RECENT PUBLICATIONS RELATING TO THE HISTORY OF ASTRONOMY

Books and Pamphlets

Abstracts of contributed talks and posters presented at the scientific fall meeting of the Astronomische Gesellschaft at Innsbruck, September 22–27, 1997. Hamburg, 1997. 267 p. (Astronomische Gesellschaft. Abstract series, 13)

Partial contents: Contributed talks. Bialas, V. The astronomical story as history of civilisation: some principal remarks. Szostak, R. The significance of the history of astronomy for teaching of physics. Eichhorn, G., M. J. Kurtz, and D. Coletti. Plans for future on-line access to the historical astronomical literature through the Astrophysics Data System. Haupt, H. F., and P. Holl. A database of Austrian astronomers (eine Datei österreichischer Astronomen). Daxecker, F. Christoph Scheiner's main work "Rosa Ursina." Deiss, B. M., and V. Nebel. On Galileo Galilei's production of the reappearance of saturn's accompanying stars in 1612. Brosche, P. To the memory of Anton von Zach—soldier, geodesist and cosmogonist. Lichtenberg, H. Zur Interpretation der Gaussschen Osterformel und ihrer Ausnahmeregeln. Kokott, W. The story of the Leonids. Zur Geschichte eines sensationellen Meteorstroms. Dick, W. R. Tracing the fate of astronomers' papers. Firneis, M. G. Johann Palisa (1848–1925): in commemoration of the 150th anniversary of his birth. Wolfschmidt, G. From astronomy to astrophysics. Hamel, J. Die Neubearbeitung der "Bibliographia Kepleriana"—Erfahrungen und Ergebnisse.

Abstracts of contributed talks and posters presented at the scientific fall meeting of the Astronomische Gesellschaft at Tübingen, September 16–21, 1996. Hamburg, 1996. 253 p. (Astronomische Gesellschaft. Abstract series, 12)

Partial contents: Contributed talks. Lichtenberg, H., and P. H. Richter. Verbesserte Zeitrechnung. Kokott, W. Regiomontans Ephemeriden für die Jahre 1475–1506. Wolfschmidt, G. Tycho Brahe (1546–1601)—the best observing astronomer in 16th century. Rienitz, J. Robert Hooke and the atmospheric refraction. Strumpf, M., and O. Schwarz. Belastung bis an die physische Grenze—B. A. von Lindenaus (1780–1854) Wiedereinrichtung der Seeberg Sternwarte (1808). Schwarz, O., and M. Strumpf. P. A. Hansen (1795–1874) und die scientific community—Wissenschaftsförderung durch den Gothaer Astronomen. Theis, C., S. Dieters, C. Einsel, and F. Hohmann. An expelled Jewish astronomer: Hans Rosenberg. Dick, W. R., and A. Zenkert. Paul Guthnick in Briefen an Bürgel, Selbstzeugnissen und Erinnerungen.—Poster. Wünsch, J. About the measuring accuracy of Hevelius.

The American Astronomical Society's first century. Editor, David H. DeVorkin. Washington, D.C., Published for the American Astronomical Society through the American Institute of Physics, 1999. 350 p. illus., facsims., ports.

L'Astronomia in Italia. A cura di Fabrizio Bònoli. Firenze, Società astronomica italiana; Napoli, Arte tipografica, 1998. 156 p. illus. (part col.), group ports. (part col.)

"Le pubblicazioni della Società Astronomica Italiana": p. 147–151.

Bedini, Silvio A. Patrons, artisans, and instruments of science, 1600–1750. Aldershot, Hants, Brookfield, Vt., Ashgate Variorum, 1999. xiv, [324], 3, 11 p. illus., facsims., plan, ports. (Variorum collected studies series, CS635)

Partial contents: Collections and artisans. 3. Christina of Sweden and the sciences (1993). 6. Agent for the Archduke: another chapter in the story of Johann Philipp Treffier, clockmaker of Augsburg (1961). 7. In pursuit of provenance: the George Graham proto-orreries (1994).—Instruments and techniques. 9. 'A Treatise on Optics' by Giovanni Christoforo Bolantio (1995). 11. The compartmented cylindrical clepsydra (1962). 12. The 17th century table clepsydra (1968). 13. Seventeenth century magnetic timepieces (1969).

Cartwright, David E. Tides, a scientific history. Cambridge, New York, Cambridge University Press, 1999. 292 p. illus., facsims., maps, ports.

Chapman, Allan. The Victorian amateur astronomer: independent astronomical research in Britain, 1820–1920. Chichester, New York, J. Wiley in association with Praxis Pub., 1998. xix, 428 p. illus., facsims., ports. (Wiley-Praxis series in astronomy and astrophysics)

Contents: pt. 1. The grand amateurs. 1. Amateur astronomy in the Romantic Age. 2. Gentlemen and players: amateurs and professionals in 1840. 3. An inheritance, a wife, a benefice, or a brewery: financing fundamental research. 4. Sir John Herschel: a model for the independent scientist. 5. An astronomical house-party: the Bedford-Aylesbury axis. 6. The brotherhood of the big reflecting telescope. 7. The new sciences of light: spectroscopy, photography, and the grand amateurs. 8. The astronomers' gentlemen: the grand amateurs' professional assistants.—pt. 2. Poor, obscure and self-taught: astronomy and the working class. Prologue. 9. A penny a peep: the astronomical lecturers of the people. 10. Astronomy and the modest master-craftsman. 11. The day-labourer astronomer.—pt. 3. The rise of the leisured enthusiast. Prologue. 12. A goodly pursuit for a Godly mind: Thomas Webb and his influence. 13. That clubbable passion: the amateur astronomical society. 14. Now ladies as well as gentlemen. 15. Conclusion and postscript: the amateur astronomer into the twentieth century.

Depuydt, Leo. Civil calendar and lunar calendar in ancient Egypt. Leuven, Uitg. Peeters en Departement Oosterse Studies, 1997. xiv, 272 p. illus. (Orientalia Lovaniensia analecta, 77)

Duhem, Pierre M. M. L'aube du savoir. Épitomé du *Système du monde*. Textes établis et présentés par Anastasios Brenner. Paris, Hermann, 1997. lx, 612 p. illus. (Collection Histoire de la pensée)

"Histoire des doctrines cosmologiques de Platon à Copernic."

Contents: 1. ptie. La cosmologie hellénique.—2. ptie. L'astronomie latine au Moyen Âge.—3. ptie. La crue de l'Aristotélianisme.—4. ptie. Le reflux de l'Aristotélianisme. Les condamnations de 1277.—5. ptie. La physique parisienne au XIVe siècle.

Dynamics of comets and asteroids and their role in earth history. Proceedings of a workshop held at the Dynic Astropark 'Ten-Kyu-Kan', August 14–18, 1997. Edited by Shin Yabushita and Jacques Henrard. Dordrecht, Boston, Kluwer Academic Publishers, 1998. 291 p. illus., maps, ports.

Partial contents: Glikson, A. Eugene Shoemaker and the impact paradigm in earth and planetary science.—Glikson, A. Eugene M. Shoemaker—bibliography of impact papers.—Yi, T.-J. Meteor fallings and other natural phenomena between 1500–1750, as recorded in the annals of the Chosŏn Dynasty (Korea).—Hasegawa, I. Historical variations in the meteor flux as found in the history of the Koryo Dynasty.

Glikson's contributions also appear in *Celestial Mechanics & Dynamical Astronomy*, v. 69, no. 1/2, 1997/98.

Eratosthenes. Le ciel; mythes et histoire des constellations. Les Catastérismes d'Ératosthène. Texte traduit, présenté et commenté par Pascal Charvet et Arnaud Zucker; postface et commentaire astronomique par Jean-Pierre Brunet et Robert Nadal. Illus. de Robert Schenk. Édition dirigée par Marie-Claude Char. Paris, NiL éditions, 1998. 238 p. illus. (part col.) (Le Cabinet de curiosités)

Evans, David S. The Eddington enigma: a personal memoir. Princeton, NJ, Xlibris Corp., 1998. 199 p. illus., facsims., port.

The Expanding worlds of general relativity. Hubert Goenner, Jürgen Renn, Jim Ritter, Tilman Sauer, editors. Boston, Birkhäuser, 1999. xv, 512 p. illus., facsims. (Einstein studies, v. 7)

Partial contents: Andrade Martins, R. de. The search for gravitational absorption in the early twentieth century.—Norton, J. D. The cosmological woes of Newtonian gravitation theory.—Bergia, S., and L. Mazzoni. Genesis and evolution of Weyl's reflections on De Sitter's universe.—Gale, G., and J. R. Urani. Milne, Bondi and the 'second way' to cosmology.—Kragh, H. Steady-state cosmology and general relativity: reconciliation or conflict?—Sanchez Ron, J. M. Larmor versus general relativity.

Ferguson, Kitty. Measuring the universe; the historic quest to quantify space. London, Headline, 1999. xiv, 306 p., [8] p. of plates. illus., facsims., ports.

Foderà Serio, Giorgia, *and* Ileana Chinnici. L'Osservatorio astronomico di Palermo: la storia e gli strumenti. Palermo, Flaccovio editore, 1997. 175 p. illus. (part col.), ports. (part col.)

Contents: Serio, S. Prefazione.—Storia dell'Osservatorio.—La collezione di strumenti dell'Osservatorio.—1. Astronomia. 2. Cronometria. 3. Meteorologia. 4. Sismologia. 5. Spettroscopia. 6. Fisica. 7. Topografia. 8. Geomagnetismo. 9. Globi.

Le Forme della comunicazione scientifica. A cura di Massimo Galuzzi, Gianni Micheli, e Maria Teresa Monti. Milano, FrancoAngeli, 1998. 438 p. illus., facsims. (Filosofia e scienza nel Cinquecento e nel Seicento. Ser. 1, Studi, 49)

Partial contents: Repellini, F. F. L'organizzazione del trattato astronomico nell'antichità.—Pace, A. de. Forma del dialogo e sapere in alcune interpretazioni del Rinascimento italiano. Nuove prospettive sul *Dialogo* galileiano.—Mormino, G. Christiaan Huygens e il problema della comunicazione scientifica.

Galilei, Galileo. Dialogo sopra i due massimi sistemi del mondo, Tolemaico e Copernicano. Edizione critica e commento a cura di Ottavio Besomi e Mario Helbing. Padova, Editrice Antenore, 1998. 2 v. illus., facsims. (Medioevo e umanesimo, 102–103)

Contents: 1. Testo.—2. Commento.

Gallo, Carlo. L'astronomia egizia, dalle scoperte archeologiche alla misurazione del tempo. Presentazione di Walter Ferreri. Padova, F. Muzzio editore, 1998. xviii, 196 p. illus. (Muzzio scienza)

Gatti, Hilary. Giordano Bruno and Renaissance science. Ithaca, Cornell University Press, 1999. 257 p. illus., facsims.

Gillet, André. Une histoire des marées. Paris, Belin, 1998. 95 p. illus., facsims., ports. (Regards sur la science)

Contents: Introduction.—ch. 1. De la mythologie à l'astronomie scientifique.—ch. 2. Les premières théories.—ch. 3. Les tatonnements des physiciens du XVIIe siècle.—ch. 4. Marées et gravitation.—Glossaire.—Notes.

History of Oriental astronomy. Chairpersons and editors: S. M. R. Ansari & S. J. Dick. *In* International Astronomical Union. Highlights of astronomy. v. 11B. As presented at the XXIIIrd general assembly of the IAU, 1997. Edited by J. Andersen. Dordrecht, Boston, Kluwer Academic Publishers, 1998. p. 693–746. illus. (Joint discussion, 17)

Contents: Maeyama, Y. On the earliest stage of Chinese astronomy: 3 hypotheses.—Dalen, B. van, and M. Yano. Islamic astronomy in China: two new sources for the *Huihui li* ("Islamic calendar").—Kusuba, T. An Arabic commentary on Al-Tūsū's [sic] *al-Tadhkira* and its Sanskrit translation.—Jiang, X.-Y. Indian astronomy in ancient China.—Nha, I.-S. Three star maps produced in Korea during the 18th century.—Nha, I.-S. A new museum of astronomy in Korea.—Stephenson, F. R. Eclipse records in early Korean history: the *Koryo-sa*.—Miyajima, K. Projection methods in Chinese, Korean and Japanese star maps.—Chen, K. Y. On the obliquity of the ecliptic.—Ōhashi, Y. The legends of Vasistha—a note on the Vedāṅga astronomy.—Plofker, K. Spherical trigonometry in the astronomy of the medieval Kerala school.—Pang, K. D., K. K. C. Yau, and H. H. Chou. Astronomical dating and statistical analysis of ancient Chinese eclipse data.—Pingree, D. The *Drkpakṣasāranī*: a Sanskrit version of de La Hire's *Tabulae Astronomicae*.—Ansari, S. M. R. Modern astronomy in Indo-Persian sources.—DeVorkin, D. H. Takamine and Saha: contacts with Western astrophysics.—Isobe, S. Astronomy education in the East.—Hashimoto, K. The earliest evidence of the introduction of Kepler's laws to China as is observed in the *Lifa wenda*.—Sobouti, Y. Contemporary astronomy in Iran—a status report.—Orchiston, W. Power and politics in nineteenth century Australian astronomy.—Débarbat, S. V. Astronomical observations in Asia from Delisle's manuscript preserved in the Paris Observatory Library.

Hockey, Thomas A. Galileo's planet: observing Jupiter before photography. Bristol, Philadelphia, Institute of Physics Pub., 1999. xvii, 217 p. illus. (part col.), facsims., ports.

An appendix provides a chronological list of dates (Gregorian) of oppositions of Jupiter, 1601–1900.

Holland, Charles H. The idea of time. Chichester, New York, J. Wiley, 1999. 150 p. illus.

Hollander, Raymond d'. L'astrolabe: histoire, théorie et pratique. Paris, Institut océanographique, 1999. 382 p. illus.

A version of the rete of Abu-Bakr's astrolabe printed on a plastic disk is supplied in a pocket inside the back cover of the volume.

Ifland, Peter. Taking the stars: celestial navigation from argonauts to astronauts. Newport News, Va., Mariners' Museum; Malabar, Fla., Krieger Pub. Co., 1998. xv, 222 p. illus. (part col.), facsims.

Ishihara, Aeka. Makarie und das Weltall: Astronomie in Goethes "Wanderjahren." Köln, Böhlau, 1998. 261 p. (Kölner germanistische Studien, Bd. 42)

Partial contents: Einleitung. Die Gestalt der Makarie in der Forschung.—T. A. Poesie und Naturwissenschaft: "Der Roman über das Weltall."—T. B. I. Goethe und die optischen Instrumente. II. Goethe als Oberaufseher der Sternwarte zu Jena. III. Goethe und die Astronomie.—T. C. Makarie. III. Die Astronomie und die Frauen. IV. Makarie und das Fernrohr: Erschrecken und Erstaunen. V. Die Vertikal- und Spiraltendenz: Makarie und die Naturwissenschaftler. VI. Symbolik: die Gestalt der Makarie.—Ergebnisse und Perspektiven.—Anhang.

Kane, Matt. Heavens unearthed in nursery rhymes and fairy tales. Illustrated by Joe Servello. Altoona, PA, Golden Egg Books, 1999. 308 p. illus.

"Our beliefs about the moon can be traced back to ancient times. Many span the globe, and many can be traced even to the last Ice Age. By examining our most popular fairy tales and nursery rhymes, we can see that they are based on ancient myths about the sun and the moon and about solar and lunar eclipses."

Kepler, Johannes. Gesammelte Werke. Bd. 20.2. Manuscripta astronomica (II). Commentaria in theoriam Martis. Bearb. von Volker Bialas, Johanna Kuric, Inge Noeggerath. München, C. H. Beck'sche Verlagsbuchhandlung, 1998. 650 p. illus., facsim.

Koch, Heinrich P. Der Sintflut-Impakt: die Flutkatastrophe vor 10.000 Jahren als Folge eines Kometeneinschlags. Frankfurt am Main, New York, P. Lang, 1998. 233 p. illus., maps.

Krishnamurthy, V. The clock of the night sky. New Delhi, UBS Publishers' Distributors, 1998. 107 p. illus. (part fold.) (K. K. Birla Academy monographs on the cultural, scientific and technological heritage of India, no. 2)

Contents: Foreword.—Preface.—Acknowledgements.—1. Introductory.—2. The 17 Nakshatras of the Hindu calendar.—3. The 27 Sanskrit formulae.—4. The Tamil tradition.—5. The Tanjore manuscript.—6. A critical analysis.—Appendix 1 [proof of a mathematical fact on p. 4]—Appendix 2 [ready reckoner for the visibility of the 27 Nakshatras]—Appendix 3 [ready reckoner Rasi Chakra for locating the 7th sign]—Appendix 4 [MIF for the remaining months]—Appendix 5. Concordance between names of stars in Sanskrit, Tamil and English.

Kūshyār ibn Labbān. Kūšyār Ibn Labbān's Introduction to astrology. Edited and translated by Michio Yano. Tokyo, Institute for the Study of Languages and Cultures of Asia and Africa, 1997. xxviii, 319 p. illus. (Studia culturae islamicae, 62)

Arabic and English on facing pages.

"Appendix 1: Chinese text of the Ming-yi Tien-wen shu": p. 263–295.

"Appendix 2: Index of Arabic words with Chinese and English translations": p. 297–314.

"Appendix 3: English-Arabic Glossary": p. 315–319.

Lachièze-Rey, Marc, *and* Jean P. Luminet. Figures du ciel; de l'harmonie des sphères à la conquête spatiale. Paris, Seuil/Bibliothèque nationale de France, 1998. 207 p. illus. (part col.), facsims. (part col.)

Published in connection with an exhibition at the Bibliothèque nationale de France, Oct. 8, 1998-Jan. 10, 1999.

Contents: Angremy, J. P. Préface.—L'harmonie du monde.—L'uranométrie.—L'heptaméron.—Les habitants du ciel.

Library and Information Services in Astronomy III (LISA III). Proceedings of a conference held in Puerto de la Cruz, Tenerife, Spain, 21–24 April 1998. Edited by Uta Grothkopf, Heinz Andernach, Sarah Stevens-Rayburn, and Monique Gomez. San Francisco, Astronomical Society of the Pacific, 1998. xxxi, 323 p. illus., facsims., ports. (Astronomical Society of the Pacific conference series, v. 153)

Partial contents: pt. 6. Who needs all this old stuff? Hoskin, M. A. The value of archives in writing the history of astronomy. Beckman, J. E., and T. J. Mahoney. The Maunder Minimum and climate change: have historical records aided current research? Mahoney, T. J. Historical astrolexicography and old publications.—pt. 8. Posters. Dorokhova, T. H. The development of astronomy in Odessa and its reflection in publications of the Astronomical Observatory, Odessa State University. Foderà Serio, G., and D. Randazzo. The origin of the Palermo Astronomical Observatory Library: Giuseppe Piazzi's (1746–1826) books. Kurtz, M. J., and G. Eichhorn. The historical literature of astronomy, via ADS [the NASA Astrophysics Data System Abstract Service]—pt. 9. Posters presented in absentia. Peperoni, L., and M. Zuccoli. The Bologna historical archives on the Web.

McKenna-Lawlor, Susan M. P. Whatever shines should be observed <quicquid nited notandum> Blackrock, Co. Dublin, Samton, 1998. 136 p. illus., facsims., ports. (Samton historical studies, no. 3)

Contents: 1. Mary, Countess of Rosse (1813–1885) photographer and philanthropist.—2. The Hon. Mrs. Mary Ward (1827–1869) astronomer, microscopist, artist and entrepreneur.—3. Agnes Mary Clerke (1842–1907) historian and active promoter of astrophysics.—4. Ellen Mary Clerke (1840–1906) poet and writer on literary and scientific subjects.—5. Margaret Lindsay Huggins (1848–1915) pioneering astrophysicist.

Magoni, Gianluigi. Le cose non dette sui Decani di Schifanoia; una lettura astronomica. Ferrara, Corbo editore, 1997. 110 p. illus. (Accademia delle scienze, Ferrara. Atti, ser. 2, v. 73. Supplemento)

Summary in English: p. 97–99.

"An astronomical reading of the *Decani* at Schifanoia."

The Many faces of the sun. A summary of the results from NASA's Solar Maximum Mission. Keith T. Strong, Julia L. R. Saba, Bernhard M. Haisch, Joan T. Schmelz, editors. New York, Springer, 1999. xxii, 610 p. illus.

Museo astronomico e copernicano. *Archivio.* La corrispondenza degli astronomi. The correspondence of the astronomers. A. De Simone e G. Monaco. Roma, Osservatorio astronomico di Roma, Archivio del Museo astronomico e copernicano, 1996–97. 2 v. ports.

A catalog with indexes.

Contents: v. 1. I. Porro, A. Secchi, L. Respighi, A. Dorna.—v. 2. G. B. Donati, P. Tacchini, A. Wolynski, A. di Legge, E. Millosevich.

Paltrinieri, Giovanni. Meridiane e orologi solari d'Italia. Bentivoglio, L'Artiere edizionitalia, 1997. 263 p. illus. (part col.), facsims., maps, col. ports.

Contents: Hack, M. Presentazione.—Prefazione.—La gnomonica e la misurazione del tempo.—Motti solari.—I calendari.—Come si muove il Sole.—La suddivisione del giorno.—Coli strumenti gnomonici.—Siamo tutti gnomonisti.—Bibliografia gnomonica.—Nota biografica.

Paul, Jacques. L'homme qui courait après son étoile. Paris, Éditions Odile Jacob, 1998. 272 p. (Sciences (Éditions Odile Jacob))

Contents: ch. 1. Les rayons de la violence.—ch. 2. Voyage au centre d'une étoile.—ch. 3. Cœurs effondrés.—ch. 4. Un, deux, trois, pulsar!—ch. 5. L'affaire Geminga.—ch. 6. Du rêve à la réalité.—ch. 7. Radiographie de la Voie lactée.—ch. 8. L'inaccessible étoile.

Pérez Higuera, Teresa. Calendarios medievales. La representación del tiempo en otros tiempos. Madrid, Ediciones Encuentro, 1997. 267 p. col. illus., col. facsims. (Pueblos y culturas)

Poole, Robert. Time's alteration: calendar reform in early modern England. London, UCL Press, 1998. xix, 243 p. illus.

Contents: 1. "Give us our eleven days!" The English calendar riots of 1752.—2. Signs and seasons: time and society in early modern England.—3. The problem of the calendar.—4. England and the Gregorian calendar.—5. John Dee and the Elizabethan calendar.—6. Time's distractions: the seventeenth-century calendar.—7. England and the protestant calendar.—8. The construction of calendar reform, 1700–1752.—9. The impact of calendar reform.—10. Old calendars and new.—11. Calendars and cultures.—Appendix: Fairs and the 1752 calendar reform.

Richards, E. G. Mapping time: the calendar and its history. Oxford, New York, Oxford University Press, 1998. xxi, 438 p. illus., facsims., map, ports.

Contents: pt. 1. The calendar in theory.—pt. 2. The calendars of the world.—pt. 3. Calendar conversions.—pt. 4. Easter.—Appendices.

Ruggles, Clive L. N. Astronomy in prehistoric Britain and Ireland. New Haven, Yale University Press, 1999. 285 p. illus., maps, plans.

Schmeidler, Felix. Kommentar zu "De Revolutionibus." Berlin, Akademie-Verlag, 1998. 209 p. (Copernicus, Nicolaus. Gesamtausgabe, Bd. 3, T. 1)

Schuster, Peter, *and* Christian Strasser. Simon Stampfer, 1790–1864: von der Zauberscheibe zum Film. Hrsg. von Roland Floimair. Salzburg, Landespressebüro,

1997. 223 p. illus., facsims., maps, ports. (Schriftenreihe des Landespressebüros. Serie "Sonderpublikationen," Nr. 142)

Stampfer worked in astronomy as well as in geodesy.

Snodgrass, Mary E. Signs of the zodiac: a reference guide to historical, mythological, and cultural associations. Illustrated by Raymond Miller Barrett, Jr. Westport, Conn., Greenwood Press, 1997. xiv, 243 p. illus.

Szczeciniarz, Jean J. Copernic et le mouvement de la Terre. Paris, Flammarion, 1998. 438 p. illus. (Nouvelle bibliothèque scientifique)

Contents: Introduction.—1. ptie. Ouverture thématique.—2. ptie. La rhétorique de Copernic: le mouvement de la Terre doit être possible.—3. ptie. La pluralité des mouvements de la Terre: l'exposition du système héliocentrique.—4. ptie. Le copernicanisme.—Conclusions.—Glossaire.

Weimayr, Matthias. Paradigmenwechsel und konfessionelle Krise in der frühen Neuzeit: der Kampf um die Autonomie der Wissenschaft. Frankfurt am Main, New York, P. Lang, 1995. 282 p. (Europäische Hochschulschriften. Reihe 20, Philosophie. Bd. 461)

Partial contents: 4. Die kopernikanische Revolution: optische Täuschungen und das Auge des Geistes.—5. Die manieristische Grammatik der Himmelszeichen: der apollinische Dirigent und die Harmonie der Sphären.—6. Die optische Grammatik des Buches der Natur: der teleskopische Blick im Reich der unsichtbaren Zeichen.

Whitaker, Ewen A. Mapping and naming the moon; a history of lunar cartography and nomenclature. Cambridge, New York, Cambridge University Press, 1999. xix, 242 p. facsims., maps.

Whitesell, Patricia S. A creation of his own: Tappan's Detroit Observatory. Ann Arbor, Bentley Historical Library, University of Michigan, 1998. xix, 236 p., [4] p. of plates. illus. (part col.), facsims., map, plans, ports.

Znakomyĭ neznakomyĭ Zel'dovich; v vospominaniîakh druzeĭ, kolleg, uchenikov. Otv. redaktory, S. S. Gershteĭn, R. A. Sîunîaev. ch. 6. Astrofizika i kosmologiîa. Moskva, "Nauka," 1993. (Seriîa "Uchenye Rossii. Ocherki, vospominaniîa, materialy") p. 237–312.

Contents: Doroshkevich, A. G. Kakim îa ego pomnîu ...—Novikov, I. D. Nachalo raboty v astrofizike.—Bisnovatyĭ-Kogan, G. S. Pîatnadfsat' let i dal'she.—Sîunîaev, R. A. Kogda my byli molodymi.—Chernin, A. D. Priblizhenie k istine ili anzafs Zel'dovicha.—Ruzmaĭkin, A. A. Magnetizm Zel'dovicha.—Grishchuk, L. P. On zhil naukoĭ.—Polnarev, A. G. Uchitel'.—Sazhin, M. V. Kak rozhdalas' odna kniga po kosmologii.—Cherepashchuk, A. M. On sozdal shkolu relîativistskoĭ astrofiziki.—Khlopov, M. IÎU. S fizikoĭ na "ÎA."—Bonnet, R. M. "Zdravstvuĭ, grust'." (Vospominaniîa o vstreche s vydaîushchimsîa uchenym.)—Melott, A. L. ÎA. B. Zel'dovich i krupnomasshtabnaîa struktura vselennoĭ.—Moffatt, H. K. Chelovek bezgranichnoĭ energii.—Thorne, K. S. Iskrivlennoe prostranstvo i toroplivoe vremîa. (Glava 13 "Isparenie chernykh dyr.")

Articles, Including Essays in Books and Papers in Proceedings

Abbattouy, Mohamed. Astronomy. *In his* The history of Arabic sciences, a selected bibliography. Berlin, Max-Planck-Institut für Wissenschaftsgeschichte, 1996. (Max-Planck-Institut für Wissenschaftsgeschichte. Preprint, 53) p. 19–27.

The bibliography also includes sections on mathematics and optics (p. 11–19) and transmission and miscellanea (p. 38–43).

Ackerman, Marcel, *and* André L. Jaumotte. Marcel Nicolet. *In* Académie royale de Belgique. Annuaire. 164; 1998. Notices biographiques. Bruxelles. p. 31–49. port.

Ackermann, Silke, *and* John Cherry. Richard II, John Holland and three medieval quadrants. Annals of science, v. 56, Jan. 1999: 3–23. illus.

Ackermann, Silke. The scientific instruments. *In* Humphrey Cole: mint, measurement and maps in Elizabethan England. Edited by Silke Ackermann. London, British Museum, 1998. (British Museum. Occasional paper, no. 126) p. 29–95. illus. (part col.), facsims.

Contents: Astrolabes. Universal instrument. Horizontal sundials. Quadrant sundials. Ring dial. Nocturnal. Astronomical compendia. Folding rules. Folding gunners' rules. Altazimuth theodolites. Plane table alidade. Appendix 1. Saints' days and Christian feasts on Humphrey Cole's instruments. Appendix 2. Latitude list on Humphrey Cole instruments. Glossary.

Adelman, Saul J. Photographic memories. Astronomy & geophysics, v. 39, Dec. 1998: 35–36. illus. (part col.) (Viewpoints)

Reminiscences on twenty years of photographic stellar spectra.

Alkuwaifi, Ahmad, *and* Mònica Rius. Descripción del ms. 80 de al Zāwiya al-Ḥamzawīya. Al-Qanṭara, v. 19, fasc. 2, 1998: 445–463. illus.

Abstract in English.

Describes a 16th/17th-century manuscript "of miscellaneous contents, even though most of them are of astronomical nature."

Alt, Peter A. Kopernikanische Lektionen. Zur Topik des Himmels in der Literatur der Aufklärung. Germanisch-Romanische Monatsschrift, n.F., Bd. 48, Heft 2, 1998: 141–164.

Abstract in English.

"Based upon selective literary texts of the age of the Enlightenment various forms of ways dealing with the knowledge of the Copernican astronomy are presented."

Altschuler, Daniel R. The National Astronomy and Ionosphere Center's (NAIC) Arecibo Observatory in Puerto Rico. *In* Particle physics and cosmology: first tropical workshop. High energy physics: second Latin American symposium. San Juan, Puerto Rico, April 1998. Editor, José F. Nieves. Woodbury, N.Y., American Institute of Physics, 1998. (AIP conference proceedings, 444) p. 563–570. illus.

Arai, Shinji. Astronomical studies by Zhao Youqin. Taiwanese journal for philosophy & history of science, v. 5, Apr. 1996: 59–102. illus.

"Zhao Youqin was a Daoist priest of the Jindan-dao School who flourished in the first half of the 14th century. He was also the master of the noted Daoist priest

Chen Zhixu. But he wrote an astronomy book titled Gexiang Xinshu, a unique book in the history of Chinese astronomy. Based on this book, this paper examines: (1) Zhao's cosmological theory, (2) astronomical instruments devised by him, (3) his views of eclipses, and (4) the meaning of the title of his book. In addition, the paper introduces simulations contrived by Zhao to explain astronomical phenomena using pieces of paper and bits of wood. His simulations are evidence which shows that an approach to a better understanding of nature through experiment already existed in China in the 14th century."

Arecchi, Alberto. Sol omnibus lucet. Appunti sugli orientamenti solari nell'architettura medievale. *In* Società pavese di storia patria. Bollettino. nuova ser., v. 50; 1998. Como, Litografia New press. p. 19–29. illus., map.

The illustrations appear on 4 unnumbered pages following p. [30]

"In questo articolo è sviluppata la conoscenza di alcuni fattori, importanti per gli studi sull'architettura sacra medievale, che non sono spesso tenuti in adeguata considerazione."

Argyle, Robert W. W. L. Martin (1940–1999). Observatory, v. 119, Apr. 1999: 111–112.

Arnett, W. David. David Norman Schramm, 1945–1997. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1465–1466. port.

Arnold, H. J. P. Donald F Trombino 1940–1998. Astronomy & geophysics, v. 40, Feb. 1999: 38. port.

"Fellow of the RAS, creative photographer, writer and dedicated amateur solar astronomer."

Bäschlin, Daniel L. Zum rätzelhaften Bild des Kosmos bei Camille Flammarion. Gesnerus, v. 54, Dec. 1997: 251–257. illus.

English summary.

Relates this frequently reproduced illustration (often erroneously ascribed to a medieval artist) to a question posed by Archytas.

Bakhouche, Béatrice. Cadastre et astronomie: pour en finir avec l'orientation solaire? *In* Monde rural et histoire des sciences en Méditerranée. Du bon sens à la logique. Journée scientifique du Pôle universitaire européen, Centre de recherches historiques sur les sociétés méditerranéennes, avec la participation de la Région Languedoc-Roussillon, Université de Perpignan, samedi 23 novembre 1996. Études réunies et présentées par Aline Rousselle avec la collaboration de Stéphanie Rougier. Perpignan, Presses universitaires de Perpignan, 1998. (Collection études) p. 37–49. illus.

Bakhouche, Béatrice. Le corps humain et les astres dans la littérature latine impériale. Latomus, t. 57, avril/juin 1998: 362–374.

Barbieri, Francesco, *and* Marina Zuccoli. Note d'archivio: il vescovo Fogliani e la meteorite di Albareto. *In* Società dei naturalisti e matematici di Modena. Atti. v. 128; 1997. Modena, 1998. p. 173–179.

Abstract in English.

Includes text of a previously unpublished letter describing the stone, written by Giuseppe Maria Fogliani, bishop of Modena, from the collections of the Biblioteca Estense in Modena.

Baum, Richard. Enigmatic bright objects near the sun. *In* British Astronomical Association, *London*. Journal, v. 108, Oct. 1998: 277–278.

Windborne seeds, dust, pollen, spiders, insects, and snow or frost crystals, even small birds have been responsible for these phenomena, which "still divert the curious and perplex the unwary."

See also the letter from Roy Panther in the Feb. 1999 issue, p. 41.

Beaulieu, Paul A., *and* Francesca Rochberg. The horoscope of Anu-bēlšunu. *In* Journal of cuneiform studies. v. 48; 1996. Atlanta, GA, Scholars Press, 1998. p. 89–94.

Includes cuneiform text with transliteration and translation.

Beck, Roger. The mysteries of Mithras: a new account of their genesis. *In* Journal of Roman studies. v. 88; 1998. London, Society for the Promotion of Roman Studies. p. 115–128.

Proposes "a new scenario for the genesis of the Mysteries which will synthesize and reconcile the insights of previous accounts."

Becker, Helmut. Kultplätze, Sonnentempel und Kalenderbauten aus dem 5. Jahrtausend vor Chr.—die mittelneolithischen Kreisanlagen in Niederbayern. *In* Archäologische Prospektion: Luftbildarchäologie und Geophysik. Zusammengestellt von Helmut Becker. München, Bayerisches Landesamt für Denkmalpflege; Vertrieb, K. M. Lipp, 1996. (Bayerisches Landesamt für Denkmalpflege. Arbeitshefte, Bd. 59) p. 100–122. illus., plans.

Bellomo, Elena. Il cielo e la spiritualità crociata. L'Astronomia, anno 21, apr. 1999: 33–37. col. illus., facsims. (part col.) (Storia)

"Giusto novecento anni fa i Crociati entravano vittoriosi a Gerusalemme: comete, eclissi, 'cadute di stelle' come segni prodigiosi del favore divino."

Bennett, J. A. Epact unpacked: the sundials of Miniato Pitti. Sphæra, the newsletter of the Museum of the History of Science, Oxford, no. 8, autumn 1998: 2–3. illus., port.

Biémont, Émile. Marcel Migeotte. *In* Académie royale de Belgique. Annuaire. 161; 1995. Notices biographiques. Bruxelles. p. 3–17. port.

Black, Ted. Oliver Wendell Holmes, poet of the sky. Sky & telescope, v. 97, June 1999: 52–54. illus., ports.

"This 19th-century lecturer, skeptic, and man of letters had a strong interest in astronomy."

Böhm, Conrad. Max Wolf e le nebulose oscure. L'Astronomia, anno 21, genn. 1999: 60–61. illus. (part col.), port. (Osservatorio del passato)

Böhm, Conrad. I primi passi di Schiaparelli su Marte. L'Astronomia, anno 20, ott. 1998: 64–65. illus. (part col.), col. map, col. port. (Osservatorio del passato)

Böttrich, Christfried. Astrologie in der Henochtradition. Zeitschrift für die Alttestamentliche Wissenschaft, 109. Bd., Heft 2, 1997: 222–245.

Corrected version of an entry listed in *H.A.D. News* no. 42.

Bollók, János. Die Kosmologie als Schlüssel zum Verständnis der VI. Ekloge Vergils. Acta antiqua Academiae Scientiarum Hungaricae, t. 37, fasc. 3/4, 1997: 213–223.

Bolton, Charles T. Karl Walter Kamper, 1941–1998. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1459–1460. port.

Bond, John Richard, *and* Ira M. Wasserman. John Chi-Lin Wang, 1959–1998. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1467–1468. port.

Boxmeer, Henri van. Poussières d'archives ... Quelques éléments historiques et techniques de l'éclipse (presque) totale de Soleil visible en Belgique le 17 avril 1912. Ciel et terre, v. 115, mars/avril 1999: 57–59. illus., map.

Bracher, Katherine. *The Astronomical Journal*: a mirror of astronomy. Astronomical journal, v. 117, Jan. 1999: 12–16. illus.

Briggs, John W., *and* Donald E. Osterbrock. The challenges and frustrations of a veteran astronomical optician: Robert Lundin, 1880–1962. Journal of astronomical history and heritage, v. 1, Dec. 1998: 93–103. illus., ports.

Brück, Mary T. Caroline Herschel's Irish connection. Irish astronomical journal, v. 26, Jan. 1999: 5. port.

Brück, Mary T. Women in astronomy, 1780–1940. Astronomy & geophysics, v. 39, Dec. 1998: 4–5. col. illus.

Report on a Royal Astronomical Society discussion meeting held Mar. 13, 1998.

Burnett, Charles S. F. King Ptolemy and Alchandreus the Philosopher: the earliest texts on the astrolabe and Arabic astrology at Fleury, Micy and Chartres. Annals of science, v. 55, Oct. 1998: 329–368. facsims.

"This paper reassesses the importance of the Benedictine monasteries of St Benoît of Fleury and St Mesmin of Micy (both on the outskirts of Orléans), and the Cathedral of Chartres for the early diffusion of Arabic learning concerning the astrolabe, and it relates this diffusion to that of the judicial astrology of 'Alchandreus philosophus' and the astronomical tables of the *Preceptum canonis Ptolomei*." Includes an edition of the Latin text of the *Compositio Astrolabii* by Ascelin of Augsburg, followed by an English translation.

Bustamante, Martha C. Blackett's experimental researches on the energy of cosmic rays. Archives internationales d'histoire des sciences, v. 47, juin 1997: 108–141. illus.

Calendars. *In* Provo International Conference on the Dead Sea Scrolls, *1996*. The Provo International Conference on the Dead Sea Scrolls. Technological innovations, new texts, and reformulated issues. Edited by Donald W. Parry and Eugene Ulrich. Leiden, Boston, Brill, 1999. (Studies on the texts of the desert of Judah, v. 30) p. 377–449. illus.

Contents: Talmon, S. Calendar controversy in ancient Judaism: the case of the "Community of the Renewed Covenant."—Abegg, M. G. Does anyone really know what time it is: a reexamination of 4Q503 in light of 4Q317.—Glessmer, U., and M. Albani. An astronomical measuring instrument from Qumran.—Martone, C. Some observations on the new *mishmarot* texts from Qumran.

Callataÿ, Godefroid de. La Grande Ourse et le taureau Apis. *In* Amosiadès. Mélanges offerts au professeur Claude Vandersleyen par ses anciens étudiants. Articles rassemblés et édités par Claude Obsomer et Ann-Laure Oosthoek. Louvain-la-Neuve, Université Catholique de Louvain, Institut orientaliste, 1992. p. 71–83. illus.

Caroti, Stefano. L'astrologia nell'età di Federico II. *In* Micrologus. v. 2; 1994. Le scienze alla corte di Federico II. Sciences at the court of Frederick II. Paris, Brepols. p. 57–73.

"Alla memoria di Raoul Manselli."

Castellani, Vittorio. Il cielo degli antichi. Giornale di astronomia, v. 24, sett. 1998: 31–36. illus. (part col.), plans.

Chabás, José. Astronomy in Salamanca in the mid-fifteenth century: the *Tabulae resolutae*. Journal for the history of astronomy, v. 29, May 1998: 167–175.

Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Chabás, José, *and* Bernard R. Goldstein. Some astronomical tables of Abraham Zacut preserved in Segovia. Physis, nuova ser., v. 35, fasc. 1, 1998: 1–10. illus.

Chapman, Allan. The transits of Venus. Endeavour, v. 22, no. 4, 1998: 148–151. illus.

On the observing expeditions of 1761 and 1769.

Chapman, Allan. Women in astronomy: an historical perspective, 1780–1940. Observatory, v. 118, Oct. 1998: 270–273.

Summarizes papers presented at a discussion meeting of the Royal Astronomical Society held Mar. 13, 1998.

Chapman, David M. F. Dark mornings. *In* Royal Astronomical Society of Canada. Journal, v. 92, Dec. 1998: 293–294. illus. (Reflections)

Chapman, David M. F. F. W. A. Argelander—star charts and variable stars. *In* Royal Astronomical Society of Canada. Journal, v. 93, Feb. 1999: 17–18. illus. (Reflections)

Chapman, David M. F. Lazy nature. *In* Royal Astronomical Society of Canada. Journal, v. 92, Oct. 1998: 241–242. port.

On Maupertuis and his "principle of least action."

Chau Wai Yin (1939–1998). *In* Pacific Rim Conference on Stellar Astrophysics, *Hong Kong, 1997*. 1997 Pacific Rim Conference on Stellar Astrophysics. Proceedings of a conference held in Hong Kong, PRC, 13–16 August 1997. Edited by Kwing L. Chan, K. S. Cheng, and Harinder P. Singh. San Francisco, Astronomical Society of the

Pacific, 1998. (Astronomical Society of the Pacific conference series, v. 138) unnumbered page on leaf preceding p. i. port.

Chown, Marcus. In the shadow of the moon. New scientist, v. 161, Jan. 31, 1999: 30–33. col. illus., col. maps.

"If you thought the Babylonians had nothing to offer 20th-century science, think again ... Their records of ancient eclipses are helping modern astronomers to chart the Earth's movement with amazing precision."

Christianson, John R. Tycho Brahe in Scandinavian scholarship. History of science, v. 36, Dec. 1998: 467–484. illus.

Includes a bibliography of Scandinavian scholarship on Tycho (p. 478–484).

Clark, George W. Bruno Benedetto Rossi, April 13, 1905-November 21, 1993. *In* National Academy of Sciences. Biographical memoirs. v. 75. Washington, D.C., National Academy Press, 1998. p. 310–341. port.

Concelice, Christopher J. Early Chicago astronomy, 1862–1895. Griffith observer, v. 63, Jan. 1999: 12–18, 21. illus., ports.

Cook, David. A survey of Muslim material on comets and meteors. Journal for the history of astronomy, v. 30, May 1999: 131–160.

Couteau, Paul. Le professeur Jacques Le Beau (1908–1998). L'Astronomie, v. 112, août/oct. 1998: 271.

Dalmau, W. Critical remarks on the use of medieval eclipse records for the determination of long-term changes in the Earth's rotation. Surveys in geophysics, v. 18, May 1997: 213–223. illus.

Davis, Joseph. Ashkenazic rationalism and midrashic natural history: responses to the new science in the works of Rabbi Yom Tov Lipmann Heller (1578–1654). Science in context, v. 10, winter 1997: 605–626.

Davis, Morris S. Anthony (Tony) Francis Jenzano, 1919–1997. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1458–1459. port.

Dearborn, David S. P., Matthew T. Seddon. *and* Brian S. Bauer. The sanctuary of Titicaca: where the sun returns to earth. Latin American antiquity, v. 9, Sept. 1998: 240–258. illus., maps, plans.

"In Inka mythology, a large sandstone rock on the Island of the Sun, in Lake Titicaca, was the origin place of the sun. It was there that the sun first emerged and designated the Inka as his children. Under Inka rule, and perhaps before, this rock was a destination of pilgrims who went to worship and make offerings to the sun. We present evidence that a set of solar markers existed on a ridge northwest of the sacred rock. These structures framed the sunset for groups of watchers on the June solstice, near the time of the sun festival, Inti Raymi. Historic information coupled with the organization of archaeological sites within the sanctuary area on the island suggests that elites and common pilgrims may have observed the sunset from different locations."

Débarbat, Suzanne V., *and* Simone Dumont. Les débuts de la cartographie scientifique. L'apport des astronomes français. *In* Académie royale de Belgique. *Classe des sciences*. Bulletin, 6. sér., t. 8, no 7/12, 1997: 271–303. facsims., maps, plan.

Dejaiffe, René J. L'œuvre scientifique d'Odon Godart. Revue des questions scientifiques, t. 168, 1. trimestre 1997: 3–18.

Discusses Godart's work on cosmic rays, atmospheric dynamics, and astronomy.

Dickinson, Dale F. Gabriel Kojoian, 1927–1998. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1460. port.

Dobrzycki, Jerzy. Krakowska obserwacja Saturna, 5 września 1640 r. Urania—postępy astronomii, t. 70, stycz./luty 1999: 40–41. facsim.

Dobrzycki, Jerzy. Saturn, Aristotelian astronomy, and Cracow astronomers: an episode from the early years of telescopic astronomy. Journal for the history of astronomy, v. 30, May 1999: 121–129. facsims.

Dobson, Geoffrey J. Against Chandrasekhar's interpretation of Newton's treatment of the precession of the equinoxes. Archive for history of exact sciences, v. 53, no. 6, 1999: 577–597. illus.

Dollfus, Audouin. History of planetary science. The Pic du Midi planetary observation project: 1941–1971. Planetary and space science, v. 46, Aug. 1998: 1037–1073. illus.

Domínguez Rodríguez, Ana. De Alfonso X de Castilla a Wenceslao II de Bohemia: viaje e irradiación de la iconografía de las constelaciones de la Ochava Esfera. *In* Lecturas de historia del arte. no. 4; 1994. Vitoria-Gasteiz, Ephialte—Instituto Municipal de Estudios Iconograficos. p. 55–64. facsims.

Dongre, N. G. Spectroscopy in ancient India. An application of spectroscopy to astrophysics. Indian journal of history of science, v. 33, Sept. 1998: 229–238. illus.

Douglass, Geoffrey G., Thomas E. Corbin, *and* Brian D. Mason. Charles Edumund [sic] Worley, 1935–1997. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1470–1471. port.

Doyle, John G. In memoriam of P. Brendan Byrne. *In* Cool stars, stellar systems and the sun; tenth Cambridge Workshop. Proceedings of a meeting held at Cambridge, Massachusetts, 15–19 July 1997. Edited by Robert A. Donahue and Jay A. Bookbinder. San Francisco, Astronomical Society of the Pacific, 1998. (Astronomical Society of the Pacific conference series, v. 154) p. 127–130. port.

Duerbeck, Hilmar W., Donald E. Osterbrock, L. H. Barrera S., *and* R. Leiva G. Halfway from La Silla to Paranal—in 1909. *In* European Southern Observatory. Messenger, no. 95, Mar. 1999: 34–37. illus. (part col.), map, group ports. (part col.)

"This month—March 1999—sees the 90th anniversary of the first expedition in northern Chile to search for a good site for an astronomical observatory: the Curtis expedition."

Duncan, David E. Calendar. Smithsonian, v. 29, Feb. 1999: 48–52, 54–56, 58. col. illus., col. facsims., col. port.

"It took two millennia to get the one we now use; we owe a lot to the sun and moon, to Caesar, Pope Gregory and, oh yes, the Earl of Chesterfield."

Duncombe, Raynor L. Victor G. Szebehely, 1921–1997. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1466–1467. port.

Eade, J. C., *and* Lars Gislén. "The whole moon was eaten": Southeast Asian eclipse calculation. Journal of Southeast Asian studies, v. 29, Sept. 1998: 309–318. illus.

Provides "A Technical Précis of the Calculation System" in an appendix (p. 316–318).

Efron, Noah J. Irenism and natural philosophy in Rudolfine Prague: the case of David Gans. Science in context. v, 10, winter 1997: 627–649.

Egger, Fritz. Fritz Zwicky—100 Jahre. Schlusstagung der Fritz-Zwicky-Stiftung in Glarus. Orion, 57. Jahrg., Feb. 1999: 4–5. group port.

Elliott, Ian. The Huggins sesquicentenary. Irish astronomical journal, v. 26, Jan. 1999: 65–68. illus., port.

About Lady Huggins.

Elliott, Ian. Patrick Arthur Wayman (1927–1998). Irish astronomical journal, v. 26, Jan. 1999: 7–9. port.

Ercole, Annibale d'. Storia del tempo. Giornale di astronomia, v. 24, sett. 1998: 2–17. illus. (part col.), facsims. (part col.), port.

Erdt, Andreas. Die astronomische Uhr in St. Marien zu Rostock. Sterne und Weltraum, 38. Jahrg., Nr. 2, 1999: 185. col. illus.

Espinosa Pineda, Gabriel. Hacia una arqueoastronomía atmosférica. *In* Graniceros: cosmovisión y meteorología indígenas de Mesoamérica. Beatriz Albores, Johanna Broda, coordinadoras. Zinacantepec, El Colegio Mexiquense; México, D.F., Universidad Nacional Autónoma de México, 1997. p. 91–106.

Fairall, Anthony P. Precession and the layout of the ancient Egyptian pyramids. Astronomy & geophysics, v. 40, June 1999: 4. col. illus.

Shows that assertions about the layout of the site at Giza made by Bauval and others rest on "flimsy science."

Faracovi, Ornella. A proposito di Saturno. Bruniana & Campanelliana, anno 4, n. 1, 1998: 195–205.

Fatoohi, Louay J., F. Richard Stephenson, *and* Shetha S. al-Dargazelli. The Babylonian first visibility of the lunar crescent: data and criterion. Journal for the history of astronomy, v. 30, Feb. 1999: 51–72. illus.

Federici Vescovini, Graziella. The place of the sun in medieval Arabo-Latin astronomy: the *Lucidator dubitabilium astronomiae* (1303–10) of Peter de Padua. Journal for the history of astronomy, v. 29, May 1998: 151–155.

Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Ferguson, Kevin. The Christogram [Chi-Rho]: Mithraic map of the cosmos? Celator, v. 12, Oct. 1998: 6, 8, 10, 12, 14. illus.

Fernie, J. Donald. Transits, travels and tribulations. 5. American scientist, v. 87, Mar./Apr. 1999: 119–121. illus.

Concludes the "story of the 18th-century transits of Venus and the often amazing expeditions to the ends of the earth that they engendered."

Field, George B. Astrophysics. *In* More things in heaven and earth: a celebration of physics at the millennium. Benjamin Bederson, editor. New York, Springer, American Physical Society, 1999. p. 56–68.

An account of developments during the 20th century.

Also published in a special issue (v. 71, 1999) of *Reviews of Modern Physics.*

Filling, Holger. Historische Sonnenfinsternisse. Sterne und Weltraum, 38. Jahrg., Nr. 5, 1999: 490–493. facsims. (part col.)

Fishman, David E. Rabbi Moshe Isserles and the study of science among Polish rabbis. Science in context, v. 10, winter 1997: 571–588.

Foderà Serio, Giorgia. L'astronomia. *In* Le Scienze chimiche, fisiche e matematiche nell'Ateneo di Palermo. A cura di Pietro Nastasi. Palermo, Facoltà di scienze, Università di Palermo, 1998. (Seminario di storia della scienza. Quaderni, n. 7) p. 7–37. illus., facsims., port.

Furniss, Ian. Richard Elliot Jennings, 1920–1997. Astronomy & geophysics, v. 39, Apr. 1998: 35–36. col. port.

"Fellow of the RAS, pioneer instrumentalist and experimental physicist."

García Avilés, Alejandro. Imágenes mágicas. La obra astromágica de Alfonso X y su fortuna en la Europa bajomedieval. *In* Alfonso X: aportaciones de un rey castellano a la construcción de Europa. Coordinación, Miguel Rodríguez Llopis. Murcia, Región de Murcia, Consejería de Cultura y Educación, 1997. (Colección Alfonso X el Sabio, no. 1) p. 135–172. col. facsims.

Gaspani, Adriano. La necropoli del Priamar. L'Astronomia, anno 20, nov. 1998: 34–41. col. illus., col. plans, col. port.

"L'analisi statistica rivela possibili interessanti correlazioni tra l'orientazione delle tombe di questa necropoli savonese e il punto del sorgere di astri ben noti alla cultura celtica."

Gát, Eszter. "Karika Réz kompassus": a Magyar Nemzeti Múzeum gyűrű zsebnapórai. "Ring copper compass": the ring sundials of the Hungarian National Museum. *In*

Folia historica. 18. köt.; 1993. Budapest, Magyar Nemzeti Múzeum, 1994. p. 237–254. illus., map.
Abstract in English.

Gavine, David. Pioneer of parallax: Thomas Henderson 1798–1844. Irish astronomical journal, v. 26, Jan. 1999: 6–7. illus.
Reprinted from the *Journal* of the Astronomical Society of Edinburgh.

Gazda, István. A magyar csillagászat történetéből. [On the history of Hungarian astronomy] *In his* Reáltudományaink történetéből. Budapest, Magyar Tudománytörténeti Intézet, 1996. p. 75–90.

Georgelin, Yvon, *and* Simone Arzano. L'éclipse de Soleil du 18 août 1868. Stéphan et Rayet, hôtes du roi de Siam à Wha-Tonne. L'Astronomie, v. 113, jan./fév. 1999: 12–17. illus., facsims., ports.
"Depuis l'Antiquité, la prévision des éclipses avait donné aux astronomes de l'influence sur les princes et leur avait acquis la considération du public, mais, outre cette renommée, les éclipses ont surtout permis d'importantes découvertes scientifiques."

Gingerich, Owen. Benjamin Apthorp Gould and the founding of the *Astronomical Journal*. Astronomical journal, v. 117, Jan. 1999: 1–5. port.
The portrait faces p. 1.

Gingerich, Owen. A brief history of our view of the universe. *In* Astronomical Society of the Pacific. Publications, v. 111, Mar. 1999: 254–257.

Girish, T. E. Hindu astronomy and Kerala culture. *In* South Indian studies. Editor, S. Murali. Delhi, B. R. Pub. Corp., 1998. p. 145–151.

Goldstein, Bernard R. Abraham Zacut and the medieval Hebrew astronomical tradition. Journal for the history of astronomy, v. 29, May 1998: 177–186.
Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Gonze, Roger F. J. In memoriam: Raymond Coutrez (1916–1998). Ciel et terre, v. 114, nov./dec. 1998: 163–165. port.

Grafton, Anthony. From apotheosis to analysis: some late Renaissance histories of classical astronomy. *In* History and the disciplines; the reclassification of knowledge in early modern Europe. Edited by Donald R. Kelley. Rochester, N.Y., University of Rochester Press, 1997. p. 261–276.

Grafton, Anthony. Girolamo Cardano and the tradition of classical astrology. The Rothschild Lecture, 1995. *In* American Philosophical Society, *Philadelphia*. Proceedings, v. 142, Sept. 1998: 323–354.
Also published as "Girolamo Cardano und die Tradition der klassischen Astrologie" in *Scientia poetica, Jahrbuch für Geschichte der Literatur und der Wissenschaften*, Bd. 2, 1998 (Tübingen, M. Niemeyer), p. 1–26.

Granada, Miguel A. Eliminazione delle sfere celesti e ipotesi astronomiche in un inedito di Christoph Rothmann. L'influenza di Jean Pena e la polemica con Pietro Ramo. Rivista di storia della filosofia, anno 52, n. 4, 1997: 785–821.

Includes the Latin text of chapter 18 of Rothmann's *Observationum stellarum fixarum*, book 1.

Granada, Miguel A. L'infinité de l'univers et la conception du système solaire chez Giordano Bruno. Revue des sciences philosophiques et théologiques, t. 82, avril 1998: 243–275.

Summary in English.

Greenstein, Jesse L. Robert B. Leighton, September 10, 1919-March 9, 1997. *In* National Academy of Sciences. Biographical memoirs. v. 75. Washington, D.C., National Academy Press, 1998. p. 164–188. port.

Gregory, Tullio. Natura e qualitas planetarum. *In* Micrologus. v. 4; 1996. Il teatro della natura. The theatre of nature. Paris, Brepols. p. 1–23.

Grimwood, Peter. A 'Tycho Brahe' orrery. Bulletin of the Scientific Instrument Society, no. 59, Dec. 1998: 27–28. illus.

Built by the author, who is now working on "a demonstrator for the precession of the equinox" and has nearly completed "a 'post Copernicus' companion piece to the Tycho Brahe orrery."

Günter, Thilo. Vor 30 Jahren: Apollo 11 und der Wettlauf zum Mond. Sterne und Weltraum, 38. Jahrg., Nr. 6/7, 1999: 548–556. col. illus.

Includes a box, "Zeittafel: Der Wettlauf zum Mond—und wie es weiterging" (p. 549).

Hack, Margherita. Mario Girolamo Fracastoro [1914–1994] *In* Accademia nazionale dei Lincei. *Classe di scienze fisiche, matematiche e naturali.* Rendiconti lincei. Supplemento. ser. 9, v. 7; 1996. Roma, 1997. p. 41–51. port.

Hähnel, Volker. Die Sonnenfinsternis am 12. Mai 1706. Sterne und Weltraum, 38. Jahrg., Nr. 5, 1999: 422. col. facsim.

Letter to the editor about a map of Europe showing the path of the eclipse, issued by Johann Baptist Homann in Nürnberg.

Hamel, Jürgen. Ernst Zinner (1886–1970). Quellenkunde als Grundlage der Historiographie der Wissenschaften. *In* Deutsche Gesellschaft für Geschichte der Medizin, Naturwissenschaft und Technik. Nachrichtenblatt, 47. Jahrg., Winter 1997: 164–169.

Hari, K. Chandra. On the origin of 'Kaliyugādi' synodic super-conjunction. Indian journal of history of science, v. 33, Sept. 1998: 193–201.

Harper, David. Once in a blue Moon? Astronomy & geophysics, v. 40, Apr. 1999: 6.

Helden, Anne C. van, *and* Rob H. van Gent. The lens production by Christiaan and Constantijn Huygens. Annals of science, v. 56, Jan. 1999: 69–79. illus.

Hendrie, Michael J. Comet Bennett 1969i. *In* British Astronomical Association, *London*. Journal, v. 109, Feb. 1999: 14–21. illus.

Hennessey, R. A. S. For younger eyes. Astronomy now, v. 12, Dec. 1998: 58–59. facsims.
"... takes a look back at the birth of children's astronomy books." The author finds that they "had their modest beginnings in the eighteenth century."

Hentschel, Klaus. A breakdown of intersubjective measurement: the case of solar-rotation measurements in the early 20th century. Studies in history and philosophy of modern physics, v. 29B, Dec. 1998: 473–507. illus.

Hentschel, Klaus. Photographic mapping of the solar system. pt. 1. Journal for the history of astronomy, v. 30, May 1999: 93–119. illus.

Herberger, Charles F. Diagonal and framed: the quincunx as a solar and psychological orientation symbol. Griffith observer, v. 63, Apr. 1999: 2–16; May: 2–11, 14–15, 21. illus.
Additional illustrations appear on the outside front and back covers of both issues, with captions on p. 3 and 21 (Apr.) and p. 5 and 21 (May).

Herschbach, Dudley R. Gerhard Herzberg (1904–99). Patriarch of modern molecular spectroscopy. Nature, v. 398, Apr. 22, 1999: 670. port.

Hingley, Peter D. The Antique Telescope Society convention. Astronomy & geophysics, v. 40, Feb. 1999: 31. col. ports.
Held in Boston, Oct. 23–26, 1998.

Hingley, Peter D. Laurent Cassegrain commemorated at Chaudon. Astronomy & geophysics, v. 40, Feb. 1999: 7. col. illus. (From the RAS archives)

Hingley, Peter D. One of A A Common's first astro-photographs. Astronomy & geophysics, v. 39, Dec. 1998: 7. illus. (From the RAS archives)
See also the comment from Kevin Johnson, "New Light on Old Photographs—From the Science Museum," in the Feb. 1999 issue, p. 9.

Hingley, Peter D. A rare drawing by E M Antoniadi. Astronomy & geophysics, v. 40, June 1999: 7. col. facsim. (From the RAS archives)

Hingley, Peter D. Sailing to Tenerife. Astronomy & geophysics, v. 40, Apr. 1999: 7. illus. (From the RAS archives)
On Piazzi Smyth's visit in l856.

Hockey, Thomas A. Barry Neil Rappaport, 1960–1996. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1463–1464. port.

Hoffleit, Dorrit. *The Astronomical Journal* at Yale: in context with before and after. Astronomical journal, v. 117, Jan. 1999: 9–11.

Holländer, Hans. "Kirchenväterphysik." *In* Karl der Grosse und sein Nachwirken: 1200 Jahre Kultur und Wissenschaft in Europa. Charlemagne and his heritage: 1200 years

of civilization and science in Europe. Bd. 1. Wissen und Weltbild. v. 1. Scholarship, worldview and understanding. Hrsg. von/edited by P. Butzer, M. Kerner und W. Oberschelp. Turnhout, Brepols, 1997. p. 399–416. facsims. (part col.)

On cosmological ideas of the period.

Summary in English.

Houziaux, Léo. Arpentage céleste. *In* Académie royale de Belgique. *Classe des sciences.* Bulletin, 6. sér., t. 8, no 7/12, 1997: 349–365. illus.

Houziaux, Léo. Paul Ledoux. *In* Académie royale de Belgique. Annuaire. 160; 1994. Notices biographiques. Bruxelles. p. 3–22. port.

Howell, Kenneth J. The role of biblical interpretation in the cosmology of Tycho Brahe. Studies in history and philosophy of science, v. 29, Dec. 1998: 515–537.

Hübner, Wolfgang. Antike Kosmologie bei Dante. *In* Deutsches Dante-Jahrbuch. 72. Bd. Köln, Böhlau, 1997. p. 45–81. illus.

Hughes, David W. Caroline Lucretia Herschel—comet huntress. *In* British Astronomical Association, *London*. Journal, v. 109, Apr. 1999: 78–85. illus., facsims.

Hughes, David W. The historical investigation of cometary brightness. Journal of astronomical history and heritage, v. 1, Dec. 1998: 123–133.

Hunt, John L. The handlers of time: the Belville family and the Royal Observatory, 1811–1939. Astronomy & geophysics, v. 40, Feb. 1999: 23–27. illus. (part col.), facsims., ports.

"... recounts the role of John Henry, Maria Elizabeth and Ruth Belville in recording and distributing Greenwich time for 123 years."

Iannaccone, Isaia. Cap. V. La scienza di Terrentius nella Cine dei Ming. 3. L'astronomia. *In his* Johann Schreck Terrentius. Le scienze rinascimentali e lo spirito dell'Accademia dei Lincei nella Cina dei Ming. Napoli, Istituto universitario orientale; Roma, Distributed by Herder, 1998. (Istituto universitario orientale. Dipartimento di studi asiatici. Series minor, 54) p. 66–77.

In memoriam. Paweł Magdziarz (1965–1998). Wspomnienie. Urania—postępy astronomii, t. 70, stycz./luty 1999: 42–43.

Reminiscences by Andrzej Zdiarski, Omer Blaes, Greg Madejski, and Marek Gierlinski.

In memoriam: Jurij Frantsman (20.03.1939–20.07.1998). Baltic astronomy, v. 7, no. 4, 1998: 669–671. port.

Jeanneret, Yves. L'astronomie pour tous: analyse d'une constellation éditoriale. *In* La Science populaire dans la presse et l'édition: XIXe et XXe siècles. Sous la direction de Bernadette Bensaude-Vincent, Anne Rasmussen. Paris, CNRS Éditions, 1997. (CNRS Histoire) p. 69–85.

Based on a study of 18 works published during the years 1845–1938; these are listed on p. 70.

Joseph, Jean M. La mesure du temps, l'horlogérie publique et les horlogers de Sélestat. *In* Les Amis de la Bibliothèque humaniste de Sélestat. Annuaire. 1998. Strasbourg. p. 35–45. illus.

Kak, Subhash C. The sun's orbit in the Brāhmaṇas. Indian journal of history of science, v. 33, Sept. 1998: 175–191. illus.

Karlsen, Helge B. J. Oslo City Hall's astronomical clock. HJ, Horological journal, v. 140, Nov. 1998: 367–371. illus.

Includes a box, "Epicyclophobia" (p. 369), by Peter Hastings.

The clock's mechanism was produced by Ungerer & Cie of Strasbourg and completed in 1952.

Color illustrations appear on the outside front and back covers of the issue.

Eine Kepler-Handschrift. Sterne und Weltraum, 38. Jahrg., Nr. 5, 1999: 425. col. facsim.

Notes the "discovery" in the library of the University of California at Santa Cruz of a horoscope prepared by Kepler for an Austrian nobleman. Apparently purchased in Germany late in the 19th century for the Lick Observatory, it was consigned to a drawer for odds and ends and forgotten.

Khromov, Gavriil S. Vspominaîa davno ushedshee ... *In* Astronomicheskiĭ kalendar'. vyp. 99; 1997. Moskva, Kosmosinform. p. 284–292.

Kiang, Tao. Patrick Arthur Wayman 1927–1998. Astronomy & geophysics, v. 40, Apr. 1999: 37. port.

"Associate and Fellow of the RAS, who changed the face of astronomy in Ireland."

Kilburn, Kevin J. Dr Plot and the amazing double sunset. Astronomy & geophysics, v. 40, Feb. 1999: 20–22. col. illus., facsims., port.

Knapp, Wolfram. Keplers kosmisches Geheimnis. Bild der Wissenschaft, Juli 1996: 62–65. illus. (part col.), col. port.

"Eine falsche Idee, die zu richtigen Erkenntnissen führte."

Knobloch, Eberhard. Harmony and cosmos: mathematics serving a teleological understanding of the world. *In* Gauss Symposium, *2d, Munich, 1993*. Proceedings of the 2nd Gauss Symposium. Conference A: Mathematics and theoretical physics, Munich, Germany, August 2–7, 1993. Edited by Minaketan Behara, Rudolf Fritsch, Rubens G. Lintz. Berlin, New York, W. de Gruyter, 1995. (Symposia Gaussiana) p. 151–165. facsims.

Contents: Introduction.—1. The physical hypothesis.—2. Kepler's mathematical hypothesis.—3. Fludd or the world as a monochord.—4. Kircher or the world as an organ.—5. Kepler's research method, and Leibniz's and Mersenne's criticism of it.

Koch, Johannes. Ein für allemal: das antike Mesopotamien kannte kein 364 Tage-Jahr. N.A.B.U., Nouvelles assyriologiques brèves et utilitaires, no 4, 1998: 112–114.

Koch, Johannes. Neues von den UR III-Mondeklipsen. N.A.B.U., Nouvelles assyriologiques brèves et utilitaires, no 4, 1998: 126–129.

Koch, Johannes. Die Planeten-Hypsomata in einem Babylonischen Sternenkatalog. Journal of Near Eastern studies, v. 58, Jan. 1999: 19–31.

Koch, Johannes. Zur Bedeutung von *ina* UGU *tur-ri* ... in zwei Astronomical Diaries. *In* Die Welt des Orients. Bd. 29; 1998. Göttingen, Vandenhoeck & Ruprecht. p. 109–123.

Koeckelenbergh, André. 1973–1999: historique des expéditions belges d'éclipses totales. Ciel et terre, v. 115, mars/avril 1999: 66–70.

Kokott, Wolfgang. Syzygies as pivots: an unusual mid-fifteenth-century working ephemeris. Journal for the history of astronomy, v. 29, May 1998: 129–135.

Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Kovács, László. Zoltán Bay and the first moon-radar experiment in Europe (Hungary, 1946). Science and education, v. 7, May 1998: 313–316.

Kozai, Yoshihide. Development of celestial mechanics in Japan. Planetary and space science, v. 46, Aug. 1998: 1031–1036. group port.

A brief account of Japanese astronomy before the Meiji restoration is followed by the story of the development of celestial mechanics research "after the Meiji ... until the 1950s."

Krauss, Rolf. Altägyptische Astronomie in den Pyramidentexten. Sterne und Weltraum, 38. Jahrg., Nr. 3, 1999: 249–251. illus. (part col.)

Krauss, Rolf. Altägyptische Sirius- und Monddaten aus dem 19. und 18. Jahrhundert vor Christi Geburt (Berliner Illahun-Archiv). *In* Ägypten und Levante, internationale Zeitschrift für ägyptische Archäologie und deren Nachbargebiete. Egypt and the Levant, international journal for Egyptian archaeology and related disciplines. 8; 1998. Wien, Verlag der Österreichischen Akademie der Wissenschaften. p. 113–123. map.

Kremer, Richard L., *and* Jerzy Dobrzycki. Alfonsine meridians: tradition versus experience in astronomical practice c. 1500. Journal for the history of astronomy, v. 29, May 1998: 187–199.

Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Krupp, Edwin C. The guiding light. Sky & telescope, v. 97, Mar. 1999: 87–89. col. illus. (Rambling through the skies)

"Brilliant Canopus has remained a navigational aid for thousands of years."

Lafuente, Antonio. Observatorio Astronómico. *In his* Guía del Madrid científico: ciencia y corte. Madrid, Doce Calles, 1998. p. 222–228. col. illus., plan.

Laird, Edgar S. Christine de Pizan and controversy concerning star-study in the court of Charles V. *In* Allegorica, a journal of medieval and Renaissance literature. v. 18; 1997. College Station, Texas A&M University. p. 21–30.

Langermann, Y. Tzvi. Peurbach in the Hebrew tradition. Journal for the history of astronomy, v. 29, May 1998: 137–150.
Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Lecomte, Stéphane. Gruithuisen, Vénus, la Lune et leurs habitants. L'Astronomie, v. 112, nov./déc. 1998: 314–315. illus. (Histoire)

Leedjärv, Laurits. In memoriam: Veikko Saar (15.04.1971–12.09.1998). Baltic astronomy, v. 7, no. 4, 1998: 673–674.

Li, Yong, *and* Cheng Zhi Zhang. Accuracy of solar eclipse calculations, 1644–1785, with the Chinese *shoushi* calendar. Journal for the history of astronomy, v. 30, May 1999: 161–167. illus.

Lin, Qiao. L'astronomia cinese antica. Giornale di astronomia, v. 24, sett. 1998: 37–49. illus. (part col.), ports. (part col.)
Another color illustration appears on the outside front cover of the issue.

Linden, Susanne von, *and* Gerhard Klare. Der Krebs. Sterne und Weltraum, 38. Jahrg., Nr. 4, 1999: 392–393. illus., col. facsim. (Geschichte)

Linden, Susanne von, *and* Gerhard Klare. Das Schiff Argo. Sterne und Weltraum, 38. Jahrg., Nr. 2, 1999: 188–189. illus. (part col.) (Geschichte)

Linden, Susanne von, *and* Gerhard Klare. Das Sternbild Jungfrau. Sterne und Weltraum, 38. Jahrg., Nr. 6/7, 1999: 598–599. illus. (part col.) (Geschichte)

Linden, Susanne von, *and* Gerhard Klare. Das Sternbild Löwe. Sterne und Weltraum, 38. Jahrg., Nr. 5, 1999: 494–495. col. facsim. (Geschichte)

Linden, Susanne von, *and* Gerhard Klare. Das Sternbild Orion. Sterne und Weltraum, 37. Jahrg., Nr. 12, 1998: 1102–1103. col. facsim. (Geschichte)

Linden, Susanne von, *and* Gerhard Klare. Das Sternbild Perseus. Sterne und Weltraum, 37. Jahrg., Nr. 11, 1998: 996–997. illus. (part col.) (Geschichte)

Linden, Susanne von. Das Sternbild Stier. Sterne und Weltraum, 37. Jahrg., Nr. 10, 1998: 890–891. col. facsim. (Geschichte)

Linden, Susanne von, *and* Gerhard Klare. Das Sternbild Zwillinge. Sterne und Weltraum, 38. Jahrg., Nr. 1, 1999: 82–83. illus. (part col.) (Geschichte)

Lutz, Barry L. Robert Leroy Wildey, 1934–1998. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1468–1469. port.

McCall, Joe. The Mundrabilla iron meteorite from the Nullarbor Plain, Western Australia: an update. *In* Yearbook of astronomy. 1999. Edited by Patrick Moore. London, Macmillan, 1998. p. 156–168. illus.

McCormmach, Russell. Mr. Cavendish weighs the world. *In* American Philosophical Society, *Philadelphia*. Proceedings, v. 142, Sept. 1998: 355–366. illus., ports.

McInnis, Doug. Meet the radio man. Astronomy, v. 27, June 1999: 56–61. col. illus., ports. (part col.)

"Maybe you can't make a silk purse out of a sow's ear, but John Kraus could make Big Ear out of an empty purse."

Mackie, Euan W. Continuity over three thousand years of northern prehistory: the 'tel' at Howe, Orkney. *In* The Antiquaries journal. v. 78; 1998. London, Society of Antiquaries of London. p. 1–42. illus., plans.

Describes features of this "multi-period prehistoric site," including those suggesting that the earliest neolithic building was linked to the winter solstice, and that "a continuity with the orientation of the later [Iron Age] structures can be seen."

McLean, Brian, *and* Steven Beckwith. Barry Lasker 1939–1999. Space Telescope Science Institute newsletter, v. 16, June 1999: 1, 4. port.

See also, on p. 3, "Van Biesbroeck Prize Awarded to Barry Lasker," by Brian McLean and Howard E. Bond.

Mäder, François. Ortsfeste Sonnenuhren im Kanton Freiburg. *In* Société fribourgeoise des sciences naturelles. Bulletin, v. 80, fasc. 1/2, 1991: 121–158. illus., maps.

Locates and describes 33 dials with plane faces, dating from 1541 to 1990. Fifteen others are mentioned.

English summary: p. 156.

Maltby, Per. Professor Øystein Elgarøy 1929–1998. Astronomisk tidsskrift, årg. 32, mars 1999: 12.

Mancha, José L. Levi ben Gerson's astronomical work: chronology and Christian context. Science in context, v. 10, autumn 1997: 471–493.

Maran, Stephen P. Andrew G. Michalitsianos, 1947–1997. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1461–1462. port.

Markowski, Mieczysław. Von der Vielfalt der mittelalterlichen Auslegung der Schriften des Aristoteles zur Entstehung der kopernikanischen Naturwissenschaft. *In* Acta mediaevalia. t. 8. Lublin, Red. wydawnictw Katolickiego Uniwersytetu Lubelskiego, 1995. p. 83–90.

Marriott, R. A. Victorian lady astronomers. *In* British Astronomical Association, *London*. Journal, v. 109, Apr. 1999: 92. illus.

Comments on the article by Mary Creese about Elizabeth Brown, published in the Aug. 1998 issue (cited in *H.A.D. News* no. 46).

Matthews, Robert A. J. Dirac's coincidences sixty years on. Astronomy & geophysics, v. 39, Dec. 1998: 19–20.

"... reconsiders some of Paul Dirac's ideas in the light of modern cosmology."

See also the comment by B. G. Sidharth in the Apr. 1999 issue, p. 8.

Mattig, Wolfgang. Walter Grotrians fundamentale Beiträge zur Physik der Sonnenkorona. Sterne und Weltraum, 38. Jahrg., Nr. 6/7, 1999: 557–561. col. illus., port.

Mauelshagen, Franz. Illustrierte Kometenflugblätter in wahrnehmungsgeschichtlicher Perspektive. *In* Das illustrierte Flugblatt in der Kultur der frühen Neuzeit. Wolfenbütteler Arbeitsgespräch 1997. Hrsg. von Wolfgang Harms und Michael Schilling. Frankfurt am Main, New York, P. Lang, 1998. (Mikrokosmos, Bd. 50) p. 101–136. facsims.

Mercier, Raymond. The astronomical tables of George Gemistus Plethon. Journal for the history of astronomy, v. 29, May 1998: 117–127. illus.

Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Methuen, Charlotte. "This comet or new star": theology and the interpretation of the nova of 1572. Perspectives on science, v. 5, winter 1997: 499–515.

Meziane, Karim, *and* Nidhal Guessoum. La visibilité du croissant lunaire et le Ramadan. Le Recherche, no 316, jan. 1999: 66–71. col. illus.

"La tradition scientifique arabe est mal reconnue dans le monde islamique."

Milanesi, Marica. I globi celesti di Vincenzo Coronelli. *In* Vincenzo Coronelli e l'*Imago mundi*. A cura di Donatino Domini e Marica Milanesi. Illustrazioni a cura di Claudia Giuliani. Ravenna, Longo editore, 1998. (Interventi classensi, 18) p. 46–61. col. illus., col. facsims.

Illustrations relating to the celestial globes appear on plates 51, 57–62, 64, 68, and 70–71, on p. 78 and 82–89.

Molnar, Michael R. Greek astrology as a source of the Messianic portent. Ancient world, v. 29, no. 2, 1998: 139–150. illus.

"The quest to find the so-called Star of Bethlehem has ignored Greek astrology, and as a consequence many unsatisfactory explanations have been produced."

Molnar, Michael R. Nero's throne in Jerusalem. *In* Picus, the annual journal of the Classical & Medieval Numismatic Society. 1996. Willowdale, Ont., 1998. p. 60–66. illus.

On the symbolism of the zodiacal sign Aries during the early years of the Roman Empire.

Molnar, Michael R. Symbolism of the sphere. Celator, v. 12, June 1998: 6, 8. illus.

Referring to the article by Michael Marotta in the Feb. 1998 issue (cited in *H.A.D. News* no. 44), points to "evidence that the orb depicted on so many coins was the cosmos and not the Earth."

Morante López, Rubén B. El Monte Tlaloc y el calendario mexica. *In* Graniceros: cosmovisión y meteorología indígenas de Mesoamérica. Beatriz Albores, Johanna Broda, coordinadoras. Zinacantepec, El Colegio Mexiquense; México, D.F., Universidad Nacional Autónoma de México, 1997. p. 107–139.

Morbidelli, Alessandro. Remembering Michèle Moons. Celestial mechanics & dynamical astronomy, v. 68, no. 3, 1998: 199–204. port.

Morgan, David H. Kashinath Nandy 1927–1998. Astronomy & geophysics, v. 39, Dec. 1998: 35–36. col. port.

"Fellow of the RAS, keen observer and international collaborator; interstellar matter specialist."

Mosley, John. Star tales. Griffith observer, v. 63, Feb. 1999: 2–18. illus.

"... spotlights archaic traditions—the Great Bear, the zodiac, and celestial heroes and villains ..."

Another illustration appears on the outside front cover of the issue (caption on p. 3).

Mukherjee, Sobhana. Emergence of spectroscopic research in India. *In* Asiatic Society, *Calcutta*. Journal, v. 38, no. 3, 1996: 62–77.

From its beginnings with Pogson at the Madras Observatory to the work of Raman. An appendix lists 31 papers published during the period 1921–47, illustrating the development of spectroscopic research in India.

Musselman, Elizabeth G. Swords into ploughshares: John Herschel's progressive view of astronomical and imperial governance. British journal for the history of science, v. 31, Dec. 1998: 419–435. illus.

Neuser, Wolfgang. "Das System der Sonne." Zur Konstruktion der Hegelschen Naturphilosophie von 1804/05 in Jena. *In* Hegels Jenaer Naturphilosophie. Hrsg. von Klaus Vieweg. München, W. Fink, 1998. (Jena-Sophia. Abt. 2, Studien. Bd. 1) p. 281–287.

Nicholson, Don, *and* Scott W. Teare. Life on the mountain: an astronomical family scrapbook of Mount Wilson Observatory. Mercury, v. 28, Jan./Feb. 1999: 22–27. illus., ports.

Noels, Arlette. Mégalithes et astronomie. *In* Académie royale de Belgique. *Classe des sciences*. Bulletin, 6. sér., t. 8, no 7/12, 1997: 237–240.

Noordmans, Hans. A heliocentric planetarium. HJ, Horological journal, v. 140, Mar., May-June 1998: 91–94, 154–155, 206–208. illus. (part col.)

"... describes a unique instrument made by Christaan van der Klaauw."

English translation by Bob Jürgens.

Northrop, David K. An old observatory. Astronomy now, v. 12, Dec. 1998: 71. col. illus.

"The rise and fall of an amateur astronomer's observatory on Bury Hill near Dorking, Surrey."

Obrist, Barbara. Cosmology and alchemy in an illustrated 13th century alchemical tract: Constantine of Pisa, "The Book of the Secrets of Alchemy." *In* Micrologus. v. 1; 1993. I discorsi dei corpi. Discourses of the body. Paris, Brepols. p. 115–160. facsims.

The 19 illustrations appear on 16 p. of plates following p. 156.

Olson, Donald W., Richard T. Fienberg, *and* Roger W. Sinnott. What's a blue moon? Sky & telescope, v. 97, May 1999: 36–38. col. illus.

"A 53-year-old mistake in *Sky & Telescope* ... changed pop culture and the English language in unexpected ways."

One hundred years of astronomy in America. Physics today, v. 52, May 1999: 31–37. illus. (part col.), ports. (part col.)

"In honor of the American Astronomical Society's centennial, we celebrate American astronomy's remarkable century of technological innovation and breathtaking, ever-expanding discovery."

Orchiston, Wayne. Amateur-professional collaboration in Australian science: the earliest astronomical groups and societies. Historical records of Australian science, v. 12, no. 2, 1998: 163–182.

Orchiston, Wayne. C/1831 K1: a forgotten "great comet" of the nineteenth century. Irish astronomical journal, v. 26, Jan. 1999: 33–44. illus.

Orchiston, Wayne. From the South Seas to the sun: the astronomy of Cook's voyages. *In* Science and exploration in the Pacific; European voyages to the southern oceans in the eighteenth century. Edited by Margarette Lincoln. Woodbridge, Suffolk; Rochester, NY, Boydell Press in association with the National Maritime Museum, 1998. p. 55–72. illus., facsims.

Orchiston, Wayne, *and* Derek Howse. From transit of Venus to teaching navigation: the work of William Wales. Astronomy & geophysics, v. 39, Dec. 1998: 21–24. illus., col. port. (Historical astronomy)

Ortiz García, Elena. La astronomía como fuente: el universo mesoamericano. *In* Anales del Museo de América. 5; 1997. Madrid. p. 17–42. illus.

Osterbrock, Donald E. Subrahmanyan Chandrasekhar (19 October 1910–21 August 1995). *In* American Philosophical Society, *Philadelphia*. Proceedings, v. 142, Dec. 1998: 657–665. port.

Pachner, Norbert. Zur Erfassung der Sichtbarkeitsperioden ekliptikferner Gestirne. *In* Ägypten und Levante, internationale Zeitschrift für ägyptische Archäologie und deren Nachbargebiete. Egypt and the Levant, international journal for Egyptian archaeology and related disciplines. 8; 1998. Wien, Verlag der Österreichischen Akademie der Wissenschaften. p. 125–136. illus.

Pang, Kevin D., Kevin K. C. Yau, *and* Hung-hsiang Chou. Postglacial rebound and other influences on the Earth's secular rotation rate, from analysis of ancient eclipse records. *In* Dynamics of the Ice Age Earth, a modern perspective. Editor: Patrick Wu. Uetikon, Switzerland, Enfield, N.H., 1998. (Georesearch forum, v. 3/4) p. 459–488. illus., maps.

Paolucci, Amedeo. Il centro del mondo. L'Astronomia, anno 20, dic. 1998: 32–37. facsims. (part col.) (Storia del pensiero)

"È l'idea-cardine nel sistema cosmologico aristotelico-tolemaico: le conseguenze filosofiche della sua perdita nel XVI secolo."

Pasachoff, Jay M. Halley and his maps of the total eclipses of 1715 and 1724. Astronomy & geophysics, v. 40, Apr. 1999: 18–21. maps (part col.)

"... describes the pioneering work of Halley ... and relates it to the total solar eclipse of this August 11."

A French translation by Frédéric Clette, "Halley et ses cartes des éclipses totales de 1715 et 1724," appears in *Ciel et terre*, v. 115, mars/avril 1999, p. 51–56.

Pedersen, Fritz S. The Toulouse tables: a list of manuscripts. *In* Copenhagen. Universitet. *Institut for græsk og latinsk middelalderfilologi*. Cahiers de l'Institut du moyen-âge grec et latin, no 68, 1998: 3–12.

Pickering, Keith A. Columbus's method of determining longitude: an analytical view. Journal of navigation, v. 49, Jan. 1996: 95–111. illus.

On whether Columbus used the method of lunar distances.

Piini, Ernest W. The Jai Singh observatories: astronomical puzzles in stone. Griffith observer, v. 63, Mar. 1999: 2–17. illus.

Additional illustrations appear on the outside front and back covers of the issue (captions on p. 3 and 21).

Pingree, David. An astronomer's progress. *In* American Philosophical Society, *Philadelphia*. Proceedings, v. 143, Mar. 1999: 73–85. facsims.

Concerns the development of the "unusual astronomical endeavors" of the Emperor Jai Singh II, an investigation based on a study of the Sanskrit astronomical manuscripts in the library of the Maharaja's Palace in Jaipur.

Pingree, David. Some fourteenth-century Byzantine astronomical texts. Journal for the history of astronomy, v. 29, May 1998: 103–108.

Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Ponomarev, D. N. K 80-letnemu i͡ubileĭu pervogo s"ezda Vserossiĭskogo astronomicheskogo soĭuza. Petrograd, 5–8 aprelia 1917 g. *In* Astronomicheskiĭ kalendar'. vyp. 99; 1997. Moskva, Kosmosinform. p. 274–283.

Poulle, Emmanuel. Pour une typologie de l'horlogerie astronomique médiévale. *In* Académie des inscriptions et belles-lettres, *Paris*. Comptes rendus des séances, avril/juin 1997: 635–661. illus. (part col.), map.

Poulle, Emmanuel, *and* Denis Savoie. La survie de l'astronomie alphonsine. Journal for the history of astronomy, v. 29, 1998: 201–207.

Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Powell, David. The moon writhes. Astronomy now, v. 12, Dec. 1998: 61. col. illus.

"Is there evidence that the Moon suffered a large impact on June 18, 1178, and was it observed from Canterbury?"

Prestinenza, Luigi. Ricordo di due pionieri. L'Astronomia, anno 20, nov. 1998: 42–47. illus. (part col.), ports. (Storia)

"Virgilio Marcon e Carlo Recla gettarono il seme da cui è fiorita rigogliosa l'astrofilia veneta."

Includes "Un geniale autocostruttore" (p. 45), about Recla and his work.

Pyenson, Lewis, *and* Susan Sheets-Pyenson. Watching: observatories in the Middle East, China, Europe and America. *In their* Servants of nature; a history of scientific institutions, enterprises and sensibilities. New York, W. W. Norton, 1999. p. 101–124. illus.

The illustrations appear on the first of 8 p. of plates following p. 208.

Rådbo, Marie. Den himmelska älgjakten. Astronomisk tidsskrift, årg. 31, sept. 1998: 10–13. illus.

On the starry heavens as seen by the Sami.

See also the comment from Rune Fogelquist, "Samernas stjärnhimmelsmyt och precessionen," in the dec. 1998 issue, p. 34–35.

Rae, Ian D. Spectrum analysis: the priority claims of Stokes and Kirchhoff. Ambix, v. 44, Nov. 1997: 131–144.

Rang, Hans. Ormbäraren. Astronomisk tidsskrift, årg. 31, sept. 1998: 22–25; dec.: 30–34; årg. 32, mars 1999: 24–29. illus.

Contents: d. 2. Landet mellan floderna.—d. 3. En väg att gå upp.—d. 4. Solen i båten.

The first essay in this series was cited in *H.A.D. News* no. 45.

Reaves, Gibson. Emil R. Herzog, 1917–1998. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1457–1458. port.

Reichert, Uwe. Hundert Jahre Landessternwarte Heidelberg-Königstuhl. Sterne und Weltraum, 37. Jahrg., Nr. 12, 1998: 1036–1044. illus. (part col.), ports.

Reinhardt, Hans F. Ein heliozentrisches Planetarium von Ernst Szegedy. Klassik Uhren, 21. Jahrg., Nov. 1998: 34–38. col. illus.

Includes a brief biographical sketch of Szegedy (1924–1994), who worked in Switzerland.

Robbins, Ellen. Tabular sacrifice records and the cultic calendar of Neo-Babylonian Uruk. *In* Journal of cuneiform studies. v. 48; 1996. Atlanta, GA, Scholars Press, 1998. p. 61–87. illus.

Includes cuneiform texts.

Rosino, Leonida. Livio Gratton (1910–1991). *In* Accademia nazionale dei Lincei. *Classe di scienze fisiche, matematiche e naturali.* Rendiconti lincei. ser. 9, v. 5; 1994. Supplemento. Roma, 1995. p. 27–33. port.

Rothenberg, Marc. Observers, publications, and surveys: astronomy in the United States in 1849. Astronomical journal, v. 117, Jan. 1999: 6–8.

Ruggles, Clive L. N. Astronomy and Stonehenge. *In* Science and Stonehenge. Edited by Barry Cunliffe & Colin Renfrew. Oxford, New York, Published for the British Academy by Oxford University Press, 1997. (British Academy, London. Proceedings, 92) p. 203–229. illus., maps, plans.

Russell, C. H. The legacy continues: C. A. Chant and the David Dunlap Observatory. *In* Royal Astronomical Society of Canada. Journal, v. 93, Feb. 1999: 11–14. illus.

Sabrier, Jean C. Pierre Le Roy's watches 'for the use of astronomers and seamen.' Antiquarian horology, v. 24, winter 1998: 315–325. illus.
Translated by Sebastian Whitestone.

Sahade, Jorge, *and* Kwan-Yu Chen. Frank Bradshaw Wood, 1915–1997. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1469–1470. port.

Salter, Christopher J. Radio astronomy highlights at Arecibo. *In* Particle physics and cosmology: first tropical workshop. High energy physics: second Latin American symposium. San Juan, Puerto Rico, April 1998. Editor, José F. Nieves. Woodbury, N.Y., American Institute of Physics, 1998. (AIP conference proceedings, 444) p. 571–575.

Samsó, Julio. An outline of the history of Maghribī zijes from the end of the thirteenth century. Journal for the history of astronomy, v. 29, May 1998: 93–102.
Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Schabel, Chris. Ad correctionem calendarii ... The background to Clement VI's initiative? *In* Copenhagen. Universitet. *Institut for græsk og latinsk middelalderfilologi.* Cahiers de l'Institut du moyen-âge grec et latin, no 68, 1998: 13–34.
Includes an edition of the Latin text (p. 20–34).

Schneider, Ivo. Spekulationen über die Gestalt der Erde und ihre wissenschaftliche Bewertung in der Aufklärung. *In* Spekulation und Wissenschaft; in memoriam Stefan Engels. Ein interdisziplinärer Workshop. Tanja Fischer, Rudolf Seising (Hrsg.). Hamburg, Dr. Kovač, 1995. p. 13–26. facsims., port.
Includes a list (p. 25) of the most important scientists who were involved in determining the figure of the earth.

Schröder, Wilfried. Hans-Jürgen Treder zum 70. Geburtstag. Sterne und Weltraum, 37. Jahrg., Nr. 10, 1998: 822, 824. col. port.

Schröder, Wilfried. Wilhelm Foerster and the development of solar and cosmical physics. Planetary and space science, v 47, Mar./Apr. 1999: 587–590. illus., port.

Senne, Joseph H. Andrew Ellicott's determination of latitude and longitude at the confluence of the Ohio and Mississippi Rivers. Rittenhouse, v. 12, Oct. 1998: 107–110. illus.

Shamsi, Fazal A. Perceval's reconstruction of the pre-Islamic Arab calendar. Islamic studies, v. 37, autumn 1998: 353–369.

Shank, Michael H. Regiomontanus and homocentric astronomy. Journal for the history of astronomy, v. 29, May 1998: 157–166.

Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Shapiro, Irwin L. A century of relativity. *In* More things in heaven and earth: a celebration of physics at the millennium. Benjamin Bederson, editor. New York, Springer, American Physical Society, 1999. p. 69–88.

Also published in a special issue (v. 71, 1999) of *Reviews of Modern Physics*.

Sheehan, William, *and* Thomas A. Dobbins. Charles Boyer and the clouds of Venus. Sky & telescope, v. 97, June 1999: 56–60. illus. (part col.), col. ports.

"An amateur astronomer was the first to solve one of planetary astronomy's oldest and most enduring mysteries."

Sherrill, Thomas J. A career of controversy: the anomaly of T. J. J. See. Journal for the history of astronomy, v. 30, Feb. 1999: 25–50. illus., facsims., ports.

Shipman, Harry L. Richard B. Herr, 1936–1997. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1456–1457. port.

Sighinolfi, G. P., *and* A. Viani. The meteorite collection at the Departement [sic] of Earth Sciences, University of Modena (Italy). *In* Società dei naturalisti e matematici di Modena. Atti. v. 127; 1996. Modena, Mucchi, 1997. p. 151–164. facsim.

Sims-Williams, Nicholas, *and* François de Blois. The Bactrian calendar. *In* Bulletin of the Asia Institute. new ser., v. 10; 1996. Studies in honor of Vladimir A. Livshits. Edited by Carol Altman Bromberg and Prods Oktor Skjærvo. Bloomfield Hills, Mich., 1998. p. 149–165.

Sistema SEP-Conacyt. Instituto Nacional de Astrofísica, Óptica y Electrónica. *In its* Historia de las instituciones del Sistema SEP-Conacyt. México, D.F., 1998. p. 9–25.

Stauffer, John R. Charles Franklin Prosser, Jr., 1963–1998. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1462–1463. port.

Stephenson, F. Richard, *and* David A. Green. The supernova of AD 1181—an update. Astronomy & geophysics, v. 40, Apr. 1999: 27–28. col. illus.

Stevens, Wesley M. Astronomy in Carolingian schools. *In* Karl der Grosse und sein Nachwirken: 1200 Jahre Kultur und Wissenschaft in Europa. Charlemagne and his heritage: 1200 years of civilization and science in Europe. Bd. 1. Wissen und Weltbild. v. 1. Scholarship, worldview and understanding. Hrsg. von/edited by P. Butzer, M. Kerner und W. Oberschelp. Turnhout, Brepols, 1997. p. 417–487. facsims. (part col.)

Stöckhert, Helmut. Die schattenlosen Pyramiden. Sterne und Weltraum, 38. Jahrg., Nr. 1, 1999: 76. col. illus. (Geschichte)

"Wird ein Körper von der Sonne beschienen, so wirft er einen Schatten. Die grossen ägyptischen Pyramiden machen eine Ausnahme: Doch wie fast alle 'Wunder' ist auch dieses leicht aufzuklären."

Strumpf, Manfred. Gothas Entwicklung zu einem europäischen Zentrum der Astronomie. *In* Die Residenzstadt Gotha in der Goethe-Zeit. Hans Erkenbrecher, Helmut Roob, Hrsg. im Auftrag des URANIA Kultur- und Bildungsvereins Gotha e.V. Bucha bei Jena, quartus-Verlag, 1998. (Palmbaum Texte. Kulturgeschichte, Bd. 5) p. 145–156. illus., ports.

References to Zach in other essays in this collection can be found through the Personenregister.

Stückelberger, Alfred. Der Astrolab des Ptolemaios. Ein antikes astronomisches Messgerät. Antike Welt, 29. Jahrg., Nr. 5, 1998: 377–383. illus. (part col.), facsims. (part col.)

Also published in *Sterne und Weltraum*, 38. Jahrg., Nr. 4, 1999, p. 340–352.

Swerdlow, Noel M. Otto G. Neugebauer, May 26, 1899-February 19, 1990. *In* National Academy of Sciences. Biographical memoirs. v. 75. Washington, D.C., National Academy Press, 1998. p. 214–238. port.

Swerdlow, Noel M. Regiomontanus's concentric-sphere models for the sun and moon. Journal for the history of astronomy, v. 30, Feb. 1999: 1–23. illus., facsims.

Szabó, Arpad. Griechische Grundlegung der Mathematik, der Astronomie und der Geographie. *In* Die Rezeption der Antike und der europäische Philhellenismus. Hrsg. von Evangelos Konstantinou. Frankfurt am Main, New York, P. Lang, 1998. (Philhellenische Studien, Bd. 7) p. 349–363. illus.

Tameanko, Marvin. The horae: the four seasons in Roman numismatics. Celator, v. 12, July 1998: 14, 16–18, 20–21. illus.

Theis, Christian, Stefan Deiters, Christian Einsel, *and* F. Hohmann. Hans Rosenberg und Carl Wirtz, zwei Kieler Astronomen in der NS-Zeit. Sterne und Weltraum, 38. Jahrg., Nr. 2, 1999: 126–130. illus., ports.

"Grosse allgemeine Debatten über die Ereignisse während der Hitlerzeit füllen allenthalben die Medien. Hier versuchen junge Astronomen von heute dem nachzugehen, was 'in ihrem Institut' damals tatsächlich geschehen ist."

Thüringer, Walter. Paul Eber (1511–1569): Melanchthons Physik und seine Stellung zu Copernicus. *In* Melanchthon in seinen Schülern. Hrsg. von Heinz Scheible. Wiesbaden, Harrassowitz in Kommission, 1997. (Wolfenbütteler Forschungen, Bd. 73) p. 285–321. port.

Thurston, Hugh. Mediæval Indians and the planets. Dio, v. 8, Nov. 1998: 18–20.

Thurston, Hugh. R. R. Newton versus Ptolemy. Dio, v. 8, Nov. 1998: 3–13.

Notes by Dennis Rawlins follow on p. 14–17.

Tichy, Franz. Codices und ihre Bedeutung für astrologische Vorstellungen und astronomische Erkenntnisse der Mexica und Maya. *In* Die Bücher der Maya, Mixteken und Azteken; die Schrift und ihre Funktion in vorspanischen und kolonialen Codices. Katalog. Hrsg. von Carmen Arellano Hoffmann und Peer Schmidt, unter Mitarbeit von Christina Hofmann-Randall. Frankfurt am Main, Vervuert, 1998. (Schriften der Universitätsbibliothek Eichstätt, Bd. 34) p. 307–344. illus.

Contents: Einleitung.—Astronomen und ihre Instrumente in den Codices.—Die Weltgegenden und das kosmische Ideogramm.—Die Gestirne.—Der Mond und die Finsternisse.—Venus.—Mars und die Sternzeichen.—Der Fixsternhimmel und seine Drehung.

Tihon, Anne. The astronomy of George Gemistus Plethon. Journal for the history of astronomy, v. 29, May 1998: 109–116.

Paper presented at the symposium "Astronomy at the Dawn of the Renaissance," held at Liège, July 1997.

Trimble, Virginia. Walter Samuel McAfee, 1914–1995. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1460–1461. port.

Uris, Sergi Gascón. L'astrònom Pere Gilbert en les obres d'Eiximenis. *In* Academia de Buenas Letras de Barcelona. Boletín. 46; 1997-98. Barcelona, 1998. p. 389–396.

Usher, Peter D. Amleto e l'universo infinito. Giornale di astronomia, v. 24, sett. 1998: 27–30. facsims., col. port.

Translation by Ernesto Bossa of an essay first published in *Research / Penn State*, v. 18, Sept. 1997, and cited in *H.A.D. News* no. 45.

Van Brummelen, Glen. Mathematical methods in the tables of planetary motion in Kūshyār ibn Labbān's *Jāmi' Zīj*. Historia mathematica, v. 25, Aug. 1998: 265–280. illus.

Vanzi, Leonardo. La Specola Vaticana. L'Astronomia, anno 21, apr. 1999: 38–44. illus. (part col.), ports. (Osservatori)

Includes two boxes, "Padre O'Connell e le stelle doppie" (p. 40) and "Il raggio verde da Castel Gandolfo" (p. 44).

Vlahakis, George N. Dionyssios Pyrros: an unknown instrument-maker in nineteenth-century Greece. Bulletin of the Scientific Instrument Society, no. 59, Dec. 1998: 3–5. illus.

Pyrros wrote books on the sciences, including astronomy, as well as constructing astronomical and geographical instruments.

Wagemans, G. M. C. Was de Romeinse pentagon-dodecaeder een astronomische meetinstrument voor het bepalen van de zaaidatum? *In* Rijksmuseum van Oudheden te Leiden. Oudheidkundige mededelingen. 77; 1997. Leiden. p. 159–172. illus.

Wagner, Birgit. Das Fernrohr und die Schrift: Galileis Instrumente und Medien. Frühneuzeit Info, Jahrg. 9, Heft 2, 1998: 224–229.

"Dieser Text ist die überarbeitete und erweiterte Fassung eines Beitrags, der ursprünglich unter dem Titel *El Telescopio y la escritura. Galileo y los medios de comunicación* in der Zeitschrift *Semiosfera* (Nr. 5/1996) in Madrid erschienen ist."

Wahsner, Renate. Hegels spekulativer Geozentrismus. *In* Hegels Jenaer Naturphilosophie. Hrsg. von Klaus Vieweg. München, W. Fink, 1998. (Jena-Sophia. Abt. 2, Studien. Bd. 1) p. 299–308.

Wallerstein, George. John E. Baer, 1947–1998. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1456. port.

Walters, Alice N. Ephemeral events: English broadsides of early eighteenth-century solar eclipses. History of science, v. 37, Mar. 1999: 1–43. facsims.

Waters, D. W. H Derek Howse 1919–1998. Astronomy & geophysics, v. 40, Feb. 1999: 37. port.
"Fellow of the RAS, decorated seaman and indefatigable scholar."

Weisser, Christoph. Mittelalterliche Krankheitsprognostik: zwei bisher unveröffentlichte Darmstädter Lunartexte. Ein Zwischenberichte zum Stand der Forschung. *In* Würzburger Fachprosa-Studien. Beiträge zur mittelalterlichen Medizin-, Pharmazie- und Standesgeschichte aus dem Würzburger Medizinhistorischen Institut. Michael Holler zum 60. Geburtstag. Hrsg. von Gundolf Keil; redigiert von Johannes G. Mayer und Christian Naser. Würzburg, Königshausen & Neumann, 1995. (Würzburger medizinhistorische Forschungen, Bd. 38) p. 79–97.

Welther, Barbara L. Hunting the novae at Harvard, 1890 to 1945. *In* American Association of Variable Star Observers. Journal, v. 26, no. 2, 1998: 163.
Abstract only.

Wenskus, Otta. Columellas Bauernkalender zwischen Mündlichkeit und Schriftlichkeit. *In* Gattungen wissenschaftlicher Literatur in der Antike. Wolfgang Kullmann, Jochen Althoff, Markus Asper (Hrsg.). Tübingen, G. Narr, 1998. (ScriptOralia, 95) p. 253–262.

Wickramasinghe, Nalin Chandra. Kashinath Nandy (1927–1998). Observatory, v. 118, Dec. 1998: 398–399.

Wild, Paul. Fritz Zwicky's Pionierarbeiten in der Astronomie. Orion, 57. Jahrg., Apr. 1999: 8–11. illus., port.
"Vortrag an der Tagung der Fritz-Zwicky-Stiftung, Glarus, 14. November 1998."

Wissenschaftliche Geräte. Klassik Uhren, 21. Jahrg., Dez. 1998/Jan. 1999: 65–66. col. illus.
Illustrates a dozen items sold at Christie's on Apr. 8, 1998, and indicates the price of each in DM.

Witkowski, Nicolas. Jayant Narlikar, cosmologiste stationnaire. La Recherche, no 314, nov. 1998: 26–27. col. port.

Witt, Volker. Der Fraunhofer-Refraktor in München-Bogenhausen. Sterne und Weltraum, 38. Jahrg., Nr. 4, 1999: 378–379. col. illus.

Wolter, Christian. "Aber wir entsetzeten uns nicht wenig ..." Am 12. Mai 1706 fiel der Mondschatten letztmals auf Süddeutschland. Sterne und Weltraum, 38. Jahrg., Nr. 3, 1999: 288–290. col. illus., facsim., col. map. (Geschichte)
Includes a box, "Zeitgenössische Berichte über Beobachtungen der Sonnenfinsternis am 12. Mai 1706" (p. 290).

Woolfson, Michael M. John E Geake 1925–1998. Astronomy & geophysics, v. 39, Dec. 1998: 35. col. port.
"Fellow of the RAS, lunar scientist and instrument designer."

Wright, D. C. Thomas Hardy's astronomer. Observatory, v. 118, Oct. 1998: 301–302.
Letter to the editor.

Zimmerman, Barbara A. Georgeanne (Jan) Caughlan, 1916–1994. *In* American Astronomical Society. Bulletin, v. 30, no. 4, 1998: 1456.

Ziołkowski, Krzysztof. In memoriam. Stanisław Robert Brzostkiewicz (1930–1998). Urania—postępy astronomii, t. 70, mar./kwiec. 1999: 82–84. ports.

R. S. Freitag
Library of Congress
July 1999

5