



Book of abstracts

XVIII^o CONGRES UISPP PARIS JUIN 2018
18th UISPP WORLD CONGRESS, PARIS, JUNE 2018

Table of contents

XVIIIe congres UISPP Paris.pdf	1
XXXV-1. Understanding and accessibility of pre-and proto-historical re- search issues: sites, museums and communication strategies.	4
Beyond Museum Walls: the Veldwezelt-Hezerwater Heritage Site, Belgium, Patrick Bringmans	5
The Livelet Park: education, didactic and experimental archaeology (Revine Lago, Treviso, Italy), Modolo Marta [et al.]	7
THE BUSINESS CARD. Formal impact, methodological constraint and unpop- ular choice for the megalithic area of the Archaeological Park and Museum of Saint-Martin-de-Corléans in Aosta (Italy): a case of study., Gianfranco Zidda [et al.]	9
Réalité, stratégie et projets pour la Préhistoire et la Protohistoire dans les musées et les sites nationaux de la région du Molise (Sud Italie), Ventura Leandro [et al.]	11
The Popularization of Prehistory in Italy: Good Practices for a proper scientific communication., Giovanni Virruso [et al.]	12
Vietato Non Toccare: Universal Design on cultural heritage., Poesini Stefania [et al.]	13
Museum as a laboratory of prehistoric landscapes, Ranaldo Filomena [et al.] . . .	14
Abandonment, rehabilitation and accessibility of open air sites: the case of El Castil- lar (Mendavia, Navarre, Spain), Leyre Arróniz Pamplona [et al.]	15
New light on the Prehistoric sites of West Garo Hills in North East India, Bezbaruah Dwipen Bezbaruah Smita Devi Bora	17
THE PAST AS A CONTINUUM BETWEEN MEDIUMS, Dragos Gheorghiu . .	18

CULTURAL LANDSCAPES:THE MANAGEMENT OF ROCK ART SITES IN MOZAMBIQUE, Solange Macamo	19
Delta du Saloum (Sénégal) : Communiquer et éduquer pour sauvegarder les ressources culturelles et naturelles., Abdoulaye Camara [et al.]	21
UNLOCKING LA COTTE DE ST. BRELADE: MAKING JERSEY’S PLEISTOCENE HERITAGE ACCESSIBLE, Peter Chowne [et al.]	22
Education, dissemination and new technological approaches for a museum opened behind closed doors: the University Museum of Paleontology and Prehistory ”P. Leonardi”, Ursula Thun Hohenstein [et al.]	23
The temple machine: a new model of communication for the National Etruscan Museum of Villa Giulia., Valentino Nizzo	25
Bridging science and public awareness: the mediation criteria of the exhibitions of the Museum of Prehistoric Art in Mação, Portugal, Luiz Oosterbeek [et al.] . .	27
XXXV-2. Archaeology in transdisciplinary researches: contributions to a Sustainability Science	29
Human and Heritage Interaction: The Protection of Prehistoric Sites in West Bengal, India, Pinak Tarafdar	30
Multidisciplinary approach in Management of Intangible heritage: A focus on Indian Perspective., Ranjana Ray	31
ROLE OF URBAN ARCHAEOLOGY FOR SUSTAINABILITY OF THE ARCHAEOLOGICAL HERITAGE OF KOLKATA, Soumyajit Das [et al.]	32
Heritage Management and Sustainable Development in India, Debasis Mondal [et al.]	33
Archaeology in transdisciplinary researches: contributions to a Sustainability Science in a Brazilian perspective, Erika Marion Robrahn González	34
Integrated Landscape Management: an insight into the variables of social governance as seen from the perspective of Prehistory, Luiz Oosterbeek [et al.]	35
Ethno-archaeological Relevance of The Sacred Grove: A study among The Santals of Eastern India, Falguni Chakrabarty	36
Role of Indian Museum in Cultural Resource Management, Mita Chakrabarty . .	37

THE CHALLENGE IN THE PRESERVING OF CULTURAL HERITAGE:ROCK ART MEXICO. A LABORIOUS TRANSITION FROM DOCUMENTATION TO MANAGEMENT, Casado Maria Del Pilar 39

Heritage consciousness through alternative education and Public Archaeology: a Philippine perspective, false [et al.] 41

ANALYSIS AND CHARACTERIZATION OF ROCK ART BY FRACTAL TREATMENTS, Aline Lara [et al.] 42

Past and current climate changes, impacts on underground microclimates. What threats on prehistoric painted caves ?, François Bourges [et al.] 43

Characterisation of the red pigments from Molí del Salt Magdalenian site (Vimbodí i Poblet, Conca de Barberà, Spain) to envelop and optimise the methodology applied to the conservation of the engraved slabs, Gala Gómez-Merino [et al.] 45

State of Conservation of Rock Art Engravings in Deserted Environments. The Example of the Arenoso Region (Caborca, Sonora, Mexico), Beatriz Menéndez Iglesias [et al.] 47

Perspective de l’art rupestre et situation légale des sites El Melonal, El Salvador ; Las Pintadas, El Cacao et El Rodeito, Honduras ; Las Figuras et La Poza Larga, Nicaragua, Ligia Del Rosario Manzano Martínez 49

**XXXV-1. Understanding and
accessibility of pre-and
proto-historical research issues:
sites, museums and communication
strategies.**

Beyond Museum Walls: the Veldwezelt-Hezerwater Heritage Site, Belgium

Patrick Bringmans *† ¹

¹ Veldwezelt-Hezerwater Neanderthal Research Centre – 2de Carabinierslaan 18 3620 Veldwezelt, Belgium

The ‘Veldwezelt-*Hezerwater* Middle Palaeolithic Project’ was started by the Laboratory of Prehistory – Catholic University Leuven, Belgium, in 1995. During the 1995-2003 period, several Neanderthal sites were excavated. Each year an ‘open-day’ for the general public was organized in collaboration with the ‘Gallo-Roman Museum’ in Tongeren, which each time received a lot of media attention. In total, more than 10,000 people paid a visit to the Veldwezelt-*Hezerwater* excavations. The massive response of the general public started the process of making the archaeological site accessible on a permanent base, which resulted in the creation of an open-air heritage site.

Important milestones in the development of the Veldwezelt-*Hezerwater* Heritage Site were: (1) the successful excavations (1998-2003), (2) the (inter)national media attention, (3) the ‘Neanderthals in Europe’ exhibition at the ‘Gallo-Roman Museum’ in Tongeren in 2004-2005, (4) the Convention ‘Neanderthals in Europa’ (September 17-19, 2004), (5) the mediatized visit to the site of Mrs. Jean M. Auel, the Finnish-American writer who wrote the ‘Earth’s Children’ books (September 19, 2004), (6) the opening of ‘The Neanderthal-Road’ on September 10, 2006, (7) the fact that the site became the first listed prehistoric monument in Flanders on December 7, 2007, (8) the presentation of the heritage plan in 2009, (9) the support of the Mayor of the town of Lanaken, (10) the decision by the Flemish Government to grant a major subsidy for the development of the site on August 28, 2013, (11) the start of the realization of the project in February 2014 and finally (12) the opening of the heritage site on June 12, 2015.

On the other hand, the ‘Gallo-Roman Museum’ in Tongeren also benefitted from the media attention, although the museum soon became a ‘victim’ of its own success. More than 150,000 people visited the ‘Neanderthals in Europe’ exhibition in 2004-2005. The museum galleries back then were almost unable to cope with such large numbers of visitors. As a result, the provincial council of Limburg gave the go-ahead for an extension. In 2006 the building work got under way. The transformed museum opened its doors on May 21, 2009. In 2011, the ‘Gallo-Roman Museum’ in Tongeren was chosen as ‘The European Museum of the Year’, the most prestigious museum award in Europe, presented each year by the European Museum Forum (EMF). The ‘Gallo-Roman Museum’ in Tongeren was the first Belgian museum ever to receive this award.

*Speaker

†Corresponding author: Patrick.Bringmans@hotmail.com

Keywords: Veldwezelt, Hezerwater, Heritage Site, Gallo, Roman Museum, Tongeren, Neanderthals

The Livelet Park: education, didactic and experimental archaeology (Revine Lago, Treviso, Italy)

Modolo Marta ^{*† 1,2,3,4}, Sartori Fabio^{‡ 3,5}, Ingegno Carlo^{§ 6,3}, Magagnin Daniele^{¶ 3}, Maniglia Carlotta Eleonora^{|| 3,7,8}, Stefani Maura^{** 3}, Marton Alessandra^{†† 9,3}, Bressan Angela^{‡‡ 10,3}, Mason Gianmarco ^{3,7}, Rizzotto Samantha ^{11,3}, Riva Valentina ³, Conte Giulia ^{4,3}, Carpenè Francesca ³, Nardellotto Paola ^{12,3}, Meneghini Marta ^{3,5}, Follador Erika ^{13,3}

¹ Institut Català de Paleoecologia Humana i Evolució Social (IPHES) – Zona Educacional 4, Campus Sescelades URV (Edifici W3) 43007 Tarragona, Spain

² Universitat Rovira i Virgili (URV) – Avinguda de Catalunya 35, 43002. Tarragona, Spain

³ Parco Archeologico Didattico del Livelet – Via Carpenè, 31020 Revine Lago, Treviso, Italy

⁴ Università degli Studi di Ferrara, Dipartimento Dipartimento di Studi umanistici, Sezione di Scienze preistoriche e antropologiche (UniFE) – Corso Ercole d’Este 32, 44100, Ferrara, Italy

⁵ Museo di Storia Naturale e Archeologia di Montebelluna – Presso Villa Biagi 31030, Via Piave 51, 31044, Montebelluna, Treviso,, Italy

⁶ Università degli Studi di Udine (UniUD) – Via Palladio 8, 33100, Udine, Italy

⁷ Università degli Studi di Padova (UniPD) – Piazza Capitanato 7, 35139, Padova, Italy

⁸ CSA Cooperativa Sociale – Viale Italia 214, 31015, Conegliano, Treviso, Italy

⁹ Associazione CTG Enocultour – Viale Spellanzon 15/b, 31015, Conegliano, Treviso, Italy

¹⁰ Associazione Culturale Studio Didattica Nord Est – Via Lignano 2/b, 33050, Pozzuolo del Friuli, Italy

¹¹ Università Cà Foscari di Venezia (UniVE) – Dorsoduro 3246-3484/D, 30123, Venezia, Italy

¹² Cooperativa Trepuntozero – Via Brunelli 53, Combai di Miane, Treviso, Italy

¹³ UNPLI - Comitato Provinciale Pro Loco Trevigiane – Piazza Squillace 1, 31050, Miane, Treviso, Italy

The prehistoric remains found in Colmaggiore di Tarzo and the desire to promote the history and the environment of the lakes, led to the Livelet Teaching Archaeology Park project, desired

*Speaker

†Corresponding author: marta.modolo@gmail.com

‡Corresponding author: sart.ice@gmail.com

§Corresponding author: carloingegno1987@libero.it

¶Corresponding author: daniele4magagnin@gmail.com

||Corresponding author: carlotta.maniglia@yahoo.com

**Corresponding author: stefani-r@libero.it

††Corresponding author: alessandra.marton@outlook.it

‡‡Corresponding author: illustralabo@gmail.com

Corresponding author: gianmarcomason@gmail.com

Corresponding author: samantharizzotto@hotmail.it

Corresponding author: valentina_rivav@libero.it

Corresponding author: contegiulia1993@gmail.com

Corresponding author: francesca.carpene@gmail.com

Corresponding author: paola.nardelotto@gmail.com

Corresponding author: emailmartameneghini@gmail.com

Corresponding author: serviziocivile@unpliveneto.it

by the Province of Treviso. This park is an outdoor museum partner of Exarch. It is located on the west shore of the Lago lake, one of the two Revine lakes, in the beautiful setting of the Pre-Alps, in the north of Treviso province (Italy).

All the area surrounding the lakes is very important at an archaeological level. Starting from 1926 and excavation carried out to construct a channel, unearthed two *Sauerbrunn type* swords, dated back to the Middle Bronze Age, and a *Peschiera type* dagger, dated to the Middle and Upper Bronze Age. In the 1989 the Archaeological Authority of Veneto Region promoted a multidisciplinary research. Between the other archaeological remains, fragments of ceramics, flints, bones, copper pins and traces of construction stilts have been highlighted.

The first experimental approach was the reconstruction of the pile-dwelling village, based on studies of the type of settlements found in archaeological sites in wet or lakeside environments in Northern Italy and on ethnographic studies. The three pile-dwellings are in full-scale, lie in the proximity of the water and have been built in three different ways: on dry land, partly on a reclaimed area and on the water. According to this order of construction, the interiors reproduce respectively Neolithic, Copper and Bronze Age, namely the periods when the Revine lakes was inhabited in prehistory. The reconstructions were made using methods and materials that were also available in the past.

The park is comprised of workshops and teaching areas. The guided tours are characterized by interaction with materials and reconstructed tools that were used in everyday life from Neolithic to Bronze Age.

From 2013 the Livelet's staff began to carry out some research, which led to the reconstruction of new tools and clothing dating back to the Neolithic, as well as the organization of two days of *Living History* addressed to this period. One of the most important activities carried out, a bronze sword of *Sauerbrunn type* (15th century B.C.) has been archaeologically replicated through the use of prehistoric technologies.

In addition an exhibition centre reveals utensils, accessories, materials, hunting weapons and farming tools.

Keywords: Archaeological park, Neolithic, Copper and Bronze Age, pile, dwelling village, bronze sword.

THE BUSINESS CARD. Formal impact, methodological constraint and unpopular choice for the megalithic area of the Archaeological Park and Museum of Saint-Martin-de-Corléans in Aosta (Italy): a case of study.

Gianfranco Zidda * ¹, Paola Rolfo Arzarello *

², Francesca Martinet *

¹, Luca Raiteri ¹, Massimo Venegoni ³, Umberto Di Michele ⁴

¹ Surintendance des activités et des biens culturels -Région Autonome Vallée d'Aoste – Italy

² Ikhoscalchi – Italy

³ Studio Dedalo - Architettura e immagine - Torino – Italy

⁴ 3VU s.r.l. – Italy

The Archaeological Park and Museum of Saint-Martin-de-Corléans, open to the public on June 24, 2016, is an essential business card for archaeology in Valle d'Aosta Region (Northern Italy).

It is considered a place that, by its vastness, emotional impact and awfulness, has no equal in Europe. It comprehends and protects a prehistoric area of cult and burial, of which the first finds were discovered in 1969, under the direction of the archaeologists of the Regional Authority, Franco Mezzena and Rosanna Mollo.

The peculiarity of integrating, into a single building, the archaeological site and the museum allows the visitor, along a path that runs from the level of vestiges to the upper floor, an uninterrupted and direct view of the excavation area, which is explained in the didactics panels. The museological and museographic language communicates in a simple and clear way the continuous dialogue between the monuments, kept *in situ*, and the exhibition path. Illumination is also a reading code, an instructive experience that, through the dynamism of light, emphasizes and gives life to the structures.

The museum itinerary is divided into six sections, distinct by the background colours of the walls, while the archaeological site presents a very precise moment of the excavation - its conclusion. For the correct reading of the found remains, at different levels of narrative and topography,

*Speaker

on the site replicas are repositioned, declared so since the beginning of the visit, while the originals are exhibited in the museum: the stele, (found with the decorated face to the ground, so impossible to be seen) are here exalted in their artistic aspect, as elements of the great anthropomorphic statuary. As summary of the media representation and of the scientific rigor of the cultural message, reproductions have allowed innovative museum solutions, as a tool that communicates didactic and non-verbal content, for the inclusion of visitors with physical and mental disabilities.

The exterior appearance and the architectural and urban impact of site coverage have created strong reactions in the community, starting by neighbourhood residents. The difficulty lies in the communication of the complex: special moments of welcome and visits are not enough to create a critical review of the work, new forms of information need to be identified. The use of media has so far been weak and discontinuous; starting with the goal of making the site inviting through clarity and accessibility, even with the involvement of important testimonials, an adequate form of recall has not yet been created.

Keywords: dialogue between the monuments and the exhibition path, dynamism of light, anthropomorphic statuary, reproductions, prehistoric area of cult and burial

Réalité, stratégie et projets pour la Préhistoire et la Protohistoire dans les musées et les sites nationaux de la région du Molise (Sud Italie)

Ventura Leandro ^{*†} , Davide Delfino ^{*}

^{1,2}, Carbonara Viviana ^{* ‡} , Di Nucci Annarosa ^{* §}

¹ Instituto Terra e Memória- Centro de Geociências Universidade de Coimbra (I.T.M. Mação/
CGeo-U.C.) – Largo Infante D. Henrique, 6120-750, Mação, Portugal

² Ministero dei Beni e delle Attività Culturali e del Turismo- Polo Museale del Molise
(Mi.B.A.C.T. *PM Molise*) – *Salita San Bartolomeo 10, 86100 Campobasso, Italy*

La direction régionale des musées du Molise (Polo Museale del Molise) gère un des plus importants sites paléolithiques d'Europe, Isernia la Pineta et son musée (Museo Nazionale del Paleolitico), ainsi que, entre les autres 9 musées, sites archéologiques et châteaux, le Museo Provinciale Sannitico et le Museo Archeologico di Venafro. Ici la composante de la Préhistoire récent et de la Protohistoire est bien important dans l'ensemble des collections. L'importance des collections pré et protohistoriques est souligné, au-delà du Museo Nazionale del Paleolitico, pour être lié à l'héritage archéologique plus fameux de la région: les Samnites et son direct substrat précédent. Dans cet travaille seront présenté la stratégie de médiation entre les sciences pré et protohistoriques et le public et les projets pour une amélioration des offerts didactiques et communicatives.

Keywords: Polo Museale del Molise, collection pré et protohistoriques, socialisation de la connaissance, inclusion, innovation

*Speaker

†Corresponding author: leandro.ventura@beniculturali.it

‡Corresponding author: vivianacarbonara@yahoo.it

§Corresponding author: annarosa.dinucci@gmail.com

The Popularization of Prehistory in Italy: Good Practices for a proper scientific communication.

Giovanni Virruso * ¹, Laura Danile * [†]

¹ MUSE – Italy

Human Evolution and Prehistory have always fascinated the museum audience, especially the primary school students who are enthusiastic about complex issues updated by new scientific researches. Nowadays in Italy we can see a remarkable increase of interest in museums from local communities. For this reason a lot of association with the aim of popularization of Prehistory for a wide public (both adults and children) are spreading. This trend is well visible also on the web, where we can see several web sites and blogs dedicated to new scientific discoveries. Most of the activities are developed inside museums, archaeological parks and schools. We are speaking about traditional guided tours, re-enactment events or performance of science theatre. Through the experience gained in years of activity we tried to collect some good practices dedicated to the cultural mediators. The aim is to offer them the possibility to follow a method that could be a proper educational approach to correctly describe the origins of humans.

Keywords: communication, Human Evolution, Prehistory, public archaeology

*Speaker

[†]Corresponding author: ladanile@gmail.com

Vietato Non Toccare: Universal Design on cultural heritage.

Poesini Stefania ^{*†} 1, Lucia Sarti ²

¹ università di Siena – Italy

² Università di Siena 1240 [Siena] – Via Roma 56 - 53100 Siena, Italy

The project "Not Touching Prohibited of the University of Siena, result of collaboration between the Department of Historical and Cultural Heritage and the Hospitality Office for disabled and DSA Services has aimed, among other objectives, to seek ways and new languages to communicate the cultural asset to a wide audience, following the guidelines of the "Design for All". We developed also researches on exhibition adopting the "Design for All" concepts and developing specific criteria offering consultancies and thematic courses on promotion of Cultural Heritage.

The possibility to create inclusive itineraries, in museums or natural and archaeological parks, has led to reflect on the processing methods and means necessary to meet this objective. The importance of the Italian archaeological heritage is an opportunity to reflect on this issue.

For overcoming sensory barriers and, as far as possible, cognitive ones, the expedients for accessible exhibit set-up (such as tactile and orthotic paths, guides for orientation, tactile maps and other technical and technology aids) should be integrated with tactile reproductions of the objects normally exhibited inside the cabinets, representing the context where they are placed, in a word, the vocation of "that place" attracting the visitor. These subsidies are designed as communicative enrichment for everyone, not only for certain categories of people. From these premises the attempt to realize tactile objects that combine the technological world to the cultural one, opening to new forms of communication, originates.

Keywords: Design for All, inclusive itineraries, inclusive museums

*Speaker

†Corresponding author: stefaniapoesini@gmail.com

Museum as a laboratory of prehistoric landscapes

Rinaldo Filomena * ^{1,2}, Piccarreta Maria ³, Masiello Laura ³, Kitagawa Keiko ^{1,4,5}, Colopi Francesco ¹, Strafella Silvia ¹, Petracca Roberto ¹, D'alessandro Nicola ⁶, Natalizio Cosimo ⁶, Massafra Dario ¹

¹ Museo della Preistoria di Nardò – Piazza S. Antonio, 73048 Nardò-Lecce, Italy

² Dipartimento di Scienze Fisiche, della Terra e dell'Ambiente, U. R. Preistoria e Antropologia, Università degli Studi di Siena – Via Laterina, 8, 53100 Siena, Italy

³ Soprintendenza Archeologia, Belle Arti e Paesaggio per le Province di Lecce, Brindisi e Taranto – Via Antonio Galateo 2, 73100 Lecce - Italy, Italy

⁴ Department of Early Prehistory and Quaternary Ecology, Institute of Pre- and Protohistory and Medieval Archeology, University of Tübingen Schloß Hohentübingen – Germany

⁵ Histoire naturelle de l'Homme préhistorique (HNHP) – Museum National d'Histoire Naturelle, Centre National de la Recherche Scientifique : UMR7194 – Institut de Paléontologie Humaine 1, rue René Panhard 75013 Paris, France

⁶ Comune di Nardò – Piazza Cesare Battisti, 73048 Nardò Lecce, Italy

The civil museum 'Museo della Preistoria di Nardò' located in Nardò – Lecce, southern Italy is a new establishment that focuses on the Paleolithic from the region, casting light on the important evolutionary history of humans documented through the occupation of sites, archaeological finds, and contexts. The museum houses artifacts and fossils from archaeological fieldworks of the 1960's and beyond originating from a series of caves in the Portoselvaggio and Palude del Capitano Park. The materials are a testament to nearly 100,000 years of *Homo neanderthalensis* and *H. Sapiens* occupation, including a find of enormous importance: one of the oldest fossils of *Homo sapiens* in Eurasia. In collaboration with the Soprintendenza Archeologia Belle Arti e Paesaggio Brindisi Lecce e Taranto (Superintendence of Archeology, Fine Arts and Landscape of Brindisi, Lecce, and Taranto), this project aims to work on three converging areas: research, conservation and public outreach in both the museum and the Park with an ultimate objective to sustainably manage the heritage for social and economic developments of this region. Through this endeavor, the museum becomes a laboratory for the ancient landscapes, mostly built upon the interactions between researchers, the museum, local entrepreneurs, and visitors.

Keywords: Museo della Preistoria di Nardò, Paleolithic, Research, conservation and public outreach

*Speaker

Abandonment, rehabilitation and accessibility of open air sites: the case of El Castillar (Mendavia, Navarre, Spain)

Leyre Arróniz Pamplona *¹, Laura M. Sirvent Cañada *

², Héctor Juan Fonseca De La Torre *

³, Lorena Meana Medio ¹, Daniel Pérez Legido ¹, Xavier Bayer Rodríguez
⁴

¹ Independent Author – Spain

² Universidad de Alicante – Spain

³ Facultad de Filosofía y Letras, Universidad de Valladolid (UVa) – Plaza Campus Universitario, s/n,
47011 Valladolid, Spain

⁴ Complutense University of Madrid (UCM) – Spain

The protohistorical settlement of El Castillar (Mendavia, Navarre, Spain) was extensively excavated during the 1970s and 1980s, becoming the first archaeological site of these characteristics to be studied in the region. In 1986, a first conservation campaign was made in order to keep the settlement open to visitors. That campaign was based on the consolidation of the stone wall bases with concrete, so that the harsh weather would not erode them. This early attempt to protect the settlement and make it accessible to the public, was successful at the beginning, as there were school trips to the site and other visitors also appreciated the settlement. But in the 1990s the lack of maintenance resulted on the gradual abandonment of El Castillar. However, that generation of people who went on school field trips to the settlement are the ones that nowadays are most interested on the conservation and restoration of the archaeological site, as they were thought about its importance while they were children.

After all those years of abandonment, in 2017, the town council proposed a new project to restore and protect the site and to make it accessible to the public again. The first campaign focused on the restoration of two habitational structures that represent a good example of Iron Age architecture in the area. On a previous date to the beginning of the first campaign, a small exposition and an informative talk was made in Mendavia, in order to remember the inhabitants of the existence of the settlement; and during the process of the archaeological intervention, several groups of people visited El Castillar while the archaeologists were working. After the restoration campaign was finished, guided visits were also made.

In the following years, more excavation campaigns will be carried out with modern methodologies not only to shed light into modern archaeological questions but also to reveal more structures that can be presented to the public, as the final objective of the project is to make El Castillar more accessible to the public. In addition to that, the town council has planned to

*Speaker

add informative panels about the settlement both in the town center and in the archaeological site, so people can visit the site by themselves. It is necessary to bear in mind the importance of transporting the scientific importance of El Castillar to the inhabitants of Mendavia, as they are the ones that will preserve the site in the future.

Keywords: Iron Age, settlement, restauration, Ebro valley, open air site

New light on the Prehistoric sites of West Garo Hills in North East India

Bezbaruah Dwipen Bezbaruah Smita Devi Bora * ¹

¹ Gauhati University – Jalukbari, Gauhati University, Oin 781014, India

West Garo Hills in Meghalaya is one of the significant areas in North east India where traces of prehistoric man's existence have been verified by the prolific occurrence of stone artefacts and pottery over a large area in the Rongram- Ganol river valleys. Different scholars have carried out studies in these sites in the past on the typotechnological and chronological aspects of the artefacts and sites. Recent studies focussing on the topographical, sedimentological and petrographical aspects of the sites have revealed many interesting facts. The sites in West Garo Hills are characterised by occurrence in association with streams and water sources. Undulating nature of the topography has been another significant aspect of the sites. Confluences, terraces and stratigraphy with composites sections of silt, loose and cemented gravel has been the characteristic features of the sites. The sedimentological study of selected sites has indicated less transportation of the implementiferous sediments. The typological attributes of the sites also conform to the topographic nature of the sites facilitating the subsistence pursuit of the early man. The occurrence of dykes of doleritic composition indicating seismic activity in the past and consequent use of it for preparation of tools is another significant dimension of the sites in the area. The authors try to discuss the mentioned aspects of the sites in West Garo Hills of Meghalaya in North East India in the light of the investigation made in recent years.

Keywords: West Garo Hills, typotechnology, sedimentological

*Speaker

THE PAST AS A CONTINUUM BETWEEN MEDIUMS

Dragos Gheorghiu * ¹

¹ National University of Arts (UNA) – 19 Budisteanu, Bucharest, Romania

The contemporary communication of the past to the large public uses different methods, to cite re-enactments and Virtual Reality reconstructions. In both cases the experientiality of the observer is limited by the medium. The present paper describes a series of experiments carried out within the Time Maps Project, designed to improve the reception of prehistory by means of virtual museums. A series of reconstructions of prehistoric houses was used to host re-enactments that were recorded as video films. As the same time, the image of the prehistoric community was completed using 3D reconstructions of the settlements and their environments in Virtual Reality.

To augment the phenomenological experience of the museum's visitors a connection of the reality to the virtual medium was made, by inserting the video films of the re-enactments into the virtual architecture, or by inserting 3D scanned real objects and characters into the virtual medium.

This approach, based on the connection of two mediums, thus lead not only to the creation of the continuum between the real and the virtual, but also of a continuum between different forms of virtuality that augmented the phenomenological experience, transforming the visitor of the museum into a virtual actor, when moving between SecondLife/OpenSim and Unity and back.

Keywords: virtual museum, prehistory, re, enactment, Virtual Reality, continuum

*Speaker

CULTURAL LANDSCAPES:THE MANAGEMENT OF ROCK ART SITES IN MOZAMBIQUE

Solange Macamo * ¹

¹ Eduardo Mondlane University (UEM) – Maputo, Mozambique

This paper departs from the understanding that there is an interaction between nature and culture that is embedded in specific landscapes. Rock art sites are a good example of this, since they join the rock, that is natural and art that is human made.

Rock art sites are part of nature and they form cultural landscapes or mixed heritage (both natural and cultural heritage). In this paper I discuss rock art sites with a view to interpret the process for their management that takes into account not solely the cultural heritage legislation existing in the country, but also the environmental legislation (Land Law and Conservation Areas legislation).

This reflection is quite new, in the country, even if theoretically we know this. But in most cases heritage is only regarded in relation to cultural heritage laws, putting aside the whole set of environmental laws that perhaps are more relevant for a successful site management plan.

In Mozambique there is legislation for the management of National Parks that is related to natural heritage. In most cases, rock art sites are to be found in this Parks or reserves. The combination of uses of both cultural and natural laws can help to answer different questions, for site management, at the same time.

Also tourists will enjoy to visit National Parks if they can complement with the mystery and beauty of rock art paintings, covering many thousands of years of the human past.

In this paper, I shall first discuss the various concepts of cultural landscapes, including archaeological landscapes. Then, I shall apply these concepts to specific rock art sites of Mozambique, in relation to cultural and environmental laws, for heritage management.

Key words: Central Mozambique, Cultural Landscapes, Rock Art, National parks, heritage legislation

*Speaker

Keywords: Central Mozambique, Cultural Landscapes, Rock Art, National parks, heritage legislation

Delta du Saloum (Sénégal) : Communiquer et éduquer pour sauvegarder les ressources culturelles et naturelles.

Abdoulaye Camara ^{*†} , Karen Hardy ^{* ‡ 1}

¹ Universitat Autònoma de Barcelona [Barcelona] (UAB) – UAB Campus 08193 Bellaterra Barcelona, Spain

Le delta du Saloum est une région où les pratiques de collecte des coquillages survivent depuis la préhistoire. Dépôts anciens et dépôts actuels sous forme d'amas coquilliers constituent de véritables mines d'informations pour la recherche archéologique.

Longtemps objet de préoccupations nationales, le delta du Saloum est devenu, tour à tour, au fil des années : Parc national (1976), Réserve de biosphère (1981), Zone humide d'importance internationale (1984), site inscrit sur la Liste du patrimoine de l'UNESCO (2011).

Les valeurs exceptionnelles qui caractérisent le Saloum sont données par l'association des paysages deltaïques, les nombreux vestiges archéologiques constitués d'amas à tumulus funéraires, les activités témoignant d'un mode de vie littoral basé sur la cueillette des coquillages et sur la pêche. Des stratégies permettant d'assurer un équilibre durable entre les nécessités de conservation, d'exploitation, de développement et de sauvegarde des ressources naturelles et culturelles ont toujours été une préoccupation mise au premier plan par les communautés locales et les autorités publiques. Mais pour tous les acteurs engagés, l'application des mesures contraignantes et leur acceptation passent par le respect des traditions, des croyances, des interdits... et par la mise à disposition de moyens permettant une communication participative.

Keywords: Coquillages, conservation, croyances, interdits, littoral, traditions

*Speaker

†Corresponding author: abdoulayeoumar.camara@gmail.com

‡Corresponding author: karhardy2@gmail.com

UNLOCKING LA COTTE DE ST. BRELADE: MAKING JERSEY'S PLEISTOCENE HERITAGE ACCESSIBLE

Peter Chowne * ¹, Jonathan Carter * † ²

¹ University of York [York, UK] – Heslington, York, YO10 5DD, United Kingdom

² Jersey Heritage – Jersey Museum, The Weighbridge, St Helier, Jersey, JE2 3NG, Jersey

The Palaeolithic site of La Cotte de St. Brelade on the island of Jersey, has remained dormant since the 1961-1978 excavations of C. B. M. McBurney. Archaeologists have paid little attention to the site assuming that all the surviving deposits lay behind a protective concrete wall. Since 2010 a field project drawn from major UK institutions has focused research on the La Cotte de St. Brelade archive and on deposits disturbed by tidal storm surges. This work has established that Middle Pleistocene deposits are preserved at the site outside of the protective wall but these are under severe threat from further storm damage and rising sea-levels. The early focus of work on other coastal sites around the Island under a broad 'Ice Age Island' banner has reframed local public and political attention on a heritage as a value of landscape rather than of discreet visitor attractions. This is an issue of great significance in a small island where all land use is highly contested and opens up the broader value of heritage in future tourism development.

A major engineering operation is soon to be undertaken to protect the surviving deposits and create a safe working environment for international multidisciplinary research teams. This is an expensive undertaking that is only possible because La Cotte de St. Brelade is considered as an integral part of Jersey's historic environment communication, education and tourism development strategies. Support for the project has been generated more than anything by the combination of international institutional brands and local scenic landscapes with research generated stories expressed through wide reaching broadcast media. In a jurisdiction where external relations and media profile are significant economic factors this has strongly aligned the project with community interests and created a strong framework for funding not only La Cotte itself but the associated management frameworks for heritage in the Island.

This paper will focus on Jersey Heritage's approach to communicating the significance of the Pleistocene record within the broader cultural strategy for the island.

Keywords: Pleistocene, Palaeolithic, management frameworks, research generated stories

*Speaker

†Corresponding author: Jon.Carter@jerseyheritage.org

Education, dissemination and new technological approaches for a museum opened behind closed doors: the University Museum of Paleontology and Prehistory "P. Leonardi"

Ursula Thun Hohenstein ^{*† 1,2}, Alba Pasini ^{3,4}, Alessandra Tarter ^{1,4}, Chiara Messana ^{1,4}, Anna Scalco ¹, Federica Scali ¹, Chiara Camisani Calzolari ², Anna Carla Chiarelli ², Giovanni Prencipe ⁵, Giorgio Poletti ¹, Marco Bertolini ^{1,2}

¹ University of Ferrara, Department of Humanities (UNIFE) – Corso Ercole I d’Este 32 44121 Ferrara, Italy

² University of Ferrara, Sistema Museale di Ateneo (SMA) – C.so Ercole I d’Este 32, 44121 Ferrara, Italy, Italy

³ Laboratory of Archaeo-Anthropology and Forensic Anthropology Department of Biomedical and Speciality Surgical Sciences, University of Ferrara (Antropolab) – Corso ercole I d’Este 32, Ferrara, Italy, Italy

⁴ University of Ferrara, Student Association PreHistorica – C.so Ercole I d’Este 32, 44121 Ferrara, Italy, Italy

⁵ University of Ferrara, Department of Mathematics and Computer Science – Via Macchiavelli, 30 - 44121 Ferrara, Italy, Italy

The Museum of Paleontology and Prehistory "P. Leonardi" was founded in the mid-60s by Professor Piero Leonardi, who aimed to create an exhibition dedicated to university teaching. Over the years, the continuous and growing demand led to a reconfiguration of the Museum for an open enjoyment to a wider and more diversified public. Unfortunately, in 2012 the Museum was damaged by the earthquake that struck the Emilia Romagna region; since then, the Museum cannot be visited while awaiting for the renovation work. Accessibility, involvement and identification are the elements necessary for the museum experience to be fully lived. Traditionally, access problems have been mainly associated with architectural barriers, while only recently the general attention was more carefully focused on immaterial types of barriers, such as sensorial and cognitive or cultural and technological ones. Thus, communication in the museum context is of primary attention, as far as it places the visitor at the core of the communicative process instead of the Museum exhibition, facilitating the visitor during a process of personal experiential growth. But what happens when the Museum is no longer available? Is it possible to get out of the physical limits of the Museum itself and to make the heritage available again? In order to respond to different fruition needs an integrated enhancement project has been developed, involving the digitization of the collections by new technologies; this attempt to create a virtual and dynamic environment has the dual purpose of allowing consultation to researchers

*Speaker

†Corresponding author: ursula.thun@unife.it

and students and to set up virtual paths for non-academic users. Furthermore, the demand for educational workshops for schools of all levels was granted thanks to a Student Association comprised of several students enrolled in the Master's Degree, and which aim is to disseminate and communicate the contents of the Museum in the light of the latest scientific discoveries. Finally, the staging of temporary exhibitions allowed the heritage to be brought out of the Museum and to be available to the general public with the possibility of creating new thematic routes, which in future will implement the original path of the Museum itself.

Keywords: Education, scientific dissemination, university museum, new technology

The temple machine: a new model of communication for the National Etruscan Museum of Villa Giulia.

Valentino Nizzo * ¹

¹ Ministero dei beni e delle attività culturali e del Turismo - Museo Nazionale Etrusco di Villa Giulia (MiBACT) – Piazzale di Villa Giulia 9, 00196 ROMA, Italy

The temple machine: a new model of communication for the National Etruscan Museum of Villa Giulia.

The reorganization of the Italian Cultural Heritage Ministry in the last three years has completely revolutionized the system of management and communication of national cultural heritage. Among the most significant aspects of this revolution undoubtedly stands out the introduction in the bureaucratic language of concepts such as that of enjoyment, derived from the definition of the Museum elaborated by ICOM in 2007 but dating back to 1961. This newness, in fact, introduces the possibility that the visit of a museum can happen even for reasons unrelated to the study and research. The challenge of new generation museums, therefore, becomes that of educating and at the same time having fun, finding new ways to tell the story, through storytelling and emotional experience. With these aims, the reform has included the Museum of Villa Giulia among the first thirty museums with special, scientific, managerial and administrative autonomy. An important challenge for the only museum with these characteristics entirely dedicated to the cultures of central pre-Roman Italy. In this paper we will offer a first anticipation of the main innovation projects that will mark the future of this important institution, in an attempt to holistically restore the link between museum and territory.

La macchina del tempio: un nuovo modello di comunicazione per il Museo Nazionale etrusco di Villa Giulia.

La riorganizzazione del Ministero dei Beni e delle attività culturali e del turismo italiano (MiBACT) negli ultimi tre anni ha rivoluzionato completamente il sistema di gestione e comunicazione del patrimonio culturale nazionale. Tra gli aspetti più significativi di tale rivoluzione spicca senza dubbio l'introduzione nel linguaggio burocratico di concetti come quello di diletto, derivato dalla definizione di Museo elaborata da ICOM nel 2007 ma risalente fino al 1961. Questa novità, infatti, introduce la possibilità che la visita di un museo possa avvenire anche per motivi non collegati allo studio e alla ricerca. La sfida dei musei di nuova generazione, dunque, diviene quella di educare e al tempo stesso divertire, trovando nuove modalità per raccontare la storia, attraverso il racconto e l'esperienza emozionale. Con tali scopi, la riforma ha inserito il Museo di Villa Giulia tra i primi trenta musei dotati di autonomia speciale, scientifica, gestionale e amministrativa. Una sfida importante, per l'unico museo con queste caratteristiche interamente dedicato alle culture dell'Italia preromana centrale. Nel presente contributo si offrirà una prima anticipazione dei principali progetti di innovazione che contraddistinguono il futuro di questa importante istituzione, nel tentativo di ripristinare olisticamente il legame tra museo e territorio.

*Speaker

Keywords: Enjoyment, National National Etruscan Museum of Villa Giulia, storytelling, emotional experience, central pre, Roman Italy

Bridging science and public awareness: the mediation criteria of the exhibitions of the Museum of Prehistoric Art in Mação, Portugal

Luiz Oosterbeek *^{1,2}, Anabela Pereira^{1,2}, Davide Delfino *

¹, Fernanda Torquato^{2,3}, Margarida Morais², Nelson Almeida *

¹, Pedro Cura *

^{1,2}, Sara Cura *

^{2,1}, Sara Garcês *

1,2

¹ Instituto Politécnico de Tomar; Instituto Terra e memória, Mação, Centro de Geociências da Universidade de Coimbra. Portugal (IPT, ITM, CGEO) – Museu de Arte Pré-Histórica, Lg. Infante D. Henrique, 6120-750 Mação, Portugal

² Museu de Arte Pré-Histórica de Mação (MAP) – Lg. Infante D. Henrique, 6120-750 Mação, Portugal

³ Direção Geral do Património Cultural (DGPC) – Palácio Nacional da Ajuda, 1300 Lisboa, Portugal

The Museum of Mação is one of the oldest archaeology local museums in Portugal, with a permanent collection having been reunited from the mid-20th century and public exhibitions since the 1980's. The Museum has been completely reorganized since 2005, as a research-based Museum, supported by a research and development institute (ITM – Earth and Memory Institute), associated to a higher education institution (the Polytechnic Institute of Tomar) and a research centre (the Geosciences Centre of Coimbra University). In this new cycle of its life, the Museum focused on how to introduce the didactics of complex concepts (adaptations to environmental changes; symbolism; technology; cognitive processes, etc.), not through the simplification and popularization of research-based understanding, but by triggering critical reasoning and direct interaction between users and researchers. Issues like the name of the Museum, the choice of artefacts in display, the quality and quantity of texts, the use or not of illustrations, the use of different senses (sight, touch, smell), the colours of the exhibition layouts or the complementary library, experimental workshops and spaces of memory, relate to this common mediation framework.

*Speaker

Keywords: Museum of Prehistoric Art of Mação, Mediation, Didactics

**XXXV-2. Archaeology in
transdisciplinary researches:
contributions to a Sustainability
Science**

Human and Heritage Interaction: The Protection of Prehistoric Sites in West Bengal, India

Pinak Tarafdar * ¹

¹ University of North Bengal – Raja Rammoganpur, District Darjeeling, West Bengal, India pin-734013, India

The evolutionary mechanism of culture stands for simple to complex, homogeneity to heterogeneity and uncertainty to certainty, a process undoubtedly evident for making culture as a unique phenomenon. It eventually became part and parcel of human life for establishing their supremacy among rest of the living creatures. As a well known postulate culture transmits generation wise through various learning processes and proper exercise of such acts are most conspicuous for conserving the significant inevitable traits. Cultural heritage signifies the preservation of these traits for the benefit of future generations. Cultural heritage includes tangible culture (such as building, monuments, landscapes, books, ward of arts and artifacts) intangible culture (such as folklore, traditions, language and knowledge), and natural heritage (including culturally significant landscape and biodiversity). India has unique combination of such heritages and significant prehistoric sites are more valuable in this regard. I have done a number of field works in the prehistoric sites of West Bengal a state of India, and eventually unearthed numerous stone tools and artifacts; most of them were of surface collection. But unfortunately any of the sites has not been protected or demarcated either by any of the organizations or by the government. Some of the sites are already destroyed by the peasants for agricultural work, or by the expansion of habitations and moreover by the government projects like school or helipad. I have an intention to figure out the proper mechanism for necessary preservations of these valuable sites and also to disseminate the knowledge among the local inhabitance to protect the relics of tangible cultural heritage.

Keywords: Tangible heritage, prehistoric sites, protection, India

*Speaker

Multidisciplinary approach in Management of Intangible heritage: A focus on Indian Perspective.

Ranjana Ray * ¹

¹ University of Calcutta (CALUNIV) – 49/53, Prince Gulam Md. Shah Road, ZIP Code 700033, Kolkata, India

Both Archeology and Anthropology are subjects with multidisciplinary approaches. Pre-history and protohistory are parts of both Archeology and Anthropology. Anthropology covers emergence and development of man and his culture. Culture can be defined simply as 'extracorporeal behavior of man', it has both material and abstract manifestations. These are better as tangible and intangible aspects of culture. India is a land of diversity. Regionality is very much reflected in its cultural dimension. Reconstruction of past cultural traits and tracing their continuity in the present time. In general geology, geography, botany, zoology and other sciences like physics, chemistry provided important tools for the study. The paper is mainly focused on the multidisciplinary methodology currently used for understanding culture and inheritance, especially intangible shares of culture, such as, indigenous knowledge, skills and practices. Emphasis will be on policies and their sustainability in Indian context.

Keywords: India, Culture, intangible, heritage, multidiscipline

*Speaker

ROLE OF URBAN ARCHAEOLOGY FOR SUSTAINABILITY OF THE ARCHAEOLOGICAL HERITAGE OF KOLKATA

Soumyajit Das *[†] ¹, Debasis Mondal * [‡] ¹

¹ Department of Anthropology, University of Calcutta (C.U.) – 35, Ballygunge Circular Rd,
Ballygunge, Kolkata, West Bengal 700019, India

A city is full of human artefacts, both extant and semi-extinct, that not only reflects the ethnicity of the place but also the changes in settlement patterns over centuries. The perception of proper use of space changes over time, and with it change architectural pattern of a city. Documentation of heritage buildings and structures is of much importance at present, keeping the pace of transformation of a city in mind. Urban archaeology is the holistic study of a city and its premises. Urban archaeology can play the key role in documenting a city and creating its urban history. While ethnohistorians focus on the historical records and architects in present structures, urban archaeologists can show their expertise in archaeological excavations and explorations of an urban area. Kolkata is one of the four metropolitan cities of India. This city was under the rule of British for about three centuries. The colonial architecture is still existing in the core of Kolkata but most of them have undergone immense renovation or restructuration. Ethnohistorical and architectural historical studies have been carried out in this city but there is no urban archaeological work done yet. Present paper is an approach to study the role of urban archaeology for sustainability of the urban heritage of Kolkata.

Keywords: Urban Archaeology, Sustainability, Heritage

*Speaker

[†]Corresponding author: withluvbitu@gmail.com

[‡]Corresponding author: anth.debasis@gmail.com

Heritage Management and Sustainable Development in India

Debasis Mondal ^{*† 1}, Sutapa Choudhury ^{* ‡}

¹ Department of Anthropology, University of Calcutta (C.U.) – 35 Ballygunge Circular Road, Kolkata 700019, India

Present is the mirror of past. Past culture is reflected in the relics and remains sustained at present day. Analysis of these remains help to reconstruct the socio-cultural aspects of past people. So it is our duty to preserve the remains of the past not only for the benefit of the present people but also for the future generation. Heritage Management is an emerging issue of 21st Century. It deals with the protection and preservation of archaeological heritage of a country. This area has been expanded with new thoughts and methods. It also deals with the perception of the local people about their archaeological heritage and their role to protect, preserve and conserve these heritages. Present paper examines how heritage and archaeology is perceived from outside the discipline for sustainable development in the present scenario of Indian subcontinent.

Keywords: Heritage Management, Sustainable Development, Local people

*Speaker

†Corresponding author: anth.debasis@gmail.com

‡Corresponding author: sutapamukhopadhyay.anth@gmail.com

Archaeology in transdisciplinary researches: contributions to a Sustainability Science in a Brazilian perspective

Erika Marion Robrahn González * ^{1,2}

¹ DOCUMENTO Institute (DOCUMENTO Institute) – Caixa Postal 822, Cotia, São Paulo, Brazil.
CEP 06709-970, Brazil

² Universidade de Trás os Montes e Alto DOuro (UTAD) – Quinta de Prados, 5001-801 Vila Real,
Portugal

The objective of this study is to analyze examples from archaeological research programs in Brazil from a transdisciplinary perspective, connecting science, technology, and innovation, as well as the application of their results in areas of Education.

In order to develop a Sustainability Science, we would like to present here some scientific contributions related to the field of archeological and cultural heritage considering:

- the development of an Applied Science;
- the perspective of Cultural Landscape and Environmental Knowledge;
- and the perspective of Territory Management, integrating cultural heritage to environmental heritage for sustainable practices.:

Good practices need, therefore, to ally the accomplishment of scientific research with the symmetrical involvement of local communities, leading to an integrated treatment of scientific results and traditional knowledge and establishing a complementary relationship between Science and Tradition.

Keywords: Brazilian archaeology, Transdisciplinary research, Sustainability Science

*Speaker

Integrated Landscape Management: an insight into the variables of social governance as seen from the perspective of Prehistory

Luiz Oosterbeek * ¹, Pierluigi Rosina *

¹, Rita Anastácio *

¹, Luís Santos *

1

¹ Instituto Politécnico de Tomar; Instituto Terra e memória, Mação, Centro de Geociências da Universidade de Coimbra. Portugal (IPT, ITM, CGEO) – Museu de Arte Pré-Histórica, Lg. Infante D. Henrique, 6120-750 Mação, Portugal

Studies of Prehistoric societies rely primarily on the two drivers which may be assessed through archaeological methods: technology (raw materials procurement, transformation and use) and space (from palaeosurfaces to landscape approach to logistics). These two main drivers are then combined, for matters of interpretation, with anthropological theory, namely concerning social organization, and with historical theory, concerning cultural changes through time. This tetra fold approach to the past is in fact a very powerful theoretical framework to understand human adaptive behaviour patterns, which can be used in different chronological contexts, till the present. The paper discusses potential implications of such an approach in terms of education and governance, within the framework of sustainability science.

Keywords: Prehistory, Governance, Education, Sustainability

*Speaker

Ethno-archaeological Relevance of The Sacred Grove: A study among The Santals of Eastern India

Falguni Chakrabarty *† ¹

¹ Vidyasagar University (VU) – Vidyasagr University, Midnapore, West Bengal, India, India

One of the earliest literary traditions deriving from ancient Sumeria dated to 4th Millennium BCE reveals the existence of sacred grove in the story of the Gilgamesh, The king of Uruk. The driving range of Asia, Europe, Africa and America. Such socio-religious practice is effective for environmental sustainability because of the preservation of biodiversity. The study of the sacred grove can be reconstructed by the prehistoric men. Present study aims to highlight different aspects of the practice of the sacred grove of the Sandal tribe of eastern India. The Santals is considered to be the abode of their ethnic deities. However, apart from the magio-religious values, the Santals also manages biodiversity by way of preservation of sacred grove. The present paper makes an attempt to explore the environmental significance of the sacred groves of the Santals, but also seeks to examine the relationship between the sacred grove and the techno-economic aspects of the community under study.

Keywords: Sacred Grove, Biodiversity, Ethno, archaeology, Santal

*Speaker

†Corresponding author: falguni.mita@yahoo.co.in

Role of Indian Museum in Cultural Resource Management

Mita Chakrabarty * ¹

¹ Indian Museum (IM) – 27 Jawarhal Nehru Road, Kolkata-700016, India

Indian Museum was established in Kolkata about more than 200 years ago by the British Colonial Ruler. The major aim of the organization is to study man and his culture. Since then Indian Museum has taken active role to collect material cultural traits of different ethnic groups inhabiting the different corners of Indian subcontinent. The aim of this paper is to highlight how the Indian Museum playing a significant role in the sphere of Cultural Resource Management. Indian Museum is playing a key role to manage the tangible and intangible cultural heritage of India. The tangible heritages are regularly collected, preserved and exhibited in the different galleries of Indian Museum, whereas intangible heritages are audio-visually recorded and preserved scientifically. Apart from these outreach programmes of the Indian Museum play important role to educate and make aware the general mass about the cultural heritage of India. The present paper aims to highlight some of the tangible cultural heritage of India preserved by the Indian Museum.

Keywords: Cultural Resource Management, Tangible and intangible heritage, Indian Museum

*Speaker

**XXXV-3. Preservation and
conservation of Prehistoric Art.**

THE CHALLENGE IN THE PRESERVING OF CULTURAL HERITAGE: ROCK ART MEXICO. A LABORIOUS TRANSITION FROM DOCUMENTATION TO MANAGEMENT

Casado Maria Del Pilar *† ¹

¹ Maria del Pilar Casado López (PCL) – Ciudad de México, Mexico

XVIIIe Congrès mondial UISPP. Paris 4-9 junio 2018.
Session: XXXV. COMMISSION HERITAGE. Preservation and conservation of Prehistoric Art.
Gala Gómez-Merino, Ramón Viñas, Eudald Guillaumet, Beatriz Menéndez

Abstract

**THE CHALLENGE IN THE PRESERVING OF CULTURAL HERITAGE: ROCK
ART MEXICO. A LABORIOUS TRANSITION FROM DOCUMENTATION TO
MANAGEMENT.**

María del Pilar CASADO LÓPEZ

mpilar.casadol@gmail.com

pcasado@prodigy.net.mx

México

I intend make an oral presentation of this paper

ABSTRACT

All the vestiges, monuments and archeological remains are part of the cultural heritage that allows us through archeological research, to know the past towards an understanding as a group and in relationship with the otherness. At the beginning of the millennium, the need to preserve and maintain them leads us to reflect on the position of the human being in the past and in the present as an individual and as a group and on the equilibrium of mankind on the planet.

*Speaker

†Corresponding author: mpilar.casadol@gmail.com

Rock art anywhere in the world where it can be found, with its forms of expressions, intentionality and different developments is a phenomenon linked to human thought, mental process and the intellectual, emotional and social evolution of the human being, but the rock art is a very vulnerable element. This graphic testimony that has arrived to us from the most ancient groups, historic and recent ones established in Mexico, this makes it worth preserving.

Rock art is an element that has two characteristics, vulnerability and richness of information that provides about the generating groups. Based on this and in order to attend the challenge to preserve it we establish three major phases of work: Registry, considered a tool of knowledge and documentation, which preserves the capital of information; Research, as the obligatory basis for any other action and preventive conservation; Preservation and Conservation *in situ* aimed at prolonging and saving the life of rock art. Complementary to these three, are actions such as social work, linking and integration of nearby communities and dissemination of its rich existence.

Public policies designed around effective research will provide a starting point to a new preservation paradigm. The dialogue between researchers and policies implementers is key to understand the real needs of the communities and rock art *per se*. These are some actions designed to prolong and safeguard the life of this archeological asset.

Key words: Rock Art/ Preservation/ Heritage/ Mexico.

Dra. María del Pilar Casado López

Keywords: Rock Art/ Preservation/ Heritage/ Mexico.

Heritage consciousness through alternative education and Public Archaeology: a Philippine perspective

false * , Omar Choa *

¹, Andrea Natasha Kintanar *

1

¹ Tuklas Pilipinas Society – Albert Hall, Lakandula St. corner E. Jacinto St., University of the Philippines, Diliman, Q.C., Philippines

Tuklas Pilipinas Society is a non-profit organisation that aims to spread awareness of archaeological heritage in the Philippines through alternative education and Public Archaeology. It hopes to empower local communities to manage and protect their own heritage. Studies show that when local government uses knowledge from archaeology to cultivate heritage-oriented community services, people feel more connected to their culture and their past, and as a result, feel empowered to contribute more to society. This paper discusses various examples of archaeological heritage education initiatives conducted by Tuklas in the Philippines that have been effective in engaging local communities in heritage management and preservation of their archaeological sites. Involvement of local and national government is reviewed, and the importance of close interaction between the local community, archaeologists, and heritage practitioners is emphasized. We submit that archaeological information and heritage can be effectively integrated into a variety of contexts if local government, the local community, and heritage practitioners work together.

Keywords: Philippines, Alternative education, Heritage consciousness, Heritage education, Public archaeology, Archaeological heritage, Local community

*Speaker

ANALYSIS AND CHARACTERIZATION OF ROCK ART BY FRACTAL TREATMENTS

Aline Lara * ¹, Jean-François Yves Pierre Parrot * [†]

¹ Seville University – Calle San Fernando, 4, 41004 Sevilla, Spain

The new technologies and their application in digital images of rock art, have tried to recognize and extract characteristics of technique, form and conservation. Occasionally, the invasion of the painting for its study has been counterproductive and, on the other side, the limitation of the results of images to extract information has had a limited success where said tools do not provide statistical information and prediction of the pictographs.

We propose the presentation of software of application of fractal treatments, for the generation of digital models and their fractal dimension, to describe, model and predict patterns and pictorial manifestations from images with *raw* or *bmp* formats.

The computer programs are freely accessible and can mix images to make comparative studies, calculation of variables and indexes and a general report where all the operations done, the parameter values obtained are achieved; as well as the name of the images and the registered diagrams, where statistics can be made for the creation of evaluation parameters with a conservation study.

Keywords: rock art, dimension, fractal treatments, footprints fractal

*Speaker

[†]Corresponding author: jfparrot@hotmail.com

Past and current climate changes, impacts on underground microclimates. What threats on prehistoric painted caves ?

François Bourges ^{*†} ¹, Dominique Genty ^{*}

², Frédéric Perrier ^{*}

³, Bruno Lartiges ^{* ‡} ⁴, Frédéric Girault ^{* §} ³

¹ Géologie Environnement conseil – pas de tutelle – France

² LSCE (Laboratoire des sciences du climat et de l'environnement) – Centre national de la recherche scientifique - CNRS (France) – France

³ IPGP (Institut de physique du globe de Paris) – Centre National de la Recherche Scientifique - CNRS – France

⁴ UPS (Université de Toulouse) – Université Paul Sabatier-Toulouse III - UPS – France

Most people who visited famous painted caves such as Lascaux or Chauvet caves were astonished by the great freshness of the deep black drawings and colored paintings that have been dated up to 37 kyr old. This exceptional preservation is mainly related to strong regulation processes that maintain stable microclimates in karstic caves. Exceeding critical thresholds for underground key parameters (i.e. temperature, humidity, pCO₂, water flows) may trigger harmful situations for the most fragile remains. Nevertheless, the oldest and most beautiful prehistoric sites (i.e. Chauvet, Lascaux) endured the most important climatic variations during the Last Deglaciation period from the Last Glacial Maximum ~20kyr ago to the Holocene maximum ~8kyr. For the oldest periods, during Marine Isotopic Stage 3, these wall paintings resisted large temperature changes during abrupt climatic events such as the Dansgaard-Oeschger ones. On the contrary, several prehistoric sites have been damaged very recently (i.e. Pech-Merle, Gargas, Marsoulas) where drawings have been tone down or even erased. This is mostly due to human activity in the cave or nearby, but one can ask what will be the consequences of recent climatic changes and of its impact on cave atmosphere characteristics. **Can we see any changes in the cave natural system and in its regulation? Does the current and predicted climate instability induce significant risk for preservation? Can we evaluate the consequences for the most vulnerable archaeological patrimony?** *Thanks to long term observations that was started more than 20 years ago, we are able to observe temperature trends in many sites suggesting that climatic changes may have already started to impact cave climate. Among the most striking changes is certainly the increase in the CO₂ concentration inside the caves (up to +23% for the maxima in 20 years) reaching the threshold above which*

*Speaker

†Corresponding author: fbourges@geconseil.com

‡Corresponding author: bruno.lartiges@get.omp.eu

§Corresponding author: girault@ipgp.fr

we will not be able to enter the caves. In order to anticipate the consequences of natural and human impacts on the preservation of cave prehistoric art, it is now necessary to have a rigorous approach of climatic and geochemical parameters survey (i.e. cave monitoring) and of the physical understanding of the processes involves in the interactions between air/rock/water.

Keywords: climate change, painted cave, cave preservation, underground microclimate, cave monitoring

Characterisation of the red pigments from Molí del Salt Magdalenian site (Vimbodí i Poblet, Conca de Barberà, Spain) to envelop and optimise the methodology applied to the conservation of the engraved slabs

Gala Gómez-Merino * ^{1,2}, Manuel Vaquero ^{2,3}, Susana Alonso ^{1,2}

¹ Institut Català de Paleoecologia Humana i Evolució Social (IPHES) – Zona Educacional 4, Campus Sescelades URV (Edifici W3) 43007 Tarragona, Spain

² Àrea de Prehistòria de la Universitat Rovira i Virgili. (URV) – Departament de Història i Història de l'Art. Campus Catalunya. Av. Catalunya, 35. 43002. Tarragona., Spain

³ Institut Català de Paleoecologia Humana i Evolució Social (IPHES) – Spain

Molí del Salt is an archaeological site located in the north-east of the Iberian Peninsula, in a conglomerate rock-shelter close to Vimbodí i Poblet village (Conca de Barberà, Tarragona, Spain). The site was discovered by Salvador Vilaseca in the middle of the twentieth century and it has been excavated by members of the Àrea de Prehistòria of the Rovira i Virgili University and Institut Català de Paleoecologia Humana i Evolució Social team since 1999. Since then, the annual archaeological field seasons have provided abundant archaeological materials that have gave abundant data from the Upper Magdalenian to the Mesolithic in this part of Europe. From 2001 to the present, engraved schist slabs have been discovered in the Magdalenian levels, some of them with figurative representations. They have provided one of the best collections of mobile art found in the Levant of the Iberian Peninsula. Some of these engraved slabs and other lithics from the same archaeological levels present a reddish colour in their surfaces. In some pieces, these reddish surfaces are related to remains of red ochre, but in others cases they are chromatic alterations of the minerals of the support, probably caused by fire exposition. Furthermore, in the same archaeological levels, other materials with reddish surfaces have been found: limestone cobbles and small fragments of red ochre. These red ochres could correspond to the same red pigments present in the engraved slabs. The presence of theses red pigments is a challenge during the conservation procedures carried out before the studies. When recovered in the excavation, the slabs present a hard layer of carbonated concretion that cover their surface and makes difficult the observation of the engraved motifs. The presence of pigment conditions the methodology to clean them. In this work, we present a preliminary study to characterize the composition of the red pigments from Molí del Salt using Fourier Transform Infrared Spectroscopy (FTIR) and statistics analysis of Principal Components to create groups of materials with similar composition. The objective is to obtain information about the composition of the pigments to help and optimise the methodology applied to the cleaning and the other conservation works carried out to preserve the engraved slabs from Molí del Salt.

*Speaker

Keywords: Molí del Salt, Prehistoric Art, Conservation, Ochre, Engraved Slab.

State of Conservation of Rock Art Engravings in Deserted Environments. The Example of the Arenoso Region (Caborca, Sonora, Mexico)

Beatriz Menéndez Iglesias ^{*† 1,2}, Ramon Viñas Vallverdú^{‡ 3}, Alejandro Terrazas Mata^{§ 4}, Martha Elena Benavente Sanvicente^{¶ 5}, Albert Rubio Mora^{|| 6}

¹ Universitat Rovira i Virgili (URV) – 43007 Tarragona, Spain

² Institut Català de Paleoecologia Humana i Evolució Social (IPHES) – Spain

³ Institut Català de Paleoecologia Humana i Evolució Social (IPHES) – Zona Educacional 4, Campus Sescelades URV (Edifici W3) 43007 Tarragona, Spain

⁴ Instituto de Investigaciones Antropológicas (IIA) – Ciudad Universitaria, Circuito Exterior s/n, Coyoacán, Ciudad de México. cp. 04510, Mexico

⁵ Laboratorio de Prehistoria y Evolución Humana - Instituto de Investigaciones Antropológicas (IIA) – Ciudad Universitaria, Circuito Exterior s/n, Coyoacán, Ciudad de México. cp. 04510, Mexico

⁶ Seminari d'Estudis i Recerques Prehistòriques (SERP) – Spain

The rock art manifestations in desert contexts pose a series of conservation problems that must be taken into account when studying and assessing that kind of representations. Therefore, this presentation exposes part of the documentation obtained through investigations carried out on the rock art engravings of El Arenoso region, in the Sonora desert (Mexico). It should be pointed out, by the way, that this work was developed as part of the project project: *Poblamiento Temprano en el Noroeste de Sonora (Caborca, México)*, which has allowed us to a first approach to its state of conservation. Knowing the degree of deterioration of the sets of rock art engravings it's something crucial, since this allows the teams of specialists in conservation to establish protocols for their prevention and safeguard and, likewise, establish measures to implement in these contexts of extreme aridity. To evaluate the state of conservation of the rocks with engravings, we proceeded to complement the record sheets, with observations about the different degrees of conservation from a visual inspection. In addition, the realization of digital tracings or digitalisations has served as a support method to verify even more effectively the deterioration which affects the representations and obtain a first diagnosis about the sets in this desert area.

*Speaker

†Corresponding author: beamenendeziglesias@gmail.com

‡Corresponding author: rvinas@iphes.cat

§Corresponding author: tema@unam.mx

¶Corresponding author: marthabenavente@gmail.com

||Corresponding author: albert.rubio.mora@gmail.com

Keywords: Desert, Engravings, Conservation, El Arenoso, Diagnosis

Perspective de l'art rupestre et situation légale des sites El Melonal, El Salvador ; Las Pintadas, El Cacao et El Rodeito, Honduras ; Las Figuras et La Poza Larga, Nicaragua

Ligia Del Rosario Manzano Martínez * ¹

¹ Escuela de Artes, Facultad de Ciencias y Humanidades, Universidad de El Salvador (UES) – Final Avenida "Martires Estudiantes del 30 de julio", Ciudad Universitaria. San Salvador, El Salvador. C.A., El Salvador

L'objectif de la recherche a été d'évaluer l'état du patrimoine culturel de l'art rupestre des sites El Melonal (El Salvador) ; Las Pintadas, El Cacao et El Rodeito (Honduras) ; La Poza Larga et Las Figuras (Nicaragua) et la perception par les communautés de ce type de patrimoine culturel. De plus, nous examinerons comment l'art rupestre est pris en compte du point de vue de la réglementation légale, l'existence de lois et leur connaissance par les habitants.

La recherche est menée selon une approche qualitative, nous avons appliqué la méthode Delfhi, par le biais de consultations avec des experts en la matière, pour valider la proposition de style, au niveau primaire, des motifs rupestres.

La nature de la recherche se développe dans une zone qui n'avait jusque là pas été étudiée dans une perspective régionale. D'où la nécessité de réaliser une étude exploratoire et descriptive ; des gravures de la région, de l'environnement et de l'état de conservation. En relation avec l'aspect légal, les conventions de caractère international de protection du patrimoine culturel ont été identifiées, tout comme les législations nationales des trois pays pris en compte dans la recherche, en permettant de cette manière une analyse comparative des normes juridiques qu'a mis en place chaque Etat.

Le résultat des enquêtes dans les communautés des trois pays a été similaire ; en absence de connaissance sur le thème de l'art rupestre, il n'est pas valorisé d'une façon significative, malgré la connaissance éventuelle des sites et des noms spécifiques des localités où se trouvent les manifestations rupestres. En revanche, les gisements sont visités et vus seulement comme un héritage du passé. La divulgation n'a été que superficielle et il n'y a pas eu d'éducation sur le thème au niveau de la population. La majorité de la population n'a pas conscience de la réglementation légale, en raison du manque d'information et d'éducation. Ce manque de valorisation peut se traduire par des actes de vandalisme et de déprédation de l'art rupestre.

Keywords: patrimoine culturel, art rupestre, réglementation légale

*Speaker