

Promoting education and outreach in meteor science in the University of Huelva

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Abstract

Science Week is an opportunity to promote the public's interest for Astronomy and Space Sciences. This event, which takes place in Spain in November, gives researchers a good chance to develop outreach activities to give access to the public to current Planetary Science research. An outreach initiative developed from the University of Huelva in relation to Meteoritics and Meteor Science in the context of Science Week is described here. Although this was organized for a local audience, useful feedback was obtained for the development of similar activities in future.

1. Introduction

Different outreach activities are developed each year in November at the University of Huelva (Spain) in the framework of Science Week. In this context, an initiative was proposed to bring the wonders of meteorites to a local audience, taking into account the success of previous initiatives in this field and the obvious fascination of the public for these extra-terrestrial rocks. The aim of this project, which consisted of a 5-days exhibition, was to make meteoritic science accessible to primary and secondary school students and educators while providing a quality educational experience and inspiring young minds. One of the objectives of the project was to give access to the public to some of the research projects that are being developed at this university related to the analysis of the flux of meteoroids impacting the Earth and the Moon, which are the parent bodies of these rocks and which is their chemical composition. So, the activity had a close link to current Planetary Science research. During the exhibition abundant multimedia material was displayed to answer basic questions about meteoroids, meteors, meteorites and impact cratering, but also to describe in detail the aims and main results of the above-mentioned research projects.

2. The Madiedo Meteorite Collection

One of the main points in the outreach activity described here was the exhibition of specimens belonging to the private meteorite collection owned by Prof. Jose Maria Madiedo. The Madiedo Meteorite Collection consists of over 800 specimens which are available for research purposes but also for education and outreach. Some of these meteorites are being regularly exhibited since 2007 in several places in Spain together with multimedia materials and additional stuff that complete this collection. Among these, there are impactites and "meteorwrongs".

4. Contents and structure

Within this initiative, a meteorite exhibition was organized at the main campus of the University of Huelva (Fig. 1). Thus, over 100 specimens from the Madiedo Meteorite Collection were shown, including meteorites and impactites. These were placed inside glass cabinets. Meteorite thin sections were also prepared in order to show how these can provide information about these rocks when analyzed with a petrographic microscope. Additional contents related to the research projects developed at the University of Huelva in relation to meteors and meteoroids were also included. A wide number of 3D videos were also prepared by using advanced computer animation techniques. These were continuously played on five screens located in the exhibition room in order to give a better understanding of key aspects related to the exhibition and to the research projects involved in this initiative. The videos also provided a useful way to explain fundamental concepts related to meteoroids, meteors, meteorites and impact cratering. Special attention was also given to explain how a meteor observing station works and to describe the Moon impact flashes detection project that is being developed together with the Institute of Astrophysics of Andalusia (IAA-CSIC).

5. Summary and Conclusions

A first initiative in relation to Meteoritics and Meteor Science has been developed at the University of Huelva in the framework of Science Week. The activity was focused on a local audience, mainly teachers and students from primary and secondary schools in the area, but also university students and even other researchers. The feedback obtained during the development of this initiative was very useful for the development of similar activities in future.

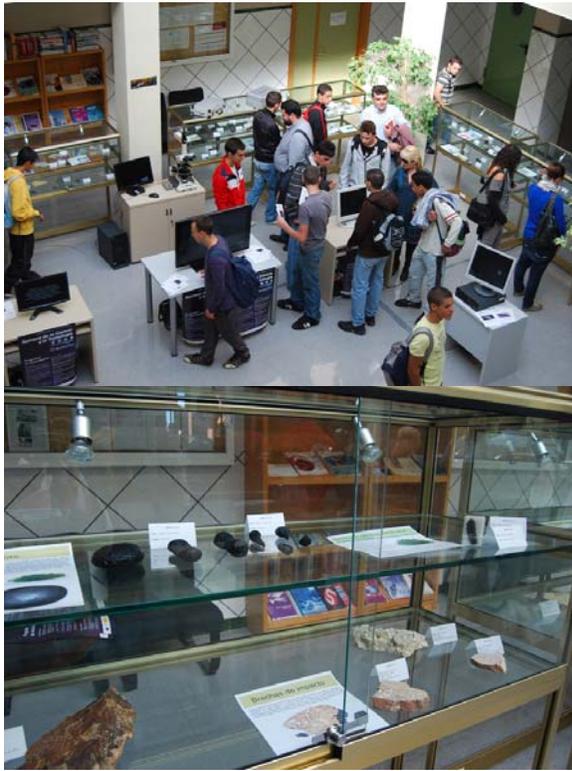


Figure 1: Images of the exhibition at the University of Huelva.