

The exile of a library – what happened to the Timbuktu manuscripts?



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TIMBUKTU - In 2012, threatened by fundamentalist rebels advancing on the city of Timbuktu, a team of brave archivists, librarians, couriers evacuated an irreplaceable trove of manuscripts from the city's library, at great personal risk ([News in Conservation, issue 34, February 2013](#)).

The collection of books was held at the Ahmed Baba Institute of Higher Studies and Islamic Research, until last year a haven for scholars drawn by the city's unparalleled collection of medieval manuscripts.

Historically, the city of Timbuktu occupied an important place at the centre of a vibrant trans-Saharan trading network, where traded goods included manuscripts covering subjects as diverse as science, religion and art. These manuscripts, often written in striking calligraphy, were passed down through generations of

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Ruth Stevens on setting up a team of project conservators in the UK
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Genetic-based approach to achieve higher durability for stone repairs –

Aurélie Isebaert and Laurent Van Parys talk about their research on stone repairs. Full feature on page 10

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One of the manuscripts from Timbuktu

Timbuktu’s ancient families and it is thanks to their survival that we have been able to piece together the history of a moderate Islam, in which scholars argued for women’s rights and welcomed Christians and Jews.

In the past, Timbuktu represented a crossroad of cultures and played a peacekeeper role in the region. The manuscripts, with their incredible diversity of topics, chronicle this role.

After news of the fate of the manuscripts spread, the international community sprang into action and a number of initiatives were promoted to help the recovery efforts. But there would have been no recovery to speak of if it hadn’t been for the work of Dr Stephanie Diakit  and Abdel Kader Haidara, (curator of one of the largest private libraries in

Timbuktu) who together initiated the evacuation effort to save the heritage now in exile.

T160K is an international initiative dedicated to protecting and preserving the content of the library until safer conditions allow the manuscripts to return to their home.

There are over 400,000 unique manuscripts in the collection. When they were evacuated from the library and moved south of the country to escape the threat of destruction, they were packed in makeshift crates. Though saved from an immediate threat, the manuscripts are still jam-packed in the footlockers used for their evacuation and exposed to an environment that is significantly more humid than Timbuktu. This is creating stress on the collection and there are already signs of damage due to exposure to excessive moisture.

T160K aims to raise enough money to implement conservation and preservation measures that will ensure the collection is not lost. Their fundraising campaign is promoted through a dedicated website and pages on social media networks

To learn more about Timbuktu’s manuscripts and to help the campaign visit T160K at:

<http://t160k.org/>



This initiative has undertaken a Herculean task to encase 400,000 medieval manuscripts evacuated from Timbuktu in archival boxes.

Recently forced into exile by the war in northern Mali, these primarily rag and floating ink documents are already showing signs of stress from packing and humidity damage from the difference in climate between their home in Timbuktu and the part of Mali where they are being safeguarded in.

Now at imminent risk of destruction, these works of poetry, fiction, commerce and religious and secular scholarship may never again be accessed without global efforts to preserve them.

This may be our last chance. The rainy season is upon us. Every day counts.

Join us in the great learning adventure of Timbuktu:

T160K.org

T160K Campaign flyer

News in Conservation is published by The International Institute for Conservation of Historic and Artistic Works

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ISSN 1995-2635

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Deadlines for next issue (August 2013)
Editorial: 1 July 2013
Advertising: 15 July 2013

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Editorial

Every time I am at this stage – writing the editorial for *NiC* – there is a kind of excitement for the issue that has just been finalised and every time I happen to think ‘this is the best one ever’. Only to think exactly the same two months down the line!

But letting the hype aside, I have to say that this issue was a pleasure to put together thanks to the amazing quality of the submissions that *NiC* has received.

Starting from Ruth Stevens, independent paper conservator and former colleague from the British Library era, talking about an interesting new venture: a consortium of independent conservators offering their services to an underserved area in the UK. In times of crisis and loss of employment opportunities it is enlightening to see people making it on their own.

Following on, Aurélie Isebaert and Prof. Laurent Van Parys from the University of Mons, Belgium, present a paper discussing a genetic-based approach to selecting optimal repair material for stone repairs, very useful an article with a highly practical potential for conservators involved in the treatment of architectural heritage.

The IIC News section is packed with information – membership renewal, a sneak preview of the forthcoming volume of *SiC*, a call for posters for the Hong Kong IIC Congress, news from IIC’s LinkedIn initiative and finally news about the Student Congress.

Last but not least in the series on non-English conservation periodicals, the first installment of a two-part review on journals in French – written in French!

À bientôt

Barbara Borghese
Editor

Terra Foundation Announces Winners of 2013 International Academic Awards & Fellowships



Celebrating its 35th anniversary this year, The Terra Foundation for American Art, has announced the winners of the 2013 international academic awards and fellowships which included a former travel grant winner, Julia Bailey, a doctoral student at University College London,



©Terra Foundation for American Art

Pre-doctoral fellow Kathleen Reinhardt (left), of the Freie Universität Berlin, and an advisor review artwork at the 2012 Terra Summer Residency, in Giverny, France

who received a one-year residential fellowship at the Smithsonian American Art Museum, in Washington, D.C.

In a statement Ms Bailey commented the award saying: “Last year’s travel grant enabled me to fulfil essential research at archives across the United States. The trip consolidated my previous work and also introduced a number of new areas of inquiry, some of which I’ll pursue this year while at the Smithsonian. Overall, I’m grateful to the Terra Foundation for the rewarding and insightful academic experiences they’ve afforded me.”

Amy Zinck, Vice President and Director of the Terra Foundation for American Art in Europe said of the awards and the scopes of the foundation: “Since we began awarding these grants and fellowships in 2006, our aim has been to foster a growing international community of scholars in the field of American art and connect them to a worldwide network of peers and advisors who will benefit them in their careers for years to come”.

Established in 1978, the Terra Foundation for American Art is dedicated to fostering the exploration, understanding, and enjoyment of the visual arts of the United States. With financial resources of more than \$250 million (£160 million), an exceptional collection of American art from the colonial era to 1945, and an expansive grant programme, it is one of the leading foundations focused on American art, and devotes approximately \$12 million (£7.5 million) annually in support of American art exhibitions, projects, and research worldwide. ■

News in Brief...

New project to conserve ancient Mexican city of Teotihuacan

MEXICO CITY- A project to conserve the mural paintings from Teotihuacan, an important archaeological site in northern Mexico, is being promoted by The National Institute of Archaeology and History (INAH).

The project will involve both work in-situ and research based activities using material from archives.

Dr Maria Teresa Uriarte, a specialist in Teotihuacan culture and pre-Hispanic mural paintings involved in the project said: "it's not wild to state that this ancient city was one of the most decorated (with murals and paintings) of the ancient world." "We know that the buildings were completely polychrome, and many of its floors also have remains, since floors were painted as well".



© PD Art

Mural at the Tetitla compound showing what has been identified as the Great Goddess of Teotihuacan

The initiative by INAH is being lead by restorer Gloria Torres Rodriguez and archaeologist Claudia Lopez Perez. The purpose of the project will involve the detection of the murals' themes, and the incorporation of all the information gathered into a registry of murals which includes murals in-situ (monochrome and polychrome), mural fragments, those found in archaeological excavations, and those that fell and were mounted on synthetic supports.

The dates of the works range from between the years 200 and 700 AD. Another important aspect of the project will be the creation of a glossary and the inclusion of the results of investigations carried out on the works in a database that will be available to researchers, archaeologists and conservators.

European illustrated glossary for conservation terms to be developed

A consortium of seven institutions from seven European countries with different languages - supported by associated partners and external experts - intends to develop a richly illustrated glossary, including informative photos and sketches of conservation terms relating to wall paintings and architectural conservation.

Concise texts and demonstrative illustrations will help readers to quickly grasp and understand each term, even across language barriers. The project aims to make the glossary available to the general public as a non-profit publication as a free download from the Internet.

For more information about this project visit:

http://www.hornemann-institut.de/english/EU_project_EwaGlos.php



Ancient Burmese city of Bagan in bid for UNESCO recognition



A view of the City of Bagan, Iran

NAYPYDAW – The ancient city of Bagan, Burma (Myanmar), has re-submitted an application to UNESCO to receive World Heritage status. An early bid submitted in 1996, had been refused by UNESCO on the ground that conservation and preservation efforts were carried out with disregard for internationally recognised standards and with restoration interventions being inauthentic and arbitrary.

The territory where Bagan lies stretches over a 26-square-miles plain with over 3,000 temples, monasteries and pagodas. From the 9th to the 13th century, the area was the capital of a kingdom that consolidated and controlled most of modern-day Burma, officially known as Myanmar, and served as a hub of Buddhist scholarship. To this day, Bagan remains an important centre of religious devotion.

In 1975, a major earthquake destroyed many of Bagan's crumbling structures and the governing junta began a campaign of reconstruction that was hastily carried out, even commissioning the construction of new monuments within the designated historical zone. Although the restoration of the site provoked international criticism, many locals see the refurbishment as a necessity to accommodate Bagan's function as a living and breathing Buddhist pilgrimage site.

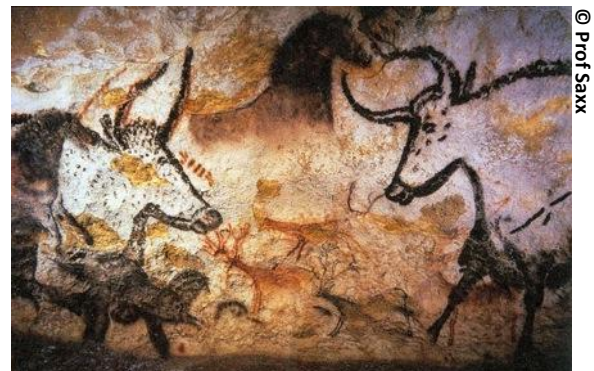
Politically isolated, Myanmar has received little outside technical assistance and has not participated in the development of the principals of conservation and preservation of heritage sites. For this very reasons some expert are calling for the recent bid to be accepted as official recognition would attract much-needed scholarly attention to Bagan.

Lascaux online

PARIS – To celebrate the discovery of the prehistoric archaeological site of Lascaux, the French Ministry of Culture and Communication presented a new website that updates the original one published in 1998.

The new site has been entirely reworked in both form and content, reflecting the latest advances in archaeological research.

The new website provides users with digital access to Lascaux's sensitive artworks and together with the virtual tour, it



One of most iconic scene in the cave, Lascaux, France

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also contains supporting material such as videos revealing the techniques of the artists who painted and engraved Lascaux's images over 19,000 years ago. Current trends in archaeological research at the cave are also presented.

An additional resource on the site is a database that brings together a selection of documents from the National Centre for Prehistory, the Architecture and Heritage Media Library and other institutions.

An area of the website is dedicated to the long-term preservation needs of the cave with particular attention to its delicate climatic balance. Discussing the measures that have been taken since 2001 to ensure cave preservation, the site includes details about recent microbiological contamination and how conservators dealt with the threat.

To learn more about Lascaux and to visit the website go to:

<http://www.lascaux.culture.fr>

Metropolitan Museum of Art to Return Two Khmer Sculptures to Cambodia

NEW YORK - The Metropolitan Museum of Art (Met) in New York has announced the return of two 10th-century Koh Ker stone statues of "Kneeling Attendants" to the Kingdom of Cambodia.

The two sculptures were donated in separate stages to the Museum in the late 1980s and early 1990s and have been on public display in the Asian Wing for nearly 20 years. The Met decided to return the sculptures after recently coming into possession of new documentary research that was not available when the objects were acquired. It is believed that the decision was further encouraged after senior museum officials and representatives of the Cambodian government recently met in Phnom Penh, Cambodia's capital city.

Thomas P. Campbell, Director of the Met said: "The Museum is committed to applying rigorous provenance standards not only to new acquisitions, but to the study of works in its collections in an on-going effort to learn as much as possible about ownership history. This is a case in which additional information regarding the Kneeling Attendants has led the Museum to consider facts that were not known at the time of the acquisition and to take the action we are announcing today. In returning the statues, the Museum is acting to strengthen the good relationship it has long maintained with scholarly institutions and colleagues in Cambodia and to foster and celebrate continued co-operation and dialogue between us."



©Pigalle

Kneeling Attendant (One Of A Pair), The Metropolitan Museum of Art, New York

Priceless plate gets royal treatment

MELBOURNE - A 315 years old dinner plate, Australia's oldest and most treasured historical item, suffering from damage and corrosion, will travel to Melbourne to be tested in the Australian Synchrotron - a football field-sized machine that accelerates electrons to almost the speed of light.

The 30cm pewter plate, known as the *de Vlamingh plate*, dates back to 1697 when Dutchman Willem de Vlamingh landed at Dirk Hartog Island, Shark Bay, and has been on show at the Shipwreck Galleries in Fremantle since 1997.

The test results will provide a map of the composition of the plate and a detailed surface analysis of the decay patterns to work out how best to conserve it, display it and allow it to travel for the 400th anniversary of the first European contact with Australia in 2016.

CSI: South East Museums – a new team of regional conservators

by Ruth Stevens

'...It is apparent that conservation of collections, particularly remedial conservation, is one of the areas of greatest needs.' This was the finding of the Museums Groups Committees and Development Officers in the South East, UK, that prompted the Sussex Museums Group (SMG) to apply for Arts Council England (ACE) funding in 2012.



Left Image:
Ruth Stevens working on a book



Right Image:
Frederic Carver of the Battle Museum and Mariluz Beltran de Guevara with the Will in an archival box and mount

ACE is the lead body charged with developing museums and libraries that took over responsibilities from the Museums Libraries and Archives Council (MLA) in October 2011 with the remit of '...championing, developing and investing in museums and libraries so that people's lives can be shaped and enriched by artistic and cultural experiences and knowledge.'

With a long-term vision in mind, ACE funded a pilot project to assess the exact conservation needs of museums in Surrey, Sussex, Kent and Medway, a region with over 170 museums, galleries and private collections. The aim being to deliver precisely what the region needs for conservation in the long term. The practical part of the scheme began with a call for a consortium of conservators to deliver the project.

The collaboration was a necessity, considering the large regional area and the diversity of the collections within it. Five conservators including myself were engaged under the umbrella *CSI: South East Museums*; between us we covered a wide range of conservation disciplines from ceramics, stone, glass, archaeology, metals, ethnography and social history to preservation, books and archives. The conservators were split into two regional teams and worked both independently and collaboratively, with the added flexibility of calling-in outside conservation expertise where it was required.

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As timescale is always a consideration, the project was given 6 months from start to completion and was required to start immediately. It was therefore imperative that we worked quickly, efficiently and with an eagle-like focus.

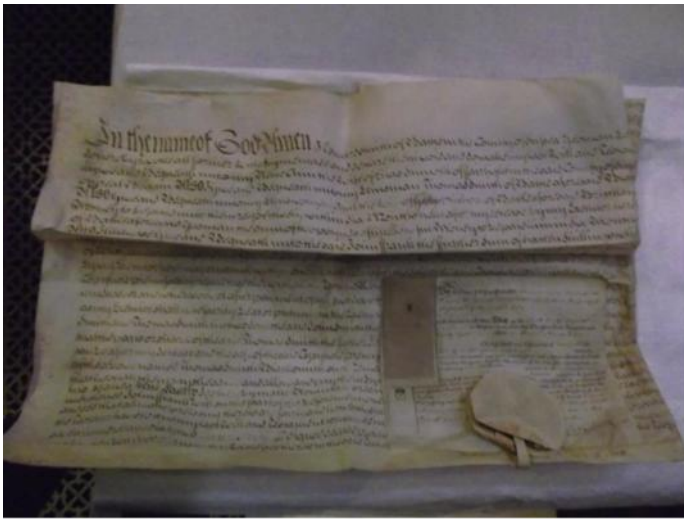
Logistically the task was complicated and we were helped by the SMG steering group who gave us the right focus at the right time but were gracious enough to let us get on with the job at hand. The project fell into three phases:

Phase 1 – to engage with museums (road shows, phone calls, visits, surveys etc.),

Phase 2 – to assess needs and deliver conservation and advice where appropriate (assessment visits, case studies, engage conservators, training events),

Phase 3 – to analyse surveys, set up legacy resources and deliver the final report.

Working in the museum heritage sector is challenging on a number of levels. The sheer quantity of different materials and media stored and displayed together is in itself a difficult situation to manage; storage space is an issue, and so is the lack of available museum resources in terms of staff (paid and volunteer) and expertise. Many smaller museums are all volunteer-run, have a restricted budget (if any) for conservation work and find it difficult to prioritise work, which is understandable considering the challenging collections they hold and their variety.



Parchment Will, unfolded after some gentle humidification

The accreditation scheme for museums, administered by ACE, provides, among other things, a framework for Collection Care policies and plans. However, maintaining the accreditation status for a museum requires time and energy even considering the support of a committed team of ACE Museum Development Officers. All in all, museum staff and volunteers, spend a lot of their time managing the day-to-day activities required to run their museums, regardless of size and complexity, so it is no wonder that conservation can be regarded as a luxury. Indeed, their workload (especially over Christmas – a busy time for some museums) precluded many from even participating in the project, as they could not find time to fill in the initial survey we needed to assess their needs. Those that did, however, had the opportunity to have free conservation work done as part of the project. This was enthusiastically embraced as even small conservation projects could be beyond the means of some museums.

Despite practical conservation not being the main focus of the project, we were keen to engage with museums on this level, to show what can be done. We also wanted to dispel myths and pre-conceptions about conservators being difficult to approach, which had been suggested in the project brief.

In the Surrey and Sussex region alone we were able to conserve 18 items (including some small collections of objects), visited and produced 12 condition assessments of collections, made three preservation assessment visits and provided one multi-disciplinary training day for museum staff and volunteers.

One intervention, which would not have been attempted without project funding, referred to an object brought to the Hastings road show in a box by Battle Museum volunteer Frederic Carver. The folded document within the box was a parchment Will written in iron gall ink with a pendant seal, laminated between paper sheets and a smaller document attached. This smaller document has an embossed seal on paper that is adhered to the top left corner and a small metal plate going through the paper seal and the parchment. Frederic brought the Will to the road show for advice. It was folded and the folds very stiff, so it was not possible to read, or interpret it properly.



Details of the seal before and after conservation

A specialist parchment conservator was asked to devise a treatment for the will, so it could be displayed and stored flat. She also undertook some conservation and consolidation of the pendant seal, which had begun to degrade in the box due to the lack of support.

A display box was made out of archival grey card, using Plastazote® as a support frame. The will can now be stored flat in its box and displayed in its frame without putting any of its elements under any undue strain.

The project was completed in April 2013 and will provide the evidence for further funding applications to ACE.

A successful framework and model for working has now been established to support museums in the South East as and when more funding becomes available. The legacies of the project include the setting up of a conservation material bank for museums to use for conservation work and resource lists of conservation expertise in the region.

The final report calls for a more 'collaborative approach to Collection Care' in the region, with infrastructure put into place for its maintenance.

This project will hopefully mark a renewal of a much closer relationship between museums and the conservation profession. The new raised awareness of conservation provided by this project is an ideal starting point to make a real difference to our regional collections.

The final report will be posted in due course on the CSI: South East museums' blog site: <http://csisoutheastmuseums.wordpress.com/>

Acknowledgements

The CSI: South East Museums team are: Dana Goodburn-Brown ACR (team leader for Kent & Medway, archaeology, ethnography and metals), Ruth Stevens ACR (team leader for Surrey & Sussex, book and paper), Alice Blears (stone, ceramic and glass), Ian Watson (book and paper, preservation) and Jihyun Kwon (HLF intern with CSI: Sittingbourne, ethnography and social history).

Thanks to Mariluz Beltran de Guevara ACR and Frederic Carver of Battle Museum.



Ruth Stevens is an accredited book and paper conservator working in the UK as co-director of the Sussex Conservation Consortium with fellow conservator Ian Watson. She worked at the British Library for 6 years and trained at West Dean College, UK.

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Genetic-based approach to achieve higher durability for stone repairs

A. Isebaert + L. Van Parys

Since natural stone is the main construction material for built heritage, its alteration implies a challenge for conservation institutions. Repair of original stone can be performed with replacement stone but also with repair mortars. In both cases, the replacement material has to be compatible in short-term and long-term, to avoid damage or different alteration. In addition to mineralogical considerations, mortar compatibility can be determined through their properties (mechanical, physical) and their appearance. Creating a durable repair mortar by taking into account these parameters can be achieved through mathematical optimization, since genetic algorithms are suited to solve such a multi-objective problem [1].



Severely decayed gable stone in bas-relief. Kaasrui, Antwerp, Belgium. Photo by Aurélie Isebaert

© A. Isebaert

Natural stones weather due to a combination of processes that catalyze or slow down one another [2,3,4,5,6,7]. This creates complex ever-evolving alteration patterns [8,9]. Part of these processes is due to extrinsic environmental factors, while other processes are caused by the intrinsic characteristics of the stone.

The extrinsic factors include climate, location of the monument (city vs. countryside), the orientation (protected or exposed to rainfall) and the location of the stone in the building (ground-level, protected or protruding) [10]. Water in general is an important catalyst for degradation, since it can transport harmful materials into the stone and cause stress into the stone when it freezes.

But in addition to these more natural causes of deterioration, other causes have appeared since the 19th century, such as pollution of the environment. Weathering due to this and other human interference is sometimes

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greater than natural weathering [7]. The famous *black crusts* for example, are caused by a chemical reaction of deposition of sulphur oxides (combustion) and calcite (stone), creating gypsum ($\text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$). In the porous gypsum, dirt particles such as carbon settle in, blackening the crust. Regardless of the fact that the specific amount of sulphur dioxide in the atmosphere is decreasing, pollution remains an important cause for degradation [11,12].

Additionally, there are also intrinsic causes for degradation. The composition and properties of the stone determine, for a large part, possible alterations [7,13]. Stones in general were formed through processes in the crust of the earth in a specific environment up until a stable condition was reached. Their exposure to the atmosphere brings them in another environment, leaving them in se in a physico-chemical disequilibrium [7]. Thus, the minerals and matrix of the stone are altered in composition or condition when exposed to the environment, e.g. they oxidise or dissolve [13,14,15]. Secondly, some stones in one and the same wall seem to be more 'durable' than others. This difference can be explained by the simple fact that stones have a spatial variability and heterogeneity [14]. As third aspect, the orientation of the rock fabric in the monument is also important to take into account, e.g. the orientation is partially responsible for the compression and flexural capabilities of the stone [14,16,17]. Finally, the appearance and finishing of the stone play a role in the alteration susceptibility as well: rough stones, with a higher surface area, allow more dirt and other particles to attach.

Repair mortar compatibility problems

After determining the deterioration patterns and their causes, restoration interventions are set up to preserve the building.

One of the possible interventions is the repair of original stones (through replacement stones or repair mortars). However, the choice for an adequate repair material is of vital importance. Researches have pointed out severe deterioration of stones due to the inadequate use of repair mortars [18,19] or replacement stones [20,21,22].

An ideal repair mortar for natural stone should be durable enough, but self-sacrificing in the long run [23,24]. However, with variable deterioration processes and a heterogeneous material to start with, this isn't easy to



© A. Isebaert

This masonry church was erected in a stone that later revealed to be highly sensible to weathering phenomena. The genetic-based approach detailed in the present paper was applied during the restoration campaign in order to prescribe a convenient mortar for repointing operations. To fulfil the architectural and technical requirements, it was decided that strength and colour were of key importance. Based on non-destructive measurements of the stone, an Indicator of Resistance (IOR) of 15,1 MPa and a colour of [0,338; 0,362; 0,580] in the CIE xyY system were defined as representative values. Both these values were then imposed as target for the genetic-based optimization process. The architect wanted to focus on three sands (river, yellow and green) whose physical properties were known. The considered binder is white cement. The general mixing laws from Sedran & De Larard for strength and from Leoskool & Rouge for colour were transposed to this case study. The mortar realized according to the outlined recipe was tested and presents 14,1 MPa for strength and [0,335; 0,356; 0,650] for colour. The difference in strength is 6,6 % and although the stone remains 12% darker, the difference in chromaticity is most likely not detected by the human eye.

Main image: Church St Christophe in Racour (Be),
Inset image: Original stone (left), repair mortar (right)



achieve. In the past, incompatible repair mortars were used, causing direct and indirect deterioration. Key aspects associated with the development of an “ideal” mortar are shortlisted here:

1. Perceptive aspects

Repair mortars have to be compatible with the stone in colour and surface roughness, so as not to disturb the general perception of the building. The main problem in terms of perception is designing a mortar with the right colour (in fresh and weathered state).

2. Physical and mechanical aspects

- Water transfer properties. Water plays an important role in the deterioration process; causing stress cracks and fractures, favour biological colonization, erode, dissolve and transport material. Consequently, the water transfer properties of the mortar are important for the durability of the stone.

- Modulus of resistance and/or elasticity. They can be significant in certain cases, when the repair mortar is used for the filling-in of large or structural parts taking into account the form of the filled in part and how it fits into the whole [25]. The rigidity of the material plays an important role and deterioration such as loss or cracks can occur to both repair mortar and stone.

- Thermal response. High temperature differences on sun-faced walls cause the minerals in stones to expand and contract. Consequent cycles of temperature differences cause internal stress, leading to detachment, deformation or cracking of mortar or stone [25].

3. Chemical aspects

Some repair mortars contain, create or attract harmful materials in the stone, such as salts that crystallize inside or outside the stone [25]. Deterioration patterns vary from efflorescence to cracks and scaling due to sub-florescence. Repair mortars can also be made with organic polymers, which are susceptible for biological organisms. Their presence will therefore speed up biological colonization on the stone [13].

A grand challenge lies in the perceptive compatibility (on the long run), and a large part of the compatibility problem lies in the physical-mechanical aspects where several objectives have to be considered simultaneously. Adherence is an emblematic topic where initial capabilities should be sufficient while water transfer or thermal response shouldn't imply problems like freeze, crystallization or interface shearing in due course, the relative mechanical behaviour of stone and mortars playing there a fundamental role [26]. However, the care dedicated to mortar formulation should never overshadow the mastery of application. Several cases prove the necessity to use non-corrosive metal where dowels are needed and to finish the mortar as such that allows water to run off easily [27].

Mortar formulation through optimization

A repair mortar should be adapted to each stone specifically, but the theoretical ideal mortar isn't achievable through current methods¹, literature pointing out three main paths towards an acceptable compatible repair mortar. The first one relies on commercial mixes for given types of stones: the task consists in pointing out which product could be used or adapted to meet the required standards [28,29,30,31,32,33]. The second approach builds up the mortar from scratch, aiming at repair mortar composition which is as close to the stone as possible: the same mineralogical composition is sought for and the binder is adapted to the demands of the stone [34,35,36,37]. In practice, tuning operations required by both these approaches are expensive in time and resources and justify the more recent third approach that tries to develop a modular system, where known base ingredients lead to the composition of a repair mortar for a specific stone [38]. This opens the way to computer-aided decision, but it is also merely valid for the researched components.

The current research starts from the same approach but takes benefit of mathematical tools. The perceptive, mechanical and/or physical properties of the desired mortar are linked with data gathered from the components,

¹ Stones are heterogeneous and their properties are spatially variable. Therefore, it is never the goal of researchers to attain an exact measured value of the stone. Bromblet (2000) uses the evaluation scheme of Sasse & Sneath (1997) to state the compatibility of the developed mortars in his research.



the system remains open: once the general framework has been developed, the method can be applied by any end-user who feeds the problem with data collected on the materials he intends to use.

Genetic algorithms are used for multi-objective problems. They rely on the natural selection principle. The Elitist Non-Dominated Sorting Genetic Algorithm (NSGA-II) allows multi-objective optimization. To obtain a mortar whose properties are close to the set targets, this intuitive approach can be used: many mortar formulations are the potential solutions $x = [x_1, x_2, \dots, x_n]^T$ of the problem, expressed through n design variables that are the types and relative proportions of mortar constituents (type and quantity of sands, cement and water). A function is defined for each aspect the formulation takes into account (e.g. colour function and strength function), and this function will express the gap between the targeted value and the value corresponding to each individual. This implies one should already have an idea of the desired value for each of the variables (i.e. given proportion of sands, cement and water). Therefore, general mixing laws, based on available theories, are established which guarantee the universality of the method [39,40]. The tool will then create an initial population by a randomized set of values for each variable, with N individuals. This population of mortar recipes will then evolve, through a selection and replacement process, keeping the best individual. Then, crossing over and mutation processes combine the genes of these selected individuals. Through the evaluation process, the value of objective functions for each individual is calculated, considering simultaneously the whole of objectives (e.g. minimizing the gap between the strength/colour value of an individual and the targeted strength/colour). Through these evolutions and under certain conditions mainly associated with the initial population, it has been proven that the population converges towards an optimal formulation meeting the constraints and approaching as close as possible to the targets.

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Prof. Laurent VAN PARYS, with a M.Sc. and PhD in Architectural Engineering, he has been engaged for more than 10 years in heritage preservation engineering. Together with Prof. Thierry DESCAMPS, he is head of HcTECH lab, a platform welcoming doctoral and post-doctoral researchers interested in experimental or numerical aspects of Heritage Conservation. Associate professor at the University of Mons (BE), he teaches data acquisition and advanced simulations in the Heritage Management Module.

IIC News

A sneak preview at *Studies in Conservation*

I hope you have enjoyed Volume 58, Number 2 of *SiC*, which contained an interesting array of papers and was the first one to have themed content – preventive conservation. We asked Editor-in-chief Chandra Reedy, to give us an anticipation of what's in store for the next issue.

You'll be happy to hear that the forthcoming volume of *SiC* will be thicker than usual with a whopping ten papers featured – surely something of interest for each of us! The papers will include subjects relevant to architectural, objects, textile, paintings, and photograph conservation. For those with a particular interest in architectural conservation, there is the distinguished Forbes Prize Lecture that was delivered by Manfred Koller at the IIC Congress in Vienna explores topics on the philosophical, political, social, and cultural issues involved in preservation of urban cityscapes and architectural facades.

Included in the issue, there will be five papers focussing on objects conservation, and three specifically devoted to painting conservation but of interest for conservators in general. Without giving away too much and ruining the surprise, these are the titles of the papers that you will find in Volume 58, Number 3:

+ Forbes Prize Lecture – The decorative in urban Vienna: its preservation

Manfred Koller

+ Electrotypes in science and art

David A. Scott and Donna Stevens

+ Degradation of Emerald green in oil paint and its contribution to the rapid change in colour of the *Descente des vaches* (1834-35) painted by Théodore Rousseau

K. Keune, J. J. Boon, R. Boitelle, Y. Shimadzu

+ Early aqueous dispersion paints: Portuguese artists' use of polyvinyl acetate, 1960s-1990s

Joana Lia Ferreira, María Jesús Ávila, Maria João Melo, Ana Maria Ramos

+ Jack Chambers' mixed media paintings from the 1960s and 1970s: Painting technique and condition

Kate Helwig, Marie-Eve Thibeault, Jennifer Poulin

+ Disfiguring organic residues on industrially-produced sheet metal coupons simulating copper and brass works of art by Donald Judd: attenuated total reflectance Fourier transform infrared spectroscopy (ATR-FTIR) analysis and treatment recommendations

Eleonora E. Nagy, Karlis Adamsons, Kate Moomaw

+ Understanding the gum dichromate process in Pictorialist photographs: A literature review and technical study

Anna Vila, Silvia A. Centeno, Lisa Barro, Nora W. Kennedy

+ Identification of historical plant material using micro-computed tomography

Catherine Smith, Bronwyn Lowe, Kate Blair, Debra Carr, Andrew McNaughton

+ *Trichogramma evanescens* contre *Tineola bisselliella*: expérience de lutte biologique contre la mite des vêtements dans une réserve d'objets ethnographiques

Kilian Anheuser, Isabel Garcia Gomez

+ Characterization of the corrosion layer on iron archaeological artefacts from K2 (825-1220 AD), an archaeological site in South Africa

Farahnaz Koleini, Linda C. Pinsloo, M. H. A. Schoeman, Innocent Pikirayi, Shadreck Chirikure

Finally, I cannot resist some trivia so here's some impressive numbers for you to consider:

33 – the number of authors present in the next issue

23 – the number of institutions or private practices represented in the issue

10 – the number of countries where authors are based for this issue

9 – the number of editors that recently agreed to collaborate

21 – the total number of editors reviewing papers for *SiC*

Interested in advertising with *News in Conservation*? Get in touch with us to discuss your requirements – the address is iic@iiconservation.org



An Unbroken History: Conserving East Asian Works of Art and Heritage



Call for posters

Proposals for papers to be presented at the 2014 Hong Kong Congress are at present being assessed by the Technical Committee under the chairmanship of Austin Nevin. We now invite the submission of proposals for posters to be presented at the 2014 Congress. Poster presentation is particularly well suited to material with a strong visual impact. Posters are displayed prominently throughout the meeting and during the week there will be a dedicated session, giving delegates the opportunity to speak to poster authors. It is thus expected that one of the authors of each selected poster attend the Congress to be present at the poster session. An extended abstract will be published in the conference proceedings to provide a permanent record and point of contact. We are looking for new and original, unpublished work, relevant to the Congress theme and, importantly, relevant to conservation.

We are also pleased to announce that, as in IIC's most recent congresses in Istanbul and Vienna, students and recently qualified conservators will be given the opportunity to communicate their projects in the student poster section of the congress poster display. A separate call for Student posters will be made in the autumn of 2013: please do not submit Student poster proposals at this call.

If you would like to present a poster, please submit your provisional title and a summary of the poster in English (maximum 5000 characters, including spaces and punctuation, which is very approximately 500 words) via the IIC website at www.iiconservation.org/node/add/abstract by 31st August 2013.

To submit a proposal for your poster in Chinese (600–800 characters) please follow the link: http://www.iic2014hkcongress.org/zhhk/call_for_papers_posters.php. Please do not include any illustrations with your proposal submission. If your proposal is selected, you will be invited to prepare a text of about 500 words in English or 800 characters in Chinese for publication; you will be given further information on this at a later date.

The choice of posters for display will be made in October 2013 and final texts for publication will be required by 1st December 2013. The call for Student posters will be made in late September or early October 2013.

Further details regarding IIC and its past congresses are available on the IIC web site – www.iiconservation.org – just follow the link to Conferences and you will see the congresses listed.

Please contact us at iic@iiconservation.org or conservation@lcsd.gov.hk if you have any questions or wish to receive further information on the Congress.

IIC Student Conference – Save the date!

After the success of the first IIC Student & Emerging Conservator Conference that was held in London in 2011 (for a review see *News in Conservation*, vol. 26, October 2011, pp. 11-13), IIC has announced the date for the second event that will be held in Copenhagen on 12th and 13th September 2013 in partnership with the Royal Danish Academy of Fine Arts, Schools of Architecture, Design and Conservation, School of Conservation (Konservatorskolen) – make sure you save the date! We will be posting more details about this very soon.



©Barbara Borghese

One of the sessions at the IIC Student and Emerging Conservators Conference, London 2011

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Building on the success of IIC's 2011 London Student & Emerging Conservator Conference, the conference's aim will be to offer an international perspective – and to facilitate communication – between student/emerging conservators and professionals active in the field of conservation, in national institutions and museums as well as in the private sector. One of its main objectives is to create a platform where the discussion of current needs in conservation and the relationship between expectations and reality can be addressed.

The discussions will be supported by organised visits to some of Copenhagen's conservation studios, in both cultural institutions and conservation businesses. We are delighted that this event is also part of the celebrations for the 40th anniversary of the Konservatorskolen.

As with the 2011 London Student & Emerging Conservator Conference the presentations in Copenhagen will be available in the form of live web-streamed broadcasts, allowing an international community of speakers and participants to take part in the conference either in person or online.

More news, details and registration options will be available soon!

IIC Membership renewal – a reminder

Most of you will have probably and hopefully already renewed the IIC membership, but for the ones that have not yet done so or are thinking of joining for the first time, this is a reminder that you can join now by going to <https://www.iiconservation.org/membership>, the new membership year starts 1st July 2013.

We are delighted to be able to tell you about the new things that IIC has achieved in the last year – and also hope that by renewing your membership you will continue to be part of the exciting and developing community that is the International Institute for Conservation. IIC achieves a lot through the efforts and support of its members and we value your involvement very much!

So what did your last year's membership of IIC bring?

- **News in Conservation** has continued to grow, and is now available for free download to all internationally, whether IIC members or not, offering features that are completely new: opinion pieces, more treatment-related items and reviews of international conservation journals, as well as continuing to focus on the latest developments and happenings in conservation across the globe. *NiC* started off as a 16-pages bulletin and thanks to the new format is now a fully-fledged e-paper with 25% more content than before.

- **Thanks to the generosity of the Getty Foundation** you are now benefiting from a re-designed website; this means that you can more easily see what is happening in the international conservation community via *News in Conservation*, easily-used website news pages, listed events and courses, and links to IIC's social networking media.

- **And of course last year we held the popular and important Vienna Congress: The Decorative: Conservation and the Applied Arts**, which brought the international conservation profession together to discuss and review this central aspect of conservation research and practice. The papers are available free for all members from the IIC website, the first time that this service has been possible: <https://www.iiconservation.org/congress/2012vienna>.

What's next? Four selected things to watch out for are:

1. The range of papers available for download from the IIC web-site to members now includes all papers from *Reviews in Conservation*, all papers from *Studies in Conservation* and IIC Congresses from 1980 and from January 2014 will cover all papers back to 1952! This is of course in addition to all issues of *News in Conservation*. See <https://www.iiconservation.org/publications/sic>

2. Know what your colleagues do (if you don't know already) via improved membership searching. The new website enables you to list your own specialisms in the field and search for others with the same specialisms ("domains") and interests: <https://www.iiconservation.org/members>

3. The Second IIC Student and Emerging Conservator Conference will be held in Copenhagen in September 2013, building on the success of the 2011 event in London. This will be an opportunity for those joining the profession to find out what the world of the conservation is really like, as well as to meet their future colleagues and discuss how they see their futures: see <https://www.iiconservation.org/node/3723>

4. The build-up to the 2014 IIC Hong Kong Congress continues apace. This will be IIC's first event in Hong Kong and promises to be an innovative and informative event, allowing discussion of a wide range of topics related to East Asian heritage in all its forms and also giving conservation professionals the chance to meet, network and

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enhance the international community of heritage professionals.

See: <https://www.iiconservation.org/congress/2014hongkong>

Busy? Yes. But IIC cannot continue its efforts alone. Our support of you depends upon your support of us. Renew your membership and enjoy the benefits while supporting IIC.

What about your donations?

We have been delighted at the level of support given in the past year IIC's Keck, Brommelle Memorial and Opportunities Funds, all of which help advance our charitable aims and activities. The generosity of IIC members enables us to reach out to students, conservators and organisations where resources are very limited. Please support these valuable improvements to worldwide conservation by donating to these funds. See <https://www.iiconservation.org/donations>

Major contributions to IIC activities have come from legacies given by members. If you wish to return some of the benefit you have received from conservation in your life and career, please consider leaving a legacy. See <https://www.iiconservation.org/donations/legacy>.

There isn't space here to tell you about all the services and benefits that IIC dedicates itself to providing but you can read about many of them on the IIC web site: <http://www.iiconservation.org> and you will see many more as the coming year unfolds. While you're at the website, don't forget to update your profile page: it's a great way to stay in touch with other members worldwide.

It's been a busy year, but you know that IIC cannot continue its efforts alone. Our support of you depends upon your support of us.

Do you still need a reason to join IIC? Some time ago, former IIC President Jerry Podany wrote a very poignant message in support of IIC Membership; I'm just going to re-launch the final passages of that message in this occasion.

Jerry wrote: *"...When I first ran for president, I emphasized that the first "I" in IIC, stood for "International". I remain convinced that one of IIC's most important purposes is the formation and maintenance of a world community brought together to support and advance heritage conservation. This is more important now than it has ever been within our profession. We have made great advances, but more... much more... needs to be done, and can be done...so, why wait?"*



Jerry Podany

IIC now on LinkedIn!

Sharra Grow, IIC LinkedIn administrator writes: "Greetings IIC members! We are thrilled to announce our new IIC group on LinkedIn! This group will provide IIC members with a forum for discussion and collaboration on a global scale. IIC group members will be able to share research, announce art conservation-related events and news, engage in professional discussions (theoretical and practical), etc. The IIC group page will help members to stay abreast of the technical advances and current thinking of colleagues around the world, united in preserving and caring for our shared cultural heritage. We have some thought-provoking discussion topics and forums in the works, and we look forward to the addition of your expert insights and opinions as well.

The IIC Group Page on LinkedIn will be limited to current IIC members, so this is the perfect time to make sure your IIC membership is up-to-date! Don't miss out on this great membership benefit! Visit the IIC website for more information.

We look forward to having you as part of our LinkedIn community soon!".

To check out our new group page please follow the link:

http://www.linkedin.com/groups/International-Institute-Conservation-Historic-Artistic-4974966?gid=4974966&trk=hb_side_g



Reviews

Périodiques de langue française concernant la conservation-restauration

*Following-on in the series of non-English language conservation journals and periodicals reviews submitted by IIC members, in this issue we present the forth review concerning French, Swiss and Belgian publications submitted by **Ségolène Bergeon Langle** and **Maryse Pierrard**. The review is in French, one of the two official languages of IIC and we hope to be able to offer an abstract in English soon. As the review will be covering three countries, we are splitting it into two parts starting with France, with the second instalment covering Belgium and Switzerland appearing in the next issue of NiC.*

FRANCE

La sélection a été effectuée en fonction de plusieurs principes relatifs au contenu des publications :

- nous n'avons pas sélectionné de périodiques axés sur la conservation au sens français du mot car celui-ci désigne la responsabilité générale de gestion du patrimoine culturel (achat, exposition, publication et garde) confiée à des conservateurs qui sont des historiens de l'art ou des archéologues ; cette fonction est nommée en anglais *curatorship* et en italien *tutela*. Ce qui s'appelle en anglais *conservation* est plutôt appelé en français restauration ce qui couvre le triple champ de la prévention (protection physique), de la stabilisation et des interventions à finalité esthétique (en anglais *preventive conservation, curative conservation and restoration*) ; il apparaît clairement que restauration et *restoration* sont de faux amis ;
- nous n'avons retenu que les périodiques consacrés à la restauration ou à l'analyse scientifique des biens culturels ou patrimoine culturel physique, à l'exclusion du patrimoine culturel immatériel, et nous avons écarté ceux qui ne traitent de ce sujet qu'épisodiquement (dans un numéro spécial ou à titre de brèves purement informatives et non chargées d'un véritable contenu) ;
- nous avons écarté les revues axées sur la protection juridique du patrimoine culturel qui est un sujet utile à la préservation du patrimoine culturel, mais qui relève du droit et n'est pas dans le champ d'activité des restaurateurs ;
- nous n'avons pas sélectionné tous les périodiques où apparaît le mot recherche car il y a ambiguïté en langue française : la recherche appliquée au patrimoine culturel peut relever autant des sciences humaines (histoire de l'art, archéologie, sociologie...) que des sciences physiques (physique, chimie, biologie...); la recherche en restauration, c'est-à-dire le progrès en matière d'intervention, distincte des deux recherches précédentes, est peu développée dans les institutions françaises où ne se côtoient pas toujours, à égalité de statuts, les scientifiques, les restaurateurs et les conservateurs (historiens d'art ou archéologues), mais elle apparaît dans *Patrimoines* (sujet de diplôme des restaurateurs du patrimoine de l'Inp), dans *Support/Tracé*



(travaux du Centre de recherche sur la Conservation des Collections, CRCC) et dans *Monumental* (travaux du Laboratoire de Recherche des Monuments Historiques, LRMH).

La césure en France se situe entre **patrimoine culturel immobilier** (architecture et sites y compris les fouilles) et **patrimoine culturel mobilier** (spécimens d'histoire naturelle, objets d'art, objets scientifiques, ethnographiques etc y compris le matériel issu de fouilles) ;

Pour une meilleure lisibilité de l'origine des travaux nous avons rassemblé en une section les périodiques d'**institutions de formation et d'associations professionnelles** de restaurateurs ; puis dans une section **divers** nous avons placé les revues d'opinion.

Les périodiques retenus vont de ceux qui embrassent tout le patrimoine culturel (au moins mobilier comme *Coré* ou *Techné*) à ceux qui sont spécialisés (tel *Support/Tracé* pour les arts graphiques et la photographie ou *Monumental* pour l'architecture et son décor).

Les revues les plus régulièrement consultées et les plus équilibrées dans les rapports interdisciplinaires de la restauration avec les sciences physiques et l'histoire de l'art sont *Coré*, *CRBC*, *Monumental*, *Support/Tracé* et *Techné* auxquelles nous avons joint les publications régulières de journées d'études professionnelles.

La revue *ArchéoSciences*, même si elle est spécialisée en archéométrie, donc plutôt tournée vers la connaissance et non vers la restauration, a été conservée en raison de son important lectorat parmi les spécialistes de la restauration, ce qui est dû à la proximité des scientifiques et des restaurateurs sur un champ de fouilles, moment de tous les dangers pour le matériel archéologique.

1. Patrimoine culturel mobilier

Actualités de la conservation [Texte imprimé, puis périodique électronique], Paris, Bibliothèque nationale de France (BnF), 1996- irrégulier, français, ISSN : 2110-5502

La publication électronique remplace la publication papier à partir de 2010. Les numéros sont consultables en texte intégral sur Internet, via un index thématique

http://www.bnf.fr/fr/professionnels/actualites_de_la_conservation/i.index_actus_conservation.html

L'objectif principal de la revue professionnelle de la BnF est de fournir des informations sur l'actualité dans le domaine de la conservation (au sens français de gestion dont la restauration est un des aspects) du patrimoine livresque et documentaire : notes techniques, état d'avancement des programmes de recherche en conservation (au sens de gestion), compte rendus de congrès, manifestations à venir et revue bibliographique. Elle signale, synthétise des informations spécialisées et fournit les références permettant d'aller plus loin.

ArchéoSciences : Revue d'Archéométrie [Texte imprimé] / Groupe des Méthodes Pluridisciplinaires contribuant à l'Archéologie (GMPCA), Rennes, Presses universitaires de Rennes, 2006 - annuel, français et anglais, résumés en fr. et en angl., ISSN : 1960-1360. Succède à *Revue d'archéométrie*, 1977-2005, ISSN 0399-1237.

Les sommaires des numéros sont accessibles sur Internet : <http://gmpca.u-bordeaux3.fr/ra.php>

La revue présente les recherches portant sur l'application des diverses techniques scientifiques d'analyse (sciences physiques, chimie, mathématiques et sciences de la terre et de la vie) à la résolution de problèmes archéologiques ou de la mise au point de nouvelles méthodes d'analyse. Les articles portent sur les méthodologies, sur des recherches scientifiques fondamentales ou des techniques spécialisées d'analyse appliquées à l'archéologie.

Coré, conservation et restauration du patrimoine culturel [Texte imprimé] / Institut international de conservation des œuvres historiques et artistiques. Section française, éditeur scientifique, Paris, Edition Errance ; Champs-sur-Marne, SFIIC, 1996- semestriel, français, résumés en fr. et en angl., ISSN : 1277-2550. *Coré* succède au **Bulletin de liaison et d'information de la SFIIC**, parution irrégulière, français, 1986-1996.

Le sommaire des numéros est accessible sur Internet : <http://sfiic.free.fr/publications/core.html>,

Chaque numéro comprend un dossier thématique relatif à la restauration (prévention et intervention) des articles divers, tous axés sur les biens culturels au sens large y compris les objets scientifiques, les spécimens d'histoire naturelle etc., en sus des objets d'art, du matériel archéologique ou ethnographique. La revue informe les professionnels et un public plus vaste (amateurs, collectionneurs, étudiants...) des évolutions des pratiques dans le champ de la conservation-restauration. Dans sa rubrique «Portrait» qui décrit le parcours d'un professionnel, *Coré* approfondit sa vocation interdisciplinaire, le restaurateur étant en dialogue permanent avec le scientifique et



l'historien d'art.

Lettre de l'OCIM [Texte imprimé] / Office de coopération et d'information muséographiques, éditeur scientifique, Dijon, OCIM, 1988- bimestriel, français, ISSN : 0994-1908

Les sommaires, ainsi qu'un certain nombre d'articles en texte intégral sont consultables sur Internet :

<http://www.ocim.fr/-La-lettre-de-l-OCIM->

L'OCIM est un centre coopératif d'information et de ressources professionnelles dans les champs du patrimoine culturel scientifique et technique (muséologie, muséographie, médiation, conservation, restauration, recherche...) et du secteur sciences et société. La *Lettre de l'OCIM* propose des articles de fond sur la muséologie, la muséographie, la conservation-restauration, ainsi que l'essentiel de l'actualité des musées, du patrimoine et de la culture scientifique et technique.

Muséum (Le), la lettre d'information [Périodique électronique] / directeur de la publication Bertrand-Pierre Galey, Paris, Museum national d'histoire naturelle, 2005- trimestriel, français, ISSN : 1962-4131

<http://www.mnhn.fr/museum/office/science/science/DocScientifique/publications.xsp>

La revue traite de la conservation (au sens de gestion) des collections d'histoire naturelle du muséum (de Paris et de ses institutions associées en région, en France) et couvre davantage la muséographie et la connaissance que la restauration (prévention, stabilisation et interventions).

Museum international [Texte imprimé], Paris, Unesco, 1993- trimestriel, édition française, ISSN : 1020-2226

Sommaires détaillés disponibles en ligne :

http://portal.unesco.org/culture/fr/ev.php-URL_ID=2291&URL_DO=DO_TOPIC&URL_SECTION=-465.html

Les articles publiés concernent le domaine des musées et du patrimoine architectural ou archéologique, du point de vue général de la gestion ce qui comprend la prévention mais exceptionnellement la restauration; ils privilégient les approches transversales et la vision internationale.

Papiers, Nouvelles de l'Association Française pour l'Histoire et l'Etude du Papier et des Papeteries (AFHEPP) [Texte imprimé], Angoulême, Musée du papier, 2009- annuel, français, ISSN : 2101-454X

Le sommaire des numéros est accessible sur Internet : <http://afhepp.org/spip.php?rubrique5>

La revue est le support d'échanges sur tous les aspects techniques et historiques relatifs à la fibre de cellulose et à ses usages : acteurs, sites, machines et accessoires de production, techniques de transformation, matières premières et produits finis, filigranes...

Support/Tracé : revue de l'association pour la recherche sur les arts graphiques [Texte imprimé], Paris, ARSAG, No 1(2001-2002)- , annuel, français, résumés en fr. et en angl., ISSN : 1632-7667

Succède à *Nouvelles de l'ARSAG*, 1985-1999, annuel, ISSN : 0765-0248

Le sommaire des numéros est accessible sur Internet : <http://arsag.fr/support-trace.html>

La revue est consacrée à la recherche en prévention, en désinfection et désinfestation, ainsi qu'en restauration, mais aussi à l'analyse des techniques de la création dans le domaine des arts graphiques (papier, parchemin et cuir, matériaux de l'écriture et du dessin y compris le pastel) et de la photographie. Elle contient des articles de fond, des notes techniques, une revue bibliographique, des comptes rendus de congrès et de colloques ainsi que des renseignements pratiques. Chaque numéro comprend également un dossier traitant d'un point spécifique et une rubrique concernant l'histoire des sciences et des techniques.

Techné : la science au service de l'histoire de l'art et des civilisations [Texte imprimé] / Laboratoire de recherche des musées de France, puis Centre de recherche et de restauration des musées de France, Paris, C2RMF, 1994- semestriel, français, résumés en fr. et en angl., ISSN : 1254-7867,

A succédé au *Bulletin du Laboratoire de recherche des musées de France*, annuel, édité de 1955-1968, puis aux *Annales du Laboratoire de recherche des musées de France*, toujours annuel, de 1970 à 1982.

Le sommaire des numéros est consultable sur Internet : <http://www.culture.fr/>

Domaine des œuvres d'art et des objets ethnographiques ou archéologiques. *Techné* a pour objet de rendre compte de l'application des sciences physiques à l'étude du patrimoine culturel : examens, analyses et recherches

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approfondies sont conduits essentiellement en vue d'une large perspective d'enrichissement de l'histoire. *Techné* s'adresse en priorité à la communauté des scientifiques, conservateurs, restaurateurs, archéologues, archéomètres, en France et à l'étranger, mais aussi à tous ceux qui se passionnent pour l'art et/ou la science et pour leur rapprochement, ainsi qu'à un public élargi. A partir des années 2000 la restauration, tant sur le plan d'interventions ponctuelles et exemplaires que sur le plan de l'histoire des procédés, est présente de manière plus importante et régulière que précédemment au point de constituer, en 2008, un numéro complet consacré à l'histoire de la restauration à partir d'archives nouvellement exploitées. Chaque année, la publication comprend deux numéros portant sur un thème suscité par une recherche, une exposition ou un autre événement d'actualité. Des nouvelles brèves s'y ajoutent selon les cas, sur les programmes de recherche ou les colloques.

2. Patrimoine culturel immobilier

Atrium construction [Texte imprimé], Paris, Editions des Halles, 2002- bimestriel, français, ISSN : 1636-3434

Le sommaire des numéros est consultable sur Internet : <http://www.atrium-construction.com>

La revue technique des professionnels du bâtiment ancien présente des chantiers tant de restauration que de réhabilitation, qu'il s'agisse de prestigieux édifices monumentaux ou de modestes constructions rurales, en exposant avancées techniques et savoir-faire traditionnels. Elle rend compte de la réalité économique, technique et humaine de ce secteur d'activités.

LERM infos, *Lettre d'information technique et scientifique sur les matériaux* [Périodique électronique]

Arles, Laboratoire d'Etudes et de Recherches sur les Matériaux (LERM), 2004- trimestriel, français, pas d'ISSN.

En texte intégral : http://www.lerm.fr/lerm/lerm/lerm_actu/lerm_actu.shtml

La lettre reflète l'activité du Lerm, dont l'expertise en durabilité des bétons et des matériaux du patrimoine s'est construite depuis 25 années au fil de dossiers d'études pathologiques sur site et en laboratoires, affectant une large variété de constructions contemporaines (bâtiments, infrastructures, installations industrielles et énergétiques) comme anciennes (édifices et œuvres du patrimoine bâti et archéologique), en France et à l'étranger.

Monumental, revue scientifique et technique des monuments historiques [Texte imprimé], Paris, Monum, Editions du patrimoine, 1992- semestriel, français, ISSN : 1168-4534

Le contenu est consultable sur Internet : <http://editions.monuments-nationaux.fr/fr/le-catalogue/bdd/livre/826>

Consacrée à la prévention et à la restauration du patrimoine protégé au titre des « monuments historiques », la revue alterne les numéros portant sur les chantiers et l'actualité avec des numéros à thème. Les articles sont suivis de brèves sur la protection juridique du patrimoine culturel français, sur diverses opérations de restauration sur le territoire ainsi que d'une revue critique des publications récentes.

In situ, revue des patrimoines [Périodique électronique] Paris, Ministère de la culture et de la communication, Direction générale des patrimoines, 2001- trimestriel, français, ISSN : 1630-7305.

En texte intégral : <http://www.insitu.culture.fr>

La revue couvre l'ensemble des secteurs patrimoniaux de la direction de l'Architecture et du Patrimoine (monuments historiques, archéologie, inventaire, ethnologie) du ministère de la Culture et de la Communication. Elle est un organe de diffusion des résultats des travaux de professionnels du patrimoine culturel portant sur la connaissance, la conservation et la valorisation des biens culturels. Elle favorise les échanges entre les différents acteurs et les différents domaines de la recherche appliquée au patrimoine et met à disposition du public une information sur les connaissances nouvellement acquises sur le patrimoine culturel. Les numéros parus ont abordé des thèmes aussi variés que le patrimoine rural, la villégiature, la datation des objets, le patrimoine industriel, le patrimoine scientifique, la monographie d'architecture, le patrimoine religieux des XIXe et XXe siècles, etc.

Nouvelles de l'ICOMOS [Texte imprimé], Paris, Conseil International des Monuments et des Sites (ICOMOS), 1973- irrégulier, français (une version en anglais, *ICOMOS News*, est publiée parallèlement) ISSN : 1019-679X

La revue publie des informations, techniques ou non, sur le patrimoine architectural et archéologique destinées aux Comités et aux membres de l'ONG, ainsi qu'aux personnes s'intéressant à la gestion et à la restauration de ce type de patrimoine culturel.



3. Publications des écoles de formation et des associations de restaurateurs

Cahier technique de l'ARAAFU [Texte imprimé] / Association des Restaurateurs d'Art et d'Archéologie de Formation Universitaire, Paris, ARAAFU, 1995- irrégulier, français, ISSN : 1631-8331

Dans la série des *Cahiers*, l'archéologie est un thème prépondérant, mais pas exclusif, la revue publiant les actes des Journées annuelles des Restaurateurs en Archéologie, des Journées de la section française du groupe Métal d'ICOM-CC (périodicité irrégulière) et des Journées-débats, annuelles, du Master de Conservation Préventive des Biens Culturels.

CRBC - Conservation Restauration des Biens Culturels [Texte imprimé] / Association des Restaurateurs d'Art et d'Archéologie de Formation Universitaire, Paris, ARAAFU, 1989 - annuel à l'origine, puis biennuel depuis 1998, français, résumés en anglais et en espagnol, ISSN:1157-688X.

Le sommaire des numéros à partir du n°22 est accessible sur Internet : <http://araafu.free.fr/>

La revue a pour but de promouvoir une conception moderne de la restauration, acte critique avant d'être une intervention et résultant d'un dialogue interdisciplinaire, sujet plutôt appelé à la manière anglaise conservation du patrimoine prioritairement mobilier et de toute nature, artistique, archéologique, ethnographique, scientifique... Ses principales rubriques sont : conservation préventive, études de cas, travaux et recherches, enseignement et formation, notes et travaux d'étudiants, lectures.

Les publications de l'ARAAFU s'adressent à tous les acteurs de la préservation du patrimoine français ou étranger, c'est-à-dire les étudiants et professionnels touchant de près ou de loin à la conservation-restauration de toutes spécialités, les conservateurs de musée, les bibliothécaires et archivistes, les archéologues, les scientifiques et même les architectes des monuments historiques (responsables, en particulier en France, des peintures murales, du vitrail, de la sculpture décorative monumentale etc.....).

Patrimoines, revue de l'Institut national du patrimoine (Inp) [Texte imprimé], 2005- , annuel, français, résumés en anglais, ISSN 1778-9982

Le sommaire du dernier numéro est accessible sur Internet :

http://www.inp.fr/index.php/fr/recherche_colloques_et_editions/editions

La revue traite du débat patrimonial dans ses multiples dimensions, tant mobilier qu'immobilier, de ses enjeux et de ses perspectives, aux plans européen et international. Elle reflète les missions de l'Inp : la formation de haut niveau des conservateurs et des restaurateurs du patrimoine, la diffusion de leurs recherches, et la promotion, dans leur pluralité, des métiers du patrimoine. Grâce à sa dimension interdisciplinaire, *Patrimoines* œuvre pour la sauvegarde, le rayonnement et la transmission des patrimoines et vise à répondre à la curiosité grandissante du public et aux exigences de l'ensemble des professionnels concernés.

Tribune de réflexion ouverte à la fois à des personnalités, françaises et étrangères, et à ses élèves et anciens élèves, *Patrimoines* comporte trois sections. La première aborde les grandes questions du débat patrimonial. La deuxième propose une réflexion sur l'exercice des métiers de la conservation et de la restauration du patrimoine. Enfin, la dernière section présente une sélection de travaux scientifiques des élèves et anciens élèves réalisés lors de leur formation à l'INP.

4. Divers

Culture et recherche [Texte imprimé], Paris, Ministère de la culture et de la communication, Département de la recherche, de l'enseignement supérieur et de la technologie (DREST), 1984- 3 nos par an, français, ISSN : 0765-5991.

Tous les numéros sont consultables en texte intégral sur Internet:

<http://www.culturecommunication.gouv.fr/Etudes-et-documentation/Publications/Culture-et-recherche>

La revue s'emploie à confronter les projets de recherche, les expériences et les acquis. La recherche en « analyse, conservation, restauration » qui est l'un des domaines de compétence du ministère de la culture et de la communication repose sur le partenariat avec des institutions nationales ou internationales, et sur la participation à des programmes de recherche en partie soutenus par la Commission européenne. Elle vise la mise en place des stratégies appliquées à la sauvegarde du patrimoine culturel de la France.

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Nuances [Texte imprimé], Paris, ARIPA (Association pour le Respect de l'Intégrité du Patrimoine Artistique), 1994 - semestriel, français, ISSN : 1270-1955,

Les numéros en texte intégral sont consultables sur Internet : <http://aripa.free.fr/>

Cette revue d'opinion sur la restauration contient des analyses générales, des textes techniques ou d'autres critiques à propos de certaines interventions et suggère des changements d'habitudes ou de procédés. L'ARIPA s'est constituée pour engager un débat public sur les politiques de restauration des œuvres d'art et de muséologie. Elle défend des choix qu'elle nomme modérés en restauration mais surtout elle promeut le rôle de l'artiste créateur comme interlocuteur en restauration et milite pour un débat ouvert entre les autorités de la restauration et le public ou une émanation de celui-ci.

Bulletin de Patrimoine sans frontières [Périodique électronique], Paris, Patrimoine sans frontières, 2011- Irrégulier, français, pas d'ISSN

<http://patrimsf.org/projet/spip.php?rubrique48>

Le *Bulletin* succède à la *Lettre d'information*, qui, pendant 21 numéros, a été le vecteur de communication de l'association, et dont le dernier numéro est paru en 2010. *Patrimoine sans frontières*, ONG créée en 1992, avec le soutien du ministère de la Culture, dans le contexte des récentes guerres balkaniques, a pour objectif de mener des actions de sauvegarde du patrimoine international dans des contextes d'alerte, d'oubli ou de déshérence, ainsi que dans des situations post-accidentelles ou de post-conflits. Le *Bulletin* est l'écho des actions menées et des projets visant à aider des populations à réhabiliter leur patrimoine culturel et à reconstruire leur identité.

Musées et collections publiques de France [Texte imprimé], Paris, Association générale des conservateurs de collections publiques de France, 1954- 3 n°s /an, français, ISSN 0996-0961

Le sommaire du dernier numéro paru et le thème des anciens numéros sont accessibles sur Internet : <http://www.agccpf.com>. Le catalogue en ligne du Centre de documentation de la Direction des musées de France effectue le dépouillement des articles et permet une interrogation par thème, sujet, auteur, titre.

www.culture.gouv.fr/documentation/dmfdoc/pres.htm

La revue de l'actualité professionnelle des musées présente des dossiers thématiques intéressant tant les personnels scientifiques des musées qu'un plus large public. Plusieurs de ces dossiers ont concerné spécifiquement la restauration et la protection du patrimoine mais pas de manière régulière. Les dernières réalisations muséographiques, l'actualité de la profession de conservateur, des informations pratiques, des nouvelles brèves, un dossier de presse et les textes législatifs concernant les biens culturels muséaux complètent chaque numéro.

Répondant aux problèmes de la profession (plutôt celle de conservateur car il existe peu de restaurateurs sur des postes pérennes dans les musées en France) par des articles de réflexion comme par des exemples pratiques, la revue est un outil pour les étudiants et les professionnels des musées



Maryse Pierrard is an information professional specialised in Cultural Heritage. After a bachelor Degree in Art History and a Master Degree in Literature from the University of Strasbourg, she received a Master's degree from the School of Library and Information Science of the University of Montréal. She was in charge of documentation services in Canada and France in various environments: public libraries, corporate settings, government agencies, specialised libraries. She spent 15 years at the French Court of Accounts, as Head of the Documentary Research, then as Head of the Training Department. In 2005, she joined the Institut National du Patrimoine (INP), where she manages the library, which holds a major collection in the field of heritage conservation and restoration. She led the retrospective digitization of INP graduation theses (400 titles), which are a record of the conservation projects undertaken by student-conservators in the final year of their studies.

More News

Germany to return stolen antiquities to Greece



Ancient theater of Larissa, Thessaly, Greece.

ATHENS - About 8,000 archaeological objects dating to the Neolithic age and exported illegally to Germany by a group of foreign archaeologists under the guidance of Alfred Rosenberg, Hitler's chief ideologist, will soon be returned to Greece. The antiquities were illegally excavated in the area of Thessaly, near the town of Velestino, in 1941 during the Second World War.

The collection is currently held at the Pfahlbaumuseum, an archaeological open-air museum in southern Germany, consisting of reconstructions of stilt houses from the Neolithic and Bronze Age.

The Hellenic Ministry of Culture is working in tandem with the Greek Ministry of Foreign Affairs to promote a cooperation network with many countries in order to protect cultural goods and prevent illegal trafficking. Under the new agreements, between 2009 and 2012 the culture ministry's directorate for antiquities has already successfully repatriated 278 Greek cultural artefacts.

The Zibby Garnett Travelling Fellowship - 2013 Awards for conservation students

The Zibby Garnett Travelling Fellowship has awarded grants totalling £12,200 for overseas study trips to nine outstanding conservation students. The ZGTF Scholars will be working in many countries across the globe including Brazil, India and for the first time the Sudan and Russia.

The students will be learning to conserve temple wall paintings, archaeological artefacts, sculptures and textiles - working with leading conservation organisations including Pinacoteca do Estado de São Paulo, the Tibet Heritage Fund and the St Petersburg State Academic Institute of Paintings.

David Garnett, ZGTF Chairman, says: "The standard of applicants this year was outstanding and in order to be able to support the very best, some very good students were sadly turned down with funds simply not being able to cover all."

The Zibby Garnett Travelling Fellowship is an educational charity set up to fund overseas study trips for art conservation students who are training in the United Kingdom and wish to widen their practical skills.

Since the Fellowship was founded in 2000, it has enabled over 92 students to visit more than 36 countries. Many ZGTF Scholars have gone on to secure positions in art conservation with leading organisations both in Britain and abroad.

For more information see www.ZibbyGarnett.org



Mayan pyramid bulldozed in Belize

© Jules Velasquez



Bulldozer working on the demolition of the pyramid

BELIZE – One of the oldest pyramid structure in Belize has been destroyed to re-use its construction material as road fill.

The temple, standing at a height of over 100ft, was part of a complex located in the Orange Walk District in Northern Belize.

The news was reported widely by local as well as international media after bulldozers were noticed in the area and pictured started to circulate on social networking sites.

The head of the Belize Institute of Archaeology, Jaime Awe, said the destruction at the Nohmul complex in northern Belize was very regrettable. The ceremonial centre dates back at least 2,300 years and is the most important site in northern Belize, near the border

with Mexico. Although the Nohmul complex sits on a privately owned sugar cane plantation, Belizean heritage protection regulations stipulate that any pre-Hispanic ruins are under government protection. Scholars and archaeologists have noted that bulldozing Maya mounds for road fill is an endemic problem in Belize citing as an example the whole of the San Estevan archaeological area that has now virtually disappeared and the major pyramids at Louisville and other smaller sites (including other structures at Nohmul).

UNESCO removes Iran's ancient Bam from 'World Heritage in Danger' list

TEHRAN - Iran's ancient citadel of Bam, which was almost completely destroyed in 2003 by a violent earthquake, has been removed from the UNESCO list of "World Heritage in Danger".

The United Nations Educational, Scientific and Cultural Organization committee, which began its annual session in the Cambodian capital Phnom Penh on Sunday (16/06/2013), said there had been improvements in the site's management and conservation and for this reasons there are no longer imminent threats to its preservation and survival.

A spokesman from UNESCO said in a statement: "The remains of the desert citadel, which reached its apogee from the 7th to 11th centuries, had been sufficiently stabilised and its management was sound enough for the site to be declared safe".



View of Bam Citadel, Iran

© Patrickringenberg



What's on + NiC's List

Call for papers

2014 IIC Congress - An Unbroken History: Conserving East Asian Works of Art and Heritage
22-26 September 2014
Hong Kong
Call for Posters - please submit your provisional title and a summary of 500 words in English by 31st August 2013
<https://www.iiconservation.org/node/add/abstract>

ISA 2014 International Symposium on Archaeometry
Hosted by the Getty Conservation Institute and UCLA
19-23 May, 2014
Los Angeles, USA
Deadline for abstracts 16 December 2013
For further information about this event please visit: <http://www.archaeometry2014.com/>

Lost Luster. Innovative interdisciplinary research on archaeological window glass in North Western Europe (10th - 18th c.)
2-4 October, 2013
Abbey Museum Ten Duinen
Call for posters, deadline 1 August 2013
For further information please visit:
<http://en.tenduinen.be/activiteitendetail.aspx?id=5666>

Authentication in Art - International Congress on the Authenticity of Paintings
7-9 May, 2014
The Hague, The Netherlands
Deadline for submission of abstracts is Friday, 1st September, 2013
For more information about this event please visit:
<http://www.authenticationinart.org/>

A comprehensive list of events taking place around the world, in and around the field of conservation. Write to news@iiconservation.org if you wish to add your event

Conferences/Seminars

Symposium: Digital Acrobatics - Performing the Circus Oz Living Archive
4-5 July, 2013
Melbourne, Australia
For enquiries please email: laetitia.shand@rmit.edu.au
To download the programme please see: <https://www.iiconservation.org/node/3788>

Townsend on Turner: A Speaking Tour with ABC Radio National
22 July 12 August, 2013
Various locations, Australia
For details about dates and locations please visit: <https://www.iiconservation.org/node/3943>

7th International Congress on the Application of Raman Spectroscopy in Art and Archaeology (RAA 2013)
2-6 September 2013
Ljubljana, Slovenia
For more information please visit: raa13.zvkds.si

3rd European Workshop on Cultural Heritage Preservation (EWCHP 2013)
16-18 September, 2013
Bolzano, Italy
For more information see: www.3encult.eu/en/ewchp/papers.html

International Conference on Sustainable Building Restoration and Revitalisation
25-29 September, 2013
Shanghai, China
For more information please visit: www.wta-conferences.org/conference/1869

VIII Congresso Internacional do Centro de Estudos da Imaginária Brasileira

8-2 October, 2013

Pium/Parnamirim, Brazil

For more information about this event please write to:

ceib@ceib.org.br

ICOMOS Annual Scientific Symposium : Tangible Risks, Intangible Opportunities : Long-Term Risk Preparedness and Responses for Threats to Cultural Heritage

10 October, 2013

San José, Costa Rica

For more information please see:

www.icomos.org

FUTURE TALKS 013 Lectures and Workshops on Technology and Conservation of Modern Materials in Design

23-25 October 2013

The International Design Museum

Munich, Germany

For more information about this event and to register please visit:

http://die-neue-sammlung.de/event/?page_id=160&lang=en

18th International Conference on Cultural Heritage and New Technologies CHNT 18

11-13 November 2013

Vienna, Austria

For more information please visit:

<http://www.stadtarchaeologie.at/>

NATCC 2013 Conserving Modernity: The Articulation of Innovation

The 9th Biennial North American Textile Conservation Conference (NATCC)

12-15 November, 2013

San Francisco, California

For more information please go to:

<http://natconference.com>

Built Heritage 2013 : Monitoring Conservation Management

18-20 November, 2013

Milano, Italy

For more info please see: www.bh2013.polimi.it

Courses/Workshops

ICCROM - Course on Conservation of Built Heritage 2014 (CBH14)

28 February - 30 April 2014

Rome, Italy

Applications should reach ICCROM by **1 July 2013** to ensure inclusion in the selection

process. For more information please visit:

http://www.iccrom.org/eng/01train_en/annouce_en/2014_02BuiltHeritage_en.shtml

Course on the Deterioration of Leather and Parchment

2-4 July, 2013

Horne, Austria

For more information and to register for this event please visit:

<https://www.iiconservation.org/node/3713>

Modular Cleaning Program Workshop : Aqueous Cleaning

10-12 July, 2013

Saint-Denis La Plaine, France

To register please email: emilie.masse@inp.fr

XRF Boot Camp for Conservators

5-8 November, 2013

West Haven, CT, United States of America

For more information please see:

ccap.yale.edu

Digital Print Workshops

11-15 November 2013

Rochester, NY, United States of America

For further information about this event please visit:

<https://www.imagepermanenceinstitute.org/imagining-information-media/digital-print-workshops-ipi>

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