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### **COMMISSION C3**

### HISTORY OF ASTRONOMY

PRESIDENT VICE-PRESIDENT SECRETARY ADVISOR ORGANIZING COMMITTEE Wayne Orchiston Christiaan L. Sterken Sara Schechner Xiaochun Sun Ileana Chinnici, Eun-Hee Lee, Jay M. Pasachoff, Piet van der Kruit

## **COMMISSION C3 WORKING GROUPS**

Div. C, Inter-Commission C1-C3-C4 WG
Div. C, Inter-Commission C1-C3-C4 WG
Inter-Union (URSI), Inter-Division B4-C3 WG

Archaeoastronomy and Astronomy in Culture
Ethnoastronomy and Intangible Heritage
Historical Radio Astronomy

### TRIENNIAL REPORT 2018-2021

#### 1. Introduction

IAU Commission C3 (History of Astronomy) started in 2015 as a natural continuation of the previous IAU Commission 41 for History of Astronomy which was established in 1948 and which was extremely successful in supporting research on the history of astronomy, organizing and sponsoring workshops and conferences, promoting research collaborations, forming specialist working groups and fostering the publication of members' research.

## 2. Activities of IAU Commission C3 during 2018-2021

### 2.1 Conferences and Workshops

Undoubtedly, one of the highlights of the Vienna General Assembly in August 2018 was the Centennial Symposium (IAUS349), where the following C3 members presented papers: David Baneke, Alan Batten, Jean-Louis Bougeret, Suzanne Débarbat, David DeVorkin, John Hearnshaw, Rajesh Kochhar, Wayne Orchiston, Jay Pasachoff, Christiaan Sterken, Virginia Trimble, Roland Wielen and Valeria Zanini. In addition, the following C3 members were on the Organising Committee: Suzanne Débarbat, Owen Gingerich, John Hearnshaw, Rajesh Kochhar, Ray Norris, Wayne Orchiston, Jay Pasachoff, Christiaan Sterken, Xiaochun Sun, Virginia Trimble, David Valls-Gabaud and Gudrun Wolfschmidt.

Members of the Commission normally are quite active in organising national and international conferences, but through the impact of COVID-19, this aspect of our operations was severely curtailed (although we did gain valuable expertise in arranging and participating in e-conferences). Instead what we aimed to do, where possible, was to network with other institutions and support or co-sponsor their conferences and workshops. Thus, during the triennium the following collaborations were arranged:

- Silk Road Workshop, October 2018, Beijing, China
- Mercurio in Sole Visus, 11 November 2019, ICRANet Coordinating Center, Pescara, Italy
- The *Third International Conference on SE Asian Astronomical History*, 3–5 February 2020, Chiang Mai, Thailand

- Gerbertus 2020: The Moon of Gerbert, 5 May 2020, ICRANet Coordinating Center, Pescara, Italy
- Celestial Mechanics in Light of Conjunctions and Solstice, 21 December 2020, ICRANet Coordinating Center, Pescara

Other international conferences and workshops scheduled for 2020 and 2021 that were to have involved C3 either were postponed or were cancelled.

Following the success of the Vienna Centennial Symposium, C3 proposed two Focus Meetings for the Busan GA, one hosted jointly with Commission C4 and about UNESCO's involvement in astronomical heritage, but both bids were unsuccessful.

### 2.2 Research and Publications

During the triennium many C3 members were research-active, which resulted in the publication of a large number of research papers, books and chapters of books. The full lists of the published output will be included in a detailed C3 Report published in the *Journal of Astronomical History and Heritage*.

#### 2.3 The C3 Newsletter

In 2020 Commission Secretary, Sara Schechner, produced two attractive-looking C3 Newsletters (both exactly 57-pages long) packed with information and illustrations.

# 3. C3 Working Groups

The Division C Steering Committee agreed to the formation of three C3 WGs, but all of these were to be shared with other Commissions. WGs were a key factor in the success of C3 and its predecessor C41 for more than two decades (see Orchiston, 2019).

Notwithstanding these setbacks, the three C3 WGs (on Archaeoastronomy and Astronomy in Culture, chaired by Steve Gullberg; Ethnoastronomy and Intangible Heritage, chaired by Duane Hamacher; and Historical Radio Astronomy, chaired by Richard Schlizzi) were successful in fostering research and publications, organizing meetings, and maintaining up-to-date lists of publications in their respective fields since the Vienna IAU GA. Each WG will submit its own short Triennial Report to the IAU, while full-length accounts of the achievements of the three WGs will be published in the *Journal of Astronomical History and Heritage*.

# 4. Project Groups

Commission C3 organised informal 'Project Groups' in order to facilitate research projects and international collaborations at Commission level: Asian Astronomy, chaired by Wayne Orchiston; Biographical Encyclopedia of Astronomers, Third Edition, chaired by Thomas Hockey and Jennifer Bartlett; Historical Instruments, Archives, and Observatories; chaired by Sara Schechner; Indian and Southeast Asian Stone Inscriptions, chaired by B.S. Shylaja; and Johannes Kepler, chaired by Terry Mahony. Progress reports for each of these PGs will be published in the Journal of Astronomical History and Heritage, including up-to-date lists of publications.

## 5. The IUHPST

IAU Commission C3 is also the primary constituent of the Inter-Union Commission of History of Astronomy (ICHA) based in the International Union of History and Philosophy of Science and Technology (IUHPST), which holds International Congresses every four years. The next one is scheduled for Prague (Czech Republic) from 25 to 31 July 2021, and because of COVID-19 has ended up as an e-conference.

Unlike the IAU situation where the General Assembly meeting slots are hotly contested, the IUHPST requires that every Commission hosts at least one research Symposium at each Congress. Consequently, Commission C3 has taken the initiative through ICHA to organize and co-sponsor a Symposium in Prague with the IUHPST Commission on the History of Ancient and Medieval

Astronomy (CHAMA). The Symposium contains 20 papers on "Art, Image, and Astronomical Knowledge." The IUHPST has also provided some funding that Commission C3 can distribute to early career scholars to defray the costs of attending this meeting and others relevant to the history of astronomy.

#### 6 International Awards for C3 Members

During the Triennium, C3 members received their fair share of international awards. Commission Secretary, Sara Schechner, received the 2018 LeRoy E. Doggett Prize for Historical Astronomy from the American Astronomical Society. Awarded biennially to an individual who has significantly influenced the field of history of astronomy through a career-long effort, it is the most prestigious prize internationally in the discipline. Sara was the first woman to receive this award. Then in 2019 she was the recipient of the Paul Bunge Prize from the Hans R. Jenemann-Stiftung, Gessellschaft Deutscher Chemiker (German Chemical Society), and Deutsche Bunsen-Gesellschaft für physikalische Chemie (German Bunsen Society for Physical Chemistry) for her curatorial work and research concerning historical scientific instruments.

Virginia Trimble received the 2019 *Andrew Gemant Award* from the American Institute of Physics. This annual award recognizes contributions to the cultural, artistic, and humanistic dimensions of physics.

C3 President, Wayne Orchiston, along with former US graduate student Stella Cottam, received the 2019 *Donald E. Osterbrock Book Prize* from the American Astronomical Society for their 2015 Springer book, *Eclipses, Transits and Comets of the Nineteenth Century: How America's Perceptions of the Skies Changed.* The 2021 Osterbrock Book Prize recognized the work of C3 OC member Ileana Chinnici. Her award-winning book is *Decoding the Stars: A biography of Angelo Secchi, Jesuit and Scientist* (Brill, 2019).

In 2020, the following C3 members were elected inaugural Fellows of the American Astronomical Society: Jennifer Bartlett, Brenda Corbin, David DeVorkin, Steven Dick, Terry Oswalt, Jay Pasachoff, Iain Reid, Sara Schechner, Patrick Seitzer, Woodruff Sullivan, and Virginia Trimble.

### 7. Fond Farewells

We are sad to report that since the Vienna GA we have lost the following C3 members: James Caplan (1942–2020, France), A.E.L. Davis (1929–2020, England), William Liller (1927–2021; Chile), Yukio Ôhashi (1955–2019, Japan) and Tiberiu Oproui (1939–2020, Romania).

### 8. Closing Remarks

Despite restrictions caused by COVID-19 and the delays in forming Working Groups, the Commission was able to make good progress during the Triennium, as reflected in the list of books published by C3 members, symposia organized and supported, and the activities of the Working Groups and Project Groups. That said, we believe that the future prosperity of C3 lies not just with its members, but also with a supportive Divisional President and Steering Committee.

## 9. References

Orchiston, W., 2019. "The IAU C41 Working Groups and their contribution to international history of astronomy research." In Sterken, C., Hearnshaw, J.B., and Valls-Gabaud, D. (eds.), *Under One Sky: The IAU Centenary Symposium*. (Cambridge: Cambridge University Press). Pp. 357–380.

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