

RECENT PUBLICATIONS RELATING TO THE HISTORY OF ASTRONOMY

Books and Pamphlets

Astrology, science, and society; historical essays. Edited by Patrick Curry. Woodbridge, Eng., Wolfeboro, N.H., Boydell Press, 1987. 302 p. illus.

"These essays evolved out of a conference held at the Warburg Institute, London, in March 1984, on the history of medieval and Renaissance astrology in Europe."

Contents: North, J. D. Medieval concepts of celestial influence, a survey.--Vescovini, G. F. Peter of Abano and astrology.--Carey, H. M. Astrology at the English court in the later Middle Ages.--Lemay, R. The true place of astrology in medieval science and philosophy: towards a definition.--Caroti, S. Nicole Oresme's polemic against astrology in his 'Quodlibeta.'--Hutchison, K. Towards a political iconology of the Copernican revolution.--Field, J. V. Astrology in Kepler's cosmology.--Clarke, A. G. Metoposcopy: an art to find the mind's construction in the forehead.--Halbronn, J. E. The revealing process of translation and criticism in the history of astrology.--Schaffer, S. Newton's comets and the transformation of astrology.--Curry, P. Saving astrology in Restoration England: 'Whig' and 'Tory' reforms.--Hunter, M. Science and astrology in seventeenth-century England: an unpublished polemic by John Flamsteed.

Aveni, Anthony F. Empires of time: calendars, clocks, and cultures. New York, Basic Books, 1989. 371 p. illus.

Beiträge zur Geschichte der Astronomie in Berlin. Drei Aufsätze von Jürgen Hamel, Dieter B. Herrmann, Klaus-H. Tiemann, Ulrich Wutzke. Berlin-Treptow, 1988. 78 p. illus., ports. (Archenhold-Sternwarte, Berlin-Treptow. Vorträge und Schriften, Nr. 69)

Contents: Hamel, J., and K.-H. Tiemann. Die Vertretung der Astronomie an der Berliner Universität in den Jahren 1810 bis 1914 (p. 5-29).--Herrmann, D. B. Berliner Aktivitäten für die Entwicklung der Astrophysik (p. 31-37).--Wutzke, U. Der Forscher von der Friedrichsgracht; die wissenschaftlichen Leistungen Alfred Wegeners mit besonderer Rücksicht auf die Astronomie (p. 37-78).

Bhattacharya, Arupratan. Ancient Indian astronomical terms and their interpretations in the light of modern astronomy. Calcutta, Subarnarekha, 1987. 127 p. illus.

The terms are romanized but arranged in the order of the Nāgrī script.

Bicentennial commemoration of R. G. Boscovich, Milano, September 15-18, 1987. Proceedings. Editors: M. Bossi, P. Tucci. [Milano?] UNICOPLI, 1988. 281 p. illus.

Contents: Bossi, M., and P. Tucci. Foreword.--Tagliaferri, G. Boscovich and Milan.--Curti, O., and S. Sutera. Notes on an original model of the Brera Observatory, constructed according to Boscovich's design of 1764.--Agostino, S. d'. Boscovich's reception of Newton's legacy.--Dadić, Z. Boscovich's contribution to the solution of the problem of tides.--Casanovas, J. Boscovich as an astronomer.--Hahn, R. Laplace and Boscovich.--Stipanić, E. Sur quelques conceptions géométriques de Rudjer Bošković (Rogerio Boscovich).--Sieno, S. di, and M. Galuzzi. The De Motu (1743) of R. G. Boscovich.--Pappas, J. Les relations entre Boscovich et d'Alembert.--Barbarisi, G. Il letterato Boscovich.--Manara, C. F. Il problema del continuo geometrico nel pensiero di Ruggero Boscovich.--

Tagliaferri, G., and P. Tucci. Boscovich and the determination of cometary orbits.--Martinović, I. Boscovich's "model of atom" from 1748.--Sicoli, S. The botanical garden in Milan: the beginnig [sic] years.--Paoli, G. Boscovich and enlighment [sic]--Roberts, M. S. How much of the universe do we see?--Rosino, L., and S. Ortolani. The globular clusters from the time of Boscovich to the future endeavours.--Canizares, C. R. Variability and steadiness at cosmic distances: the restless universe.--Chincarini, G. Concluding remarks.

Bracher, Katherine. The stars for all; a centennial history of the Astronomical Society of the Pacific. San Francisco, Astronomical Society of the Pacific, 1989. 44 p. illus., ports. (Mercury, v. 18, no. 5)

Cassani, Luisa, and Bianca M. Raccanelli. Un dibattito sull'etere: l'esperienza di Michelson-Morley nell'interpretazione di Lorentz. Pavia, Università degli studi di Pavia, 1988. 129 p. illus. (Collana di storia della scienza. Storia della fisica e didattica)

Contribuciones al estudio de la mitología y astronomía de los indios de las Guayanas. Narrativas recogidas por Edmundo Magaña. Amsterdam, CEDLA; Smithfield, Providence, R.I., Distributed by FORIS Publications USA, 1987. 306 p. illus. (Latin America studies, 35)

De astronomia Alphonsi Regis. Actas del Simposio sobre Astronomía Alfonsí celebrado en Berkeley (Agosto 1985) y otros trabajos sobre el mismo tema. Proceedings of the Symposium on Alfonsine Astronomy held at Berkeley (August 1985) together with other papers on the same subject. Edición preparada por Mercè Comes, Roser Puig y Julio Samsó. Barcelona, Universidad de Barcelona, Instituto "Millás Vallicrosa" de Historia de la Ciencia Árabe, 1987. 179 p. illus.

Contents: Bossong, G. Science in the vernacular languages: the case of Alfonso X El Sabio.--Samsó, J. Alfonso X and Arabic astronomy.--Vernet, J. Alfonso X y la tecnología árabe.--North, J. D. The Alfonsine books and some astrological techniques.--Pouille, E. Les Tables Alphonsines sont-elles d'Alphonse X?--Dobrzycki, J. The 'Tabulae Resolutae.'--Casanova, J. On the precession problem in the Alfonsine Tables.--Gingerich, O. The Alfonsine Tables in the age of printing.--Chabás, J., A. Roca, and X. Rodríguez. El problema de los antecedentes (Alfonso X, Levi ben Gerson) de las tablas astronómicas compuestas por Jacob ben David Bonjorn.--Viladrich, M. Una nueva evidencia de materiales árabes en la astronomía alfonsí.--Mancha, J. L. Sobre la versión alfonsí del ecuadorio de Ibn al-Samh.--Puig, R. La proyección ortográfica en el Libro de la aqafha alfonsí.--Comes, M. Sobre la procedencia alfonsí de un globo celeste.--Martínez Gázquez, J. La Summa de Astronomia de Pedro Gallego y el Liber de Aggregationibus scientie stellarum de al-Fargānī.

Le 250^e anniversaire de la mesure de l'arc du méridien en Laponie. Par J. Kakkuri, T. J. Kukkämäki, J.-J. Levallois et H. Moritz. Helsinki, 1986. 64 p. illus., maps (part col.) (Suomen Geodeettisen Laitoksen Julkasuja, N:o 103)

Contents: Kakkuri, J. Le 250^e anniversaire de la mesure de l'arc du méridien en Laponie (p. 7-17).--Kukkämäki, T. J. Maupertuis et la Finlande (p. 18-28).--Levallois, J.-J. La mission de Laponie dans le cadre des recherches géodésiques françaises du XVIII^e siècle (p. 29-52).--Moritz, H. Maupertuis et la géodésie contemporaine (p. 53-60).

Edmonson, Munro S. The book of the year: Middle American calendrical systems. Salt Lake City, University of Utah Press, 1988. 313 p.

Fürst, Dietmar, and Jürgen Hamel. Johann Carion (1499-1537), der erste Berliner Astronom. Mit einem Reprint der Schrift Carions "Bedeutnuss und Offenbarung" (1527) nach dem Exemplar des Märkischen Museums Berlin. Berlin-Treptow, 1988. 51 p. illus. (Archenhold-Sternwarte Berlin-Treptow. Vorträge und Schriften, Nr. 67)

The reprint occupies p. 25-51.

A portrait of Carion by Lucas Cranach is reproduced in color on the cover of the pamphlet.

Furley, David. Cosmic problems; essays on Greek and Roman philosophy of nature. Cambridge, New York, Cambridge University Press, 1989. xiv, 258 p.

"The essays in this collection, some of them previously unpublished, represent the scholarly infrastructure to Professor Furley's major study, The Greek Cosmologists, of which volume 1 was published ... in 1987."

Galilei, Galileo. Sidereus nuncius; or, The sidereal messenger. Translated with introd., conclusion, and notes by Albert Van Helden. Chicago, University of Chicago Press, 1989. 127 p. illus.

The Galileo affair, a documentary history. Edited and translated with an introd. and notes by Maurice A. Finocchiaro. Berkeley, University of California Press, 1989. xvi, 382 p. (California studies in the history of science)

Gehrels, Tom. On the glassy sea; an astronomer's journey. New York, American Institute of Physics, 1988. 340 p. illus., ports.

Gouk, Penelope. The ivory sundials of Nuremberg, 1500-1700. Cambridge, Whipple Museum of the History of Science, 1988. 144 p. illus., col. plates.

"Published in conjunction with an exhibition of dials from the Museum of the History of Science, Oxford, and the Whipple Museum of the History of Science, Cambridge, arranged by the Whipple Museum."

Grassi, Giovanna. Union catalogue of printed books of 15th, 16th and 17th centuries in European astronomical observatories. Introd. of Paolo Maffei. Manziana, Roma, Vecchiarelli, 1989. 1040 p.

Hamel, Jürgen. Friedrich Wilhelm Herschel. Leipzig, B. G. Teubner, 1988. 104 p. illus. (Biographien hervorragender Naturwissenschaftler, Techniker und Mediziner, Bd. 89)

Hayes, Margaret. "In spite of his time"; a biography of R. C. Hayes, pioneer seismologist, astronomer, musician. Wellington, New Zealand Geophysical Society, 1987. 185 p.

Howse, Derek. Nevil Maskelyne, the seaman's astronomer. With a foreword by Sir Francis Graham-Smith. Cambridge, New York, Cambridge University Press, 1989. 280 p. illus., ports.

Kepler, Johann. Abrégé d'astronomie copernicienne. Traduit pour la première fois du latin en français, avec un avertissement et des notes par Jean Peyroux. Paris, A. Blanchard, 1988. 720 p. illus.
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Leopold, John H. Astronomen, Sterne, Geräte: Landgraf Wilhelm IV. und seine sich selbst bewegenden Globen. Luzern, Edition J. Fremersdorf, 1986. 239 p. illus. (part col.)

Ludwig Biermann, 1907-1986. München, Max-Planck-Gesellschaft, 1988. 80 p. illus., ports. (Max-Planck-Gesellschaft. Berichte und Mitteilungen, Heft 2/88)

Mackensen, Ludolf von. Die erste Sternwarte Europas mit ihren Instrumenten und Uhren; 400 Jahre Jost Bürgi in Kassel. Mit Beiträge von Hans von Bertele und John H. Leopold. 3., verb. Aufl. München, Callwey, 1988. 160 p. illus. (part col.) (Schriften zur Naturwissenschafts- und Techniksgeschichte, 1)

Magaña, Edmundo. Orión y la mujer Pléyades; simbolismo astronómico de los indios kaliña de Surinam. Amsterdam, CEDLA; Providence, RI, Distributed by FORIS Publications USA, 1988. xviii, 373 p. illus. (Latin America studies, 44)

English summary: p. 369-372.

"The first aim of this book is to analyze the formal structure of Kaliña astronomy."

Millburn, John R. Wheelwright of the heavens; the life & work of James Ferguson, FRS. In collaboration with Henry C. King. London, Vade Mecum Press, 1988. 328 p. illus., ports.

North, John D. The universal frame; historical essays in astronomy, natural philosophy and scientific method. London, Hambledon Press, 1989. 384 p. illus., ports.

Partial contents: Coordinates and categories: the graphical representation of functions in medieval astronomy (1987).--The reluctant revolutionaries: astronomy after Copernicus (1975).--Between Brahe and Baer (book review, 1985).--The Western calendar: intolerabilis, horribilis et derisibilis; four centuries of discontent (1983).--Thomas Harriot's papers on the calendar (1985).--Thomas Harriot and the first telescopic observations of sunspots (1974).--A post-Copernican equatorium (1969).--The satellites of Jupiter, from Galileo to Bradley (1983).--Georg Markgraf, an astronomer in the New World (1979).--A timely catalyst (book review, 1986).

Oxford International Conference on Archaeoastronomy, 2d, Mérida, Mexico, 1986.

World archaeoastronomy. Selected papers. Edited by A. F. Aveni. Cambridge, New York, Cambridge University Press, 1989. 504 p. illus.

Contents: pt. 1. The boundaries of archaeoastronomy: overviews and syntheses.--pt. 2. Archaeoastronomy: the textual basis.--pt. 3. Archaeoastronomy: an interdiscipline in practice.

Paoli, Germano. Ruggiero Giuseppe Boscovich, nella scienza e nella storia del '700. Roma, Accademia nazionale delle scienze detta dei XL, 1988. xx, 595 p. illus. (part col.), facsimils., maps (part col.)

"Elenco cronologico delle opere di R. G. Boscovich": p. 551-558.

Pares, Jean. La gnomonique de Desargues à Pardies. Essai sur l'évolution d'un art scientifique, 1640-1673. Paris, Éditions Belin, 1988. 181 p. illus. (Cahiers d'histoire et de philosophie des sciences, nouv. sér., no 17)

Picatrix. The Latin version of the Ghāyat al-ḥakīm. Edited by David Pingree. Text, introduction, appendices, indices. London, Warburg Institute, University of London, 1986. 326 p. plates. 7 microfiche in pocket. (Studies of the Warburg Institute, v. 39)

The microfiche reproduce "Professor Pingree's vast apparatus" (655 p.).

"A second volume is planned which will contain the Italian, French, and English versions of the Picatrix, and the citations from and references to the Picatrix made by late medieval and renaissance authors."

Quelques étapes de l'histoire de l'astronomie et de la géophysique en Belgique. Actes du colloque du 14 mars 1986, édités par A. Berger et A. Allard. Louvain-la-Neuve, 1987. 109 p. group port. (Travaux de la Faculté de philosophie et lettres de l'Université catholique de Louvain, 34)

Partial contents: Melchior, P. J. La géophysique interne à la frontière de l'astronomie.--Ledoux, P. J. Pol Swings et les débuts de l'astrophysique en Belgique.--Smeyers, P. L'astronomie à la "Katholieke Universiteit Leuven."--Nicolet, M. L'aéronomie spatiale en Belgique.--Henrard, J. Note sur l'histoire de la mécanique céleste en Belgique.--Deprit, A. Georges Lemaitre--les années d'apprentissage.

Respublikanskaia konferenfsia po istorii nauki i tekhniki, Minsk, 1988. Iz istorii nauki i tekhniki Belorussii. Tezisy dokladov konferenfsii, 26-27 maiia g. Minsk. Minsk, Institut istorii, TSNB AN BSSR im. Ī. A. Kolasa, 1988. 216 p.

Partial contents: Gruzinskii, V. V., A. A. Onishchenko, and T. A. Perkovskii. Razvitie astronomii i rasprostranenie idei Kopernika v Belorussii do 1917 goda.--Onishchenko, A. A. K voprosu o vremeni i usloviakh priniatiia geliofsentrizma.--Perkovskii, T. A. Martin Pochobut--uchenyi, pedagog i obshchestvennyi defatel'.--Gruzinskii, V. V., E. G. Abramovich, and T. A. Perkovskii. Geneza astronomicheskikh poniatii.

These papers, each 2 or 3 pages in length, appear on p. 101-109.

Smith, Robert W. The Space Telescope; a study of NASA, science, technology, and politics. With contributions by Paul A. Hanle, Robert H. Kargon, Joseph N. Tatarewicz. Cambridge, New York, Cambridge University Press, 1989. xviii, 478 p. illus., ports.

Tiirmaa, R. T. Bibliografija po meteoritike v Estonii, 1827-1986. Otv. redaktor Kh. A. Viiding. Tallin, Akademija nauk Estonkoj SSR, Komissija po meteoritike, Institut geologii, 1987. 33 p.

Viladrich i Grau, Merce. El "Kitāb al-'amal bi-l-astūrlāb." Llibre de l'ús de l'astrolabi d'Ibn al Samh. Estudi i traducció. Barcelona, Institut d'Estudis Catalans, 1986. 158 p. (Memòries de la secció Històrico-Arqueològica, 36)

Waschkies, Hans J. Physik und Physiktheologie des jungen Kant. Die Vorgeschichte seiner Allgemeinen Naturgeschichte und Theorie des Himmels. Amsterdam, B. R. Grüner, 1987. 711 p. (Bochumer Studien zur Philosophie, Bd. 8)

Weimer, Théo. Brève histoire de la Carte du Ciel en France. Paris, Observatoire de Paris, 1987. 39 p. illus., ports.

Wissenschaftliche Instrumente und Sonnenuhren. Kunstgewerbesammlung der Stadt Bielefeld, Stiftung Huelsmann. Bearb. von Dirk Syndram. München, Calwey, 1989. 268 p. illus. (Kataloge der Kunstgewerbesammlung Stiftung Huelsmann, Bd. 1)

The scientific instruments relate to geodesy and astronomy.

Articles

Aiton, E. J. Polygons and parabolas: some problems concerning the dynamics of planetary orbits. Centaurus, v. 31, no. 3/4, 1988: 207-221. illus.

Albertos Carrasco, Francisco J. El horóscopo o relox general diurno del "Quatri partitu." Revista de historia naval, año 5, 1. trimestre 1987: 73-81. illus.

Astronomy over the A.S.P.'s century: a history symposium. In Astronomical Society of the Pacific. Publications, v. 101, Oct. 1989: 883-889.

Presents abstracts of 22 papers, cited below, that were given at the society's summer scientific meeting, June 21-23, 1989, at the University of California, Berkeley.

Contents: Gingerich, O. Shapley, Hubble, and cosmology.--Smith, R. W. Themes in the history of early twentieth-century cosmology.--Hetherington, N. S. Edwin Hubble's cosmology.--DeVorkin, D. H. Spectroscopic astrophysics: 1900-40.--Hufbauer, K. Stellar constitution.--Cruikshank, D. P. A century of planetary astronomy.--Hoag, A. A. Aristarchos revisited.--Osterbrock, D. E. Armin O. Leuschner and the Berkeley Astronomical Department.--Unruh, W. J. S. Burckhalter's brigade: the 1889 January 1 eclipse expedition to Cloverdale.--Roberts, C. W., and D. D. Stone. Chabot Observatory--bringing astronomy to the public for more than a century.--Bracher, K. The founding and progress of the A.S.P.--Bidelman, W. P. A funny thing happened on the way to the Stanford Press: reminiscences of five years with the PASP.--Blaauw, A. J. C. Kapteyn's relation to the Mount Wilson Solar Observatory.--Hall, J. S. The fundamental discoveries of V. M. Slipher.--Carolin, M. Heber D. Curtis: one man's quest for the spiral nebulae.--Reaves, G. The Mount Wilson search for a trans-Neptunian planet, 1919-21.--Williams, T. R. Contributions of amateurs to astronomy from 1889 to 1989.--Sullivan, W. T. The early development of radio astronomy.--Tucker, W. H. The history of X-ray astronomy.--Dreiser, R. Yerkes Observatory: the beginnings.--Tenn, J. S. The Bruce medalists.--Woodard, L. A., and S. L. Baliunas. 1889: the beginnings of astronomy at Mount Wilson.

Atkinson, Stuart. The Reverend Fearon Fellows. Astronomy now, v. 3, May 1989: 33-36. illus. (part col.), ports. (part col.)

Aufgebauer, Peter. Die Einführung des Gregorianischen Kalenders in Hildesheim (1631-1634). In Alt-Hildesheim. Jahrbuch für Stadt und Stift Hildesheim. Bd. 59; 1988. Hildesheim, Bernward. p. 71-78. facsimis., port.

Aurass, H., and A. Böhme. 35 Jahre solare Radioastronomie im Observatorium Tremsdorf. Die Sterne, 65. Bd., Heft 4, 1989: 187-194. illus., port.

Ausejo, Elena. Trigonometría y astronomía en el Tratado del Cuadrante Sennero (c. 1280). In Dynamis. v. 4; 1984. Granada, Universidad de Granada. p. 7-22. illus.

Autio, Eero. Lisa "Nädala vanimale ajaloole." [An addition to the "Oldest history of the week"] In Struve (W.) nimeline Tartu Astrofüüsika Observatorio. Tartu tähetorni kalender. 65. aastak; 1988 aastaks. Tallinn, "Valgus," 1988. p. 98-106. illus.

- Baker, Christopher P. Fossil observatories. *Geographical magazine*, v. 61, Feb. 1989: 36-38. illus.
On the masonry structures built by Jai Singh.
- Barthel, Peter, and Theo Jurriëns. *Sterrenkunde in Groningen*. Zenit, 16. jaarg., apr. 1989: 152-154. illus., port.
- Baum, Richard. The phantom ring of Neptune. In *British Astronomical Association, London*. Journal, v. 99, Apr. 1989: 77, 100.
- Bausani, Alessandro. La cultura islamica e una possibile interpretazione astronomico del labirinto. In *Orientalia Iosephi Tucci memoriae dicata*. Edenda curaverunt G. Gnoli et L. Lanciotti. v. 1. Roma, Istituto italiano per il Medio ed Estremo Oriente, 1985. (Serie orientale Roma, v. 56, 1) p. 57-63.
- Bausani, Alessandro. Gli strumenti astronomici di Jamāluddīn per Kublai Khan. In *Venezia e l'Oriente*. A cura di Lionello Lanciotti. Firenze, L. S. Olschki, 1987. (Civiltà veneziana. Studi, 42) p. 137-146.
- Beck, Roger. Mithraism since Franz Cumont. In *Aufstieg und Niedergang der römischen Welt. Geschichte und Kultur Roms im Spiegel der neueren Forschung*. T. 2. Principat. 17. Bd. 4. Tbd. Religion (Heidentum: römische Götterkulte, orientalische Kulte in der römischen Welt). Hrsg. von Wolfgang Haase. Berlin, New York, W. de Gruyter, 1984. p. 2002-2115. illus., plates (part col.)
"... astronomy and astrology ... are now increasingly seen as permeating the Mysteries [of Mithras]"
- Beech, Martin. The great meteor of 18th August 1783. In *British Astronomical Association, London*. Journal, v. 99, Apr. 1989: 130-134. illus.
- Beech, Martin. Meteor astronomy: a mature science? Earth, moon, and planets, v. 43, Nov. 1988: 187-194. illus.
- Beech, Martin. New light on the ancient sun. *Astronomy now*, v. 3, June 1989: 10-11. illus.
- Beech, Martin. Old bones betray a faster earth. *Astronomy now*, v. 3, Oct. 1989: 6-7. illus.
On findings from Chinese oracle bones announced by Kevin D. Pang at the Ann Arbor A.A.S. meeting in June.
- Berggren, J. L. Mathematical methods in ancient science: astronomy. In *History in mathematics education*. Proceedings of a workshop held at the University of Toronto, Canada, July-August 1983. Edited by I. Gratton-Guiness. Paris, Belin, 1987. (Cahiers d'histoire & de philosophie des sciences, nouv. sér., no 21) p. 33-49.
- Berggren, J. L. Mathematical methods in ancient science: spherics. In *History in mathematics education*. Proceedings of a workshop held at the University of Toronto, Canada, July-August 1983. Edited by I. Gratton-Guiness. Paris, Belin, 1987. (Cahiers d'histoire & de philosophie des sciences, nouv. sér., no 21) p. 14-32. illus.
- Bernabeu Albert, Salvador. Astronomía en la América de Carlos III: la expedición hispano-francesa a medir el paso de Venus. *Cuadernos hispanoamericanos*, dic. 1988: 175-186.
- Bhattacharyya, J. C. Saha equation: a giant step in astrophysics. *Science & culture*, v. 53, June 1987: 165-168.

Biagioli, Mario. The social status of Italian mathematicians, 1450-1600. History of science, v. 27, Mar. 1989: 41-95.

Two appendices provide (1) a bibliography of 570 entries, with indices (p. 69-91), and (2) a list of mathematics teachers at Italian universities of the period (p. 91-95). Astronomers, astrologers, cosmographers, and military engineers are included in the study.

Bignami, Giovanni F. Gli osservatori sul Monte Bianco. Astronomia, anno 10, febbr. 1988: 29-36. illus. (part col.)

Binnewies, Stefan. Bei der Wilhelm-Foerster-Sternwarte in Berlin. Sterne und Weltraum, 28. Jahrg., Apr. 1989: 254-255. illus.

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On the Carte du Ciel.

Boehm, Conrad. Karl Schwarzschild. Astronomia, anno 11, giugno 1989: 14-21. illus., ports.

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Bottazzini, Umberto. Lagrange et le problème de Kepler. Revue d'histoire des sciences, t. 42, jan./juin 1989: 27-42.

Abstract also in English.

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Boven, F. P. van. Astronomie op munten en penningen. Zenit, 16. jaarg., nov. 1989: 392-395. illus.

Bowen, Alan C., and Bernard R. Goldstein. Meton of Athens and astronomy in the late fifth century B.C. In A Scientific humanist; studies in memory of Abraham Sachs. Edited by Erle Leichty, Maria deJ. Ellis, and Pamela Gerardi. Philadelphia, 1988. (Occasional publications of the Samuel Noah Kramer Fund, 9) p. 39-81. illus.

Britton, John P. An early function for eclipse magnitudes in Babylonian astronomy. Centaurus, v. 32, no. 1, 1989: 1-52. illus.

- Brosche, Peter. Franz Xaver von Zach und die Gründung der Seeberg-Sternwarte bei Gotha. In Coburger Landesstiftung. Jahrbuch. Bd. 33; 1988. Co**b**urg. p. 173-204. illus., facsimis., ports. (part col.)
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- Brunier, Serge. Pic du Midi: le temps des pionniers. Ciel et espace, no 234, mars 1989: 22-27. illus. (part col.)
- Bührke, Thomas, and Frederic Hessman. LichTechos; die Geschichte der Nova Persei 1901 und die aktuelle Forschung. Sterne und Weltraum, 28. Jahrg., März 1989: 148-152. illus., port.
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