Irradiation Methods in the Protection of Cultural Heritage
Zagreb, Croatia - 4 and 5 October, 2011
Programme of the Seminar

Tuesday, 4 October 2011, Mimara Museum, Rooseveltov trg 5, Zagreb, Croatia

8.30–9.30  Registration

Opening and introduction

9.00–9.30  Greetings
- Danica Ramljak, Director of the Ruđer Bošković Institute
- Ferdinand Meder, Director of the Croatian Conservation Institute
- Dragan Kubelka, Director of the Croatian State Office for Nuclear Safety
- Branka Katušin-Ražem, Croatian National Coordinator, IAEA project RER/8/015

Lectures:
Moderator: Mario Braun, Croatian Conservation Institute

9:30-9:50  Presentation of the Regional TC Project RER/8/015
- Nevenka Novosel, National Liaison Officer for the IAEA, Croatian State Office for Radiological and Nuclear Safety

9:50-10:15  Participation of Croatia in the Project RER/8/015
- Branka Katušin-Ražem, Ruđer Bošković Institute and Mario Braun, Croatian Conservation Institute

10:15-11:00  Irradiation Treatments for the Protection of Cultural Heritage Objects - French experience
- Quoc Khoi Tran, ARC – NUCLEART, Grenoble, France

11:00-11:30  Coffee break
Seminar “Irradiation Methods in the Protection of Cultural Heritage Artefacts”, Zagreb, Croatia - 4 and 5 October, 2011
organized by the Croatian Conservation Institute and the Ruđer Bošković Institute

First topic:

*Irradiation Method for Desinsection and Disinfection of Cultural Heritage Artefacts*

**Biodegradation of Organic Cultural Heritage Artefacts**

11:30-11:50 The Problem of Biodegradation of Cultural Heritage Artefacts in Museums, Collections and Sacral Buildings
- Želimir Laszlo, Museum Documentation Center

**Gamma Irradiation and Its Effects on Materials**

11.50-12.20 Principles of Desinsection and Disinfection of Cultural Heritage Artefacts Using Irradiation Method
- Dušan Ražem, Ruđer Bošković Institute

12.20-12.50 Effects of Gamma Irradiation on Organic Cultural Heritage Artefacts
- Irina Pucić, Ruđer Bošković Institute

12.50-13.15 Discussion

13:15-15.00 Lunch break

**Examples of Successful Irradiation Method Applications in the Protection of Cultural Heritage Artefacts**

15:00-15:30 Examples of Successful Application of Irradiation Methods in Europe
- Branka Katušin-Ražem, Ruđer Bošković Institute – introduction to short films “Ramses II - Le rayonnement de la resurrection” and “Restoring the Past / Preserving the Future by Nuclear Technologies”
  Comments, FAQs: Quoc Khoi Tran, Branka Katušin Ražem and Mario Braun

15:30-16.00 Croatian Experience in Using Irradiation for the Protection of Cultural Heritage

16.00-16.30 A Conservator-Restorer’s Experience in the Practical Application of Irradiation Methods
- Romana Jagić, Croatian Conservation Institute

16.30-17.15 Exhibition Opening – “Examples of Successful Irradiation Method Applications in Croatia“ and discussion of the posters

17.15-18.00 Discussion of the presentations and FAQs by conservators-restorers and other users of irradiation method
Wednesday, 5 October, 2011

Organized visits, for registered participants only

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<td><strong>09.00-10.00</strong> Croatian Conservation Institute, Zmajevac 8 – A visit to conservation-restoration departments with demonstrations of conservation-restoration procedures on irradiated objects</td>
<td><strong>09.00-10.00</strong> Ruđer Bošković Institute, Bijenička 54 – A working demonstration of the irradiation facility for the treatment of cultural heritage artefacts</td>
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<td>guides: Mario Braun, Ana Dumbović, Anđelko Pedišić, Slobodan Radić, Ksenija Škarić, Marija Štrok</td>
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| 11:00-11:30 Coffee break at Ruđer Bošković Institute |

Ruđer Bošković Institute, Bijenička cesta 54, Lecture Hall, Building III

Second topic: **Using Irradiation Method for Consolidating Degraded Cultural Heritage Artifacts**

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<th>Lectures:</th>
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<td>Moderator: Irina Pucić, Ruđer Bošković Institute</td>
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<tr>
<th>11:30-12:30 Irradiation Consolidation of Degraded Heritage Objects by Impregnation with Radiation-Curable Resin</th>
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<td>- Quoc Khoi Tran, ARC-Nucléart, Grenoble, France and the representative of the IAEA Project RER/8/015</td>
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<th>12:30-13:00 Discussion on method’s feasibility and the possibility of introducing radiation consolidation method in Croatia</th>
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<td>consultations with the IAEA expert Quoc Khoi Tran – participants: Mario Braun, Croatian Conservation Institute and Irina Pucić, Franjo Ranogajec, Dušan Ražem and Tanja Jurkin, Ruđer Bošković Institute</td>
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The end of the seminar
Poster Exhibition
“Examples of Successful Irradiation Method Applications in Croatia“

Tuesday, 4 October 2011, Mimara Museum, Trg F. Roosevelta 5, Zagreb

1. Irradiation Treatment for the Protection of Cultural Heritage Objects – Croatian Experience
   - Branka Katušin-Ražem¹, Mario Braun² and Dušan Ražem¹,
   1: Ruđer Bošković Institute, 2: Croatian Conservation Institute, Zagreb

2. Rescuing Artworks During the Homeland War, 1991-1995
   - Lana Lalić and Nevena Krstulović, Croatian Conservation Institute - Department for Wooden Polychrome Sculpture

3. The St. Cross Altar from the Blessed Virgin Mary of the Snow Church in Kamensko
   - Siniša Cvetković and Romana Jagi, Croatian Conservation Institute - Department for Wooden Polychrome Sculpture

4. A Survey of the Microbiological Activity on Samples of Polychromed Wood
   - Dragica Krstić¹, Romana Jagić²
   1: Croatian Conservation Institute – Natural Science Laboratory (in 1998),
   2: Croatian Conservation Institute - Department for Wooden Polychrome Sculpture

5. Successful examples after 1995

5. The Virgin Mary Polyptych from the St. Francis Church in Pula
   - Romana Jagić, Croatian Conservation Institute - Department for Wooden Polychrome Sculpture

6. Disinsection of Book Bindings by γ- Radiation
   - Igor Kozjak and Tijana Mušnjak, Croatian State Archives, Zagreb

7. Garments of the Tailors of Sinj
   - Bernarda Rundek-Franić, Croatian Conservation Institute – Department of Textiles

8. Post-irradiation Analysis of Textiles Infested with Fungi
   - Katja Kavkler¹, Andrej Demšar², Nina Gunde Cimerman³, Polona Zalar³,
   1: Zavod za varstvo kulturne dediščine Slovenije, Restavratorski center, Ljubljana, Slovenija; 2: Univerza v Ljubljani, Naravoslovnotehniška fakulteta, Oddelek za teksstitlo, Ljubljana, Slovenija; 3: Univerza v Ljubljani, Biotehniška fakulteta, Oddelek za biologijo, Ljubljana, Slovenija

9. Preventive Conservation of Liturgical Textiles from the Franciscan Monastery in Slavonski Brod
   - Maja Vrtulek, Croatian Conservation Institute – Lubnec Conservation Centre

10. Ethnographic Objects – Preventive Disinsection by Irradiation
    - Mihaela Grčević, Ethnographic Museum, Zagreb

11. Project "Atelier Kožarić“ – Conservation of Objects by Irradiation Disinsection
    - Iva Rada Janković, Museum of Contemporary Art, Zagreb
The following films will be screened:

1. **Conservation-Restoration of Dragoljub Raša Todosijević’s object „Nailed bread“ / Konzervatorsko-restauratorski radovi na objektu Dragoljuba Raše Todosijevića „Pribijeni kruh“**
   
   Production: Museum of Contemporary Art, Zagreb, 2011
   
   Conservation – restoration works: Zlatko Bielen M.A., conservator – restorer counselor
   
   Idea and concept: Mirta Pavić, Zlatko Bielen
   
   Shooting and mounting: Jovan Kliska
   
   Text: Zlatko Bielen
   
   Voice: Tatjana Kliska
   
   Associates:
   
   Raša Todosijević, author of the installation
   
   Jadranka Winterhalter, Museum counselor
   
   Branka Katušin – Ražem Ph.D., Ruđer Bošković Institute

2. **Ramses II - Le rayonnement de la resurrection**
   
   - Commissariat a l’energie atomique – service d’application de radio element et de rayonnement, France

3. **Restoring the Past / Preserving the Future by Nuclear Technologies**
   
   - Horia Hulubei Institute for Physics and Nuclear Engineering & IRASIM - Radiation Processing Centre, Romania

**LECTURERS**

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