COSCH Training School

Testing easy accessible spatial and spectral imaging techniques: application to wall paintings documentation and conservation

06-08 April 2016

Château de Germolles
Mellecey (FR)
Objective

The main objective of this Training School is to demonstrate how selected easily accessible spatial (photogrammetry and highlight reflectance transformation imaging – H-RTI) and spectral (technical photography) imaging techniques can be used to visualise and document artworks effectively, and provide technical and conservation information.

The Germolles wall paintings dating from the 14th c. were used as a case study.

Trainees worked in small groups practicing each technique. They acquired, processed, analysed, archived, and managed data. The results were discussed in terms of use, application, and limitations.

This Training School aimed at both Cultural Heritage experts interested in applying innovative imaging techniques and imaging experts interested in matching these techniques to conservation needs. It was our wish that both professionals worked together during this training school.
Venue: Château de Germolles, 100 place du 05 septembre 1944, 71640 Mellecey, France

**The Château de Germolles**  
* a unique princely palace of the Dukes of Burgundy

In 1380, Philip the Bold (Philippe le Hardi), Duke of Burgundy, bought the stronghold of Germolles for his wife Margaret of Flanders. The Duchess transformed it into a luxurious home with the help of the finest artists of the Burgundian School (Claus Sluter, Jean de Beaumetz). The château suffered from destruction after the French Revolution and a fire at the end of the 19th c. The cellar, the lower chapel, and the main building are still surviving as well as part of the two towers guarding the entrance which are the remains of the original fortress, the great reception room (*salle d'honneur*), the ducal chapel (just restored). The hamlet adjoining the château and a 19th century park set out in the English style complete the setting. Today Germolles is the only country estate (*demeure de plaisance*) of the Dukes of Burgundy that has been preserved so extensively.

The wall paintings decorating the Ducal rooms of the 1st floor of the main building are considered as unique examples of such decorations in France.

The Château is today a private home, protected by law due to its historical significance. It is open to the public from March to November and receives 10 000 visitors per year.

More information can be found on Germolles webpage: [www.chateaudegermolles.fr](http://www.chateaudegermolles.fr) (under the English tab).
Trainers...

Anthony Pamart: Research Unit on Modelling and Simulation for Architecture and Heritage - MAP (UMR 3495 CNRS/MCC), Marseille (FR), apa@imap.gamsau.archi.fr
Prof. Francesca Piqué: University of Applied Sciences and Arts of Southern Switzerland - SUPSI, 6952 Canobbio, Switzerland, francesca.pique@supsi.ch
Dr. Christian Degrigny: Haute Ecole Arc Conservation-restauration – HE Arc CR, Neuchâtel CH) & Sarl Germolles, Mellecey (FR), christian.degrigny@he-arc.ch
Dr. Jean-Marc Vallet: Interdisciplinary Centre on Conservation and Restoration of Cultural Heritage - CICRP, Marseille (FR), jean-marc.vallet@cicrp.fr
Dr. Stefanie Wefers: I3Mainz, Hochschule Mainz, Mainz (DE), stefanie.wefers@hs-mainz.de
...and trainees

Lucia Pereira-Pardo
Amandine Colson
Irina Mihaela Ciortan
Oana Silvia Comanescu
Simona Sajeva
Xosé Luis Hermoso-Buxan

Nutsa Papiashvili
Edwin Verweij
Sony George
Piotr Bartczak
Eva Matouskova
Krzysztof Lech

Pierre Jacard
Eryk Bunsch
Daniela Korolija Crkvenjakov
Anjo Weichbrodt
Details of the trainees

Dark yellow: conservation professionals; light yellow: imaging experts; not highlighted.

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| Ms    | Nutsa Papiashvili  
(Master diploma on Germolles wall paintings) | F | SUPSI - The department of Environment, Conservation and Design, Campus Trevano, Canobbio (CH) | Conservation of Heritage buildings and mural decorations. | Tel : +41.76.665.64.98  
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| Mr    | Edwin Verweij  
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Programme

Wednesday, 6 April 2016

13:00 Registration / coffee

13:30 Christian Degrigny (HE-Arc CR & Sarl Germolles): Introduction to the training school, visit of Germolles and presentation of Germolles case study

15:00 Participants introduction

15:30 Coffee break

16:00 Anthony Pamart (MAP): Introduction to close-range photogrammetry for Cultural Heritage application

16:30 Francesca Piqué (SUPSI): Introduction to technical photography for Cultural Heritage examination

17:00 Christian Degrigny (HE-Arc CR & Sarl Germolles), Alamin Mansouri & Gaëtan Le Goïc (Le2i): Introduction to H-RTI for Cultural Heritage application

17:30 Discussion

18:00 – 18:30 Return to Chalon-sur-Saône
Thursday, 7 April 2016

8:00  **Anthony Pamart** (MAP),  **Francesca Piqué** (SUPSI) and  **Christian Degrigny** (HE-Arc CR & Sarl Germolles): data acquisition and processing with photogrammetry, technical photography and H-RTI, in 3 groups (5 to 6 persons) – demo 1*

10:00 Coffee break

10:30 Data acquisition and processing with photogrammetry, technical photography and H-RTI in groups – demo 2.

12:30 Lunch (provided on site)

14:00 Data acquisition and processing with photogrammetry, technical photography and H-RTI in groups – demo 3

16:00 Coffee break

16:30 Compilation of data

18:30 Debriefing of the techniques, their advantages and limitations.

19:00 Aperitif

20:30 Dinner at Germolles

22:00 Return to Chalon-sur-Saône

* Each group will experience all three techniques presented from 8am to 4pm, moving from demo1 to demo3.
Friday, 8 April 2016

8:30  Presentation of the data collected and processed by each group

9:30  Jean-Marc Vallet (CICRP): New developments in research: Digital modelling and data management for the conservation of historic buildings

10:30: Coffee break

11:00  Anthony Pamart (MAP): New tools for the management of data

12:00  Stefanie Wefers (i3Mainz): SIVT - Spatial Image analysis and Viewing Tool

12:30  Lunch (provided on site)

14:00  Christian Degrigny: Application of the management of data to Germolles wall paintings

15:00  Discussion and conclusion

16:00  End of the training school and return to Chalon-sur-Saône
**Group 1**

Amandine Colson, Irina Mihaela Ciortan, Xosé Luis Hermoso-Buxan, Nutsa Papiashvili, Krzysztof Lech, Daniela Korolija Crkvenjakov

**Location:** Countess of Nevers’ dressing-room (d_n) and Duke of Burgundy’s dressing-room (d_b)

**Exercice:** Photogrammetry and technical photography in d_n: moving from a global observation to close up on a “P” letter and H-RTI in d_b: examination of the stratigraphy of paint layers
Group 2
Simona Sajeva, Anjo Weichbrodt, Sonny George, Eryk Bunsch, Oana Silvia Comanescu

Location: Duchess of Burgundy (Margaret of Flanders)’s dressing-rom (d_f), Duke of Burgundy’s dressing-room (d_b), Countess of Nevers’ bedroom (b_n) and dressing-room (d_n)

Exercice: Technical photography in d_f / d_b: moving from a global observation to close up and H-RTI in b_n and photogrammetry in d_n: examination of traces of gilding on the thistles
Group 3
Lucia Pereira-Pardo, Pierre Jacard, Edwin Verweij, Piotr Bartczak, Eva Matouskova

Location: Countess of Nevers’ dressing-rom (d_n) and bedroom (b_n), Duke of Burgundy’s dressing-room (d_b)

Exercice: H-RTI and technical photography in b_n: questionable “P” letter. Photogrammetry in d_b: moving from a global observation to close up: examination of the décor with roses
During the training school...