

Introduction

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1 Introduction

The Eleventh International IHPST Conference and the Sixth Greek History, Philosophy and Science Teaching Joint Conference were held at the School of Primary Education in the Faculty of Education at the Aristotle University of Thessaloniki in Greece on July 1–5, 2011. The conference theme was: *Science and Culture: Promise, Challenge and Demand*.

In the last 30 years an emphasis has been placed on teaching science “in context” both culturally and socially (Aikenhead 1997; Arons 1990; Trefil 1996; AAAS 1989). Choosing some specific science content (concepts, theories, models, interpretations etc.) and putting this content in the wider historical and cultural context of human civilization, science can be transformed into a fascinating narrative that reveals who we are and how we have come to the 21st century global fusion of cultures (Adas 1989; Holton 1996; Wong et al. 2011). Science is being demystified as scientists (who have worked on scientific theories) become more human and less heroic, while students have the chance to get to know the social background that supported them, the philosophical beliefs and trends that inspired their research, the financial and political parameters that shaped their era and entangled them in local or global historical events.

This new content of science that now comes to be taught in the classroom seems meaningful and interesting to the students because it is embodied in the context of the history of science as well as in the overall picture of our culture (Seroglou et al. 2011). Pre- and in-service teachers need to be introduced to this “new culture” for science and such an attempt requires the introduction of teachers to aspects of the nature of science and to aspects of history, philosophy and sociology of science (Wandersee 1990; Slezak 1994). This shift in science education won’t happen easily (Bartholomew et al. 2004; Bianchini et al. 2003; Wong et al. 2010) and certainly this change of culture for science education is a

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challenge for researchers, curriculum developers, policy makers and educators (Seroglou 2006; Seroglou et al. 2011).

At the Thessaloniki 2011 Conference the above core issues led to successful and productive discussion and interaction between 250 participants from more than 30 countries, scholars and academics with a variety of research backgrounds, continuing the IHPST tradition of mixing conviviality with serious scholarship.

A full book of Proceedings [*Science and Culture: Promise, Challenge and Demand*, Fanny Seroglou, Vassilis Koulountzos and Anastasios Siatras (eds.), Epikentro Publications, Thessaloniki, 2011] was published and made available to participants on arrival. The book of Proceedings consisted of 800 pages and contained 142 papers. This greatly facilitated conference discussion and the session choices of participants.

The full conference Programme, Abstracts and Proceedings can be seen at the conference website: <http://ihpst2011.eled.auth.gr/>.

The current journal issue contains 14 reviewed, revised and accepted papers from the 30 that were initially submitted for journal publication.

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