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**Frontiers and Opportunites in Antarctic Geosciences**  
**2004**

**Editors**

Christine Siddoway & Carlo Alberto Ricci

## Workshop on Frontiers and Opportunities in Antarctic Geosciences

*held in*

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*convened by*

Christine Siddoway, Carlo Alberto Ricci & Terry Wilson

*organized by*

Jacqueline Müller

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Editors Christine Siddoway & Carlo Alberto Ricci

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## Foreword

The workshop on Frontiers and Opportunities in Antarctic Geosciences was held from 29 to 31 August 2004 at the Certosa di Pontignano, University of Siena (Italy). It was an initiative developed within the framework of the 32<sup>nd</sup> International Geological Congress in Florence, 2004, and was sponsored by the National Science Foundation's Office Polar Programs (USA), the Italian *Programma Nazionale di Ricerche in Antartide* and the University of Siena. An objective for the workshop was to discuss challenges and identify strategies for maintaining a strong role for geology and geophysics in future Antarctic research. 68 participants coming from 10 countries all over the world attended the workshop.

The *opening session* was used to summarize the priorities of national and international programmes, to highlight selected national and international facilities; and examine challenges being faced by the solid earth science community. The president of the Scientific Committee on Antarctic Research (SCAR); representatives of the Italian *Programma Nazionale di Ricerche in Antartide* (Italy), the United States Antarctic Program, the British Antarctic Survey (BAS); the South American research community; and the multinational initiative for stratigraphic drilling (ANDRILL: ANtartic DRILLing) made contributions. Initiatives under development and consideration for the International Polar Year (IPY) in 2007-08 were introduced throughout the workshop, in the context of poster and oral presentations making up the scientific programme.

The *second session* was a forum on the subject of research opportunities and challenges; important geology/geophysics initiatives; and key areas for future interdisciplinary and collaborative efforts. A multinational panel of Antarctic scientists, experienced in international collaborations and in national program planning, set the stage for broader discussion among all participants.

*Keynote lectures and topical sessions* on the following days of the workshop illustrated the innovative approaches, interdisciplinary and collaborative efforts that have been the hallmark of Antarctic earth sciences research for more than 50 years.

The participant presentations offered stimulating examples of implementation of new technologies; of international collaborations focused on system-scale processes; and of interdisciplinary research strategies that surmount the challenges of competitive research funding and respond to changing national priorities. Opinions held by individuals range from concerned to optimistic. Issues faced by national programmes differ, due to differences in funding structure and planning schedules, such that the question of change in the role and priorities of geosciences research does not arise for all nations at the same time.

The workshop included a walking tour with an introduction to the geological setting of the hilltop city of Siena, and the exploration of the ancient aqueduct and historic water delivery systems guided by Armando Costantini and Vincenzo Pascucci.

Scientific research results are presented in abstracts available online [[www.mna.it/english/News/Antarctic\\_workshop](http://www.mna.it/english/News/Antarctic_workshop)] and as short papers in this special issue of *Terra Antartica Reports*. Each paper addresses how the research findings, or the investigation techniques used, relate to scientific frontiers or point to new research opportunities for Antarctic geosciences.

We wish to acknowledge Jacqueline Müller's accurate editorial supervision.

Christine Siddoway & Carlo Alberto Ricci

August 2006



Participants of the workshop at the Certosa di Pontignano (above) and during the visit in Siena (below).





## List of participants to the workshop

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