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News in Conservation

The newspaper of the International Institute for Conservation of Historic and Artistic Works



New research on Sweden's Vasa

A new project aimed at understanding and tackling the deterioration of the wooden structure of Sweden's 17th century warship Vasa has begun. Called "A future for Vasa", the 18 million kronor (£1.5 million, \$2.27 million, €1.7 million) research is to safeguard the long-term future of the ship. The new research will be keenly followed worldwide by those involved in the conservation of marine archaeological material.

The Vasa sank on her maiden voyage in 1628, lying for over 300 years beneath Stockholm's harbour. She was raised in the early 1960s and open to permanent public display in 1990 after 30 years of conservation, drying, reassembly and restoration.

The project is a follow up to "Preserve the Vasa" which ran from 2003–2006. "Preserve the Vasa" specifically tackled problems associated with the iron and sulphur compounds in the wood, its microbial status, and the eventual formation of sulphuric acid in the hull and related wooden artefacts. "Preserve the Vasa" also prompted questions which have informed the framework of "A future for Vasa". The new research will be conducted over three-years in cooperation

with organisations such as the Swedish University of Agricultural Sciences, the Swedish Pulp and Paper Research Institute STFI, the Royal Institute of Technology and the National Museum of Denmark.

"The Vasa timbers contain a cocktail of chemicals," according to Professor Lars I. Elding, scientific co-ordinator of the project. "Sulphur in different chemical forms accumulated in the wood during the 333 years on the seabed, iron bolts and cannon balls rusted, and the iron compounds were distributed over the entire hull during the 17 years of conservation spray treatment."

During the course of this treatment, about 50 tonnes of polyethylene glycol – the conservation agent – were taken up by the timbers, and micro-organisms in the anaerobic bottom sediments transformed sulphur compounds and consumed much of the cellulose in the oak. After salvage, the exposure to atmospheric oxygen started a multitude of chemical processes that may, in the long-term, alter the timbers and conservation agent. The nature, extent and rates of these processes are key issues for the present project, as well as their influence on the mechanical properties of the timbers. The hull weighs almost 1000 tonnes and its support structure has to be designed taking the long-term changes of the timbers into consideration.

Some twelve researchers plus the staff of the Vasa museum will be involved in the initial period of this project. The researchers will look more closely at Vasa's wood, will try to measure how quickly the wood is deteriorating and investigate the amount and types of strain that it can tolerate. The project will also test new methods for analysis of



The warship Vasa

wood and degradation products, metering gas diffusion, and monitoring oxygen consumption. Tests of mechanical properties will be closely integrated into the chemical investigations.

Seen in the time scale of a few years, Vasa's condition is stable. A recently installed system controls relative humidity in the museum: transport of chemicals in the timbers and salt outbreaks at the surfaces due to RH variations have ceased. "At some point, Vasa will deteriorate, but we don't know how quickly this process is taking place. Our job is to make sure that it goes as slowly as possible," says Magnus Olofsson,

Head of the Vasa Unit.

Led by a team from the Swedish National Maritime Museums, the research is a cooperative effort between several institutions and is funded by the Swedish National Maritime Museums, the Swedish Research Council FORMAS, the Swedish Foundation for Strategic Research (SSF), the Swedish Research Council (Vetenskapsrådet, VR) and the Swedish Governmental Agency for Innovation Systems (VINNOVA).

For more information see:
http://www.vasamuseet.se/-/media/PDFER/Vasa/Bevara_Vasa_rapport.ashx

Photograph: Ake E:son Lindman © The Swedish National Maritime Museums

Construction of Ilisu dam on hold

A consortium of European insurance companies has halted the construction of the proposed £1.2 billion Ilisu dam in the south

of Turkey by stopping their financial backing. The dam on the river Tigris, close to the borders of Iraq and Syria and due to

be completed in 2013, has courted international controversy due to its potential environmental and social impact, as well as its effect on numerous archaeological sites, many of which are unrecorded. The dam was set to submerge numerous settlements, destroy habitats and displace between 50–80,000 people. If it had gone ahead as proposed, it would also have drowned the ancient town of Hasankeyf and hundreds of other important archaeological sites.

Hasankeyf has a human history stretching back thousands of years and many cultures have left their mark on the town, from the Byzantine fort above the Tigris to the 12th century Artukid bridge across it. Some of Hasankeyf's ancient rock-cut dwellings are still inhabited and other sites of importance include a number of medieval mosques and the mausoleum of Zeynal Bey.

Uncertainty over the future of Hasankeyf inhibits the development of tourism in the area and the town's population has dwindled



A view of Hasankeyf

over the past few years. Hasankeyf was put on the World Monuments Fund watch list of the 100 most endangered sites in 2008.

The Swiss, German and Austrian firms funding the project concluded that the dam failed to meet necessary standards on the environment, heritage, neighbouring states and the relocation of people in flooded areas. Half a billion euros of financial support has been withheld unless the Turkish Government meets 150 World Bank conditions relating to these standards within 180 days of the 23rd December 2008.



Hasankeyf's Artukid bridge

Photograph © D. Ouseman, <http://www.pbbase.com/dosseman/hasankeyf>

Photograph © D. Ouseman, <http://www.pbbase.com/dosseman/hasankeyf>

Editorial

A very happy new year to you all! It has been a busy start to the year here at IIC with the AGM at the end of January (there will be more about that in the next issue). As you can see from the IIC News section on page 7, the call for papers for the 2010 IIC Congress in Istanbul is now open. IIC looks forward to your submissions on the topic of Conservation and the Eastern Mediterranean. We are also looking at the options available for a venue in 2012, so please get in touch with your ideas and suggestions about that too.

This issue there is a remarkable story from Dominica D'Arcangelo, Melina Smirniou and Christie Pohl who started the voluntary organisation *Conservators without Borders* in 2006. Staffed by volunteer conservators and working on a very tight budget, the organisation offers archaeological conservation assistance all over the world where resources are short. Here they describe their successful first ventures in Greece, Peru and Jordan.

On page 6, Martin Martan and Roman Ševčík talk about their conservation of wall paintings in a chapel in the Grabstěj Castle, Czech Republic. It was previous restorations that proved the biggest challenge to their work on the 16th century paintings there. They had to tackle damage done by an unsuitable surface consolidant, overzealous over painting, and poorly applied cement repairs.

The call for papers for the 2010 IIC Congress in Istanbul is now open. IIC looks forward to your submissions on the topic of Conservation and the Eastern Mediterranean.

Also this issue, Hans-Christoph von Imhoff has some interesting thoughts on future collaboration between IIC and the other major heritage conservation organisations ICOMOS and ICOM-CC (page 3). He is particularly excited about the idea of staging a common congress, taking advantage of those years in which the three organisations meet at about the same time, the Conservation Leap Years as he terms it. He puts forward his opinions, do get in touch with yours, on this theme and others, at news@iiconconservation.org. News, views and suggestions are always welcome – I've been very pleased with the response lately from the readership. Keep it coming!

Lucy Wrapson
Editor

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6 Buckingham Street, London WC2N 6BA, UK
Telephone +44 (0)20 7839 5975 Fax +44 (0)20 7976 1564
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Editor
Lucy Wrapson
news@iiconconservation.org

Advertising
Graham Voce, IIC
iic@iiconconservation.org

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News in brief...

Extra funds for French museums and heritage sector

French President Nicholas Sarkozy has pledged an additional €100 million (\$133 million, €90 million) a year to national heritage, including conservation. The money will be used to make entrance fees to all national museums, including the Louvre, free to the under 25s beginning from 4th April. The conservation sector is specifically promised a boost with money being directed towards the restoration of cathedrals, abbeys and museums.

Boost for England's historic places of worship

English Heritage (EH) has launched a £1.5 million scheme to support historic places of worship. EH funds will provide 50% of the costs over three years for the appointment of Support Officers. The new plan is part of the governing

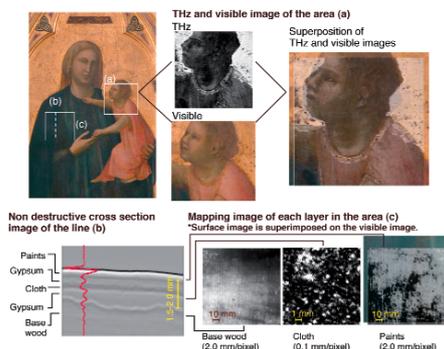
body's Inspired! campaign, which was launched two years ago to secure a sustainable future for more than 14,500 historical places of worship in England.

Andy Burnham, UK Secretary of State for Culture, Media and Sport who launched the scheme said: "I have always believed that our historic places of worship are unique in what they offer, representing at the same time the finest of the country's built heritage, and the heritage of ordinary people in every community."

"This excellent scheme is about helping these landmarks to survive, sowing expertise where it is needed among those that care for these buildings. I am confident that we will see real benefits with congregations better able to look after these buildings, ensuring they are better equipped to meet future challenges, and able to fulfil their potential within local communities."

Organisers are encouraging potential new officers to contact them. To find out more see: <http://www.english-heritage.org.uk/inspired/server/show/nav.19414>

Members' news



Non-destructive THz imaging of Giotto masterpiece

Terahertz radiation is a form of microwave radiation. Terahertz (THz) rays can penetrate opaque materials and analyze multi-layer objects. The technique's time-domain spectroscopy and tomography have been used for medical imaging and THz has been used in surveillance, such as security screening for concealed weapons. THz rays can also perform non-destructive cross-section observations in artworks.

The National Institute of Information and Communications Technology (Tokyo, Japan) and Istituto di Fisica Applicata "Nero Carrara" (Florence, Italy) have applied THz imaging to the analysis of Giotto's Badia polyptych (c. 1300). This is a key work from the early Renaissance and is currently undergoing conservation by Stefano Scarpelli in the Uffizi Gallery, Florence. THz imaging was done with the Picometrix T-ray(TM) 4000. This equipment includes a fibre coupled transmitter and receiver that can be used to collect either transmission or reflection images by scanning over the object's surface. The frequency range used in this work was from around 0.5 to 1.2 THz, taking approximately 10 minutes scanning time, at a distance of approximately 20mm, to observe a 150mm square area at required resolution. The strength of reflection is displayed as gray scale, highest as white and the lowest as black in the illustration.

The non-destructive cross section image shown in the figure was obtained along the line labelled (b). The layered structure of the painting can be clearly seen, with an example of the waveform shown as a red line on the figure. In the case of 14th century polyptychs, a glue layer was made on a base of wood, a cloth was placed on this, and gypsum layers were then applied as preparation for painting. Sometimes gesso was also used beneath the cloth to smooth the wooden surface. The non-destructive cross section image by THz imaging matches this structure. The wood has an uneven surface because it was carved from a thicker board to make the panel and its integral frame. The lowest gypsum layer has been used to even up the carved wood base.

The information obtained using THz imaging could not be gained through normal methods without having to destroy a small area of the painting. Time domain tomography can easily obtain a map of the layer of interest and construct a 3D model of its internal structure. In the first images (a), the amplitude of the reflection from the upper surface was used to provide information about the pigments and gold leaf. In the second figure (c), we focused the analysis variously on,

the base wood layer, the cloth, and the surface pigment in the area. The image of the wood shows the contours of tool marks. The middle layer, analyzed at higher resolution, shows the rough surface of the cloth layer. The third image of the pigment shows traces of lead white that give a higher reflection on the surface of the paint. These experimental results indicate that THz rays can reveal the internal structure clearly, as well as the condition of gold and pigments on the surface, non-destructively and quickly. Results of this and other analyses will be available in the near future.

Many thanks to the Uffizi Gallery for access to the Badia polyptych and use of images.

Kaori Fukunaga

Eco-friendly pest-control in Austria

Staff and students from the Conservation Department of the University of Applied Arts Vienna have saved over 500 paintings in Kremsmünster Abbey, Upper Austria from the ravages of insect damage, with an innovative large-scale, environmentally-friendly method.

The storage of the Abbey's collection, which includes works by the major Austrian painter Kremser Schmidt, in an attic above the church is unfortunately typical of many similar stores for artworks. The uninsulated space suffers from extreme climatic fluctuations, the wide-open structure facilitates the collection of dust and dirt and the easy proliferation of harmful insects. Due to the permeable nature of the attic, with cracks and openings to the outside, it was not possible to fumigate the entire space. Father Klausius Wintz from the Abbey entrusted the paintings specialists from the University of Applied Arts Vienna with the rescue operation of over 800 paintings from the hitherto neglected store in the Abbey. All the paintings from the attic storage were registered in a database prior to undertaking the conservation. The examination of the paintings revealed that 500 out of 800 works were infested with insects. There was the real danger that the insects could infect the 300 other pictures in the monastery's new paintings storage area.

This scale of pest control presented a near insurmountable hurdle. All 500 pictures needed to be treated on site with relatively little technical complexity. The scale also meant that toxic substances had to be avoided, both to limit the risk to health and to the environment. To do this, pest control measures were undertaken by wrapping the paintings in transparent sheeting which contained an oxygen-barrier (ca. 60m³), with a subsequent flooding of the film with nitrogen.

The nitrogen was fed through a hose to a valve in the tunnel; at the other end the gas/oxygen mixture was sucked out with a vacuum cleaner. By "rinsing" the air around the paintings, the oxygen content of the tunnel could be reduced to a residual 0.1%. The paintings remained in the tunnel over an 8-week period, and subsequently the success of the pest elimination was evaluated before they were moved to their new pest-free storage area in the monastery. This has meant the paintings have now been successfully re-integrated into their sacred context.

Stefanie Jahn and Gabriela Krist

The paintings were examined and their condition was registered in a database.



© Conservation Department of the University of Applied Arts Vienna/S.Jahn

Conservator, Hans-Christoph von Imhoff, talks about the big three, ICOM-CC, ICOMOS and IIC, giving his thoughts on their potential for collaboration

Yes, we can!

2008 was the year of the great conservation conventions of the three big international conservation organisations. The biorhythm curves of these big players intersected with each other in September 2008; each one of them held its bi- or triennial Congress; in week N°38 it was IIC in London, in week N°39 ICOM-CC (International Council of Museums, Committee for Conservation) in New Delhi and in week N°40 ICOMOS (International Council of Monuments and Sites) in Quebec City. The congress themes were IIC: Conservation and Access; ICOM-CC: Diversity In Heritage Conservation–Tradition, Innovation, and Participation; and ICOMOS: Finding the Spirit of Place.

Conservation Leap Years

This year's near simultaneity of conservation congresses repeats itself every six years; next in 2014, then 2020. I propose to call these years Conservation Leap Years (CLY). Up to now only ICOM-CC and IIC have made use of this coincidence to fix their congress dates and venues so that they would happen in consecutive weeks in locations not more than a day's travel apart. This has allowed participants from far away to attend both conferences. In 2008, like before, a number of participants travelled to attend both conferences. There is a great potential for collaboration in these years – it could even lead to the co-organisation of a common congress in 2014, the hallmark of the next CLY. At this point it might be helpful to give a short description of the functioning of the three organisations.

IIC

This is an international association of individuals; an NGO which also has institutional members. Membership is not limited to conservation professionals but open to all. Members of IIC may also apply for Fellowship status and their applications are screened by IIC's Council and then put to a ballot of the existing Fellowship. The Council is elected by the entire membership and there is a Secretary General and an Executive Secretary. There are also the Regional Groups, consisting of representatives of all National IIC associations and a developing Student Group as well. IIC holds a Congress every even year, with an overall theme and approximately 45 contributions. These are presented consecutively over 4 days, all in one venue, and published in the superb IIC preprints. IIC also publishes the leading conservation journals *Studies in Conservation*, *Reviews in Conservation* and, of course, *News in Conservation*. IIC recently launched a series of roundtable discussions, *Dialogues for the New Century*, the first of which focussed on

The 2008 IIC Congress



© Gary Black

conservation and climate change.

ICOM and ICOMOS

These NGOs are very similar to each other as both were founded by UNESCO, one to bring together people who work in museums and movable heritage, and the other people who work on sites and in built heritage. Both are based on membership of individuals, but both also offer institutional membership. They have a near identical organisational structure: an elected Executive Council with a President, a Secretary General as well as permanent National Committees, and subject orientated International Committees (ICs). The chairs of all the national and international committees constitute the respective advisory councils; the "parliament" of the organisations. The difference between ICOM-CC and ICOMOS is that ICOM-CC is one of the ICs of ICOM and has in itself 22 working groups often with large memberships. This means that the working groups' coordinators are not part of the ICOM advisory council, only the Chair of the Conservation Committee is – a difference in administrative hierarchy.



Jonas Antoine, Dehcho First Nation chief, presenting at ICOMOS 2008

Common ground and points of contact

Why is this of particular interest? ICOMOS has 28 ICs and of these, 12 have the same or a very similar name to 12 of the working groups of ICOM-CC (Stone, Documentation, etc). Each of these ICs/working groups is only as outgoing as is their respective chair (at ICOMOS) or coordinator (at ICOM-CC). ICOM-CC has few problems in this regard, while ICOMOS' ICs seem to suffer considerably from inefficiency, as expressed in the report of the outgoing ICOMOS president, Michael Petzet. He proposes that the ICOMOS IC "Conservation-Restoration of Heritage Objects in Monuments and Sites" (ISCCR) "should operate as a kind of partner of the very strong ICOM-CC with its 22 working groups."

In my opinion, rather than ICOMOS-ISCCR operating as a partner to ICOM-CC, it would be preferable for the ICOMOS Scientific Council, which governs all ICOMOS-ICs, to be regarded as the "complementing" partner of ICOM-CC, as there are at least twelve points of contact (ICs) to stimulate collaboration.

The cause of ICOMOS's IC problems seems an obvious one – committees have just one day to meet and do not present their results at the plenary. At times 10 committees deliver in parallel in advance of the "General Assembly and Scientific Congress", the core of this huge event (>800 delegates attend).

Contrary to the rather low profile of ICOMOS' ICs, the ICOM-CC working groups are the centre of the ICOM-CC triennial event. Their core activity at the congress is the presentation of their efforts over the previous three years. Five parallel presentations are held over three days, and the

sumptuous triennial preprints with approximately 150 papers and abstracts of 40 posters, are the reward. It is to be noted that after rigorous selection and peer review, only about a third to half of the submissions to IIC and ICOM-CC are accepted for presentation and publication, ensuring a high standard.

ICOMOS, parallel to its IC's activity and like IIC, chooses a specific theme for its three day Scientific Symposium. During the preparation period between their bi-annual GA-Symposia, all aspects of the general theme are analysed and each one worked on by specific interest groups. This time there were 18 groups working on The Spirit of Place, each presenting between 4 and 12 papers. Altogether there were 117 related contributions, but no pre- nor postprints. As I understand, these groups might try to produce postprints individually at a later stage using their own financial resources, but their success is not guaranteed.

Since its 1999 conference in Lyon, ICOM-CC also chooses a theme, but it is not at the core of the meeting. The theme is mentioned in the chair's foreword in the preprints and the call for papers suggests considering it when proposing a paper. It really comes into its own, however during the mid-week afternoon plenary session at the triennial conference, where it is discussed and analysed in presentations and papers.

The synergetic potential

All three NGOs work intensely between their congresses to prepare their future ones; some of their ICs or working groups also have interim meetings. In view of the next CLY, IIC and ICOMOS could use this period to discuss and, consulting with ICOM-CC, choose a common conference theme, work at it and then present its results. This could be done in parallel groups over two and a half days as it is done now, but with both organisations working and presenting together, with a half day plenary presentation of the results.

ICOM-CC and ICOMOS could get their ICs and working groups with common activities and interests to work together. They could plan a common call for papers then present their combined selection over another two and a half days, with a half day for their presentation at a plenary session. Together this makes for five days of intense and parallel presentations of research papers, and a day of plenary discussions.

The CLY event

Such an event could be expected to attract 1000 or more participants who might accumulate some 300 or more papers; occasion to produce quite extraordinary preprints. In the days before or after the triple congress the organisations may wish to arrange common excursions to sites, museums, and conservation facilities, but also for each to hold individual plenary session(s) and General Assemblies.

This event would not only present an opportunity for conservators, but also to all other partners in preservation. It would cover not only practical topics and problems, but also historical, theoretical, ethical and other issues. This is much needed as the three organisations know relatively little about each other's activities, so are some way off proper mutual understanding. Where we should be heading? At the moment we don't really know the destination, or how to get there. This must be put to a debate so that we can brainstorm and discuss our common and mutual aims constructively. And there is certainly space for another edition of IIC's *Dialogues for the New Century*.

Can we do it?

In order to embark on this course, a lot of energy, engagement and work is needed on all levels, in all three organisations. Do we want a CLY 2014 common conference of all three institutions? Do we want to invest in such a broad collaboration? Can we achieve this? I say yes we can. Let's go!

Author Biography

Hans-Christoph von Imhoff is a paintings conservator, lecturer and writer in history, theory and practice of conservation. Based in Switzerland, he is a member of ICOM-CC and a member of the Council of IIC. These are his personal views and do not necessarily reflect the view of Council or members.



xoph.von.imhoff@tele2.ch

Archaeological conservators know that they can achieve a lot through creative use of minimal resources. **Dominica D’Arcangelo, Melina Smirniou and Christie Pohl show how *Conservators without Borders*, an international volunteer organisation, has used conservation expertise to demonstrate to stakeholders in Greece, Jordan and Peru how they can look after their artefacts without it costing the earth.**



Conservation Thrift – Achieving a Lot with a Little



A view of the ancient Roman site and the modern city at Jerash in Jordan. The CWB team worked in Jerash in 2007 and 2008.

In two years, with an overall budget of just £12,570, *Conservators without Borders* (CWB), has initiated five unique projects in Greece, Jordan and Peru. Since its birth, the organisation has successfully laid solid foundations for the improved protection of archaeological artefacts by heightening awareness about conservation and promoting the principles of preventive care. In the current economic climate, CWB demonstrates that big changes can result from strategic, well managed conservation input.

As post-graduate conservation students at UCL's Institute of Archaeology in 2006, Melina Smirniou, Christie Pohl and Dominica D'Arcangelo together identified a need for increased conservation participation on archaeological sites. Devising an international volunteer initiative called *Conservators without Borders* (CWB), the founding members looked at how conservators could become more actively involved in archaeological projects through improved communication with archaeologists, specialists and heritage professionals.

They also designed outreach and training programmes to aid information exchange on-site. The ultimate aims were to build sustainable preventive conservation programmes and empower local stakeholders, giving them the confidence to make decisions regarding their tangible heritage.

A grant was awarded to CWB by UCL Futures in the spring of 2007. This timely award allowed CWB to run a two-year pilot programme from 2007–2008 which provided the

opportunity to put the theory into practice. The team lost no time looking for archaeological sites to fit their mission:

To provide field conservation support to archaeological sites where insufficient funding and expertise does not allow for any on-site conservation activity. Priority is given to sites where finds are in need of special or urgent conservation attention and where there is a keen interest in artefacts' preservation.

CWB's first project took place on the Greek island of Kythera hosted by the Kythera Island Project (KIP) and co-directed by Cyprian Broodbank and Evangelia Kiriati. CWB travelled to Kythera in summer 2007 and again to complete the project in 2008. Co-director Melina Smirniou describes the background to the project, "The archaeological material in need was excavated in the 1960's by the British School at Athens and stored at the Kythera Archaeological Museum in its original packaging. The storeroom had no environmental control and the temperature and humidity levels fluctuated throughout the year causing deterioration of the objects. In 2006, a severe earthquake which measured 7.2 on the Richter scale hit the island, the museum was deemed structurally unsafe and the re-housing of the collection became very urgent."

The team worked with KIP's directors to prioritise artefacts for CWB to treat during the two seasons. A mutual decision was made to first treat and stabilise the most vulnerable and fragile objects, and then re-house the small finds which specialists frequently access. This second task involved

reconstructing and repacking the pottery from Early Bronze Age tombs.

The two teams worked in the same room together, allowing them both to benefit from close interdisciplinary collaboration, and the archaeologists to extend their understanding of conservation processes. Cyprian Broodbank commented that, "Such collaboration should be intrinsic to the research design of any field project."

The conservation team also collaborated with researchers who visit the site every summer to study its artefacts. New packaging was tested to ensure the collection was easily accessible with minimal handling. The changes were enthusiastically received by the visiting researchers. By exposing researchers, archaeologists and specialists to preventive measures, CWB managed to raise the conservation awareness of the collection's stakeholders.

Based on their advance knowledge of the situation, CWB bought and travelled with the necessary tools and coordinated the purchase of packaging supplies. In total, 751 finds were stabilised and re-housed as a result.

CWB impressed their first hosts with their on-site achievements. Broodbank said of the experience, "I was impressed with the expert, informed yet pragmatic approach to real-world situations."

Following initial contact and subsequent conversations with the Jordanian Department of Antiquities (DoA), a project plan soon took shape to work in Jordan in autumn 2007. The proposal was for CWB to treat post-excavated material in storage. This would involve objects from all over the country including the National Archaeological Museum in Amman, Umm Qais Archaeological Museum, Dar As-Saraya Museum in Irbid, Jarash Archaeological Museum, Karak Archaeological Museum and Petra Archaeological Museum.

This was an ambitious aim for the team, but the success of three weeks' work in 2007 led to an invitation to revisit the country in 2008. Over the two years CWB carried out collection-based work and multiple training sessions. They worked with local museum employees and archaeologists on both preventive and practical conservation techniques, visited several museums and storage facilities and also gave public lectures and practical demonstrations at the DoA Headquarters in Amman.

With limited resources, *Conservators without Borders* aims to make a lasting impact in a short period of time

Generally, CWB's practical work consists of first aid conservation on newly excavated or unstable objects and helping to improve artefacts' packaging in storage. With limited resources, CWB aims to make a lasting impact in a short period of time by restricting complex remedial conservation treatments to the most urgent cases. In Jordan, CWB discovered a broad need for individual object



CWB collaborates with archaeologists in Kythera to reconstruct a Roman amphora excavated in the 1960s.



Amy Drago, CWB volunteer, leads a training session in Jordan in 2007.



Diana Medellin (left) and Christie Pohl (right) conserving the clay house models (maquetas) at San José de Moro, Peru.

treatments in the collections, but the policy remained to communicate knowledge to local museums that will help build long-term preventive programmes.

CWB impressed workshop participants by demonstrating how much conservation can be done with basic and simple tools. Dependent on securing further funding, CWB and the DoA have identified the potential for future project work.

A CWB team worked on two separate sites in Peru for 3 weeks in 2008, to maximise efficiency and impact. One project was based at San José de Moro, a Moche period funerary complex in collaboration with Project Director Luis Jaime Castillo. Another took place at Magdalena de Cao, a colonial period site which abuts the El Brujo Archaeological Complex. There the team worked with Principal Investigator Jeffrey Quilter to conserve paper, textiles and metal finds excavated from the sites' church and town.

The work at San José de Moro involved the conservation and restoration of unfired clay house models, maquetas, found in tombs during the 2007 excavation season. Christie Pohl comments, "The conservation of the maquetas was very challenging but it gave our team an opportunity to demonstrate how we can assist archaeologists in a timely manner and add to their greater understanding of an excavation site by conserving the associated finds."

CWB worked with excavation assistants to find joins between the clay maqueta fragments and collaborated with

them on designing a roof support. Some of the field school students were interested in conservation and participated in the remedial work. The conservators also assisted with the excavation and lifting of fragile textile samples associated with human remains. CWB concluded their visit with a lecture on archaeological conservation methods for the field and a summary of the work completed on-site.

"Conservators without Borders has recognised that a small, efficient and enthusiastic team of volunteers armed with compact conservation toolkits and a range of packaging materials is a very efficient combination"

**Christie Pohl – co-director
Conservators without Borders**

At Magdalena de Cao, conservators carried out documentation, cleaning and re-housing tasks using conservation-grade packaging materials. The team implemented a visible storage system for all of the 2008 paper finds which minimised handling and allowed researchers to view both sides. In addition to the work on the colonial period finds, CWB also had the opportunity to discuss several different conservation issues and concerns with the El Brujo Archaeological Complex employees, technicians and archaeologists. During this process, suggestions were made for preventive conservation practices and long-term care of vulnerable materials. The CWB team demonstrated different conservation techniques, showing the variety of tools and materials used during the project. CWB has been invited to continue collaborative work at San José de Moro and Magdalena de Cao.

In conclusion CWB has proven that small, organised teams of conservators travelling with minimal resources can improve the visibility of conservation. Through cost-effective

exercises, including training, small teams can give basic knowledge and tools to encourage the use of preventive methods. As Co-director Christie Pohl puts it, "Communication and sharing knowledge is free. CWB aims to tailor their conservation activities and training sessions to a project's specific needs. CWB has recognised that a small, efficient and enthusiastic team of volunteers armed with compact conservation toolkits and a range of packaging materials is a very efficient combination"

Working internationally also presents conservators with unique challenges to get the job done. When asked if she would participate on another project, volunteer conservator Jackie Chapman commented, "Yes, it was a great experience and it made me realise that I prefer this type of conservation. It is very different to working in a laboratory or museum, you have to think on your feet a lot faster and work within the limitations of being on-site and having limited access to materials and supplies. As a result you have to be more innovative in your approach, problem solving any issues that may arise."

So far, CWB has been positively received by the conservation community at large. The directors are currently looking for funds to continue their international work.

CWB is enormously indebted to its volunteers. Its success is due to their commitment and contribution of their expertise, time and energy. Thank you to Saray Naidorf, Amy Drago, Jackie Chapman, Judy Jungels, Diana Medellin and Margrethe Felter. The directors would also like to acknowledge the support of their respective employers who have granted leave requests allowing the coordination of all of CWB's projects: the Smithsonian's Museum Conservation Institute, The Peabody Museum, The British Museum and the Institute of Archaeology, UCL.

For more information on CWB and details on how to get in touch, please visit our website: www.conservatorswithoutborders.org

Christie Pohl, Judy Jungels and Diana Medellin lifting fragile textile remains associated with human burials at San José de Moro, Peru.



CWB conducting a practical demonstration with Peruvian archaeologists, technicians and employees at Magdalena de Cao and the El Brujo Archaeological Complex.



Author Biographies:

Dominica D'Arcangelo, Christie Pohl and Melina Smirniou together founded and currently co-direct *Conservators without Borders*. They all have MAs in Conservation from University College London (UCL). Dominica and Christie both have MScs in Conservation for Archaeology and Museums from the Institute of Archaeology, UCL, and Melina has an MSc in Conservation, also from UCL.

Dominica D'Arcangelo works as a research assistant in the conservation department at UCL's Institute of Archaeology. She has a deep interest in communicating conservation across disciplines and to the general public. Christie Pohl was a Kress Foundation post-graduate fellow at the Smithsonian's Museum Conservation Institute from 2006–2007 and is currently working at the Peabody Museum of Archaeology and Ethnology, Harvard University, on a Mesoamerican plaster cast refurbishment project. Melina Smirniou works as a conservator at the British Museum and is finishing a PhD on Late Bronze Age glass production, at the Institute of Archaeology, UCL.



Dominica D'Arcangelo



Christie Pohl



Melina Smirniou



Martin Martan and Roman Ševčík reveal overzealous previous restoration campaigns as the major challenge in conserving the wall paintings of a chapel in Grabstejn Castle, Czech Republic.



Restoring the wall paintings of St. Barbora Chapel

In 2007 Martin Martan and Roman Ševčík started the complete restoration of more than 310 square metres of wall paintings within the St. Barbora Chapel.

The chapel is located within the walls of Grabstejn Castle which was founded in the middle of the 13th century by the lords of Donin, on a promontory near Hrádek nad Nisou in the Czech Republic.

In spite of repeated attacks, the castle remained in the Donins' control until 1562 when the German vice-chancellor in Bohemia, Jiri Mehl purchased the indebted estate. Mehl modified the medieval castle and created a Renaissance chateau with a large park, planted with rare trees. Additional significant changes came in the late 18th century when the castle became the property of the Clam-Gallas dynasty. Major alterations were made to the interior spaces as they were remodelled to suit Baroque fashion. A tragic fire resulted in massive damage to the castle in 1843 and the subsequent repairs to exterior façades were done in the late Classical style. It was during this restoration campaign that the entire castle was lowered by one storey. Despite such major changes, it can still clearly be seen that the core of the structure rests on the original medieval castle, as the large round tower and a part of the outside walls have been preserved.

The St. Barbora Chapel was constructed within an older part of the castle dating back to the 14th century. The chapel's fresco secco wall paintings, which date to the 1560s are of significant importance.

The first step toward the stabilisation and restoration of the wall paintings was a comprehensive materials and condition survey including the use of infrared reflectography to reveal underdrawing and original corrections to the final paintings, as well as the full documentation of all previous

Grabstejn Castle.



restoration and over-painting. This initial work confirmed that although the Renaissance paintings were somewhat damaged, they could be restored, completing the richly diverse interior of the Chapel. It also revealed that the biggest problem faced in restoring the paintings would not arise from the various damaged areas, but rather from the materials and application of past restorations and more recent stabilisation efforts.

Ten years prior to this study, a concentrated solution of Sokrat (a low viscosity water based dispersion of styrene-acrylate copolymer) was applied to the paintings as a surface consolidant. Although Sokrat was most commonly used in the building industry within the Czech Republic, it became a common consolidant for wall paintings in the 1990s. This left large areas of the paintings' surfaces marred by drips and dark coloured residues, as well as an uneven and patchy gloss which disrupted the visual unity of the works. Its uneven distribution also led to significant surface tension causing separation of the over-painted areas and of the original paint layer from the ground preparation layer and the wall.

The biggest problem faced in restoring the paintings would not arise from the various damaged areas, but rather from the materials and application of past restorations.

Among many structural cracks in the walls was a particularly large example that ran along the axis of the vault and continued along the western wall all the way to the floor. These cracks had been filled with cement as part of past restoration and repair campaigns. When viewed using oblique lighting, a planar offset of either side of the cracks was evident, indicating a shift in the wall structure. There was also evidence that the underlayer of plaster in the area of the cracks had separated from the wall leaving numerous hollows between the wall surface and the painted layers. Poorly applied cement was used in numerous places on the painting.

Large areas of retouching and over-painting had changed the overall character of the paintings. Around the figures over-painting with an ochre tone resulted in an inconsistent appearance with the rest of the chapel decorations. The majority of the past retouching was harsh and often covered the soft shading and modelling of the original. Highlights and accents were executed in the same harsh manner giving the paintings a "hard" and inconsistent look. The over-

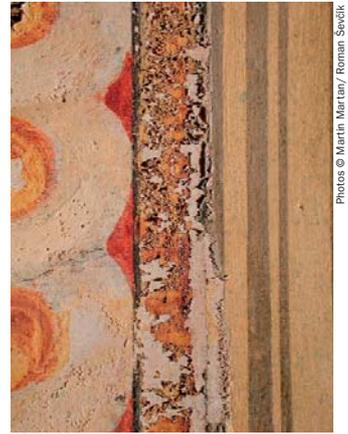
painted areas had also darkened, further suppressing the soft modelling of the original.

Stabilisation began with local consolidation and re-attachment of the lifted layers to the preparation layer of the wall. The cement used to fill the cracks had lost its cohesion and was obscuring large areas of original painting, so was removed. The voids under the paint layer were filled with coarse-grained lime plaster followed by a "light" stucco. This layer was worked to imitate the polished plaster surface so typical of Renaissance stuccos and wall paintings. When applying this we were careful not to cover any original painted surface. Sub-surface cavities were filled and each area was pressed back to the wall with gentle pressure until set.

The unsuitable surface consolidant used in past restorations was removed using a solvent mixture of acetone and ethanol. A gel carrier prevented the solvent mixture from penetrating too deeply into the porous substrate, or evaporating too rapidly. Application was timed carefully to prevent any unnecessary exposure of the painting to solvent action. Treatment was carefully limited to areas of over-paint and not allowed to extend to areas of the original painting. It was found that in areas of extensive water damage, the over-paint had become irreversible. Rather than take too many unnecessary risks associated with trying to remove the altered over-paint, it was thinned and then in-painted to make it visually in keeping with the rest of the painting.

Following the removal of over-paint, the entire surface of the painting was rinsed with distilled water and consolidated. In-painting was performed with the goal of unifying the painting visually, without introducing any reconstructions. The borders framing the scenes in each of the vaults were retouched to make the losses invisible, restoring the discrete nature of each section. In areas where there was a 19th century brocade decoration, the damaged original surface was retouched to bring the brocade to the foreground, more in keeping with the original intent of this compositional element, but without reconstructing the full decorative detail of the ornament.

Ironically, the biggest challenges faced in the conservation of the paintings of the St. Barbora Chapel were not actually due to damage caused by centuries of exposure, but was in removing, reducing and stabilising the effects of unsuitable materials and methods used in previous restoration campaigns. This serves as a lesson to us all as conservators; before using new materials we must take the necessary precautions to ensure that they will not damage the art



The application of inappropriate consolidant during previous restoration caused separation of paint layers.

being treated. Ease of removal and full reversibility of materials is also essential. In the case of the St. Barbora Chapel wall paintings, the improperly selected consolidation material of a previous restoration effort, did not sufficiently permeate the plaster layers, failed as a consolidant and also proved unstable. The current conservation project, due to be completed this year, will reverse damage from previous campaigns and ensure the future survival of these 16th century masterpieces.

Author Biographies:

Martin Martan studied at the School of Arts in Prague and received his conservation qualifications at the Academy of Arts, and in 1991 his license from the Czech republic Ministry of Culture.



Martin Martan

Roman Ševčík studied at the Secondary Graphic School in Prague, before taking his conservation qualifications at the Academy of Fine Arts in Prague. Both work independently on a broad variety of artworks ranging from panel, canvas and wall paintings to mosaics and sculpture, and covering a broad range of painting techniques and eras.

Roman Ševčík

Martin Martan
U hrazce 3, CZ-100 00
Prague 10, Czech
Republic
martan@iol.cz



Roman Ševčík
Labská 250, 535 01
Přelouč, Czech Republic
romsev@quick.cz

16th century wall paintings in the St. Barbora Chapel.



IIC News

IIC Congress – Istanbul 2010 Istanbul welcomes you!

The lands and the islands of the Eastern Mediterranean, from the Balkans through Turkey and the Levant to Egypt, have been home to many of the world's most important and most ancient civilisations. The material evidence of these cultures and traditions is everywhere: in archaeological sites, in museums and in buildings. Today this region presents a vivid and dynamic cultural mosaic as the museums, palaces, sacred places, libraries and archives, cultural centres, sites, monuments and living communities continue to add to the rich and varied landscape. From ancient sites to contemporary sculpture; luxury textiles to elaborate manuscripts; painted masterpieces to civic monuments and grand buildings, the Eastern Mediterranean offers insights unique to its heritage. Come and follow the thread from the depth of antiquity to the vibrant cultures of today.

IIC Congress 2010: Conservation and the Eastern Mediterranean

The twenty-third IIC Congress will take place in the spectacular and historic city of Istanbul, the European Cultural Capital for 2010. In conjunction with the Sakıp Sabancı Museum, the many Congress events will focus on the conservation of movable and immovable heritage in or from the Eastern Mediterranean. This will include material held in collections around the world: the care and conservation of artefacts, of sites, and the preservation of extraordinary architecture, reflecting the influences that have made the region one of the world's richest centres of heritage. The conference will bring together the international professional community to present and exchange ideas, to debate conservation practices and cutting edge research, to consider exciting new developments and thought provoking challenges, and to make new connections between this region and all corners of the world.

The Congress will take place on 20 to 24 September 2010 and will include four days of papers and a day of excursions in and around Istanbul. It is also hoped to arrange excursions during the weekend after the Congress. The languages of the Congress will be English and Turkish, with simultaneous translation. The preprints will be published in English with abstracts in Turkish.

Call for Papers

We now invite the submission of proposals for papers at this event. Papers presented at an IIC Congress and published in the preprints undergo a rigorous peer review process. To this end, IIC Council appoints a Technical Committee of international experts who will make selections from the proposals received and will then invite draft papers. The drafts will be reviewed and the content of the programme will be determined. Final contributions will be edited for publication by the Editorial Committee, chaired by David Saunders.

IIC encourages you to submit your proposal for a paper via the web at www.iiconservation.org/conferences/istanbul2010/send_abstract.php

Further details may be found at the home page of the IIC web site – www.iiconservation.org – just follow the link to Congress.

A call for posters will be made later in 2009.

Please remember that submissions should not have been presented and/or published elsewhere before the date of the Congress.

Deadline for receipt of summaries: 30 April 2009.

You will receive a response from the Technical Committee by the end of June. Draft manuscripts will be required by 30 September 2009 and the Technical Committee will make their selection by the end of November. Final manuscripts will be due on 15 January 2010.

We look forward to seeing you in Istanbul!

IIC Congress 2012 – Call for Venues

IIC's 2008 Congress in London was a great success and we are planning to repeat this with our much anticipated 2010 event, to be held in Istanbul. Currently, IIC's Council is looking at options for venues for the IIC Congress to be held in the autumn of 2012. If you feel that your organisation or institution could host an international conference in just over three years time please contact the IIC office for further details of what this would involve and how to make a full proposal.

New IIC Fellows elected

Congratulations to all newly elected IIC Fellows. As well as those featured below, other recently elected fellows Hilda Abreu Utermohlen, Katherine Ara, Marc Harnly, Helen Hughes and Katsuhiko Masuda will be profiled in future editions of *News in Conservation*.

Alan M. Farancz

Alan M. Farancz was educated at Hofstra University receiving a B.A. in 1965 followed by training at the Conservation Center-Institute of Fine Arts, N.Y.U. between 1966 and 1969. Grants and fellowships awarded to Alan M. Farancz include a Hebrew Technical Tuition Grant, N.Y.U. and a Committee to Rescue Italian Art (C.R.I.A.) Fellowship to Florence, Italy in 1967 to assist in the rescue of works of art damaged in the 1966 flood. The C.R.I.A. Fellowship was followed by a Fulbright Research Fellowship (and extension), also in Florence between 1968 and 1969, spent working on polychrome wood and marble objects damaged in the flood. Alan was Clawson Mills Research Fellow at the New York Metropolitan Museum of Art Department of Ancient and Near Eastern Art from 1969–1970 undertaking the investigation of coloration in ancient ivories and methods of fabrication of Sassanian silver objects. During this research he discovered the color dependence of ivories related to temperature, published in *Studies in Conservation*, 1971 "The Effect of High Temperature on Ivory". Alan was elected Fellow of the American Institute for Conservation in 1978. His publications include AIC Preprints May 1985, "Cost parameters in the conservation of art in both museum and private sectors in the USA in 1984–85" and "The Color Compendium", The Color Association of the United States, Walch, Van Nostrand Reinhold, 1989. Alan has been in private practice in painting and sculpture conservation since 1970.



Robert Gowing

Robert Gowing received his professional degree in architecture from Carleton University, Ottawa, before undertaking the postgraduate diploma course in the conservation of wall paintings at the Courtauld Institute of Art, London. He has worked on wall painting conservation projects in England, Spain and Austria. Robert was employed by the Courtauld as a

research and teaching assistant before undertaking the post of Wall Painting Conservator at English Heritage. English Heritage's Senior Wall Painting Conservator since 2002, he has specific responsibility for providing technical support across England on building conservation projects involving the conservation of wall paintings, and is active in the Conservation Department's research and publications programmes. This has included co-editing two conference proceedings (Conserving the Painted Past (2003), and All Manner of Murals (2007)), and the production of the English Heritage Practical Information Leaflets for wall painting conservation. Within the professional community, Robert was on the Council of the UKIC, and then became a Trustee of the Institute of Conservation (Icon) from its founding in 2004. He was also the Project Manager responsible for Icon's corporate branding. Robert is also a member of the International Advisory Board for the MA Conservation course at the Courtauld Institute.



Gillian McMillan

Gillian McMillan is Senior Conservator for Collections at the Solomon R. Guggenheim Museum in New York City, where she has worked since 1984. She received her Diploma in the Conservation of Easel Paintings from Gateshead Technical College in the United Kingdom in 1979 and was the Andrew W. Mellon Intern at the Intermuseum Conservation Association, Oberlin College, Ohio, in 1981–82. She was Paintings Conservator at The Art Gallery of New South Wales in Sydney, Australia from 1979–1984. While in Australia she helped establish the Sydney division of the Australian Institute for the Conservation of Cultural Material and led a committee that organized one of the early conferences devoted to the conservation of contemporary art. Gillian has conducted numerous technical examinations and has guided and performed the treatment of many modern paintings from the 19th and 20th centuries, including signature works by Paul Cézanne, Vincent van Gogh, Edouard Manet, Camille Pissarro, Pablo Picasso, Robert Delaunay, Vasily Kandinsky, Jackson Pollock and Robert Rauschenberg. Gillian has recently commenced work on her PhD dissertation at the University of Northumbria in the UK.



Paul Whitmore

Paul Whitmore was trained as a chemist, getting a B.S. in chemistry from Caltech and a Ph.D. in physical chemistry from the University of California at Berkeley. He has worked in conservation science for his entire professional career, starting at the Environmental Quality Laboratory at Caltech studying the effects of air pollution on works of art. From there, he went to the Fogg Art Museum at Harvard University, where he worked as a scientist in what is now the Straus Center for Conservation. Since 1988 he has been at Carnegie Mellon University, as director of the Art Conservation Research Center and



research professor in the Department of Chemistry. His current research interests are in material degradation chemistries, intrinsic and environmental risk factors for those processes, remote sensors for material aging and stability, and the effects of conservation treatments. He has published numerous articles on these subjects and has edited a book, Contributions to Conservation Science, a compilation of research papers published by the first director of the Center, Robert Feller. He is currently senior editor of the Journal of the American Institute for Conservation.

IIC Regional Groups

Time and Eternity: Caring for Sacred Art November 7th and 8th, Krems, Austria

The Austrian Conservator-Restorers Association (Österreichischer Restauratorenverband, ÖRV) held its 21st biennial Convention themed Time and Eternity: Caring for Sacred Art in the former Church of the Minor Brothers in Krems, Lower Austria. Experts from a wide range of fields including conservators, art historians, architects and historians discussed the specific requirements and challenges faced when confronted with artwork in a religious or ritual context. These works of art often have a certain function within a religious ceremony or rite, a characteristic which constitutes an integral part of the object and must be taken into account along with its material value.

Numerous case studies from a variety of fields were presented demonstrating problems, approaches and decision-making processes associated with preservation and conservation of sacred objects. The spectrum of projects ranged from devotional paintings and liturgical objects to façades, graveyards and temple complexes. Presentations and discussions made clear that solutions can only be found in dialogue with users and typically compromise and integrate more than one viewpoint. Preventive measurements such as climate control, training of personnel, handling instructions and maintenance contracts will contribute significantly to the preservation of cultural heritage. The case of Jewish graveyards in Austria is a sad example due to lack of such arrangements which in consequence has led to dramatic damage and loss. The Austrian Conservator-Restorers Association perceives the date of this year's convention, 70 years after the November Pogroms, as an occasion to broach the issue of studying and caring for evidence of Jewish Culture as part of this country's past and present.

The Symposium involved not only discussions about artefacts from Christian, Jewish and Islamic, but also from non-European cultural backgrounds. The conflicts resulting from demands to preserve material aspects of artefacts and the effort to understand and respect other, non-material values will necessarily lead to doubts and questions about conventional methods and approaches established in western conservation traditions. A new and brave definition of a conservator's range of skills and responsibilities has to be mapped, as examples from conservation projects in Bhutan, India and at the Museum of Ethnology in Vienna demonstrated.

The proceedings of the conference will be published in summer 2009 in German and can be ordered at www.orv.at.

Christa Hofmann

Calls for Papers

Conservation: principles, dilemmas and uncomfortable truths
 24–25 September 2009
 Royal Academy of Arts, London
 Submit abstracts by 31 March 2009
 to: a.richmond@vam.ac.uk

Conserving private and public collections
AICCM National Conference 2009
 21–25 September 2009
 Fremantle, Australia
 Submit abstracts by 31 March 2009
 www.aiccm.org.au/

Costume in the American West: Historic to Modern Times
 25–26 September 2009
 Sacramento CA, USA
 Submit abstracts by: 4 April 2009
 www.costumesocietyamerica.com/

Application of Raman Spectroscopy in Art and Archaeology
 14–18 September 2009
 Bilbao, Spain
 Submit abstracts by: 30 April 2009
 www.ehu.es/RAA2009

Medieval Colours: An interdisciplinary conference on the study of colour in medieval manuscripts
 10–11 September
 Lisbon, Portugal
 Submit abstracts by: 3 May 2009
 to mjm@dq.fct.unl.pt

42nd IUPAC Congress: Chemistry Solutions
Heritage Science Symposium
 2–7 August 2009
 Glasgow, UK
 Submit abstracts for posters by:
 5 June 2009: www.iupac2009.org

IIC Congress 2010: Conservation and the Eastern Mediterranean
 20–24 September 2010
 Istanbul, Turkey
 Submit abstracts by 30 April 2009
 www.iiconservaion.org/conferenc
 es/istanbul2010/send_abstract.php

Meetings and Conferences

It's Alive! Petals to Primates: Preservation Challenges of Living Collections
 19–20 February 2009
 San Diego CA, USA
 www.imls.gov/collections/Tour/sa
 ndiego.htm

Indigenous Cultural Maintenance Symposium
 23 February 2009
 Melbourne, Australia
 Email:
 icmsbookings@optusnet.com.au

Webwise 2009 Conference
 25 February 2009
 Washington DC, USA
 IMLS/Wolfsonian-FIU:
 http://webwise2009.fcla.edu

3D Virtual Reconstruction and Visualization of Complex Architectures
 25–28 February 2009
 Trento, Italy
 An ISPRS/CIPA event:
 www.3d-arch.org

A Race Against Time: Preserving Our Audiovisual Media
 2–3 March 2009
 Austin TX, USA
 www.ccaha.org

12th US/ICOMOS International Symposium: preservation in peril
 11–15 March 2009
 New Orleans LA, USA
 http://www.usicosmos.org/symposi
 um

Unlocking Audio 2-Connecting with Listeners
 16–17 March 2009
 London, UK
 http://www.bl.uk/unlockingaudio

5th Annual Ename International Colloquium on climates of heritage conservation
 18–20 March 2009
 Ghent, Belgium
 http://whc.unesco.org/en/events/5
 33

First Bolzano Mummy Congress – “Mummies and Life Sciences”
 19–21 March 2009
 Bolzano, Italy
 http://www.eurac.edu/

Advances in Paper Conservation Research
 23–24 March 2009
 London, UK
 Email: velson.horie@bl.uk

European Conference on Civil Society Organisations active in the Field of Heritage
 23–24 March 2009
 Mechelen, Belgium
 http://www.heritageorganisations.eu/

Second International Symposium of Conservation and Research of the Terracotta Army
 23–27 March 2009
 Xian, China
 Email: Xia Yin:
 polychromy@hotmail.com

DigC/Curr 2009: Digital Curation Practice, Promise and Prospects
 1–3 April 2009
 Chapel Hill NC, USA
 http://www.ils.unc.edu/digcurr20
 09/

UNESCO University & Heritage: Historic Urban Landscapes: A New Concept?
 5–10 April 2009
 Hanoi, Vietnam
 http://universityandheritage.net/SI
 FU/XII_Hanoi_2009/index.html

Congreso da ABRACOR: Preservação do Patrimônio Cultural
 13–17 April 2009
 Porto Alegre, Brazil
 http://www.abracor.com.br/novosi
 te/congresso/site_congresso/

Conference on Natural Fibres in Australasia
 15–17 April 2009
 Dunedin, New Zealand
 http://www.otago.ac.nz/textiles/nat
 uralfibres09

Museums and the Web 2009
 15–18 April 2009
 Indianapolis IN, USA
 http://www.archimuse.com/mw20
 09/

The Future of Historic Cities
 18–19 April 2009
 Cambridge, UK
 www.arch.cam.ac.uk/heritagesemi
 nar

Icon Gilding and Decorated Surfaces Group: Picturing the Frame
 22 April 2009
 London, UK
 http://www.icon.org.uk/index.php?option=com_content&task=view&id=24&Itemid=

Standards in der Restaurierungswissenschaft und Denkmalpflege
 23–25 April 2009
 Berlin, Germany
 www.smb.museum/kulturguterhalt
 en

Going Green; towards sustainability in conservation
 24 April 2009
 London, UK
 www.britishmuseum.org/whats_o
 n/events_calendar/going_green.as
 px

TECHNART 2009: Non-destructive and Microanalytical Techniques in Art and Cultural Heritage
 27–30 April 2009
 Athens, Greece
 Email: karydas@inp.demokritos.gr

Facing the challenge of panel paintings conservation
 17–18 May 2009
 Los Angeles CA, USA
 www.getty.edu/conservation/educa
 tion/panelpaintings

AIC 2009 General meeting: Conservation 2.0-New Directions
 19–22 May 2009
 Los Angeles CA, USA
 http://aic.stanford.edu/meetings/in
 dex.html

Incredible Industry: Preserving the evidence of industrial society NKF-Congress 2009
 24–27 May 2009
 Copenhagen, Denmark
 www.kongres09.nkf-dk.dk

Digital Directions: Fundamentals of Creating and Managing Digital Collections
 27–29 May, 2009
 Westin, San Diego CA, USA
 http://www.nedcc.org/about/news.
 savethedate.php

Icon Ceramics and Glass Group
 28 May 2009
 London, UK
 Email: jbartonegg@hotmail.com

CAC: Preservation of First Nations collections
 29–31 May 2009
 Vancouver, Canada
 http://www.cac-accr.ca/english/e-
 CAC-conference.asp

Sharing cultures 2009: International Conference on Intangible Heritage
 30 May–1 June 2009
 Azores, Portugal
 http://sharing.cultures2009.greenli
 nes-institute.org/index.php

Forum for the Conservation and Restoration of Stained-Glass Windows
 1–3 June 2009
 New York NY, USA
 www.iahv.org/en/Forum2009_Eng
 lish.pdf

Artists' Writings 1750–Present
 5–6 June 2009
 London, UK
 http://www.courtauld.ac.uk/resear
 chforum/2008/artistswritings

E-MRS 2009: Precise processing of materials for art diagnostics
 8–12 June 2009
 Strasbourg, France
 http://www.emrs-strasbourg.com

Optics for art, architecture & archaeology
 14–18 June 2009
 Munich, Germany
 http://www.spie.org/eomcall

Historic Houses as Documents of Social Life and Traditional Skills
 19–24 June 2009
 Stavanger and Sand, Norway
 secretarytreasurer@demhist.icom.
 museum

European Congress of Stereology and Image Analysis
 22–26 June 2009
 Milano, Italy
 http://ecsl0.mat.unimi.it/

IIC/SFHC: Art d'aujourd'hui patrimoine de demain: conservation et restauration des œuvres contemporaines
 24–26 June 2009
 Paris, France
 sfhc@free.fr

Courses, Seminars and Workshops

Roman Metalworking Workshop
 12–13 February 2009
 West Dean College
 West Dean, Sussex, UK

Conservation of Leather
 2–5 March 2009
 West Dean College
 West Dean, Sussex, UK

ICCROM Course on Conservation of Built Heritage 2009
 2 March–30 April 2009
 Rome, Italy
 www.iccrom.org

Icon Ethnography group: Identification of Osseous and Keratinous Materials
 25–26 March 2009
 Glasgow, UK
 http://www.icon.org.uk/index.php?option=com_content&task=view&id=926&Itemid=16

ICCROM: 16th International Course on Stone Conservation
 16 April–3 July 2009
 Venice, Italy
 www.iccrom.org

Aurum – Authentication & analysis of gold work
 11–13 May 2009
 Paris, France
 http://www.aurum.cnrs.fr/

Aurum – Ancient metallurgy and analytical developments
 14–15 May 2009
 Paris, France
 http://www.aurum.cnrs.fr/

UCLA Summer School in Ancient and Historic Metals: 2009
 6–11 July 2009
 Los Angeles CA, USA

For more information about these conferences and courses, see the IIC website: www.iiconservaion.org

**Courtauld Gallery
 Courtauld Institute of Art
 Conservator of Works on Paper**

£28,998–£35,542 pa depending on knowledge and skills

The Courtauld Gallery is one of the world's finest small museums with outstanding collections and an acclaimed programme of temporary exhibitions. Set in historic Somerset House in central London, the Gallery is an integral part of the Courtauld Institute of Art, an international centre for the teaching and study of the history of art and conservation.

The Gallery is seeking to appoint a conservator who will be responsible for the conservation and preventive care of The Courtauld's collection of approximately 7,000 drawings and 20,000 prints. The postholder will help to deliver the Gallery's conservation plan, undertaking routine conservation and mounting work as well as substantial treatments; you will also be required to support the Gallery's busy exhibitions and loans programme as well as contributing technical and other specialist research.

A recognised qualification in the conservation of works on paper, and specialist knowledge and experience of conserving works on paper are required. The successful candidate should also have knowledge and experience of technical research and recent developments in the field.

For further details and an application pack, please download details at <http://www.courtauld.ac.uk/vacancies/index.html> or email recruitment@courtauld.ac.uk or telephone 020 7848 1881.

Closing Date: 12.00 pm, 11 February 2009
Interview Dates: 26/27 February 2009

The Courtauld Institute of Art promotes equal opportunities.



**Sale of IIC Publications
 Congress Preprints and Studies in Conservation**

To reduce the space occupied by our considerable stocks of Congress preprints and back-issues of *Studies in Conservation*, we are offering for sale the IIC publications listed below (all subject to availability).

Copies of the following Congress preprints are available to current IIC members at £12.50 per volume (non members £25). Any six volumes can be purchased for the price of five (£62.50, or £125 for non-members).

- Conservation of Stone & Wall Paintings (Bologna 1986)
 - Conservation of Far Eastern Art (Kyoto 1988)
 - Conservation of the Iberian and Latin American Cultural Heritage (Madrid 1992)
 - Preventive Conservation (Ottawa 1994)
 - Archaeological Conservation (Copenhagen 1996)
 - Painting Techniques (Dublin 1998)
 - Tradition and Innovation (Melbourne 2000)
 - Works of art on paper (Baltimore 2002)
- Prices include surface postage; for airmail costs on your order please ask the IIC Office.

Back issues of *Studies in Conservation* are available to current IIC members at £4 per issue (non-members £8); remember that there are four issues per volume. Any six issues can be purchased for the price of five (£20, or £40 for non-members). Prices include surface postage; for airmail costs on your order please ask the IIC Office.

Reviews in Conservation

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