



CHAMA NEWSLETTER

Commission for History of Ancient and Medieval Astronomy

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Assistant Secretary : Aurélie Gribomont

Website: <http://chama.fltr.ucl.ac.be>

Foreword by the president

This is our sixth issue of the *Newsletter*, and actually the first of our new term of 2005-09. The readers will find here the Commission's Report for the first half of 2005. Please note especially the proposed "Future Plan". May I request you to kindly send me or to the Secretary your suggestions and ideas. Further, please find herewith the Report (minutes) of the *first* Business Meeting of the Commission at the Beijing Congress. It includes particularly the result of the election of the new Organising Committee/Council. On behalf of the OC, may I acknowledge with thanks the members present in that meeting for reposing their confidence in the elected members. Particularly, I welcome the new members: Prof. Michio Yano (Japan) and Dr. François Charette (Canada).

Next we publish for the information of the members the Extracts of the Minutes of the General Assembly (held in Beijing, 27 and 29 July 2005), i.e., Report of the Secretary of the IUHPS Council.

Notices of six books by Cardano, Jacquart and Burnett, King, Pingree and Reiner and Posanza, are being published. I may recall that David King's opus: *In Synchrony with Heavens: Studies in Astronomical Timekeeping and Instrumentation in Medieval Islamic Civilization*, Vol. 1, was taken note in the June issue of the *Newsletter*. I am happy that his Vol. II, on *Medieval Islamic Instruments* has been published in 2005. Both these Volumes are indispensable source of information on the contribution of Islamic

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mathematicians and astronomers to the ‘religious’ use of astronomy of their times. Besides these, we publish in this issue also News from the Collection “*Corpus des Astronomes Byzantins*”, and publication list of a few scholars, especially of a well-known Korean historian of astronomy, Il Seong Nha.

It is with a very deep feeling of loss, two obituaries are published here. One is of Erica Reiner, who was a known scholar of Babylonian and Assyrian sources, and another of David Pingree (Brown University, Providence, RI, USA). In the heart-breaking passing away of Prof. Pingree, many of us may miss a unique expert of astronomical-mathematical sources extant in Arabic, Sanskrit, Greek, Latin and Babylonian. Besides highlighting his life-long achievements, we publish a selection of his most significant books and recent articles.

Last but not the least, I wish to declare gladly, that the *first* Symposium of this Commission at the History of Science Congress (Beijing, July 2005), was held successfully and was also well attended. Through this *Newsletter*, I wish to communicate to the speakers that the publication of the *Proceedings* of this Symposium is planned. May I request them to kindly prepare the text of their talks! I shall soon communicate with them individually in this connection.

Finally, I may reiterate the importance of the in-puts by the members and even by others. There is no limit to our desire of improving the *Newsletter* further. Please enrich it with your innovative ideas, brief reports and news. I solicit your cordial cooperation and involvement in securing the History of Ancient and Medieval Astronomy its due share of importance among the various branches of history of exact sciences.

S. M. Razaullah Ansari



Pekin Observatory,

July 2005

(Anne Tihon)

Report of the Activities of the CHAMA for the year 2005

Activities in 2005

The Commission carried out the following work, in the first half of 2005.

1. Publication of the fifth Newsletter, in June 2005, before the beginning of the Beijing Congress. In this *Newsletter*, we published the detailed programme of the CHAMA symposium along with abstracts of the invited talks, besides other usual features. Copies of this Newsletter were sent to the past President, past Secretary General, past Treasurer of IUHPS, and the members of the Commission.

2. Maintenance of the Web-site: <http://chama.fltr.ucl.ac.be>.

3. Active correspondence between the Commission and the speakers of the CHAMA Symposium held at the 22nd ICBS (Beijing, 2005).

4. Work connected with the organisation of the business meeting of the Commission at Beijing Congress.

5. Our Commission's Symposium–SC3 with the title: *Astronomy in the Oriental, Antique and Medieval World* ” was organised successfully at Beijing on July 29 in the afternoon. The Organising Committee of the Symposium comprised three scholars: S. M. R. Ansari (India), Raymond Mercier (UK) and Anne Tihon (Belgium). The Symposium comprised two parts/sessions: 1. *Astronomy in the Orient*, which was organised jointly by CHAMA and the Commission for Islamic Science and Technology. 2. *Astronomy in the Antique and Medieval World*, organised by CHAMA alone. In the first part, we have 10 invited talks. In the second part, there were 2 invited talks. Thus, we had in all 12 oral presentations. The invited talks were spread over Chinese, Indian and Islamic astronomies, and also astronomy in the antique and medieval world. The symposium was well attended and the Organising Committee and the members of the Commission were quite satisfied.

6. The business meeting of the Commission was scheduled for July 28 in the afternoon at the Ancient Chinese Observatory. 18 Members of the Commission attended the meeting. The meeting was presided by the President of CHAMA, Prof. S.M.R. Ansari. The proceedings of the meeting comprised the presentation of the 4-year Report of the Commission by the Secretary of the CHAMA, Prof. Anne Tihon . It was discussed and thereafter the Chair approved it. The next item was the election of the Organising Committee (OC) of the Commission for 2005-2009. The following scholars were elected:

S.M.R. Ansari (India) – President, Michio Yano(Japan)– Vice-President, Anne Tihon (Belgium) – Secretary, and Francois Charette (Canada) – Councillor.

The OC has been enlarged by creating the post of Vice-President and one councillor. It was resolved that the President of the Commission would also act as the Treasurer.

S.M.R. Ansari (President) has been quite active in the current year. He delivered an invited Plenary Lecture at the Beijing Congress, with the title: “Transmission of Islamic Exact Science to India and its Neighbours and Repercussions Thereof”. He was also invited by the Indian National Manuscripts Mission (New Delhi) to deliver two lectures in August 2005:

“ On the Sources of Islamic Mathematics and Astronomy extant in India”. Further, He has contributed an invited article to the Volume: *Astronomy, Astrology, Mathematics and the Physical World*, Ed. J.V. Narlikar, under the “Project of History of Indian Science, Philosophy and Culture”. The title of his article/chapter is: “Reception of Indian Astronomical Treatises and Handbooks in Sanskrit by Muslim Scholars of Medieval India”.

Future Plan

1. It is proposed that a few national and international associations may be approached for making CHAMA **Newsletter** a forum for their members also, namely, International Conference for Oriental Astronomy (ICOA), History of Astronomy Society (Cambridge), Working Groups of History of Astronomy of the German Astronomical Society, of American History of Science Society, of the International Association of East Asian Science etc.
2. Beside the publication of the Newsletter (possibly 2 issues every year), the commission wishes to explore the possibility of organising a Symposium/Conference in Europe, in 2007.
3. Continuation of the maintenance and further development of CHAMA Website.
4. To participate in the project: History of Science On-Line.
5. However, the main activity in 2006 will be the publication of the Proceedings of the Commission’s Symposium–SC3. The President intends to contact a couple of publishers to that effect. He has the expertise and contacts, since he edited recently a Volume: *History of Oriental Astronomy* (Kluwer Academic, Dordrecht), 2002.

S. M. Razaullah Ansari
President of CHAMA

[Submitted to the Secretary General for putting it up at the First Meeting of the new IUHPS Council in Jan. 2006]

22nd International Conference for History of Science, Beijing, July 24–30, 2005: Report of the CHAMA Business Meeting

President : S. M. Razaullah Ansari (in Chair)

Secretary : Anne Tihon

Members Present: 17 persons

François Charette, Boris Chendov, Merce Comes, Didier Foucault, Miquel Forcada, Raymond Mercier, Robert Morrisson, Emmanuel Poulle, Roser Puig, Jamil Ragep, Sally Ragep, Monica Rius, Xiaochun Sun, Michio Yano, Yukio Ohashi, with S.M.R.Ansari and Anne Tihon.

1. The President explained when and why the Commission has been created. Some questions were raised by J. Ragep about the relation between this commission and the Commission-41 of the International Astronomical Union. Ansari explained that in details, and also referred to the documents published in the first Newsletter of the Commission.

Information about the membership of CHAMA: It was approved that members who are specialists in the History of Ancient and Medieval Astronomy may be elected as full members, with voting rights. Others, i.e., historians of modern astronomy, mathematics and history of science in general may be elected as associate members. To seek the membership of CHAMA, one has to fill up simply a form, which is available from the Secretary of the Commission, or which can be downloaded from the CHAMA Website. Such a form is to be submitted to the Organising Committee/Council of the Commission for decision.

The President proposed to organize a symposium before the next International Congress of Budapest in 2009. He invited also suggestions from members and solicited their cooperation.

2. Report presented by the Secretary, Mrs A.Tihon on the work done during the years 2002-2005 : The main points dealt in the Report were the creation of a website, <http://chama.fltr.ucl.ac.be>, the publication of five issues of the *Newsletter* of the Commission, and the organisation of the *first* Symposium of the Commission at the Beijing Congress. She pointed out also that printed copies of the *Newsletter*, besides the electronic version, were distributed to all members individually.

Finally, the Secretary requested the members present and their colleagues to contribute information especially about their recent publications, the work-in-progress, meetings and new items etc., in order to make the *Newsletter* very informative and up-to-date. She informed the members that the bio-bibliographical information of the members is available on the Commission's website.

3. J. Ragep suggested to improve the communication with other commissions, and to put their web-address on CHAMA web-site and in its Newsletter. This suggestion was readily welcomed.
4. Election of the OC : The proposal of the Chair, to enlarge the OC by creating a post of Vice-President and a Councillor was approved by the members present. Consequently, the following Organising Committee (OC) was elected

President: S. M. R. Ansari (India)

Vice-President: Michio Yano (Japan)
Secretary: A. Tihon (Belgium)
Councillor: Francois Charette (Canada).

The Chair then thanked all the members present and others for their keen interest in attending the *first* Business Meeting of the Commission. He then announced that the end of the Meeting.

22nd International Conference for History of Science, Beijing, July 24–30, 2005: Official Report of the IUHPS/DHS Meeting

Extracts of the Minutes of the General Assembly
Beijing, China, 27 and 29 July 2005

The full text of the Minutes is available on the IUHPS/DHS website

1. Proposal to validate Euro for payment of dues was accepted through voting with 35 for the proposal and 5 against the proposal. It is also clarified that other countries not belonging to the Euro zone can also choose to pay their fees either in Euro or in US dollars.
2. Prof. R. Home, the financial scrutinizer, gave a report after examining the financial reports presented by E. Nicolaidis (DHS) and J.J. Saldana (WHSO Project). He accepted the materials submitted by E. Nicolaidis, and pointed out that a few items in documents prepared by J. J. Saldana seemed strange and he didn't provide accounting information on an amount of 8,000 dollars received for WHSO project experts meeting.
3. Prof. Eva Vamos delivered a speech on the application of Hungarian National Committee and the Academy of Sciences of Hungary to hold the next Congress. In the speech, she introduced the conditions they can provide, the enthusiasm they have, and the significance for such event to be held in Hungary. This application was unanimously approved by all the members in the Assembly.
4. Proposal to designate Professor Paolo Galluzzi as the Chairman of the International Program Committee of 23rd International Congress of History of Science was unanimously approved in the Assembly.
5. Unanimous consent was reached for the following people to take the following commission presidents:

Ancient and Medieval Astronomy Commission: S.M. Razaullah Ansari

Bibliography and Documentation Commission: Peter Harper

East Asia Commission: Christopher Cullen

Islamic Civilization: Jamil Ragep

Meteorology Commission: Cornelia Ludecke

Modern Physics: Helge Kragh- Roger Stuewer

Modern Chemistry: Christoph Meinel

Oceanography: Keith Benson

Pacific Circle Commission: Roy MacLeod

Scientific Instruments Commission: Paolo Brenni

Science and Empire Commission: Michael Osborne

Teaching Commission: Jaroslav Foltá

Women in Science Commission: Annette Vogt

ICOHTEC: Hans J. Braun
IASCUD: Wesley Stevens
History of Astronomy C41/ ICHA (with IAU): Alexander Gurshtein
History of Geography (with IGU): Hector Mendoza
History of Geological Science (with IUGS): Philippe Tacquet
Internacional Commission for the History of Mathematics (with IMU): Karen V. H. Parshall
History of Soil Science: Benno Warkentin
International Committee for the History of Metrology (ICHM): Jean-Claude Hocquet

15. The new IUHPS/DHST Council 2005-2009 were elected by ballot:

President: Ronald Numbers (USA), with 47 votes
1st Vice President: Liu Dun (China), with 66 votes
2nd Vice President: Fabio Bevilacqua (Italy), with 25 votes in the first round, 33 votes in the second round
Secretary General: Efthymios Nicolaidis (Greece), with 50 votes
Assistant Secretary General: Eva Vamos (Hungary), with 38 votes
Treasurer: Ida Stamhuis (Netherlands), with 60 votes
Assessors: Lesley Cormack (Canada), with 40 votes
Ubiratan d'Ambrosio (Brazil), with 54 votes
Abdul Hafiz Mohamot (Egypt), with 45 votes
Michio Yano (Japan), with 53 votes
Catherine Jami (France), with 54 votes
Alexey Postnikov (Russia), with 41 votes

16: As proposed by the President of Chinese Academy of Sciences, Prof. Lu Yongxiang, the Beijing Declaration was formally approved with a couple of modifications added; these are adding the word “technology” to the phrase, “history of science”.

Obituaries



David Edwin Pingree (born 1933), Professor of the History of Mathematics and of Classics at Brown University, died on Friday 11 November 2005.

David Pingree was a leading figure in the History of Science, covering a wide field of investigation: Astronomy, Astrology and Magic in Ancient Mesopotamia, Classical Greece and the Byzantine World, Medieval Latin Europe, India, Islamic World and Sassanian Iran. He provided researchers with many editions of sources written in a wide range of languages including Akkadian, Greek, Latin, Sanskrit, Persian and Ara-

bic. His deep knowledge of the historical context as well as the original sources impressed the many scholars who had contact with him. His challenging views were often sources of stimulating discussion among historians of science. His death is a great loss for the History of Astronomy and for everyone who had the opportunity to be in touch with him. (Anne Tihon)

“Pingree's scholarly contributions ranged across the ancient worlds of Asia and the Middle East. He edited and translated numerous editions of texts on astronomy, astrology, mathematics and magic from Akkadian, Arabic, Greek, Latin, Persian and Sanskrit sources. Pingree's work was not that of cultivation of minutiae. Rather, he placed strong emphasis on the transmission of science from one culture to another, and cultural influence on the content and expression of scientific thought. He emphasized the ways in which the recipient culture might alter the ideas from another culture in order to render them accessible. Pingree once stated "each time there is a transmission there is a transformation,"

His students learned paleography, codicology, Indian epigraphy, ancient and medieval Indian history as well as studies of the Ancient Near East and Islam.

Through his textual command, he was often able to employ surviving records of a later period and culture to reconstruct the sciences of an earlier one. For example, he used Greek astrology to clarify earlier Babylonian omen texts; 8th- and 9th-century Arabic texts to reconstruct 5th-century Sassanian (Persian) astronomy and astrology; and Byzantine Greek astronomical tables to reconstruct their Arabic and Persian sources. »

[Source : Frank F. Conlon (University of Washington) in *H. Asia*, 16 Nov. 05,
For more personal details , see *Islam Sci. Comm. Newsletter* , Nov.05]

A complete bibliography of David Pingree's work is available in *Studies in the History of the Exact Sciences in Honour of David Pingree*, eds. C. Burnett, J. P. Hogendijk, K. Plofker, and M. Yano, Leiden, 2004, 890 pp.

A selected bibliography is presented below.



Erica Reiner, the John A. Wilson Distinguished Service Professor emerita in the Oriental Institute, the Department of Near Eastern Languages and Civilizations, and the Department of Linguistics, and the editor-in-charge of the Chicago Assyrian Dictionary of the University of Chicago from 1974 to 1996 died the 31 December 2005. Erica Reiner came to the University Chicago in 1952, and has left her imprint on every one of the twenty-seven volumes of the Assyrian Dictionary.

Erica's latest book, *Babylonian Planetary Omens*, vol. 4, with the late David Pingree (Brown University), appeared in September 2005. Among her other influential works are *Linguistic Analysis of Akkadian* (1966) and *Your Thwarts in Pieces, Your Mooring Rope Cut: Poetry from Babylonia and Assyria* (1985).

New Books

D. M. POSSANZA, *Translating the Heavens: Aratus, Germanicus, and the Poetics of Latin Translation*. *Lang Classical Studies* vol. XIV, New York/Washington, D.C., Peter Lang, 2004, xiv+ 279 pages.

Presentation by the Publisher:

Germanicus Caesar's translation of Aratus's celebrated astronomical poem, *Phaenomena*, is crucial for the study of the poetics of Latin translation. Building on the foundation of translation studies, *Translating the Heavens* investigates how Germanicus rewrote the *Phaenomena* as an Augustan aetiological poem that subverts the religious and philosophical themes of the original. In Germanicus's version the map of heaven becomes an Ovidian firmament of love and transformation. *Translating the Heavens* shows that the poetics of Latin translation far surpasses in complexity and sophistication the conventional notion of the translator as an interlingual scribe who mechanically substitutes the words of one language for the words of another.

Girolamo CARDANO, *Come si interpretano gli oroscopi*, introduzione e note di ORNELLA POMPEO FARACOVI ; traduzione del *De iudiciis geniturarum* di TERESA DELIA ; traduzione del *De exemplis centum geniturarum* e dell'*Encomium astrologiae* di ORNELLA POMPEO FARACOVI, 2005, 104 pages.

Edition and first translation in a modern language of astrological works of Girolamo Cardano (1501-1576), astrologer of the Pope Gregory XII. Girolamo Cardano was also known for his achievements in algebra. He published the solutions to the cubic and quartic equations in his 1545 book *Ars magna*. Part of the solution to the cubic was communicated to him by Niccolo Fontana Tartaglia (who later claimed that Cardano had sworn not to reveal it, and engaged Cardano in a decade-long fight), and the quartic was solved by Cardano's student Lodovico Ferrari. Both were acknowledged in the foreword of the book. His book about games of chance, *Liber de ludo aleae*, written in the 1560s but published only in 1663 after his death, contains the first systematic treatment of probability, as well as a section on effective cheating methods. Cardano invented several mechanical devices including the combination lock, the gimbal consisting of three concentric rings allowing a supported compass or gyroscope to rotate freely, and the Cardan shaft with

universal joints, which allows the transmission of rotary motion at various angles and is used in vehicles to this day. He made several contributions to hydrodynamics and held that perpetual motion is impossible, except in celestial bodies. He published two encyclopedias of natural science which contain a wide variety of inventions, facts, and occult superstitions. He also introduced the Cardan grille, a cryptographic tool, in 1550.

D. JACQUART, Ch. BURNETT, *Scientia in margine: études sur les marginalia dans les manuscrits scientifiques du Moyen Âge à la Renaissance*, Genève, 2005, 404 pages.

Presentation by the Publisher (translation) :

There is no doubt today that the conditions of transmission of scientific texts belong to the intellectual history. The margins of the manuscripts (or of the ancient editions) still remain insufficiently explored for various reasons: the disparate character of information which they conceal is added to the difficulties of reading, of dating and interpretation. While perpetuating traditions of transcription and reading, according to “codes” sometimes transposed of a linguistic area to another, the marginalia constitute also spaces of freedom, where reactions of mood are expressed and original creations are worked out. (...) Eleven studies entrusted to specialists in Greek, Syriac, Arab, Hebrew and Latin give to see this beam of interests, by the examples of annotations (or diagrams) with philosophical, mathematical, astronomical, technical or medical contents. After these case studies, which extend from the VIth to the XVIIth century, a typology of the marginalia is outlined in an essays which goes beyond the framework of the scientific manuscripts.

†D. PINGREE, † E. REINER, *Babylonian Planetary Omens: Part Four*, Leiden, Brill, in print

Presentation by the Publisher :

This volume presents an edition of first-millennium BC Babylonian cuneiform texts that comprise Chapters 64 and 65 of the compendium of celestial omen texts dealing with the appearance and movements of the planet Jupiter. All are accompanied by an English translation. David Pingree has again provided an extensive introduction and astronomical commentary, in which he discusses the astronomical plausibility of the phenomena that are described in the omens. The textual material and its astronomical interpretation throws light on the extent of the Babylonian scholars’ knowledge of astronomy and furnishes another argument in the debate about observation versus scribal tradition in the description of these phenomena.

DAVID A. KING, *In Synchrony with Heavens: Studies in Astronomical Timekeeping and Instrumentation in Medieval Islamic Civilization, Vol. Two, Instruments of Mass Calculations*, Vol. LV of the Islamic Philosophy, Theology and Science, Text and Studies, edited by H. Daiber and D. Pingree, Brill, Leiden-Boston, 2005, lxxvi +1066 pages.

The author’s wide experience investigating hundreds of astronomical instruments in museums all over the world enables him to present a new chapter in the history of science and the history of Islamic civilization. These instruments, many of which were not previously known, and not a few of which are veritable scientific works of art, attest to the remarkable sophistication of Islamic astronomy and particularly its concern with accuracy in timekeeping. Medieval Europe inherited the bare essentials of this tradition, and in Renaissance Europe up to ca. 1550, very few innovations of consequence were made that had not been previously conceived by Muslim astronomers somewhere, sometimes centuries before. But Muslim as-

tronomers never abandoned the medieval framework for their activities or the manuscript tradition of disseminating knowledge, whereas in Europe, where printed books had long since replaced manuscripts, the invention of the telescope and the microscope revealed new worlds to be discovered. The first volume of this work, dealing with astronomical timekeeping and the regulation of the times of Muslim prayers, appeared with Brill Academic publishers in 2004.

David A. King, Ph.D.(1972) in Near Eastern Languages and Literatures, Yale University, has been Professor of the History of Science at the J.W. Goethe University in Frankfurt(Germany) since 1985. He has published extensively on astronomy and astronomical instruments in Islamic civilization, and his most recent writing deal with the cult of a medieval Christian crucified bearded virgin saint and with monastic number–notations.

Selected Articles from *Indian Journal of History of Science* (New Delhi), Vol. 40 , No.2(2005)

Iyengar, R. N. , “Eclipse Period Number 3339 in the *Rigveda*”, pp.139-152.

Klintberg, Bo, “Hipparchus’s 3600'-based Chord Table and its Place in the History of Ancient Greek and Indian Trigonometry”, pp.169-203.

Ansari, S.M. Razaullah, “Hindu’s Scientific Contributions in Indo-Persian”, pp. 205-221.

Abhyankar, K. D., “Kelker Committee’s Proposed all India Calendar”, pp. 223-227.

Ansari, S.M. Razaullah, “Fifth International Conference on Oriental Astronomy in Thailand –A Report”, pp. 256-257.

News from the Collection “Corpus des Astronomes Byzantins”

Projects in preparation:

- Jean Lempire, Le « Traité sur la date de Pâques » de Maxime le Confesseur, étude des tables astronomiques.
- Discussion about the publication of Joseph Leichter’s Studies on the Zij-as-Sanjari with a Greek-Arabic Glossary.
- Anne Tihon and Jose Chabas, Les tables latines de Demetrios Chrysoloras
- Anne Tihon and Raymond Mercier, Ptolemy’s Handy Tables. Vol. 1

Recent Publications and Projects of our Members

• PINGREE, DAVID

Books:

- “Jyotihśāstra, Astral and Mathematical Literature”, Vol.6, fasc. 4 of the Series: *A History of Indian Literature*, Ed. Jan Gonda, Otto Harrassowitz, Wiesbaden, Germany, 1981.
- “The Astronomical works of Dasabala”, Viveka Publications, Aligarh, 1988.
- “The Grahajñana of Asadhara together with the Ganitacudamani of Harihara”, Viveka Publications, Aligarh: 1989.
- “The Liber Aristotilis of Hugo of Santalla”, Warburg Institute, London 1997, with Charles Burnett.
- “From Astral Omens to Astrology: From Babylon to Bikaner”, Istituto Italiano per l’Africa et l’Oriente, Rome, 1997.
- “Enuma Anu Enlil: Babylonian Planetary Omens”, part three, Styx, Groningen 1998, with Erika Reiner.
- “Astral sciences in Mesopotamia”, Brill, Leiden, 1999, with Hermann Hunger.
- “Sharh al-Tadhkirah: Arabic Astronomy in Sanskrit; Al-Birjandi on Tadhkira II, chapter 11, and its Sanskrit translation, edited, commented, and translated”, Brill, Leiden, 2002, with Takanori Kusuba.
- “A Descriptive Catalogue of the Sanskrit Astronomical Manuscripts preserved at the Maharaja Man Singh II Museum in Jaipur, India”, compiled from the notes taken by Setsuro Ikeyama Kim Plofkar and S.R. Sarma, American Philosophical Society, Philadelphia 2003.
- “Catalogue of Jyotisa Manuscripts in the Wellcome Library: Sanskrit Astral and Mathematical Literature”, Brill, Leiden, 2004.

Recent Papers :

- “Sanskrit Translation of the Arabic and Persian Astronomical Texts at the Court of Jayasimha of Jayapura”, *Subayl* (Barcelona), Vol.1 (2000), pp.101-106.
- “Indian Astronomy in Medieval Spain”, in *From Baghdad to Barcelona, Studies in the Islamic Exact Sciences in Honour of Prof. Juan Vernet*, Eds. J. Casulleras and J. Samsó, Anuari de Filologia (Universitat de Barcelona) XIX B-2, Vol. I(1996) pp.39-48, Instituto "Millás Vallicrosa" de Historia de la Ciencia Arabe, Barcelona.
- “Indian Reception of Muslim Version of Ptolemaic Astronomy”, in *Tradition, Transmission and Transformation*, Ed. F. Jamil Ragep and Sally P. Ragep, (E. J. Brill), Leiden, 1996, pp.447-485.
- “An Astronomer's Progress”, *Proceedings of American Philosophical Society*, Vol.143, No.1 (1999), March., pp. 73-85.
- “The Earliest Version of Jagannatha's Siddhantakaustubha”, Lecture delivered at Cornell University in 2000.
- “Rhetorius, the Last Greek Astrologer of Alexandria,” Lecture delivered at Cornell University in 2000.

[From the list compiled by Frank Condon(Washington) with additions by S.M.R. Ansari]

▪ *ANSARI, S.M. RAZAULLAH*

“Transmission of Islamic Exact Science to India and its Neighbours and Repercussions Thereof”. Plenary Lecture held at the 22nd International Congress of History of Science (Beijing), July, 2005. Its Outline published in *Studies in the History of Natural Science*, (Beijing), Supplement to Vol. 24 (2005), pp. 31-35.

“The First Comprehensive Book in Indo-Persian on Modern European Astronomy”, *Proceedings of the Fifth International Conference on Oriental Astronomy* (ICOA), held in Chiang Mai (Thailand), Oct.4-8, 2004, expected in the summer of 2006.

Hadā'iq al-Nujūm (“The Gardens of Astronomy”) is a treatise in Indo-Persian of 1158 pages. It was written by the poet and historian Rajah Ratan Singh ‘Zakhmī’. The book was published lithographically in Lucknow (India) in 1841. This is the first and the only printed book, which deals quite comprehensively with modern Western astronomy, as known in the middle of the 19th century. The paper is in fact a case study for the *genuine* reception of modern astronomy in the 19th century India.

Under Preparation

“Islamic Astronomy and its Transmission to India”, a chapter of ca. 100 pages for the Volume: *The Tradition of Astronomy in India*, Ed. B.V. Subbarayappa. A serial volume under the Project on History of Indian Science, Philosophy and Culture, managed by the Centre for Studies in Civilisations, Kolkata/Delhi (Director, D.P. Chattopadhyaya).

▪ *GARI, LUTFALLAH*

“Arabic Treatises on Environmental Pollution up to the End of the 13th Century”, *Environment and History*, Vol. 8 (2002), pp. 475-488.

“Arabic Astronomy After the 6th/13th Century” (in Arabic), *Al-Faisal Scientific*, Vol.1, No. 1, June-Aug 2003.

“Preparedness and Response to Natural Disasters from Arabic Sources around 1500 A.D.”, International Conference entitled, “*Natural Disasters and Cultural Strategies: Responses to Disasters in Global Perspective*”, German Historical Institute, Washington, DC, USA, 19-22 February 2004.

News and Announcement

EVENTS

- **The Transmission and Appropriation of Astral Sciences in Pre-Islamic Times**, Berlin, 9th January 2006, The symposium took place in the Dahlem Museum Complex in Berlin and is entitled "The Transmission and Appropriation of Astral Sciences in Pre-Islamic Times" and is funded by the DFG. Speakers include Geoffrey Lloyd, Christopher Cullen, Raymond Mercier, Antonio Panaino, Michio Yano, Alexandra von Lieven, Joachim Quack, and hopefully Jonathon Ben-Dov, as well as Harry Falk from the Free University of Berlin..
- **International Conference on Archaeoastronomy**, SEAC2006, "Ancient Watching at Cosmic Space and Observation of Astronomical Phenomena", 6-10 April, 2006, Rhodes, Greece,

Archaeo-astronomy, an upcoming interdisciplinary for astronomy in past cultures, emerges and establishes itself as a uniquely significant part of our cultural heritage. Historic and pre-historic data drawn from increasing number of monuments, standing stones, instruments, landscape topographic markers, rock art and wall paintings, textural reports, all converge to the same target: refer to movements of certain celestial bodies –stars and constellations, solar stands, lunar standstills- during rising or setting on particular sightseeing cardinal horizon. For more information, http://www.rhodes.aegean.gr/maa_journal/

- **The First Workshop on Theories, Methods, and Future Collaborations in African Cultural Astronomy**, March 27- April1, 2006, Cape Coast, Ghana, Cultural Astronomy is an interdisciplinary research area that encompasses the many relationships between humans and the sky including archaeoastronomy, ethnoastronomy, history of astronomy, and how astronomy has inspired humanistic expressions. The Edward Bouchet Abdus Salaam Institute, the National Society of Black Physicists, the University of Nigeria, and the University of Cape Coast announce the first workshop on the cultural astronomy of Africa. If you are interested in attending the workshop please send an email to Dr. Holbrook, holbrook@u.arizona.edu
- **The 2d International Conference of the European Society for the History of Science**, September 6-9 2006, Cracow, Poland. The general theme of the Conference will be The Global and the Local: The History of Science and the Cultural Integration of Europe. A symposium on the History of Astronomy : "History of Astronomy in the Late Medieval and Early Modern Periods" will be held during the conference as well as other symposiums containing papers on astronomy such as “ Nicholas Copernicus in focus”. Scholars willing to present a 20 minute contributed paper at this conference are invited to submit a one-page abstract to the Programme Committee between January 1, 2006 and March 15, 2006
For more information, <http://www.2iceshs.cyfronet.pl/>

NEWS

- The Contents of the New Issue of *The Journal of History of Astronomy* is available at the following address: <http://www.shpltd.co.uk/jha.html>
- The **Proceedings of the 21st International Congress of History of Science** (Mexico City) are now available as a CD-ROM. Science and Cultural Diversity was the general theme of the 21st ICHS held in Mexico City in 2001. In this framework, 1000 specialists from more than fifty countries carried out discussions on the relationship between Science, Medicine, Technology and cultures throughout the world from ancient times to the present. These Proceedings show the state of the art in the History of Science on the onset of the 21st century. These Mexico Congress Proceedings including all the approved papers and symposia were edited by Juan-José Saldaña and are now available on CD-ROM. This book will be useful for science studies, science teaching, historical understanding of the cultural and scientific basis of societies, and for all people interested in a major field of our times: Science and Cultural Diversity. In 2002, a printed volume (212 pages) comprising the Plenary Lectures from the Congress was also published and distributed among the Congress participants. Anyone interested in acquiring this CD-ROM should go to: http://www.smhct.org/proceedings_xxiichs.htm
Prof. Dr. Juan-Jose Saldana, Secretary General, International Union of the History and Philosophy of Science, Division of History of Science, Mailing Address: Apartado Postal 21-388,

04000 Mexico D. F., MEXICO. E-mail: dhs@servidor.unam.mx Tel. y Fax: + 5255 5849-6830

- A *Biographical Encyclopaedia of Ancient Natural Scientists* is now in preparation under the direction of P. Keyser and G. Irby-Massie. Articles on Ptolemy, Theon of Alexandria, Eudoxos of Knide, Hipparchos, Vettius Valens etc are expected.

COMMISSION ON HISTORY OF ANCIENT AND MEDIEVAL ASTRONOMY (CHAMA)

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(<http://chama.fltr.ucl.ac.be>)

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