Cologne Archives

18 months on – progress in recovering from the collapse see page 3

Metabolic Materials

Smart paints, protocell architecture and potential conservation applications see pages 4 and 5

Everyone's responsibility

Teaching children about preserving cultural heritage – a Sabancı University project. Report on page 6



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

Yaşasın İstanbul – Long Live İstanbul!



Dr Nazan Őlçer speaking at the opening ceremony of the 2010 Istanbul Congress

The 23rd IIC Congress was held in the culturally rich and extremely welcoming city of Istanbul. Over 325 people from 44 different countries attended the Congress. The programme, addressing the *Conservation and the Eastern Mediterranean*, included 40 papers, 35 posters and 21 student posters, representing all conservation disciplines.

In Jerry Podany's opening remarks at the 23rd IIC Congress, he spoke of the

fishermen he had seen on the shores of the Bosporus and of the constant stream of trading boats plying the waters. He drew the analogy between these activities and those of the Congress attendees. Indeed there was a great deal of 'fishing' for new ideas and new contacts and the networking and trading of information between the attendees was open, generous and profitable for all.

There were opportunities to learn of new conservation approaches, to share the fruits



Question time with Susan La Niece, Nurçin Kural Őzgőrűs, Kristine Rose and Sylvia Pugliese

of recent research and investigations and to discover the many initiatives designed to preserve the rich heritage of the eastern Mediterranean, *in situ* or distributed in collections across the world. Topics included treatments of textiles, books and a rare fan; remote robotic work on a shipwreck in deep water; pigment mapping; mosaic reburial; the investigation of biological growth on stone, and the restoration and repatriation of a burial chamber. Collaborative capacity building projects and projects to sustainably preserve historic neighbourhoods were described and evaluated in other presentations.

Tours were held on the third day of the Congress, with visits to some of Istanbul's famous sites as well as conservation laboratories and museums, including Hagia Sophia, the Blue Mosque, the Hippodrome, the Grand Covered Bazaar, Topkapı Palace and the Sakıp Sabancı Museum, the host institution of the 2010 Congress.

The social programme commenced and finished with receptions at the Sabancı Centre. There was also a reception at the Sakıp Sabancı Museum following the Round Table Dialogue. The conference dinner, held at the Cistern of a Thousand and One

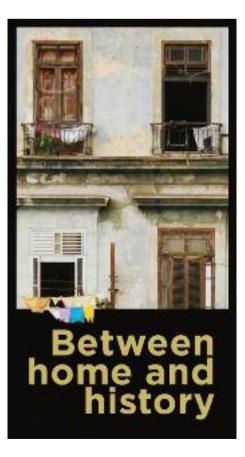
impose the principles of conservation and use legislation for preservation, both of which are designed for a fixed world and are not concerned with people and their social and economic needs. It was also suggested that we need a new language to discuss these issues as many of the concepts have been appropriated and rarefied; and we need to continue to be aware that communities are not homogeneous but are made up of old and new and have a range of values. It was agreed that it helps when the communities themselves take up preservation models, but we are in the early days of community-led preservation and there is much to be learnt through experience and research to unpack the complexity. It also cannot be done in isolation as there is a need to address social and economic issues and if this is done, community support and engagement are more likely.

Columns in Sultanahmet, the historic centre of Istanbul, was a real celebration with new friendships formed, many animated conversations and spirited dancing in beautiful surroundings.

In her closing comments at the end of the Congress, Dr Nazan Őlçer, Director of the Sakıp Museum thanked everyone warmly for their participation and for sharing their enthusiasm for the conservation of cultural heritage. She likened the profession to a big international family, sharing and solving problems that are not dissimilar across the world. Dr Őlçer went on to say that she was sure everyone would be dancing in Vienna in two years time – the venue for the 2012 IIC Congress.

Delegates networking during the lunch break





Between Home and History

The latest in IIC's series of *Dialogues for the New Century* commenced with a video interview with Orhan Pamuk, the Nobel Prize winning Turkish author, who described home as the place we feel safe and commented that the desire to preserve a sense of home is an essential human characteristic. His observation that preserving things creates a cultural impasse, in that preserving objects cuts them off from their cultural context, was one of the underlying themes of the Round Table discussion.

The panellists highlighted the complexity involved in preserving historic neighbourhoods and at the same time preserving a sense of community for those that live there. Too often the latter is not achieved, with preservation of historic areas leading to gentrification and pressure for poorer residents to move. It was noted that there are inherent difficulties when we

David Lowenthal, Leyla Neyzi, Stephen Bond, Neil Silberman, Ayfer Bartu Candan, Francesco Siravo and Asli Kiyak Ingin



A full account of the Round Table discussion will be available in the near future on the IIC website.

Editorial

Attending the recent IIC congress in Istanbul reinforced a number of things for me. I was reminded of the importance and pleasure of meeting with other conservators to exchange ideas and share experiences. It was clear that many others felt this way as well, with a number of people looking to form new groups to facilitate such exchanges on an ongoing basis and with very active networking continuing throughout the meeting. The Congress programme demonstrated the breadth and depth of coverage achieved by the conservation profession. Conservators deal with an extraordinary range of heritage material and increasingly conservators are also looking at the intangible values associated with the material objects.

It was also impressive to see the number of projects that aimed to build capacity, transfer skills and raise awareness of what is involved in preserving cultural heritage. Stephen Bond observed during the Round Table discussion that the more the world becomes homogenised, the more the need for cultural memory – and thus preservation – grows. But as others at the Round Table and at the Congress demonstrated, this is not simply a matter of conserving objects, buildings, neighbourhoods etc....it has to take into account why we are doing it and who we are doing it for.

That we are considering the bigger picture, as well as focussing on the detail of conservation work, enriches the work of the profession and increases its relevance.

Future issues of *News in Conservation* will continue to present the broad range of conservation projects dealing with both tangible and intangible heritage and look at conservation of the past in the context of relevance to the present and future. It is also important to understand traditional methods and technologies but to open our eyes to the amazing world of new technologies, which can appear almost like science fiction in their development stages, but have the potential to open up totally new approaches.

Don't hesitate to get in touch with *News in Conservation* to put forward opinions, to highlight conservation and preservation issues and ethical concerns and to showcase remedial and preservation projects.

Vicki Humphrey Editor

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News in brief...

Safeguarding project for New Gourna Village

UNESCO, in cooperation with the Egyptian Ministry of Culture and the Governorate of Luxor, is to organise a Scientific Committee meeting on safeguarding New Gourna Village in Luxor, Egypt. The aim is to assist the government of Egypt to protect this important site, situated within the World Heritage property of Ancient Thebes.

New Gourna Village was designed and built by architect, Hassan Fathy (1900–1989) who is credited with bringing the vernacular architecture of Egypt to a wider audience. The mud building technique used in the construction of the village was based on ancient methods where arches and vaults are used to construct roofs without the need for formwork. The project is being done within the framework of the World Heritage Earthen Architecture Programme, launched in 2007.

New Gourna was a planned village, built from 1946 to 1952, to house villagers displaced from the Antiquities Zone near Luxor. Part of the reason for this initiative was to stop the villagers raiding tombs. Fathy used the project to test his ideas about providing socially and economically viable public housing as outlined in his book *Architecture for the Poor*. The Scientific Committee is made up of international experts on Hassan Fathy's work and philosophy

Giorgio Torraca 1927–2010

Jerry Podany, President of IIC, wrote on the occasion of Giorgio Torraca's passing, "None of us are untouched by the loss of Giorgio Torraca, one of the most generous, enthusiastic, and productive members of the preservation community. His contributions are legion and directly or indirectly he was a mentor to all who work toward the conservation of world heritage". See the IIC website for Dr. Torraca's thoughts on the field of Heritage Conservation, past, present and future. ICCROM's obituary can be found at http://www.iccrom.org/ eng/news_en/2010_en/various_en/09_27obitTorraca_en.shtml

Earthquake in Canterbury NZ

Conservators in Christchurch reported on damage in the aftermath of the earthquake in early September. Fortunately the main collecting institutions suffered little damage to their collections. An issue for the Christchurch Art Gallery was moving exhibitions after the Gallery became the hub for Civil Defence operations. The Logie Collection of Greek and Roman Antiquities did suffer some damage due to glass shelves falling – their major priority was assessing items on loan and reporting the condition to the lending institutions. Many of Christchurch's older brick buildings from the late 19th and early 20th centuries, and which were not earthquake strengthened, suffered severe damage. Larger historic homesteads in the region were hard hit. The Historic Places Trust worked to ensure buildings were assessed for salvage potential and provided extensive information via their website.

One of Christchurch's six practising conservators observed that any response would be better coordinated from outside the area as the local conservators, like most other people, were absorbed with damage to their own homes.

Repertory Theatre, Christchurch, damaged in the Earthquake



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Textile Centre Update Three members of staff have recently been appointed to the new Centre for Textile Conservation and Technical Art History at the University of Glasgow and took up their posts in August. They are Frances Lennard, Dr Anita Quye and Sarah Foskett. Frances Lennard leads the Textile Conservation strand and convenes the *MPhil Textile Conservation* programme which began in September 2010. Anita Quye is Lecturer in Conservation Science and works with both Textile Conservation and Technical Art History. Sarah Foskett is the Textile Conservation Tutor.

Governor's Award for WUDPAC

In a ceremony to honour those "that have made outstanding, long-term contributions to Delaware's artistic and cultural life", the Winterthur/University of Delaware Program in Art Conservation (WUDPAC), founded in 1974, received an award in the collaboration category. WUDPAC is one of four graduate programs in the United States that educates and trains art conservation professionals.

New Executive Director at INCCA-NA

The International Network for the Conservation of Contemporary Art-North America has a new Executive Director. Lauren Shadford. Lauren used to run her own consulting practice serving museums, art collectors and nonprofit arts organizations.

Do objects have biographies and careers...or do they evolve?

Lu Allington Jones, conservator at the Natural History Museum in London, muses on the lives of objects.

During its existence an object changes in status. Environments, physical experiences and the way it is used or employed leave cumulative marks. Thus each object could be said to have a 'biography' or a 'career' although neither term is ideal – the former implies a record of all values whilst the latter implies advancement.

Objects are both material and social units. Materially, they have structural and functional properties; socially or intangibly they have context and significance. An object's significance is socially assigned rather than being a property inherent in the object itself. The meaning is created when you interact with the object. Liz Pye, in her 2007 work Caring for the Past, terms physical changes as 'material biography' and changes in significance as 'conceptual biography', thus incorporating both the tangible and intangible characteristics. Objects entering a museum take on a 'new life'. Many objects arrive at museums in groups, a collection created by an individual. Susan Pearce, in her book Museums, Objects and Collections: A Cultural Study, points out that this association, and the social or psychological reasoning behind collecting, give objects additional meaning. An object's significance within a museum will differ from that within the originating culture, especially if the museum has been created by a dissimilar culture. The current significance of objects can be emphasised by museum context: - split between museum interpretation and personal meaning. Within a museum an object's 'career' can continue: it can be stored, displayed, loaned, used for education, sold, repatriated

or destroyed. Research can increase knowledge about an object and change its meaning. Fashions in thought will also affect perceived value. An object's 'material biography' can also change within a museum: restoration, conservation, and continued deterioration will all leave their mark.

Objects can possess many different significances over time, some sequential, others simultaneous. These significances dictate the use, environment and treatment of an object, which physically manifest as deterioration. In an article within Simon Knell's book *Care of Collections*, Susan Bradley outlines how raw materials and processing methods dictate the way an object responds to these various agents. The most appropriate term to describe this phenomenon is 'evolution'. Evolution is only directional in retrospect, and the assumption that it is progressive is an anthropocentric misconception. Evolution is simply what survives, and in what form. It is governed by the changing environment. The driving force of selection in object evolution is the perceived value at any one time. The original material is dictated by climate and geographical location and by the cultural values of its manufacturer. This contributes to its survival, and to how it reacts to the agents of deterioration within each successive environment. In conclusion 'biography' and 'career' are useful metaphors to describe the varied course of objects throughout their existence but 'conceptual evolution' and 'material evolution' are more appropriate terms. Evolution is survival of the fittest, the metaphor for value; the survivors are shaped by their environment, the metaphor for the physical journey of an object. Finally, objects in museums are not 'dead': They are still evolving.

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18 Months after the Collapse

Georgia Iona describes the positive progress of efforts to recover from the collapse of the Historical Archives of Cologne.

Cologne's Historical Archives was one of the largest communal archives in Europe, housing 30 linear kilometres of official and private records of historic and cultural importance to the German nation. On March 3rd 2009 the main storage unit of the Archive collapsed. The investigation into the causes of the collapse is still ongoing.

The majority of the holdings were buried under a huge pile of debris, extending from the level of the foundations down to the semi-completed underground tunnels and inside the crater that opened up underneath the building. The *in situ* rescue operation, which lasted nine months, was undertaken by authorised civil servants, archive personnel and volunteers. Retrieved archival material was treated according to its condition. Dry objects were packed into numbered acid-free paperboard boxes and dispatched to storage depots of nearby museums, archives and private warehouses. Heavily soiled, wet, damp and mouldinfested items received in-situ first aid and were then sent for immediate freezing. Currently an estimated 85% of the objects are safely stored, 5% were permanently lost and 10% are still buried in the foundations of the collapsed building.

One and a half years after the collapse, the Historical Archives of Cologne resumed its normal operations but with the majority of the staff still engaged in projects focussing on the retrieval of the holdings.

The new Archive building

For an estimated five years from April 2010 the main administration unit, the library and the reading room of the archive will be housed in a building in central Cologne. Future plans for the recovery and reuniting of the disordered records involve the creation of a Conservation and Digitalisation Centre, where the rescued books, files and documents will be stored, identified, reordered, digitised and treated.

The new Archive, expected to be completed by 2015, will be located in the west of Cologne, near the main university campus. The aim is to establish the most technologically advanced city archive in Europe, with capacity to house 50 linear kilometres of records and with conservation laboratories, reading rooms, digitalisation and cold storage facilities. The new building will offer optimum storage conditions for all types of records, reducing factors that contribute to damage and aging. The new Archive will be environmentally friendly utilising cost effective energy saving technology. Furthermore the construction will provide a pleasant working environment for about 80 employees and will be designed to facilitate access.

Conservation

At least 35% of the rescued holdings are in a very bad condition; about 50% suffered moderate damage, and 15% received only minor damage. At first glance these figures seem quite positive but although a large part of the collections is now securely stored, not every item is stable or appropriately conserved. All rescued files and documents are contaminated with alkaline dust and most have suffered severe mechanical distortions, tearing, losses, water-damage, soiling and micro-organism infestation.

At least 35% of the rescued holdings are currently in a very bad condition and about 3.5 million fragments need to be identified and reintegrated into the collection.

Stability and usability of the records have been key drivers of the conservation projects. Priority has been given to documents of exceptional historic importance, frequently used records and sensitive objects that are especially prone to degradation. Unique books and documents have been already treated in authorised private conservation studios thanks to donations by private citizens. The need for further funding for similar conservation projects is increasing as the number of endangered holdings rises.

Due to the unstable condition of all rescued records, time limitations and lack of storage space, mass-preservation projects are also in progress. These are being undertaken by public conservation laboratories in cooperation with the conservation section of the Historical Archives of Cologne. Mass-

Public record dated 1982, after treatment



Archives in storage in Detmold

preservation was initiated with the treatment of freeze dried and mold infested objects, which obviously have priority. Future preservation plans include inspection as well as preventive and interventive conservation for all holdings.

Re-registration of the records

Apart from the severe physical damage, all the collections were badly disordered as a result of the collapse. About 3.5 million fragments need to be identified and reintegrated into the collection. Identification and re-registration of all holdings is an enormous project that started in October 2009 and will continue for another thirty years. The rescued objects are deposited in 19 storage depots throughout Nordrhein-Westfalen, the westernmost state of Germany. They will receive identification numbers and be registered on a customdesigned, simplified version of the already existing archiving system (ActaPro), together with a short condition record. Both versions of this database/management system will work in tandem, providing an overview of the condition of every collection of records and unity for the archive as a whole.

Digitalisation

As the current condition of the holdings prohibits any further use of the originals, access to the documents is only feasible using digital copies. Conversion of records into a digital format will also simplify the retrieval of information from damaged archival material without endangering the originals. Priority for digitalisation is given to the already existing analogue databases and finding aids, which will enhance further identification of all holdings.

The Historical Archives of Cologne aims to take the lead in the implementation of new information technologies to retrieve, preserve and distribute information from historic sources, having as the main objective the creation of a complete digital public archive. metres under ground level. Stabilisation of the ground and construction of an ancillary structure to facilitate further in situ attempts to retrieve the buried objects are currently ongoing. Rescue operations to retrieve the remaining holdings are due to begin this year and are expected to last 40 to 50 days. All excavated archival material is expected to be degraded; therefore in situ first-aid treatments and freezing within 12 hours of unearthing will be essential. As was the case in 2009, excavated objects will be cleaned with running water and packed for freezing. Due to time and weather limitations a working plan involving 3 shifts per 24 hours will be required.

Sharing this experience – raising public awareness

While the recovery of all rescued holdings remains the main focus, raising public awareness is also a key objective for the Historical Archives of Cologne. During the last 18 months, a significant number of damaged and recently restored objects have been presented in exhibitions, which highlighted the devastation that resulted from the collapse, but which also raised awareness of the significant achievements of the conservation and preservation interventions and the potential of these activities. Co-operation and networking with institutions and professionals that have participated in similar rescue projects are critical for further extending the knowledgebase of the new conservation sector of the Archive. It is our hope that sharing knowledge of a rescue operation of such a magnitude will result in the identification of 'lessons learnt' that can assist in reducing damage in the unfortunate event of similar a disaster in the future.

Biography

Georgia Iona holds a BA (Hons) in Conservation



Retrieval of buried archival material

Approximately 10% of the total volume of holdings remains buried more than 10

and Restoration from De Montfort University and a MA in Paper Conservation from the University of Northumbria. Her

former work experience involves conservation of post-Byzantine manuscripts, ethnographic collections and mass deacidification of contemporary paper documents. She is currently employed at the Historical Archives of Cologne as a conservator for contemporary public holdings, participating mainly in the identification of retrieved records. E-Mail: georgia_iona@hotmail.com, georgia.iona@stadt-koeln.de

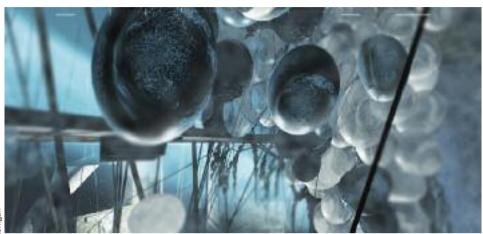
Public record dated 1982, before treatment



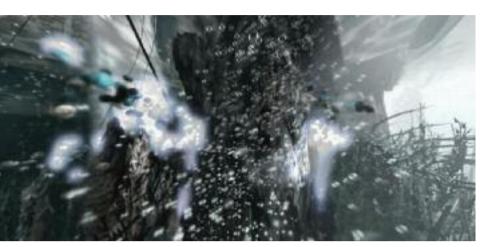
Rachel Armstrong **reveals the amazing** world of metabolic materials and their potential for conservation – even to sustainably rescuing whole cities.



Living Technology for Sustainable Cities



The protocell system is chemically programmed to move away from the light and move to the wood piles which form the foundations of the city of Venice.



Once the protocells have reached the wood piles they fix carbon dioxide that has been dissolved in the water and turn it into a limestone-like substance.



Gradually the limestone-like substance produced by the living qualities of the protocell system accretes and forms a reef-like structure around the foundations of Venice.

The artificial reef serves to create a wide base for the foundations of Venice, spreading its point-load and attenuating the sinking of the city into the soft delta soils on which it was constructed.

All buildings built today have something in common. They're made using Victorian technologies. This involves blueprints, industrial manufacturing and construction using teams of workers. All of this effort results in an inert object, creates an impenetrable barrier between architecture and the natural world and implies a one-way transfer of energy from our environment into our homes and cities. This is not sustainable. Genuinely sustainable homes and cities need to be connected to nature, not insulated from it.

From the perspective of conservation and restoration of architecture, building and the environment are viewed as separate and even oppositional systems. Approaches are aimed at combating the impact of natural systems on the passive materials that constitute our buildings. At the time of design, it is assumed that architecture is an immutable object that will not degrade, decay, suffer trauma or become colonized by unwelcome organisms. The policing of the interface between the built and natural environment is energetically costly and reinforces the barrier that architecture creates between human activity and the environment. Whilst this standoff continues we will need to engage in active surveillance of this interface and play continuous catch-up to combat the forces of nature. New scientific developments in the field of synthetic biology - the science that engages in the design of organisms to create new or more efficient outcomes than they possess naturally - have provided insights about harnessing the material imperatives of natural systems, which are driven by physics and chemistry. If these biological 'drivers' are applied as a technology, then living principles can be used to work symbiotically with architecture to create sustainable outcomes. To be able to do this, the right kind of 'language' is needed. Chemistry shares a language with living systems, which is called 'metabolism', and involves the conversion of one group of substances into another, either through the production or the absorption of energy. Using the properties of metabolism in a material form, it is possible to connect our buildings with an infinite number of chemical pathways that participate in the energy that flows through terrestrial matter. Living systems use their metabolism to remain in constant conversation with the natural world and make the most of local resources in a sustainable way. My research explores the development of 'metabolic materials' for the practice of architecture, which may be thought of as a 'living technology', one that possesses some of the properties of living systems but is not considered to be 'alive' as the materials do not possess DNA, the information processing system that biology uses. The general approach is to use these materials to create a dynamic, material interface between architecture and the built environment that can perform continuous, active surveillance and repair of our buildings - rather like an architectural 'immune' system. These materials are not yet available as commercial products but they are currently being developed collaboratively with international architects and scientists.

Chemist Martin Hanczyc works with a dynamic oil in water droplet system, called a protocell, that conducts itself in a way that can only be described as 'living'. It is able to move around its environment, follow chemical gradients and undergo complex reactions, some of which are architectural. Essentially the protocells can be thought of as a form of material computing and perform the role of 'hardware'. Protocell hardware is very effective in the smart positioning and distribution of matter in time and space in an environment. The software is the chemistry contained in the protocell, which is not only open source but can house a vast range of chemistries. For example, protocells can be chemically programmed to perform different kinds of functions such as, extracting carbon dioxide out of the atmosphere and turning it into carbonate, which is a kind of limestone and has been used in architectural practice for thousands of years.

reducing locally produced carbon dioxide, since it is possible to use the protocell system to produce a solid material, or 'shell', which is deposited on the outside of buildings by applying a 'smart paint'. These shells may have additional properties such as, improving the thermodynamics of a building by trapping insulating bubbles of air in the shell layers, increasing the thickness of walls and even being able to repair existing micro fractures. Whilst previous surface treatments for masonry have caused significant issues for restoration and repair such as, the sealing of facade material with synthetic resins, which has proven so disastrous on porous building materials containing soluble salts, or causing the problem of blocking or redirecting water transport in stone, metabolic materials have the potential to behave differently to these approaches. Uniquely, these new materials thrive in the presence of water and research is being conducted with a view to investigating how their affinity with water could be used to prevent the penetration of water into porous structures, particularly since the protocell is an oilbased technology. Moreover the deposition of materials produced by metabolic materials is dynamic, with the

The development of active yet integrated surfaces for our building exteriors may help us combat the physical and chemical changes associated with global warming by Protocells creating limestone beads or 'protopearls' in a beaker.





Venice reclaimed using protocell technology. The stalactite and stalagmite formations are caused by the capillary action of traditional building materials which enable protocells to colonize some of the damper parts of the city.

distribution of the product being sensitive to the changing environment. Further research is necessary to characterize these relationships so that appropriate choices of materials can be made that are specific to the context of their application. Metabolic materials may be engineered to remove pollution, trap sunlight in the form of oil - rather than electricity – and even produce water in desert climates. Depending on the programming instructions received by the living technology, it may even be possible to reverse the current relationship that exists between architecture and the environment, so that our buildings have a positive impact on the environment. In the future, the very act of constructing a building using metabolic materials may be viewed as a remedial intervention that helps natural systems to readjust in times of chemical stress. We are already familiar with the idea of taking medicines to chemically alleviate stress in the body and these materials could be seen as performing a



Single Protocell x 10 magnification – Dynamic oil in water droplet system that exhibits some of the properties of living systems and complex behaviours, some of which are architectural such as, the production of solids

Two protocells using their living properties to create a microstructure, x 10 magnification.

similar role in the built environment.

A flagship project to explore the possibilities of metabolic materials has been created to examine how metabolic materials would be able resolve a situation that had not been fully answered using conventional technologies. To achieve the seemingly impossible task of preventing further damage to the ancient city of Venice, a series of mechanical flood gates – the Moses gates – to stop the advancing lagoon waters reaching the city have been proposed recently. This approach has proved controversial since environmentalists fear that these industrial technologies will have a profound, negative impact on the already stressed Venetian marine ecology. An alternative proposal for the sustainable reclamation of Venice, uses protocell technology to grow an artificial reef under the foundations of the city and to address the complex relationship that the city has with its environment.

These materials could be seen as medicines for the built environment.

In the Venetian scheme using protocells, the active agents based on oil droplet technology, are released into the water. They are programmed to move away from the light in the canals and move towards the darkened foundations under the city, where they gradually petrify the woodpiles, depositing limestone-like shells around them by fixing dissolved carbon dioxide. Over time and with monitoring, this leads to the amassing and deposition of limestone around the foundations in an environmentally sensitive and ecologically responsive way. Simultaneously the protocells are also able to fix carbon dioxide and trap pollution, cleaning the soft soils. The resultant artificial limestone reef that is produced, spreads the point load of the city, redistributing its weight on the soft land underneath it as well as offering new niches to the lagoon ecology, connecting the marine environment to the city. The intention of the project - very much still at the conceptual stage - is not to 'cure' the status of Venice by rendering it a dry habitat but to enable it to

Colony of protocells adopting a formation that is reminiscent of 'natural' roses, x 10 magnification.



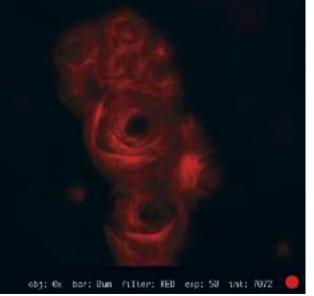
Artist's impression of the artificial reef under the foundations of Venice.

survive by equipping it with a new set of tools and materials, which will prolong and facilitate its survival. These new technologies allow the city and its inhabitants to be engaged in their environment, not distanced from it whilst still being able to enjoy their unique lifestyle.

Metabolic materials work with the natural flow of energy in the physics and chemistry of matter and create unique forms some of which are remarkably similar to forms that are characteristic of natural systems. It is possible that an observer in the future marveling at a beautiful structure in the environment may find it almost impossible to tell whether it had been created by a natural process or an architectural one.

These new materials help us imagine how it may be possible to construct, restore and even retrofit buildings differently. The full potential and range of this technology with respect to a whole range of applications within the field of conservation has not been explored since the research is still in its earliest stages of development. On a different scale and in the context of the built environment, metabolic materials may play a future role in the construction of new repositories, art stores or museum stores and exploit the possibilities for controlling the internal environment of the building in a more environmentally sustainable and harmonious way than we currently use. Additionally, these technologies have the potential to monitor and sense environmental changes across a range of scales and not only detect changes in an environment but stabilize a set of conditions. Ultimately, these new technologies may provide environmental barometers and first-line response or repair systems to become our guardians against some of the unpredictable consequences of climate change and on an urban scale, have the ability to reverse the negative impacts that architecture can have on the environment. This is the kind of legacy that we could be proud of; a legacy whereby the actual process of building our homes and cities will make the world a better and healthier place for our successors.





the world a better and nearther place for our successors.

Biography

Rachel Armstrong is Co-Director of AVATAR (Advanced Virtual and Technological Architectural Research) in Architecture & Synthetic Biology at The Bartlett School of Architecture, University College London, Senior TED Fellow, and Visiting



Research Assistant at the Center for Fundamental Living Technology, Department of Physics and Chemistry, University of Southern Denmark. Her research investigates a new approach to building materials called 'living architecture,' that suggests it is possible for our buildings to share some of the properties of living systems.

Cultural Heritage Conservation – Raising Awareness for the Future

As part of its programme of Civic Involvement Projects, Turkey's Sabancı University runs sessions to raise awareness of cultural heritage and its preservation among young people aged nine to thirteen.

The foundation of the Civic Involvement Projects (CIP) is the idea that individuals are responsible for the society and the world they are living in and need to participate to have an effect. When involved in one of these projects, Sabancı University students take active roles to address various problems and issues, often working with national and international NGOs and state institutions. Areas of focus for CIP projects has included child development, human rights, the environment, consumer responsibility, women's issues, addiction and support for people with disabilities. Since 1999 40,000 people have been involved in 635 CIP projects, with 6,400 Sabancı University students taking part.

A new project was developed in 2009 focussing on culture. This project called 'Protecting Cultural Heritage and the Active Involvement of Youth' was based on the fact that no matter what socio-economic group people come from, they value their culture and want it protected. As stated in the project report: "Since we are building our future together, we should also protect our past."

In keeping with the CIP principle of active participation to make a difference, it was felt that relying on experts alone was not appropriate "because it is our own duty to protect ... Cultural Heritage". Therefore the Sabancı University students were given theoretical and practical training from conservation experts to familiarise them with conservation and restoration techniques for different materials. They also participated in field work on actual conservation projects.

Following this the students prepared study programmes for primary school aged children, exploring the questions: "What is culture? What is cultural heritage? How can we conserve our heritage?" In the workshops with children these questions are put forward and answered through interactive games and drama, followed by the opportunity to conserve reproductions of objects. To engage the imaginations of the children, the project has used old toys that their grandparents may have played with, to introduce the concept of heritage. Workshops were held in a range of different schools in Istanbul, Antakya, Sinop, Mardin and Ardahan and involved 75 university students and 2000 children. This very successful project had the support of the Turkish Ministry of Culture and Tourism and the General Directorate for Cultural Heritage and Museums and was run in collaboration with the Central Laboratory for Conservation and Restoration.

Delegates at the IIC Congress had the opportunity to watch one of these workshops and the privilege to act as expert advisers to a group of 10 year old children. IIC President, Jerry Podany, participated in the role play aimed at preparing objects for conservation treatment. The treatments were carried out by the children under the guidance of the assembled international experts. Long after the experts had returned to the auditorium, the children continued with the 'restoration' phase of their work. This workshop was reported in the newspaper, Haber Turk (http://kultursanat.h aberkantini.com/2010/09/25/%E2%80%9Ck ulturel-mirasi-koruma-ve-dogu-akdeniz%E2 %80%9D/) and received very positive feedback from Congress attendees, including Jerry Podany and IIC Secretary-General, Jo Kirby Atkinson.

IIC's participation received a positive response from the project team, with Didem Doğruöz, the person responsible for the project stating, "The congress has become an opportunity to share our hopes, aims and the work experience that we gained throughout

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International experts advising the children on their conservation techniques.



Traditional toys used in the CIP workshops.

the year". Project Advisor, Muhterem Balcı also noted, "It was very impressive to see experts helping the children while they repaired toys made of ceramics and paper. Moreover, experts did not do the work by themselves but explained how to restore, so that in real sense most of the work was left directly to the children.....".

This project has acted as a bridge between experts, university students and children, and has been successful in developing people's awareness of the importance of conserving heritage. It will continue in 2010–2011 with the aim of spreading the message to a wider group.

The workshop at the IIC Congress



IIC News

PROJECT LINGUA

Sharing professional knowledge worldwide benefits and helps each member of the conservation community to grow and ultimately draws that community closer together. The IIC is

committed to developing ways in which the world community of preservation professionals can communicate and has launched PROJECT LINGUA, a voluntary global effort by IIC members to translate a variety of transcripts from the events produced by the initiative Dialogues for the New Century: http://www.ii conservation.org /dialogues/ Within the next month many of these transcripts will be available in French, German, Greek, Japanese, Croatian, Arabic and Turkish..... and soon Polish, Korean, Farsi, Portuguese, Spanish and Hebrew. If you speak a language other than English and would like to be part of this exciting new initiative contact the IIC office and become a *Lingua!* Make a real difference to the international community of IIC!

of the 2010/11 membership renewal process. IIC supports conservators and institutions who cannot afford the cost of membership through this Fund, and those who donate to it are awarded the status of **World Membership** of IIC. We shall be listing the World Members who have provided support in the next edition of News in Conservation.

IIC President Jerry Podany announced at the Istanbul Congress the first recipients of institutional membership, who receive membership of IIC for two years without charge.

They are:

Hudogestvena Akademia, Sofia, Bulgaria Georgian National Museum, Tbilisi, Georgia CENCREM (Centro Nacional de Conservacion), Havana, Cuba



defining conservation goals and served national and international heritage agencies. Among his many publications is the seminal book, *The Past is a Foreign Country*.

In his Forbes lecture, Mediterranean **Omens: Conservation Nostrums in Mare** Nostrum, Professor Lowenthal spoke of the Eastern Mediterranean as the seed place of conservation, noting that throughout the Mediterranean there is hardly a place where the wealth of heritage and the pride in this heritage is not apparent. However, heritage remains at risk through theft and exploitation. He also drew attention to the problem of the alienation of heritage, with the past seen as suffocating the present. In another of his themes, Professor Lowenthal indicated the importance of nature conservation and the parallels between heritage and nature conservation. Looking back through history, it is clear that the people who agitated for the conservation of our heritage were often the same people who pioneered conservation of places of natural beauty and of natural resources;

Photomather : Kanan Mark

among them John Ruskin and George Perkins Marsh. People such as these emphasised the need to care in the present to ensure that we can pass this heritage on to the future. Professor Lowenthal said that posterity is the prime duty of conservators – "conservators speak as no other group does for the voiceless future". At the same time he noted that although we recognise the need to think long-term, we continue to be dominated by short-termism, with one clear example being our responses to climate change and the consequent threats of rising sea levels

and "abandonment of our coastal heritage". In the last of his themes, David Lowenthal spoke about the relationship between creation and conservation/restoration and how he felt they were often too sharply separated from each other. He pointed out that since the Enlightenment, conservation has taken a back seat to the concept of authenticity, but he sees this separation as folly. The lecture was peppered with keen observations on the profession, including that as conservators we are "often too focussed on the how and not why" we do things, as well as challenges to ensure our voice is heard, for conservators to continue to represent future generations and contribute to long term thinking and for us to work to reduce the gaps between conservators and curators. The full text of this thought provoking lecture will be published in Studies in Conservation.



Lingua

World Membership

There has been a gratifyingly generous response by IIC members to the call for donations to the Opportunities Fund as part We congratulate these three institutions and look forward to welcoming them to IIC membership.

News from the 2010 Istanbul Congress The 2010 Forbes Prize Lecture

The Forbes Prize lecture is delivered at every IIC Congress. The fee for delivering the lecture is a prize recognising the invited lecturer's outstanding contributions to conservation. The 2010 Forbes Prize Lecture was given by David Lowenthal, professor emeritus, Department of Geography, University College London. For over half a century, he has been a significant voice in heritage conservation and has contributed to

International Representation at the Congress

IIC's Council were delighted to welcome a wider range of nationalities to the Istanbul Congress than has been the case ever before. Delegates from Croatia, Jordan, Syria, Lebanon, Moldova, the United Arab Emirates and Zimbabwe were able to join their many colleagues from Turkey and beyond to share in the exchange of experience, ideas and techniques that is the stuff of IIC Congresses.

IIC is grateful to the following foundations and charities, whose contributions assisted in ensuring such a wide representation of nations at the Congress: The Getty Foundation, the Sabancı Foundation, the Gabo Trust, the Clothworkers' Foundation and the International Trust for Croatian Monuments. IIC's own Brommelle Memorial Fund was also able to help students attend the Congress.

Keck Award

The Keck Award, generously endowed by Sheldon and Caroline Keck, is presented every two years at the IIC Congress to the individual or group who has, in the opinion of the Council, contributed most towards promoting public understanding and appreciation of the accomplishments of the conservation profession.



In 2010 the Council awarded the IIC Keck Award to the Painting Techniques of Impressionism and Postimpressionism project organised by the Wallraf-Richartz Museum & Fondation Corboud in collaboration with the Cologne Institute for Conservation Science at the University of Applied Sciences in Cologne.

The focus of this research project was the investigation of the painting materials and techniques and also the recording of their state of preservation as well as their restoration history. Examinations were undertaken using incident, raking, transmitted and reflected light as well as the ultraviolet and infrared regions of the spectrum and binocular stereo-microscopes. Where required false-colour infrared reflectography and X-ray examination were put to use. All investigations were carried out using non-inventive, non-destructive examination techniques. Thus pigment analysis was performed applying the nondestructive method of VIS spectroscopy.

With the aim of disseminating the results of the research to the widest possible audience, the project included an exhibition, that are hoping to set up groups, including Turkey, and the Arabic-speaking countries.

It was noted that under Jerry Podany's leadership IIC has sought to reach out to all regions and increase membership across the world. Jerry acknowledged that Englishspeaking countries used to be the best represented but recent IIC initiatives such as Project Lingua aim to be more inclusive of members across the world. Regional Groups have always been important to IIC.

Graham Voce commented that there is not a strict relationship between Regional Groups and IIC. Each Regional Group needs to be approved by IIC council but following that the groups are autonomous. Not all members of the regional groups have to be members of IIC, but the groups' board members should be IIC members where possible.

The meeting received updates from all the groups present. These have not been included in this report as Regional Groups will be featured in a forthcoming issue of News in Conservation. It was clear from the updates and histories provided that the groups are structured in different ways, some based on national lines such as the Austrian Group and others, such as the Nordic Group, are made up of individual country groups from a particular region and with common concerns. Observers who are thinking of setting up groups were encouraged to talk to representatives from the different types of groups to see which model is most suitable. They were also encouraged to talk to the Croatian Group to get a feel for their recent experience of setting up a group and getting it approved.

The meeting provided an excellent forum for discussion of some of the difficulties faced in setting up Regional Groups, one of which is the increasing use of the internet and the effect that has on membership of groups. Collaboration across national boundaries to set up groups was discussed. The representative from Greece pointed out that Bulgaria, Turkey, Romania and Greece, for example have similar climates and deal with similar problems but seldom communicate. While many countries have national groups of some sort already, Turkey does not. The Turkish representatives indicated that this Congress was a really significant event for them and they really felt the need for a regional IIC group to help them in networking within Turkey. Many Turkish conservators did not know of other colleagues and had been very excited about making contact. There was also discussion about a forum of Arabic-speaking conservators. This ambitious development will provide opportunities for sharing experiences and creating better avenues of communication.

Possible future developments for the groups included the suggestion of exchange visits between different regional groups. This was a very constructive meeting characterised by commitment, positive exchange and much enthusiasm.



Getty Conservation Institute.

Solmaz's poster documented studies of an historic caravan route which links the historic Bazaar of Tabriz, in Iran to other places of historical and cultural significance in the city. Through understanding its cultural and economic significance for different stakeholders and studying its main issues, Solmaz tried to offer some proposals to address the main problems associated with the place.

IIC Student Meetings

For the third time a student meeting was organised as part of the biennial IIC Congress - this time at the IIC congress in Istanbul, Turkey, during September 2010. The idea of the present meeting, as well as the previous meetings in Munich 2006 and in London 2008, was to make the students aware of what IIC stands for and of the possibilities that IIC can offer students. In addition, a major point of the meetings has been for the IIC Council to get to know what students expect from IIC and to foster new ideas about student interaction with IIC. This has been achieved thought these meetings and the networking and discussion they stimulate.

At the London 2008 meeting a very interesting proposal was put forward - that a student poster session be organised alongside the 'traditional' IIC poster session. This was very successfully realised at the Istanbul meeting. A hard working Student Poster committee headed by Amber Kerr-Allison selected 21 students' posters from a large number of submissions. The 21 posters were presented at the Istanbul Congress next to the IIC Congress posters and they certainly stood up to the competition! They were indeed a very fine selection of presentations done by students of conservation. This initiative will be repeated at the next IIC congress.

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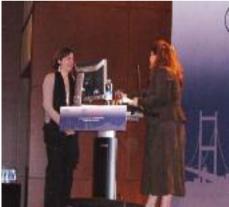
Two student meetings were held at the Istanbul Congress, one each on the Tuesday and Thursday. An impressive number of over 30 student delegates participated in the meetings, listened to IIC Council member Mikkel Scharff's presentation on the potential of IIC and the student delegates came up with a range of new and exciting ideas on the relationship between students and IIC. In the coming months these ideas will be discussed further and developed and I am sure that there will be a number of new initiatives coming up. News will be posted on the IIC website, here at News in Conservation and on the IIC Facebook page. Mikkel Scharff

Student Poster Session and Prize

As part of its commitment to assisting students in their professional development, a poster session specifically for students/young professionals was introduced at the IIC Congress in Istanbul.

The initiative included the formation of a peer-review Student Poster Committee comprised of young professionals from a geographically diverse group of IIC student members. Throughout the selection process the Student Poster Committee had the advisory support of the IIC Council and Technical Committee, with exceptional mentoring advice from IIC Vice President, Sharon Cather, and valuable editorial support from IIC Director of Publications Joyce Townsend. The posters have been published on the IIC web site: http://www.iiconservation.org/congress/post ers.php#student

Due to the quality of the posters, selection of the winning poster was difficult. However the judging panel awarded the Student Poster Prize to Caroline Roberts for her poster, Documentation, Technical Analysis and Treatment of a Bitumen Model Boat from *Ur*. Carrie received a certificate, a microfiber dusting cloth and measuring tape donated by TruVue, and a book on *Early Islamic Pottery — Materials and Techniques* by Anne-Marie Bernsted. An honorable mention was given to Michail Koufopoulos for his poster Methodology for the design of repair mortars.



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an exhibition catalogue, an international symposium and an online publication. The **Posters** exhibition, held in three venues had over half a million visitors; the catalogue sold approximately 23,000 copies in three

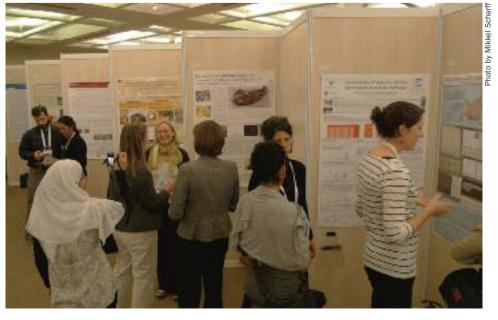
languages and the symposium had around 250 participants listening to 16 lectures. The online publication and further information about the project can be found at: www.museenkoeln.de/impressionismus

IIC Regional Groups Meeting

The meeting of IIC Regional Groups was held on Thursday 23rd September at the 2010 Istanbul Congress. Gabriela Krist welcomed representatives from the Croatian Group, the most recent IIC regional group to be formed, as well as observers from regions

Posters were displayed prominently throughout the Congress and there was a dedicated session at 11.00 am on the Thursday morning, giving delegates the opportunity to speak to poster authors. An extended abstract is published in the conference papers to provide a permanent record and point of contact.

This year the poster prize was awarded to Solmaz Yadollahi for her poster *Rehabilitation of the Damir Gapisi historic* caravan route in Tabriz, Iran. Solmaz's prize was The Past From Above: Aerial Photographs of Archaeological Sites, edited by Charlotte Trümpler with Georg Gerster's photographs. The prize was generously provided by the



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Calls for Papers

GLASSAC II - Glass science in art and conservation 10-12 May 2011 Wertheim, Germany Call for papers deadline: 31 October 2010 www.glassac.eu

From Can to Canvas: Early uses of house paints by Picasso and his contemporaries in the first half of the 20th century 25-27 May 2011 Marseilles & Antibes, France Call for papers deadline: 15 November 2010 http://www.fromcantocanvas.fr.

Jardins de Pierres: Conservation of Stone in Parks, Gardens and Cemeteries; Call for contributions 22-24 June 2011 Paris, France Call for papers deadline:

30 November 2010 http://www.sfiic.fr

Rustbuckets or Floating Heritage - Corrosion of Historic Ships 8-11 September 2011 Stockholm, Sweden & Mariehamn, Finland Call for papers deadline: 3 January 2011 rustbuckets2011@maritima.se www.maritima.se

LACONA IX - Lasers in the **Conservation of Artworks** 7-10 September 2011 London, UK Call for papers deadline: 14 January 2011. www.lacona9.org

Meetings and Conferences

12th AICCM Paintings Symposium on the theme of **Dialogues with Artists** 20-22 October 2010 Adelaide, Australia durham.andrew@dpc.sa.gov.au

Symposium on Polychrome Sculpture: Tool Marks and **Construction Techniques** 24-25 October 2010 Maastricht, The Netherlands info@sral.nl

Forbes Symposia on scientific research in the field of Asian art: Topics in ancient metallurgy 28-29 October 2011 Washington, DC, USA http://www.asia.si.edu/visitor/dcsrS ymposium.htm

Costume Colloquium II: Dress for Dance 4–7 November 2010 Florence, Italy http://www.costume-textiles.com

ICOM Triennial Conference on Museums and Harmonious Society

7–11 November 2010 Shanghai, China http://icom.museum/gen_conferen ces.html

2010 NYCF and EAS **Conservation Science Annual** 15-18 November, 2010 Somerset, New Jersey, USA www.eas.org 6th AICCM Book, Paper and Photographic Materials Symposium 17–19 November 2010

Melbourne, Australia www.aiccm.org.au Denkmal 2010 – Europaische Messe für Denkmalpflege,

Restaurierung und Altbausanierung 18-20 November 2010 Leipzig, Germany www.denkmal-leipzig.de/LeMMon /denkmal_web_ger.nsf/start?Open Page

Colours, Early Textiles Study Group (ETSG) Meeting 19–20 November 2010 London, UK h.persson@vam.ac.uk

Technology and Technique in the Research of Works of Art 25-26 November 2010 Torun, Poland konftech@op.pl

sculpture, 1100-1600, Interpretation, material histories and conservation 26-27 November 2010 Oslo, Norway http://osloforum.wordpress.com/ Tudor and Jacobean Painting:

Production, Influences and Patronage 2-4 December 2010 London, UK www.npg.org.uk/matb

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Seventh International Conference on Science and Technology in Archaeology and **Conservation and The Stone** Workshop of CIPA, ISCS, and **ICAHM of ICOMOS** 7-12 December, 2010 Petra, Jordan www.heritagedocumentation.org/w orkshop2010 New Approaches to Book and

Paper Conservation-Restoration 9–11 May 2011 Horn, Austria. ercbookpaper@gmail.com www.european-research-centre.buc

Courses, Seminars and Workshops

hstadt.at

Bookbinding Courses Oct 2010-Jan 2011 Sydney, Australia http://www.barbaraschmelzer.com/ services/courses/

Making and Using a Kari-bari Board 4-8 January 2010 Canberra, Australia

James.Ward@nga.gov.au LATAM - measuring heritage conservation performance 29-31 March 2011

Recife, Brazil http://www.ceci-br.org/ceci/en/con servacao-urbana/revitaliza/539-6th -international-seminar-on-urban-c onservation.html

Parchment - latest assessment methods 16-20 May 2011 Horn, Austria

http://www.european-research-cent re.buchstadt.at/Courses.162.0.html MARC 2011 - conservation of

modern architecture 28 May-23 June 2011 Helsinki, Finland http://www.iccrom.org/eng/01train _en/announce_en/2011_05Marc_e n.shtml

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

Conservation and Scientific Research Fellowships 2011–2012

The Metropolitan Museum of Art's Conservation and Scientific Research Fellowships provide practical training and hands-on treatment of works of art to junior conservators and scientific researchers in the field. Junior fellowships are intended for those who have completed graduate-level training in conservation. The fellowships also support senior scholars carrying out independent research projects related to the Museum's collections. Senior fellowships are intended for well established professionals, with advanced training in the field and proven publication record. The fields of research for conservation candidates include paintings, paper, objects (including sculpture, metalwork, glass, ceramics, furniture, and archaeological objects), textiles, musical instruments, costumes, and scientific research.

The deadline for conservation and scientific research fellowships is December 3, 2010.

For further information about how to apply for this and other fellowships at The Metropolitan Museum of Art, please visit our website: http://metmuseum.org/education/er_fellowship.asp

Office of Grants and Fellowships

The Metropolitan Museum of Art 1000 Fifth Avenue New York, New York 10028-0198 Tel. 212-650-2763 Fax 212-396-5168 Email: Education.Grants@metmuseum.org

Announcement

Survey on the collaboration between curators and conservators

For more than ten years now "Technical Art History" has been gaining growing attention among both curators and conservatorrestorers alike. This has led to an increasing number of collaborative projects and seminars. This is good for both our professions, but it also prompts several important questions. For instance: what is the reality of collaboration between curators and conservators on a day to day basis? Do we make use of one another's expertise?

you would like to make.

Some information from the survey will be used in a PhD thesis concerning the collaboration between curators and paintings conservators in Western European countries, the USA and Australia.

Although the primary project largely concerns curators and paintings conservators, all material groups (specialties) are invited to take the survey. Any results not specifically used in the thesis will be presented through lectures and articles. As it is more difficult to reach our curatorial colleagues than expected - please encourage your curatorial colleagues to go to the same blog site and take the survey as well. If you know of a particularly important and interesting case of collaboration between curators and conservator-restorers please contact Marie von Möller (Advisor, Bergen Kunstmuseum, Norway) at m-v-m@online.no or marie.vonmoller@kunstmuseene.no

Reviews in Conservation – buy now while stocks last!

Reviews in Conservation, IIC's reviews journal published annually from 2000 to 2010 is being combined with Studies in Conservation, IIC's long-standing, peer-reviewed, internationally-recognised, flagship journal. This will take place during 2010, IIC's 60th anniversary year.

Full digital access to the improved Studies in Conservation will be available from 2011.

Reviews in Conservation will not be forgotten, and in the near future volumes 1-10 will be fully searchable online.

Meanwhile, why not take the opportunity to buy the full set of *Reviews in Conservation* in printed form, while stocks last!

Painting and polychrome

Every conservation training programme, busy conservation department and private conservation studio that missed out first time around should have a set!

The full set of *Reviews in Conservation* volumes 1-10

£50 to members, including surface postage £70 to non-members, including surface postage

Individual volumes of Reviews in Conservation (1-10 all in stock)

£8 to members including surface postage

£12.50 to non-members, including surface postage.

Order on http://www.iiconservation.org/publications/pubs_sale.php or contact iic@iiconservation.org for orders, or to obtain a quotation for additional airmail costs.

In order to answer these questions and in order for all of us to understand more about the nature, need and willingness to collaborate, please participate in an anonymous survey which opens on October 6th.

Go to http://curator-conservatorcollaboration.blogspot.com/ where you will find more information about the project and general explanations. The survey can be taken in English or French. It is completely anonymous and takes approximately 10-30 minutes depending on how many comments