

COMMISSION 41

HISTORY OF ASTRONOMY

HISTOIRE DE L'ASTRONOMIE

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TRIENNIAL REPORT 2009–2012

1. Introduction

Commission 41 was created at the VIIth IAU General Assembly in Zürich in 1948. From an inauspicious start—Otto Neugebauer was appointed the first President in his absence, but proceeded to express his conviction that “an international organization in the history of astronomy has no positive function... my only activity during my term of service consisted in iterated attempts to resign”—the Commission quickly assumed a key role in the international development of the history of astronomy as an academic discipline.

In 1970, the commission proposed the idea of providing a major synthesis of the field on a quite unprecedented scale. This project, the General History of Astronomy, proceeded under the general editorship of Michael Hoskin, with three volumes being published by Cambridge University Press between 1984 and 1995.

The year 2001 saw the creation of the Inter-Union Commission on the History of Astronomy (ICHA), a joint Commission of the IAU and the International Union of the History and Philosophy of Science, Division of Science and Technology (IUHPS/DHST). The ICHA was founded in order to include scholars who, being primarily historians rather than astronomers, are not members of the IAU. All C41 members are, *ipso facto*, members of the ICHA.

In recent years C41/ICHA has expanded its remit to include the research fields of archaeoastronomy and ethnoastronomy, as well as issues such as the recognition and preservation of astronomical heritage.

The Commission maintains a website at <http://www.historyofastronomy.org/>.

2. Developments within the past triennium

The year 2009 marked the final completion of the General History of Astronomy. While this hugely ambitious project was never realized in the form originally envisaged—seven books were to be published by Cambridge University Press, but only three ever appeared—it has been brought to a satisfactory conclusion, after nearly 40 years, through the very considerable efforts of Michael Hoskin, including the publication of various key articles in the *Journal for the History of Astronomy*. Taken as a whole, the GHA forms by far the most detailed synthesis available of academic history of astronomy and will endure as an archive of immense value representing the state of the discipline in the late twentieth century. The complete contents list is available on the Commission's website.

3. Conferences

Since the Rio GA, the Commission has been directly involved in the organization of the following major international meetings:

- An international conference on “Astronomy and its Instruments before and after Galileo”, held in San Servolo Island, Venice, Italy, on Sep 29–Oct 3, 2009. This joint symposium of the IAU and the INAF Astronomical Observatory of Padova was co-chaired by Luisa Pigatto and Clive Ruggles and included sessions on “Galileo and his Time: the Venetian Cultural Environment”; “Structures through the Ages, from Stone Monuments to Modern Observatories”; “Mathematical and Mechanical Instruments for Astronomy”; and “Space Observatories as Astronomical Instruments”. At a round table on astronomical heritage, the meeting also formulated recommendations for urgent actions to achieve some of the objectives of the UNESCO–IAU Astronomy and World Heritage Initiative. The Proceedings have been published as Pigatto & Zanini (2010).

- “The Seventh International Conference on Oriental Astronomy” (ICOA–7), held at the National Astronomical Observatory of Japan in Mitaka, Tokyo, on 6–10 September 2010. The primary purpose of the ICOA conferences is to inspire studies on the history of astronomy in Asian countries and to encourage mutual communication and collaboration between researchers in an international context. ICOA–7 covered topics ranging from archaeoastronomy through to modern astrophysics. Thus in addition to numerous reports on modern astronomy and astrophysics up to post-World War II times, including contributions from young researchers and graduate students in Korea, Iran and Indonesia, there were several reports on megalithic and stone-circle astronomy from prehistoric India, Korea, Japan and Europe and, for the first time in an ICOA conference, papers on astronomy relating to culture, ethnology and climatology. The Proceedings have been published as Nakamura *et al.* (2011).

- IAU Symposium S278, entitled “Archeoastronomy and Ethnoastronomy: Building Bridges between Cultures”, held in Lima, Peru, on January 5–14, 2011. This was also an ‘Oxford’ Symposium on Archeoastronomy, the ninth in what is unarguably the foremost series of international conferences on this highly interdisciplinary topic, one of interest not only to astronomers but also to archaeologists, historians, anthropologists, architects, art historians, historians of religions and others. Meetings in the series have been held at roughly four-yearly intervals since the time when Michael Hoskin, the then-Commission 41 President, organised the first one in Oxford itself. The conference attracted 108 participants from 25 countries.

One of the most important aspects of the conference was encapsulated in the “Building Bridges” subtitle and the strong link with the IAU's new decadal strategic plan, “Astronomy for the Developing World”. Archaeoastronomy and ethnoastronomy (often

referred to together as ‘cultural astronomy’) concern themselves with beliefs and practices relating to the sky across human cultures and across time, from prehistory through to the indigenous present. The focus thus reaches far beyond just the history of modern scientific astronomy, reflecting instead a much broader interest in the many different ways in which human communities perceive the cosmos they are situated within. Understanding engenders respect and exchange, so that opening people’s minds to the wonders of modern astronomy is often achieved far better if the ‘Western’ astronomers doing the disseminating have a better understanding of (and respect for) the context of indigenous knowledge and beliefs and practices within which they are working. Inspiration is a two-way process.

The Proceedings have been published as Ruggles (2011).

4. Other Major Publications

The Proceedings of the wide-ranging meeting on “Accelerating the rate of astronomical discovery”, organized by Ray Norris on behalf of C5 and C41 as Special Session 5 at the Rio GA, have been published as Norris (2010). Nussbaumer & Bieri (2009) have described the beginnings of modern cosmology from 1917 through to Einstein’s conversion to the expanding universe in 1931, while Sullivan (2009) has presented a detailed account of the history of radio astronomy up to 1954 from an intellectual, technical, and social point of view. Other major publications by Commission members during the triennium include Curir (2009), Gaulke & Hamel (2010), Hamel (2011), Hearnshaw (2009), Véron (2009), Whiting (2010), and Wali (2011).

Finally, there have been two major publications on the subject of astronomical heritage: Wolfschmidt (2009) and Ruggles & Cotte (2010).

5. Closing remarks

Further information on the Commission’s activities can be found in its Newsletters, which are published at roughly six-monthly intervals and are available for download from the Commission’s website.

Clive Ruggles
President of the Commission

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