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The Commission on History of Astronomy of the Chinese Astronomical Society

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The Chinese Astronomical Society (CAS) was founded in 1922, when the western, modern sciences began to replace the traditional Chinese idea. The pioneers immediately realized the importance of investigating traditional astronomy with the concept of the modern sciences. Since that time, the investigation of traditional Chinese astronomy has kept its prosperity, and remains the main trend in the study of history of astronomy in China.

After the well-known disaster, the Chinese Astronomical Society resumed its activities in 1978. It has set up 13 commissions and a Commission on History of Astronomy (Com.HA) is one of them. Com.HA of CAS now has 81 members, although most of them only have part time to study history of astronomy. The Commission usually holds a conference every two years to exchange research work and discuss the Commission's affairs. The conferences are open to everyone interested in our topic, because the members of Com.HA are only a small part of those interested in traditional Chinese astronomy.

A twin brother of Com.HA of CAS is the Com.HA of ''Chinese Society for History of Science and Technology''. Many people are members of both commissions. Conferences are usually held jointly by both commissions. Research papers are published in very widespread journals and magazines. Perhaps the most important one is ''Studies in the History of Natural Sciences''(Beijing). Sometimes ''Acta Astronomica Sinica''(Nanjing) also publish papers on historic topics if they are related to modern astronomy. Usually those papers are in Chinese with English abstracts. Unfortunately only a small part of them are listed in the A&A Abstracts of Heidelberg (the ''white covers'').

Astronomy had a very important position in ancient China because the emperors believed the stars indicated the country's fate. The ''mandate of heaven'' concept penetrated every corner of ancient Chinese society. Astronomical information is scattered in nearly all early literature, and astronomy has special chapters in nearly every dynasty's official histories. People who want to study Chinese history have to know something about astronomy. Therefore many Chinese historians and archeologists are very much concerned with traditional astronomy.

Ancient literature leaves us a huge number of astronomical records, which record every sort of astronomical phenomena we see with naked eye today. Many such records are an irreplaceable resource for modern astronomical research. E.g., the ancient nova-supernova list is a well-known work. The secular variation of the earth's rotation is another fascinating topic, for which Chinese solar eclipses and lunar occultations were employed in recent years. Records of solar spots, comets, and meteor shower were researched for their regulation of activities and orbits.

By comparing old with modern computations, old records were also used for history of astronomy purposes, such as determining the accuracy of measurements and the meaning of some special astronomical terms. Comparing the old star catalogs and maps with modern ones, the ancient star names were identified; the observation epoch and the measurement precision were analyzed. Those works lead to an ''ancient sky'' reconstructed.

A recent highlight is astronomical chronology. The ''Xia-Shang-Zhou Chronology Project'', supported powerfully by the government, has gathered 170 experts from various subjects to make a push at early Chinese chronology. Ten astronomers (all members of Com. HA of CAS) have joined this Project. On the basis of new achievements in archaeology, paleography, philology and the measurement of carbon 14, astronomy has given several very important points of year. This progress came from theoretical analysis, imitative observations, ephemeris computation and a new understanding of the ambiguous ancient records.

Making calendars was the emblem of imperial power in old China. Chinese calendars were actually encyclopedias of astronomy full of odd terms, complicated algorithms and mysticism. Analyzing and explaining the ancient calendars are also fascinating and active work in China.

China is a multi-nation country. Some minority nationalities have their own astronomy. They are linked to various fields of the nation's culture and they also give us a mirror to peep at the ancient times. International exchange in the history of astronomy is another hot topic. Although Chinese astronomy has its independent development for very long time, foreign influence could be seen everywhere even in early time.

Traditional Chinese astronomy leaves us an abundant heritage for study of history, culture, history of science and even modern astronomy. Chinese astronomers and historians would like to share the enjoyment with colleagues all over the world.

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100 Jahre astronomische Bibliographie in Deutschland

Lutz D. Schmadel, Heidelberg

Mit der Herausgabe von Vol. 70 der ''Astronomy and Astrophysics Abstracts'' (AAA) zur Jahresmitte 1999 ist ein Jahrhundert der astronomischen Bibliographie in Deutschland beendet worden. Die AAA erschienen erstmals 1969 als englischsprachiger Nachfolger des ''Astronomischer Jahresbericht'' (AJB), der 1968 mit dem Band 68 beendet wurde. Band 1 des AJB referierte die Literatur des Jahres 1899 und wurde mit starker Unterstützung durch die AG von Walter Wislicenus, damals Professor für Astronomie an der Universität Straßburg, herausgegeben. Nach seinem Tode wurde das Unternehmen ab 1905 vom Astronomischen Rechen-Institut in Berlin übernommen und nach dem zweiten Weltkrieg in Heidelberg weitergeführt. In den sieben Jahrzehnten seines Bestehens sind im AJB etwa 220.000 Arbeiten nachgewiesen worden.

Die 70 Vols. der AAA von 1969 bis 1999 enthalten auf über 70.000 Seiten bibliographische Nachweise von 566.000 Dokumenten aus dem Bereich der Astronomie, der Astrophysik und von relevanten Grenzgebieten. Die insgesamt in AJB und AAA referierten 786.000 Arbeiten eines Jahrhunderts entsprechen nach konservativer Schätzung etwa 80 % aller jemals seit dem Altertum publizierten Literatur.

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