conference or presenting a paper. Both IIC and AICCM members will be accorded exactly the same rights at the conference and will pay the members rate for registration.

AICCM National Council is keen to have a good representation of Australian papers at the conference, and encourages all members to consider submitting a paper.

For further details on the conference or on joining IIC, please contact Julian Bickersteth at International Conservation Services, 53 Victoria Avenue, Chatswood, NSW 2067, Tel. (02) 9417 3311, Fax. (02) 9417 3102,

Email: j.bickersteth@ibm.net or contact an IIC member.

Current members in Australia are: W R Ambrose, C Angus, J Bickersteth (fellow), J Borig, L U Broeze-Hoernemann, E Burgess, P Cousens, J A G Daborn, J Dickens, T Dixon, J Dunlop, F Fitzpatrick, B Ford, M Garwood, T Gillam, M Guest, R Hodgson, G V Hudson, B Johnson (fellow), P A Johnson, S Laidler, P H Lovell, I D MacLeod (fellow), F A Martin, T Mulford, G Osmond, S Outhwaite, C Pearson (fellow), B H C Reeve, S-J Rennie, J Schahinger, W Smith, D Stein, C B Tassell, A J Thorn, D R W Tilbrooke, A Wain, S Walston (fellow), M Wassall, H Weidenhofer, A E A Werner (fellow), P Whitlock, D Young.

CALENDAR



AUSTRALIA

Pacific Science Conference (19th) – Science for Pacific Posterity: Environments, Resources & Welfare of the Pacific People.

4-9 July, Sydney.

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

Workshop: 'The Museum Building & Environment'

7-11 June 1999, Sydney.

This five-day course is designed for Museums, Libraries, and Archives personnel. The workshop will bring together recent information relevant to personnel managing collections. Topics will include environmental standards, risk analysis, disaster preparedness, passive and active climate control, monitoring of micro-environment, building orientation and design, appropriate design to avoid condensation, optimising microclimates through design and materials selection, low impact and sustainable materials selection, and dealing with indoor and outdoor pollutants.

Participants will gain an overview on the various issues affecting a museum building, and will thus be able to design/retrofit any building for the long-term preservation of their collections. Instructors include architects, building scientists and museum professionals from Universities, the CSIRO and museums. Speakers include Steve Brown (CSIRO), Ivan Cole (CSIRO), Vinod Daniel (Australian Museum), Lorraine Gibson (Netherlands Institute for Cultural Heritage), Colin Pearson (University of Canberra), Deo Prasad (University of New South Wales), Frank Preusser (Consultant, USA), and Steve King (University of New South Wales).

The registration fee for the workshop is AU\$900, which includes workshop notes, site visits, opening reception, morning and afternoon tea and some lunches. Contact: Vinod Daniel, Head, Research Centre for Materials Conservation and the Built Environment, Australian Museum, 6 College Street, Sydney, NSW 2000, Australia, Tel: 61 (0) 2 9320 6115, Fax: 61 (0) 2 9320 6070, Mobile: 61 (0) 411 021 600, Vinodd@amsg.austmus.gov.au. (C70)

IIC Eighteenth International Congress

10-14 October 2000, Melbourne.

Call for Papers

Celebrating IIC's fiftieth anniversary year, the subject of IIC's first conference in Rome (1961) will be revisited, under the title *Tradition & Innovation: Advances in Conservation*. Topics to be covered will include: Methods of examination; Preventive conservation; Cleaning, coatings and consolidants; Materials research; Techniques of conservation; case histories; Theory, ethics and history of conservation.

Whilst the scope of the conference is international, it will also pay close attention to matters of concern to the Australian experience. Papers which review traditional methods and materials in the light of more recent advances are also encouraged.

Provisional titles and a 150-word summary should be submitted by **30 April 1999**.

Final manuscripts for the preprints will be required for editing by 15 January 2000. A separate call for posters will be made at a later date. Send your abstract – which should not exceed one side of a page in length – by mail to IIC, 6 Buckingham Street, London WC2N 6BA, UK; by fax to 0011 44 171 976 or by e-mail to licon@compuserve.com. For further details, 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

International Council of Archives Annual meeting

1999, Jakarta, Indonesia

Focus: preservation issues. Contact: International Council of Archives (CITRA), 60, rue des Francs-Bourgeois, 75003 Paris, France, tel. +33-1-4027-6306, fax: +33-1-4272-2065, 1006.54@compuserve.com. Or see <http://www.archives.ca/lca/>.

(C69)

Smithsonian Center for Materials Research & Education Optical Microscopy Series

March-November, 1999, USA.

29 March-2 April: *Polarised Light Microscopy: Fundamentals and Applications for Conservators and Archaeologists*.

12-16 April: *Introduction to Applied Optical Microscopy*.

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)

Vernacular Architecture Heritage 8th International Scientific Conference on Theoretical & Practical Issues of Monument Preservation

19-31 March 1991, Romania.

Contact: Tel. +40-64-136051, fax +40-64-192-474, tusnad@mail.soroscj.ro. (C70)

Research & Resource Management in Parks & on Public Lands. On the Frontiers of Conservation: Discovery, Reappraisal, & Innovation.

22-26 March 1999, Asheville, NC, USA.

Contact: The George Wright Society 1999 GWS Conference, PO Box 65, Hancock, MI 49930, USA; gws@mail.portup.com.

(C69)

National Archives and Records Administration (NARA) 14th Annual Preservation Conference: Alternative Archival Facilities

25 March, 1999, Washington, DC., USA

Topic: "Alternative Archival Facilities". Contact: Eleanor Torain, Conference Coordinator (NWDP), 8601 Adelphi Road (Rm. 2800), College Park, MD 20740-6001, Tel. +1 301-713-6718, fax: +1 301-713-6653, preserve@nara.gov, <http://www.nara.gov/nara/preserva/conferen/>. (C69)

The Museum Environment in the Next Century: 1st International Conference.

29-31 March 1999, London, UK.

Contact: Museum Practice Conference Organiser, Museum Association, 42 Clerkenwell Close, London EC1R 0PA, UK.

(C69)

West Dean College Professional Development Courses 1998/99

Chichester, West Sussex, England.

Teaching Skills for Conservation

11-16 April and 11-16 September 1999

Issues and Approaches in Upholstery Conservation.

29 Aug-3 Sept. 1999

Contact: West Dean College, West Dean, Chichester, West Sussex PO18 0GZ, UK. Tel. +44-1243-811301; Fax: +44 243-

811343. Westdean@pavillion.co.uk,
<http://www.westdean.org.uk> (C68)

Chemistry course

12-16 April 1999. York, UK.

The Society of Archivists Conservation Training Scheme is holding its biannual Chemistry Course. Subjects include: Molecular view of materials; Degradation of materials; Molarity, acids and bases; Polymers adhesives and consolidants; Skin materials and tannins; Cleaning and organic solvents; Deacidification; Energy, light and environment; Catalysts, enzymes and rates of reaction; Material testing. Contact: Rose Hamilton, Oxfordshire Archives, tel. +44-1865-815412, rosemary.hamilton.occ@dial.pipex.com. (C70)

Archaeological Conservation: Specialised Techniques & Research for Wet Objects

12-15 April 1999. CCI, Ottawa, Canada
Wet archaeological materials present special challenges to the conservator. The workshop will focus on the research, analysis, and treatment of wet organic materials, iron, and iron/wood composites and will combine presentations, hands-on experiences, lab tours, and demonstrations. Participants should have practical experience in the conservation of wet archaeological materials. Conservation students and archaeologists with a special interest in the area are welcome. Contact: Christine Bradley, Client Services Officer, Canadian Conservation Institute, 1030 Innes Road, Ottawa ON K1A 0M5, Canada, tel. +1-613-998-3721 ext. 250, fax: +1-613-998-4721; christine_bradley@pch.gc.ca. (C70)

Conservation of Antiquities

12-14 April 1999. Cairo, Egypt.
Topics include: recent materials and methods for restoration and conservation of different archaeological materials - stone, ceramic, mural paintings, metals, glass, faience, wood, icons, manuscripts, textiles; treatment of salts; treatment of groundwater and its effect on monuments and sites; new analytical methods for investigating the deterioration of archaeological materials; case studies of conservation and restoration of antiquities. Conference languages: English and French. Contact: Prof. Fatima M Helmi, Conservation Dept, Faculty of Archaeology, Cairo University, Giza, Cairo, Egypt. (C70)

International Course on the Technology of Stone Conservation.

15 April-2 July 1999. Venice, Italy.
Contact: ICCROM Training & Fellowship Programme Office, 13, Via di S. Michele, I-00153 Rome, Italy, tel. +39 6-585-531, fax +39 6-5855-3349; training@iccrom.org. (C69)

UKIC Furniture Section: Modern Material, Modern Problems

16-17 April 1999. Liverpool, UK.

Program now available. Contact: Lyndsay Piper, Colin Piper Conservation, Lyndfield House, The Greens, Leafeld, Witney, Oxfordshire OX8 5NP (please enclose SAE). Tel. +44 1993 87859, Fax: +44 1993 878009; piper.conservaion@which.net (C68)

Preservation Management: Between Policy & Practice.

19-21 April 1999. The Netherlands.
Contact: <http://www.konbib.nl/pmc/>, or Ms Barbara de Goederen, Koninklijke Bibliotheek, P.O. Box 90407, NL-2509 LK, The Hague, The Netherlands, tel. +31 70 314 03 48, fax: +31 70 314 04 40, barbara.degoederen@konbib.nl. (C69)

Ironmasters' Conference

23-25 April 1999. West Virginia University, Morgantown, West Virginia, USA
Contact: Lee R. Maddex, Project Coordinator, Sr., Institute for the History of Technology and Industrial Archaeology, West Virginia University, PO Box 6305, Morgantown, WV 26506-6305, Tel. +1 304-293-3829, Fax: +1 304-293-2449, lmaddex@wvu.edu. (C69)

Architecture - Certificate in Preservation Skills & Technology

April 23-November 14 1999. Windsor, Vermont, USA.
Contact: Historic Windsor Inc, Main St, PO Box 1777, Windsor, VT 05089, Tel. +1 802-674-6752, fax +1 802-674-6179. (C68)

Reinventing the Museum: Relevance & Renewal

25-29 April 1999. Cleveland, Ohio, USA.
American Association of Museums Annual Meeting. Contact: AAM, 1575 Eye St., N.W., Suite 400, Washington D.C. 20005, tel. +1 202-289-9113. (C69)

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

April-December, 1999. University of Bradford, UK.
19-23 April: *Structure and Decay of Cultural Materials*.
24-28 May: *Methods of Technical Examination I: Radiographic Imaging*
28 June-2 July: *Materials and Technology: Metals, glass & ceramics*.
13-17 December: *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/pggrad/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)

Archaeological Leather Day

May 1999. British Museum, London.
Contact: Sara Carroll, The British Museum,

Department of Conservation, Great Russell Street, London, WC1B 3DG. Tel. +44 171-636-1555, fax: +44 171-323-8636, conservation@british-museum.ac.uk. (C69)

Earthquake Resistant Engineering Structures '99 (ERES).

1 May 1999. Catania, Italy.
Contact: Liz Kerr, Conference Secretariat, ERES99, Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton SO40 7AA, UK; liz@wessex.ac.uk. (C69)

Adhesives for Textile & Leather Conservation: Research & Application

4-7 May, 1999. Canadian Conservation Institute, Ottawa, Canada.
Contact: Christine Bradley, Client Services Officer, Canadian Conservation Institute, 1030 Innes Road, Ottawa ON K1A 0M5, Canada, +1 613-998-3721 ext. 250, fax: +1 613-998-4721, christine_bradley@pch.gc.ca. (C69)

Site Effects: The Impact of Location on Conservation Treatments

5-6 May, 1999. Dundee, Scotland
Contact the Scottish Society for Conservation and Restoration, Tel. +44 131 556-8417, Fax: +44 131 557-5977, admin@sscr.demon.co.uk (C68)

Preservation Options in a Digital World: To Film or To Scan - A Workshop on Preservation Microfilming & Digital Imaging of Paper-Based Materials

11-13 May 1999. Denver, Colorado, USA.
The workshop will explore two reformatting technologies: preservation microfilming and digital imaging. The similarities and differences of the two will be compared and evaluated. Lessons learned from preservation microfilming projects that can be applied to digital imaging projects will be discussed. The program teaches skills for: planning reformatting projects; selecting and preparing materials; microfilm technology; introductory digital imaging technology; inspection and quality control; evaluating digital imaging for preservation. Contact: Gay Tracy, Public Relations Coordinator, Northeast Document Conservation Center, 100 Brickstone Square, Andover MA 01810-1494, tel. +1-978-470-1010 ext. 217, fax +1-978-475-6021, tracy@nedcc.org. (C70)

Integrated Use of Cultural Heritage: Works of Art as Historical Evidence in Conservation

11-15 May, 1999. Dubrovnik, Croatia.
The symposium will address: the iconography of landscapes, townscapes, historic buildings in art; architectural conservation and restoration through the analysis of works of art; identification of view points in landscapes; deviation, conformation, and idealisation of reality by the artists; tests of veracity; interdisciplinary research as a



Conservation vacancy

Conservator
APS Level 6
\$44,100 - \$49,495
Storage Policy &
Canberra Agency Operations Section

(PN.30090)
Canberra, ACT

Duties: Under direction assist in the management and monitoring of the National Preservation Work Plan. Provide Preservation support to the NAA exhibition program. Undertake and manage complex project work involving conservation treatments of records and other preservation measures, technical investigations, research, testing of materials, and scientific analysis. Participate and assist in the development of preservation standards, specifications, procedures, and guidelines. Support the management, work planning, co-ordination and the monitoring of preservation projects, operations and other activities.

Contact Officer: Ian Batterham (02) 6212 3461

Selection for the above position will be based on assessment against specified selection criteria. Applicants should therefore ensure that their application addresses their claims in terms of the selection criteria.

Copies of the position profiles and selection criteria can be requested by phoning (02) 6212 3941 - 24 hour answering service or by email addressed to: recruitment@naa.gov.au. It is also available on the National Archives website: www.naa.gov.au. Staff of the National Archives are covered by a Certified Agreement which can also be viewed on our website.

Applications should be addressed to:

The Recruitment Officer
National Archives of Australia
PO Box 7425
CANBERRA MAIL CENTRE ACT 2610

Closing date for applications: Thursday, 1 April 1999.

tool in establishing documentation values; museological interpretation in articulating heritage values in reconstruction work. Please register by April 2. Contact: Joy Davis, Program Director, Cultural Resource Management Program, University of Victoria, and Tel. 250-721-8462. Fax: 250-721-8774, joydavis@uvcs.uvic.ca, or see <http://www.uvcs.uvic.ca/crmp/>. (C70)

Workshop on Historic Mortars: Characteristics & Tests

12-14 May 1999. University of Paisley, Scotland

Contact: Dr John Hughes, Advanced Concrete and Masonry Centre, Dept. Civil, Structural and Environmental Engineering, University of Paisley, Paisley PA1 2BE, Scotland; john.hughes@paisley.ac.uk (C68)

2nd International Student Conference on Conservation

24-28 May, 1999. Czech Republic.

Contact: skolare@lit.czn.cz, or Katerina Balcarova, The School of Restoration and Conservation Techniques, Jiraskova 3, 570 01 Litomysl, Czech Republic, Tel/Fax: +42 464 612 565. (C70)

Conservation of Modern Architecture

27 May-18 June 1999. Helsinki, Finland.

Contact: ICCROM - Training & Fellowship Programme Office, Via di San Michele 13, I-00153 Rome RM, Italy. Fax: (+39-06)-5855 3349, training@iccrom.org, <http://www.iccrom.org>. (C69)

Courses at the Centre for Photographic Conservation

1999, from May onwards. London, UK.

3-7 May: *Rediscovering Historic Photographic Processes*.

3 May-18 June: *The Preservation and Conservation of Photographic Materials*.

10-12 May: *The Preservation and Conservation of Photographic Materials (Theory)*

13-14 May: *Preservation of Colour Photographic Materials*

17-19 May: *The Identification of Photographic Processes*

20-21 May: *Preservation of Photographic Negatives: Glass, Nitrate, Acetate and other Sheet and Roll Film Systems*

21 June-16 July: *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)

Commonwealth Association of Museums 99: Museums, Peace, Democracy & Government in the 21st Century,

5-12 May, 1999. Christchurch, Barbados.

Contact: Lois Irvine, Secretary General, Commonwealth Association of Museums, PO Box 30192, Chinook Postal Outlet,

Calgary, Alberta, Canada T2H 2V9. Tel and fax +1-403-938-3190, livinel@fcl.com. (C70)

Looking at Paper: Evidence & Interpretation

13-16 May, 1999. Toronto, Canada
Contact: Looking at Paper, Box 956, Station F, Toronto, Ontario M4Y 2N9, Fax: +1 (416) 203-2692, john_onell@ago.net. (C66)

Finely Conserved, Finely Bound: Today's Bindings on Antiquarian Books & Documents.

15 May -31 July 1999. Paris, France.

Contact: Bibliotheque Historique de la Ville de Paris, 24 rue Pavée, 75004 Paris, France, fax +33-1-4274-0316. (C69)

6th International Conference: Non-Destructive Testing & Microanalysis for the Diagnostics & Microanalysis of Cultural & Environmental Heritage.

17-18 May 1999. Rome, Italy.

Contact: AIPnD - Rome Office, Scientific Secretariat, Via Boticelli 1, 00196 Rome, Italy, fax: +39 6-320-0438. (C69)

Integrated Pest Management

20-21 May, 1999. Minneapolis, MN, USA

Contact: The Upper Midwest Conservation Association, 2400 Third Avenue, S., Minneapolis, MN 55404, tel. +1 612-870-3120, Fax +1 612-870-3118; umca@mn.org. (C69)

Rock Art Congress: 1999 International

23-31 May. Ripon, WI, USA.

Contact: Dr John Steinbring, Dept. of Anthropology, Ripon College, Ripon, WI 54971, USA; steinbringj@mac.ripon.edu. (C69)

Insect Pest Management

26-27 May 1999. Edinburgh, Scotland.

This course will provide the basic knowledge necessary to develop and implement an integrated pest management programme. Practical sessions include insect identification and museum surveys. Tutor: David Pinnegar. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@archetype.co.uk. (C70)

The Canadian Association for Conservation of Cultural Property 25th Annual Conference

28-30 May, 1999. Winnipeg, Canada

Contact: Jasmina Vlaovic, Program Chair, Winnipeg Art Gallery, 300 Memorial Blvd., Winnipeg, MB R3C 1V1, Tel. +1 204-786-6641, Fax +1 204-788-4998; ccollin1@wag.mb.ca. (C69)

Green Conservation: Environmental & Human Safety in Conservation

26-27 May, 1999. Winnipeg, Canada

Subject: the identification, assessment and mitigation of known and potential health and environmental hazards related to conservation treatments,

collections and site care. Contact: Shelagh Linklater, Program Chair, CAC Workshop 1999, Provincial Archives of Manitoba, 200 Vaughan Street, Winnipeg, MB, R3C 1T5, Tel.+1 204-945-1265, Fax +1 204-948-2008, slinklater@chc.gov.mb.ca. (C69)

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. Topics may include: colouring methods, technical information, scientific analysis, ethical issues, histories, case studies etc. Materials might include paper, tissue, leather, alum-tawed skin, parchment, textiles, thread etc. Papers are invited. 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. Primary emphasis will be on the re-creation of three historic photographic processes used during the pictorialist period known as the Photo-Secession - platinum, gum dichromate and carbon. Complementary to the Rochester Residency Program; also available to a limited number of other conservators. Admission by application. 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.

The workshop aims to define the basic requirements for proper graphic documentation of mural paintings, and to evaluate recent applications, including computer-aided systems. Contact: ICCROM Training & Fellowship programme Office, 13, Via di S. Michele, I-00153 Rome, Italy, tel. +39 6-585-531, fax +39 6-5855-3349; 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)

AIC 27th Annual Meeting

7-13 June 1999. St Louis, Missouri, USA

Topics: *Costs of Conservation: Can We Afford It?; Used or Misused: The Responsible Preservation of Functional Cultural Property Still in Use; From here to Eternity: Collaborative Case Studies in American Archaeology and*

Conservation. Contact: AIC, 1717 K Street NW, Suite 301, Washington DC 20006, tel. (202) 452-9545, fax (202) 452-9328; infoaic@aol.com. (C69)

Of Microbiology & Art: The Role of Microbial Communities on the Degradation & protection of Cultural Heritage

17-19 June 1999. Florence, Italy.

Contact: Dott. Piero Tiano, CNR - C.s. "Opere d'Arte" - Via degli Alfani 74, 50121 Firenze, Italy, +39 55 214777, fax +39 55-2757660, tiano@service.area.fi.cnr.it, http://www.area.fi.cnr.it/lcnc (C69)

Archaeological Field Course in Bronze Conservation

27 June - 4 July 1999. Kaman-Kalehoeyuk, Turkey.

The course will provide participants with hands-on conservation experience. Tutor: Glenn Wharton, Conservation Director of the Japanese Institute for Anatolian Archaeology. Participation limited to eight conservation students with plans to work in Turkey this summer. The course will be free of charge, and participants will be provided with room and board during their stay. To apply, please send a resume plus email addresses of two references and site affiliation in Turkey by April 1. Participants will be selected by April 15. Contact: Glenn Wharton, g.wharton@ucl.ac.uk, Institute of Archaeology, University College of London, 31-34 Gordon Square, London WC1H 0PY, England. (C70)

Photographic Workshop

21-25 June 1999. London, England.

Content: lectures and demonstrations on all techniques needed in the application of photography to archaeology and conservation, including photomacrography, IR and UV photography. There will be an additional extension week from 28 June to 1 July for those who wish to gain practice in any of the techniques involved. Tutor: Stuart Laidlaw. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@archetype.co.uk. (C70)

An Introduction to Early & Medieval Bookbindings

27 June - 2 July 1999. Oxford, UK

Tutor: Christopher Clarkson. This five-day workshop will consist of lectures, model studies and field trips, within Oxford. The workshop will also cover the identification of binding structures, and the recognition and recording of materials and techniques. 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. London, England.

A course aimed at architects, planners, conservators and those concerned with the upkeep and preservation of historic buildings. This course provides an introduction to the identification and understanding of paint finishes and wallpapers within the context of the Historic House. Including an over-view of period wall decoration, techniques, materials and analytical techniques available for their study. Tutor: Allyson McDermott. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@archetype.co.uk. (C70)

Drawing Archaeological Finds

28 June-2 July 1999. London England

Tutor: Nick Griffiths. 20 participants. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@archetype.co.uk. (C70)

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

28 June - 3 July. Washington DC, USA

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, DvE@scmr.si.edu. (C69)

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

28 June - 9 July. Paris, France.

Tuition in French and English. This is a practical course covering tools and materials, paper cutting, lining techniques, use of karibaril, reinforcement and loss filling techniques, bamboo tool making, and a one-day visit to a Japanese Paintings collection. 12 places. Contact: Claude Laroque, MST CR, Université 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.

Conservation, restoration, design and bookbinding techniques. Contact: Roy Fell, 19 Scott Road, Walsall, West Midlands WS5 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.

Papers may relate to any area of museum training - for example, initiatives relating to peace and reconciliation, sustainable development, safety policy and management, risk management and insurance, emergency and disaster preparedness, response and recovery. Deadline for submissions: 1 May 1999. If there is sufficient demand a one-day

training workshop on web authoring and management may be organised for July 8. 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.

Topic: repair and restoration of glass vessels using synthetic resins. This involves mould-making using silicon rubber and wax; casting of resin into the mould and finishing and retouching processes. Tutor: Sandra Davidson. 15 participants. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@archetype.co.uk. (C70)

New Methods for Cleaning Painted Surfaces

12-16 July 1999. London, England.

Aimed at conservators of both paintings and objects. Topics include: the characterisation of painted surfaces, an overview of aqueous techniques, chelating and complexing materials, thickeners, gels, pastes and poultices, resin soaps, enzymes, emulsions. Practical sessions included. Tutor: Richard Wolbers. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@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, lap@archetype.co.uk. (C70)

Conservation of Gilded Surfaces

12-16 July, 1999. London, England.

Students will learn how to approach the conservation of a gilded object by working on a frame. Practical sessions include: the history and technology of the uses of different bole colours, making of Adam composition; and the use of acrylic materials as substitutes for the traditional methods of gilding. 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, lap@archetype.co.uk. (C70)

Colour Theory

19 July 1999. London, England.

Colour comparison, light sources, surfaces and vision; and colour symbolism. Tutor: Ray Osborne. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@archetype.co.uk. (C70)

Identification of Wood

19-23 July 1999. Durham, England.

Topics: use of the microscope; structure

of plants and the identification of plant materials; preparation and identification of collapsed, waterlogged wood, charcoal and veneers. This course is also a useful introduction to the identification of wood fibres in paper. 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, lap@archetype.co.uk. (C70)

Conservation & Preservation of Photographs

20-22 July 1999. London, England.

Topics: Identification of different historical and contemporary processes; the chemistry involved in the original processes and their subsequent deterioration; problems involved with the preservation of collections; interventive conservation treatments. Tutor: Susie Clark. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@archetype.co.uk. (C70)

Examination of the Cross Sections of Paint Layers

20-23 July 1999. London, England.

Topic: methods of preparation and examination of thick and thin cross-sections of paint layers from paintings, painted surfaces and objects. Discussions focus on sampling, the use of the optical microscope, photography, staining and other analytical techniques for the identification of media. Tutor: Nicholas Eastaugh. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@archetype.co.uk. (C70)

Photographic Materials

Conservation Group Conference

22-23 July 1999. Birmingham, UK

Contact: Angela Moor, Programme Secretary, xfa59@dlal.plpex.com. (C69)

Identification of Plant Fibres

26-28 July 1999. Durham, England.

Topic: Identification of plant materials by the evaluation of their microscopical characteristic and the structure of plants from which fibres are obtained. Techniques used to prepare fibre samples will be developed. Tutor: Dorothy Catling. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@archetype.co.uk. (C70)

Spot Testing for Materials Characterisation

26-30 July 1999. Aberdeen, Scotland.

Topic: the use of spot tests to characterise the material nature of artefacts, accretions, deposits and contextual materials. Sessions include: micro-sampling techniques; testing of a range of artefact materials, inorganic and organic; testing of contextual materials; interpretation of results.

chemical processes and stages of a reaction; and the effects of interference materials. 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, lap@archetype.co.uk. (C70)

Preservation of Medieval Books

July/August 1999. Montefiascone, Italy.

Montefiascone is a medieval walled city on Lake Bolsena 100km north of Rome. The Medieval library houses about 5000 volumes including manuscripts and early printed books. Participants on this project may stay for a minimum of one week, and will have the opportunity to spend part of each day in the library cataloguing early printed books, carrying out condition surveys and refurbishing books. Workshops to be held on-site include: *Pigments and the Techniques of their Application to Medieval Manuscript* 26-30 July (Cheryl Porter); *Vellum Bindings*, 2-6 August (Chris Clarkson); *Archaeology of the Medieval Book and rebacking Leather Bindings*, 9-13 August and 16-20 August (Jim Bloxham and Nick Hadgraft). Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@archetype.co.uk. (C70)

Eleventh International

Biodegradation & Biodegradation Symposium, International Biodegradation 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, Blossan@aol.com. (C69)

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

Topic: collecting and safeguarding oral heritage, including: the socio-cultural context; collection methodologies and selection criteria; care, handling, storage and preservation issues; and technical matters. 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)

ICOM-Committee for Conservation 12th Triennial Meeting

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

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

Urushi: Conservation of Japanese Lacquer. (Training Course).

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 6-585-3349; 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/> or 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)

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 Fontenay, 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 Fontenay, 75352 Paris 07 SP,

France, tel. +33-1-4568-1876, fax +33-1-4568-5570, wh-info@unseco.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 Fontenay, 75352 Paris 07 SP, France, tel. +33-1-4568-1876, fax +33-1-4568-5570, wh-info@unseco.org. (C70)

Conservation of Wallpaintings & Architectural Surfaces

October 1999. Venice, Italy.
This on-site seminar examines the causes and effects of deterioration of Venice's historic structures particularly in relation to stone and wallpaintings. Contact: International Academic Projects, 31-34 Gordon Square, London WC1H 0PY, tel. +44-171-387-9651, fax +44-171-388-0283, lap@archetype.co.uk. (C70)

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

4-5 October 1999. Washington DC, USA.
Topics: *Global Assessment of Grey Literature; Archiving Electronic Grey Literature; Copyright and Grey Literature* Grey Literature is defined as "that which is produced on all levels of government, academics, business and industry in print and electronic formats, but which is not controlled by commercial publishers". Contact: GreyNet, Grey Literature Network Service, Koningsinnweg 201, 1075 CR Amsterdam, Netherlands, fax: +31 20 671 1818, GreyNet@inter.nl.net, <http://www.konlib.nl/infolev/greynet/>.

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

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

17-23 October. Mexico City, Mexico.
Contact: Arq. Carlos Flores Marini, ICOMOS Mexicano, Mazatlan 190, Col. Condesa C.P., Mexico, DF 06140, Mexico; icomosmex99@compuserve.com.mx. (C69)

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)

AIC 2000: 28th Annual Meeting

2000. Philadelphia, USA
Topic: the preservation of electronic art and cultural material. Contact: AIC, 1717 K Street NW, Suite 301, Washington DC 20006, tel. (202) 452-9545, fax: (202) 452-9328; infoaic@aol.com. (C69)

Unmounting and Mounting of Photographs: Treatment Alternatives and Ethical Considerations

January 2000. Pittstown, New Jersey, USA
This five-day workshop will investigate the risks and benefits associated with the unmounting and mounting of nineteenth and twentieth century photographic prints. Complementary to the Rochester Residency Program; also available to a limited number of other conservators. Contact Nora Kennedy, tel. +1-212-650-2168, nora.kennedy@nyu.edu, or Debra Hess Norris, tel. +1-302-831-3489, dhnorris@udel.edu.

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 Wiltshire 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
Call For Abstracts. The Symposium will emphasise the professional collaboration required to plan and execute successful conservation projects in historic interior

spaces. Participation is encouraged from professional conservators, preservation architects, conservation scientists, craft and trades people, engineers, technicians, and designers.

The program will focus on architectural interiors and the materials that compose them. Topics could include: case studies of interior conservation projects; analysis, monitoring and recording of materials; conservation versus reconstruction; collaboration, professional ethics, and the interface between the professions of architecture and conservation; rehabilitation of functional working structures versus the creation of living museums; developing strategies for the preservation of architecturally/historically significant commercial spaces.

Papers should be of 30-minute duration (including time for introduction and questions) and will be published as preprints. Official languages: English and French. Submissions for posters, demonstrations and videos are also welcome. Abstracts (300-400 words) for all should be submitted by April 9, 1999. Authors will be notified of acceptance by May 31, 1999. Final texts required by August 30, 1999. All submissions should include contact details, a short one-paragraph biography, the title of the submission, and an abstract (300-400 words). Send submissions to: Symposium 2000, Canadian Conservation Institute, Department of Canadian Heritage, 1030 Innes Road, Ottawa ON K1A 0M5, Canada, Tel: (613) 998-3721, fax: (613) 998-4721, james_bourdeau@pch.gc.ca. (C70)

Contemporary Photographic Processes

June 2000. Chicago, USA
Five-day workshop. Complementary to the Rochester Residency Program; also available to a limited number of other conservators. Contact Nora Kennedy, Tel +1-212-650-2168, nora.kennedy@nyu.edu, or Debra Hess Norris, tel. +1-302-831-3489, dhnorris@udel.edu.

Nineteenth & Twentieth Century Finishing of Photographs Materials & Techniques

January 2001. New York, NY, USA
Five-day workshop. Complementary to the Rochester Residency Program; also available to a limited number of other conservators. 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)

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)

of Art for many years. The projects have included upgrading the hanging system for the framed works of art on paper from the Allport Library and Museum of Fine Art, upgrading archival storage for artworks in drawers, and making custom boxes to house the Allport miniature collection. Penny was also employed on contract as the Exhibition Officer for the Mt Wellington Exhibition *Peak and Pinnacle* and, with **Stephanie McDonald**, managed to get the exhibition up amidst renovations in the Allport Gallery.

As usual, at the first sign of a public holiday the flood gremlins come out. During the Christmas break, the humidifier in our sub-master microfilm storage vault suffered a blockage and leaked water onto the floor under the compactus. Luckily, staff who worked between Christmas and New Year discovered it and cleaned up very quickly before any damage was done. The films and other material are being monitored for any signs of mould or distortion.

Conservation Officer **Sandy Hodgson** has been conserving an 1833 linen-backed map of the Ross district by Babington, among other State Library and Archives Office duties.

Queen Victoria Museum and Art Gallery.

Georgia Laakey completed her Professional Practice Unit with Therese in Paintings Conservation. She treated an oil painting, *The First Basin - Launceston* by Gladstone Eyre, 1892. The Nicholas Studio frame is in the process of having the gold overpaint removed to reveal the original oil gilding.

Vicki Warden and **Tamara Hollister** have been busy preparing exhibitions, including **Bea Maddock's** *Terra Spiritus, A Darker Shade of Pale*, for which they designed a mounting and framing system. Bea worked with Paper Conservation for a few weeks preparing the exhibition, an experience both Vicki and Tamara found unique and exciting.

Linda Clark and **Michael Smith** have completed a conservation assessment of items from the Museum's Industrial Heritage Collection required for a new permanent exhibition at the Launceston Industrial Workshops site. Linda also spent a few days in Hobart, helping install the travelling exhibition, *Cargo for the Colony, The Wreck of the Sydney Cove 1797*.

In their spare time, QVMAG conservators have been busy painting furniture in the Museum's new conservation facilities - Paintings chose grey, Paper plum, and Objects aqua.

Victoria

Museum Victoria

The new Melbourne Museum at Carlton Gardens will have an evolution space with two exhibitions, *Darwin to DNA* and *Fossils - Travellers in Time*. The *Darwin to DNA* exhibition, which explains the mechanisms of evolution, will include journals of expeditions of Darwin and Wallace, books illustrated by Gould, as well as many specimens collected and traded during their time.

The fossil exhibition presents the evidence for evolution using fossils from the Museum's collection. Most have not been displayed before and require cleaning, repairs, replacement of unsightly old repairs, removal of deteriorated coatings, and replacement of mounts.

This is a new area for the Museum Victoria's Conservation Department, and the work has required close involvement from the Museum's palaeontologists, and a specialised palaeontological preparator from Monash Science Centre at Monash University.

Another current project is the conservation of CSIRAC - Australia's first computer - which will also be on display at Melbourne Museum. CSIRAC stands for 'Council for Scientific & Industrial Research *Automatic Computer*'. CSIRAC was only the fourth computer in the world to have a stored program function and it was also the first computer to play electronic music. It is believed to be the only 'first generation' electronic computer extant in an intact and 'original' condition, in the world.

CSIRAC was developed in the Division of Radiophysics at CSIRO, Sydney in 1947. CSIRAC is a near contemporary of other early computers such as ENIAC (USA). It was developed by Trevor Pearcey and Maston Beard independently of theoretical and technological developments in computer engineering in the UK and USA. CSIRAC produced calculations for several major projects, including the Snowy Mountains Hydroelectric Scheme and cloud-seeding projects related to rain-making. In 1956, CSIRAC was relocated to the University of Melbourne where it was used by staff and students for numerous projects, until it was retired in 1964 and donated to the Museum. The University of Melbourne has a small collection of objects, films, photographs and paper-based documentation relating to CSIRAC. CSIRAC was displayed at the University of Melbourne for a '50th Anniversary' conference in 1997.

CSIRAC has a floor area of c. 40m² and weighs c. 8 tons. CSIRAC comprises numerous components which range in size from very large to very small. Many components are housed in large purpose-built metal cabinets. Thousands of early electronic technology components were used in its construction. The

project includes an inventory of the assemblage, conservation of components for display at Melbourne Museum, identification of hazards associated with early electronic technology, and identification and management of specific issues related to transport, display, storage and long term preservation of CSIRAC. Conservation of CSIRAC includes treatment of metal, painted metal, wood, plastic, rubber and glass components, as well as compensation for damage and loss to painted metal surfaces. **Catherine Lovelock** is managing this project, assisted by **Catherine Smith**. Liaison with the computer engineers who worked with CSIRAC in the 1950-60s is an integral part of the project.

Penny Edmonds, MV, has been working with **Jude Schahinger**, NGV, to develop a standard lightweight box system for their respective institutions' large collection of Aboriginal bark paintings.

The Museum of Victoria's collection of over 550 barks were surveyed and their standard sizes calculated. Very small and flat barks will be placed in deep drawered plan cabinets, while most of the other barks will gradually be installed into this standard size box system as they come out of their frames and/or existing mounts.

The boxes are made of Corflute (trade name) board (polyethylene) and are reinforced with plastic edges. Each box had a lid made of a lighter grade of Corflute. The boxes are stackable and can therefore be used for relocation and storage. The boxes were manufactured for the Museum and the Gallery by Corex Plastics. Each box was labelled with the bark's registration number and a laminated, coloured digital image of the bark inside, for identification purposes.

The box measurements all fit into a standard long span racking shelving system (e.g. Dexion) because the width of all boxes is less than 1m. Custom made boxes may be made for barks with a great amount of curvature.

Western Australia

Library and Information Service Of Western Australia (LISWA)

Conservation binding of fragile paper:

As the century draws to a close demand is increasing for conservation of bound volumes on deteriorated wood pulp paper. In many cases, there is no point in rebinding the pages after chemical stabilisation and other treatment as access can be provided through user copies, or by allowing use of the unbound items. However, there are many cases where this is not possible. For example, the bound item may have artefact value, there might be

security or legal concerns about leaving the material unbound, or the cost of producing or storing copies is prohibitive.

In the case of small pamphlets and books, encapsulating and then binding the pages has often been a satisfactory and cost-effective solution, but this has not been acceptable for larger volumes. Over the last few months we have been experimenting with some of the ideas discussed in the literature, many based on traditional binding styles such as limp vellum bindings, to try to find some solutions for these larger volumes. This is of particular interest to us for items such as government and scientific reports, ledgers and registers.

We are trying to find binding techniques that will:

- allow flat opening to reduce pressure on the inside margin of the pages, and also allow the possibility of later photocopying or scanning
- otherwise reduce stress on the inside margin of pages, especially the first and last signatures
- reduce stress and future problems with the spine by reducing or eliminating the use of adhesives or shaping

So far we have had some useful results, but since we have been working from journal and newsletter articles we would like to hear from anyone who has been carrying out similar work.

Museum of Western Australia

Ian MacLeod is working on a report for Heritage Victoria on the implications of the corrosion measurements that were done in November 1998 on the wreck of the *City of Launceston* in Port Phillip Bay. From a series of measurements made on the murky site it is clear that the wreck is beginning to "come unstuck", in that the physical integrity of more of the structure is now beginning to fail. If left unchecked with no direct intervention, then the fate of the vessel which has been lying on the bottom of the bay since 1865 is that she will begin to open up and fall apart and so lose her great beauty. This new understanding of the implications of the recent work has only come about as the result of repeated visits and regular corrosion monitoring of the site.

Ian also gave a lecture on the role of science in the preservation of our cultural material of Australian pre-history (Aboriginal Rock Art sites) and of historical, social and cultural history items at the Murdoch University Science Summer School. He has also recently been climbing ladders for the Kings Park Board to help find the missing parts of a Boer War memorial made of beaten copper.

After 25 years of work as a conservator **David Gilroy** has left the WA Museum to return to his native Scotland. During these years David has accumulated a substantial expertise in

photographic and object conservation as well as in the field of climate control for museums. He also was a master in the production of replicas. One plan for his future is to buy and

run a bed & breakfast place and some people are already planning their next holidays.

David is sadly missed by all his colleagues and we wish him the very best.

FURTHER AFIELD

Betelnut and Coca Cola: A Conservator in Micronesia

Vanessa Roth

In October 1997, I left Australia to spend a year as an Australian Volunteer Abroad, working as conservator at the Belau National Museum in the Republic of Palau.

The Belau National Museum was established in 1955, and was the first museum in Micronesia. It is housed in a former Japanese weather station and surrounded by what was once a botanic garden. The grounds include a traditional *bai* (men's house), a few war relics and a bronze sculpture. There are around 13 staff members, including the director, artefact collections manager, media manager and a librarian. All but two temporary staff are Palauan and ten are women. I was the first conservator to work there, although both the media manager and collections manager had participated in conservation short courses overseas.

The artefact collection consists mostly of traditional Palauan items such as carved wooden bowls and storyboards, baskets, fishing nets and spears. Two unusual materials encountered are giant clam shell, often used for adzes and taro pounders, and lime powder, which is used as a decorative inlay material. Most artefacts in the museum are of relatively recent origin, as many ancient artefacts were collected by German anthropologists and placed in European museums. It is hoped that these artefacts will be returned to Palau when a new museum building is eventually built.

The library and media collections are important resources for those producing books or theses on the region. Recently completed works include the first Palauan history textbook and Palauan-Palauan dictionary, and a translation of a Japanese book on the Palauan religion. The media manager, **Simeon Adelbai**, is a trained videographer and photographer and is actively involved in recording cultural and political events.

The museum has helped to encourage the continuation of Palauan culture by organising classes for schoolchildren, such as dancing, weaving and storyboard carving. A recent project involved interviewing and filming master weavers from around Palau. The dynamic director, **Tina Rehuher**, is also a board member of the Palau Conservation Society,

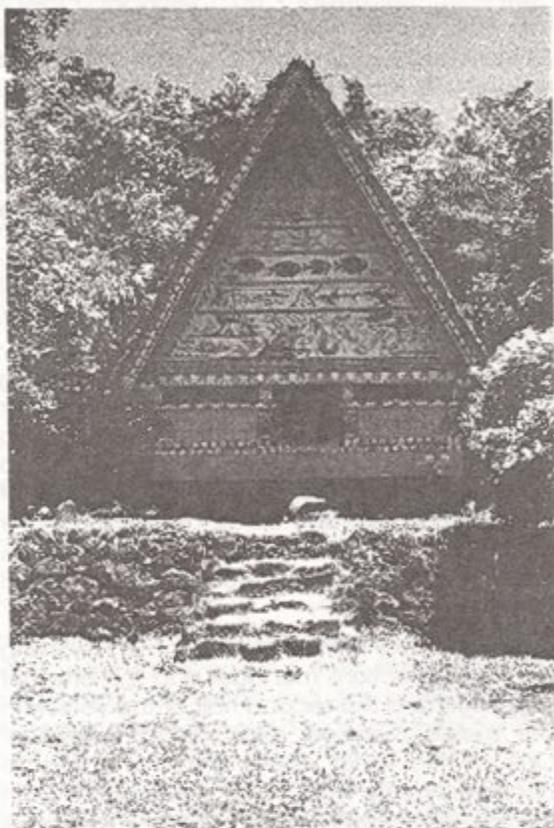
headed the cultural committee for the Micronesian Games and participates in many other regional groups.

The museum is severely underfunded, receiving only staff salaries from the government. Other operating costs are paid for from the gift shop profits; this has often resulted in a concentration on the shop at the expense of exhibition and storage areas. One of the major problems facing the museum is the building, which is extremely cramped and is unsafe due to falling concrete.

I spent the first half of my assignment working with the collections manager and the artefact collection and the second half of the year with the media manager and media collection. One of the main challenges was trying to discover exactly what I was expected to do. I quickly discovered that any ideas would have to come from me, as I was rarely given any specific instructions. While the director had envisaged me training the managers, they themselves did not seem to think that this was necessary. Possibly, my strange accent was off-putting, as I often had to struggle to make myself understood in a nation more accustomed to American English (in fact, I was often asked what language I spoke at home). It may have also been embarrassing for older staff to learn from me. As opposed to our youth obsessed culture, seniority is very valued among Palauans. Because wisdom is seen as something that comes from age, not a University education, it took some time for my colleagues to seek and value my opinion.

The museum has no conservation laboratory and very little available space for treatments. With exhibition, office and storage space so close together, the use of solvents is also problematic. Not having deionised water on tap would be a hardship for conservators in Australia, but the museum often had no running water at all! Perhaps fortunately, the only artefacts that I was asked to repair were some ceramics. I set up a temporary workbench outside, and was able to work only when it was relatively shady. After surveying the majority of the collection in storage, I found that most artefacts were not in urgent need of treatment anyway. The most serious problems were due to crowded storage conditions and insect infestation. I could not rectify the storage problems to a large extent, but I was eventually able to purchase a freezer in order to eradicate insects.

EXCHANGE



A Traditional Palauan bai (men's house)

I concentrated mainly on preventive conservation and spent days running around enthusiastically monitoring the environment with a dial hygrometer and a camera with a light meter. Air-conditioning in the museum is provided by household units, some of which cannot be kept on 24 hours a day. Despite this, relative humidity levels were relatively stable and there were few problems with mould.

Apart from the insect pests, the greatest threat to the collection was people, both visitors and staff. Larger museums are able to inspire a reverence for the artefacts displayed, and most people automatically know it is 'naughty' to touch them or to eat near them. It is difficult for the Belau National Museum to engender the same respect, particularly when many of the items displayed could be found in people's homes. Visitor behaviour began to improve slightly after I placed a list of rules and a rubbish bin by the front door, and removed most of the artefacts from the gift shop area. Not wanting to sound culturally superior, it was often difficult to express my opinion as strongly as I would have in Australia. I never did manage to convince my colleagues not to eat or chew betelnut in the museum. Giving and sharing food or betelnut throughout the day is just as much a part of Palauan society as the tea break is in ours. My attempts to be a good role model broke down one day and I was feeling slightly guilty about handing round a bag of popcorn. But I was somewhat cheered by a colleague, who said that, seeing as I had fed

the insects, they would stop eating the collection for one day!

The collections manager and I discussed putting on a training course in preventive conservation for all the staff. This would help them understand my role, improve handling of the collections and hopefully channel more funding towards the collections. The idea was well received and I ended up with 21 students, including staff from the Belau National Museum, three libraries, National Archives, Cultural Affairs and Peleliu Museum. Never having taught before, I was very nervous, but the *bai* provided a wonderful setting and my colleagues, wonderful refreshments.

The previous museum *bai* having burnt down in 1986, I thought it was particularly relevant to invite the Fire Chief to speak for an afternoon during my course. It caused much amusement when both the chief's fire extinguisher and one from the museum failed, but the students soon began to question the Chief about fire hazards in their various workplaces. I decided to set up a fire safety program, one of the first in Palau. Fire wardens were elected and kitted out with hats, torches and whistles, and the Fire Chief conducted practice fire drills. I wrote an emergency plan, purchased smoke detectors and extinguishers and began to rectify fire hazards. Both museum buildings would be highly dangerous in the event of the fire, and there would be little hope of saving the collection, but I hoped that, by raising the awareness of fire safety, lives could be saved.

One of the special things about working in a small museum was being involved with many different aspects of museum work. I helped out with designing a new exhibition, painting the building and manning the gift shop. Being a native English speaker, I did a lot of writing tasks, including writing letters, a grant proposal, a magazine article, exhibition text and editing the exhibition catalogue. It was especially challenging to write from the Palauan point of view about their culture, the importance of museums and environmental conservation.

Palauans are very unwilling to question or disagree openly. Sometimes, having obtained apparent agreement for a project, I later found that it was somehow slowed by my colleagues. For instance, when I questioned why a sign for the front door was taking so long, I discovered that a similar one had been removed by a past American volunteer. Perhaps observing my talent for disagreeing, my co-workers would sometimes delegate me to raise issues with the director.

I had been asked at the beginning of my contract to write an assessment of the conservation problems at the museum. This document eventually took on epic proportions and to include non-conservation topics such as museum finances and staff issues. After I had submitted my report on the to the director, a meeting was called to which I was not invited. I

was somewhat put out by this, but it later became apparent that doing this would allow the staff to avoid the embarrassment of disagreeing in my presence, and to express themselves more easily in their native language. While the director had initially been upset by my report, I was relieved that, having the approval of my colleagues, many of my suggestions would be implemented.

Cultural change has happened at an alarming rate in Palau. In less than one hundred years, Palau has gone through Spanish, German, Japanese and American control and is now an independent nation. Many of my co-workers had been brought up in a traditional subsistence lifestyle and are now driving cars, shopping at the supermarket and using computers. In a country such as this, cultural preservation is perhaps more vital than artefact conservation.

Working with Palauans is a notoriously frustrating experience for most foreigners. Perhaps this is because, while initially appearing so westernised, it is difficult to understand why they do not work as we do. For one thing, the pace is much slower and more relaxed. This can lead to problems when foreigners expect to accomplish too much too soon. One of the best pieces of advice I was given was to slow down and observe before making changes. Palauans for their part, are probably stubbornly trying to protect the remnants of their culture from change. They are a proud people and have stopped automatically regarding foreign ways as being superior to their own. With the benefit of hindsight, my own frustrations have dissipated and have been largely replaced by respect for a people who are generous, unfettered by rules and regulations, and never too busy to stop for a chat.

TECHNICAL EXCHANGE

Food in Display Spaces

David Hallam is trying to collate information on museum and other collecting institutions' policies on food, displays and storage, particularly with respect to using display spaces to host functions where food may be served. If anyone can help by sending copies of policies relating to food in display spaces it would be greatly appreciated. Any other thoughts or advice would also be welcome. Contact: David Hallam, Senior Scientist, Materials Conservation, Queensland Museum, dhallam@acm.org.

Fiber Tech*: UV curing, fibreglass sheeting

While studying textile conservation in England, a conservation friend told me of an interesting support material used at the British Museum for Japanese armour etc. - flexible, fibreglass sheeting with an embedded resin that cures hard in UV light. After some searching, I have found only one supplier in Australia, and since I thought others might find the product useful, here are some brief details:

- The 2mm thick sheet is quite soft and flexible uncured. It can be moulded to shape and then set hard in 30 minutes exposure to UV light. Both sides of the sheet have a removable plastic cover sheet, one of which covers and adhesive surface that allows a build-up of layers if extra strength is required. However, one sheet appears strong and will flex a long way before breaking.
- A small patch of the sheet (75mm x 150mm) currently costs \$11.00. Rolls

(900mm x 10 metres) currently cost \$700.00 if sent by sea, and \$950.00 if sent by air.

- We have only recently viewed the product at the time of writing and have yet to read the technical data in depth; hence my comments are limited! It is not a conservation grade material and it would require isolation from direct contact with objects, as practised at the British Museum.

My colleagues and I are very enthusiastic about the potential of Fiber Tech*. If you would like further information please contact **Andrew Yule** (supplier) on tel./fax (08) 8271-7424 or ayule@senet.com.au. He has been very helpful and generous with his time.

Sophie Parker, Artlab Australia

National Archives of Australia - An Accredited Testing Facility

The National Archives of Australia, Canberra Lab has become a National Association of Testing Authorities (NATA) Accredited Testing Facility. They have also recently taken delivery of a new moist ageing oven for carrying out Photographic Activity Tests.

For more details, please see the *People & Places* column on page 17.

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Book and Paper

ACT Group News

Cold Suction Table Workshop

Rosaleen Hill

On the 5 November 1998 the University of Canberra's paper conservation lab hosted a one-day Cold Suction Table Workshop. This workshop was jointly organised by **Rosaleen Hill** of the University of Canberra, and the AICCM ACT/NSW Book and Paper groups. Special thanks for assistance in organising the workshop must go to **Kim Tough, Deflev Lueth** and **Dara Rome**. This workshop was designed to act a focal point to jump-start BPG activities in both the ACT and NSW Divisions. The workshop was limited to 21 participants - fifteen participants from the ACT and NSW, and the graduating third-year paper conservation students.

The morning started off with a brief discussion on suction tables by Rosaleen Hill followed by a very informative presentation by **Robin Hodgson** of RH Conservation Engineering on suction table mechanics.

The afternoon sessions were held in the paper conservation lab and were designed to be informal practical demonstrations. Demonstration sessions included; ultrasonic consolidation of friable media with Rosaleen Hill and **Narelle Jarry**; stain reduction techniques with **Kerry McInnes** and Narelle Jarry, and pulp filling with **Ranson Davey**.

The success of this workshop was in large part to Robin Hodgson. Robin arranged to have an array of RH Conservation Engineering suction equipment available for the demonstrations. Of particular interest to most participants was the comparison of solvent reduced adhesive tape stains on the larger low pressure suction table and the smaller high

pressure suction table. The high pressure suction table is able to pull a vacuum of approximately 97 kilopascals - considerably greater than the larger low pressure suction table. In practical terms this means that some stains can be reduced more rapidly and with the use of less solvent.

In an exciting new development for the paper conservation lab at the University of Canberra RH Conservation Engineering has

generously made a long-term loan of suction table equipment. This equipment loan includes a suction table worktop, unit and frame, a high pressure suction system and a suction platen. This equipment will not only greatly increase the training opportunities for students but also offer exciting possibilities for conservation research. Many thanks to Robin and RH Conservation Engineering for their generosity and support for the UC conservation program.

I would like to take this opportunity to welcome **Tracey Golds**, the new Lecturer in Paper Conservation. Tracey started work at the University in mid January. I wish Tracey great success with the paper conservation training program.

Treatment of a watercolour by Norman Lindsay in Conservation Access

Tegan Henderson and Nichola Parshall
State Library of New South Wales.

This large highly coloured watercolour was mounted overall with a spray adhesive onto Masonite. A number of solvent tests were carried out to find the adhesive solubility. Acetone worked but was slow, toluene proved to be the best solvent. Testing was carried out by wicking the solvent under the paper support in a corner where the artist had tested his colours prior to embarking on the major design. We used this area to test solubility and solvent activity. However upon commencing the treatment it was found that the toluene leached up the discoloured adhesive and threatened to stain the watercolour.

The solution to this dilemma was wonderful Goretex. Goretex was applied from one side with a blotter saturated in toluene under glass weights. Due to the toxicity of the solvent the item was released in sections, by using strips of blotter slightly smaller than the Goretex. As the adhesive released from the Masonite, Mylar was slipped underneath to prevent re-adhesion. The backing removal was easily carried out with a minimal amount of solvent. Residue spray adhesive was removed from the reverse of the watercolour using crepe eraser. No staining was evident on either the front or the reverse of the watercolour.

Pre Move Packaging of a Library Collection

Mary Cox, General Preservation Services Manager, State Library of Victoria

Background

The State Library of Victoria is undergoing a multi-stage building redevelopment. In the next phase of the redevelopment, the Domed Reading Room, built in 1913, will be refurbished. The monograph and serial collections housed over six levels of the Dome will be moved to other locations. When the Domed Reading Room reopens in 2001, it will house the La Trobe *Australiana* collection and magnificent exhibition spaces, and will provide public access to the upper balconies.

Methodology

A condition assessment was made of the nineteen linear kilometres of closed-access collection to be moved, and it was agreed that a pre-move packaging approach would be appropriate.

Collection mapping was undertaken by Preservation and Storage staff and packaging sampling was carried out. This formed the basis for costing a proposal and planning the project. The project owner was Alan Howell, Manager, Preservation and Storage Division, and Mary Cox, General Preservation Services Manager, managed the project.

Massive quantities of preservation materials were ordered, including 24 000 polyethylene bags with support boards, 15 000 board boxes, 50 000 labels and 40 000 metres of shrink wrap film and 50 000 support boards. Equipment was purchased and hired in order to set up four packaging stations. After a recruitment drive, four teams each with a team leader were trained in the preventive preservation packaging techniques.

Communication

The four Dome Packaging teams had daily contact with Preservation Packaging staff who assisted with materials supply and trouble shooting. The Project Manager had formal meetings once per week with both groups, and was also prone to make ad hoc visits (management by walk around practice) and reported monthly to the project owner, to discuss progress against targets.

Informative articles giving progress updates were written for regular in-house publications. Liaison with other staff using the collection continued through the project.

Lavish morning and afternoon teas were held on a fortnightly basis to assist with team building and raising staff morale!

Packaging

There were four packaging options: do nothing, box, shrink-wrap or bag with support.

Only inert plastics and acid-free boards were used. Boxing and shrink wrapping also involved labelling.

Monitoring

Daily work sheets for each staff member were maintained. These were collated into weekly team totals, which gave a clear picture of the progress and the types of packaging being used. These results were used for materials monitoring, to track percentage of collections packaged within timeframes and also translated to floor plans to give a visual snap of the state of pack. The latter was a valuable morale-boosting tool. Outputs were compared to a project planning chart though out the project.

Outputs

Nearly 75 000 items were packaged and labelled. This was a fabulous effort by fourteen people over fourteen weeks. The collection has yet to move, however it is very satisfying to walk through the Dome and to view such a huge collection packaged and ready to withstand the impending move.

SMOCM

Sculpture, Monuments and Outdoor Cultural Material

The NSW SMOCM committee meets bimonthly at the Art Gallery of New South Wales to discuss current AICCM issues and to develop and follow through with initiatives to improve the quality of care for outdoor collections of art and artefacts. The agenda for the February 1999 meeting included:

- *Monumental Trackings* - March issue
- National Trust Heritage Festival - AICCM event
- AICCM (NSW) - upcoming activities
- AICCM - Skills Gap Audit of Specialist Conservators
- Call for papers for the Stone Conservation Conference, Venice 1999
- Preparation of a new publication - Manual on Caring for Outdoor Collections
- SMOCM plan for 1999
- Other business

Please consider writing an article about conservation for *Monumental Trackings*. The publication is read by arts workers throughout the country. Your thoughts can make a difference to other people's lives. Contact Donna Midwinter (02) 9225 1735 or Julie Potts (02) 9225 1782 for further information.

Net News

If you come across an interesting web site, please send the address and a brief summary to the Editor.

Chicago Area Conservation Group (CACG) Web Site

This site hosts a Directory of CACG members and their conservation specialities, an archive of past Newsletters, hyperlinks to other conservation related sites as well to the major Chicago Museums, plus a sampling of the events hosted by CACG. Visit the site at:

<http://palimpsest.stanford.edu/cacg/>.

Iron Gall Ink Corrosion web site

<http://www.knaw.nl/ecpa/ink/>

The iron gall ink corrosion web site was developed to inform collection keepers, conservators, scientists and any other interested parties of ongoing research on all aspects of iron gall ink corrosion. The web site also hopes to inform the general public of the incipient threat caused by iron gall ink corrosion to archive and museum collections.

The site offers detailed information on iron gall ink, ink corrosion, current research, and conservation techniques. Images of corroded drawings and manuscripts, an extensive literature list, ink recipes and a complete transcription of the 16th-century 'A Booke of Secrets' are also available.

A discussion list has been established simultaneously with the web site to exchange ideas about iron gall ink. The name of the list is INKCORROSION-L. To subscribe, please follow instructions on:

<http://www.knaw.nl/ecpa/ink/html/discus.html>.

The iron gall ink corrosion web site is a joint initiative of the European Commission on Preservation and Access, Museum Boijmans Van Beuningen, The Netherlands State Archives and The Netherlands Institute for Cultural Heritage.

Disaster Mitigation Web site

A developing web site on disaster mitigation assistance is available at:

<http://disaster.lib.msu.edu/disaster/>. This site is a project of the Baltimore Academic Library Consortium (BALC). The BALC group developed information on disaster recovery of library materials and worked on a list of supplies, experts and services to assist during a disaster. The web site provides a searchable database of these resources and a page to add a resource. While the majority of the resources are from the Washington/Baltimore area contributions from any area are welcome.

New National Trust Web Site

The Australian National Trust has a new web site address: <http://www.nsw.national.trust.org.au>

CCI Publications and Products

The Canadian Conservation Institute's publication and product catalogue can now be viewed and ordered via the CCI's website, <http://www.pch.gc.ca/cci-icc>.

Recent publications include *The Care of Historic Musical Instruments*, edited by Robert L. Barclay, and Technical Bulletin No. 12, *Controlling Museum Fungal Problems*. Alternatively, contact the CCI at 1030 Innes Road, Ottawa Ontario K1A 0M5, tel. +1-613-998-3721 ext. 250, fax +1-613-998-4721, cci-icc_publications@pch.gc.ca.

Global Museum 99

This web site is divided into three main sections: *Global Museum Forum*, where various culture-related discussions take place, *Global Museum Jobs Online*, and the very up-to-date and interesting *Global Museum News*. The latter section links you with recent articles about things affecting the art world. See http://members.tripod.com/~DrDrum_2/Globe4.html for articles about the following: the return of looted European art treasures to descendants of their original owners; the death of Paul Mellon, the US philanthropist; the analysis of ancient Egyptian cosmetics; details of an exhibition of Syria's art treasures that is to travel overseas; and the results of a study of visitors to art exhibitions in North America, Europe and Australia that found that museums played a much more significant role in American cities.

Publications

New Publications available from Archetype

International Perspectives on Textile Conservation. Edited by Agnes Timar-Balazsy and Dinah Eastop. Papers from the ICOM-CC Textiles Working Group Meetings, Amsterdam 13-14 October 1994 and Budapest 11-15 September 1995. Includes *Polypropylene: A Fresh Approach to the Problem of Support for Tapestries* by Sheila Landi, *Re-evaluating Adhesives - Current Work in the United Kingdom* by Linda Hillyer, and *An Introduction to the Wet Cleaning of Carpets* by Sarah Howard.

Paintings Conservation Catalogue Volume 1: Varnishes and Surface Coatings. A project of the Paintings Specialty Group of the American Institute for Conservation (AIC), compiled by Wendy Samet.

Look After the Pennies: Numismatics and Conservation in the 1990s. Dana Goodburn-Brown and Julie Jones (editors). Proceedings of a seminar held at the museum of London. Divided into two main sections: *New Developments in Analysis and Conservation*, and *Screening and Prioritising of Large Excavated Coin Groups*.

Conservation of Natural History Collections. By David Carter and Annette Walker. Recommendations and advice for natural history curation, excluding palaeontology. Also covers the physical care of botanical and zoological collections for scientific, teaching and display purposes.

Conservation of Brick. By John Warren. Describes historic brick and terracotta and the causes of failure and decay, and provides an analysis of available materials and applicable conservation philosophies.

The Deeper Picture: Conservation at the National Gallery of Ireland. By Andrew O'Connor and Niamh McGuinne. This catalogue accompanied an exhibition held at the National Gallery of Ireland which coincided with the ICC Congress in Dublin last September. The exhibition was designed to demonstrate to the public what goes on in a conservation studio and the various processes employed in caring for a collection.

Contact: Archetype, 6 Fitzroy Square, London W1P 6DX, +44-171-380-0800, fax +44-171-380-0500, orders@archetype.co.uk.

Pacific Islands Directory of Libraries and Archives

A new Directory of Pacific Islands Libraries and Archives has been compiled and by the Pacific Island Association of Libraries and Archives (PIALA) and the Australian Library and Information Association's (ALIA) Asia and Pacific Special Interest Group. It provides an up-to-date library and archives directory for individual Pacific Island nations and territories. Copies are available for \$AU12 for ALIA members, \$AU15 for non-members, including postage and handling from the Australian Library and Information Association PO Box E441 Kingston ACT 2604 Australia tel. (02) 6258-1877 fax (02) 6282-2249. Prepayment is required.

Recent Titles from the Getty Institute

Investigating Damage Caused by Salts - Scientific Update. Carlos Rodríguez-Navarro and Eric Doehne. Scientific articles on the research will be added to "Research Webstracts" on the GCI's website, www.Getty.edu/gci, as they become available.

Painted Wood: History and Conservation. Proceedings of a Symposium at Williamsburg,

Virginia, November 1994. Edited by Valerie Dorge and F. Carey Howlett.

The Structural Conservation of Panel Paintings. Proceedings of a Symposium at the J.Paul Getty Museum, April 1995. Edited by Kathleen Dardes and Andrea Rothe.

Oxygen-Free Museum Cases. Shin Maekawa. Includes details on the design and construction of an oxygen-free, hermetically sealed display and storage case developed by the GCI.

Inert Gases in the Control of Museum Insect Pests. Selwitz and Maekawa. A compendium of information on the biological mechanisms by which non-toxic gases kill insects, the methods and materials needed to create and maintain an anoxic atmosphere and the procedures for treating objects.

Contact: Getty Trust Distribution Center, Dept GE28, PO Box 49659, Los Angeles CA, 90049-0659 USA, tel. (310) 440-7333, fax (818) 779-0051, or order on the web:

www.getty.edu/publications

Caring for Old Master Paintings: Their Preservation and Conservation.

By Matthew Moss. Aimed at museum curators, conservators, private owners and anyone who looks after paintings. Includes information on how to choose the safest environment for your paintings, how to avoid faulty hanging that may cause damage, and how to maintain and care for your painting. Published by the Irish Academic Press, Kill Lane, Blackrock, County Dublin, Ireland Tel +353-1-289-2922 fax +353-1-289-3072.

Supplier's Corner

RH Heated Spatula and Lining Iron

RH Conservation Engineering is now offering a new heated spatula and lining iron, featuring rapid heat-up, accurate temperature control, integrated over-temperature safety systems, and a wide range of shapes of irons and spatulas. The tool is manufactured to International Electrical Standards, so, according to their promotional material, "you will not have a shocking experience from this product!". Contact: RH Conservation Engineering, tel. (03) 5989-2919, fax (03) 5989-2203.

New Website for Barcham Green

Barcham Green now has a web site at <http://members.aol.com/Simongreen/bgreen/>. The site includes lists of handmade paper, LZ tissue, moulds and woollen felts, and information regarding the Barcham Green archives. The

most recent Newsletter also appears, which gives details of a winter sale with discounts of up to 25% on bulk orders. This information is also available from Simon Green at Simongreen@aol.com.

Polypropylene Solander Boxes

3R Packaging Services Pty Ltd now has three sizes of Solander boxes available, made from archival-grade fluted polypropylene. They have been developed in conjunction with the National Maritime Museum. Prices range from around \$25.00 to \$85.00 each. (Minimum quantities apply). Contact: The National Maritime Museum Conservation Section, 13A Union Street, Pyrmont NSW 2009, Tel (02) 9552-7763, Fax (02) 9552-2318, vbullock@anmm.gov.au OR 3R Packaging Services Pty Ltd, 7 Ocean View Road, Gorokan NSW 2263, Tel/Fax (02) 4392-3347, Mobile 0418-405-306, 3rpackag@acay.com.au. 3R are agents for COREX Packaging systems.

Training Courses

RCA/V&A Graduate Conservation Program

The Royal College of Art and the Victoria and Albert Museum are offering the following graduate courses in 1999/2000. To apply or for more information, contact Sarah Dodman, Course Secretary, School of Humanities, Royal College of Art, Kensington Gore, London SW7 2EU, tel. +44-171-590-4483, fax +44-171-590-4490, s.dodman@vam.ac.uk. Further information can be found on the web site <http://www.rac.ac.uk/courseinformation/humanities.conservation.htm>.

MA

- Ceramics and Glass Conservation: Reverse-Painted Glass (2 years)
- Book Conservation: Albums (Photograph Albums preferred) (2 years)
- Conservation of Ethnographic Materials: Possible emphasis on musical instruments, in collaboration with the Horniman Museum (2 or 3 years)
- Conservation of Social History Objects: Collaboration with the Museum of London (2 or 3 years)
- Conservation Science: Collaboration with the British Museum (2 or 3 years)

MPhil/PhD

- Management & Risk Assessment: The Impact of Special Events on the Contents of Historic Buildings. In collaboration with English Heritage (scholarship available).
- Technical Study of Objects: Non-invasive Methods for Wood Identification

- Technical Study of Objects: Materials and Techniques of Drawings on Paper (to be confirmed)
- History and Ethics of Conservation
- 20th Century Materials in Art, Craft & Design: Historical Research
- Applications of Computers in Conservation.

Other research themes that may be considered in individual proposals are as follows: *Methods of Display; Metal Patination; and Conservation Treatment: Surface Studies.*

Care of Collections – A New MSc at Cardiff University

This one-year course is open to both those with and without a background in conservation. It examines the wide range of issues affecting the survival of collections and aims to extend the scope and use of research in collections care. The course is designed for those pursuing careers as curators, conservators, consultants and researchers.

The course examines aspects of climate, building design and construction, building services, organisational structures, and management issues which impact on collection survival. A thesis will be prepared that focuses on collections care. Students will be given the opportunity to conduct this project at a museum or similar organisation. The project may focus on areas which would normally be difficult to address within the ongoing work of the organisation.

The course is open to those who have an upper second class undergraduate degree (UK) or its equivalent. A part time option, taken over two years, is also available. For further details about this course, the BSc in Archaeological Conservation or the MSc in Conservation taught at Cardiff please contact:

StevensonSA@cardiff.ac.uk or see

<http://www.cf.ac.uk/uwc/hisar/conservation/>, or write to Phil Parkes, School of History and Archaeology, Cardiff University, PO Box 909, Cardiff CF1 3XU, Wales.

Conservation Courses at De Montfort University, Leicester

The Conservation and Restoration Unit at De Montfort University in Leicester offers conservation programs at postgraduate and undergraduate levels. Programs include a year-long Higher Education certificate in Conservation and Restoration, a three-year BA Honours in Conservation and Restoration, a one-year MSc in Conservation and Restoration, and a MA in the Conservation of Historic Objects (1 or 2 years). Teaching expertise includes the following areas: archaeological and ethnographic collections, social history material, ceramics, glass, and stone, painted and

decorated surfaces, and gilded frames. For information contact Carol McFarlane, Student Admissions, De Montfort University, Chad Varah House, Wordsworth Street, Lincoln LN1 3BP, Tel +44-1522-512-912, fax +44-1522-895-147.

Art Conservation Studies Graduate Certificate at the University of Melbourne

The University of Melbourne offers a *Graduate Certificate in Art Conservation Studies* as a collaboration between the Ian Potter Art Conservation Centre, the Ian Potter Museum of Art, and the School of Fine Arts, Classical Studies and Archaeology. The certificate is an intensive four-week course equivalent to 50% of a year's study. It provides an introduction to theoretical and practical aspects of the conservation of works of art. Applicants need to have either a bachelors degree majoring in Art History (Fine Arts) or in a related area, or professional experience in public or commercial museums or galleries. Subjects include: *Issues in Art Conservation, Art Conservation Appraisal and Planning, Introduction to Conservation Techniques, Conservation Certificate Research Essay*. Contact: the School of Fine Arts, Classical Studies and Archaeology, Old Pathology Building, the University of Melbourne Parkville Melbourne 3052, Tel. (03) 9344-7019, fax (03) 9344-5563 fine.arts@finearts.unimelb.edu.au, <http://www.arts.unimelb.edu.au/Dept/FineArts/FineHome.html>, or Ian Potter Art Conservation Centre, Physics Annexe, The University of Melbourne, Parkville, Victoria 3052, Tel (03) 9344-7989, fax (03) 9347-7448, r.sloggett@art-museum.unimelb.edu.au.

Masters Degree: History of the Book

A new one-year Masters program offered by London University consists of a series of three taught segments and a dissertation. Core subjects aim to give a broad introduction to book history and include: the physical aspects of the book, its manufacture and trade, the role of the book in understanding literary texts, and the social, cultural and intellectual impacts of book manufacture. Elective courses may include the following: *Authors, Publishers and Textual Theory; The Serial and the Book; The Medieval Book; The Electronic Book; Texts and Images: Book Illustration and Art Publishing since 1830; Western Book Structures: Materials, Construction, Preservation; and The Italian Book*. The next course begins in September 1999. For more information, contact the Course Tutor, The Centre for English Studies, Senate House, Malet Street, London WC1E 7HU, Tel.+44-171-862-8675, ces@sas.ac.uk, www.sas.ac.uk/ces/default.htm.

Chemistry for Conservators Correspondence Course

September-December 1999. Tutors: **C.V. Horie** and **Dr D. Kenyon**. The syllabus concentrates on major conservation issues, for example, types of materials, the environment, cleaning and deterioration. The course is divided into four blocks: *Introduction, First principles, Chemistry in action, and Chemistry and the conservator*. The course comes in three packs: a home experiment kit, a set of study packs, and four relevant publications. Participants are assessed monthly on the results of their experiments and their written work. Another course will start in January 2000. 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.

Fellowships

The Andrew W. Mellon Fellowship in Textile Conservation

Textile Conservation Center, American Textile History Museum. See the December 1998 issue of the Newsletter for more details. Application deadline March 31, for September 1 program start date. Send letter of interest, curriculum vitae, and three letters of recommendation to: Deirdre Windsor, Director/Chief Conservator, Textile Conservation Center, American Textile History Museum, 491 Dutton Street, Lowell, MA 01854. For information contact Cristin Lind, clind@athm.org.

Advanced Residency Program in Photograph Conservation

Rochester, New York. Funded by the Andrew W. Mellon Foundation. See the December 1998 issue of the Newsletter for more details. The George Eastman House and the Image Permanence Institute will offer advanced-level, two-year residencies in photograph conservation beginning in September 1999. Priority is given to American students, but non-Americans are not specifically excluded. Stipends may be available for students. The application deadline for this year's admissions was March 1, but for information on the next round of admissions, contact Grant B. Romer, Director of Conservation and Museum Studies, George Eastman House, 900 East House, Rochester, NY 14607. Tel. (716) 271-3361. For detailed information, please contact Grant Romer, Tel +1-716-271-3361 or James Reilly +1-716-475-2306, jmrpph@rit.edu.

National Gallery of Art Conservation Division

William R. Leisher Memorial Fellowship for Research and Treatment of Modern Paintings.

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 treatments 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. Lectures, symposia, and informal discussions contribute to the fellowship program, in addition to the significant resources of the Gallery, including the library, the photographic archives, and the scientific research department.

Eligibility: Graduates from recognised 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.

Application Procedure: Interested candidates must submit the following material:

- 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 0 U.S.A. E-mail address for inquiries only: 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.

REVIEWS

Conference/workshop on Emergency Planning and Disaster Management for ASEAN Museums and Heritage Institutions

Heather Mansell, State Library of New South Wales

The conference/workshop was held at Bandar Seri Begawan, Brunei Darussalam, 7-10 December 1998.

This conference/workshop was organised by the Brunei Museums Department, Ministry of Culture, Youth & Sports, and the ASEAN Committee on Culture and Information (COCI). In attendance were delegates from each ASEAN country, as well as observers and local Brunei participants, a total of sixty three people.

The conference/workshop aimed to provide a platform for ASEAN heritage personnel to discuss problems in emergency and disaster management and to create a regional network on the topic. Longer term objectives include sustaining institutional connections and furthering the training of regional specialists.

I was fortunate enough to be one of three consultants invited to this event, to make presentations and assist the delegations in the formulation of a guideline on the topic. Due to Australia's physical location in the region, it was agreed that I would draft the guideline from the information collected.

Each delegation reported on emergency planning and disaster management for their respective museums, archives and libraries. As might be expected, throughout the countries there is an incredible diversity in levels of awareness, resources and progress towards emergency planning and disaster management. Some have relatively sophisticated programs operating, with basic procedures in place. At the other end of the spectrum, reaction to problems by crisis management is the norm; technology is low level and new buildings and facilities are required but not necessarily forthcoming.

Professor **Herb Stovel**, International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), Italy, provided a stimulating big picture presentation from an international perspective. He introduced the

Blue Shield Movement (a bit like the Red Cross, only for cultural heritage, both movable and immovable) and its international initiative to improve risk preparedness for cultural heritage. Apparently research shows that most countries adhere to the agreement not to attack Blue Shield identified sites. However, during internal conflict, these sites are often targeted because their destruction has such a demoralising effect on the community.

Dr Yujiro Ogawa, Asian Disaster Reduction Centre, Japan, discussed various disasters around the world, their effects and regional characteristics. It was very interesting to hear about the Kobe earthquake and his own experiences in the aftermath. He also made insightful points about the life cycle of a disaster as it moves through *daily life to disaster occurrence to emergency response to rehabilitation and reconstruction*. Once we have been through the rehabilitation stage, we quickly forget and move on to daily life. The disaster is forgotten and put out of mind, so that we do not prepare for the next incident, which invariably does occur. This very regional perspective was most apt given recent events.

My presentation focussed on developing counter-disaster/risk management for institutions and collections. My intention was to provide participants with direction in preparing policies and plans for their own institutions. The key issues in formulating a simple policy document to set the framework for a plan included: gaining commitment from senior staff; obtaining input from the stakeholders; and coming to agreement on authority and delegations during unusual circumstances. The four phases of risk management were discussed and illustrated: prevention (risk analysis and looking at possible threats), preparation (producing a plan), reaction and recovery.

Due to the work of *AusHeritage*, Australia's network for cultural heritage services, and other individuals in the field, there is now a recognition that Australia has skills to offer which previously would normally have been sought from the UK and USA. Our close proximity to the region puts us in a good position to provide these skills and services.

We need to continue to collectively market Australian conservation skills in the region and further strengthen our long term relationship with the ASEAN nations.

Japanese Paper Conservation Seminar 1998

Johann Alcock, State Library of Victoria

In December 1998 I attended the Japanese Paper Conservation Seminar (JPC'98) in Kyoto, Japan. The Seminar was organised by ICCROM and the Tokyo National Research Institute of Cultural Property (TNRICP). It was a follow-on

meeting from the various Japanese Paper Conservation (JPC) Courses that have been held annually in Japan since 1992. The purpose of the seminar was to allow the organising institutions to meet with past participants and review the success of the courses over the past six years.

In early 1998 ex-participants were contacted by ICCROM and asked to submit papers for possible inclusion in the seminar. It was asked that the papers relate to the application of or issues raised during the JPC courses. A total of 15 papers were accepted, representing conservators from 14 different countries. My paper was on the treatment of an oversized oil painting on paper on canvas, which relied on several Japanese techniques to ensure its successful treatment. Fortunately generous funding from the Japan Foundation, Agency for Cultural Affairs and Foundation for Cultural Affairs in Japan meant that those of us lucky enough to attend received a full scholarship to travel to Japan for the meeting and to partake in a short study tour.

Apart from the ex-participants the seminar involved past and present organisers from ICCROM and TNRICP. Phillip Meredith who had worked for several years in Japan as a conservator and now works at the Far Eastern Conservation Studio at the National Museum of Ethnology, Leiden, was asked as Key Note Speaker.

The papers covered a variety of topics including the treatment of wallpaper, works on spider webs and miniatures, to general impressions of the benefit of the course. One of the major issues the organisers wanted to address with the seminar was how the course should be altered or adapted to become more useful. It is a compliment to the organisers that it was unanimously agreed that the present structure of the course met its aims successfully and no major changes could be recommended.

However, one of the very exciting outcomes of the seminar is the possibility of a more advanced course being developed for ex-participants and those working closely with Far Eastern collections. If this course goes ahead, it will run on alternative years to the original JPC course. It is hoped that the outcomes and papers from the course will be published later in the year giving a wider audience information about the course and its outcomes.

The seminar part of the trip was stimulating but exhausting. So we all wound down with a 2-day study tour at the end of the week. The tour took us to the Mino paper-making region where we visited two paper-makers and the prefecture's paper museum. This region is known amongst other things for the high quality paper they make for the Japanese doors and windows. The opportunity to view first hand the making of these papers is invaluable in understanding the nuances of the art form. Apart from the more scholastic pursuits of the tour we were also

treated to a night in a Japanese style hotel complete with tatami mats, futons on the floor and a complicated Japanese banquet.

In a short summary it is impossible to cover everything; however, anyone interested in gaining more information about the JPC courses, this seminar, or the paper-makers please do not hesitate to contact me.

Book Review

Conservation and care of collections, Western Australian Museum, 1998, D Gilroy and I Godfrey (eds).

Kate Walsh, Curator, Migration Museum, Adelaide, South Australia

This is an impressive new publication from the Department of Materials Conservation at the Western Australian Museum. Over the years, the Museum has provided information on conservation management strategies specifically for small museums, historical societies, and the private collector.

The editors state that the intention of the publication is 'to provide an holistic approach to the care and conservation of movable cultural material'. The first chapters offer general guidelines and information on preventive conservation, on mould and insect attack and on artefact treatments. The range of artefact types dealt with in the following chapters is very extensive, and often beautifully illustrated - reflecting the varied and eclectic nature of most collections held in small museums, historic houses, historical societies and archives, and by private collectors.

The intended emphasis is on preventive conservation measures that workers - volunteer and paid - within small museums can implement to prevent the deterioration of items held in their collections. The history and distinguishing characteristics of each artefact type are also included, as are some hands-on treatment methods.

There is some tension in the publication between offering preventive conservation advice on the one hand and giving detailed information on hands-on conservation treatment on the other. It is of some concern that a little bit of information in the hands of untrained people could potentially lead to damage to artefacts whose conservation treatment, in hindsight, would have best been left to professionally trained conservators. To give the editors and individual contributors their due, the publication is liberally sprinkled with warnings to consult trained conservators before attempting hands-on treatment. The warning to consult before proceeding is certainly a sound message to emphasise, and encourages small museum workers to understand that the conservation and care of their collections is

ultimately a collaborative effort between them and conservators.

Although the publication is aimed at local museums and historical societies which are, as we all know, mostly staffed by groups of well-meaning, dedicated volunteers, the language is rather academic in tone, as is the lay-out and presentation of information. The print is small and the pages crowded with information - there is just so much to absorb. Some of the best advice is in danger of being lost in wordy sentences and lengthy paragraphs. The summary at the end of each chapter is much appreciated, therefore, and perhaps could have been given more prominence in the graphic design of the book.

Although the stated emphasis is on preventive conservation measures, there were some puzzling omissions, and useful information and advice was sometimes mentioned in a chapter on a particular artefact type, but not mentioned in the general chapter on preventive conservation. As an example, only the chapter on paintings emphasised the importance of documentation as a conservation management strategy, when in fact knowing what's in your museum collection, maintaining accurate records, and knowing the location of items is a fundamental practice in the care of collections. There was also no advice on, or only oblique reference to, disaster preparedness and response. Also, straightforward, practical advice on how to arrange and fit out storage areas, and on general housekeeping practices would have been appreciated. Do you use a vacuum cleaner or a broom to clean storage and display areas? Do you wipe over artefacts on display with a duster? Trivial questions, maybe, but ones with implications for the long term preservation of artefacts.

Despite the above criticisms, *Conservation and care of collections*, is a valuable publication, and one that should be acquired by all small museums, historical societies and private collectors. It is not intended as a one-off read, but should be used frequently as a reference in the day-to-day care and handling of artefacts, and as a useful tool in discovering more about the history and characteristics of artefact types.

A Visit to Pitcairn Island

Jon Carpenter, Western Australian Museum

The Pitcairn Project was initiated and led by Maritime Archaeologist **Nigel Erskine** who is based at James Cook University in Queensland. During November, December and January the project team conducted an archaeological investigation of the remains of *HMAV Bounty* and land sites associated with the mutineer crew. My role was to be the expedition conservator and photographer/videographer.

Pitcairn is a small volcanic island situated in the South Pacific Ocean. It is roughly 2170 km from Tahiti, 5310 km from the island's administrative headquarters in New Zealand, and 6600 km from Panama.

Ships occasionally call at Pitcairn en route to and from the Americas but my journey was by air and sea. The island of Mangareva, in the Gambier Islands, has the nearest airstrip. A 10 metre yacht awaited us at the wharf, soon to be filled with 8 persons and far too much luggage. After three sailing days, 490 km of the incredibly blue Pacific had passed under the keel, our track clearly marked by a trail of regurgitated foodstuffs from the yacht's pantry. Our medical doctor, who regularly travels by ship to Antarctica, suffered the most.

Dawn of the third day and Pitcairn appeared as a black silhouette against a pink and purple sky. No relief just yet as the documentary film crew had to re-enact our arrival. Sometime later one of the island's aluminium longboats took the party ashore.

Pitcairn is steep and cliff-bound. The track from 'The Landing' is named 'The Hill of Difficulty' and just as it was an arduous climb for Fletcher Christian and his descendants it proved to be for ourselves. Occasionally we were given a lift by four wheel motorbikes but frequently climbed the hill following exhausting dives on the Bounty site.

The remains of *The Bounty* lie 50 metres offshore, in Bounty Bay - a sign pointing out to sea informs you of this. A quantity of iron ballast blocks and a single 1.8 metre, 4 pounder cannon are prominent features of the wreck site. There are also pieces of copper sheathing, sheathing tacks from the vessel's hull, and lead - some of it melted from when the Bounty was burnt to minimise the chance of its discovery by the Royal Navy.

Working the site was difficult due to the strong underwater surge - divers were constantly moved by the sea and frequently displaced from the area being investigated. Despite these difficulties excavation resulted in the recovery of several cannonballs, musket balls, and some rope and timber. A find of particular interest is a spoon made from copper

sheathing. Corrosion measurements were acquired from the cannon and ballast.

Excavation of land sites associated with the mutineers and their descendants revealed broken crockery (some initialled) and broken bottles. A musket trigger guard, which has been accurately dated to the mutineer arrival period of 1790, was found lying amongst boulders on the shoreline of an area known as 'Down Isaacs'. Conservation procedures involved photographing, de-concreting, and constructing appropriate storage for artefacts. All finds including the last of *The Bounty's* cannon will be taken to the Queensland Museum for conservation, and after a short-term display in the new HMS Pandora museum they will be returned to Pitcairn.

Proposals for a new museum on Pitcairn are to be considered. Two illustrated talks were given to the island community, the first on the conservation of a cannon recovered from the sea, the second, somewhat ironically, was about the excavation of *HMS Pandora*, the ship sent by the British government to seek out and capture the Bounty mutineers. Underwater video of work on the Bounty site was shown to the Islanders and some ten school children who also participated in a land dig. This dig resulted in the recovery of fastenings, sheathing and parts of a swivel gun collected from the Bounty site several years ago and subsequently buried following the destruction of an island home by fire. Near Thursday October Christians' house, an island toilet pit, or *duncan* as they are known on Pitcairn, was excavated to a depth of about 4 metres. Unfortunately the collection of bottles etc found dated from around the 1930-40s.

To assist the museum curator and the Islanders in general a copy of the Department of Materials Conservation, Western Australian Museums' new handbook *Conservation and Care of Collections* was presented to Pitcairn. The island's small museum collection was re-labelled using computer generated printouts, and a display case containing incompatible artefact materials dealt with - essentially, iron cannonballs had been placed in open containers of water along with paper objects and a film projector.

Keeping a photographic and videographic record of all these activities took up most of my time. It would be remiss of me to not mention the other team members: **Peter Veth**, **David Roe**, **Martin Gibbs** and **Mike Nash** were involved in aspects of land and underwater archaeology. **Peter Sullivan MD** looked after the health of the expedition members and that of the local community.

Just a concluding note - I determined to sleep the entire return journey in the yacht and duly went to bed just after our evening departure.

At one thirty in the morning I was disturbed by something irritating my neck - assuming it to be a cockroach I brushed it aside. The annoyance persisted so I vacated my bunk to investigate. A torch revealed a large black and poisonous centipede where my head had been.

Reluctant to kill anything but keen to get back to sleep I dispatched the creature, pushed my mattress over the body, put my head at the opposite end of the bed and slept for three days!

RESEARCH NEWS

If you would like to report on the status of a research project currently underway in Australia, please contact the Editor.

Infra-red Project

Introduction:

Recently the Ian Potter Museum (University of Melbourne), in collaboration with the University of Canberra, the Art Gallery of NSW, Artlab (Adelaide), the National Gallery of Australia, the National Gallery of Victoria, and the Queensland Art Gallery, made a successful application to the Australian Research Council for a Research Infrastructure Equipment and Facilities (RIEF) grant. The grant will partly fund a project using infrared and digital imaging to study the underdrawing in Australian and European paintings and watercolours.

Background:

It has long been recognised in the conservation field that there is a growing demand from conservators, curators, scholars, art historians, and the public for more information concerning the materials and techniques of Australian artists. That there is a lack of such information is due mainly to the widespread lack of technical and scientific instrumentation easily available to most art institutions. In April 1998 the Art Gallery of NSW hosted a meeting to discuss strategies to address this problem.

The meeting acknowledged that there are two main components of information gathering. Technical examination, such as ultra-violet fluorescence, infra-red reflectography and x-radiography, is appropriate to the understanding of the artist's techniques. "High tech" scientific instrumentation such as GCMS, SEM-EDX, FTIR and Raman spectroscopy is needed for identification of the materials.

It was thought that realistically only the former component - technical examination - was within easy reach of most conservation laboratories. Several already have pieces of equipment, few have all. Scientific instrumentation, being more expensive and requiring more expertise, was considered to be better consolidated in fewer places, with extensive use being made of existing facilities, such as university scientific departments.

As well as gathering information it was recognised that there should be either an organised repository/database or at least

better availability and distribution of this information after it was collected. From this was born the idea of a more collaborative approach to the study of Australian artists, germinating into the formation of an *Infrastructure for the Distributed National Network for Scientific Analysis of Artwork*. (Well we had to call it something!). Representatives from the aforementioned institutions have formed a 'Steering Committee' to initiate the setting up of this infrastructure. They are as follows:

Professor Jaynie Anderson, University of Melbourne, Fine Arts

Ms Robyn Sloggett, University of Melbourne, Ian Potter Museum

Ms Benita Johnson, University of Canberra, Conservation Course

Ms Susie Bioletti, National Gallery of Australia, Conservation

Dr Richard Beresford, Art Gallery NSW/ University of Sydney, Curator

Mr Stewart Laidler, Art Gallery NSW, Conservation

Ms Rose Peel, Art Gallery NSW, Conservation

Ms Paula Dredge, Art Gallery NSW, Conservation

Mr John Hook, Queensland Art Gallery, Conservation

Mr John Payne, National Gallery of Victoria, Conservation

Mr Michael Varcoe-Cocks, National Gallery of Victoria, Conservation

Ms Helen Weidenhofer, Artlab, Assistant Director

Initially the Steering Committee decided to focus on infrared and digital imaging of underdrawings. An inventory and wish-list identifying present and future resources was drawn up by each institution. On behalf of the collaborating partners, Robyn Sloggett and Professor Jaynie Anderson applied for a Research Infrastructure Equipment and Facilities (RIEF) grant.

The aims of the initial project are:

- To facilitate the accumulation of resources in the form of specific technical examination equipment and to provide a national infrastructure for the imaging of art works.

- To institute models of collaborative research encompassing the conservation profession and its neighbouring fields of research at a National level.
- To encourage the development of expertise in the use of the equipment and the dissemination of information made available by its use.
- Dissemination of information to both the National and International body of conservation, the institutions of cultural heritage and various forms of educational institutions, and through these mechanisms to the general public.
- To foster and encourage the ongoing development of the Australian Conservation profession at both National and International level.
- To assist in the positioning of Australian art in an international context and encourage the recognition of its value through undertaking research into Australia's movable cultural heritage.
- To ensure an efficient and cost effective distribution of resources through the management of the project by committee.

Project Summary:

The following is a copy of the Project Summary identifying the direction of the committee and the reasons for its creation.

This proposal will provide infrastructure for the Distributed National Network for Scientific Analysis of Artwork supporting research into Australian artists, their materials and techniques, and supporting the care and conservation of works of art in the Distributed National Collection. At present there is a disparate resource base for scientific analysis and technical examination of works of art. This means that important pieces of the jigsaw are missing to enable comprehensive solutions to research problems. This proposal seeks to address limitations of current infrastructure and equipment in areas of macro analytical, micro analytical and of research program management by:

- *Assisting the accumulation of resources for research activity, primarily through infrastructure development of a national data base of infrared images relating to key Australian works of art.*
- *Supporting models of collaborative research encompassing art conservation and fields of neighbouring research at a national level by strengthening the existing national network of researchers and instrumentation, in particular supporting Raman spectroscopy to provide a comprehensive atlas of art materials.*
- *Ensuring efficient and cost effective distribution of resources through a strong management structure which will support*

research directions within the group, and ensure the ongoing availability of a suitable range of key instruments to provide complementary analysis.

Researchers will use the information from infrared and Raman equipment to develop infrared and Raman databases for provenance, authentication, art historical and art conservation purposes. The participating institutions are providing over \$113,500 in cash and \$162,362 in kind to support this program.

Conclusion:

\$140 851 was sought from RIEF and \$120 000 has been granted, which is earmarked for the infrared project. The Network will discuss projects that could successfully be undertaken on a national level, such as comparing the underdrawing of oil paintings with the drawings of Eugene von Guerard, who has been preliminarily investigated by the Art Gallery NSW, the National Gallery of Victoria and the State Library of NSW. Major areas of research will in no way preclude any individual research that is considered to have national and international merit. Strategies are being investigated to encourage ideas and participation in the project. The storage and access of the information will be discussed at future meetings.

Stewart Laidler, Rose Peel and Susie Bioletti

1998 Student Research Projects at the University of Canberra

Overleaf is a list of student research projects completed in 1998 at the University of Canberra. In the past, it was possible to obtain copies of specific reports from the Conservation of Cultural Materials Course. Unfortunately, this service is no longer available for various reasons. Firstly, due to severe cutbacks in university funding, the course no longer has an administrative assistant. Secondly, the academic staff agreed that it is not appropriate to make available student work that has not been revised after assessment and is not of publication quality. Lastly, many past projects, which had been housed in the Resource Room of the CCM, appear to have mysteriously disappeared.

The authors of individual projects could be directly contacted to request copies of their reports. Perhaps this might also act as an incentive to have more valuable research edited and submitted for publication! The AICCM Bulletin is always in need of more articles.

Benita Johnson, Course Convenor,
Conservation of Cultural Materials, Division of
Science and Design, University of Canberra
ACT 2601

Objects

- **Marianne Boet** *An investigation into the effects of saddle soap on vegetable-tanned leather.*
- **Monica Cooper** *The consolidation of stress cracked plastics by capillary condensation from the vapour phase.*
- **Helen Privett** *Ultrasonic cleaning of feathers.*
- **Catherine Smith** *The deterioration of acrylic sheet at the National Gallery of Victoria.*

General

- **Andrew Pearce** *Development of a low cost facility for the thermal eradication of insect pests.*

Metals

- **Kent Jarman** *Electrochemical noise measurement for the appraisal of aqueous based inhibitors on mild steel*
- **Kyle Roth** *An investigation of two proprietary products, 3M Corrosion Guard™ and 3M Anti-Tarnish Paper Tabs*

Paper

- **Stephanie Baily** *Capillary Washing of paper.*
- **Kate Glen** *Oil paint on paper: the effect of oil on cellulose*

- **Rowena Jameson** *Preliminary investigation into the characteristics and components of water-soluble crayons.*
- **Lisa Jeong** *Dry mount tissue removals on black and white resin coated prints.*
- **Rachel Stoneham** *Disinfection of mould attacked paper with ethyl alcohol.*
- **Joy Tonkin** *Iron gall ink corrosion: Investigation into the use of phytic acid to inhibit the corrosion process.*

Paintings

- **Sophie Brain** *An investigation into the effect enzymes have on paint films and their clearance.*
- **Sian Griffiths** *An investigation into the suitability of Regalrez 1094 as a binder for retouching paint.*
- **Georgia Larkey** *An evaluation of two acrylic dispersion adhesives for the purpose of lining a painting.*
- **Catherine Nunn** *An evaluation of Polystrippa Renovator's Choice and Citristrip proprietary paint removal systems relating to their feasibility for removing overpaint from painted wooden objects.*
- **Julie Whittlam** *An investigation of the traditional pigments and binders used in Government House, Sydney, to ensure the conservation of painted decoration.*

Next Issue

Next issue we may be lucky enough to have an article about the deterioration of plastics as our feature piece. Any treatment details of work on plastic materials – and this could include film and sound material as well as objects – would be very welcome. Technical data about plastic storage or working materials would also be welcome, as would useful references and working tips.

We will also have a feature on Australian Museums On-Line (AMOL), and a new section that will focus on some of the political and ethical aspects of conservation.

Please send submissions to: Alice Cannon, Newsletter Editor, Tel. (08) 8207-7520, Fax: (08) 8207-7529, acannon@bigpond.com.