



# Conservation documentation: on-going projects and perspectives

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## ABSTRACTS

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## **MetigoMAP - an innovative graphic software for conservation documentation**

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Since 2001 a German company Fokus has been offering software *metigoMAP* as the first computer graphic program created specifically for art conservators. It was created as an alternative to advanced graphic software available on the market such as CAD and GIS programs which are being harnessed for specific aims of graphic conservation documentation. *MetigoMAP* enables two dimensional digital mapping of various phenomena, provides convenient tools for creating, managing, laying out and publishing documentation projects. Moreover, its functions for precise quantity calculation help to evaluate scope, time and cost of conservation, which makes *metigoMAP* a very convenient tool for every-day's conservation practice. The possibility of creating and assigning annotation fields to mapping classifications enriches the visual project with recorded data. Since the introduction in 2001 the software has been undergoing constant upgrade according to conservators' suggestions. The general overview of this program suggests that it may be a right answer to numerous requirements of graphic conservation documentation.

The advent of conservation-destined graphic software and the rising number of its users has recently initiated a discussion on adopting this program as a universal and standard tool for digital mapping. Dissemination of this software in the conservators' community could contribute to setting up a common and universal language of digital mapping – including a unified code for marking diverse phenomena, standardized keys, title blocks and annotation fields which would regulate this specific type of conservation documentation. It would also facilitate sharing and transferring collected data between individual research units.

To date, *metigoMAP* has gained both followers as well as skeptics. The course of this discussion touches upon one main issue: the software to become a standard documentation tool. Even though it was designed to be an user-friendly program for every art conservator, it is frequently considered to be beyond abilities of an average computer user. This aspect may discredit *metigoMAP* in the conservation community and place it among other marginal programs. On the other hand, the introduction of this software to the teaching program for conservation students could contribute to enhancing their qualifications. The challenge of advanced software programs appears to be unavoidable in present rapid progress of computerization.

## **Automated thread counting from x-rays of canvas picture supports**

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In the field of technical-art history, the study of canvas weave is well established as a valuable source of information on painters' working methods and studio practices. Previously, canvas studies have depended upon hand thread counting techniques from x-rays (since most paintings are lined) in which the weave pattern is revealed by accumulations of x-ray opaque ground between the threads. Such hand thread counts are quite tedious and time consuming. Moreover, since the canvas is not uniformly woven, spot hand counts may not capture the full range of variation across the support. Lastly, there is no widely adopted or standardized practice for acquiring and archiving measurements for validating or comparing the results.

An ongoing collaborative project investigates the potential of computer algorithms to perform automatic thread counting from scanned x-ray images of paintings, overcoming some of the above limitations. In the scanned x-ray image, the canvas weave appears as small-amplitude, approximately two-dimensional sinusoidal variations that can be quantified. The measurements are derived from a frequency-domain analysis of small square swatches. By dividing an x-ray into numerous overlapping swatches, a detailed record of thread count variations across the entire support provides a specific "fingerprint". The resulting weave maps are colour coded to express the thread count values (in terms of both count and deviation from average) in the vertical and horizontal directions. The acquired thread count distribution data can also be displayed as a histogram.

Identification of the warp and weft directions is the first step to reconstruct how canvas pieces were cut from the roll. In both the weave maps and histograms, the direction showing less variation in thread count measurements usually corresponds to the warp. Cross-correlation techniques can be used to assess the likelihood of alignment between two warp or weft weave maps, indicating adjacent pieces of canvas cut from the same roll. Adjoining pieces of canvas should also display thread count distribution histograms of similar shape. Further evidence for roll position is given by weave angle maps, recording the angle of deviation of threads from the true vertical and horizontal lines of the measurement grid superimposed on the x-ray. In this way local weave distortions from canvas stretching can be visualized, such as primary cusps where the canvas roll was fixed at intervals to the priming frame.

The thread count automation project seeks to continue development of a complementary array of computer algorithm tools that help to characterize canvas picture supports, encourage standardized ways of documentation, and enhance knowledge of painters' practice.

## Stereo-radiography in the digital age

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Stereo-photography was one of the most popular forms of photography in the 19<sup>th</sup> century. However, the first stereo-radiographs of art objects were not made until 1938, at least three decades after the earliest X-rays of paintings. Two X-rays of an object taken on the same plane and from equal distance left and right of centre allow the viewer to see a three-dimensional image of the object when the two captures are viewed simultaneously through a special viewer or glasses. Stereo-radiography is particularly effective for strongly three-dimensional objects like sculptures and furniture, but it has also proved informative for the examination of easel paintings – for instance to visually separate features located on the front and back of a two-sided painting, or to clarify a complex engaged panel construction. How has the technique progressed to the digital age? Here we explore adapting stereo-radiography to digital applications.

A number of recent stereo-radiographs of paintings illustrate the processes involved in combining stereo pairs into a single anaglyph image (overlaid red-cyan images) that can be viewed in digital or print format using simple red-cyan gelatine stereo glasses. Digitisation of stereo-radiographs not only facilitates their dissemination but has made it possible to attain an overall stereo view of an X-ray mosaic of larger paintings.

### *Creating anaglyph images for 3D viewing*

- Anaglyph assembly software is available online, but anaglyphs in this project were produced using Photoshop CS3 in five easy steps:
  - 1) Convert both views to greyscale [Image>Mode>Greyscale].
  - 2) Open a blank image with colour mode set to 'RGB colour' and open the Channels Palette [Windows>Channels].
  - 3) Click on 'Red channel' to deselect the other channels then paste the left view into the red channel.
  - 4) For the right view, repeat step 3, this time pasting the right view into both the blue and green channels to create cyan. If necessary move the red channel to improve alignment.
  - 5) To see the colour anaglyph image click on the eye symbol next to RGB, reactivating all three channels.
  - 6) To see stereo image view with 3D red-cyan glasses.
- Cheap glasses suitable for viewing anaglyphs can be made easily or obtained from online vendors (such as eBay), toy stores, and cinemas showing 3D films.
- Colour coordination (by calibration) between the image – either on-screen or printed – and the glasses gives the best image quality.

### *Further reading*

- Andrew W. Mellon Foundation 'X-ray digitization project':  
<http://mac.mellon.org/issues-in-conservation-documentation/x-rays>.
- O'Connor, S. and J. Maher, *X-radiography of textiles, dress and related objects*, Butterworths-Heinemann/Elsevier, 2007.
- O'Connor, S. and J. Maher, 'The digitisation of X-radiographs for dissemination, archiving and improved image interpretation,' *The Conservator*, Issue 25 (2001), pp. 3-15.
- Padfield, J., D. Saunders, J. Cupitt and R. Atkinson, 'Improvements in the Acquisition and Processing of X-ray Images of Paintings,' *National Gallery Technical Bulletin*, Vol. 23, 2002, pp. 62-75.

## Open access to a closed museum

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In the period 2003-2013 the Rijksmuseum is facing the largest renovation, reconstruction and restoration of its entire history. During this period the Rijksmuseum aims to keep showing its collection to as large a public as possible: visibility and accessibility of the collection is a central focus point.

In 2006 a new department was established within the Rijksmuseum organisation: Collectieregistratie & Documentatie (Collection Registration & Documentation). The core business of this department is managing, maintaining and sharing information about the Rijksmuseum collections.

Our directorial assignment is:

- to become a centre of expertise in the field of collection documentation;
- develop a uniform system for physical and administrative management of the object related documentation;
- to improve the accessibility of the object related documentation.

From this we have set the following objectives:

- centralizing the object related information, mainly produced by curators and conservators, within the Rijksmuseum;
- make the object related information available through one single point of access: intranet/internet;
- physical centralization of the object related documentation.

With these goals in mind the Rijksmuseum 7000 project was initiated. The objective of this project is to complete the registration and documentation of the c. 7000 objects that will be on display in the Rijksmuseum after the re-opening in 2013. In order to set forth our plans and ideas and in order to get support within our organisation, we decided to build a demo version of this documentation system first. In this demo the emphasis was laid on conservation documentation.

### *Conservation Demo*

The demo focuses on the documentation produced during the restoration of paintings. We expect to be able to translate our experiences thus gained to other restoration studios, such as those working with furniture, ceramics & glass, metal and paper.

In the initial phase of the project we analysed the various work processes within the conservation studio and we have also made an inventory of all the different types of documentation. Since we are planning to implement the Spectrum standard, we also analysed the relevant procedures.

Along with the conservators, curators, researchers and heads of departments we have analysed in detail several types of reports. We tried to answer questions like: what information can be found in these reports? and: can we convert these data into database fields? For the conservators this meant that they had to decide how they will put their data in a future database and how they will retrieve this data. With this information we have made some prototypes of a database for our demo. This strategy worked very well.

## **ARTIST ROOMS – Meeting the Challenges of a Shared Collection**

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ARTIST ROOMS is a collection of post-war and contemporary international art which has been recently given jointly to Tate and The National Galleries of Scotland (NGS), with the initial aim of bringing modern and contemporary art to young audiences across Britain. The Collection comprises over 700 paintings, sculptures, works on paper and time-based media objects, including many important works by artists such as Arbus, Beuys, Hirst, Kiefer, Koons, Richter, Ruscha and Warhol. ARTIST ROOMS is intended as a travelling collection, with over 26 displays opening in galleries across Britain during 2009 alone. The Collection will grow over time with the addition of further gifts and acquisitions.

The shared ownership status of this collection, as well as the extensive touring and loans programme, has raised many issues and challenges from a conservation viewpoint. Digitization of documentation has become especially important to facilitate information-sharing between the two institutions. Changes to the status of objects need to be easily communicated, and to this end a 'change-tracking' device has been put in place to flag up changes at both institutions. This is an on-going challenge which will need to be improved and stream-lined as the project evolves.

The project has emphasized the need to re-evaluate the conservation loans documentation at each institution, and to this end Tate and NGS are trialling an ARTIST ROOMS 'Object Passport', for use with loans going out from the collection. The Passport is a digitally-generated report providing information on the condition, display, transport and handling of each work. It is based on information drawn from the Conservation Surveys on the Collection Management Systems of each institution. As the survey is updated on return from loan, so the Object Passport will be updated ready for the next loan out. Borrowers are provided with images of the works on CD rather than sheaves of photographs. Methods of digitally notating images are being explored, as well as options around numericizing the condition information gathered on return from loans to enable swift statistical analysis.

The unique concept and function of the ARTIST ROOMS gift provides us with a fascinating opportunity to quantify how touring impacts on a dedicated group of works. Still very much a work in progress, this initiative is already acting as a lever in re-evaluating the well-established condition-checking and documentation processes at both Tate and The National Galleries of Scotland.

## Conservation documentation in the Thyssen Bornemisza Foundation

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The conservation department of the Thyssen Bornemisza Museum has designed an efficient database to keep track of all the information related to a painting in terms of conservation and restorations treatments. The database is used throughout the museum and accommodates information from other departments as well.

First of all it's important to emphasize that the database has been designed as a shared database for the entire museum. Each department has been assigned a well-defined part of the database. The conservation department regularly uses two main sections:

- 1 - The conservation part
- 2 - The treatments of restoration

1 - The first section is designed to automate and keep track of any possible alteration the painting could have suffered along its history.

We keep the information since the first day the painting arrived in the museum until the present day.

The database keeps track of all the data generated by a painting, including the analysis, technical studies, pictures, infrared images, ultraviolet images, X-radiographs, and information about humidity and temperature of the environment etc.

Each loan or transit also generates new entries, before the painting leaves we undertake an in-depth study of the painting condition. Each alteration is consigned in the database as well as the alteration maps. Information entered in the database includes, the date, the location, the person accompanying the painting, the environmental conditions of display etc...The database generates a legal document which is signed by both the lending and borrowing museums. This legal document allows the loan to be accepted by the ministry.

The database we designed is helping restorers the way information is documented and stored. The reports are revised each time a painting travels. Over time the information becomes more and more precise and detailed because we use the last report as a base to create a new one.

When a painting is considered fragile, we take a series of macro digital pictures of the areas that represents the main amount of risk to see the possible negative effect of traveling before and after the trip. The objective is to compare them to make sure no changes are observed.

2 - In terms of treatments we are keeping extensive track of any treatment the painting is submitted to, starting with all the data collected from the previous examinations, photographic documentation (including ultraviolet, infrared, and X-radiograph images), laboratory analysis and tests. For restoration treatments the database is specifically designed to help the conservators enter information related to the materials and products used. The information entered includes their dissolution, the commercial brand names etc. We feel that this information will be useful in the future to allow for a better understanding of what evolution or consequence the uses of each product have. The data base also allows the department to set objectives and priorities in terms of treatment necessities.

## **Capturing Conservation; accessing knowledge through collections databases, a case study using Mimsy XG at the Royal Pavilion & Museums, Brighton & Hove**

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The examination and treatment of works of art leads to an increase in knowledge about that work of art, artist and period. Conservators, scientists and art historians have always sought to record their findings. Over the last 15 years digital recording of such information has often replaced traditional hard copy records. Digital records offer the opportunity to share information easily, but these archives need even more careful preservation than any hard copies if they are not eventually to become lost or overlooked, as has often happened in the past with paper records.

Accountability and access to information are important current issues for organisations, particularly those that are publicly funded. Digital collections databases are being used around the world as a way of ensuring knowledge of collections can be preserved and shared. Museums and Galleries using such systems are committed to the preservation of their database long term. One way for conservators to ensure both the sharing and survival of their knowledge is to attach conservation documentation to such databases. The conservation records will be automatically preserved, as the main databases are upgraded and maintained.

The Royal Pavilion and Brighton & Hove Museums use the collections database 'Mimsy XG'. This relational database, built using 'Oracle', was developed by Willoughby Associates specifically for use in museums. Included in the features of the database are individual 'condition' and 'conservation' modules, which can be customised by the individual institution. Brighton & Hove Museum Service has begun to input data into these modules including basic information such as job numbers, authorisations, costs and so on. The intention is initially to provide a basic amount of condition and conservation information about a large portion of the collection, rather than great detail about a very few objects, although more detailed information such as photographs, spreadsheets and so on can also be attached through the media module of 'Mimsy XG'

Information about condition and conservation across the collections can be searched by anyone with access to the database, thus increasing transparency within the organisation. Searches can provide support for effective conservation management, for example, accurate evidence for work programmes can be presented or resources precisely accounted for. Long-term preservation of the record is ensured as far as possible by including the information in the officially financed and supported database.

Public access to the collections information is delivered via the 'authorities' module in the database. This underpins the Brighton & Hove Museums collections web site through 'Mobius' the browser version of 'Mimsy XG'. There is no direct translation, however, between the 'activities' module (where information about condition and treatment is stored) and the web. However, the new web site being launched by Brighton & Hove will include more than just object information, as it will give the public the opportunity to explore wider themes. Using 'themes' we hope to gradually introduce some conservation information into this portion of the web site. We are hopeful that this opportunity will open up some conservation issues to the public.

The presentation will include screen shots of the way Brighton & Hove is using 'Mimsy XG' and present the progress made on presenting aspects of conservation and technical art history via the web site.



## **Creating access to the conservation documentation**

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### *Background – organization and stakeholders*

In this paper we discuss the developments made regarding conservation documentation in the Conservation Centre Kanut, Estonia. In one of the CCK's departments, the digitization and documentation department, objects which are conserved are acquired with a high-quality digitization system.

### *Conservation documentation at national level*

CCK's modern conservation report is based on international standards and good practice. The conservation report is integrated into Estonian museum-wide information system – MuiS, where CCK will be connected at the end of 2010 along with the main museums. Through MuiS CCK is offering directly available conservation documentation to all the customer museums. Conservation reports inside MuiS make conservation documentation accessible, understandable and meaningful for larger audiences and therefore increase interest towards conservation of cultural heritage in general.

### *Conservation documentation at CCK's level*

To improve conservation documentation accessibility and sustainability user-friendly environment - CCK Image Library & Archive was created inside of CCK. The image database contains descriptive, structural, administrative information and as well image technical metadata, providing archiving management support. This initiative is related also to conservation documentation retrospective digitizing. To ensure the preservation, all digital information is preserved in Estonian Central Digital Repository managed by Estonian Public Broadcasting.

### *Creating public access*

Since April 2008 CCK is offering a complete conservation-digitization package for our stakeholders which includes conservation, digitization, preserving digital copies in the central digital repository, creating access through the Virtual Exhibition System (<http://www.virtuaalmuuseum.ee>), producing reproductions (last 2 on the request).

### *Conclusions*

All of the developments and initiatives mentioned above are part of CCK's aim to ensure the long-term preservation and future use of conservation documentation. We recognize the importance of any (digital) document or record created during the intervention process as a part of cultural heritage which has to be accessible as the cultural heritage object itself.

## **The Online Publication of the Cologne Research Project “Painting Technique of the Impressionists and Post-impressionists”**

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The Wallraf-Richartz-Museum & Fondation Corboud in Cologne is home to the most extensive collection of Impressionist and Post-impressionist paintings in Germany. This unique collection provided ideal conditions for the research project “Painting Technique of the Impressionists and Post-impressionists” in collaboration with the Cologne Institute of Conservation Sciences (CICS) at the University of Applied Science in Cologne. The RheinEnergie utilities company and its foundations, Stiftung Jugend, Beruf und Wissenschaft and Stiftung Kultur, have generously supported both the research project itself and the resulting special exhibition.

The research results are being published as short reports on the technology and condition of a total of 75 paintings; the reports are available for download as pdf-documents in German and English from [www.museenkoeln.de/impressionismus](http://www.museenkoeln.de/impressionismus). The freely available and cost-free internet offers the advantage of a database-supported platform and allows, alongside the generous number of high-resolution illustrations, thanks to Zoomify, for example a catalogue function with filters to sort the results. In addition to the selection of artists and date, there are altogether 16 terms which already allow sorting according to important investigation results, for example by dealer, standard format, possible underdrawings, colorants, or signature.

In addition, valuable specialist information is provided by more in-depth texts on for example investigation methods and underlying conventions; there are also a glossary, and an article on the use of non-invasive Vis spectrometry as a method of determining the pigments used. The goal of the Cologne on-line publication is linked to the hope that it will be widely used, so that it will be of service to research by colleagues at home and abroad.

**The National Gallery's Mellon Digital Documentation Project:  
*The Raphael Research Resource***

<http://cima.ng-london.org.uk/documentation/index.php>

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Since 2007, the Andrew W. Mellon Foundation has been funding a series of pilot projects in digital recording and transmission of conservation documentation (<http://mac.mellon.org/issues-in-conservation-documentation/pilot-projects>).

The National Gallery's Mellon Digital Documentation Project has been centred on the Gallery's remarkable and diverse group of ten paintings by Raphael because – as a result both of long-term research and of recent reassessment arising from the exhibition held in London in 2004/5 – there is extensive primary material on Raphael, much of it already interpreted in various publications.

The outstanding documentation on Raphael, kept across the National Gallery's departments and archives, was previously available only to internal and visiting scholars. For the first time, this valuable resource, compiled over nearly 200 years since the National Gallery's foundation in 1824, is being made available digitally as part of the Gallery's website for both specialists and the general public.

Further research and new results obtained after the Raphael exhibition in 2004/5 have also been made available and published online for the Mellon Digital Documentation Project. Collaboration with other institutions allows other works by Raphael to be included, bringing together art-historical, technical and conservation-based information and creating a platform which could eventually host Raphael's complete oeuvre in unprecedented depth.

## **The Rembrandt Database: An Inter-institutional Research Resource for Art Historical, Conservation and Technical Documentation on Rembrandt Paintings**

A pilot project of the Netherlands Institute for Art History (RKD) and the Royal Picture Gallery Mauritshuis in The Hague, funded by the Andrew W. Mellon Foundation

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This presentation aims at discussing the structure and functionality of *The Rembrandt Database*, a research resource that will make art historical and conservation documentation on Rembrandt paintings electronically accessible. *The Rembrandt Database* is currently in development at the Netherlands Institute for Art History (RKD), one of the leading art historical information centers in the world, and the Royal Picture Gallery Mauritshuis, which houses one of the most important collections of 17th-century Dutch paintings, in The Hague (The Netherlands), with support of the Andrew W. Mellon Foundation in New York.

The point of departure for developing this resource is the already existing extensive network of RKD databases of artists, works of art, literature and technical documentation that will be adapted and expanded into a multi-lingual information network. The information from these RKD databases and digitized documentation files on Rembrandt paintings will be presented through the website [www.rembrandtdatabase.org](http://www.rembrandtdatabase.org) (.com/.net/.eu/.nl). Conservation and technical documentation, scientific data and art historical information will be integrated for dissemination at different levels of interpretation. Functionalities such as zooming, image comparisons and explanatory texts are being incorporated in the user interface.

*The Rembrandt Database* is one of the so-called Mellon Pilot Projects and is part of the larger Mellon initiative to create new digital assets that can readily interface with those of other institutions, and to foster international collaboration and sharing of expertise. The RKD-Mauritshuis Pilot was launched in March 2008 and is expected to be completed in August 2010. Thereafter, the goal is to further develop it as an ever-changing and growing research resource on Rembrandt paintings incorporating conservation, technical, and art-historical information from multiple institutions and serving as an independent, collaborative tool to advance the fields of conservation and art history.

The Pilot Project focuses on a test group of nineteen paintings, by or (formerly) attributed to Rembrandt in the collection of the Mauritshuis. In the last ten years the most important works from this group, including Rembrandt's *Anatomy Lesson of Dr Nicolaes Tulp* (1632), *Homer* (1663) and the late *Self portrait* (1669), have been treated and thoroughly investigated with a range of technologies generating new discoveries and insights, as well as a wealth of documentation and analytical data. The database will also include all paint cross sections from the Rembrandt paintings (images and searchable text files). This material, together with older, existing analog conservation and technical documentation, augmented with documentation from the Rembrandt Research Project archives, will be digitized and made available online to professional colleagues and the public.

During the Pilot Project, a selection of Rembrandt paintings from other important collections (including The Metropolitan Museum of Art in New York, The National Gallery in London, The Musée du Louvre in Paris and the Gemäldegalerie Alte Meister in Dresden) will also be incorporated, thus laying the basis for an exhaustive, ever-changing and growing research resource on Rembrandt. All information in the database will be presented in English, as well as in the national language of the contributing institution.

**The Andrew W. Mellon Pilot project on the Master of the Fogg Pietà ~ Maestro di Figline: an international collaboration for creating a web-based research tool for sharing and consulting documentation and technical information**

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The pilot project aims to establish an online tool for collaborative research enabling partners to share technical, archival and art-historical information via an interactive and freely accessible web-site. Funded by the Andrew W. Mellon Foundation scheme for conservation documentation, the project is based at the Courtauld Institute, in partnership with the Harvard Art Museums, the Worcester Art Museum, Santa Croce and the Opificio delle Pietre Dure, Florence, and the Instituut Collectie Nederland, Amsterdam.

In response to the challenges facing art historians and conservators, a new model and web-based interface has been developed using open source software for the scholarly exchange of technological, conservation and scientific information. For the project, art- historical and technical information have been gathered from a group of related but dispersed works by the Master of the Fogg Pietà (also known as the Maestro di Figline), a major but little-studied artist, active in Florence and Assisi, c.1310 – c.1330. Materials have been placed online ([www.mfpmfp.org](http://www.mfpmfp.org)) and include high resolution images (IR, visible and X-radiographs); selected analysis of pigments, cross-sections and binding media; as well as conservation documentation, information from previous technical studies, and archival photographs.

Various aspects of the project will be presented which include the way the collaborative web-based project functions, how the international group of scholars that it brings together has built on previous work, and how the results have contributed to a reassessment of the form and context of the Master's work. Initial findings of this collaborative research project will be presented, with specific reference to the way in which the specially designed website can assist scholarly exchange.

*Project team members and institutions*

- The Courtauld Institute of Art: Austin Nevin, Coordinator & Mellon Fellow, Aviva Burnstock, Joanna Cannon, Caroline Campbell, Clare Richardson,
- John Cupitt, external consultant
- Harvard Art Museums: Lauren Cox, Teri Hensick, Narayan Khandakhar, Henry Lie, Katherine Olivier, Stephan Wolohojian
- Worcester Art Museum: Rita Albertson, Philip Klausmeyer, Winifred Murray, Birgit Strähle
- Instituut Collectie Nederland: Luc Megens, Klaas Jan Van den Berg
- Opificio delle Pietre Dure: Roberto Bellucci, Ciro Castelli, Cecilia Frosinini

## **ConservationSpace – Open Source Application Design and Development by and for the Conservation Community**

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The ConservationSpace project aims to examine the documentation practices and requirements of the field of conservation, as described by professional conservators and conservation scientists themselves. This information will then be used to inform the development of a software application that will support and help to manage conservation work, its documentation, and related scientific data.

With funding from the Research in Information Technology Program of the Andrew W. Mellon Foundation (<http://rit.mellon.org>), two community design meetings for conservation documentation were held in 2009, the first in early March at the Metropolitan Museum of Art, New York, primarily for North American participants; the second in early April at the National Gallery, London, primarily for UK and European participants.

These meetings were designed to allow professional conservators and conservation scientists the chance to discuss and describe how they currently work, how they interact with other professionals and how they record and document their work. These discussions were then used as a basis to produce a series of work-flow diagrams.

This presentation will briefly introduce the ConservationSpace project, before going on to describe the community design meetings in more detail. Some example work-flow diagrams will also be presented, along with details of how people can add their own comments and experience to the project.

### *Further Details:*

All of the documentation gathered during the two community design meetings and the resulting work-flow diagrams can be found on the ConservationSpace website, (<http://conservationspace.org/Blog/>)

### *Project Core Team:*

The names and institutional affiliations of the core project team are provided on the ConservationSpace website, ([http://conservationspace.org/Core\\_Team.html](http://conservationspace.org/Core_Team.html))