

## RECENT PUBLICATIONS RELATING TO THE HISTORY OF ASTRONOMY

Ruth Freitag  
Library of Congress

### — Books and Pamphlets —

Ahmad, Imad-ad-Dean. Signs in the heavens: a Muslim astronomer's perspective on religion and science. Beltsville, Md., Writers' Inc. - International, 1992. xvii, 174 p. illus.

Contents: 1. Introduction.—2. Science and religion.—3. The signs of God.—4. What Muhammad saw in the sky.—5. Missing years in the history of science: 622–1492 C.E.—6. Impact of Islamic astronomy on the West.—7. The lunar calendar problem.—8. Prospects for an Islamic renaissance.

Andriesse, Cornelis D. Titan kan niet slapen; een biografie van Christiaan Huygens. Amsterdam, Contact, 1993. illus., ports.

Aquila, Matteo dell'. Tractatus de cometa atque terraemotu (Cod. Vat. Barb. Lat. 268). A cura di Bruno Figliuolo. Salerno, P. Laveglia, 1990. 78 p. illus. (Storia e scienze della terra, v. 2)

Text in Latin with Italian translation.

Concerns the 1456 apparition of Halley's Comet and the earthquake that struck Italy in December of that year.

The Attraction of gravitation: new studies in the history of general relativity. John Earman, Michel Janssen, John D. Norton, editors. Boston, Birkhäuser, 1993. 432 p. illus. (Einstein studies, v. 5)

Contents: pt. 1. Disputes with Einstein. Norton, J. D. Einstein and Nordström: some lesser-known thought experiments in gravitation. Howard, D., and J. D. Norton. Out of the labyrinth? Einstein, Hertz, and the Göttingen answer to the hole argument. Cattani, C., and M. De Maria. Conservation laws and gravitational waves in general relativity (1915–1918). Havas, P. The general-relativistic two-body problem and the Einstein-Silberstein controversy.—pt. 2. The empirical basis of general relativity. Earman, J., and M. Janssen. Einstein's explanation of the motion of Mercury's perihelion. Kox, A. J. Pieter Zeeman's experiments on the equality of inertial and gravitational mass.—pt. 3. Variational principles in general relativity. Kichenassamy, S. Variational derivations of Einstein's equations. Cattani, C. Levi-Civita's influence on Palatini's contribution to general relativity.—pt. 4. The reception and development of general relativity. Reich, K. The American contribution to the theory of differential invariants, 1900–1916. Goenner, H. The reaction to relativity theory in Germany, III: "A Hundred Authors against Einstein." Bergia, S. Attempts at unified field theories (1919–1955). Alleged failure and intrinsic validation/refutation criteria. Gorelik, G. Vladimir Fock: philosophy of gravity and gravity of philosophy. Wali, K. C. S. Chandrasekhar's contributions to general relativity.—pt. 5. Cosmology and general relativity. Eisenstaedt, J. Lemaître and the Schwarzschild solution. Urani, J., and G. Gale. E. A. Milne and the origins of modern cosmology: an essential presence.

Aujac, Germaine. Claude Ptolémée, astronome, astrologue, géographe; connaissance et représentation du monde habité. Paris, Éditions du CTHS, 1993. 427 p. illus. (part col.) (Format, 11)

Barbieri, Luigi L. Storia della cosmologia, dalla preistoria al futuro. Bologna, Clueb, 1992. 125 p.

Barsanti, Danilo. P. Giovanni Giovannozzi, uno scolopio tra fede e libertà, religione e patria (1860–1928). Firenze, Osservatorio Ximeniano, 1990. 217 p. illus., ports. (Collana Biografie del-

l'Osservatorio Ximeniano di Firenze)

Father Giovannozzi was the sixth director of the Osservatorio Ximeniano. "La produzione scientifica, letteraria e apologetica" (p. 97–206) is an annotated bibliography of his writings.

Borst, Arno. The ordering of time, from the ancient computus to the modern computer. Translated from the German by Andrew Winnard. Chicago, University of Chicago Press, 1993. 168 p. illus.

Translation of *Computus: Zeit und Zahl in der Geschichte Europas* (1990), listed in *H.A.D. News* no. 28.

Burl, Aubrey. From Carnac to Callanish: the prehistoric stone rows and avenues of Britain, Ireland and Brittany. New Haven, Yale University Press, 1993. xvi, 286 p. illus., maps.

"County Statistics": p. 211–213. "County Concordance of Stone Rows and Avenues": p. 214–225. "Gazetteers": p. 226–269.

Archaeoastronomical aspects are treated. Relevant index terms include Alignments; Archaeoastronomy; Astronomer-priests; Astronomical dates; Astronomy; Moon; Sun; Stars; and Stellar dating. Cross references are provided from some of these headings.

Caputo, Vincenzo. Meridiane e orologi a Belluno. Belluno, Istituto bellunese di ricerche sociali e culturali, 1993. 93 p. illus. (Quaderni, 31)

Chabàs, Josep, Antoni Roca, and Xavier Rodríguez i Gil. L'astronomia de Jacob ben David Bonjorn. Barcelona, Institut d'Estudis Catalans, 1992. 271 p. illus. (Arxiu de les Seccions de Ciències. Secció de Ciència i Tecnologia, 104)

Chaisson, Eric J. The Hubble wars; astrophysics meets astropolitics in the two-billion-dollar struggle over the Hubble Space Telescope. New York, HarperCollins Publishers, 1994. 386 p. illus., maps, col. plates.

Cleomedes. Cleomedis Caelestia (*Μετεώρα*). Edidit Robert Todd. Leipzig, BSB B. G. Teubner, 1990. xxxi, 118 p. (Bibliotheca scriptorum Graecorum et Romanorum Teubneriana)

"Conspectus editionum et versionum": p. xxii. "Conspectus librorum et dissertationum": p. xxiii–xxv.

Preface and commentary in Latin; text in Greek.

Colloquium on Vedic Astronomy and Astrology, Nagpur, 1989. Issues in Vedic astronomy and astrology. Proceedings of Colloquium [sic] on Vedic Astronomy and Astrology, 26–28 September, 1989 at Nagpur. Editors: Haribhai Pandya, Somdutt Dikshit, M. N. Kansara. Delhi, Rashtriya Veda Vidya Pratishtan, in association with Motilal Banarsi Dass Publishers, 1992. 391 p. illus.

Partial contents: pt. 2. Vedic astronomy (papers in English). 6. Holey, P. V. Vedic astronomy, its origin and evolution. 7. Vartak, P. V. Vedic astronomy. 8. Sharma, S. D. Pre-Vedāṅga astronomy. 9. Paramhans, S. A. Astronomy in ancient India, its importance, insight and prevalence. 10. De, K. Solar and other astronomy in the Rgveda. 11. Roy, S. B. Viśvāmitra's astronomy. 12. Ramanathan, A. S. The Nāsadiya Sūkta of the Rgveda. 13. Vartak, P. V. The theory of genesis of universe from the Nāsadiya Sūkta in comparison with that of the modern science. 14. Sarma, K. V. A

solar eclipse recorded in the Rgveda. 15. De, S. S. Depth of astronomical knowledge in the Rgveda and its relevance [sic] in modern times.—pt. 3. Vedic astrology (papers in English). 16. Pandya, H. D. Some thoughts on astronomy/astrology. 17. Dharmadhikari, T. N. Nakshatras and Vedic astrology. 18. Abhyankar, K. D. A search for the earliest Vedic calendar. 19. Kansara, N. M. The Vedic sources of the Vedāṅga Jyotiṣa. 20. Holey, P. V. Vedāṅga Jyotiṣa. 21. Yajnik, N. S. Yuga: a time unit of five years in the Vedas. 22. Rana, N. C. Astronomical dating from astrological conventions.

The first five papers are in Hindi.

Annexures 2–18, relating to papers 6–8, 20, and 17, appear on p. 345–391. Not all the annexures are entirely in English.

Copernico e la questione copernicana. Opere della Pubblica biblioteca di Ferrara. A cura di Luigi Pepe. Ferrara, G. Corbo, 1993. facsimis. (part col.), ports.

Contents: Dalpiaz, P. [Presentazione]—Pepe, L. Introduzione.—Derenzini, G. Matematica ed astronomia nel Quattrocento.—Maccagni, C. Il Cinquecento: la definitiva affermazione della stampa.—Giusti, E. Metamorfosi del copernicanesimo: 1600–1700.—Chiappini, A. Libri proibiti a Ferrara nel Settecento. —Catalogo.

The catalog contains detailed descriptions and annotations for 173 works.

Cummian, Saint. Cummian's letter De controversia Paschali, edited by Maura Walsh and Dáibhí Ó Cróinín. Together with a related Irish computistical tract, De ratione computandi, edited by Dáibhí Ó Cróinín. Toronto, Pontifical Institute of Mediaeval Studies, 1988. 264 p. (Studies and texts, 86)

The Latin text of *De controversia Paschali* is accompanied by an English translation on facing pages.

D'Imhotep à Copernic; astronomie et mathématiques des origines orientales au moyen âge. Actes du colloque international, Université Libre de Bruxelles, 3–4 novembre 1989. Édits par Fr. Mawet et Ph. Talon. Leuven, Peeters, 1992. 158 p. illus., facsimis. (Lettres orientales, 2) (Cahiers d'Alta r)

Contents: Mawet, F. Préface.—Donnay, G. La révolution des orbes célestes d'Anaximandre à Copernic.—Talon, P. Introduction aux mathématiques babylonniennes.—Delire, J. M. Des mathématiques babylonniennes à l'arithmétique pythagoricienne: la tablette cunéiforme Plimpton 322.—Moesgaard, K. P. Babylonian astronomy in Seleucid times. How naked eye observations by court astrologers led to high precision theories?—Mazars, G. Introduction à l'histoire des mathématiques indiennes.—Høyrup, J. "Algèbre d'Al-ğabr" et "algèbre d'arpentage" au neuvième siècle islamique et la question de l'influence babylonienne.—Elkhadem, H. La cartographie céleste dans l'astronomie arabe.—Couloubaritsis, L. Cosmogonies et cosmologies présocratiques.

Da Galileo alle stelle. From Galileo to the stars. Testo, Francesco Bertola; fotografie, Francesco Danesin. Cittadella, Biblos, 1992. [120], 106 p. facsimis., col. plates.

Contents: Bertola, F. Sette secoli di astronomia a Padova. Cronologia galileiana. Rosino, L. Galileo: esplorazioni e scoperte in cielo. Longo, O. Dal mare al cielo: la dottrina delle maree. Finocchiaro, M. A. L'impatto di Galileo sulla storia del pensiero scientifico. Field, G. B. Astronomia oggi. Scandaletti, P. Galileo privato.—From Galileo to the stars. Bertola, F. Seven centuries of astronomy at Padua. The Galilean chronology. Rosino, L. Galileo:

exploration and discovery of the heavens. Longo, O. From the sea to the heavens (the theory of the tides). Finocchiaro, M. A. The impact of Galileo on the history of scientific thought. Field, G. B. Astronomy today. Scandaletti, P. The private Galileo.

Encyclopedia of time. Edited by Samuel L. Macey. New York, Garland Pub., 1994. xxiv, 699 p. illus. (Garland reference library of social science, v. 810)

See "Articles Listed by Major Disciplines" (p. xix–xxii) for titles of articles on archaeoastronomy and astronomy of specific cultures, astronomy, horology, and time's measurements and divisions. Some of the other groupings, such as biological rhythms, interdisciplinary studies, mathematics, philosophy, physics, and religion, also list articles of interest.

Englisch, Brigitte. Die Artes liberales im frühen Mittelalter (5.–9. Jh.). Das Quadrivium und der Komputus als Indikatoren für Kontinuität und Erneuerung der exakten Wissenschaften zwischen Antike und Mittelalter. Stuttgart, F. Steiner, 1994. 494 p. (Sudhoffs Archiv. Beihefte, Heft 33)

See particularly section 3.3, "Die Astronomie" (p. 182–279), and section 4, "Der Komputus—Element oder Komplement des Quadriviums?" (p. 280–469).

Fantoli, Annibale. Galileo, per il copernicanesimo e per la chiesa. Città del Vaticano, Specola Vaticana—Libreria editrice vaticana; Vatican Observatory Foundation, 1993. xv, 447 p. (Studi galileiani, 2)

Focus Behaim-Globus. Germanisches Nationalmuseum, Nürnberg, 2. Dezember 1992 bis 28. Februar 1993. Redaktion: Wolfgang Püthorn, Peter Laub. Konzeption und Katalogbearbeitung: Johannes K. W. Willers, Peter J. Bräunlein, Renate Hilsenbeck, Grzegorz Leszczyński. Nürnberg, Verlag des Germanischen Nationalmuseums, 1992. 2 v. (977 p.) illus. (part col.), facsimis. (part col.), maps (part col.), ports. (part col.)

Partial contents: T. I. Aufsätze. Krafft, F. Das Bild vom Kosmos im Wandel der Zeit. Bialas, V. Astronomie und Kosmologie im vorkolumbianischen Amerika. Hunger, H. Kosmologische Vorstellungen und Astronomie im Alten Mesopotamien. Schmidt-Glintzer, H. Das Weltbild im Alten China. Erhard, H. Das Weltbild vorstaatlicher Gesellschaften am Beispiel der Campa [Peru]. Dekker, E. Der Himmelsglobus—ein Welt für sich. King, D. A. Die Astrolabiensammlung des Germanischen Nationalmuseums, übersetzt von Kurt Maier.—T. 2. Katalog. I. Die Vorstellungen von Kosmos und Sonnensystem.

The cited portion of the catalog provides extensive descriptions of more than 100 items, most of which are illustrated. The authors of the texts are identified.

Gousset, Marie T., and Jean P. Verdet. Liber astrologiae. [par] Georgius Zothorus Zaparus Fendulus. Paris, Herscher, 1989. 102 p. illus. (part col.)

Contents: Verdet, J. P. Un être hybride: l'astrologie grecque.—Planches.—Gousset, M. T. Un chef d'œuvre de l'enluminure sicilienne.

Includes only the illuminations from the manuscript of the *Liber astrologiae* in the Bibliothèque national (Paris), Latin 7330.

Gregory, Tullio. Mundana sapientia; forme di conoscenza nella cultura medievale. Roma, Edizioni di storia e letteratura, 1992. 480 p. (Storia e letteratura, 181)

Two of the three pieces cited below were previously published at the dates shown.

Partial contents: 11. Astrologia e teologia nella cultura medievale.—12. Temps astrologique et temps chrétien (1984).—13. I sogni e gli astri (1985).

Gundel, Hans G. Zodiakos: Tierkreisbilder im Altertum. Kosmische Beztige und Jenseitsvorstellungen im antiken Alltagsleben. Mainz am Rhein, Verlag P. von Zabern, 1992. 358 p. illus., facsimis., plates (part col.) (Kulturgeschichte der antiken Welt, Bd. 54)

Includes a catalog of over 500 works of art (p. 199–349), updating the list published by the author in v. X A of Pauly-Wissowa's *Realencyclopädie der classischen Altertumswissenschaft*.

Hamel, Jürgen. Zentralkatalog alter astronomischer Drucke in den Bibliotheken der DDR (bis 1700). ZKaaD. Berlin-Treptow, 1987–93. 5 v. (464 p.) (Archenhold-Sternwarte, Berlin-Treptow. Veröffentlichungen, Nr. 16–20)

The title of v. 5 is *Zentralkatalog alter astronomischer Drucke in den Bibliotheken der deutschen Bundesländer Mecklenburg-Vorpommern, Brandenburg, Berlin, Sachsen-Anhalt, Thüringen und Sachsen (bis 1700)*.

Copies of more than 5,000 items are located in 88 libraries.

This entry supersedes the one that described the first volume of the set, listed in HAD Newsletter no. 12.

Hegel and Newtonianism. Edited by Michael John Petry. pt. 4. Celestial mechanics. Dordrecht, Boston, Kluwer Academic Publishers, 1993. (Archives internationales d'histoire des idées, 136) p. 341–513. illus.

Contents: 24. Lunteren, F. van. Eighteenth-century conceptions of gravitation.—25. Ihmig, K. N. Hegel's treatment of universal gravitation.—26. Neuser, W. The concept of force in eighteenth-century mechanics.—27. Ihmig, K. N. Hegel's rejection of the concept of force.—28. Brackenridge, J. B. Universal gravitation from elliptical orbits.—29. Weinstock, R. A worm in Newton's apple.—30. Petry, M. J. The significance of Kepler's laws.

Hertzprung, Henriette Kapteyn. The life and works of J. C. Kapteyn. An annotated translation with pref. and introd. by E. Robert Paul. Space science reviews, v. 64, no. 1/2, 1993: iv–xix, 1–92. illus., ports.

Translation of *J. C. Kapteyn, zijn leven en werken* (Groningen, P. Noordhoff, 1928. 176 p. plates, ports.).

Illmer, Markus M. Die göttliche Mathematik Johannes Keplers; zur ontologischen Grundlegung des naturwissenschaftlichen Weltbildes. St. Ottilien, EOS Verlag, 1991. 258 p. (Dissertationen. Philosophische Reihe, Bd. 7)

Katgert-Merkelijn, Jeannette K. The manuscripts and correspondence of Jan Hendrik Oort. Inventory. Leiden, University Library, 1992. 157 p.

Kelly, Aidan A., Peter D. Dresser, and Linda M. Ross. Religious holidays and calendars, an encyclopaedic handbook. Detroit, Omniographics, 1993. 163 p.

Contents: pt. 1. The history of calendars. Basic questions all calendars must answer. Lunar and lunisolar calendars: western traditions. Lunar and lunisolar calendars: eastern traditions. Solar calendars. Calendar reforms since the mid-eighteenth century.—pt. 2. Alphabetical catalogue of religious holidays.

King, David A. Astronomy in the service of Islam. Aldershot, Hants., Brookfield, Vt., Variorum, 1993. xiv, [303], 19 p. illus., facsimis., ports. (Collected studies series, CS416)

"This volume supplements two earlier ones published by Variorum in their Collected Studies Series: *Islamic Mathematical Astronomy* (1st. ed., 1986; 2nd. revised ed., 1993) and *Islamic Astronomical Instruments* (1987)."

Contents: 1. Science in the service of religion: the case of Islam (1990).—2. Some early Islamic tables for determining lunar crescent visibility (1987).—3. Ibn Yünus on lunar crescent visibility (1988).—4. Lunar crescent visibility predictions in medieval Islamic ephemerides (1991).—5. Mi kāt: astronomical timekeeping (1990).—6. Universal solutions in Islamic astronomy (1987).—7. Universal solutions to problems of spherical astronomy from Mamluk Egypt and Syria (1988).—8. Mizwala (1991).—9. Kibla: sacred direction (1979).—10. Makka: as the centre of the world (1987).—11. Maṭla': astronomical rising-points (1989).—12. On the orientation of the Ka'ba (with G. S. Hawkins, 1982).—13. Astronomical alignments in medieval Islamic religious architecture (1982).—14. The earliest Islamic mathematical methods and tables for finding the direction of Mecca (1986). —Addenda and corrigenda.

Kunitzsch, Paul, and Manfred Ullmann. Die Plejaden in den Vergleichen der arabischen Dichtung. München, Verlag der Bayerischen Akademie der Wissenschaften, 1992. 185 p. illus. (Bayerische Akademie der Wissenschaften. Philosophisch-historische Klasse. Sitzungsberichte, Jahrg. 1992, Heft 4) (Beiträge zur Lexikographie des klassischen Arabisch, Nr. 9)

Litvinova, Elizaveta F. V. IA. Struve, ego zhizn' i uchenia deiatel'nost'. Biograficheskii ocherk. S.-Peterburg, Revers, 1993. 74, [10] p.

First published in 1893. Reprinted with an introduction (p. 4–8) by V. K. Abalakin and an English summary (p. 66–74) by Irena N. Voronina.

Monod, Théodore, and Brigitte Zanda. Le fer de Dieu: histoire de la météorite de Chinguetti. Le Méjan, Arles, Actes Sud, 1992. 135 p. illus., maps, ports. (Terres d'aventure)

On attempts to locate a huge meteorite said to have been seen, perhaps in 1916, by an army officer in the Adrar region of Mauretania.

Museo nazionale del Bargello, Florence. Strumenti scientifici della Collezione Carrand. Introduzione e schede a cura di Mara Miniati. Firenze, 1991. 69 p. illus. (Lo Specchio del Bargello, 31)

The collection, formed by Jean Baptiste Carrand (1792–1871), consists chiefly of time-measuring instruments such as watches, clocks, quadrants, dials, and astrolabes dating from the 15th–17th century.

New York State astronomy. Sponsored by New York State Astronomical Corporation; Astronomical Society of New York; Astronomy Dept., Cornell University. April 23–25, 1992, meeting held in Ithaca, New York at Cornell University. Edited by A. G. Davis Philip, Union College and Van Vleck Observatory. Schenectady, N.Y., L. Davis Press, 1992. 184 p. illus., ports.

Partial contents: Salpeter, E. E. Cornell theoretical astrophysics 25 (and 50) years ago.—Cordes, J. M., and Y. Terzian. Pulsars at Arecibo and Cornell: past as prologue.—Alpher, R. A. The development of the Big Bang model and its present status.—Philip, A. G. D. The history of NYAC and ASNY—1967 to 1992.

Ocherki istorii otechestvennoi astronomii: s drevneishikh vremen do nachala XX v. Kiev, "Naukova dumka," 1992. 511 p. illus., ports.

Contents: Ch. 1. Stanovlenie i razvitie astronomii s drevneishikh vremen. Glava 1. Astronomiia Drevnei i Srednevekovoï Rusi. Glava 2. Astronomiia v Rossii v XVIII-nachale XIX v. Glava 3. Astronomiia v Srednei Azii. Glava 4. Istoriiia astronomii v Armenii. Glava 5. Drevniaia i srednevekovaia astronomiia v Gruzii. Glava 6. Razvitie astronomii v Azerbaidzhane. Glava 7. Razvitie astronomii v Pribaltike. Glava 8. Astronomicheskie observatorii. —Ch. 2. Razvitie osnovnykh napravlenii v XIX-nachale XX v. Glava 9. Fundamental'naia astrometriia i fundamental'nye astronomicheskie postoiannye. Glava 10. Prakticheskaiia astronomiia. Glava 11. Izuchenie izmenenii shiroty i dvizheniiia poliusov Zemli. Glava 12. Nebesnaia mekhanika. Glava 13. Istoriiia astronomicheskoi fotografii v Rossii. Glava 14. Fotograficheskaiia astrometriia. Glava 15. Razvitie astrospektroskopii. Glava 16. Zvezdnaia astronomiia. Glava 17. Astrofizicheskie issledovaniia. —Osnovnye etapy razvitiia otechestvennoi astronomii s drevneishikh vremen do kontsa XVIII v. Khronologicheskii ukazatel'. —Khronologiiia vazhneishikh sobytii i otkrytii v otechestvennoi astronomii (1800–1917 gg.).

Die okkulten Wissenschaften in der Renaissance. Vorträge gehalten anlässlich einer Tagung des Wolfenbütteler Arbeitskreises für Renaissanceforschung von 31. Oktober bis 2. November 1988. Hrsg. von August Buck. Wiesbaden, In Kommission bei O. Harrassowitz, 1992. 293 p. illus. (Wolfenbütteler Abhandlungen zur Renaissanceforschung, Bd. 12).

Partial contents: Krafft, F. *Tertius interveniens*: Johannes Keplers Bemühungen um eine Reform der Astrologie.—Telle, J. Astrologie und Alchemie im 16. Jahrhundert. Zu den astroalchemischen Lehrdichtungen von Christoph von Hirschenberg und Basilius Valentinus.—Schiller, P. Das himmelskundliche Ikonographie der Decke der Sala di Galatea in der Villa Farnesina in Rom.

Oxford International Symposium on Archaeoastronomy, 3d, St. Andrews, Scot., 1990. Astronomies and cultures. Papers derived from the third "Oxford" Symposium on Archaeoastronomy, St. Andrews, UK, September 1990. Edited by Clive L. N. Ruggles and Nicholas J. Saunders. Niwot, University Press of Colorado, 1993. xviii, 344 p. illus., maps, plans.

Contents: Aveni, A. F. Foreword.—1. Ruggles, C. L. N., and N. J. Saunders. The study of cultural astronomy.—2. Chen, C.-Y., and Z. Xi. The Yáo Diǎn and the origins of astronomy in China.—3. Ceragioli, R. The riddle of red Sirius: an anthropological perspective.—4. McCluskey, S. C. Astronomies and rituals at the dawn of the Middle Ages.—5. King, D. A. Folk astronomy in the service of religion: the case of Islam.—6. Malville, J. M., and J. M. Fritz. Cosmos and kings at Vijayanagara.—7. Vogt, D. Medicine wheel astronomy.—8. Carlson, J. B. Venus-regulated warfare and ritual sacrifice in Mesoamerica.—9. Broda, J. Astronomical knowledge, calendrics, and sacred geography in ancient Mesoamerica.—10. Roe, P. G. The Pleiades in comparative perspective: the Waiwai *Shirkimo* and the Shipibo *Huishmabo*.—Appendix: Summary of contents of the companion Oxford 3 volume *Archaeoastronomy in the 1990s*.

Papke, Werner. Die Sterne von Babylon. Die geheime Botschaft des Gilgamesch—nach 4000 Jahren entschlüsselt. Bergisch Gladbach, G. Lübbe, 1989. 400 p.

According to the lengthy review by Johannes Koch in *Die Welt des Orients*, Bd. 24, 1993, Papke attributes sophisticated knowledge of astronomy to the Sumerians of the late third millennium B.C. Koch

argues that this view cannot be justified by existing evidence.

Parel, Anthony J. The Machiavellian cosmos. New Haven, Yale University Press, 1992. 203 p.

Explores the extent and significance of contemporary astrological concepts on Machiavelli's writings.

Past, present and future trends in geophysical research. Selected papers from the symposia of the Interdivisional Commission on History of IAGA during the IUGG General Assembly, held in Vancouver, 1987. Wilfried Schröder (editor). Bremen-Roennebeck, Interdivisional Commission on History of IAGA, 1988. 342 p. illus. (Newsletters of the Interdivisional Commission on History of IAGA, no. 3)

Partial contents: Börner, G. Ludwig Biermann (1907–1986).

—Kopecký, M., and G. V. Kuklin. Some new aspects in explanation of Maunder's minimum of sunspots.—Ribes, J. C., E. Ribes, and R. Bartholot. The solar envelope has expanded during the Maunder minimum: by how much?—Débarbat, S. V. Sur l'usage de certaines données historiques pour l'étude de l'environnement terrestre.—Legrand, J. P., and P. A. Simon. The use in geoscience of historical reports of auroras.—Hersé, M. Bright nights.

Peck, Russell A. Chaucer's *Romaunt of the Rose* and *Boece*, *Treatise on the Astrolabe*, *Equatorie of the Planetis*, lost works, and Chaucerian apocrypha; an annotated bibliography, 1900 to 1985. Toronto, Buffalo, University of Toronto Press, 1988. xviii, 402 p. (The Chaucer bibliographies)

Partial contents: pt. 3. The Treatise on the Astrolabe.—pt. 4. The Equatorie of the Planetis.

Each part consists of an introduction, an annotated list of editions, and references to scholarly discussions on or related to the work in question.

Pfister, Silvia. Parodien astrologisch-prophetischen Schriftums, 1470–1590. Textform, Entstehung, Vermittlung, Funktion. Baden-Baden, Koerner, 1990. 684 p. illus. (Saecula spiritalia, Bd. 22)

Planeten, Sterne, Weltinseln: Astronomie im Deutschen Museum. Gerhard Hartl, Karl Märker, Jürgen Teichmann, Gudrun Wolfschmidt. Stuttgart, Franckh-Kosmos, 1993. 248 p. illus. (part col.), ports.

Errata sheet laid in.

Contents: Kippenhahn, R. Vorwort.—Teichmann, J. Astronomie —Wissenschaft von den Sternen.—Hartl, G. Der Weg in die Unendlichkeit—wie ist das Weltall aufgebaut?—Hartl, G. Billionen Sterne über uns—wie sieht der Sternenhimmel aus?—Wolfschmidt, G. Von Farben, Fackeln und Blinkfeuern—Anfänge der Astrophysik.—Teichmann, J. Leben und Tod von Sonnen—die Sternentwicklung.—Märker, K. Von Weltinseln und Inselketten—Großstrukturen im Weltall.—Hartl, G., J. Teichmann, and G. Wolfschmidt. Der Himmel als Labor—Sehen, Beobachten und Messen.—Wolfschmidt, G., and J. Teichmann. Unser Muttergestirn—die Sonne.—Hartl, G. Himmlisches Uhrwerk—unser Planetensystem.—Märker, K., and J. Teichmann. Woher kommen wir—wohin gehen wir? Die Entwicklung des Kosmos.

Putelat, Pierre. Cadans solaires des Hautes-Alpes. Photos: Pierre Putelat; textes: Atelier Tournesol. Molines en Queyras, P. Putelat, 1992. 96 p. (chiefly col. illus.)

Depicts and describes 89 vertical sundials, old and new.

Putnam, William L. The explorers of Mars Hill; a centennial history of Lowell Observatory, 1894–1994. West Kennebunk, Me., Published

for Lowell Observatory by Phoenix Pub., 1994. xix, 289 p. illus., ports., fold. table.

Among the appendices are a list of staff members of Lowell Observatory (p. 265–268) and a chronology of landmark achievements (p. 269–271).

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San Fernando, Spain. Instituto y Observatorio de Marina. *Biblioteca. Catálogo de la Biblioteca del Real Observatorio de la Armada (siglos XV–XVIII)*. [Por] Francisco José M<sup>a</sup> Merino. San Fernando, 1993. 174 p. facsimils. (Boletín ROA, no. 5/93)

Alphabetically arranged listing of 1,311 numbered items, with indexes of names and subjects. The most important periodicals are also listed separately in an appendix (p. 151–152).

Schuster, Peter K. *Melencolia I: Dürers Denkbild*. Berlin, Gebr. Mann, 1991. 2 v. (679 p., 159 p. of plates) illus. (part fold.)

Contents: Bd. 1. Text.—Bd. 2. Anhang und Abbildungen.

Includes treatment of the astrological and astronomical aspects of

this famous engraving; see index under such headings as Astralmagie, Astrologe, Astrologie, Astronom, Astronomie, Himmelskörper, Irrstern, Komet, Mond, Sonne, Sterne, Sternenhimmel, Sternwarte, Sternwissenschaft, and Tierkreiszeichen.

Sharratt, Michael. *Galileo: decisive innovator*. Oxford, Cambridge, Mass., Blackwell, 1994. 245 p. facsimils., ports. (Blackwell science biographies)

Shepard, Alan B., and Donald K. Slayton. *Moon shot; the inside story of America's race to the moon*. Atlanta, Turner Pub., 1994. 383 p. plates, ports.

Sinigalli, Rocco, and Salvatore Vastola. *L'analemma di Tolomeo*. Firenze, Edizioni Cadmo, 1992. 157 p. illus. (Domus perspectivae, 2)

Includes Latin text and Italian translation in parallel columns of the *Liber de analemmate* (p. 59–109).

Sinigalli, Rocco, and Salvatore Vastola. *Il planisfero di Tolomeo*. Firenze, Edizioni Cadmo, 1992. 271 p. illus. (Domus perspectivae, 1)

Includes Latin text of three published editions of the *Planisphaerium* with Italian translation on facing pages (p. 72–256).

Spinelli, Girolamo. *Dialogo de Cecco di Ronchitti da Bruzene in perpuoso de la stella nuova*. In appendice il Discorso di Astolfo Arniero Marchiano. A cura di Marisa Milani, con una nota scientifica di Luisa Pigatto. Padova, Programma, 1992. 80 p.

Stafleu, Marinus D. *En toch beweegt zij; geschiedenis van de natuurkunde van Pythagoras tot Newton*. Meppel, Boom, 1992. 207 p. illus., facsimils., ports.

Contents: d. 1. De aarde beweegt niet. 1. Pythagoras. 2. Plato. 3. Aristoteles. 4. Claudius Ptolemaios. 5. Alhazen. 6. Petrus Peregrinus. 7. Jean Buridan.—Intermezzo.—d. 2. De aarde beweegt wel. 8. Nicolaas Copernicus. 9. Tycho Brahe. 10. Johannes Kepler. 11. Galileo Galilei. 12. René Descartes. 13. Christiaan Huygens. 14. Isaac Newton. 15. Epiloog.

Stellar evolution and interstellar matter. Abstracts of contributed talks and posters presented at the international scientific conference of the Astronomische Gesellschaft at Jena, September 14–18, 1992. Hamburg, 1992. 220 p. (Astronomische Gesellschaft. Abstract series, no. 7)

Partial contents: Talks. G 01. Brosche, P. Was heisst und zu welchem Ende befassen wir uns mit der Geschichte der Astronomie? G 02. Wolfschmidt, G. "The Construction of the Heavens"—William Herschel as a pioneer of stellar astronomy and nebulae research. G 03. Schielicke, R. The role of Duke Carl August of Saxony-Weimar-Eisenach and Goethe in the foundation of the observatory of Jena. G 04. Krauss, R. A minor astronomical problem in the interpretation of Goethe's "Werther." G 05. Strumpf, M. Astronomy in Gotha: an European center of science for about a century. G 06. Marwinski, T. Die Popularisierung der astronomischen Wissenschaft im Zeitalter der Aufklärung, dargestellt an Beispielen aus dem Thüringer periodischen Schrifttum. G 07. Gerdes, D. Astronomical Society (Germany), at first founded [sic] on September 20th, 1800, now 192 years of age. G 08. Dick, W. R. Documents by and about Argelander in the Kharkov Observatory. G 09. Geyer, E. H. Zum 200. Geburtstag von F. M. Schwerd: seine Beiträge zur Beugungstheorie und Sternphotometrie. G 10. Jährling, R., R. Bien, and H. J. Kummer. Clocks and calendarial reckoning: Karl Ludwig Strasser's contact to astronomy. G 11. Schmidt-Kaler, T. Das Ende der Aera Struve in Pulkovo.—Posters. P 123. Wolfschmidt, G. Gotha—an interna-

tional center of astronomy at the time of Goethe. P 124. Haug, U. Karl Schwarzschild's *Göttinger Aktinometrie* (1910, 1912) compared to photoelectric observations. P 125. Firneis, M. G. Johann Tobias Bürg (Dec. 24, 1766–Nov. 25, 1834)—J. J. Littrow's antagonist in Vienna. P 126. Herbst, K. D. Micrometer in *Astronomie und Technik*.

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Contents: Sundials, zodiacs and time. 1. The origins of modern time (1990). 2. Sun-dials: history and classification (1989). 3. Greco-Egyptian zodiacs from a Gallo-Romano site (1987). 4. Anglo-Saxon sun-dials and the "tidal" or "octaval" system of time measurement (1984). 5. 'The accomplishment of many years': three notes toward a history of the sand-glass. 6. Dialling in the time of Giovan Battista Benedetti (1987). 7. William Oughtred, Richard Delamain and the horizontal instrument in seventeenth century England (1981). 8. La gnomonique en France à l'époque de Jean Picard (1987). 9. La gnomonique: livres en langue française imprimés entre 1500 et 1800 (1988).—Mechanical horology. 10. An account for repairs to the Westminster Palace clock (with J. B. Post, 1973). 11. An emblematic watch by Gribelin (1974). 12. The introduction of the dead-beat escapement: a new document (1972). 13. La "dial clock" anglaise et son contexte social (1983). 14. L'Angleterre, la France et la navigation: le contexte historique de l'œuvre chronométrique de Ferdinand Berthoud (1984). 15. Documents illustrative of the history of English horology, I. Two letters addressed to Thomas

Mudge (with A. C. H. Crisford, 1977). 16. The context of production, identification and dating of clocks by A. and J. Thwaites (with G. T. E. Buggins, 1973). 17. Documents illustrative of the history of English horology, II. The cost of William Hardy's regulator clock for Greenwich Observatory, 1811 (1979).—Precision instrumentation. 18. Paper, print and mathematics: Philippe Danfrie and the making of mathematical instruments in late 16<sup>th</sup> century Paris (1989). 19. Mathematical instruments and the education of gentlemen (1973). 20. 'Utile pour les calculs': the logarithmic scale rule in France and England during the seventeenth century (1988). 21. The pre-history, origins and development of the reflecting telescope (1984). 22. A timber measuring instrument of the early nineteenth century (1973).—Addenda and corrigenda.

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- Includes a box, "Le simbologie astrologiche nell'architettura" (p. 18–19).