May 21
17.00
REGISTRATION
18.00
WELCOME CADIZ TOUR

May 22

ASSEMBLY HALL, “FACULTY OF PHILOSOPHY AND LETTERS”

09.00 – 09.30
OPENING CEREMONY

09.30 – 10.00
PLENARY SESSION

P. Baglioni: *Materials and methods for the conservation of cultural heritage.*

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**ORAL SESSIONS**

LEQUERICA HALL, 1812 CONSTITUTION BUILDING

10.00 – 11.15 Oral Session
S1.-Nanomaterials and other Products for Conservation I
(Products and techniques for cleaning)

- **J. Rathousky (key note):** *Smart materials for the cleaning and protection of the surfaces of culture heritage artefacts.*
- **T. Palomar, B. Ramirez, J.M. Vélix, E. Cano:** *Evaluation of cleaning procedures for the conservation of tarnished lead.*

11.15 – 11.45
COFFEE BREAK AND POSTER SESSION

11.45 – 13.00 Oral Session
S2.-Nanomaterials and other Products for Conservation II
(Products and techniques for cleaning)

- **J. Barrio, Mª Cruz Medina, I. Donate, Mª Muñoz, A.I. Pardo:** *Conservation of archaeological epigraphs on marble with laser technique.*
<table>
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<tr>
<th>Time</th>
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<tr>
<td>13.00–15.15</td>
<td>Lunch, “Parador Hotel Atlántico”</td>
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<tr>
<td>15.15–16.30</td>
<td>Oral Session S3.-Nanomaterials and other Products for Conservation III</td>
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<td>(Innovative consolidant and multipurpose products)</td>
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<td>• P. Maravelaki-Kalaitzaki (key note): Nanomaterials for monument conservation: applications as additives in mortars, consolidants and self-cleaning protectives</td>
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<td></td>
<td>• M. Oriola, G. Campo-Francès, C. Ruiz-Recasens, A. Nualart-Torroja: Canvas Consolidation Survey and Treatment Requirements for the Nanorestart Project</td>
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<td></td>
<td>• J. Pozo Canales, J. Romero-Noguera, E. Bernáldez: Evaluation of the efficacy of Paraloid B-72® and Nanorestore® in the consolidation of carbonated fossils</td>
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<tr>
<td>16.30–17.45</td>
<td>Oral Session S4.-Nanomaterials and other Products for Conservation IV</td>
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<td></td>
<td>(Innovative consolidant and multipurpose products)</td>
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<td>• G. Predieri (key note): Polyamidoamines as functional polymers for wood and paper protection</td>
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<td></td>
<td>• B. Sena de Fonseca, A. P. Ferreira Pinto, S. Piçarra, M.F. Montermor: The efficacy of stone consolidants based on alkoxysilanes: Influence of solvent type</td>
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<td>• D. Gulotta, F. Gherardi, S. Goldanich, L. Tonio: Evaluation of the consolidation efficacy of artificially aged Italian marbles</td>
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<td>• M. Martino, M.J. Mosquera, R. Giarrusso, G. Milazzo, P. Livreri: Evaluation of ammonium phosphates as consolidating agent for carbonatic stone used in Sicily</td>
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<tr>
<td>17.45–18.30</td>
<td>Session Dedicated to TechnoHeritage Network</td>
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<td>18.30–22.00</td>
<td>Gonzalez Byass Tio Pepe Sherry Wine Tour</td>
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<tr>
<td>10.00–11.15</td>
<td>Oral Session S1.-New Technologies for Analysis, GPR applications, Protection and Conservation I</td>
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<td>(New evaluation techniques)</td>
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<td>• L. Lagostena Barrios (key note), J.A. Ruiz Gil: A Methodological Proposals on GPR Techniques</td>
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<td>• J. Sanjurjo, M. Solla, R. Asorey-Cacheda, I. Puente: toGPR: A processing and visualization tool for 3D-GPR data in Cultural Heritage</td>
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<td>• J. Valles Iriso, T. Chapa, Jorge Matesanz, M.A. Maté: Combined application of Multi-Channel 3D GPR and Photogrammetry from UAVs for the study of Archaeological sites</td>
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<td>• J. San Jurjo, M. Couto, C. Alves: Non-destructive assessment of weathering in granite blocks of historical buildings: in situ gamma-ray spectrometry (GRS)</td>
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<td>• R. López Guzmán, A. Contreras Guerra: Virtual expositions like research methodology</td>
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<td>11.15–11.45</td>
<td>Coffee Break and Poster Session</td>
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11.45 – 13.00
S2.-New Technologies for Analysis, GPR applications, Protection and Conservation II
(New evaluation techniques)

- L. Barbero, J. A. López-Ramírez, L. Talavera: Unmanned aerial systems as research tools in archaeology and cultural heritage.
- R. Rubio Díez: LiDAR technology applications for the study of roman mining landscapes: The case of river Sil upper basin (León, Spain).

13.00 – 15.15
LUNCH, “PARADOR HOTEL ATLÁNTICO“

15.15 – 16.30
S3.-New Technologies for Analysis, GPR applications, Protection and Conservation III
(New evaluation techniques)

- D. Vazquez, A. Alvarez: Optimizing damage and colour fidelity in museum illumination with a mathematical model.
- J. Peña, S. San José, C. Gil, M.A. Villegas: Environmental pH monitoring with optical sensors at the Monastery of Santa María la Real de Nieva (Segovia, Spain).

16.30 – 17.45
S4.-New Technologies for Analysis, GPR applications, Protection and Conservation IV
(New evaluation techniques)

- M. R. Candelera, L. García Sanjuán, M. Diaz-Guardamino Uribe, D.W. Wheatley: Were Late Prehistoric stelae painted? Digital image analysis-based research of the Late Prehistoric stelae of Mirasiviene (Lora del Río, Sevilla) and Montoro (Montoro, Córdoba), South Spain.
- E. Carrasco, M. Ouija, M. Sanz, J. F. Marco, M. Castillejo: X-ray and ion irradiation effects on pictorial samples.

17.45 – 18.30
SESSION DEDICATED TO TECHNOHERITAGE NETWORK

18.30 – 22.00
GONZALEZ BYASS TIO PEPE SHERRY WINE TOUR.

ARGUELLES HALL, 1812 CONSTITUTION BUILDING

10.00 – 11.15
S1.-20th Century Cultural Heritage I (Nobel materials conservation)


11.15 – 11.45
**COFFEE BREAK AND POSTER SESSION**

11.45– 13.00
**S2.-20th Century Cultural Heritage II (Contemporary art)**

- E. Gomez Sanchez, N. Ferrer, D. Kirchner, C. Larrue, V. Saisnith, S. Seidel, J. Fey: *Following the natural degradation of caoutchouc: Material Analysis of a diving suit form the turn of the 20th century.*
- S.A. Ruffolo, A. Macchia, L. Rivaroli, E. Palermo, M.F. La Russa: *Comparative study of protective coatings for the conservation of Urban Art.*

13.00 – 15.15
**LUNCH, “PARADOR HOTEL ATLÁNTICO“**

15.15– 16.30
**S3.-20th Century Cultural Heritage III (concrete conservation)**

- Juan Murcia, M.T. Blanco (key note): *Modern concrete and its evolution from the standpoint of the built heritage.*

16.30-17.45
**S4.-20th Century Cultural Heritage IV (concrete conservation)**

- Sara Fasana, M. Zerbinatti: *Buildings for hydroelectric power plants in N.W. Italian Alpine valleys. An open problem of maintenance, conservation and re-use.*

17.45 – 18.30
**SESSION DEDICATED TO TECHOHERITAGE NETWORK**

18.30 – 22.00
**GONZALEZ BYASS TIO PEPE SHERRY WINE TOUR.**
### May 23

**LEQUERICA HALL, 1812 CONSTITUTION BUILDING**

#### 9.00-10.15 Oral Session

**S5.- Nanomaterials and other Products for Conservation V**  
(Innovative consolidant and multipurpose products)

- E. Valentini, A. Benincasa: *Portable device for drilling resistance test method.*
- de Rosario, T. Rivas, J. Feijoo, R. Benavides, M.J. Mosquera: *Preconsolidation prior desalation on granitic rocks: a new approach to evaluate the most suitable treatment.*
- D. Ergenç, R. Fort González, D. Sanz Arauz: *Carbonation of lime mortars in high CO$_2$ environment.*

#### 10.15–11.30 Oral Session

**S6.- Nanomaterials and other Products for Conservation VI**  
(Hydrophobic, superhydrophobic and omniphobic products)

- Karapanagiotis (key note): *Superomniphobic coatings for the protection of stone monuments.*
- F. Elhaddad, M.J. Mosquera: *Effectiveness of a novel consolidant/hydrophobic nanomaterial applied on archaeologic stones: Durability Assessment after three years of in situ exposure.*

#### 11.30 – 12.00

**COFFEE BREAK AND POSTER SESSION**

#### 12.00–13.15 Oral Session

**S7.- Nanomaterials and other Products for Conservation VII**  
(Hydrophobic, superhydrophobic and omniphobic products)

- M. Stefanidou (key note): *Protecting clay mortars through water-proof techniques.*

#### 13:15–15.30

**LUNCH, “PARADOR HOTEL ATLÁNTICO”**

#### 15.30–16.45 Oral Session

**S8.- Nanomaterials and other Products for Conservation VIII**  
(Self-cleaning, depolluting and anticorrosion products)

- G. di Carlo (key note): *Degradation phenomena in copper-based works of art and innovative approaches for a reliable and safe protection.*
- Elbeshary A. A. Mohammed, Annemie Adriaens: *Saturated long chain sodium monocarboxylates for inhibition the corrosion of lead objects in atmospheric conditions and in acetic acid corrosive solution.*
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<td>09.00-10.15</td>
<td><strong>S5.-New Technologies for Analysis, GPR applications, Protection and Conservation V</strong> (New evaluation techniques)</td>
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<td>• M. Beltrame, S. Gómez Martínez, L. J. Gonçalves, J. Rui Ribeiro dos Santos, F. Branco, A. Candeias, J. Mirão: <em>Noninvasive investigation of common, painted and glazed Islamic pottery (IX-XI century) from the cities of Mértola and Évora (Portugal) using portable XRF spectrometry.</em></td>
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<td>• I. Donate, M. Medina, S. Celestino, E. Rodríguez, C. Pascual, P. Recio, J. Barrio, A.I. Pardo: <em>How analytical techniques are able to address archaeological questions: a case study of a painted ceramic.</em></td>
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<tr>
<td>10.15-11.30</td>
<td><strong>S6.-New Technologies for Analysis, GPR applications, Protection and Conservation VI</strong> (New evaluation techniques)</td>
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<td>• B. Ramírez Barat, A. Crespo, E. Cano: <em>In situ evaluation of outdoor sculpture with a gel polymer electrolyte cell.</em></td>
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<td>• J. Peña-Pozas, F. Agua, J.F. Conde, M. Garcia, M.A. Villegas: <em>Scientific and technical study of glasses of a possible Venetian mirror from the Virgen de la Encina Basilica at Ponferrada (León, Spain).</em></td>
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<td>• A. S. Guimaraes, V. P. de Freitas: <em>Rising Damp in Heritage Buildings Hygro-Regulated Wall Base Ventilation System.</em></td>
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<td>• M. F. P. C. Martins Costa, W. Magalhaes, M. A. Alves: <em>3D Characterization of Arqueological Ceramics.</em></td>
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11.30 – 12.00
**COFFEE BREAK AND POSTER SESSION**

12.00-13.15
**S1.-Deterioration of Cultural Heritage I (Stone and mortars)**


• Lucía J Fernández, D. Torrêns Matín, J.LL Zamora i Mestre: *Deterioration Analysis of Hydraulic...*
Mortars Pavements

- **Enrique Parra**: Chemical composition of embalming substances found in XVIIth century burials at Miguel de Cervantes’ tomb. Effects of boiling on oxidation of several biomarkers.

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<td>15.30–16.45</td>
<td>S1.-Significance of Cultural Heritage I (Policy for conservation)</td>
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<td>- E. Cano (key note), B. Ramírez Barat: European Research infrastructures for Heritage Science: from IPERION to E-RIHS.</td>
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<td>- M. Perino: Air tightness and RH control in museum showcases: concepts and testing procedures.</td>
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|            | - D. Vazquez, A. Alvarez: Optimizing damage and colour fidelity in museum illumination with a mathematical model.
|            | - B. García Fernandez, A. Álvarez Fernandez-Balbuen, D. Vázquez-Molini: A new approach for lighting energy management |
| 16.45–17.45| SESSION DEDICATED TO EUROPEAN RESEARCH INFRASTRUCTURE FOR HERITAGE SCIENCE (E-RIHS) |
|            | 20.30                                    |
|            | GALA DINNER WITH FLAMENCO SHOW AT “BALUARTE DE LOS MÁRTIRES” |
|            | ARGUELLES HALL, 1812 Constitution Building |
| 09.00–10.15| S5.-20th Century Cultural Heritage V (concrete conservation)              |
|            | - J. Sanchez Dolado (Key note): Nanoscience and nanotechnology applied to cement-based materials. |
|            | - Alfonso-Durá, A. Almerich-Chulia, S. Tomo-Esteve, V. Llopis-Pulido: Structural analysis model of GFRP bars to reinforce Heritage Buildings. |
| 10.00–11.30| S1.-Biodeterioration: fundamentals, present and future perspectives. Session in honour of Prof. Cesáreo Sáiz Jiménez I (Analysis and Identification) |
|            | - G. Pinar (key note), K. Sterflinger: Two decades using molecular techniques to study biodeterioration of cultural heritage: an amazing biotechnological development. |
|            | - A. Gorbushina, F. Villa, F. Capitelli: Studying colonization of stone surfaces: what can we learn from model biofilms growing in flow-through chambers? |
| 11.30–12.00| COFFEE BREAK AND POSTER SESSION |
12.00-13:15
S2.-Biodeterioration: fundamentals, present and future perspectives. Session in honour of Prof. Cesáreo Sáiz Jiménez II (Policy)

- M. Hernandez (key note): Why is it so difficult to prevent biodeterioration?
- B. Hermosin, L. Laiz, M. A. Rogerio-Candelerá: Microorganisms and monuments: Forty years of Heritage conservation.

13:15–15.30
LUNCH, “PARADOR HOTEL ATLÁNTICO”

12.00–13.15
S3.-Biodeterioration: fundamentals, present and future perspectives. Session in honour of Prof. Cesáreo Sáiz Jiménez III (Conservation)

- J. Galván, D. Lorenzo, M. Gajú, C. Villagrá, M. T. de Troya: Action protocol against termites in urban areas.

16.45–17.45
Session dedicated to European Research Infrastructure for Heritage Science (E-RIHS)

20.30
Gala Dinner with Flamenco Show at “Baluarte de los Mártires”
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<th>Time</th>
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<th>Presenters</th>
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| 09.00–10.15  | S9.-Nanomaterials and other Products for Conservation IX (Self-cleaning, depolluting and anticorrosion products) | • Radek Zouzelka: *Self-cleaning and de-polluting* stone surfaces.  
• E. Jiménez-Relinque, F. Rubiano, M. Castellote: *Heterogeneous photocatalysis as a self-cleaning and anti-graffiti technology in cultural heritage conservation*.  
• Truppi, M. Luna, F. Petronella, R. Comparelli, M.J. Mosquera: *Photocatalytic activity of TiO₂/AuNRs - SiO₂ nanocomposites applied to building materials*.  
• G.M.C. Gemelli, F. Elhaddad, F. Fernandez, M.J. Mosquera: *Effectiveness of Innovative Nanomaterials with Consolidant, hydrophobic and photocatalytic properties on “Pietra di Noto*.  
• A. Calia, D. Colangiuli, M. Lettieri, M. Masieri: *Investigation of nanostructured TiO₂ coatings on a limestone exposed to urban environment*. |
| 11.30–12.00  | COFFEE BREAK AND POSTER SESSION                  |                                                                           |
| 12.00–13.00  | SESION HORIZONTE 2020                            |                                                                           |
| 13.00–15.15  | LUNCH, “PARADOR HOTEL ATLÁNTICO“                 |                                                                           |
| 10.15-11.30  | S1.-Underwater Cultural Heritage                 | • B. Gasca Jimenez: *Preservation issues in naval museums. The example of two 18th century frigate sterns taken out of the sea 40 years ago*.  
• E. Aragon, S. Munar, J.r Rodríguez, K. Yamafune: *Underwater Photogrammetric Monitoring Techniques apply to deep shipwrecks*.  
• L. C. Zambrano, M.L.A. Gil, M. Bethencourt: *A general method to recover and stabilize superfragile materials from underwater archaeological sites*. |
16:30-17:30
CLOSING SESSION
C. Saiz-Jimenez: The roman necropolis of Carmona, Spain: 10 years of research.

17:30-18:00
CLOSING CEREMONY

18.00
GUIDED VISIT TO THE PHOENICIAN ARCHAEOLOGICAL SITE GADIR

BOLIVAR HALL, 1812 CONSTITUTION BUILDING

09.00–10.15
S2.-Significance of Cultural Heritage II (policies for conservation)

- K. Bennett, K. Mc Leod: Preparing cultural heritage for a natural disaster.
- Loli, C. Bertolin: Towards zero emission refurbishment in historic urban districts.

10.15–11.30
S3.-Significance of Cultural Heritage III (policies for conservation)

- M. E. Castiello: Archaeological Predictive Modelling using the Weights of Evidence: Canton Zurich as a case of study.
- M. Hassan: The current built environment of the medieval forts on Arwad Island in Syria based on summer microclimate measurements.
- C. Bandrés: Analysis and structure of the water distribution system in the distribution depot of the Carmona Gate as a way of supplying water to the Royal Alcazar of Seville.
- A. G. Abdel Tawab: Humane Considerations in Architecture and the Outstanding Universal Significance of 20th Century Cultural Heritage: The Case of Paimio Hospital in Finland.

11.30 – 12.00
COFFEE BREAK AND POSTER SESSION

12.00–13.00
SESSION HORIZONTE 2020

13.00–15.15
LUNCH, “PARADOR HOTEL ATLÁNTICO“

15.15 – 16.30
S4.-Significance of Cultural Heritage IV (policies for conservation)

- J. Delgado Rodrigues (Key note): Decision making processes in the conservation of stone built heritage. Laboratory and field perspectives.
- C. Muñoz Gonzalez, A. León Rodríguez, I. Acosta Garcia, M.A. Campano Laborda, J. Navarro Casas: Monitoring and modelling, a proposed method to assess the refurbishment projects in historic buildings.
- F. Fernández: Pre-project and diagnosis for restoration of modern architecture.
16:30-17:30
CLOSING SESSION
C. Saiz-Jimenez: The Roman Necropolis of Carmona, Spain: 10 years of research.

17:30-18:00
CLOSING CEREMONY

18.00
GUIDED VISIT TO THE PHOENICIAN ARCHAEOLOGICAL SITE GADIR

ARGUELLES HALL, 1812 CONSTITUTION BUILDING

09.00-10.15
S4.-Biodeterioration: fundamentals, present and future perspectives. Session in honour of Prof. Cesáreo Sáiz Jiménez IV (Biocides)

- J. Wierzchos, S. Pérez-Ortega, A. de los Ríos, V. Souza-Egipsy, R. Fort, C. Ascaso: In situ assessment of biocides action on epilithic lichens colonising dolostone.

10.15 – 11.30
S5.-Biodeterioration: fundamentals, present and future perspectives. Session in honour of Prof. Cesáreo Sáiz Jiménez V (study cases)

- P. Tiano (key note): CNR-CISC, jointly activities, not only a scientific collaboration.

11.30 – 12.00
COFFEE BREAK AND POSTER SESSION

12.00– 13.00
SESION HORIZONTE 2020

13.00– 15.15
LUNCH, “PARADOR HOTEL ATLÁNTICO“

15.15 – 16.30
S6.-Biodeterioration: fundamentals, present and future perspectives. Session in honour of Prof. Cesáreo Sáiz Jiménez VI

- M.A. Villegas (key note): Patinas on stones, metals, glasses and ceramics: a protection strategy?(key note).
- S. O. Sequeira, H. Paiva de Carvalho, N. Mesquita, A. Portugal, M. F. Maced: Fungal stains on paper: What you see is what you get?
• F. Palla: From Plant to Cultural Assets.
• Patrick Di Martino: Investigation of the wood decay by Fungi in the hunting lodge of “La Muette” Saint-German-en-Laye France.

16:30-17:30
CLOSING SESSION
C. Saiz-Jimenez: The Roman Necropolis of Carmona, Spain: 10 years of research.

17:30-18:00
CLOSING CEREMONY

18.00
GUIDED VISIT TO THE PHOENICIAN ARCHAEOLOGICAL SITE GADIR

POSTER SESSIONS
May 22

MAIN HALL, 1812 CONSTITUTION BUILDING

11.15 – 11.45
POSTER SESSION I

I. Nanomaterials and other Products for Conservation

• J. Feijoo, I. de Rosario, T. Rivas, J. Taboada: Desalination of granites using poultices made with different components: influence of the properties of the rocks and of the salt system on the effectiveness.
• T. López Martínez, A. García Bueno, V. J. Medina Flórez: Cleaning tests. Elimination of carbonates in the wall paintings of Castulo.
• A. Gomez Moron, A. Lara_Luque, P. Ortiz-Calderón: A study of the effect of 1064 nm Nd-YAG laser cleaning of gilding wood support.
• L. Ferrazza: Scientific evaluation of restoration treatments in polychrome stone.
• A. Rodriguez Rueda, G. M. Contreras Zamorano, M. T. Pastor Valls, D. Janes Barber: A comparative evaluation between Nano-lime and Nano-silica consolidants on fossils
• A. Murru, R. Fort, P. Meloni, L. Maiore, M. Arca: Ammonium Methyloxalate as an alternative precursor of Calcium Oxalate for the protection and consolidation of carbonatic decayed materials in cultural heritage.
• A. Calero-Castillo, A. García Bueno, V.J. Medina Flórez: Previous assays to the consolidation of pictorial layers in plasterwork using a twelve-month cycle of natural aging, courtyard of the maidens alcazar of Seville.
• C. Cardona, D. Vella: Evaluating the performance of Calcium Tartrate as a Consolidant for soft Limestone.
• I. de Rosario: Evaluation of the effectiveness of a surfactant-synthesized PDMS/Silica nanomaterial in granitic rocks.
- M. P. Sáez Pérez: Chromatic reintegration in marble of the historical heritage. Assessment of its effectiveness and durability outdoors.
- M. P. Sáez Pérez: The role of hemp concrete in the sustainable retrofit of the vernacular architectural heritage in the region of Senhaja Sair (Morocco).

II. 20th Century Cultural Heritage

May 23

MAIN HALL, 1812 Constitution Building

11.30 – 12:00

POSTER SESSION II

II New Technologies for Analysis, GPR applications, Protection and Conservation
- A. Benito, A. Martínez-Fernández, A.I. Ortega Martínez, T. Karampaglidis, F. Ruiz García, M.A. Martín Merino, I. Campaña, E. Bruner: 3D techniques for the reconstruction and analysis of high sensitive archaeological sites: the Galerías de las Huellas (Ojo Guareña, Burgos, Spain).
- J. Sanjurjo-Sánchez, C. Alves: A discussion on gamma radiation hazards related to granitic materials and its implication on historical buildings use.
- M. J. Nuevo, M. A. Ojeda, A. Martín Sánchez: Spectroscopic and optical techniques applied to the characterization of an anonymous painting of a Virgin with Child.
- S. Rafanelli, P. Moita, C. Galacho, M. Beltrane, G. Coradeschi, A. Carvalho, P. Braga, R. Vicente, C.
Dias, A. Candeias, J. Mirão: *Etruscan render mortars from Domus dei Dolia (Vetulonia, Italy).*

- **S. Acacia**, M. Casanova: Georeferencing of historical iconography for the knowledge of the built heritage.
- **A. Gil-Torrano**, J.M. Martin, R. Ortiz, M.C. Fuertes-Santos, A. Gómez-Morón, P. Ortiz: Characterization of mural paintings from the Archaeological Site of Cercadilla (Cordoba, Spain).
- **B. Jigena Antelo**, A. Fernández-Ros, C. Torrecillas, K. Mukanovic, M. Berrocoso: The global positioning (GPS) and geographic information systems (GIS) applied to old maps georeferencing to obtain information for temporary studies.
- **C. Torrecillas**, D. Seda, B. Jigena, I. Barbero, M. Berrocoso: Near infrared applied to forecasting of pathologies in Alamillo Bridge (Seville, Spain).
- **Pedro Trapero**: Ways to make history and archaeology with non-invasive techniques. The application of GIS, RPA and GPR in Hasta Regia roman city.

**III. Significance of Cultural Heritage**

- **J. Sanjurjo**: Stone alteration and tourism.
- **J. Benitez**: Vulnerability study of three monumental gates from XII century (Marchena, Spain)
- **M. L. Cueva Ramirez**: Social Medial as a point of meeting between internacional artists.
- **J. F. Reinoso Gordo**: Surveying buildings as an essential tool for conservation tasks: the case of Royal Hospital in Granada.

**IV. Underwater Cultural Heritage**

- **K. Castro Ortiz De Pinedo**: Non-destructive study of the degradation processes in underwater metallic materials

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**May 24**

**MAIN HALL, 1812 Constitution Building**

**11.15 – 11.45**

**POSTER SESSION III**

**V. Deterioration of Cultural Heritage**

- **A. Herrera**, A. Burgos-Cara, K. Elert, N. Navas, C. Cardell: Carbonation of pigments present in paint dosimeters exposed to polluted urban air.
- **I. Turbay**, P. Ortiz: Study of Vulnerability in the historical center of Popayan (Colombia).

VI. Biodeterioration: fundamentals, present and future perspectives. Session in honour of Prof. Cesáreo Sáiz Jiménez

- D. Vázquez-Nion, B. Silva-Hermo, B. Prieto-Lamas: Environmental-like colonization of granitic rocks in laboratory for bioreceptivity studies.