

ORIGINS: AN OUTREACH PROJECT TOWARDS CHILDREN

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Abstract. We have developed and realised an outreach project about Origins, from the universe formation to the present epoch, in the context of the International Year of Astronomy. The aimed public is primary school, from 8 years age. Various media have been used, from the creation of a theater play to a pedagogical exhibition. The project was shown as a whole ten times during 2009, and the pedagogical elements are still used for school events.

Keywords: outreach, origins, art-science

1 Conception

The original idea came from a gathering of artistic views and scientific views about the question of origins. We wanted to show and discuss in parallel the myths of origins in all cultures, the scientific description of the universe, and a modern myth of origins, as expressed in a creative text and theatrical play. Not a pure philosophical discussion, but also a way of communicating scientific questions to the young public. The initial project was made of various elements, in order to transmit emotions and thoughts, and to reach the largest number of individuals:

- A live show made of a theatrical creation about the origins, introduced by a short conference on the myths of creation and modern astrophysics
- A portable exhibition with little text, and a chronological reference to events in the universe's history: big bang, first galaxies, star formation, earth formation, apparition of life, evolution
- An artistic mockup of a sun and a planet, used as a pedagogical element lent to schools, and a decorative element during the conference and play

The objective is to trigger the universal questioning on the origins, especially in the mind of young children and in link with their families. We also chose to enhance its multi-cultural and multi-temporal characteristics, showing the diversity and similarity of various myths and legends about the creation of the universe and apparition of life. Into this human context, we introduced the scientific way of thinking, the multiple revolutions based on astronomical discoveries. Finally we presented the modern concept of origins and evolution with its scientific evidence and remaining mysteries, as a contemporaneous “myth”. Simple concepts and analogies were used in the conference to help the young public finding its place within time, within space, and in the modern culture where it grows.

2 Realisation and feedback

The project has been prepared during 2008 and first half of 2009. The most intense epoch of realisation and encounters with the public took place from June to October 2009, in about ten places including astronomy festivals and schools.

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The feedback from the public was very encouraging and positive, on the pedagogical part and on the thematic choice: the Origins are still a lively question in everybody's mind in the present epoch! The public is anxious and in demand about images representing the universe, and references for the difficult temporal scales. The feedback was somehow less enthusiastic on the merging of artistic and scientific material from the adults, but the young public reacted much more positively, which comforted our initial view.

Finally, the exhibition “once upon a time, the universe... 1 second=500 years”, was considered accessible to all publics, clear and easily installed, and it is the element of the project with the most living existence after the International Year of Astronomy. It is still circulating from school to school, supporting the teachers and introducing some science in primary schools where it is too much absent! It is quite superficial in its content (little text) but covers many scientific domains, as cosmology, astronomy, geophysics, biology, and thus the teachers can choose to develop the most relevant parts for their pupils, while having a global context exposed in the panels. The mockup is a playful and decorative object, and much appreciated by the children. It is simple and robust enough so that they can manipulate by themselves. It may be used to explain all motions in the planetary systems, eclipses, seasons,...



Fig. 1. Top left: the mockup of a star and planets, a pedagogical and decorative element; top right: children facing the solar system; bottom left: myths and legends of creation told to families, at Centre d'Astronomie (Haute Provence) in August 2009; bottom right: the exhibition “once upon a time, the universe... 1 second=500 years”, shown in southern France in July 2009.

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