

International Union
of History &
Philosophy of
Science



CHAMA NEWSLETTER

Commission for History of Ancient and Medieval Astronomy
Editors: S.M. Razaullah Ansari, Anne Tihon

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Foreword

It is a pleasure to present this first issue to the historians of ancient and medieval astronomy particularly and to all historians of astronomy the world over First, the readers will find what this new Commission for History of Ancient and Medieval Astronomy (CHAMA) is all about,

especially its international context. Second, for the sake of record, the text of the 'document of creation' is also published. Moreover, we also include in this issue, recent publications and information on the work-in-progress of some of our members, besides some 'News and Announcements'. These two items are naturally the basis of this Newsletter. I acknowledge here personally the response of these colleagues and hope that others members will follow suit. There is hardly a need to underscore the importance of this information.

In the outset it may be added that all historians of astronomy researching in the ancient and/or medieval astronomy (AMA) can become members of CHAMA, by filling the registration form, given at the end of this issue. Even historians of mathematics and of modern astronomy who are interested in pre-modern astronomy, can become associate members.

A word about our efforts may be appropriate. To start with, it was an up-hill task to compile a list of historians of AMA, with addresses etc. I acknowledge with thanks Ms Anne Tihon for her strenuous exertion in this regard. Please assist us in compiling a database for this particular objective of the Commission. Evidently, this database will be available to all of us through CHAMA website, cf. the corresponding announcement in this issue. In addition to that we wish to provide for members also a group-mail address, e.g., `chama_service @ ...` for spread of information, consultation and discussion.

Finally, I wish to summarise briefly the background for the establishment of CHAMA, as follows.

According to the available documents, the International Union for History of Science (IUHS) had been founded in 1947 at the initiative of the International Academy of History of Science (IAHS), which was created already in 1928. The first joint IAHS-IUHS Congress was held in 1948. After the establishment of the International Union for Philosophy of Science (IUPS) in 1947, both IUHS and IUPS federated to form International Union for History & Philosophy of Science (IUHPS) in 1956 [Greenaway, pp. 79 ,128.]. Since then the two Unions, IUHS & IUPS, became the two divisions of IUHPS, namely DHS and DLMPS.

It may be recalled that the structure of the IUHPS is that only states/countries, history of science societies and institutions are adhered to it. Individual historians of science are not direct members of IUHPS. And therefore it is of paramount importance that individual historians of science belonging to the various branches of History of Science (HS) are grouped together. This is, in fact, the rationale of the formation of Sections and Historical Commissions of IUHPS.

For the sake of record, I may stress particularly, that the majority of historians of classical astronomy the world over are Non-IAU historians of astronomy¹. Their interaction and consultations with one another, besides organising their activities at the ICHS, is and should be the concern of IUHPS. This large number of historians of astronomy from the developed countries, also from Afro-Asia and Latin America is not represented on the organising committee (OC) or roll of IAU commission for history of astronomy (C-41)², despite the fact that they are actively engaged in the study of Non-European astronomical heritage, particularly through the medium of classical languages³. These historians of astronomy require, in fact, interaction, consultation and also spread of information of the work-in-progress among themselves.

Bearing in mind the above-mentioned matter, this New Commission has been established. We hope that all historians of astronomy who are engaged in this branch of history of science, will promote the aim and objective of this Commission, that is, to interact , to exchange ideas

among themselves, and to transfer information particularly about their work, and future projects. This is the main objective underlying the publication of this Newsletter. I solicit sincerely your cordial co-operation, without which this Newsletter can not serve usefully the international community of historians of pre-modern astronomy.

S. M. Razaullah Ansari

1. The International Astronomical Union (IAU) was established in 1919, and its Commission for History of Astronomy (C-41) was created in 1948 at "the instigation of UNESCO as parts of its policy to stimulate historical sections in all Unions that it supported" [Blaauw , p.154]. The first President of C-41 was Otto Neugebauer (1952-58). Non-IAU historians of astronomy are those among us who are not elected IAU members in the first instance.

2. Non-IAU historians of astronomy can have as a rule only the status of consultants or associate members, if they are elected to C-41. Moreover they can not be members of the Organising Committee of C-41. The same rule applies to the recently formed Inter-Union commission for History of Astronomy (ICHA), the OC of which is identical with that of C-41, [cf. Chinnici, p.2].

3. For instance, Ancient Indian astronomy, Islamic astronomy, and astronomy of the Far East. In the case of the latter, a group of Korean, Japanese and Chinese astronomers have organised a series of International Oriental Conference, fourth of which was held in Nanyang City (China), Aug. 2001.

References

Blaauw, A.(a), History of IAU, The Birth and Half Century of IAU, Kluwer, Dordrecht, 1994.

Greenaway, F., Science International, A History of the International Council of Scientific Unions, Cambridge University Press, 1996.

Chinnici, I. (Ed.), The ICHA Newsletter, No.1, June 2001, esp.p.2 .

What is CHAMA?

The 21st International Congress of History of Science (ICHS) was held in Mexico, July 8-14, 2001. The Congress was sponsored by the International Union of History and Philosophy of Science (IUHPS), which in turn is adhered to UNESCO through the International Scientific Union (ICSU). ICCHS is held every fourth year. The next Congress will be held in China in 2005. As a matter of fact, ICCHS is organised with the help of a large number of symposia and meetings of its scientific sections. At the 21st Congress, 67 symposia were organised, 28 sectional meetings and 4 special sessions. More than 1000 historians of science contributed in the Mexico Congress.

The international community of historians of science can not become individually members of the IUHPS. Its constitution allows only countries (through national committees) and history of science associations/academies as members. At present, 49 countries adhere to it. For the individual historians of science, there are a number of historical commissions, that are a sort of working-groups of specialised research fields , and the members of which interact among themselves. For instance, there are 11 historical commissions before the Mexico Congress. At the General Assembly (GA) of IUHPS

(i.e. the business meetings of the Executive Council and General Body of IUHPS), which is held at each ICCHS, the presidents of the Historical Commissions are also elected, besides the

election of the Executive Council. Proposals of new commissions are also approved at GA. At the 21st ICHS in Mexico two new commissions were created, namely, Commission for the History of Ancient and Medieval Astronomy (President, S.M. Razauallah Ansari, Aligarh /India), and Commission for the History of Science and Cultural Diversity (President, Paulus Gerdes, Mozambique).

The proposal for the creation of the Commission for the History of Ancient and Medieval Astronomy (CHAMA) was moved by Prof. S.M.R. Ansari. He stated the rationale underlying the proposal of this commission as follows:

"The main aim and objective of this Commission is to bring under its purview research in the astronomical heritage of all cultural areas of the world. This idea is in consonance with the theme of this 21st Congress, namely, Science and Cultural Diversity. As historians of science, we know that astronomy was the most significant science during the ancient and medieval period. The majority of the world historians of astronomy are expert not only of astronomy, but they are also scholars of classical languages: Chinese, Sanskrit, Greek, Latin, Hebrew, Arabic and Persian etc., in the sources of which enormous amount of astronomical data is locked in. For these historians of astronomy particularly a forum is required, so that its members could interact among themselves, and acquaint themselves particularly with the work-in-progress of their colleagues. To achieve this end , this Commission is proposed."

The President wishes to organise under this Commission a Symposium at the 22nd ICHS (China), in 2005. Further, this Commission intends to publish a Newsletter, under the Editorship of Prof. Ansari, and Ms. Anne Tihon, the Secretary of the Commission, who is a well-known historian of Greek astronomy.

It may be mentioned that Prof. S.M.R. Ansari is a former Professor of Physics at Aligarh Muslim University (Aligarh / India). He had been very actively engaged in the field of History of Science for the last few decades. He had been President of the IUHPS Commission for Science & Technology in the Islamic Civilisation (1993-97), and also of the IAU Commission for History of Astronomy (1994-97). Under the auspices of the latter, he organised a Symposium on "History of Oriental Astronomy", which was held in Kyoto (Japan), in Aug.1997. He has edited the Proceedings of this Symposium,, which will be published by Kluwer Academic Publisher (Dordrecht/The Netherlands). It is expected by the end of 2002. Further, In his capacity as the President of the IUHPS-IAU Inter-Union Commission for History of Astronomy (for the period 1997-2001), he organised at the Mexico Congress a Symposium: "Astronomical Heritage of the Non-European Cultural Areas", which was held on July 11-12, 2001.The Symposium was chaired by Prof. Ansari, at which 22 historians of astronomy from all over the world presented their talks. The Proceedings of this Symposium is also intended for publication.

The Commission requests all historians of astronomy to register themselves and to send the President / Secretary information regarding their work-in-progress, publications and news item for the Newsletter. For contact e-mail addresses are:

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Officers of the CHAMA

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Research Field: History of Islamic science in general and History of Indian and Islamic Exact Science during the Medieval period, in particular.

Current Bibliography:

- "Report of the 20th International Congress of History of Science (Liège, July 1997)", in *Studies in History of Med. & Science*, Vol.15, No.1-2, New Series, (1997/98), pp.151-164, issued in 1999.
- "Report of the Third International Conference on Oriental Astronomy, held in Fukuoka (Japan), Oct.27-30", 1998, *Ibid.*, pp. 165-169.
- (With S. R. Sarma), Ghulâm Hussain Jaunpûrî and his Encyclopaedia of Sciences, in *Studies in History of Medicine and Science*, Vol. XVI (1999/2000), N°1-2, New Series, pp.77-93.
- "Practical Astronomy in Indo-Persian Sources", Invited Talk delivered at the IAU Joint Discussion-6, Aug. 11, 2000, held in Manchester, at the 26th General Assembly of International Astronomical Union (Aug.7-18), in *Indian journal of History of Science*, Vol.37(2002), No.3., pp. 255-265
- "XXIst International Congress of History of Science A Report", in *Indian Journal of History of Science*, Vol.36, No.3-4 (2001) 203-211. (The Congress was held in Mexico City, during July 8-13, 2001).
- "Islamic Astronomy in India during 16th -18th Centuries and its Interaction with the Traditional Indian Astronomy", in *500 years of Tantrasangraha of Nilakantha, A Landmark in the History of Astronomy*, edited by M. S. Sriram, K. Ramasubramaniam & M. D. Srinivas, Institute of Advanced Studies, Simla, 2002, pp.145-156.
- Sanskrit Scientific Texts in Indo-Persian Sources, with Special Emphasis on Siddhântas and Karanas, to be published in the *Festschrift of Prof. David Pingree on his 70th Birthday*, to be published by E. J. Brill (Leiden), expected by the end of 2002/early 2003.
- "Al-Birjandî in India, a Survey of His Works in Indian Libraries", invited talk delivered at the Inaugural Function, in *World Congress on Abdul Ali Birjandi-an Iranian Astronomer and Mathematician*, held at Birjand (Iran), May 26-28, 2002 (to be published in the Proceedings).

Scientific Project: Besides giving finishing touches to his major project: Critical Edition of Jai Singh Astronomical Tables (with English translation and commentary), Ansari is also working on a Monograph: History of Islamic Science in Medieval India (Persian sources).

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Research Field: Greek and Byzantine Astronomy

Recent Bibliography:

- *Le "Grand Commentaire" de Théon d'Alexandrie aux Tables Faciles de Ptolémée, livre I-IV* (Histoire du texte, édition critique, traduction revues et complétées par A. TIHON. Commentaire par A. TIHON), Studi e Testi 315-340-390, Vatican, 1985-1999.

- *Etudes d'astronomie byzantine*, Variorum (Collected Studies Series CS454), 1994

- Corpus des Astronomes byzantins (Last Issues):

- A. TIHON et R. MERCIER, *Georges Gémiste Pléthon. Manuel d'astronomie*, dans *Corpus des Astronomes Byzantins IX*, Louvain-la-Neuve, 1998.

- A. TIHON, R. LEURQUIN, Cl. SCHEUREN, *Une version byzantine du Traité sur l'Astrolabe du Pseudo-Messahalla*, *Corpus des Astronomes byzantins X*, Louvain-la-Neuve, 2001.

- "L' astronomia matematica a Bisanzio", in S. Petruccioli (general editor), *Storia della Scienza, IV: Medioevo, Rinascimento*, pp. 346-352

- "La matematica bizantina", in S. Petruccioli (general editor), *Storia della Scienza, IV: Medioevo, Rinascimento*, Rome, 2001, vol. IV, pp. 329-334

Work in Progress: A Critical Edition of *Ptolemy's Handy Tables* (A. TIHON AND R. MERCIER)

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Text of the document of the creation of CHAMA

THE PROPOSAL TO CREATE

THE COMMISSION FOR

HISTORY OF ANCIENT AND MEDIEVAL
ASTRONOMY

In consonance with the theme of this Congress: Science and Cultural Diversity, the above-mentioned Commission is proposed. The main aim and objective of this Proposal is to bring under the purview of this Commission the astronomical heritage of all cultural areas of the world. As historian of science we know that astronomy was the most significant science during the ancient and medieval period. The bulk of the world community of historians of astronomy are experts not only of astronomy but they are also scholars of classical languages: Chinese, Greek, Latin, Arabic, Sanskrit etc., in the sources of which enormous amount of astronomical data is locked in. For these historians of astronomy a Forum is required, so that they could interact among themselves, and acquaint themselves particularly with the work-in-progress of their colleagues. To achieve that end this Commission is proposed.

It may be mentioned that the Inter -Union Commission for the History of Astronomy, which operates mainly under the auspices of IAU - a Union of practising astronomers - is quite specialised in the history of modern astronomy and astrophysics, to which History of Astronomy today can not be confined. Modern research in Astronomical History has opened vast vistas, so far as its cultural ramifications in human societies are concerned. For instance, astronomical iconography, archeo-astronomy, star-lore etc., for which expertise in history, archaeology and folklore is required.

It goes without stressing that the proposed Commission will surely collaborate with other IUHPS commissions/groups, for instance, with Commission for Islamic Science and Technology, International Society of East Asian Science and Technology, also with Inter-Union Commissions.

I solicit active support for this Commission for the History of Ancient and Medieval Astronomy, from the community of Historians of Science.

S.M. Razullah ANSARI

Ex-President of IUHPS-IAU Inter-Union

Commission for History of Astronomy

Mexico, July 12, 2001

[proposed at the DHS General Assembly, second session, held on July 13, 2001, in Mexico City, and passed by 63 out of the total of 69 votes, with 3 no-votes and 3 abstentions]

Recent Publications and Projects of our Members

CHABAS, JOSE

- Chabás, J. and Goldstein, B. R., *Astronomy in the Iberian Peninsula: Abraham Zacut and the Transition from Manuscript to Print*, The American Philosophical Society, Philadelphia, Pennsylvania, 2000.
- Chabás, J., "Astronomía alfonsí en Morella a finales del siglo XIV", in *Cronos. Cuadernos Valencianos de Historia de la Medicina y de la Ciencia*, 3 (2000), 381-391.
- Porres, B. and Chabás, J., "John of Murs's Tabulae permanentes for finding true syzygies", in *Journal for the History of Astronomy*, 32 (2001), 63-71.
- Chabás, J. and Goldstein, B. R. "The Maximum Solar Equation in the Alfonsine Tables", in *Journal for the History of Astronomy*, 32 (2001), 345-348.
- Chabás, J. "Las Ciencias Exactas", in García Ballester, L., J. M. López Piñero and J. L. Peset Reig (dir.) *Historia de la Ciencia y de la Técnica en la Corona de Castilla*. 4 vols. Valladolid: Junta de Castilla y León, Valladolid (2002), I:59-94.
- Chabás, J., "The Diffusion of the Alfonsine Tables: The case of the *Tabulae resolutae*", in *Perspectives on Science*. [forthcoming, 2003].

EASTWOOD, BRUCE

- "Johannes Scottus Eriugena, Sun-centred Planets, and Carolingian Astronomy," in *Journal for the History of Astronomy*, 32 (2001), 281-324.
- "Astronomia, computo e astrologia," in S. Petruccioli (general editor), *Storia della Scienza, IV: Medioevo, Rinascimento, II: La Scienza Bizantina e Latina*, ed. J. D. North (Rome: Enciclopedia Italiana, 2001), pp. 149-168.
- *The Revival of Planetary Astronomy in Carolingian and Post-Carolingian Europe* (Aldershot: Ashgate Variorum, 2002), 334pp.

Projects:

- a co-authored volume with Gerd Grasshoff (Uni. Bern) on the planetary diagrams attached to the works of Pliny the Elder, Macrobius, Martianus Capella, and Calcidius throughout the Middle Ages; this work explains the diagrams and both categorizes and lists all surviving examples in medieval manuscripts.
- a monograph entitled *Ordering the Heavens: Astronomy and Cosmology in the Carolingian Renaissance*. This project is actively underway and should be completed in about a year.
- an edited volume on *Sciences in the Carolingian World*, with chapters on education and the schools, computus, arithmetic, geometry, astronomy, music, astrology, and medicine. We hope to have this project completed and ready for publication in 2004.

- an edition of the so-called Anonymous Commentary to Book 8 (astronomy) of the encyclopedic work of Martianus Capella, under the general editorship of Mariken Teeuwen (Constantijn Huygens Instituut), who is directing an edition of the commentary to the complete work of Capella. This is the commentary that has been variously associated with Dunchad, Martin of Laon, Heiric of Auxerre, et al. in the 9th century.

GINGERICH, OWEN

- "The trouble with Ptolemy", in *Isis*, December 2001

GOLDSTEIN, B.R.

- "Astronomy and the Jewish Community in Early Islam", in *Aleph*, 1 (2001), 17-57.

- "Before the Sun in the Church", in *Journal for the History of Astronomy*, 32 (2001), 73-77.

- "Kepler and Hebrew Astronomical Tables", in *Journal for the History of Astronomy*, 32 (2001), 130-36.

- "The Maximum Solar Equation in the Alfonsine Tables", in *Journal for the History of Astronomy*, 32 (2001), 345-48 [with J. Chabás].

- "The Astronomical Tables of Judah ben Verga", in *Suhayl*, 2 (2001), 227-89.

- "On The Babylonian Discovery of the Periods of Lunar Motion", in *Journal for the History of Astronomy*, 33 (2002), 1-13.

- "Levi ben Gerson's Preliminary Remarks for a Theory of Planetary Latitudes", in *Aleph*, 2 (2002), 15-30.

KUNITZSCH, PAUL

- "La table des climats dans le corpus des plus anciens textes latins sur l'astrolabe", in Callebat, L. ; Desbordes, O. (Hrsg.) : *Science antique-science médiévale, Actes du colloque international (MontSaint-Michel, 4-7 septembre 1998)*. Hildesheim, Zürich, New York 2000, p. 391-399

- "A Note on Ascelinus' Table of Astrolabe Stars", in *Annals of Science* 57 (2000), p. 181-185

- "European Celestial Globes of the 17th and 18th Centuries with Arabic Inscriptions", in *Hadith al-Dar* (Dar al-Athar al-Islamiyyah, Kuwait), Bd. 7 (1997 ; ersch. 2000), p. 22-23

- "The Chapter on the Stars in an Early European Treatise on the Use of Astrolabe (ca. AD 1000)", in *Suhayl* 1 (2000), p. 243-250

- "Three Dubious Stars in the Oldest European Table of Astrolabe Stars", in *Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften* 13 (1999-2000), p. 57-69.

- "A Hitherto Unknown Arabic Manuscript of the Almagest", in *Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften* 14 (2001), p. 31-37.

- "Coronelli's Great Celestial Globe Made for Louis XIV : the Nomenclature", in *Edbd.*, p. 39-55

- *Liber de stellis beibeniis, Textus Arabicus et translatio Latina*, Cura et studio Paul Kunitzsch, in *Hermetis Trismegisti astrologica et divinatoria (Corpus Christianorum, Continuatio Medievalis, CXLIV C=Hermes Latinus, tom.IV, pars IV)*, Turnhout, Brepols 2001, p. 9-107.

LORCH, R.

-(co-editor with M. Folkerts) *Sic itur ad astra. Studien zur Geschichte der Mathematik und Naturwissenschaften. Festschrift für den Arabisten Paul Kunitzsch*, Wiesbaden, 2000

- "Ibn al-Salah's Treatise on Projection: a Preliminary Survey", in *Sic itur ad astra. Studien zur Geschichte der Mathematik und Naturwissenschaften. Festschrift für den Arabisten Paul Kunitzsch*, Wiesbaden, 2000, p. 401-408

- "Some early Applications of the Sine Quadrant", in *Suhayl* 1, 2000, p. 251-272.

- "Greek-Arabic-Latin : the Transmission of Mathematical Texts in the Middle Ages", in *Science in Context* 14 (2001), p. 313-331

- *Thabit ibn Qurra, On the Sector-Figure and Related Texts*. Edited with Translation and Commentary, Frankfurt, 459 p.

- "La trasmissione e la rielaborazione dei trattati archimedei ", in S. Petruccioli (general editor), *Storia della Scienza, IV: Medioevo, Rinascimento*, Rome, 2001, p. 323-329.

MERCIER, RAYMOND

- 'The Dates in Syriac Martyr Acts', Appendix II to 'The Date of the Martyrdom of Simeon bar Sabba'a and the "Great Massacre"', by Richard Burgess", in *Analecta Bollandiana*, 117 (1999) 9-66 [Appendix II, pp. 47-66].

- 'From Tantra to Zîj', in *Sic itur ad astra. Studien zur Geschichte der Mathematik und Naturwissenschaften. Festschrift für den Arabisten Paul Kunitzsch zum 70. Geburtstag*. Edited by Menso Folkerts and Richard Lorch. Harrassowitz (Wiesbaden), 2000; pp. 451-460.

- 'Intercalation in the Era of the Province of Arabia', *Revue Biblique*, 108 (Jan 2001), 101-108.

- 'Roger Louis Billard (1922-2000)', *Journal for the History of Astronomy* 32 (2001) 369-370.

- 'Indian Astronomy', in *Encyclopedia of Astronomy and Astrophysics*, Editor-in-Chief Paul Murdin, London: Institute of Physics Publishing and Nature Publishing Group, 2001.

- 'Programmation pour les calendriers', dans *Les Calendriers, Leurs enjeux dans l'espace et dans le temps*. Sous la direction de Jacques Le Goff, Jean Lefort et Perrine Mane. Colloque de Cerisy du 1er au 8 juillet 2000. Somogy éditions d'Art, Paris 2002; pp 365-380.

Software :

Kairos versions 3.0 (2002). General Calendar Conversion Program. Apart from the calendars defined by the familiar integer-based algorithms, this includes the Indian calendar with a choice of ancient canons, and the Chinese calendar equivalent to the Almanacs based on the calendars in the Historical Classics, together with a full Chinese chronology, all expressed in Chinese characters. Kairos versions 3.0 (2002). General Calendar Conversion Program.
<http://ourworld.compuserve.com/homepages/RaymondM>

In progress :

'Solstitial observations in thirteenth century Beijing', with an Appendix by Niu Weixing (Shanghai Jiaotong University) and Kim Taylor (Needham Research Institute).

This is a study of the Noon shadow lengths recorded by Guo Shoujing for the years 1277-1280, with a view to establishing the quality of the observations and the latitude of the site. The appendix gives a translation of a formal contemporary text (Taishiyuan Ming, Inscription on the Astronomical Bureau) by Yang Huan, concerning the observatory.

PORRES, BEATRIZ

Project: the preparation of a thesis under the direction of Danielle Jacquart about the Astronomical Tables of Jean Gmunden

RAGEP J.

- "Tusi and Copernicus : The Earth's Motion in Context", in *Science in Context* 14, nos 1-2 (2001), pp. 145-153
- "Freeing Astronomy from Philosophy : An Aspect of Islamic influence on Science", in *Osiris* 16 (2001), p. 49-71

SALIBA, GEORGE

- "Greek Astronomy and the Medieval Arabic Tradition," in *American Scientist*, 2002, 90,4: pp. 360-367.
- "Whose Science is Arabic Science in Renaissance Europe?," posted in 2000 at:
<http://www.columbia.edu/~gas1/project/visions/case1/sci.1.html>
- "Arabic Versus Greek Astronomy: A Debate Over the Foundations of Science," in *Perspectives on Science*, 2000, 8: pp. 328-341.
- "Review of World-maps for finding the direction and distance of Mecca: Innovation and tradition in Islamic Science, by David King, Leiden, Brill, 1999", in *Mathematical Reviews*, electronic version of which is on MathSciNet, No. 2001h:01008, pp. 1-5.

- "Objections to Greek Astronomy in Islamic Times and their relationship to the Work of Copernicus", in *History of Physics Newsletter*, 2000, 3,1 pp. 7-8.
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- "The Ultimate Challenge to Greek Astronomy: ~Hall ma la Yanhall of Shams al-Dîn al-Khafî (d. 1550)", in *Sic Itur Ad Astra: Studien zur Geschichte der Mathematik und Naturwissenschaften, Festschrift für den Arabisten Paul Kunitzsch zum 70. Geburtstag*, hrsg. Menso Folkert und Richard Lorch, Harrassowitz Verlag, Wiesbaden, 2000, pp. 490-505
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- "Islamic Science and Technology.", in *Academic American Encyclopedia*. 2000. Grolier Multimedia Encyclopedia Online. Grolier Interactive, Inc. Danbury,CT.
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- "The Ashcarites and the Science of the Stars", in *Religion and Culture in Medieval Islam*, eds. Richard G. Hovannisian and Georges Sabbagh, Cambridge and New York, Cambridge University Press, 1999, pp. 79-92.
- "'Seeking the Origins of Modern Science", essay review of Toby E. Huff, *The Rise of Early Modern Science: Islam, China and the West*, Cambridge: Cambridge University Press, 1993", in *Bulletin of the Royal Institute for Inter-Faith Studies*, 1999,1: 139-152.
- "Astronomy and Astrology in Medieval Arabic Thought", in *Les doctrines de la science de l'antiquité à l'âge classique*, eds. Roshdi Rashed and Joël Biard, Peeters, 1999, pp. 131-164.
- "Critiques of Ptolemaic Astronomy in Islamic Spain", in *Al Qanara*, vol. 20 (1999), pp. 3-25.
- "Persian Scientists in the Islamic World: Astronomy from Maragha to Samarqand", in *The Persian Presence in the Islamic World*, eds. Richard G. Hovannisian and Georges Sabagh, Cambridge University Press, 1998, pp. 126-146.

Report of the World Conference on the Astronomer 'Abdul 'Alî Bîrjandî

A World Conference on " 'Allâma 'Abdul 'Ali Bîrjandî, a Mathematician and Astronomer of 16th Century AD ", was held in the city of Bîrjand (Iran) , during May 26-28, 2002.

The Conference was very well organised by Prof. Ali A. Pouyan, the Chairman of the Organising Committee. There were 39 oral presentations, distributed in two parallel sessions. They covered various aspects and interests of al-Bîrjandî and also of his times. The break-up of the papers is as follows. Astronomy-5, mathematics-9, geography-2, history-4, general-2, literature-1, and 16 dealing in general with Bîrjandî 's writings, including studies of his 4 particular works. To mention is also a useful catalogue of Bîrjandî works in manuscript form, extant in Iranian Libraries, prepared by Ms. Fariba Afkari (Librarian, Tehran University). In this connection, it may also be added that Prof. S.M.R. Ansari, in his Keynote address at the

Inaugural Session enumerated the manuscripts of Bîrjandî's works in India, citing the number of copies of each as an indicator of the importance and popularity of al-Bîrjandî in India and discussed the significance of a few Bîrjandî's works in the development of exact sciences in Medieval India.

Nizâmuddîn bin 'Abdul 'Alî bin Muhammad Hussayn Bîrjandî (d.ca. 1528) was a well known scholar of his times, his comprehensive knowledge of 16th century Islamic exact science was recognised by his cotemporaries, for instance, the Timurid historian Khwând Mîr (d. 1498, author of *Târîkh Habîb al-Siyar*), Hâjjî Khalifa (d. 1525). Bîrjandî lived in Hirat, and later was appointed its *Shaykh al-Islam*. He is known to study Islamic exact science under famous teachers, for instance, Sayfuddîn Taftâzânî, and Mansûr Kâshânî, whose father was the pupil of Jamshîd Kâshânî, also his assistance, when Ulugh Beg's observatory was being founded and *Zîj-i Ulugh Beg*(ZUB) was being compiled. It is therefore not surprising that Bîrjandî wrote a commentary on ZUB, and also commentaries on the most famous astronomical treatises of his times, namely, Tûsî 's Memoir on Astronomy (*Tadhkirah fî 'Ilm al-Hay'at*), marginal notes on a famous commentary on Chaghmînî 's Astronomical Treatise, and also a commentary on Tûsî 's recension of Ptolemy's Almagest. To his credit 18 writings have been listed by his biographers, the majority of which are commentaries or adaptations of famous works. According to "*Bio-Bibliography of Muslim Mathematicians and Astronomers*", by G. P. Matvievskaia and B. Rosenfeld (Mocow, 1983), his scientific writings can be classified as follows: Astronomy -13, mathematics-2, astronomical geography-3. He wrote both in Arabic and Persian.

Quite significant is also the fact that a Sanskrit translation of the eleventh chapter of

Vol.2 of Bîrjandî *Commentary* on Tûsî's *Memoir* (*Tadhkirah*) was carried out by Nayanasukho-pâdhyâya about 1730, by the order of Raja Swai Jai Singh II (1686-1743) in Jaipur (India). This chapter deals with the Tûsî couple and its application to lunar theory. In passing we may comment that Tûsî couple (after E.S. Kennedy) is a rolling device to eliminate the problem of non-uniform circular motion of Ptolemaic astronomy¹. In his *Commentary*, Bîrjandî did not confine himself to Tûsî 's Treatise, but also utilised a work of Qutubuddîn Shîrâzî, another astronomer of Tûsî 's team at the Marâgha Observatory². The fact that at Raja Singh 's court in 17th century India the non-Ptolemaic works of Marâgha School were available and were studied (in Sanskrit translation) is an indicator of at least some critical thinking on the part of Jai Singh and his Muslim consultants. This is also corroborated by Jai Singh's later acquisition of European astronomy by him.

As mentioned above, this World Conference was organised extremely well. S.M.R. Ansari (Aligarh) was the only delegate from India. Other delegates from abroad were from Tajikistan and Afghanistan, besides a large number of Iranian delegates. It is hoped that the organisers will be able to publish full Proceedings of this important Congress in the near future.

The city of Birjand is situated in Eastern Iran and south of the Khorasan Province. The centre of the city is 59° 13' east and 32° 53' North. Its altitude is 1470 meters above the sea level. Its name is found in Iranian ancient myths and legends. It was probably founded by the legendary epic hero Sam Ibn Nariman.

The organisers of the Conference also arranged visits to various places and buildings of historical and architectural importance, particularly mosques and schools. The participants were also taken to a traditional gymnasium (*Zorkhanah Amir 'Arab*) in Birjand., besides entertained by a musical evening.

Last but not the least, I acknowledge with great pleasure my gratitude for the invitation and full

support by the Organising Committee of the Congress. Thanks are also due to Prof. Ali A. Pouyan (Birjand) and my dear friend Dr. Saeed Banihashemi (Tehran) for their friendly care of me.

S. M. Razaullah Ansari

(Aligarh/India)

1. For a brief discussion of this problématique, see S.M.R. Ansari, 'An Essay Review on Saliba's edition of *al- 'Urdî 's Kitâb al-Hay'ah ' , Studies in History of Med. & Science, Vol.13, New Series, 1994, pp.269-280, esp. pp.271-272.*
2. For details, see *Arabic Astronomy in Sanskrit*, by T. Kusuba and D. Pingree, Brill, Leiden, 2002.

News and Announcement

THE LAST ISSUE OF THE JOURNAL " SCIAMVS "

is available at the homepage of Sciamvs wich is linked from the homepage of Michio Yano, editor of the journal, <http://www.kyoto-su.ac.jp/~yanom/>

THE SUMMARY OF THE LATEST ISSUES OF "EARLY SCIENCE AND MEDECINE" is available at this address: <http://www.phil.kun.nl/center/esm.html>. This journal proposes, for exemple, the following articles: Jan P. HOGENDIJK: The Burning Mirrors of Diocles. Reflections on the Methodology and Purpose of the History of Pre-Modern Science; Charles BURNETT: The Certainty of Astrology in the Works of al-Qabisi and Abu Ma'shar; Anne TIHON: Certainty, Doubt, and Errors in Byzantine Astronomy.

THE CONTENTS OF THE ISSUES OF "THE JOURNAL OF HISTORY OF ASTRONOMY"

is available at the following address: <http://www.shpltd.co.uk/jha.html>

WORK IN PROGRESS: BIOGRAPHICAL ENCYCLOPEDIA OF ASTRONOMERS.

The Biographical Encyclopedia of Astronomers (BEA) is intended to provide a basic reference tool for experienced scholars, students and others interested in the history of astronomy and more broadly in the history of science. It will provide necessary biographical facts about over a thousand astronomers and other scientists who made substantive contributions to astronomy from ancient to modern times. Editor: Thomas A. Hockey, Department of Earth Science. University of Northern Iowa. Cedar Falls, IA 50614 USA.

LINKS

- Urania, a website concerning translation and edition of astronomical latin medieval texts :

<http://www.asu.cas.cz/~had/urania.html>

- a program for computing lunar and planetary visibility phenomena by Rainer Lange and Noël Swerdlow available for download at <http://www.alcyone.de>

ANNOUNCEMENT

- **Identité culturelle des sciences et des philosophies arabes: auteurs, oeuvres et transmissions.** 6th International colloquium of the Société Internationale d'Histoire des Sciences et des Philosophies Arabes et Islamiques (SIHSPAI), Namur - Brussels, 14-18 January 2003

- **National Astronomy Meeting and UK Solat Physics Meeting**, Dublin Castle, 7-11 April 2003

Informations and Programme: <http://star.arm.ac.uk/nam2003/>

- **Sixth Biennial History of Astronomy Workshop**, University of Notre Dame, Indiana, 19-22 June 2003

Information: <http://www.nd.edu/~histast4/ndviinfo/>

- **Ethno- and Archeoastronomy in Americas Symposium**, Santiago de Chile, 14-18 July 2003 Information: Maxime Boccas (mboccas@gemini.edu) and Gonzalo Pereira (gonzalo@astro.bo).

- **The Fourth International Conference on The Inspiration of Astronomical Phenomena (INSAP IV)**, Oxford, Magdalen College, 3-9 August 2003.

This meeting will explore humanity's fascination with the sky by day and by night, which has been a strong and often dominant element in human life and culture. The conference will provide a meeting place for artists and scholars from a variety of disciplines (including archaeology and anthropology, art and art history, classics, history and prehistory, the physical and social sciences, mythology and folklore, philosophy, and religion) to present and discuss their studies of the influences that astronomical phenomena have had on humanity.

Further information on INSAP IV and on the earlier conferences, and an application form for the upcoming meeting, can be found on the Website (<http://ethel.as.arizona.edu/~white/insap>)

- **Archeoastronomy: Exploring the Maltese Prehistoric Temple Culture: Conference**
25, 26, 27 of September 2003, De Porres Cultural Center, Sliema, MALTA

Information: <http://www.otsf.org/EMPTC-conference.html>

Registration form

To become a member of CHAMA, please, fill the [registration form](#) and send it as an attachment to _tihon@ori.ucl.ac.be