

Dwelling on space

representation and safeguarding of its tangible and intangible heritage













20th

Anniversary 2003-2023 Intangible Cultural Heritage

In occasion of the twentieth anniversary of UNESCO Convention for the Safeguarding of Intangible Cultural Heritage

The international Conference is part of the activities of the project "The state as an Artwork, the State and the artworks" funded by Università Telematica Pegaso

Carmine Gambardella Maria Natale Rosaria Parente

Dwelling on Space Representation and safeguarding of its tangible and intagible heritage 20th Anniversary 2003-2023 Intangible Cultural Heritage

© 2023 Proprietà letteraria riservata Gangemi Editore spa Via Giulia 142, Roma www.gangemieditore.it

Nessuna parte di questa pubblicazione può essere memorizzata, fotocopiata o comunque riprodotta senza le dovute autorizzazioni.

Le nostre edizioni sono disponibili in Italia e all'estero anche in versione ebook. Our publications, both as books and ebooks, are available in Italy and abroad.

ISBN 978-88-492-5059-6



ARCHITECTURE, HERITAGE and DESIGN | 13

Serie founded and directed by Carmine Gambardella

Scientific Committee:

Carmine Gambardella

UNESCO Chair on Landscape, Cultural Heritage and Territorial Governance President and CEO of Benecon University Consortium

Federico Casalegno

Professor, Massachusetts Institute of Technology, Boston

Alessandro Ciambrone

Ph.D., UNESCO and FULBRIGHT former fellow

Massimo Giovannini

Professor, Università "Mediterranea", Reggio Calabria Bernard Haumont Professor, Ecole Nationale Supérieure d'Architecture, Paris-Val de Seine

Danila Jacazzi

Professor, University of Campania "Luigi Vanvitelli"

Alaattin Kanoglu

Professor, Department of Architecture, İstanbul Technical University

David Listokin

Professor, Director of the Center for Urban Policy Research of Rutgers University / Edward J. Bloustein School of Planning and Public Policy, USA

Sabina Martusciello

Professor, University of Campania "Luigi Vanvitelli"

Paola Sartorio

Executive Director, The U.S.A. - Italy Fulbright Commission

Elena Shlienkova

Professor, Samara State Technical University

Rosaria Parente

Universitas Mercatorum, Benecon Universities Consortium

Nicola Pisacane

Professor, Head of the Master School of Architecture – Interior Design and for Autonomy Courses, University of Studies of Campania "Luigi Vanvitelli"

Riccardo Serraglio

Professor, University of Campania "Luigi Vanvitelli"

Editorial Committee:

Alessandro Ciambrone Rosaria Parente Carmine Gambardella Maria Natale Rosaria Parente

Dwelling on Space

Representation and safeguarding of its tangible and intagible heritage

20th Anniversary 2003-2023 Intangible Cultural Heritage

In occasion of the twentieth anniversary of UNESCO Convention for the Safeguarding of Intangible Cultural Heritage

The international Conference is part of the activities of the project "The state as an Artwork, the State and the artworks" funded by Università Telematica Pegaso

Topics:

Safeguarding intangible cultural heritage in education

Safeguarding intangible cultural heritage through education

Priority Africa

Priority to safeguarding the intangible cultural heritage of Africa, one of the most active regions for the implementation of the Convention

Living Heritage in Emergencies

Living heritage throughout the world is increasingly affected by emergencies, including conflicts and disasters caused by natural and human-induced hazards

Living Heritage and Indigenous

People Indigenous peoples hold a rich diversity of living heritage, the practice and transmission of which contributes to the ongoing vitality, strength, and well-being of communities

Sustainable Development and living heritage

The notion of "sustainability" in the 2030 Agenda for Sustainable Development echoes the concept of "living heritage" in the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage

Dwelling on Space

International Conference

Naples

17 October 2023

President of the Conference

Carmine Gambardella

UNESCO Chair on Landscape, Cultural Heritage and Territorial Governance, CEO and President of BENECON University Consortium

International Scientific Committee

Franco Bernabè

President of the Italian National Commission for UNESCO

Massimiliano Campi

Professor, University of Naples "Federico II"

Fabian Capitanio

Professor, University of Naples "Federico II"

Maurizio Carta

Professor, University of Palermo

Giuseppe Ciaburro

PhD in "Environmental technical phisics", University of Campania "Luigi Vanvitelli"

Gianluca Cioffi

Professor, University of Campania "Luigi Vanvitelli"

Annamaria Colao

Professor, UNESCO Chair on Education to Health and Sustainable Development

Mariella De Fino

Professor, Polytechnic of Bari

Isidora Đurić

Assistant professor, University of Novi Sad, Serbia

Giuseppe Faella

Professor, University of Campania "Luigi Vanvitelli"

Francesco Fabbrocino

Professor, Digital University Pegaso

Nicola Ferrigni

Professor, Link Campus University

Yankel Fijalkow

Professor, Ecole Nationale Supérieure d'Architecture Paris Val de Seine, France

Carmine Gambardella

Professor, CEO and President of BENECON, UNESCO Chair on Landscape, Cultural Heritage and Territorial Governance

Cherubino Gambardella

Professor, University of Campania "Luigi Vanvitelli"

Dominik Lengyel

Professor, Chair for Architecture and Visualisation, Brandenburg University of Technology Cottbus-Senftenberg, Germany

Natasa Zivaljevic Luxor

Director of National Heritage Foundation, Belgrade, Serbia

Stefania Gigli Quilici

Professor, University of Campania "Luigi Vanvitelli"

Sabina Martusciello

Professor, University of Campania "Luigi Vanvitelli"

Giovanni Mongiello

Adjunct professor, Polytechnic of Bari

Maria Dolores Munoz

Professor, UNESCO Chair, EULA Environmental Centre, University of Conception, Chile

Francesca Muzzillo

Professor, University of Campania "Luigi Vanvitelli"

Maria Natale

Professor, Digital University Pegaso

Luis Palmero Iglesias

Professor, Director of the Forum UNESCO – University and Heritage (FUUH) Programme Universitat Politècnica de València UPV, Spain

Rosaria Parente

Research fellow, Universitas Mercatorum; Benecon Universitles Consortium

Hartmut Pasternak

Professor, Brandenburg University of Technology, Cottbus, Germany

Elena Cabrera Revuelta

Professor, Universidad de Cádiz

Maria Rita Pinto

Professor, University of Naples "Federico II"

Nicola Pisacane

Professor, University of Campania "Luigi Vanvitelli"

Rosario Pivonello

Professor, University of Naples "Federico II"

Laura Ricci

Professor and Director Department of Planning, Design and Technology of Architecture, Sapienza, University of Rome, Italy

Mosè Ricci

Professor, Sapienza, University of Rome, Italy

Daniele Riccio

Professor, University of Naples "Federico II"

Michelangelo Russo

Professor, Director Department of Architecture, University of Naples "Federico II"

Riccardo Tavolare

Engineer at dip. DICATECh, Polytechnic of Bari

Ana Luiza Thompson-Flores

Director of the UNESCO Regional Bureau for Science and Culture in Europe, Venice (Italy)

Fosca Tortorelli

Phd. in "Industrial Design, Environment and History", at the University of Campania "Luigi Vanvitelli"

Marco Trifuoggi

Professor, University of Naples "Federico II"

Andrey V. Vasilyev

Professor, Head of Chemical Technology and Industrial Ecology Chair Samara State Technical University

Cesare Verdoscia

Professor, Polytechnic of Bari

Enrico Vicenti

General Secretary of the Italian National Commission for UNESCO

Victoria Vivancos Ramón

Director of the Forum UNESCO – University and Heritage (FUUH) Universitat Politècnica de València UPV, Spain

Yaliang Xiang

Professor, China Academy of Art

Yang XiuJing

Professor and Director, China Academy of Art

Peer review

Scholars has been invited to submit researches on theoretical and methodological aspects related to Smart Design, Planning and Technologies, and show real applications and experiences carried out on this themes. Based on blind peer review, abstracts has been accepted, conditionally accepted, or rejected. Authors of accepted and conditionally accepted papers has been invited to submit full papers. These has been again peerreviewed and selected for the oral session and publication, or only for the publication in the conference proceedings.



Valeria Cera, Marika Falcone A knowledge system for Micaelic rupestrian architecture in Campania (Italy)

Valeria Cera, Department of Architecture, University of Naples Federico II valeria.cera@unina.it

Marika Falcone, Urban/Eco Interdepartmental Research Center, University of Naples Federico II marika.falcone@unina.it

Abstract

The paper reports on the progress of a scientific collaboration agreement between the University of Naples Federico II and the Diocese of Teggiano-Policastro, focused on the mapping and cataloguing of the micaelic rupestrian architectures in Campania (Italy). The aim is the setting up of knowledge, monitoring, and conservation systems for the assets of this heritage, through the digitisation and manipulation of survey data. The case study of Sant'Angelo a Fasanella (Salerno) is introduced.

Keywords: rupestrian architecture, micaelic culture, hermitages, heritage preservation, 3d survey technology

1. Introduction and state of the art

For the past couple of decades, increasing attention has been paid to the knowledge and protection of rupestrian architecture, aided by the inclusion of many sites in the UNESCO World Heritage list [1]. It is a particularly significant type of architecture because it describes Man's life choices in his evolutionary history [2] as well as the changing solutions and techniques formulated by human ingenuity to make natural cavities suitable places to host different forms of activities [3]. Undoubtedly, the cultic use of rupestrian hypogea characterises most architectures [4][5], which have been profoundly intertwined since archaic times with the rituals and spiritual needs of specific religious faiths. Within this framework, Christianity offers notable examples, many of them linked to the cult of St Michael the Archangel [6]. These are extremely typified rupestrian architectures, whose fascination is amplified by the spread of the micaelic faith throughout Europe with a geographical location of the most important sites according to imaginary, but rigorous traces known today as the Sacred Way (Fig.1). Beyond the religious faith, however, what all examples of cave architecture have in common is their status as a true Cultural Heritage, given both by the wealth and variety of artistic and architectural works that distinguish them, and by the intangible value enclosed in the rock walls. At the same time, it is a particularly fragile heritage because its close relationship with the natural element that generated it also determines its being exposed to various factors of deterioration, especially linked to microclimatic conditions and their variations [7][8][9]. Based on these considerations, the research presented here was defined, which is part of a scientific collaboration agreement between the Urban\Eco Interdepartmental Research Center of the University of Naples Federico II and the Diocese of Teggiano-Policastro (Campania, Italy). The study is oriented, in a first phase, to the mapping and cataloguing of the architectures dedicated to the cult of St. Michael located in the Campania region, to reach, in a second phase, a detailed analysis of some exemplary cases for which to prepare appropriate knowledge, monitoring, conservation and protection systems through the digitisation of the asset. (M.F.)

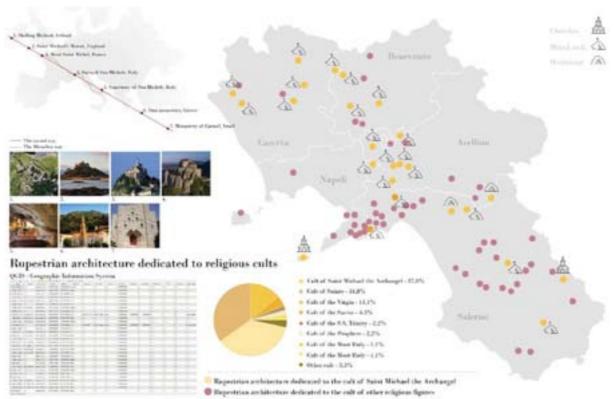


Fig. 1: The sacred way and mapping religious rupestrian architecture in Campania region (Italy). Image by the authors.

2. Methodology and first results

The study of the cultic rupestrian architectures present in Campania began with an initial classification and mapping of them in GIS, distinguishing 4 types (Fig.2): (i) churches, places specifically dedicated to Christian religion; (ii) chapels, small places of worship, isolated or dependent on a more complex architectural organism; (iii) sanctuaries, places of devotion linked to miraculous events or manifestations, or parts of churches where relics or sacred images believed to be miraculous are preserved; (iv) hermitages, isolated places to which one or more individuals originally went to lead a life devoted to prayer and contemplation; with the addition of a fifth category (v) for mixed architecture.

The cultic use of the cave led Man to the creation of a number of small architectural artifacts to shape the nature of the rock to liturgical needs so that it was possible to find recurring elements distinguished in (Fig.3): (i) cave paintings, depicting an iconographic repertoire; (ii) altars, the number and type of which varied depending on the size of the cavity and the financial availability of the patrons; (iii) staircases, created by modelling the rock walls; (iv) brick aedicules, mostly located near the altars and decorated with sacred images; (v) graves of famous and not-so-famous people, the presence of which can be traced back to the predominantly funerary and private vocation of the places of worship; (vi) hermitages, symbolising the increase in the phenomenon of hermitism that occurred in the post-Tridentine age.

With reference to religious faiths, the research, in line with parallel initiatives [10][11], verified the predominance of the devotion of the hypogea to Saint Michael, focusing specifically on the hermitage typology, given that, from a typological and morphological point of view, it is the most significant, having maintained a close link with the natural component of the rock. The relationship with the cult of the Archangel defines the presence in the rocks of a further characteristic element consisting of the baptismal font which, in addition to being destined for devotional uses along the lines of the Gargano grotto, took on the practical function of a water collection basin and a reservoir for watering pilgrims.

Once the above-mentioned framework was in place, the study is focusing on a few exemplary cases identified, at the current state of research, in the hermitage of San Michele a le Grottelle (in Padula, Salerno) [12][13][14] and the hermitage of Sant'Angelo a Fasanella (Salerno). The second case study is introduced here, which is particularly interesting as it is part of the Vallo di Diano, a UNESCO World Heritage Site.

The research, in progress, started with the preparation of a historical analysis as well as the definition of a digitisation campaign of the hermitage. The artefact is notable (Fig.4): firstly, its planimetric configuration reveals a remarkable articulation, complexity and surface extension when compared to other rupestrian architecture in Campania. The presence of tunnels and gathered areas reveals an

interesting use of space that the current survey is bringing out in a new key, also in comparison to previous surveys. Moreover, the extremely naturalistic and wild aspect of the site is highly suggestive, especially regarding the exterior, where only the entrance suggests access to a cave, perfectly hidden in a rock wall that has remained intact in its consistency and nature. Finally, the remains of a Benedictine building at the base of the cave reveal historical and liturgical connections that have conditioned the architecture and statics of the cavity and that the survey in progress is analysing. (V.C.)

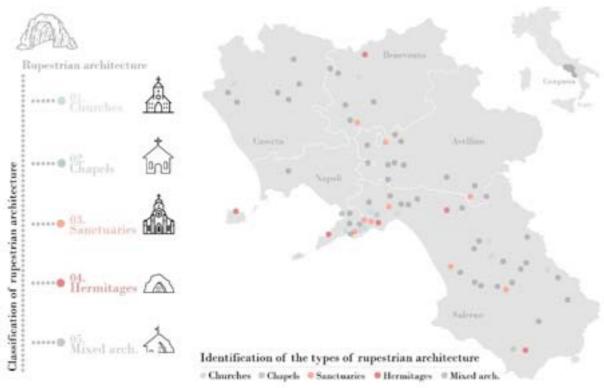


Fig. 2: Classification of rupestrian architecture and its distribution in Campania region (Italy). Image by the authors.

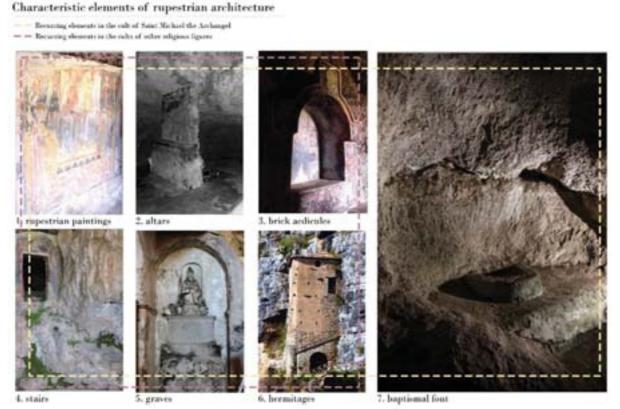


Fig. 3: Recurrent elements of rupestrian architectures. Image by the authors.

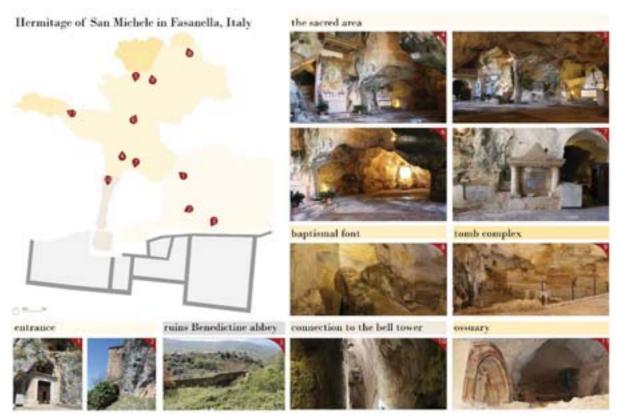


Fig. 4: Hermitage of Saint Michael in Sant'Angelo in Fasanella (Salerno, Italy). Image by the authors with Francesca Della Corte.

3. Conclusions and future developments

The research, as mentioned above, is in progress and aims to systematise knowledge on the hermitages dedicated to the Micaelic cult, located in Campania, through the indexing and cataloguing of the assets of this heritage and their networking. The ultimate objective is to safeguard Campania's micaelic rupestrian heritage through the setting up of specific preventive conservation and restoration programmes. To this end, some cognitive actions have already been initiated for specific examples such as the hermitage of Sant'Angelo a Fasanella. The process planned focuses on the digitisation of artefacts and the manipulation of survey data for the extraction of informative descriptors capable of guiding the most appropriate conservation and preservation choices, as was done for the first case of the Grottelle. The approach aims to be provident of subsequent developments, aiming to configure an analysis aimed at the search for invariants that manifest peculiarities or common wills to characterise specific forms in a typological family that is much broader in its declinations, with contents of the highest historical and cultural value. (V.C., M.F.)

Bibliographical References

- [1] Referring Web Pages Web: https://whc.unesco.org/en/list/
- [2] FONSECA, Cosimo Damiano. Civiltà rupestre in terra jonica. In *Rivista di Storia della Chiesa in Italia*, 1972, XXVI, p. 492-496.
- [3] CARPICECI, Marco, CARNEVALI, Laura. Sante e Santi in criptis. Architetture rupestri nell'Italia centro-meridionale. Roma: Authorpushers, 2020. 300 p. ISBN 979-12-200-7767-5.
- [4] EBANISTA, Carlo. L'utilizzo cultuale delle grotte campane nel Medioevo. In *Atti I Convegno Regionale di Speleologia "Campania Speleologica"*, 2007, p. 127-150.
- [5] KALBY, Luigi G. Insediamenti rupestri della Campania. In C. D. Fonseca (Ed.), *La civiltà rupestre medioevale nel Mezzogiorno d'Italia. Ricerche e problemi*, 1975, p. 153-172.
- [6] D'AGOSTINO, Pierpaolo, CERA, Valeria, CAMPI, Massimiliano. I siti micaelici nel sud della Campania. Una rete di conoscenza. In S. Bertocci & S. Parrinello (Eds.), *Architettura Eremitica. Sistemi progettuali e paesaggi culturali*. Firenze: Edifir-Edizioni Firenze, 2020, p. 76-81.

- [7] DE GIORGI, Lara, LAZZARI, Maurizio, LEUCCI, Giovanni, PERSICO, Raffaele. Geomorphological and non-destructive GPR survey for the conservation of frescos in the rupestrian churches of Matera (Basilicata, southern Italy). In *Archaeological prospection*, 2023,30, p.47-55.
- [8] SILEO, Maria, GIZZI, Fabrizio Terenzio, DONVITO, Angelo, LASAPONARA, Rosa, FIORE, Fiorella, MASINI, Nicola. Multi-Scale Monitoring of Rupestrian Heritage: Methodological Approach and Application to a Case Study. In *International Journal of Architectural Heritage*, 2022, 16:3, p. 469-484.
- [9] LUVIDI, Loredana, PRESTILEO, Fernanda, DE PAOLI, Michela, RIMINESI, Cristiano, MANGANELLI DEL FA, Rachele, MAGRINI, Donata, FRATINI, Fabio. Diagnostics and Monitoring to Preserve a Hypogeum Site: The Case of the Mithraeum of Marino Laziale (Rome). In *Heritage* 2021, 4, p. 4264-4285.
- [10] Referring Web Pages Web: http://www.leviedisanmichele.org/
- [11] Referring Web Pages Web: http://www.hetor.it/site/
- [12] CERA, Valeria. 3D survey technologies to document and support micaelic rupestrian architecture preservation. A case study. In *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 2023, XLVIII-M-2-2023, p. 397-403.
- [13] CERA, Valeria. Multisensor Data Fusion for Cultural Heritage Assets Monitoring and Preventive Conservation. In *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 2022, XLVI-2/W1-20222023, p. 151-157.
- [14] CERA, Valeria. La manipolazione di modelli discreti di rilievo architettonico per orientare l'indagine diagnostica per il restauro. In R.A. Genovese (Ed.), *Il Patrimonio culturale tra la transizione digitale, la sostenibilità ambientale e lo sviluppo umano.* Napoli: Giannini Editore, 2021, p. 167-190.



JANUARY 2024 www.gangemieditore.it



Dwelling on space representation and safeguarding

of its tangible and intangible heritage