

International Symposium on the Conservation of Monuments in the Mediterranean Basin

(2024)

Proceedings of the 11th MONUBASIN (2024)



Investigating color on Archaic architecture: “Athena” from the Gigantomachy pediment of the Temple of Apollo at Delphi

Giasemi Frantzi, Sotiria Kogou, George Mastrotheodoros, Athanasia Psalti, Panayiotis Theoulakis, Harikleia Brekoulaki

doi: [10.12681/monubasin.8178](https://doi.org/10.12681/monubasin.8178)

To cite this article:

Frantzi, G., Kogou, S., Mastrotheodoros, G., Psalti, A., Theoulakis, P., & Brekoulaki, H. (2024). Investigating color on Archaic architecture: “Athena” from the Gigantomachy pediment of the Temple of Apollo at Delphi. *International Symposium on the Conservation of Monuments in the Mediterranean Basin*, 71–71.

<https://doi.org/10.12681/monubasin.8178>

Part I – Opening Speeches

- | | | |
|----------|---|-------------|
| 1 | Welcome Speech
<i>Dimitrios Kouis</i> | XIX |
| 2 | Opening Lecture
<i>Fulvio Zezza</i> | XXII |

Part II - Historical and Structural Aspects of Monuments

- | | | |
|-----------|--|--------------|
| 3 | Preliminary Restoration Proposal for the Holy Monastery of “Kokkini Ecclesia” (Red Church) in Lefkada
<i>Apostolos Apostolopoulos, Alkiviadis Apostolopoulos, Nikolaos Kaldis, Dimitris Diamantakos and Charis Apostolopoulos</i> | 3-9 |
| 4 | Glass dry plates of Sopoćani: Analysis of the images as the research basis and the preservation of wall paintings
<i>Midori Hidaka</i> | 11-17 |
| 5 | The degradation of stone: Studies and reports in the 1950s on the conservation of stone materials
<i>Giorgio Ghelfi</i> | 19-24 |
| 6 | Characterization and origins of ancient metallurgical slags from the ancient settlement of Archampolis, Euboea Island
<i>Antonios Kontorozis, Michail Stamatakis and Eleftheria Dimou</i> | 25-42 |
| 7 | Characterization of mortars from the Vartalis Watermill in Cyprus
<i>Ioanna Panteli, Ioannis Rigopoulos, Margarita L. Petrou and Ioannis Ioannou</i> | 43-49 |
| 8 | Pre-industrial construction techniques, using industrial materials, in Greek urban vernacular architecture: the peculiar heritage of a transitional period (from 19th to 20th century)
<i>Nicos Bobolos and Eleni Theotokatou</i> | 51-58 |
| 9 | Restoration Study of late Ottoman Terzakis House in Nafplion
<i>Georgios Antoniou</i> | 59-67 |
| 10 | The Vasari Corridor of the Uffizi in Florence. New monitoring systems for sustainable restoration
<i>Susanna Caccia Gherardini</i> | 69-70 |
| 11 | Investigating color on Archaic architecture: "Athena" from the Gigantomachy pediment of the Temple of Apollo at Delphi
<i>Giasemi Frantzi, Sotiria Kogou, Georgios P. Mastrotheodoros, Athanasia Psalti, Panagiotis Theoulakis and Hariklia Brekoulaki</i> | 71-72 |

Part III - Digital Techniques and Information Management for Cultural Heritage

- | | | |
|-----------|---|--------------|
| 12 | The Contribution of 3D Bedrock Formation to the Restoration of the Ancient Theater of Dodoni, Greece | 75-82 |
|-----------|---|--------------|

Dimitrios Makris and Petros Katsoudas

- 13 Rope access monitoring and data management of the monumental complex in Piazza dei Miracoli in Pisa** 83-89
Sara Chirico, Chiara Di Marco, Ada Rovazzani and Roberto Cela
- 14 Innovative applications of 3D printed elastomers in the restoration of Cultural Heritage** 91-96
Alberta Paglione, Carla Giovannone, Angelo Raffaele Rubino, Claudio Santangelo, Francesco Frullini, Angelandreina Rorro and Ludovica Ruggiero
- 15 Using wikidata for managing cultural heritage information** 97-107
Daphne Kyriaki-Manessi and Styliani Vazaiou
- 16 Phygital Heritage Experiences in Refugee Attica** 109-114
Angeliki Antoniou, Despoina Lampada, Aphrodite Kamara and Daphne Kyriaki-Manessi
- 17 Digital Epigraphy Encoding and Information Management** 115-122
Artemis Chaleplioglou
- 18 Beyond the Standards: Combine Different Metadata Schemas for a Versatile Museum Repository Development** 123-128
Kostas Maistrelis, Thanos Kyritsis, Simos Leonidakos, Evangelia Papadaki, Pantelis Brattis and Nikos Papazis
- 19 Lorenzo Nottolini's architectural heritage in Tuscany. Digital twins and database for restoration project management.** 129-134
Pierpaolo Lagani

Part IV - Methodologies for Characterization and Damage Assessment

- 20 Investigation of post-restoration salt weathering at the mosaics of Dafni Monastery, Greece** 137-144
Ekaterini Ftikou, Petros Prokos and Alexis Stefanis
- 21 Evaluation of salt weathering in stone using a new test procedure: a comparative laboratory study** 147-153
Loucas Kyriakou, Ioannis Ioannou, Magdalini Theodoridou and Derrick Mwebaza
- 22 Non- invasive pigment identification of post-Byzantine wall paintings from 11th century Monastery of Daphne in Athens (Greece)** 155-161
Vasiliki Dritsa, Alexandros Stouraitis, Ekaterini Ftikou and Maria Kouli
- 23 The application of non-destructive imaging techniques for the study and revelation of sketches under the whitewash layers of the interior walls of the House-Museum of Giannoulis Halepas, in Tinos Island, Greece** 163-168
Agathi Anthonoula Kaminari, Nikolaos Alexios Stefanis, Maria Chatzidaki and Athina Georgia Alexopoulou

24	Preliminary results of pigments identification in a Macedonian Tomb of Hellenistic period using non- invasive techniques <i>Vasiliki Dritsa, Konstantinos Mantelos, Ekaterini Ftikou and Maria Kouli</i>	169- 176
25	Creating a dataset of digital images of Byzantine frescoes for analysis and classification using machine learning techniques <i>Antigoni Vlisidi and Antonia Moropoulou</i>	177- 182
26	Simulation-aided infrared thermography with a new efficient channel attention mechanism aided Faster R-CNN model and decomposition-based noise reduction for detecting defects in ancient polyptychs <i>Xin Wang, Guimin Jiang, Miranda Mostacci, Stefano Sfarra and Hai Zhang</i>	183- 189
27	The Database of notarial bindings- a tool for the study of historical binding structures and their condition <i>Angeliki Stasinou, Konstantinos Choulis, Markos Dendrinou, Athena-Georgia Alexopoulou, Ioannis Kokkonas and Ioannis Stoyannidis</i>	191- 200
28	Numerical evaluation of thermal load applied by magnetic induction and solar loading aimed at experimental analyses using thermographic techniques <i>Stefano Perilli, Yinuo Ding, Hai Zhang and Stefano Sfarra</i>	201- 206
29	Study of Indoor Air Quality Impact During Building Demolition: A Case Study of the 2009 L'Aquila Earthquake Reconstruction <i>Wei-Shiang Lin, Stefano Sfarra and Yuan Yao</i>	207- 209
30	Materials characterisation and damage assessment of the ancient kiln of Kirra, Greece <i>Nikolaos-Alexios Stefanis, Panagiotis Theoulakis, Dimitrios Makris, Anna Koukouli and Aristophanis Konstantatos</i>	211- 213

Part V - Natural and Anthropogenic Damage Hazards

31	The conservation plan for Morosini fountain: an opportunity for reflection and redefinition of the norms <i>Maria Deli and Maria Mertzani</i>	217- 228
32	Revisiting the Mosaic of the Masks on Delos: A Comprehensive Condition Survey <i>Christos Maris, Styliani Minetou, Ioannis Staikopoulos and Stefania Chlouveraki</i>	229- 236
33	Ancient Sanctuary at Kalapodi, Fthiotis, central Greece. Presentation of Restoration Works and the implementation of Triquetra Programme <i>Themistoklis Bilis</i>	237- 244
34	Hypotheses for a scientific glossary for restoration in the age of new climatic and anthropogenic risks. <i>Adele Rossi</i>	245- 249

- 35 Monitoring the Effects of Climate Change on Microclimate and Building Materials of Monuments – the approach of “Herisktage” Research Project** 251-253
Theocharis Katrakazis, Vicki Kontogianni, Iason Markantonis, Eirini Tziviloglou, Petros Prokos, Ekaterini Ftikou, Maria Mertzani, Diamando Vlachogiannis, Athanasios Sfetsos, Vassilis Kilikoglou, Theodora Fardi, Christos Markopoulos and Ioannis Karatasios

Part VI - Decorative Architecture Design, Planning and Cultural Heritage Management

- 36 Tears in the Rain. Street Art Conservation in a City that is Constantly Changing** 257-262
Maria Chatzidakis and Alexis Stefanis
- 37 Scientific integration of 2D documentation sources for the digital representation of architectural monuments. Its contribution to cultural heritage management** 263-268
Zoe Kanetaki and Eleni Kanetaki
- 38 Planning for conservation: accessibility and management of cultural heritage** 269-277
Cinzia Accetta

Part VII - Technologies for Damage Rehabilitation and Sustainable Preservation

- 39 The Open Lab. Empowering Community Engagement and Knowledge in Conservation and Treatment Methods** 281-286
Panagiota Andrianopoulou, Eleni Papathoma, Dimitrios Kouis and Ioannis Drivas
- 40 Conservation of cultural heritage from the perspective of sustainability** 287-292
Paola Bordonni
- 41 Protection coatings for stone monuments and artefacts of cultural heritage made of calcitic materials** 293-306
Panagiota Natsi, Andreas Tzachristas, Varvara Sygouni, Christakis Paraskeva and Petros Koutsoukos
- 42 Resilient and adaptive renovation of 20th century build-ings towards net-zero carbon built heritage – The approach of the SINCERE research project** 307-312
Eirini Tziviloglou, Christos Stentoumis, José Ignacio Álvarez, Evangelos Stathopoulos, Sotiris Diplaris, Athanasios Sfetsos, Diamando Vlachogiannis and Ioannis Karatasios
- 43 Restoration of rising damp in the Sassi of Matera through the use of innovative technologies** 313-318
Graziella Bernardo, Cristina Rinaldi and Antonella Guida

- 44 Optimizing the In Situ Deposition of Carbonate Hydroxyapatite for the Consolidation of Marble in Cultural Heritage Monuments** 319-321
Anna Filopoulou, Stamatis Boyatzis, Alexios Stefanis and Maria Giannoulaki
- 45 Multifunctional composite coatings consisting of polymers and zinc oxide nanoparticles for the protection of stone heritage** 323-324
Ioannis Karapanagiotis, Panagiotis Manoudis, Ioannis Zuburtikudis and Hadil Abu Khalifeh
- 46 Hydrophobization of limestone using fluorinated and TEOS-based polymers** 325-327
Styliani Katsikoglou, Dimitra Aslanidou and Ioannis Karapanagiotis