## SCULPTURE, POLYCHROMY AND ARCHITECTURAL DECORATION

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>From your Co-ordinators</td>
<td>p. 2</td>
</tr>
<tr>
<td>Conference Review: <em>Polychrome Sculpture: Tool Marks and Construction Techniques, Maastricht, October 2010</em></td>
<td>p. 3</td>
</tr>
<tr>
<td>Summer School at Oranjenbaum Palace: Dutch and German students working together</td>
<td>p. 7</td>
</tr>
<tr>
<td>Macroscopic Identification of Hippopotamus Ivory Scuptures</td>
<td>p. 8</td>
</tr>
<tr>
<td>UvA ErfgoedLab: The Royal Palace Amsterdam – Exhibition and Research</td>
<td>p. 11</td>
</tr>
<tr>
<td>Finding Cleaning Solutions for Stucco Lustro – The risks of aqueous and solvent based methods</td>
<td>p. 14</td>
</tr>
<tr>
<td>Notices</td>
<td>p. 18</td>
</tr>
<tr>
<td>Contact addresses</td>
<td>p. 19</td>
</tr>
</tbody>
</table>
Dear Sculpture, Polychromy, and Architectural Decoration Working Group members

We are rapidly drawing to a close of the current triennial session, which I hope you will all agree has been a very successful and active period. Over the last two and a half years the working group has produced three Newsletters, packed with articles, conference reviews and other notices, and hosted two interim meetings in Rome and Maastricht (check out the ICOM-CC website for more details).

The working group’s success over this triennial period has been due to the active participation of its assistant coordinators: Line Bregnhoi, Arnold Truyen, Jonathan Gration and Topsy de Guchtenier. Line, Arnold and Topsy will be stepping down at the end of this triennial period, while Jonathan will be remaining as part of the team. Many thanks go to them for their hard work, late nights and long discussions. Volunteers to take up their positions will be most welcome – please email me if you are interested.

On that note a word should be said about the election of working group coordinator. This occurs during each triennial conference, usually at the business meeting hosted by the individual working group. ICOM-CC regulations request that coordinators solicit nominations for this position. Coordinators must be members of the working group of good standing with voting rights in ICOM-CC. Nominations must be received at least 24 hours prior to the ballot. The position entails the following tasks (amongst others): the solicitation, reviewing and ranking of the abstracts and ensuing papers for the triennial conference and chair sessions during the conference; producing a (yearly) newsletter for the working group; organizing an interim meeting; updating and maintaining the working group home page and forum on the ICOM-CC website; and communicating with working group members. The position is both rewarding and gratifying but does entail a degree of dedication and commitment. Nominations for this position are now open and should be communicated to the current coordinator!

I have very much enjoyed the last three years getting to know many of you personally and many more ‘digitally’. I hope to continue, if elected, in this role for the following triennial period and look forward to meeting many of you in Lisbon. The programme for the 16th Triennial Conference is currently online and papers are now available for download to registered participants. The Sculpture, Polychromy, and Architectural Decoration Working Group sessions will take place on Friday 23rd September. Details and the programme of papers being presented are available on the conference website. We will be holding a business meeting during the morning in which the aims and programme for the forthcoming triennial period (2011-2014) will be discussed. Your input as Working Group members during this gathering will be greatly appreciated.

Plans are already afoot for two meetings during the next triennial period – a follow up meeting on the construction techniques of polychrome sculpture will take place in April 2012 at the Burrell Collection, Glasgow (details can be found later in this Newsletter) and an joint interim meeting with historic houses as a theme, again combining a number of other ICOM-CC Working Groups as well as ICOM-DEMHIST will be held at the Getty Institute in November 2012 (details to follow). These two planned meetings reflect the disperse interests of our working group. We hope to continue to plan both specialist meetings and attract larger audiences by covering broad topics. Ideas and input is gladly welcome!

This edition of the Newsletter includes a number conference reviews and notices for future meetings, as well as reports of ongoing projects and research. Two papers deal with summer school opportunities for training conservators – one written from the perspective of the lecturer and the other from a student viewpoint. Further papers deal with the identification of ivory, and a risk assessment for cleaning stucco lustro surfaces. Papers presented do reflect the broad spectrum covered by this working group. Many thanks go to these authors. Submissions for the next edition will be gladly accepted early next year.

Best wishes until Lisbon
Kate Seymour (SRAL, Maastricht)
On the 24th and 25th of October this year [ed. 2010] the ICOM-CC Sculpture, Polychromy, and Architectural Decoration Working Group and the Stichting Restauratie Atelier Limburg (SRAL) organized a two day symposium in The Bonnefanten museum in Maastricht. The title of the symposium was “Polychrome Sculpture: Tool Marks and Construction Techniques”. Nine speakers from different countries were invited to present their contribution to an international public of about 60 wood and polychrome conservators and students.

The focus of the symposium lay on the investigation of different types of tool marks that can be traced back to the making process of the sculptures. Each speaker showed images of polychrome sculptures in which they tried to relate the visible tool marks to the making process. The speakers emphasized time after time that the study of tool marks is so important because it makes it possible to attribute sculptures to specific workshops or even artists.

Arnold Truyen, conservator of polychrome sculptures at SRAL, started off with a talk on the late medieval wood carver Jan van Steffenswert (before 1465 – after 1530). His work varies from full 3-d sculptures to high relief altarpieces. Van Steffenswert was one of the only sculptors in that period that signed his work, sometimes even with date. Careful examination of his artworks has delivered a lot of new information on Van Steffenswert’s life and workshops in Maastricht. Truyen has reconstructed a workbench on the basis of old prints and work traces on the sculptures. It has to be noted though that probably many more types of benches existed. At the same time it is likely that during the making process one sculpture could have been fixed in different benches. It would be interesting to know if sculptures that have not been signed can be traced back to specific carvers or workshops according to the work traces on the objects itself. This fact was also stressed by Agnès Le Gac, Assistent Professor and conservator of sculptures at the Universidade Nova from Lisbon, in her lecture on Manuel de Sousa, a seventeenth century sculptor from Tibaes in Portugal.

Peter Stiberc, sculpture conservator at the Opificio delle Pietre Dure in Florence, called the attention to the research techniques used for polychrome sculptures. Stiberc, as well as other speakers named X-ray photography as the most suitable technique to trace back the construction of a sculpture: the different parts that compose the sculpture, the type of joints that are used to connect the different parts and the nails which possibly remain under the gesso layer. However this technique has some constraints. Not the whole construction can be mapped; nails that for example are situated parallel to the X-ray plate cannot be made visible. In some cases nails situated in this manner can be localised by means of visual analysis. Moreover the knowledge of the construction of a sculpture can be used to understand certain types of damage and to fix these.
Emmanuelle Mercier, sculpture conservator at the KIK-IRPA in Brussels, discussed the different wood species that generally have been used by sculptors in the thirteenth and fourteenth century in the Meuse region. In just a few cases a bad quality of oak wood was used, which is strange considering the blossoming trade in good quality oak during that time. Mercier outlined some problems that can arise due to the bad wood quality. It is also remarkable that on certain sculptures from this period a piece of cloth or parchment was glued, to achieve a smooth surface for the painting stage. Mercier calls this technique marouflage. After the symposium some people from the audience suggested that the technique mentioned by Mercier was probably used to conceal the joints and to hide the carving traces, a function that is also fulfilled by the ground layers. Another interesting aspect pointed out by Mercier is the information that can be deduced from the sculpture about the original placing of the object. In case the reverse of a sculpture is flat, it was probably placed against something. Moreover it is often noticed that in the course of time sculptures composed of loose elements have been put back together incorrectly. These types of mistakes have often led to false art historical interpretations. It is also seen frequently that parts of sculptures like these are completely missing.

On the second day of the conference the attention shifted to working methods and techniques. Judy Ozone, Senior sculpture conservator at the National Gallery of Art in Washington gave an interesting presentation about the technical research into a seventeenth century sculpture of St. John made by the Spanish Francisco Antonio Gijón. Michael Rief, curator at the Suermondt-Ludwig Museum in Aachen, dedicated his talk to the investigation into the tools used in the fifteenth and sixteenth century in Germany. He expanded further on different clamping systems used to secure the statues in the workbenches. On the upper and lower side of many polychrome sculptures holes are present. Rief explained that these holes do not directly lead us to the workbench of the sculptor; they could have also been caused by that of the person who applied the paint. Marc Peetz, sculptor conservator at LVR Amt for Denkmalpflege in Brauweiler, also called the attention to these holes in medieval sculptures. According to Peetz they are present in many shapes and sizes and can be related to a specific type of work bench. At the end of the day, it was suggested from the audience to compile a database with the ICOM-CC working group in which all these types of tool marks will be documented. In this way the different working methods and materials used by medieval sculptors can be compared more easy, which leads to more understanding.

Subsequently Corinne van Hauwermeiren, sculpture conservator Museum of Liege presented a part of her PhD research. In this she is investigating the cultural, religious, historical but also technical aspects of Roman Madonna-with-child-sculptures (also known as the ‘Sedes-type’ sculptures). Then Regina Urbanek, sculpture conservator and teacher at the CICS in Cologne, shared information about a specific type of wooden busts made in Cologne between 1270 and 1360. Research brought to light that the working process of these relics between the thirteenth and sixteenth century were subject to changes in fashion. A typical development can be seen for example in the kind of hinges of the lids, which were present on the heads of the busts. The symposium ended with another presentation by Arnold Truyen. On the basis of an original sculpture by the previous mentioned Steffenswert and a nineteenth century copy, Truyen showed the difference between medieval and modern tool marks.

In between the regular talks on this second day, short presentations of the posters were given by their authors. Three out of four of the posters, the ones by Elisabeth Taube & Beate Fuecker, Yao-Fen You & John Steele and Juan Carlos Bermejo Cejudo discussed specific case studies in which the investigation of tool marks played a prominent role. The subject of the poster made by Armgard Schrenk about moonrings in Baltic oak was a bit different then the other ones, but certainly no less interesting.
Overall an inspiring two days, where during one of the lunch breaks there was the possibility to get a tour through the studios of at SRAL. Of course the studio of Arnold Truyen could be visited, where a few of the sculptures that he talked about could be seen. It was very interesting as well to see the studios of the students from SRAL. Here the visitors could see that next to the daily conservation practice of all the conservators working there, the conservation education is flourishing.

In conclusion it can be said that this symposium played an important role in stimulating the interest in technical research in medieval polychrome sculptures – which always has called on less attention than the same type of research in to paintings. The conference was also a place where ideas about the conservation approach and other related issues could be exchanged. And where better to begin than at the beginning: the making process.

Conference Review: Priorities and Interdisciplinary Approach in Mural Painting Conservation: a little thought from the recent ICOMOS Conference 'Mural Painting Roads', Florence, April 2011

Simona Sajeva (Engineer & contract lecturer, Institut National du Patrimoine, Paris)
Sim.sajeva@gmail.com

Last April [2011] an interesting conference on the conservation of mural paintings was held in Florence. It was organised by the ICOMOS International Scientific Committee on Mural Painting. The topics approached were various but all linked by one theme: the road. During the conference the Committee explained that by ‘ROADS’ the intending meaning was the geographical link between sites or towns or even countries. On the contrary, most authors presenting papers interpreted ‘road’ as ‘linking thread’ and not necessarily in a ‘geographical way’. This single aspect had stimulated the participants’ creativity, who proposed connections, besides the obvious geographical routes linking sites and monuments, to even intellectual itineraries of method, theory and history. Even if ICOM and ICOMOS are two different organisations, they share some similar aims and have common conservation-restoration principles. With this article I would like to give a little contribution to link the two communities.

The complexities of mural painting, a particular kind of architectural decoration, both in its material constitution and its symbolic values are well known. For some years there has been a renewed interest in many of the aspects relating to it, in order to understand its many values and preserve it. Among the topics proposed by the ICOMOS scientific committee at the conference were: conservation priorities and interdisciplinary approach.

I would like to share, in this article, what I have proposed on these two topics with my contribution “Conservation of mural paintings in the site of Voskopojë (Albania): a road between restoration, engineering and education”. I wanted to introduce the importance of complementarity of the two disciplines, conservation and engineering, concerning the different fields but concentrating in the approach of murals, which are bound to the substrate, the wall structure.

Fig.1 Summer school training: Albania

To express this relationship between the disciplines I have used a case-study: the site of Voskopojë, in Albania, where there are seven Post-Byzantine churches (St. Athanasius, Prophet Elia, St. John, St. Mary, Sts. Michel and Gabriel Archangels, St. Nicolas) decorated internally, and in some cases also externally, with mural paintings contemporary to the building.

Voskopojë is located on what was once a road of intense commercial trade between East and West and these murals, with their considerable historical and aesthetical value, mark this path/importance with their presence (this is also the case in another church in Shipska, a village 23 km from Voskopojë and 30 km from the city.
of Korca, the capital of the region). These murals bear witness to the historical importance of these places.

The case-study fits with the analysis of the potential synergy between engineering and conservation, and related applications, as the site is located in a region (Korca) of high seismic risk and the murals show in an extreme way the effects of mechanical interactions with the architectural support.

In the site of Voskopoje, the church of Saint Athanasius, has particular importance as it was used as a training site for students from three training facilities studying mural conservation at: the Institut National du Patrimoine (INP) in Paris, France; the Istituto Centrale del Restauro (ICR, now ISCR) of Italy; and the Stichting Restauratie Atelier Limburg (SRAL) of the Netherlands. The work was carried out in partnership with the Institut of Monuments of Culture (IMK) of Albania, and with the collaboration of the Laboratoire de Recherche des Monuments Historiques (LRMH) of France.

The training conservation site for the students was carried out in the church of Saint Athanasius. The conservators began by consolidating the murals in the portico. Between 2003 and 2005, returning from one year to the next, they noticed that in some areas, even in those already treated, the loss of adherence between the mural and the supporting walls was progressive. These observations were shared with architecture professionals (freelance engineers and architects linked to the project). This is where the cooperation began, where the synergy between conservation and engineering began, establishing priorities, producing joint and more durable solutions.

I conclude by recapping my contribution and expressing the conclusions that I brought back from the ICOMOS conference in April. With the help of a case-study, the post-Byzantine churches in Voskopojë, we have seen how, in a mural painting conservation context, the sharing of advice and information from different fields, on different objects, but mutually linked, has brought a deeper knowledge of the objects and the causes of their alteration. This spirit animates the training I have been giving in cooperation with the INP over the last 6 years, with the deep belief that an interdisciplinary approach and better communication really can improve the conservation decisions taken about a monument. This deep belief pushes me to share this little thought from one conservation community, ICOMOS, to one other community, ICOM-CC colleagues.

About the author:
Simona SAJEVA works with the Institut National du Patrimoine’s département de formation des restaurateurs des œuvres d’art, in Paris, in their educational activities, teaching/carrying out training on “masonry structures and their interactions with mural painting”. Her areas of expertise include historical architecture and mural painting conservation. O_R She is an
engineer specialised in historical architecture and conservation. She has 4 years of work experience in easel painting conservation. She lives and works in Palermo and also cooperates with several international programs on cultural heritage protection as a consultant and coordinator. She is Patrimoine sans Frontières’s (Non Governmental Organization) expert for the Balkans area, with high expertise for Byzantine and post-Byzantine architecture. sim.sajeva@gmail.com 0039 347 00 32 44 6

Summer School at Oranjenbaum Palace: Dutch and German students working together.
Annemieke Heuft, MA and Martine Posthuma de Boer (University of Amsterdam)
a_heuft@hotmail.com

On 1 August 2011 a conservation summer school started in the 17th century palace of Oranienbaum (1682), Sachsen-Anhalt Germany. Oranienbaum was the home of Henriette Catharina van Oranje-Nassau (1637-1708), daughter of the Dutch Stadhouder Frederic Hendrik and Amalia van Solms, and her husband Johan Georg II, Duke of Anhalt-Dessau (1627-1693).

Fig.1 Oranienbaum summer school 2011. The Castle. Photograph by Martine Posthuma de Boer

Five students of the conservation programme at the University of Amsterdam and three German students from different schools in Stuttgart, Dresden and Potsdam joined forces for the conservation of one of the ground floor rooms, decorated in a 18th century Chinoiserie style. The room was decorated in the time that Leopold III, Duke of Anhalt-Dessau (1740-1817), also known as Prince Franz, the grandson of Henriette Catharina, lived in the palace.

Fig.2 Oranienbaum summer school 2011. Working in the Chinese Room. Photograph, copyright by Kulturstiftung Gartenreich Dessau-Wörlitz

The room was subsequently redecorated in 1789 with scenes from the life of Confucius and Chinese figures, following the style of Sir William Chambers (1723-1783) and his "Dissertation on Oriental Gardening" of 1772. The painted scenes and portraits are surrounded by wood-imitation panelling painted on stucco. The decoration of the room has remained practically unchanged since 1789, but the use of the room has left its mark on the wall surface over the centuries. Both large and small holes in the wall support, overpaint on the painted decorative scheme and missing pieces of stucco moulding interrupt the coherence of the room.

Fig.3 Oranienbaum summer school 2011. Saskia van Oudheusden at work. Photograph, copyright by Kulturstiftung Gartenreich Dessau-Wörlitz

The summer school was therefore intended to treat the splendour of the room without removing its 'value of age', and at the same time providing a learning experience for young
conservators. The project was supervised by experts from the Netherlands and Germany (Prof. Anne van Grevenstein – UvA, Amsterdam, Dr. Jan Raue – head conservator of Oranienbaum, dr. Werner Koch – University of Applied Sciences, Potsdam and dr. Roland Lenz – State Academy of Art and Design, Stuttgart), organised and financially supported by Der Kulturstiftung Gartenreich Dessau-Wörlitz and The Royal House Archive of the Netherlands. During the project short workshops and demonstrations in plaster modelling and retouching were held and subsequently the students implemented these treatments in situ. Surface dirt was removed, old unsightly fillings were removed and replaced by better matching ones, overpaint was removed, new pieces of moulding were handcrafted, the white lacunae in the wood-imitation panelling were carefully retouched and the smaller losses were 'toned down'. The figurative paintings of Chinese scenes and portraits have been left untouched during this summer project.

For the Dutch students the summer school ended on 20 August, the German students remain until the 1st of September to hopefully finish the conservation of this important piece of Dutch and German cultural heritage. Next year the summer school project will continue with a new group of students.

**Participants 2011**

The German Students:
Nora Hauptvogel (Wall Painting), University of Applied Sciences, Potsdam
Maria Zilke (Wall Painting), Academy of Fine Arts, Dresden
Claudia Koch (Wall Painting), State Academy of Art and Design, Stuttgart

**University of Amsterdam, Conservation and Restoration of Cultural Heritage:**
Annemiek Heuft (Conservation of Historic Interiors),
Martine Posthuma de Boer (Conservation of Historic Interiors)
Lise Steyn (Paintings Conservation)
Saskia van Oudheusden (Paintings Conservation)
Nienke Besijn (Conservation of Ceramics, Glass and Stone)

**Macroscopic Identification of Hippopotamus Ivory Sculptures**

André Varela Remigio (Conservator of Sculpture, Freelance, Portugal)
mail@avremigio.com
www.avremigio.com

**Introduction**

With the Portuguese expansion overseas and the discovery of the Maritime Way to India in 1498, after the 14th century ivory became one of the materials most used in the execution of sculptures and other works of art in Portugal. In Portuguese India, the ivory used was essentially of African elephant, sometimes of hippopotamus and more rarely of other animals. However, the identification of the different varieties of ivory is rare, by ignorance or because it is difficult to distinguish.

**Historical Background**

With overseas expansion in the 14th century, Portugal began an intense trade in exotic goods and adopted elephant ivory from the West coast of Africa as one of the materials used in the execution of works of art. The Portuguese ordered works of art based on European models...
from the sherbro (artists of Sierra Leone) and from the beni (artists of Benin). This original style, combining the two cultures, became known as Afro-Portuguese art [PINTO, 1988].

More than a century later, with the Portuguese discovery of the Maritime Way to India by D. Vasco da Gama (1469-1524) in 1498, important commercial and artistic exchanges developed with that territory. A new cultural union evolved called Indo-Portuguese art [PINTO, 1988]. The Indian craft-workers began a wide production of ivory mainly from Africa. Portugal became one of the richest countries producing imaginary in ivory until the 19th century.

Parallel to the mass-production of Goa, the Portuguese also created artistic links, although on a smaller scale, with workshops of Ceylon (present day Sri Lanka), China and Japan, giving rise to the Cingalo-Portuguese, Sino-Portuguese and Nipo-Portuguese arts, respectively.

In Portuguese India, the ivory used was essentially from Asian elephant species from Ceylon [PINTO, 1988], African Savannah elephant, imported from the African East Coast, and more rarely of hippopotamus [TÁVORA, 1983; TRIPOTI, 2007] (Figure 1). The African elephant tusks and the hippopotamus teeth were transported by boat from Africa to India, as were many other luxury goods.

Ivories
Ivory is the hard creamy-white substance composing the main part of the substance existing in the teeth of animals, not exclusively of the proboscides (mammoth and African and Asiatic elephants) superior canines.

Although African elephant ivory has better quality, mainly ivory from other animals was used, such as hippopotamus (Figure 2), crocodile, sperm whale, whale, walrus, African boar or pig. The artists also used similar materials composed of bone of different animals or keratin, like nib of narwhal Monodon monoceros, nib of African Hornbill Bucorvus abyssinicus and baleen whale. From the 19th century, synthetic materials as celluloid were also used to imitate all of these materials [CALLAPEZ, 2000].

Either through ignorance of the use of these various types of ivory or the enormous aesthetic similarity between them and with other alike materials, these sculptures are often simply identified as ivory, with the implied designation being elephant ivory. This reality is frequent in museums, auction houses, antiques shops and some literature. However, it is important that if different types of ivory used in sculpture and other pieces are present, it should be identified.

The dentin is consists of both an inorganic and organic part. The inorganic part is mainly composed of prismatic crystals of dicalcium, a calcium phosphate (Ca₄0 (PO₄)₆ (CO₃)⋅H₂O), and some calcium fluoride (CaF₂) and magnesium [MATIENZO, 1986; EDWARDS, 1995]. The organic part is mainly composed of proteins like collagen, proline and hydroxyproline [TRIPOTI, 2007]. The ivory and bone of all animals have a very similar composition [LAFONTAINE, 1982], differing only in the variation of the concentration of the major components. Even with analytical techniques, such as Fourier transform infrared spectroscopy (FTIR) or Raman spectroscopy, the differentiation of different types of ivory is not always clear.
The composition of the ivory of hippopotamus contains more protein than that of the African elephant ivory and even more than that of the Asiatic elephant ivory. The bone is typically poor in protein content comparing with the ivory. Ivories containing more protein became more easily more yellow by photo-oxidation of the protein content in the absence of light. This is why the hippopotamus ivory is more yellowish in colour than other ivories.

**Hippopotamus Ivory**

While it is not possible to use analytical techniques to identify the ivory source in every piece, there are some macroscopic features that characterises hippopotamus ivory and that can be used to identify it.

The various tusks of animals have their specific format and the various types of ivory have different internal structures. This is because organic and inorganic parts have different structures. Both of the incisors and canines of hippopotami can be carved, but the lower canines are preferred for their greater dimensions. These are very curved and can measure up to 80cm in length. The most obvious feature of the canines from these animals is its triangular section (Figure 3), while all the other tusks of other animals are circular. This can be easily observed in larger sculptures.

Another important characteristic is the lamellar structure of the hippopotamus´s tusks. While in the proboscides tusks (African and Asiatic elephants and mammoth) have lines originating from the centre in a circular or oblique direction, which run in opposite directions to the perpendicular section [EDWARDS, 1998], called Schreger lines, the hippopotamus´s tusks have extremely thin, parallel, regular and concentric lines (Figure 4). The crossing of the Schreger lines creates the characteristic pattern of lozenges visible in cross-section.

However, these characteristic patterns can only be observed in a perpendicular section of the ivory and with the surface properly cleaned. When the pieces are very small, polychromed or with the perpendicular section hidden, the identification is substantially more difficult or even impossible.

**Conclusion**

Ivory is the substance originating in the teeth of any animal. Although elephant ivory has been the ivory most commonly used in works of art, ivory of other animals was also used. As all the types of ivory are apparently and chemically very similar, the differentiation is difficult and rarely made. The hippopotami lower canine teeth, which are most commonly used, are very curved, are formed of a triangular section and are more yellowish in colour. Its internal structure is composed by extremely thin, parallel, regular and concentric lines, while the proboscides ivories have lines from the centre, circular, obliquely and in opposite directions in the perpendicular section.

**References**


LAFONTAINE, R.H. and Wood, P.A., "The Stabilization of Ivory against Relative Humidity..."

UvA ErfgoedLab: The Royal Palace Amsterdam – Exhibition and Research
Drs. Emilie Froment (Lecturer, University of Amsterdam)
efroment@gmail.com

The former Town Hall of Amsterdam (today the Royal Palace Amsterdam) was built in the middle of the 17th century based on an architectural design by Jacob van Campen (1596-1667). The central hall of the bel-étage is encircled by four galleries that are richly decorated with marble, sculpted stucco and eight arch-shaped monumental paintings enclosed by the barrel vaulting. The so-called ‘Batavian series’ (550 x 550 cm) are placed by pairs inside lunettes situated in three corners of the galleries at six metres above ground level [1]. In addition, two smaller paintings on canvas representing mythological and biblical heroes are placed above the arches around the Citizens’ hall [2]. (fig 1)

From April 2006 to September 2008, the eight paintings were treated by the Stichting Restauratie Atelier Limburg (SRAL) in collaboration with the training program in conservation and restoration of the University of Amsterdam (UvA) [3]. The main concern was the fact that the interrelation of the paintings with the architecture could no longer be appreciated; in the architecture of the galleries that is painted white, the dark paintings stood out as unreadable obscure “islands”.

The interdisciplinary approach of the research undertaken at this occasion (collaboration between art historians, building historians, architects, conservators and conservation scientists [4]) permitted an in-depth investigation of the paintings’ technique, making process, actual condition but also of the interrelation with their architectural surrounding.

The sharing of these recently gained insights is the main purpose of the summer 2011
exhibition in the Royal Palace of Amsterdam and UvA ErfgoedLab. This two fold exhibition was constructed in close collaboration with the SRAL and the training program in conservation and restoration at the UvA for the scientific and technical expertise gathered during the conservation treatment of these paintings. The opportunity to present the exhibition in two different locations allows an approach of the galleries’ decoration scheme from complementary perspectives: ‘The Batavian Commissions’ in the Royal Palace presents the making process of the paintings while ‘The Batavian series …. restored’ in the UvA ErfgoedLab regards the conservation issues [5].

The exhibition catalogue includes an essay that presents the initial decorative project of the galleries and discusses the material and technical modifications of the ensemble over centuries (van Eikema Hommes and Froment, 2011)

The aim of the UvA ErfgoedLab is to explore the interaction between heritage, collections, science and audience. As a platform for research and experimentation, it brings together scientists, students and artists to present exhibitions on a variety of themes related to heritage [9]. In this structure, the goal of the exhibition ‘The Batavian series...restored’ is to inform the public about this multifaceted approach, which is the basis of today’s conservation decision-making process. In order to do so, the galleries are presented within their historical, technical and material perspectives.

Fig.3  Same point of view as Fig.1. Special setting for exhibition and new light plan of the paintings

‘The Batavian Commissions’ is displayed in the galleries of the Royal Palace, in other words in the space where the paintings have been hanging since their completion and that is today open for visitors. The preparatory drawings of the paintings are displayed in showcases, including those present today in the galleries but also the ones of the paintings that were never accomplished or discredited (as the The Conspiracy of the Batavians under Claudius Civilis by Rembrandt van Rijn, c. 1661, Staatliche Grafische Sammlung, Munich). Thanks to a visual light reconstruction designed by Ernst van de Wetering, the painting that Rembrandt completed for the galleries but that stayed in situ not more than one year can be experienced for the first time in its original context (van de Wetering, 2011) [6] (fig 2). The main focus of the exhibition being the galleries as a unique 17th century decorative ensemble any visual interferences historically incorrect have been prevented. Therefore the empire chairs, sofas and chandeliers which usually furnish the spaces, were temporarily removed [7]. With the same purpose the necessary museo-graphical elements have a discrete design though fulfilling their protective and displaying functions. In addition a new light plan of the galleries permits a full appreciation of the original intentions of this ensemble [8] (fig 3).

The gallery paintings have the particularities to be of very large dimensions and situated at six metres above ground level. Such large surfaces viewed from so far away forces the painter to adapt his painting technique to the unusual situation. Jacob Jordaens (who created four of the gallery paintings) is well known for his large-scale commissions for which he achieves grandiose spatial illusion. His specific painting technique that is based on an extraordinary economy of means thanks to the use of...
coloured grounds, is made obvious with the help of a painted reconstruction [10]. The detail, from the painting ‘David and Goliath’, is reproduced at its true size so that the real proportions of the painting can be experienced. The step by step build up of the reconstruction shows the different phases of the making-process. A film, shot during the reconstruction process, gives a live experience on the painter’s gestures and the effect of the various materials employed [11] (fig 4).

The material and visual consequences of the paintings’ natural ageing are tackled mainly through the discoloration of the small blue pigment that has modified enormously their appearance. Detail photographs of the painted surface, photographs of cross-sections, reconstructions, and pots of lose pigment are used illustrate this section. In addition, the discrepancy between the original appearance of a sky painted with small blue and its present condition is made clearly visible in the ‘David and Goliath’ reconstruction.

Reconstructions of painted canvases lined with this technique, but also the historical conservation materials from Rijksmuseum Amsterdam are presented (fig 5).

A painted reconstruction of the detail ‘The dog sleeping’ taken out of ‘Peace between the Romans and the Batavians’ permits the visual modifications of the painting over centuries to be measured. The painted reconstruction that gives an indication of how this detail may have looked in the 17th century is confronted with a photograph of the same detail in its present state (fig 6).

The section titled ‘Human factors’ focuses on the modifications of the architecture as a leading factor for the overpaintings and aesthetical changes occurring over centuries. The research undertaken at the occasion of the recent conservation campaign proved the restorer Jan van Dijk (ca 1690-1789) treated the paintings in the middle of the 18th century. His observations on the painting’s condition then are recorded in his book (Jan van Dijk 1758). In order to render concrete this crucial moment of the paintings’ history the exhibition presents the portrait of the restorer created by Ten Compe (oil on canvas, 1753, Amsterdam Museum) but also his book (UvA special collections, Amsterdam). The conservation history issues are also approached through the wax-resin lining that each of the gallery canvas paintings endured in the 1960s.

Through this content the exhibition addresses questions such as:
- Is the present appearance of the paintings still similar to their original state?
- What is the impact of natural ageing on the original materials?
- What is the influence of the conservation history on their present appearance?
- How does the painted surface of the surrounding architecture and present lighting system of the galleries, influence our spatial perception?
Both exhibitions are running until the 18th of September 2011.

Footnotes
[1] ‘The Batavian series’ comprises: ‘The Batavian Conspiracy under Claudius Civilis’, painting on canvas begun by Govert Flinck (1615-1660) in 1659 and completed by Jurriaen Ovens (1623-1678) in 1663 ; ‘Peace between the Romans and the Batavians’ (1661-1662), painting on canvas by Jacob Jordaeus (1593-1678); ‘A Roman Camp under attack by night’ (1661-1662), painting on canvas by Jordaeus; ‘Brinio raised on a shield’ (1661), painting on
canvas by Jan Lievens (1607-1674); ‘The Roman spoils laid at the feet of Claudius Civilis’ (1697-1698), fresco and tempera by Giovanni Antonio de Groot (1664-1712); ‘The Peace Negotiations between Claudius Civilis and Quintus Petillius Cerialis’ (1697-1698), fresco and tempera by De Groot.

[2] ‘Samson defeats the Philistines’ (1661-1662), painting on canvas by Jacob Jordaens; ‘David and Goliath’ (1666), painting on canvas by Jacob Jordaens.


[4] For this project a special collaboration was constructed with RijksCultureelErfgoed (previously Instituut Collectie Nederland)


[6] Only three of the four corners of the galleries were completed with paintings. The original decorative project actually included all the corners, however because of budget cuts the initial 17th-century project has never been accomplished and thus both lunettes of the north-west corner remained empty. This spot is not the exact location of Rembrandt’s painting that used to hang in the south-east corner however the architectural context being exactly the same it was decided the projection could take place on the west wall of the north-west corner. In addition to the painting projection, the original architectural context of the painting has also been reconstructed by colouring the today’s white vault with warm light in order to mimic the colour of the sand-stone that was until the beginning of the 19th century its finishing.

[7] In 1808 the function of the building changed. After Louis Napoleon (1778-1846) had been crowned King of Holland, the Town Hall became Royal Palace and was accordingly renovated, furnished and decorated in the Empire style.

[8] Designed based on a concept by Emilie Froment. Realised thanks to the support of the Rijksgebouwendienst (Krijn van den Ende, architect). In collaboration with IBG OPTX.

[9] Jan Bolten coordination. The exhibition in UvA ErfgoedLab is supported by: Mondrian Foundation, Gieske Strijbis Foundation, University of Amsterdam.

[10] Realised by Charlotte Caspers and Emilie Froment


References
Van Dyk, J. 1758. Kunst en historiekundige beschryving en aanmerkingen over alle de schilderyen op het stadhuis van Amsterdam, Amsterdam.


Finding Cleaning Solutions for Stucco Lustro – The risks of aqueous and solvent based methods
Martine Postuma de Boer (Student, University of Amsterdam)
mposthumadeboer@gmail.com

Marble imitations have been familiar in interior decoration throughout the centuries. Stucco lustro is a painted marble resemblance on lime plaster, polished with soap and coated with a wax. The technique has been used since antiquity and has a strong similarity with wax coated Roman frescos. Stucco lustro came back in vogue in 18th century Europe with the rediscovery of Herculanemum and Pompei. Rich neo-classical 18th and 19th century interiors in Europe are decorated with stucco lustro, including a few surviving examples in the Netherlands.

In the spring of 2011 the University of Amsterdam (UvA) conducted a conservation project in an Amsterdam canal house involving the uncovering of a 19th century stucco lustro decoration in the hallway. During the 20th century the decoration had been covered by several other decorative schemes. A small area of the original surface was uncovered during cleaning tests. Several solvent and aqueous...
based cleaning methods were tested, including proprietary paint strippers.

Descriptions of the stucco lustro technique, based on 19th and 20th century painting manuals, as well as Roman descriptions of wax-coated frescos, have been reported recently [Uyttendaele and Koldeweij, 2010] [Maier, 2007]. As reported, stucco lustro is a multilayered system of both inorganic and organic materials applied to the wall. Initially several layers of lime plaster (consisting of an air drying calcium carbonate) with added fillers such as sand, straw, animal hair were applied, over which a layer of stucco containing pulverized marble provided the upper surface.

![Fig.1 Fogelsangh State in the North of the Netherlands, stucco lustro decoration dating ca. 1840. Photo copyright Rijksdienst voor het Cultureel Erfgoed](image1)

The top plaster layers are colored with pigments non-sensitive to alkalis to give a base color. Marble veins are subsequently painted into the wet plaster with a pigmented limewash. After drying and initial carbonation, the surface is covered with a weakly saponified olive-oil (Venetian soap), and polished to a high gloss with hot irons [Uyttendaele and Koldeweij, 2010]. As the carbonation process continues, the soap reacts with the lime to form an insoluble calcium soap that closes off the porous surface [Keune, 2007].

![Fig.2 Stucco lustro in the hallway of a canal house, Binnenkant 21 in Amsterdam. UvA project, pilot of the uncovering of the original decoration. Photo by the author](image2)

Variations of these successive decorative stages exist; for instance, a soap solution in water is mixed in with the plaster, or the pigments for painting the marble vein can be dispersed in a soap solution in water, rather than in lime water. [Maier 2007]. After approximately 6 months, the carbonation of the (pigmented) lime plaster nears completion. The surface is at this stage given a final coating of bees or carnauba wax and polished with a brush or cloth. This wax layer mainly acts as a protective surface, as the degree of gloss is mostly created by polishing the underlying soap application [Uyttendaele and Koldeweij, 2010].

In terms of conservation one would strive to keep the top wax coating of a stucco lustro intact. However there may be circumstances where a partial removal of this wax layer has to be considered. For example when a strongly attached repaint is difficult to remove without damaging the underlying materials, which was the case in the Amsterdam canal house project.

Little has been published on the conservation of stucco lustro surfaces and any potential risks of cleaning such, but reports regarding the cleaning of similar painting and imitation techniques, in which wax is used either as a medium or as a coating, exist. For instance, demineralized water is simply recommended for cleaning the beeswax coated scagliola surfaces [Uyttendaele and Koldeweij, 2010], a marble imitation technique using gypsum and animal glue. While a 1% solution of a neutral soap can be used if these surfaces are very greasy [Uyttendaele and Koldeweij, 2010].

Literature on the conservation of encaustic – a Greek and Roman painting technique that uses wax as a binding medium – is also instructive. Literature searches reveal that solvent-based cleaning may induce various types of surface bloom to occur [Streeton 2005]. In the late 1970's the solvent Shellsol T was used to remove layers of paraffin wax (a 19th century applied consolidant) from encaustic panels of the Petrie Museum of Egyptian Archaeology in London, and a 5% solution of potassium oleate soap (Vulpex) was used to remove caked dirt areas from these wax paintings. However, it is impossible to say whether this specific
precipitate was an effect of the residues of individual solvents (Shellsol T) or the combination with residues of other cleaning agents such as Vulpex [Streeton 2005]. White films and milky efflorescence have also been observed forming on the wax paint surface of other encaustic panels at the Kunsthistorisches Museum in Vienna [Pitthard et al, 2007]. They likely result from fluctuating environmental conditions, or from the use of aromatic solvents for cleaning purposes. Small proportions of a mild non-ionic surfactant (Synperonic, 3% solution) dissolved in distilled water have been reported without perceived damaging effects [Pitthard et al, 2007] [Streeton, 2005].

The use of aqueous or solvent based gels or emulsions containing surfactants on waxed surfaces is hardly documented. Emulsifying detergents are potentially damaging; for instance triethanolamine (TEA) is known for dissolving wax from a plaster surface [Mora et al, 1984]. Reports on the effects and risks of surfactant free emulsions on wax are equally nonexistent.

Finally, paint strippers might be used to remove unwanted overpaint on stucco lustro surfaces. However these contain potentially damaging components [Wollbrinck, 1993] that will inevitably harm the wax layer or the pigments underneath. The solvent of many paint strippers is methylene chloride which is known to dissolve beeswax completely. Some paint strippers may also contain strong alkalis, that can induce saponification of the wax layer. These are potentially harmful to the calcium carbonate plaster as well for they may cause a salt efflorescence within the pores [Mora et al, 1984]. Also the presence of chelators contained within the commercial paint stripper formulation would likely remove pigment particles. Using proprietary paint strippers with undisclosed formulations causes potentially great risks to a stucco lustro surface.

As part of the UvA project in the Amsterdam canal house, several methods for removing repaint from a stucco lustro surface were tested: mechanical means, free solvents, and several types of proprietary paint strippers. The tests showed that not only the top wax coating is sensitive, but also the painted marble vein and the pigmented stucco layer underneath. While removing the overpaint with a scalpel left scratches on the surface altering the glossy appearance, and locally affected the painted marble veins, suggesting these are not as integrated in the plaster surface as is implied by literature [Uyttendaele and Koldeweij, 2010]. A range of free solvents were tested with little to no effect on the repaint. Taking all necessary safety precautions (good ventilation, gasmasks, gloves etc.) and bearing in mind potential risks, a ‘classical’ paint stripper, containing both methylene chloride and methanol, was tested. It proved effective in removing the repaint, but was difficult to control. A further complicating factor was the varying swelling time of the repaint, causing a patchy cleaning end result. Furthermore, when left on the surface a little too long, both top wax and soap layer, the painted marble vein and the pigments in the stucco were effected, leaving locally white zones on the painted decoration. A similar effect was experienced with an akaline paint remover (Scheidel Afbeizsalbe). Other types of commercial paint strippers from Scheidel (Scheidel GmbH & Co.KG, Hirschaid: Powerclean Entlacker, Asur, SG94, Separator), containing components less harmful to health, were equally difficult to control. Furthermore very long swelling times (more than 4 hours) made them less practical to use for large surfaces in the case of this canal house project.

So how to move forward to identify a good cleaning strategy, both in general for historical stucco lustro decorations, and in the case of the Amsterdam canal house specifically?

Within the scope of the Amsterdam canal house stucco lustro project, further analysis of media (GC/MS, FTIR) and pigment analysis (SEM/EDX) need to be conducted, to determine the type of wax, soap and pigments applied. Once the type of materials present have been identified, for both the stucco lustro and the repaint, the components for a custom made ‘paint stripper’ (complex gel or emulsions) may be formulated.

Fig.3 Stucco lustro in the hallwaay of a canal house, Binnenkant 21 in Amsterdam. UvA project, pilot of the uncovering of the original decoration. After final retouching. Photo by Roos Keppler
and tested. This may result in a cleaning solution that is better to control, than commercially available products, that eventually were found unsuitable for treatment of the large wall surfaces of the Amsterdam canal house.

To gain more insight in the stucco lustro technique, applied in the Amsterdam canal house, more information on the layered structure should be obtained. Microscopical analysis of cross sections of samples taken so far have been inconclusive. Further sampling and analytical examination may reveal whether soap, or even wax, were mixed in with the successive plaster layers, as has been suggested in the literature [Maier 2007]. It may also reveal more about the application of the painted marble vein, whether it was applied a fresco in lime, or with a different organic binder, possibly soap.

So far, conservation literature on the stucco lustro technique and materials only refers to literary sources. A full risk analysis can only be made once the materials used for a particular stucco lustro have been identified, taking into account that these vary in time and geographically. Further publications on materials research and conservation of stucco lustro case studies, possibly gathered in a database, would not only support the understanding of the technique, but also contributes to developing appropriate conservation methods for this specific type of wall decoration.

In this respect, the results of the research project ‘Organic Materials in Wall Painting’ of the Getty Conservation Institute will be very valuable [Getty 2010]. In this project, a methodology for the identification of organic media, usually difficult to identify due to their small quantities, in wall paintings has been developed. Both invasive and non-invasive analytical, including portable, techniques have been tested and evaluated. A series of case-studies has been conducted in which the Getty methodology and guidelines were applied to support conservation treatments. A publication on the results of the project is announced for 2011.

Acknowledgements
Kate Seymour (SRAL, Maastricht), Danielle van Kempen (UvA, Amsterdam), Roos Keppler (UvA, Amsterdam), Koenraad Uyttendaele (Brugge), Bernice Crijns (RCE, Amersfoort), Yves Hennequin (CEA, Grenoble), Marchesi Family, owners of the Canal House at Binnenkant 21, Amsterdam.

References


Notices
Interdisciplinary research on the late-Medieval sculptor Master of Elsloo in an international perspective KIK-IRPA, Brussels, October 20-21 2011

IRPA-KIK’s 12th Art History Seminar, taking place on 20-21 October 2011, will be focused entirely on the late-Medieval sculptor Master of Elsloo. Most of the sculptures attributed to this
master are in churches in Belgian and Dutch Limburg and in the neighbouring German region. In the framework of a multi annual research project of the Belgian Federal Science Policy Office and in close collaboration with partners in the Netherlands and in Germany, IRPA-KIK carried out two years of research on this sculptor and his vast oeuvre. The sculptures in Belgium were studied both from a material technical and from an art historical point of view. On the forthcoming international seminar experts from Belgium and abroad present the findings of their recent research. In addition diverse aspects of 15th- and 16th-century sculpture from the Meuse and Rhine region are treated in order to place the production of the Master of Elsloo in a broader context.

Registration opens on June 1 (limited number of places)
Registration fee: 25 euro; 15 euro for students. To be made payable to account No. 679-2004759-60. Your registration is only validated after payment.

PROGRAM: available online at www.kikirpa.be

Polychrome Sculpture: Artistic Tradition and Construction Techniques
The Burrell Collection, Glasgow, April 13-14 2012

First Announcement and Call for Papers
ICOM-CC Interim Meeting: Sculpture, Polychromy, and Architectural Decoration Working Group

This two day symposium will focus on artistic traditions within the field of polychrome sculpture relating to construction techniques. The meeting is intended to follow on from the successful symposium held in Maastricht (October 2010) and will be hosted by The Burrell Collection, one of Glasgow’s most prestigious museums. Emphasis will be given to papers and posters presenting information regarding the construction processes within the field of polychrome sculpture and the conservation treatment of these artworks. It is hoped that a wide variety of three-dimensional polychrome supports will be addressed, including wood, terracotta, ceramic, ivory, metal, etc. Furthermore, comparisons between practices developed in different artistic circles will be given prominence where possible.

A call for abstracts for this symposium is now open. Authors wishing to submit either a poster or a paper should do so before 30th September 2011 to icomcc.spadinterim2012@gmail.com
Work submitted must be original and must not have been published elsewhere.

Abstracts should be no longer than 500 words. Selections will be made by 1st December 2011.

Accepted papers/posters will be edited prior to the conference and will be published as Postprints by Archetype Books.

Language:
All proceedings will be presented in English. Authors are kindly requested to have a native speaker check their work before submission.

Organisers
Kate Seymour
ICOM-CC Working Group Coordinator:
Sculpture, Polychromy, and Architectural Decoration
Stichting Restauratie Atelier Limburg
Avenue Ceramique 224
6221 KX Maastricht
The Netherlands
T: +31 43 321 8444
E: k.seymour@sral.nl
www.icom-cc.org
www.sral.nl

Stephanie de Roemer
Glasgow Museums / Glasgow Life
The Burrell Collection
Pollok Country Park
2060 Pollokshaws Road
Glasgow G43 1AT
UK
T: +44 141 287 2556
E: Stephanie.deRoemer@glasgowlife.org.uk
www.glasgowlife.org.uk

ICON Specialist Group: Historic Interiors
Lisa Oestreicher
www.icon.org.uk

The Group was founded (as a UKIC Section) in response to the growing emphasis on project based conservation especially within historic buildings. The Group’s aim is to bring together conservators and other specialists from a wide variety of disciplines and to foster the exchange
of ideas and information. It also hopes to provide both practical guidance and moral support and to help raise the profile of conservation in a wider context. Members include a wide range of practicing conservators, architects, archeologists, curators, interior designers and many others actively involved with Historic Interiors.

AIMS OF THE HISTORIC INTERIORS SECTION
The Historic Interiors section hopes:

- to highlight the importance and rarity of original decorative fittings, finishes and furnishings;
- to foster liaisons between skilled crafts and more academic conservation;
- to be a forum for sharing and communicating conservation problem-solving between all the different fields of expertise needed to preserve a historic interior,
- to establish mechanisms for better communication between contractors and individual specialists with the aim of preserving historic interiors to the highest standards within the constraints of agreed budgets;
- to produce publications and to arrange visits, seminars and conferences.

UPCOMING VISITS
The Historic Interiors section of ICON is organising a tour of the Kitchens at Hampton Court Palace. The 2.5 hour tour is to be guided by the Historic Royal Palace archaeologist and food historian Marc Meltonville. It will be held at Hampton Court Palace, London on the 13th October 2011 and is to commence at 10.30 at the Base Court. Following the tour attendees will be free to explore the Palace at no extra cost.

The fee, including tour and admission to Hampton Court Palace, is £15.00 for members and £20.00 for non-members (students £10.00). There will be the opportunity to discuss the tour and current conservation issues over lunch.

Please book early as places are limited. Cheques should be made out to ICON (Historic Interiors). Please include your ICON membership number on the reverse of the cheque.

For further details contact Lisa Oestreicher, Esher Lodge, Chaucer Road, Bath BA2 4QY (lisa.oestreicher@talktalk.net) Tel. 01225 466 374

Contact Addresses

SCULPTURE, POLYCHROMY, AND ARCHITECTURAL DECORATION

Co-ordinator:
Kate Seymour
Stichting Restauratie Atelier Limburg (SRAL)
Daemslunet 1c (Wiebengahal)
6221 KZ Maastricht
THE NETHERLANDS
Tel.: +31 43 3218 444
Fax: +31 43 3257 568
E-mail: k.seymour@sral.nl

Assistant Co-ordinators:
Arnold Truyen
Stichting Restauratie Atelier Limburg (SRAL)
Daemslunet 1c (Wiebengahal)
6221 KZ Maastricht
THE NETHERLANDS
Tel.: +31 43 3218 444
Fax: +31 43 3257 568
E-mail: truyen@sral.nl

Line Bregnhøj
National Museum of Denmark
Conservation
I.C. Modewegs vej, Brede
2800 Kgs. Lyngby
DENMARK
Tel: + 45 4033 6168/ + 4533 4735 18
Fax: + 45 33 47 33 27
E-mail: line.bregnhoei@natmus.dk

Jonathan Gration (Student Assistant)
Curaçaostraat 41-3
1059 BL Amsterdam
THE NETHERLANDS
Tel: +31 629 550 174 (mobile)
E-mail: jonathan.gration@gmail.com

ICOM-CC SECRETARIAT
Joan Marie Reifsnyder
c/o ICCROM
13, via San Michele
00153 Rome - ITALY
Tel.: + 39 06 58 55 34 10
Fax: + 39 06 58 55 33 49
E-mail: secretariat@icom-cc.org