Palaeontological Heritage in Spain: from Conservation to Education

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In September 2015, the Candidacy of the city of Molina de Aragón (Province of Guadalajara, Spain) was presented as a possible candidate for the XXIX Congress of the Spanish Palaeontological Society—the national palaeontological association in Spain. The city of Molina de Aragón had many favourable points to be selected: one of the most important, being the area's designated UNESCO Global Geopark, due to its special geological heritage where Mesozoic rocks from Triassic to Upper Cretaceous age define many of the stratigraphic units of the Iberian Cordillera. The members of the SEP (Spanish Palaeontological Society) reacted favourably to the proposal and, consequently, I received the charge to organise the meeting.

The Palaeontological Meeting took place from 26th to 29th September 2016 and was very successful and generated a large volume of scientific contributions. The Proceedings of the general meeting were edited in collaboration with the Spanish national geological survey, IGME (Instituto Geominero de España), including the former Director, Jorge Civis, Dra. Isabel Rábano and Benigno Asensio. A second volume, a field guide, which included the description of many geological, mining and palaeontological sites of the Geopark, was also produced, including through the collaboration of many colleagues from The Scientific Committee for the meeting.

Although the meeting of the Spanish Palaeontological Society was a general meeting in which many different aspects of the fossil record were presented, a key part was dedicated to the Heritage values of the Spanish Palaeontological Heritage, with contributions describing the values of many different area of Spain. A point that should be remarked is that the diversity of the local legislation in Spain means that legal frameworks vary greatly and activities that might be illegal in

one region can be perfectly legal in another. The result is that the Palaeontological Heritage of Spain can receive very different treatments depending on the region in which it is located. All these factors suggested the potential to propose a thematic Special Issue of the journal *Geoheritage* to include the papers presented in the meeting and hence demonstrate recent advances in the field of Palaeontological Heritage in Spain. Hence, a third volume related to the meeting was developed, and accepted for publication within *Geoheritage*, focusing more particularly on Heritage values.

Among the many topics treated by the authors, some are particularly remarkable for describing the heritage values of historical sites, particularly that from Julia Audijé; Fernando Barroso-Barcenilla and Manuel Segura, another describes the large pedagogic legacy of Dr. Bargalló, and the contribution by Jorge Morales, Beatriz Azanza and others, provides a detailed account of some of the key Neogene vertebrate sites of Iberian Cordillera. The rest of the works presented describe aspects of the important Heritage values of the Iberian Peninsula, including by Bernat Morey, on the important geological and palaeontological values of the Isle of Mallorca, Martínez Graña et al. who analyse the heritage values from the Upper Miocene of the surroundings of Sevilla and Hugo Corbí and collaborators who demonstrate the Heritage values of Messinian (i.e. Miocene) units of the Mediterranean coast.

In addition are the important contributions by Ane de Celis et al. who propose an alternative site to the Toarcian-Aalenian GSSP at Fuentalsatz for educational and touristic visitors and that by J. Ignacio Canudo Sanagustín, showing the great values of the Science Museum of Zaragoza. Also remarkable is the contribution by Raquel Rabal et al. on the Heritage potential of some of the main ichnofossil sites of the Pyrenees, Diego Castanera and others on the evaluation of the Geotourism values of the Dinosaur route of Ichnites in the province of Soria, and Daniel Barasoain and Beatriz Azanza on the Heritage and Palaeontological values of some Miocene sites in the Calatayud-Teruel basin (Aragón). In addition, Cobos and colleagues have contributed two papers in

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which they show the divulgation process associated with the Dinosaur heritage of Teruel Province.

The contribution of the Editorial Committee for the volume is clear and has been crucial in the evaluation and improvement of the originals presented. These members include the colleagues: José Antonio Martínez and Sara López Lucía, Monserrat Soria, Marta Tomás and Alizia Núñez; Drs. J. Ignacio Canudo, Laia Alegret, Beatriz Azanza, Gloria Cuenca and Anchel Belmonte Rivas. To all of them, I have to express my deep acknowledgement for their valuable contribution, which has significantly contributed to improve the quality of the final edition of the volume. I must also thank all contributors for their patience and steady writing and reshaping of the papers, which has finally made possible the appearance of this special volume that will undoubtedly make the rich Spanish Palaeontological and Geological Heritage much better known globally. A particular feeling of thanks is due to Dr. Luis Carcavilla Urquí, who was the person that initiated the establishment of the UNESCO Global Geopark and who opened the SEP Congress with a talk about the Heritage values of the Geopark, and later accepted being a part of the Scientific Committee. To all of them, I do express my deepest acknowledgment.

Finally, I must also express my deep thanks to Dr. Kevin Page who, as the main coordinator of the volume and Editor-in-Chief for *Geoheritage*, has made a very detailed review of all the contributions and, with great patience, has significantly

led the volume to arrive to a safe port. As part of this process, the invaluable help of Jade Santos, as editorial assistant for Springer, must be acknowledged, for her help with often complex on-line editorial issues.

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