

Symposium on Calendars Used in Asia and Oceania

Mitsuru SÔMA*¹, Kiyotaka TANIKAWA*¹ & Akira GOTO*²

Making calendars has been an important subject of astronomers from ancient times until now. There are long histories of making calendars in Asian and Oceanian countries. Two of the editors (Sôma and Tanikawa) have been organizing international symposia on history of astronomy and historical astronomy for more than fifteen years. The third editor (Goto) has been interested in the calendars other than those in the Eurasian continent and has been trying to extend the scope of calendars. The purpose of the present symposium, held on 2021 March 15–16 online, is to have a common understanding on various calendars used in Asian and Oceanian countries and on their history and development. Contributors to this symposium are the representative researchers on calendars of their nations. We believe that this kind of symposium can only be organized by the current editors.

We know that there are differences and similarities in the calendars of various regions of the world. We recognize that these differences and similarities come from those of astronomy in the respective regions. The evolution of calendars reflects the evolution of astronomy. Researchers in the respective regions know very well their calendars together with the history of their calendars. However they do not know the calendars of other regions. Due to this they may not know the meaning of their calendars in the totality of the world calendars. Our symposium was held in replying to the latent requirements from them.

To listen to the talk on other calendars and to discuss

with presenters should have been a great stimulus to respective participants in the symposium. It is to be noted that not all presentations are included in the present Research Papers of the Anthropological Institute. The contributions from East Asia are lacking. In the next chance we would like to call for worldwide calendar researchers including those who are working on the calendars of Meso-America and South-America. Let us briefly introduce the contents of the presentations included in the Research Papers.

Takuro Furusawa talks about the calendars of the Western Sumba, Indonesia. He focuses on two unique points in the time reckoning of the Sumba, the Month of Sea Worms and the Month of Bitterness, which are crucial in the intercalation method. **K. Ramasubramanian** attempts to pay a tribute to Dr. Yukio Ôhashi, who suddenly passed away in 2019, and spans two main sections covering a bibliographic note and highlights that showcase Ôhashi's acuity in the outstanding research in the field of history of Indian astronomy and mathematics. **B. S. Shylaja** tries to analyse the evolution of the calendars of South and Southeast Asia over the last thousand years using the stone inscriptions. The practice of making stone inscriptions had been extended from India. According to the author the time is recorded very systematically and hence these serve as reliable time markers. **Makibi Nakano** reports the classification of seasons by Sama-Bajau fishermen in Banggai Islands, Indonesia, comparing the cases in four local villages with climatological data. **Akira Goto** discusses the

*¹ National Astronomical Observatory of Japan (NAOJ)

*² Nanzan University

prototype calendars of the voyagers who settled in the islands of Oceania. He demonstrates the importance of celestial bodies, especially the Pleiades, to yam and breadfruit cultivation, as well as the importance of the Milky Way, relative to monsoon variation and navigation. **Mohammad Bagheri** gives an account of the early Iranian pre-Islamic calendars and also the Iranian calendars which were used after the advent of Islam in Iran. He talks about the works of great scholars Abu Rayhan Biruni and Umar Khayyam. **Yoshitaka Hojo** discusses the possibility of the recognition of the solstices and equinoxes in the prehistoric society of the Japanese archipelago, and concludes that a reasonably well-organized calendar was used even if it was primitive.

In organizing an online International symposium we for the first time encountered with the difficulty of determining the starting and ending times. The participants covered the wide geographical longitudes from

60° East to 170° East which means the time difference of seven and a half hours. This kind of difficulty increases if we include researchers of Meso- and South-America. Some ideas are needed to organize a global symposium at a time even in the network world.

This symposium is co-organized by National Astronomical Observatory of Japan, Nanzan University, and Central Japan Anthropological Seminar. This symposium is partly supported by JSPS KAKENHI Grant Number JP19H05732, by NAOJ Research Coordination Committee, NINS, Grant Number 1902-0203 and by Grant-in-Aid for Scientific Research on Innovative Areas (2019–2023) Integrative Human Historical Science of “Out of Eurasia” Exploring the Mechanisms of the Development of Civilization. The editors express their sincere thanks to Nanzan University for publishing the symposium papers in the Research Papers of the Anthropological Institute.