

Tuesday, June 18

**09h30-10h30** Introductions protocol

**10h30-11h00** Coffee Break

## INTRODUCTION

**11h00-12h00**

**Maxime BRUN, Lecturer in ergonomics and human biomechanics, University of Technology Belfort-Montbéliard (IRTES – SeT) – FRANCE**

"The willingness to accept change in health and safety matters : evaluating and acting on representations, beliefs and attitudes of risk in order to improve awareness and create a positive long-term approach to accepting and implementing preventive measures."

**12h00-14h00** Lunch

## How to evaluate multiple risks?

**14h00-14h30**

**Geneviève REILLE-TAILLEFERT, Conservator – LUXEMBOURG**

"Risk evaluation and the ecological impact of mural restoration projects on the environment and individuals."

**14h30-15h00**

**Christine RIQUIER-BOUCLET, Head of Arc'Antique, Restoration and Research Laboratory – FRANCE**

"Assessing chemical hazards? Easy? Some feedback."

**15h00-15h30**

**Martin BASTONE, Senior Safety Advisor, Victorian & Albert Museum – GREAT BRITAIN**

"A method for the identification of hazards in or associated with objects. A related discussion of systems used to identify risks to conservators/ exhibition staff, in the museum and under restoration, conditions."

**15h30-16h00** Coffee Break



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**16h00-16h30**

**Françoise MIELCAREK, Conservator of metal/composite materials, LC2R Draguignan, Dr Alain MICHEL, AIST 83 et Jacques REBIERE, Director of LC2R Draguignan – FRANCE**

"A first study of occupational hazards in the field of conservation-restoration of cultural heritage based on a survey conducted in the framework of the JOCONDA European Programme."

**16h30-17h00**

**Morad MAHDJOUR, Lecturer in mechanics, University of Technology Belfort-Montbéliard (IRTES – SeT) and the Laboratory of Conservation, Restoration, Research (LC2R) – FRANCE**

"Research into the methodologies for integrating the human factor into product/systems design : application for the development of a blasting chamber to treat movable heritage."

**17h00-17h30**

**Cristina SANCHES MORAIS, Conservator and Professor, SENAI – National Industrial Apprenticeship Service – BRAZIL**

"Pesticide contamination."

**17h30-18h00**

**Alassane WAONGO, Heritage Manager, National Museum of Burkina Faso – BURKINA FASO**

"Chemicals and the conservation of objects in the National Museum : what are the consequences on employee health ?"

**19h00** Aperitif offered by Odésia / Free lunch (Figanières village) or Odésia (15 €)



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"The willingness to accept change in health and safety matters : evaluating and acting on representations, beliefs and attitudes regarding risk in order to improve awareness and create a positive long-term approach to accepting and implementing preventive measures"

**Maxime BRUN**

Lecturer in ergonomics and human biomechanics, University of Technology Belfort Montbéliard, Institute for Transportation Research, Energy and Society (IRTES, E.A. 7274), Systems and Transports Laboratory (SeT) – UTBM, Site de Montbéliard, 90010 Belfort Cedex - FRANCE  
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#### SUMMARY

The implementation of changes in the workplace intended to reduce the risk factors linked to health and safety is not always a success, due to, among other factors, a resistance to change on an individual and organizational level. This may be the result of a considerable complexity in changing highly procedure-based operating methods, but also of a difficulty for the people concerned in seeing the advantages of changing their working habits in the light of the cost incurred and the existing margins for work (technical, organizational, financial, etc.). For example, an appropriate analysis of the working situation and the risks incurred, along with a comprehensive knowledge of the risk factors and determinants cannot on their own guarantee support for the changes hoped for in the company. Regarding prevention, the greatest and most common difficulties are encountered when new tools and working methods or health and safety measures are introduced, requiring the people concerned to change their working habits. If an employee's health risk is to be controlled, the company (and particularly the management) must take steps and implement actions aimed at reducing this risk in the working environment, but, the employees have to agree to restrict their risk behavior by taking these changes on board. Many authors have shown that the behavior of an organization, company director and/or employee faced with a risk, their willingness to change their behavior and the processes that allow this change in behavior may be heavily influenced by the components of the representation of the risk, i.e. individual and collective beliefs and attitudes. For example, an MSD prevention initiative would be more effective if these factors could be objectified and transformed to create a wider acceptance of the proposed measures.

"Risk evaluation and the ecological impact of mural restoration projects on the environment and individuals"

**Geneviève REILLE-TAILLEFERT**

Conservator – LUXEMBOURG  
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#### SUMMARY

For 30 years, as part of restoration of murals projects, we are faced with different problems regarding Health, Safety and Respect for the environment and their evolution: they are at the heart of the restoration projects of monumental murals and of painted decoration. Indeed, in contrast with the situation in a sheltered workshop of painting conservator, activity of a conservator of wall paintings is related to the monument on which it is carried out, i.e. in an open environment, in the heart of the city, often in buildings or monuments and it is important to assess the risks and potential solutions in the context of our sites. The issue of impact risks to the environment and people in the restoration of murals will firstly be social (open environment) and then methodology taking into account the conservation work and its supporting medium without causing environmental damage (whether it be social or ecological).

#### A) Social

- 1- Daily insertion in an administrative, worship, private environment... Discretion and respect is required for the uses and users of the building
- 2- Carelessness of people who do not know the conservator's specific safety instructions at work
- 3- Carelessness of other building trades
- 4- Visibility of the daily work in progress

#### B) Methodology

- 1- Noise Pollution
- 2- Olfactory Pollution
- 3- Environmental Pollution
- 4- Waste

All these constraints have led us to the implementation of specific individual safety precautions, with strict obligations to maintain the material and respect for the environment by developing a greener methodology.

"Assessing the chemical hazards ? Easy ? Some feedback"

**Christine RIQUIER-BOUCLET,**

Director of Arc'Antique, Restoration and Research Laboratory – FRANCE  
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#### SUMMARY

Following an unexpected visit from the work inspector (DIRRECTE), we decided to introduce a chemical hazard assessment, from a product inventory to an individual exposure sheet. Arc'Antique is a laboratory in which several specialties work together: conservation-restoration of metals, ceramics, glass, organic materials, large objects found in underwater searches, moulding activities, research, photography and radiography. In all, 13 people are in more or less direct contact with many chemicals, not including the interns. Certain activities also generate toxic products. Faced with the number of documents we had to provide, the complexity of the information we had to

deal with and the time we had to spend on the task, we decided to take on an intern studying for a degree as an industrial and environmental hygienist for 6 months. This was quite a challenging time for the team as we were questioned, then observed. It was not easy to find an evaluation method that could be adapted to our work: small quantities, but of many and different kinds, and often short exposure times. The special nature of our work – the wide range of objects and a need for adaptability – gives the impression that the risks generally exist for a very short time and are minimized by our scientific and professional training; these are aspects that could have disheartened our intern, J. PICHON.

"A method for the identification of hazards in/or associated with objects. A related discussion of systems used to identify risks to conservators/ exhibition staff, in the museum and under restoration, conditions"

**Martin BASTONE**

Senior Safety Advisor, Victoria & Albert Museum – GREAT BRITAIN  
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#### SUMMARY

This paper focuses mainly on hazardous substances in relation to exhibitions and how these may affect museum staff including conservators and technicians. It also considers how the objects may be affected by unforeseen events. Additionally, a wider view of the subject is taken through relating this to the exhibition process and the identifying of hazards and quantifying of related risks. The objective of this paper is to attempt to provide an informed methodology about the process of identifying what sort of hazards may be present in a proposed exhibition, starting from the exhibition concept stage and proceeding through to the review stage. In the process, we will look at examples of physical risks to exhibition visitors from the exhibition design, we will examine a method of identifying hazardous substances, simple risk assessment methods and finally look at how to identify possible outcomes from an interaction between hazardous substances and a variety of disasters, such as fires, floods, explosions etc. This presentation represents an ongoing and open process. A number of interactive documents will be provided for distribution at the end (via your organization) to allow others, if they wish, to develop the various parts to suit their own needs. The 'Hazards in collections' group are developing a website and seek active involvement from interested parties. The group is particularly keen to raise awareness and to encourage further research into this subject. I will also be happy to answer any questions about how safety is managed within English museums.

"A first study of occupational hazards in the field of conservation-restoration of cultural heritage based on a survey conducted in the framework of the JOCONDA European Program"

**Françoise MIELCAREK<sup>1</sup>, Dr Alain MICHEL<sup>2</sup> et Jacques REBIERE<sup>3</sup>**

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#### SUMMARY

The JOCONDA project coordinated by the House of Social Promotion and the Laboratory of Conservation, Restoration and Research (Draguignan) includes Belgium, France, Hungary, Italy, Poland, Slovenia, Spain and Switzerland its objective is to identify the risks to the professionals of the conservation-restoration of cultural heritage. Improving health and safety in the workplace is an innovative initiative in this area. Indeed, health and safety in the field of conservation-restoration of cultural heritage has long been a "taboo" or simply not taken into account by these professionals and institutions. The vast majority of them have little or no scientific training; the notion of risk is not part of their culture or way of thinking. In addition, there are few trainings programs that integrate the teaching of safety, good laboratory practices (GLP) specifically adapted to the conservation-restoration of cultural heritage. Another element to consider is the safety involves heavy investment that are hard to bear by the majority of structures where the temptation to underestimate or even to deny dangerous situations. Therefore, this is to educate and raise awareness of the risks generated and experienced by these professionals without forgetting the impact on the environment. Also, we decided to develop a questionnaire for conservators of cultural heritage. This must be seen as an aid in identifying dangerous situations. The questionnaire must list the risks conservators are most frequently face in their specialty, their working conditions and futures assessment their severity. It will then be easier to quantify these risks, to define the acceptability of each risk, to determine the feasibility and the cost of improving security and establishing good practices adapted to this profession.

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"Research into the methodologies of integrating the human factor into product/systems design : application for the development of a blasting chamber to treat movable heritage"

**Morad MAHDJOUB**

Lecturer in mechanics, University of Technology Belfort Montbéliard, Institute for Transportation Research, Energy and Society (IRTES, E.A. 7274), Systems and Transports Laboratory (SeT) – UTBM, Site de Montbéliard, 90010 Belford Cedex - FRANCE

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SUMMARY

A demonstration of the use of virtual prototyping tools, and, in particular, digital dummy / virtual reality type usage simulation, in order to combine ergonomics research with maximum efficiency to help prevent occupational health & safety incidents.

"Pesticide contamination"

**Cristina SANCHES MORAIS**

Conservator and Professor, SENAI – National Service of Industrial Learning – BRESIL

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SUMMARY

Review of a case study to investigate environmental hazards and risks to health and safety of the conservation and restoration professional caused by contamination resulting from the use of pesticides in collections and artworks.

"Chemicals and the conservation of objects in the National Museum : what are the consequences for employee health ?"

**Alassane WAONGO**

Heritage Administrator, Burkina Faso National Museum – BURKINA FASO

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SUMMARY

Burkina Faso is at the heart of West Africa. Founded in 1962, the Burkina Faso National Museum's key role is to preserve the material and immaterial evidence that is most representative of the cultural identity of the different component parts of the Burkina Faso nation. To do this, it has a collection estimated at over 8000 objects, which are currently kept in a former school dining room. The collections are mostly made up of ethnographic objects. Preserving the museum's collections requires the use and handling of a certain number of products. Curative methods to fight biological contamination are used to eliminate insects. Chemicals are used to fight infestation problems in the museum's collections. These products are generally bought from stores that sell phytosanitary products. They are applied by sprinkling or fumigation in the reserve

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collections where staff regularly work. This implies enormous risks in terms of employee health.

**Speakers have their names underlined in the articles**