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— Books and Pamphlets —

Abstracts of contributed talks and posters presented at the joint scientific fall meeting of the Astronomische Gesellschaft and of the Arbeitsgemeinschaft Extraterrestrische Forschung (AEF/DPG) at Bonn, September 18–23, 1995. Hamburg, 1995. 341 p. (Astronomische Gesellschaft. Abstract series, no. 11)

Partial contents: Kokott, W. Theorie und Augenschein in Peurbachs Kometenschrift von 1456.—Wolfschmidt, G. Peter Apian as an astronomical instrument maker.—Nebel, V., W. Saltzer, and B. M. Deiss. On Galilei's disproof of the Ptolemaic astronomy.—Brosche, P., and M. Odenkirchen. Carl Friedrich Gauss and the invention of the method of least squares.—Lichtenberg, H., L. Gerhards, A. Grassl, and H. Zemanek. Verallgemeinerung der Gaussschen Osterformel.—Rienitz, J. William Herschel's double star observations with an annular aperture.—Wolfschmidt, G. Argelander and the early development of astronomical photometry.—Jährling, R., and R. Bien. Die Kontroverse über den Beginn des "Universal-Tages."—Dick, W. R. History of astronomy in the Internet.—Geyer, E. H. J. v. Lamont und die Entwicklung der spaltlosen Astrospektroskopie.

Albani, Matthias. *Astronomie und Schöpfungsglaube; Untersuchungen zum astronomischen Henochbuch*. Neukirchen-Vluyn, Neukirchener Verlag, 1994. 386 p. illus. (Wissenschaftliche Monographien zum Alten und Neuen Testament, 68. Bd.)

Contents: 1. Einleitung.—2. Das astronomische System.—3. Theologische Implikationen der Henoch-Astronomie.—4. Die Frage nach Herkunft der Henoch-Astronomie.—5. Theologische Motive für die Rezeption astronomischer Weisheit.

Alla Corte degli Estensi. *Filosofia, arte e cultura a Ferrara nei secoli XV e XVI*. A cura di Marco Bertozzi. Atti del convegno internazionale di studi, Ferrara, 5–7 marzo 1992. Ferrara, Università degli studi, 1994. 466 p. illus.

Partial contents: Lippincott, K. Gli dei-decani del Salone dei Mesi di Palazzo Schifanoia.—Bertozzi, M. Il talismano di Warburg. Considerazioni sull'impianto astrologico di Palazzo Schifanoia.—Margolin, J. C. Philosophie et astrologie. À propos du *Zodiacus vitae* de Marcello Palingenio Stellato.—Preda, A. La peste astrologica, ovvero il dibattito circa la "scienza dei cieli" tra Symphorien Champier e Giovanni Mainardi.—Maranini, A. La tradizione degli "Astronomica" di Manilio nell'ambiente ferrarese.

L'Astrologia e la sua influenza nella filosofia, nella letteratura e nell'arte dall'età classica al Rinascimento. Milano, Nuovi Orizzonti, 1992. 225 p., [11] leaves of plates. illus., col. plates. (Caleidoscopio, 3)

Contents: Panaino, A. La diffusione dell'astronomia e dell'astrologia mesopotamica in India attraverso la mediazione

iranica.—Grilli, A. Elementi astronomici e astrologici nell'antichità.—Pizzani, U. Astrologia ed astronomia nel pensiero dei Padri.—Ghisalberti, A. Astrologia e cosmologia ai tempi di Dante: Giovanni Buridano.—Tateo, F. Dante e l'astrologia.—Benassi, S. Gli umanisti ed il sapere ermistica: iniziazione o mistificazione?—Vasoli, C. Marsilio Ficino e l'astrologia.—Roellenbleck, G. L'astrologia nella poesia del Pontano: l'Urania.—Tarugi, L. R. S. Il ciclo di Schifanoia a Ferrara.

Bauer, Brian S., and David S. P. Dearborn. *Astronomy and empire in the ancient Andes: the cultural origins of Inca sky watching*. Austin, University of Texas Press, 1995. xv, 220 p. illus., maps.

Bhathal, Ragbir S. *Australian astronomers: achievements at the frontiers of astronomy*. Canberra, National Library of Australia, 1996. 236 p. illus., ports.

"Milestones in astronomy in Australia": p. 212–220.

Based on a series of interviews by the author, together with extracts from three interviews recorded by others in the past with astronomers who have since died. Recordings and full transcripts of the interviews are kept in the Oral History Section of the National Library of Australia, which sponsored the project.

Interviews with the following are included in the book: Bart Bok, John Bolton, R. Hanbury Brown, Ronald Brown, Russell Cannon, Wilbur Christiansen, Ron Ekers, Robert Frater, Kenneth Freeman, Sidney Gascoigne, Ronald Giovanelli, Richard Manchester, Donald Mathewson, Donald Melrose, Bernard Mills, Harry Minnett, Jeremy Mould, and Paul Wild.

Boudet, Jean P. *Lire dans le ciel. Le bibliothèque de Simon de Phares, astrologue du XV<sup>e</sup> siècle*. Bruxelles, Centre d'étude des manuscrits, 1994. xxxi, 220 p., [14] leaves of plates. illus. (part fold.), facsim. (Les Publications de Scriptorium, v. 10)

Brackenridge, J. Bruce. *The key to Newton's dynamics: the Kepler problem and the Principia*. Containing an English translation of sections 1, 2, and 3 of book 1 from the first (1687) edition of Newton's *Mathematical Principles of Natural Philosophy*. With English translations from the Latin by Mary Ann Rossi. Berkeley, University of California Press, 1995. illus., ports.

Bruno, Giordano. *La cena de la cenere. The Ash Wednesday supper*. Edited and translated by Edward A. Gosselin and Lawrence S. Lerner. Toronto, Buffalo, University of Toronto Press in association with the Renaissance Society of America, 1995. 238 p. facsim. (Renaissance Society of America reprint texts, 4)

First published in 1977 by Archon Books in Hamden, Conn.

Brush, Stephen G. *Fruitful encounters: the origin of the solar system and of the moon from Chamberlin to Apollo*. Cambridge, New York, Cambridge University Press, 1996. 354 p. illus., ports. (A History of modern planetary physics, v. 3)

Brush, Stephen G. *Nebulous earth: the origin of the solar system and the core of the earth from Laplace to Jeffreys*. Cambridge, New York, Cambridge University Press, 1996. 312 p. illus., ports. (A History of modern planetary physics, v. 1)

Brush, Stephen G. *Transmuted past: the age of the earth and the evolution of the elements from Lyell to Patterson*. Cambridge, New York, Cambridge University Press, 1996. 134 p. illus., ports. (A History of modern planetary physics, v. 2)

Budde, Kai. *Wirtschaft, Wissenschaft und Technik im Zeitalter der Aufklärung: Mannheim und die Kurpfalz unter Carl Theodor, 1743–1799*. Hrsg. vom Landesmuseum für Technik und Arbeit in Mannheim. Ubstadt-Weiher, Verlag Regionalkultur, 1993. 95 p. illus. (part col.), maps (part col.), ports. (part col.)

See particularly, in the introduction, "Die Mannheimer Sternwarte" (p. 23–24), and, in the catalog, "Station 5, Zeitmessung im 18. Jahrhundert" (p. 57–60), "Station 6, Die Mannheimer Sternwarte" (p. 61–71), and "Sternfinder" (p. 77).

Bühlmann, Regula. *Kosmologische Dichtung zwischen Naturwissenschaft und innerem Universum; die Astronomie in Jean Pauls Hesperus*. Bern, New York, P. Lang, 1996. 201 p. (Europäische Hochschulschriften. Reihe 1, Deutsche Sprache und Literatur, Bd. 1561)

Butrica, Andrew J. *To see the unseen: a history of planetary radar astronomy*. Washington, D.C., National Aeronautics and Space Administration, NASA History Office, 1996. 301 p. illus., group port. (The NASA history series)

"NASA SP-4218."

Cabrera, Edgar. *El calendario maya, su origen y su filosofía*. San José, C.R., Liga Maya Guatemala, 1995. 318 p. illus.

Cocks, Elijah E., and Josiah C. Cocks. *Who's who on the moon; a biographical dictionary of lunar nomenclature*. Greensboro, N.C., Tudor Publishers, 1995. 600 p., [8] p. of plates. illus.

Appendices list women honorees, honorees grouped by profession and by country of origin, and location and size of named features.

Comellas, José L. *El cielo de Colón. Técnicas navales y astronómicas en el viaje del descubrimiento*. Madrid, Tabapress, 1991. 249, [11] p. illus. (part col.), maps (part col.), col. ports.

*Comprendre et maîtriser la nature au Moyen Age. Mélanges d'histoire des sciences offerts à Guy Beaujouan*. Genève, Librairie Droz, 1994. xxviii, 631 p. illus., facsim., plans. (Hautes études médiévales et modernes, 73)

Partial contents: Poulle, E. *Hommage à Guy Beaujouan*.—Liste des principaux travaux de Guy Beaujouan.—Calculs, concepts, vision—du monde et de l'homme. Connochie-Bourgne, C. "Nature" et "clergie" dans l'œuvre de vulgarisation scientifique de Gosuin de Metz (Image du monde, 1245). Oudet, J. F. *Le principe de la chambre noire et les sextants monumentaux de Ray (X<sup>e</sup> s.) et*

*Samarkand (XV<sup>e</sup> s.)*. Poulle, E. *Un témoin de l'astronomie latine du XIII<sup>e</sup> siècle, les tables de Toulouse*. Gautier Dalché, P. *L'influence de Jean Buridan: l'habitabilité de la terre selon Dominicus de Clavasio*. Mandosio, J. M. *Entre mathématiques et physique: note sur les "sciences intermédiaires" à la Renaissance*.—Pratiques et croyances. Boudet, J. P., and T. Charmasson. *Une consultation astrologique princière en 1427*. Lange, H. "Jours critiques", "jours funestes", "jours de Tycho Brahé": la réception en Scandinavie d'une ancienne croyance.—De l'écrit à l'image: la transmission des savoirs. Burnett, C. S. F. *Magister Iohannes Hispanus: towards the identity of a Toledan translator*.

*Copernico e la questione copernicana in Italia dal XVI al XIX secolo*. A cura di Luigi Pepe. Firenze, L. S. Olschki, 1996. 293 p. illus. (Pubblicazioni dell'Università di Ferrara, 4)

Papers from a conference held Oct. 18–20, 1993.

Contents: Barone, F. *La "modernità" di Nicolò Copernico*.—Gingerich, O. *The discovery of multiple annotated copies of De Revolutionibus*.—Poppi, A. *La filosofia naturale del primo Cinquecento nelle Università di Padova, Bologna e Ferrara*.—Di Bono, M. *Copernico, Amico, Fracastoro e il meccanismo di al-Tūsī: osservazioni sull'uso e la trasmissione di un modello*.—Casanovas, J. *Copernicus and the Gregorian calendar reform*.—Rosino, L. *L'opera di Galileo a sostegno della concezione copernicana*.—Baldini, U. *La formazione scientifica di Giovanni Battista Riccioli*.—Casini, P. *The Pythagorean myth: Copernicus to Newton*.—Borgato, M. T. *La prova fisica della rotazione della Terra e l'esperimento di Guglielmini*.—Guicciardini, N. *Stars and gravitation in eighteenth century Newtonian astronomy: the hypotheses of Benjamin Worster, Nicholas Saunderson, Gowin Knight, Roger Boscovich and William Herschel*.—Pepe, L. *Ferrara e la celebrazioni copernicane, 1871–1973*.

Cornelius, Geoffrey, and Paul Devereux. *The secret language of the stars and planets; a visual key to the heavens*. San Francisco, Chronicle Books, 1996. 176 p. col. illus., col. facsim., col. maps.

Contents: Introduction.—Sparrow, G. *The science of the skies*.—Cornelius, G. *The grand design*. Correspondences. Visual directory.—Devereux, P. *Sacred alignments*.

The last section provides information on Stonehenge, Avebury, Castlerigg, Maes Howe, Callanish, Lough Crew, Newgrange, Gavrinis, Er Grah, die Externsteine, the Great Pyramid, Karnak, Dendera, Hashihaka, Vijayanagara, Gao cheng zhen, Cahokia, Casa Grande, Chaco Canyon, Hovenweep, Teotihuacán, Uxmal, Chichén Itzá, Uaxactún, Misminay, Machu Picchu, and medieval European sites.

*Cosmographica et geographica*. Festschrift für Heribert M. Nobis zum 70. Geburtstag. Hrsg. von Bernhard Fritscher und Gerhard Brey. München, Institut für Geschichte der Naturwissenschaften, 1994. 2 v. (Algorismus, Heft 1) (Münchener Universitätschriften)

Partial contents: 1. Halbbd. Fritscher, B., and A. M. Pastori-Nobis. *Heribert M. Nobis—Lebensstationen*. Brey, G., and A. M. Pastori-Nobis. *Verzeichnis der Schriften von Heribert M. Nobis*. Kühne, A. *Copernicus redivivus*. Zur Editions-geschichte der Briefe, Urkunden und Akten von Nikolaus Copernicus. Bialas, V. *Der Fort-*

- gang der Kepler-Ausgabe an der Bayerischen Akademie der Wissenschaften in München. Petri, W. Indische Zeitvorstellungen. Dragoni, G. Le misurazioni fisico-astronomiche di Eratostene. Lorch, R. P., G. Brey, S. Kirschner, and C. Schöner. Ibn-aṣ-Ṣaffār's Traktat über das Astrolab in der Übersetzung von Plato von Tivoli. Kirschner, S. Eine weitere Fassung eines lateinischen "De caelo-Kommentars" von Nicolaus Oresme? Kokott, W. Peter Creutzers "Komet" vom 11. Oktober 1527. Zur Langlebigkeit von Fehldatierungen in der Sekundärliteratur. Krafft, F. Des Nicolaus Copernicus Bemühungen um die Bestimmung der Länge des tropischen Jahres: zur Chronologie copernicanischer Astronomie. Schmeidler, F. Die Mondbewegung nach Copernicus und die säkulare Akzeleration des Mondes. Hamel, J. Die Rezeption des mathematisch-astronomischen Teils des Werkes von Nicolaus Copernicus in der astronomisch-astrologischen Kleinliteratur um 1600.—2. Halbbd. Wolfschmidt, G. Die grosse Debatte: "Big Galaxy" oder "Island Universe"?
- Cullen, Christopher. Astronomy and mathematics in ancient China: the Zhou bi suan jing. Cambridge, New York, Cambridge University Press, 1995. xiv, 241 p. illus. (Needham Research Institute studies, 1)
- "This is a study and translation of the *Zhou bi suan jing*, a Chinese work on astronomy and mathematics which reached its final form around the first century AD. The author provides the first easily accessible introduction to the developing mathematical and observational practices of ancient Chinese astronomers and shows how the generation and validation of knowledge about the heavens in Han dynasty China related closely to developments in statecraft and politics."
- Dear, Peter R. Discipline & experience; the mathematical way in the scientific revolution. Chicago, University of Chicago Press, 1995. 290 p. facsim. (Science and its conceptual foundations)
- Contents: Introduction. The measure of all things.—1. Introduction in early-modern Europe.—2. Experience and Jesuit mathematical science: the practical importance of methodology.—3. Expertise, novel claims, and experimental events.—4. Apostolic succession, astronomical knowledge, and scientific traditions.—5. The uses of experience.—6. Art, nature, metaphor: the growth of physico-mathematics.—7. Pascal's void, natural philosophers, and mathematical experience.—8. Barrow, Newton, and constructivist experiment.—Conclusion: a mathematical natural philosophy?
- Dekker, Elly, and Peter C. J. van der Krogt. Globes from the Western world. London, Zwemmer, 1993. 183 p. illus. (part col.), maps (part col.), ports.
- Celestial globes are included.
- A list on p. 171–180 "gives the names and some biographical details of over 400 globe makers."
- Dick, Steven J. The biological universe: the twentieth-century extraterrestrial life debate and the limits of science. Cambridge, New York, Cambridge University Press, 1996. xvi, 578 p. illus., facsim., ports.
- Dohrn-van Rossum, Gerhard. History of the hour; clocks and modern temporal orders. Translated by Thomas Dunlap. Chicago, University of Chicago Press, 1996. 455 p. illus., facsim., ports.
- Translation of *Die Geschichte der Stunde; Uhren und moderne Zeitordnungen*, cited in *H.A.D. News* no. 28.
- Euclid. Euclid's *Phaenomena*; a translation and study of a hellenistic treatise in spherical astronomy. [By] J. L. Berggren and R. S. D. Thomas. New York, Garland Pub., 1996. 132 p. illus. (Sources and studies in the history and philosophy of classical science, 4)
- La Expedición Malaspina, 1789–1794. t. 6. Trabajos astronómicos, geodésicos e hidrográficos. Estudio y transcripción de textos, Luis Rafael Martínez-Cañavate Ballesteros. Barcelona, Lunweg Editores [1995?] 347 p. illus. (part col.), col. facsim., maps (part col.), col. ports.
- Contents: 1. Circunstancia histórica.—2. Problemas en la navegación y en la hidrografía.—3. La propuesta.—4. Preparación de la expedición.—5. La campaña hidrográfica.—6. Regreso a la patria.—7. Resultados.—8. Valoración final.
- Explorers of the southern sky; a history of Australian astronomy. [By] Raymond Haynes, Roslynn Haynes, David Malin, Richard McGee. Cambridge, New York, Cambridge University Press, 1996. 527 p. illus., facsim., maps, ports.
- Fale, Tevita H. Tongan astronomy. The wonders of Polynesian astronomy have been published for the first time in this book. Nuku'alofa, Tonga, Polynesian Eyes Foundation, 1990. 126 p. illus., maps, ports.
- Flamsteed, John. The correspondence of John Flamsteed, the first Astronomer Royal. v. 1. 1666–1682. Compiled and edited by Eric G. Forbes, and (for Maria Forbes) by Lesley Murdin and Frances Willmoth. Bristol, Philadelphia, Institute of Physics Pub., 1995. xlix, 955 p. illus., ports.
- Provides text of 450 letters and eight official documents.
- Fowler, Alastair. Time's purpled masquers: stars and the afterlife in Renaissance English literature. Oxford, New York, Clarendon Press, 1996. 171 p.
- Galileo e la cultura veneziana. Convegno a cura dell'Istituto veneto di scienze, lettere ed arti, Venezia, 18–20 giugno 1992. Trieste, Edizioni LINT, 1995. 436 p. col. illus., facsim., ports. (part col.) (Galileo a Padova, 1592–1610, v. 3)
- First published in 1994 by the Istituto veneto di scienze, lettere ed arti.
- Partial contents: Sosio, L. Galileo Galilei e Paolo Sarpi. — Altieri Biagi, M. L. *L'Incipit* del Dialogo sopra i massimi sistemi.—Barone, F. Galileo e Copernico.
- Gent, Rob H. van. De hemel in de hand: twee astrolaben van het Museum Boerhaave. The portable universe: two astrolabes of the Museum Boerhaave. Leiden, Museum Boerhaave, 1994. 44 p. illus. (part col.) (Museum Boerhaave. Mededeling, 259. Communication, 259)
- Glavnaia astronomicheskaia observatoriia v Pulkove, 1839–1917 gg. Sbornik dokumentov. Otv. redaktor V. K. Abalakin. Sankt-Peterburg, "Nauka," 1994. 334 p.
- Contents: Predislovie.—Ot sostavitel'ǎ.—1. Osnovanie observatorii i nachalo nauchnoi deiatel'nosti (1833–1862 gg.).—2. Zakreplenie traditsii i stanovlenie novykh

napravlennĭ (1863–1889 gg.).—3. Rasshirenie programm nablŭdenĭ, razvĭtie astrofizicheskikh i astrofotograficheskikh issledovanĭ (1890–1917 gg.).

Goodstein, David L., and Judith R. Goodstein. Feynman's lost lecture: The motion of planets around the sun. New York, W. W. Norton, 1996. 191 p. illus., facsimils., ports. + 1 compact disk in cardboard container.

The text of Feynman's lecture, given Mar. 13, 1964, is reproduced as chapter 4 of the book.

Granada, Miguel A. El debate cosmológico en 1588: Bruno, Brahe, Rothmann, Ursus, Röslin. Napoli, Bibliopolis, 1996. 265 p. (Istituto italiano per gli studi filosofici. Lezioni della Scuola di studi superiori in Napoli, 18)

Gutmann, Veronika. Die astronomische Uhr von Philipp Matthäus Hahn. Basel, Baumann, 1995. 40 p. illus. (Basler Kostbarkeiten, 16)

Hancock, Graham, and Robert G. Bauval. The message of the Sphinx; a quest for the hidden legacy of mankind. New York, Crown Publishers, 1996. 362 p., [8] leaves of plates. illus., plans.

Herrmann, Dieter B. Blick in das Weltall; die Geschichte der Archenhold-Sternwarte. Berlin, paetec Gesellschaft für Bildung und Technik, 1994. 90 p. illus., facsimils., ports.

Hetherington, Barry. A chronicle of pre-telescopic astronomy. Chichester, New York, J. Wiley, 1996. 273 p.

Der Himmel hat viele Gesichter. Winfried Petri zum 80. Geburtstag. Hrsg. von Wolfgang Kokott. München, Institut für Geschichte der Naturwissenschaften, 1994. 157 p. illus., group port. (Algorismus, Heft 15)

Contents: Folkerts, M., and W. Kokott. Einführung: Winfried Petri 80 Jahre.—Lebensdaten.—Geyer, E. H. Historische Anmerkungen zur Sternfleckenhypothese.—Kunitzsch, P. Rätselhafte Sternnamen.—Uebach, H., and J. L. Panglung. Tibetische Volkslieder.—Reich, K. Carl Friedrich Gauss und die Mathematiker seiner Zeit; ausgewählte Beispiele.—Pfleiderer, J. Der Fall mit dem leidigen Lambda.—Brosche, P. "Habe nun, ach!" Hat er wirklich? Zu Arno Schmidts Astronomie-Studien.—Kokott, W. Domingo Gonsales—ein englischer "Traum vom Mond"?—Ruppe, H. O. Zur Optimierung von Stufenraketen.—Bibliographie [Petri's publications]

L'Homage à Jean-Charles Houzeau, astronome montois, 1820–1888. Mons, Société des sciences, des arts et des lettres du Hainaut, 1995. 33 p. illus.

Huffman, Carl A. Philolaus of Croton, Pythagorean and presocratic. A commentary on the fragments and testimonia with interpretive essays. Cambridge, New York, Cambridge University Press, 1993. xix, 444 p.

See particularly, in pt. 3, "Genuine Fragments and Testimonia," section 4, "Astronomy" (p. 231–288); and, in pt. 4, "Spurious or Doubtful Fragments and Testimonia," section 4, "Gods and Angles" (p. 381–391), and section 5, "Fragments and Testimonia on Cosmology" (p. 392–401).

Husty, Peter. Zeit & Mass; Sonnenuhren und wissenschaftliche Geräte. Zum 250. Todesjahr des Salzburger Erzbischofs Leopold Anton Freiherr von Firmian (1727–1744). Katalog zur 177. Sonderausstellung. Salzburg, Salzburger Museum

C.A., 1994. 96 p. illus. (part col.) (Schriftenreihe zu Kunstgewerbe und Volkskunde, Bd. 2)

Includes armillary spheres, astrolabes, celestial globes, and telescopes as well as a variety of sundials.

Ikhsanova, Vera N. Pulkovo/St. Petersburg: Spuren der Sterne und der Zeiten. Geschichte der russischen Hauptsternwarte. Frankfurt am Main, P. Lang, 1995. 236 p. illus., ports.

The Inspiration of Astronomical Phenomena (INSAP), a conference sponsored by the Vatican Observatory, held at Villa Mondo Migliore, Rocca di Papa, Italy, 27 June–2 July 1994. Guest editors, G. V. Coyne and R. M. Sinclair. Kidlington, Oxford, Elsevier Science, 1996. 381–733 p. illus., facsimils., maps, plates (part col.) (Vistas in astronomy, v. 39, pt. 4, 1995)

Contents: White, R. E. Editor's note. Coyne, G. V. Introduction to the special issue for the INSAP conference. Sinclair, R. M. Introduction.—Cultural impacts. Ahmad, I. A. The impact of the Qur'anic conception of astronomical phenomena on Islamic civilization. Krupp, E. C. Negotiating the highwire of heaven: the Milky Way and the itinerary of the soul. Malville, J. M., and R. P. B. Singh. Visual astronomy in the mythology and ritual of India: the sun temples of Varanasi. León-Portilla, M. On the meanings of the celestial bodies in pre-Hispanic Mexico. Masse, W. B. The celestial basis of civilization. Milbrath, S. Eclipse imagery in Mexica sculpture of Central Mexico. Pankenier, D. W. Astrological origins of Chinese dynastic ideology. Ruggles, C. L. N., and H. A. W. Burl. Astronomical influences on prehistoric ritual architecture in North-Western Europe: the case of the stone rows. Snedegar, K. V. Stars and seasons in Southern Africa. Worthen, T. D. The Pleiades and Hesperides: finding parity with an astronomical key.—Philosophic impacts. Gale, G. The stars above and the very idea of philosophy. Impey, C. D. The search for life in the universe: a humanistic perspective. Pacholczyk, A. G. Why the pre-Copernican cosmological revolution was *not* a revolution? Tanzella-Nitti, G. The observation of the cosmos and the natural knowledge of God in Judaeo-Christian revelation (from the cosmological problem to the cosmological argument).—Artistic impacts. Lebeuf, A. Maria Magdalena, the morning star. Osborn, M. Chaucer's Dantean presentation of time in *The Canterbury Tales*: Libra and the Moon. Poss, R. L. Whitman's "Learn'd Astronomer" and the poetry of stars. Sundin, M., and C. Roslund. John Bauer: painter of a star-spangled fairy-tale world. Włodarczyk, J. From starry sky to physical universe: astronomical imagery in Polish romantic poetry.—Scientific impacts. Beckman, J. E. Sub specie æternitatis: how astronomical horizons have expanded. Bailey, M. E. Recent results in cometary astronomy: implications for the ancient sky. Clube, S. V. M. The nature of punctuational crises and the Spenglerian model of civilization. Woolf, N. J. Anaxagoras and the scientist/laity interaction.

Also included are abstracts of eight works presented in the display/poster session, six works to be published in *Leonardo* (only five of which appeared in v. 29, no. 2, 1996), and 13 works presented but not printed.

Invernizzi, Anna. Il calendario. Roma, Edizioni Quasar, 1994. 119 p. illus. (Vita e costumi dei Romani antichi, 16)

Kak, Subhash C. The astronomical code of the R̥gveda. New Delhi, Aditya Prakashan, 1994. 144 p. illus., plans.

Contents: 1. Vedas and science.—2. The context of Vedic studies.—3. Chronology of the Vedic texts.—4. Astronomy of the fire altars.—5. The architecture of the R̥gveda.—6. The R̥gvedic code.—7. The code in the Atharvaveda and the Bhagavadgītā.—8. Concluding remarks.

Kearns, Hugh. The mysterious chequered lights of Newgrange. Dublin, Elo Publications, 1993. 147 p. illus. (part col.), col. maps (on lining papers)

Koch-Westenholz, Ulla. Mesopotamian astrology. An introduction to Babylonian and Assyrian celestial divination. Copenhagen, Museum Tusulanum Press, University of Copenhagen, Carsten Niebuhr Institute of Near Eastern Studies, 1995. 223 p. illus. (CNI publications, 19)

Kochhar, Rajesh K., and Jayant V. Narlikar. Astronomy in India, a perspective. New Delhi, Indian National Science Academy, 1995. 86 p., [12] p. of plates. illus. (part col.), facsim. (part col.), ports.

"A Diamond Jubilee publication."

See particularly the first section, "Historical Perspective" (p. 1–27).

Kolb, Rocky. Blind watchers of the sky; the people and ideas that shaped our view of the universe. Reading, Mass., Helix Books, Addison-Wesley Pub. Co., 1996. 338 p. illus., facsim., ports.

Krzak, Zygmunt. Megalithy Europy. Warszawa, Wydawn. Nauk. PWN, 1994. 523 p. illus., maps, plans.

Includes, in pt. 2, "Problemy ogólne," a chapter entitled "Astronomia" (p. 316–332).

A supplement (p. 379–447) lists European megalithic monuments by country and locality (Irish monuments are arranged in the section on the British Isles), with approximate construction dates as determined by radiocarbon and thermoluminescence techniques.

English summary: p. 514–524.

Leitz, Christian. Altägyptische Sternuhren. Mit einem Beitrag von Heinz-J. Thissen. Leuven, Uitg. Peeters en Departement Oriëntalistiek, 1995. 317 p. illus., fold. charts. (Orientalia Lovaniensia analecta, 62)

Four fold. star charts, 2 for –2100 and 2 for –1462, with overlay, in pocket.

Contents: 1. T. Der Naos mit den Dekanen aus *Šaft el-Henna*.—2. T. Die Dekane der diagonalen Sternuhren in astronomischer Sicht.—3. T. Die ramessidischen Sternuhren.

Lombardi, Tiziana. Thomas Kuhn e la ricerca storiografica relativa alla rivoluzione copernicana. Roma, GEI, 1995. 159 p. (Nuovi saggi, 103)

Madrid. Biblioteca Nacional. *Mss. (3307)*. Códice de Metz. Madrid, Testimonio, 1993. 80 leaves. col. illus.

Full-color facsimile of the ninth-century manuscript, an anonymous compilation of treatises, tables, and excerpts on computus and astronomy. Identified texts include excerpts from Bede's *De temporum ratione* and Rabanus Maurus's *De computo*.

Of interest are the 43 unusual constellation figures.

Issued with an explanatory booklet by Manuel Sánchez Mariana, cited below.

Malphrus, Benjamin K. The history of radio astronomy and the National Radio Astronomy Observatory; evolution toward big science. Malabar, Fla., Krieger Pub. Co., 1996. 199 p. illus. (part col.), ports.

La Méridienne de l'hôpital de Tonnerre. Étude historique du gnomon installé en 1786 à l'hôpital des Fontenilles. [Par] Andrée Gotteland, Bernard Tailliez, Georges Camus, Paul de Divonne. Dannemoine, À l'image de l'abeille, 1994. 139 p. illus. (part col.)

Milla Villena, Carlos. Genesis de la cultura andina. 3. ed. Lima, 1992. 272 [i.e. 280] p. illus. (part col.), facsim., maps (part col.), plans (part col.)

Moore, Patrick. The planet Neptune, an historical survey before Voyager. 2d ed. Chichester, West Sussex, New York, J. Wiley in association with Praxis Pub., Chichester, 1996. 150 p., [24] p. of plates. illus. (part col.), ports. (Wiley-Praxis series in astronomy and astrophysics)

"Appendix 2: Airy's 'Account', 13 November 1846": p. 93–112.

Occasioni galileiane. Conferenze e convegni, Padova, maggio-novembre 1992. Trieste, Edizioni LINT, 1995. 390 p. illus. (part col.), facsim. (Galileo a Padova, 1592–1610, v. 5)

Partial contents: Bentsik, E. Galileo Galilei e le scienze matematiche, fisiche e astronomiche.—Bellone, E. Il significato dell'opera di Galilei nella storia della scienza e nella filosofia della scienza.—Cohen, I. B. What Galileo saw: the experience of looking through a telescope.—Van Helden, A. The telescope from Galileo to today.—Cooper, A. R. Glass and optics: a historical perspective.—Greco, V., G. Molesini, and F. Quercioli. Modern optical testing on the lenses of Galileo.—Fiorentini, A., and L. Maffei. What Galileo's brain told Galileo's eye.—Rosino, L. Nel cinquantenario dell'Osservatorio astrofisico di Asiago.—Bertola, F. L'attività scientifica dell'Osservatorio di Asiago nei suoi primi cinquant'anni.

On the 300th anniversary of the death of Johannes Hevelius. Book of the International Scientific Session. W trzeczsetlecie śmierci Jana Heweliusza. Księga Międzynarodowej Sesji Naukowej, Gdańsk, 14–16 września 1987. Edited by Robert Głębocki, Andrzej Zbierski. Wrocław, Ossolineum, Polish Academy of Sciences, 1992. 268 p. illus. (part col., part fold.), facsim., map, plan, ports.

Contents: Głębocki, R., and A. Zbierski. Foreword.—Szewalski, R. [Oration]—Odyniec, W. Gdańsk in XVII century.—Zbierski, A. Johannes Hevelius against the background of his era (summary).—Lisicki, A. Johannes Hevelius as an observer.—Zbierski, A. Johannes Hevelius necropolis in the church of Św. Katarzyna (St. Catherine) in Gdańsk.—Gładkowska-Rzeczycka, J. The anthropological analysis of the skeleton of Johannes Hevelius the Gdańsk astronomer of seventeenth century (1611–1687).—Targosz, K. *Firmamentum Sobiescianum*—the magnificent Baroque atlas of the sky.—Moesgaard, K. P. Tycho Brahe's discovery of changes in star latitudes.—Siemiginowska, A. L'héritage épistolaire de Jean Hévélius.—Morais de

Narbonne, A. M. *La mémoire d'Hévélius à l'Observatoire de Paris.*—Smak, J. *Johannes Hevelius, nova CK Vulpeculae (1670), and the "hibernation" model of cataclysmic variables.*—Praderie, F. *Stellar activity: a non-exhaustive view.*—Dziembowski, W. *Solar rotation.*—Mietelski, J. *The moon and other satellites in the Solar System (rotation, figure and cartography).*—Siemiginowska, A. *Johannes Hevelius (1611–1687). Catalogue of the exhibition organized by the Polish Academy of Sciences' Gdańsk Library and the Museum of the History of Gdańsk on the 300th anniversary of the death of the astronomer. July–September 1987. Gdańsk—Main City Town Hall.*

Summaries in Polish accompany all English texts except the foreword and Szewalski's welcoming address.

The exhibition catalog lists 77 items.

Paltrinieri, Giovanni, *and* Italo Frizzoni. *Meridiane e orologi solari di Bologna e provincia. Con la collaborazione di Renato Peri.* Bologna, Artiere Edizioni Italia, 1995. 497 p. illus. (part col.), facsim. (part col.), map.

Pantin, Isabelle. *La poésie du ciel en France dans la seconde moitié du seizième siècle.* Genève, Librairie Droz, 1995. 555 p. (Travaux d'humanisme et Renaissance, no 297)

Paz, Marco de, *and* Marcus de Paz. *Calendario maya: el camino infinito del tiempo.* 2. ed. Guatemala, Ediciones Gran Jaguar, 1991. 61 p. illus., map.

Contents: Introducción.—1. De como la humanidad dividió el tiempo.—2. De como los Mayas calcularon el tiempo.—3. El sistema del calendario maya.—4. Actualidad del calendario maya.

Peruzzi, Enrico. *La nave di Ermete; la cosmologia di Girolamo Fracastoro.* Firenze, L. S. Olschki, 1995. 119 p. (Quaderni di Rinascimento, 31)

Philipp, Hugo, Daniel Roth, *and* Willy Bachmann. *Sonnenuhren: Deutschland und Schweiz.* Stuttgart, Deutsche Gesellschaft für Chronometrie, 1994. 1 v. (various pagings) illus.

Catalogs nearly 10,000 sundials in Germany and over 9,600 in Switzerland.

Pouille, Emmanuel. *Astronomie planétaire au Moyen Âge latin.* Aldershot, Hants. Variorum; Brookfield, Vt., Ashgate Pub. Co., 1996. [294], 3 p. illus., facsim., ports. (Collected studies series, CS534)

Contents: Les tables astronomiques. 1. Un témoin de l'astronomie latine du XIII<sup>e</sup> siècle, les tables de Toulouse (1994). 2. À propos des tables astronomiques de Pierre d'Aragon (1966). 3. Les positions des planètes au Moyen Âge: application du calcul électronique aux tables alphonsines (with O. Gingerich, 1967). 4. Jean de Murs et les tables alphonsines (1980). 5. The Alfonsine tables and Alfonso X of Castille (1988). 6. Les tables astronomiques de Louvain de 1528, par Henri Baers ou Vekenstyl. Introduction, traduction et commentaires (with A. de Smet, 1976).—L'astronomie dans la société. 7. Astrologie et tables astronomiques au XIII<sup>e</sup> siècle: Robert Le Febvre et les tables de Malines (1964). 8. Horoscopes princiers des XIV<sup>e</sup> et XV<sup>e</sup> siècles (1969). 9. L'astronomie et la datation des manuscrits du Moyen Âge (1988). 10. Depuis quand connaît-on les dates de naissance? (1992, rev.

1995?).—Histoire de l'astronomie. 11. L'astronomie de Gerbert (1985). 12. Le vocabulaire de l'astronomie planétaire du XII<sup>e</sup> au XIV<sup>e</sup> siècle (1987). 13. L'astronomie latine au XIV<sup>e</sup> siècle (1991). 14. Activité astronomique à Cracovie au XV<sup>e</sup> siècle (1968). 15. Guillaume Postel et l'astronomie (1985).

Rao, S. Balachandra. *Indian mathematics and astronomy: some landmarks.* Bangalore, Jnana Deep Publications, 1994. 234 p. illus.

Includes passages in Sanskrit.

Contents: 0. Mathematics in ancient India, an overview.—1. Mathematics in Vedic lore.—2. Lagadha's Vedānga Jyotiṣa.—3. Āryabhaṭa I.—4. Bhāskara I.—5. Varāhamihira.—6. Brahmagupta.—7. Mahāvīrācārya.—8. Bhāskarācārya II.—9. Gaṇeśa Daivajña.—10. Astronomers of Kerala.—11. Srinivasa Ramanujan.

Reiner, Erica. *Astral magic in Babylonia.* Philadelphia, American Philosophical Society, 1995. 150 p. illus. (Transactions of the American Philosophical Society, v. 85, pt. 4)

Contents: Introduction.—1. The role of stars.—2. The art of the herbalist.—3. Medicine.—4. Divination.—5. Apotropaia.—6. Sorcerers and sorceresses.—7. The nature of stones.—8. Nocturnal rituals.

Romano, Giuliano. *Orientamenti ad sidera: astronomia, riti e calendari per la fondazione di templi e città. Un esempio a Ravenna.* Ravenna, Esegi, 1995. 123 p. illus. (Biblioteca universitaria, 23)

Sánchez Mariana, Manuel. *Códice de Metz; tratado de cómputo y astronomía. Estudio crítico.* Madrid, Testimonio Compañía Editorial, 1993. 52 p. (Scriptorium, 2)

Contents: Condicionantes históricas.—Las ciencias en la época Carolingia.—Cronología y cómputo en el período Carolingio.—La ciencia astronómica a comienzos de la Edad Media.—Las escuelas Carolingias.—El manuscrito 3307 de la Biblioteca Nacional de Madrid: contenido.—Origen y fecha del código.—Historia del manuscrito.—Análisis codicológico.—La ilustración del código.

Issued to accompany the facsimile edition of the codex.

Scheiner, Christoph. *Briefe des Naturwissenschaftlers Christoph Scheiner SJ an Erzherzog Leopold V. von Österreich-Tirol, 1620–1632.* Franz Daxecker [Hrsg.] Innsbruck, Universität Innsbruck, 1995. 184 p. ports. (Veröffentlichungen der Universität Innsbruck, Bd. 207)

The Latin text of each letter is followed by a German translation.

*Sculpting with the environment—a natural dialogue.* Edited by Baile Oakes. New York, Van Nostrand Reinhold, 1995. 251 p. illus. (part col.), plans.

Contains essays by Suzi Gablik, Fritjof Capra, and Thomas Berry, and descriptions of a number of contemporary works involving the sun or the night sky. Among these are creations by the following artists: Robert Adzema (sundials); Peter Erskine ("Secrets of the Sun," a traveling, site-specific installation); Nancy Holt ("Sun Tunnels" in the Great Basin desert of Utah, "Annual Ring," Saginaw, Mich., "Sky Mound Landfill Site," Meadowlands, N.J., and "Dark Star Park," Arlington, Va.); Baile Oakes ("Gestation," a winter solstice marker in Santa Monica, Calif., and "Silver Sands

Park," a solar calendar irrigation system in Palm Desert, Calif.); Charles Ross (a solar prism installation in Dallas, Tex., and "Star Axis," in Las Vegas, N.M.); James Turrell ("Raden Crater," at Flagstaff, Ariz.); and Phyllis Yampolsky ("Sun, Radiants, and Shadow," a yearly event held at a summer solstice festival in North Brooklyn). In addition, several earlier monuments are discussed—Casa Rinconada, Machu Picchu, and Jai Singh's instruments.

Stott, Carole. *Celestial charts: antique maps of the heavens*. London, Studio Editions, 1995. 128 p. illus. (part col.), facsim. (part col.)

First published in 1991.

Stuckrad, Kocku von. *Frömmigkeit und Wissenschaft. Astrologie in Tanach, Qumran und früh-rabbinischer Literatur*. Frankfurt am Main, New York, P. Lang, 1996. 220 p. (Europäische Hochschulschriften. Reihe 23, Theologie, Bd. 572)

Tribute to Galileo in Padua. International symposium, a cura dell'Università di Padova, Padova, 2–6 dicembre 1992. Trieste, Edizioni LINT, 1995. 296 p. illus. (part col.), facsim., map. (Galileo a Padova, 1592–1610, v. 4)

Partial contents: Clavelin, M. *Le copernicanisme padouan de Galilée*.—Cohen, I. B. *Galileo and Newton*.—Rosino, L. *L'impatto delle scoperte galileiane sul progresso dell'astronomia*.—Tammann, G. A. *From the motion of the earth to the motion of the galaxies*.—Gingerich, O. *Hypothesis, proof, and censorship, or how Galileo changed the rules of science*.—Rubbia, C. *Galileo and the popularization of science*.

Trottein, Gwendolyn A. *Les enfants de Vénus: art et astrologie à la Renaissance*. Paris, Éditions de la Lagune, 1993. 243 p. illus., facsim. (part col.)

Contents: *Présentation du thème*.—1. *Conception et naissance des enfants de Vénus en France et en Italie, 1400–1430*.—2. *Les premiers enfants de Vénus en Allemagne, 1430–1460*.—3. *La rencontre du Nord et du Sud: les enfants des planètes italiens, 1460–1470*.—4. *Vénus et ses enfants au Palais de Schifanoia, 1470*.—5. *La tradition germanique des enfants des planètes, 1475–1550*.—6. *Les enfants de Vénus flamands et hollandais, 1550–1600*.—*Le thème d'une époque*.

Wallenwein, Eckhard H. *Das altägyptische Universum. Frühgeschichte der Astronomie und Kosmologie, Ursprünge des modernen Bildes von Raum und Zeit*. Heidelberg, J. Groos, 1995. 198 p. illus. (part col.)

Warner, Deborah J. and Robert B. Ariail. *Alvan Clark & Sons, artists in optics*. 2d ed. Richmond, Va., Willmann-Bell in association with National Museum of American History, Smithsonian Institution, 1995. 298 p. illus., map, ports.

Contents: 1. *Alvan Clark and his sons*.—2. *A descriptive catalogue of all known Clark instruments*.—3. *A list of Clark optical instruments arranged by size and date*.—4. *A discussion of the customers of Alvan Clark & Sons*.—5. *Technical details of the smaller Clark telescopes*.—6. *A catalogue of Alvan Clark's portraits*.

Wolfschmidt, Gudrun. *Milchstrasse × Nebel × Galaxien. Strukturen im Kosmos von Herschel bis Hubble*. München, Oldenbourg, 1995. 186 p. illus., ports. (Deutsches Museum. Abhandlungen und Berichte, n.F., Bd. 11)

Ziółkowski, Mariusz S., and Robert M. Sadowski. *La arqueoastronomía en la investigación de las culturas andinas*. Quito, Banco Central del Ecuador; Instituto Otavaleño de Antropología, 1992. 378 p. illus., maps, plans. (Colección Pendoneros, no. 9)

### — Articles —

Abt, Helmut A., and Hongnan Zhou. *What fraction of astronomers become relatively inactive in research after receiving tenure?* *In* *Astronomical Society of the Pacific. Publications*, v. 108, Apr. 1996: 375–377. illus.

In "a study of 214 tenured astronomers at 17 of the major astronomical centers in the U.S." the authors found "that 48% of the astronomers published more papers per year after receiving tenure than before and 33% published between half and the same number of papers per year as before tenure ... We found no numerical characteristics that allow one to predict who will become relatively inactive in research after receiving tenure."

Abusch, Tzvi. *Ascent to the stars in a Mesopotamian ritual: social metaphor and religious experience*. *In* *Death, ecstasy, and other worldly journeys*. Edited by John J. Collins, Michael Fishbane. Albany, State University of New York Press, 1995. p. 15–39.

Adam, Klemens. *Olbers, Thilo, Bessel und der Saturn. Nachricht über ein bisher unbekanntes Manuskript. Nachrichten der Olbers-Gesellschaft Bremen*, Nr. 172, Jan. 1996: 16–17.

Ainley, Marianne G. *Marriage and scientific work in twentieth-century Canada: the Berkeleys in marine biology and the*

*Hoggs in astronomy*. *In* *Creative couples in the sciences*. Helena M. Pycior, Nancy G. Slack, and Pnina G. Abir-Am, editors. New Brunswick, N.J., Rutgers University Press, 1996. (Lives of women in science) p. 143–155. ports.

A photograph of Helen and Frank Hogg and their children is reproduced on the sixth page of plates (following p. 176).

Alcina Franch, José. *Cielo e inframundo en la cosmovisión mexicana: análisis iconográfico*. *In* *Anuario de estudios americanos*. v. 50–2; 1993. Sevilla, Escuela de Estudios Hispano-Americanos. p. 13–43. illus.

Alessandro, Alessandro d'. *Astrologia, religione e scienza nella cultura medica e filosofica di Galeotto Marzio*. *In* *Italia e Ungheria all'epoca dell'umanesimo corviniano*. A cura di Sante Graciotti e Cesare Vasoli. Firenze, L. S. Olschki, 1994. (Civiltà veneziana. Studi, 45) p. 133–177. plate.

The plate follows p. 177.

Allen, Michael J. B. *Homo ad zodiacum: Marsilio Ficino and the Boethian Hercules*. *In* *Forma e parola. Studi in memoria di Fredi Chiappelli*. A cura di Dennis J. Dutschke, Pier Massimo Forni, Filippo Grazzini, Benjamin R. Lawton, Laura Sanguineti White. Roma, Bulzoni editore, 1992. p. 205–221.

Alpar, Ali, Tsvi Piran, David Pines, and Malvin A. Ruderman. Jacob Shaham. *Physics today*, v. 49, Jan. 1996: 80–81.

Andrews, A. David. *Cyclopaedia of telescope makers*. pt. 5 (Sae-Sim). *Irish astronomical journal*, v. 23, Jan. 1996: 57–117. illus., facsim., maps, ports.

Aoki, Shinko. Corrections and additions for “The moon-test in Newton’s Principia: accuracy of inverse-square law of universal gravitation.” *Archive for history of exact sciences*, v. 49, no. 4, 1996: 393–396.

The paper which this supplements was cited in *H.A.D. News* no. 26.

Aquilecchia, Giovanni. *I Massimi sistemi di Galileo e la Cena di Bruno (per una comparazione tematico-strutturale)*. *Nuncius*, anno 10, fasc. 2, 1995: 485–496. (Lecture galileiane)

Aquilecchia, Giovanni. Possible Brunian echoes in Galileo. *Nouvelles de la république des lettres*, anno 40, magg. 1995: 11–17.

Argyle, Robert. Obituary: Kenneth Glyn Jones (1915–1995). *Webb Society quarterly journal*, no. 103, Jan. 1996: 1–3. port.

Arnold, H. J. P. Lunar surface photography: a study of Apollo 11. In *History of rocketry and astronautics. Proceedings of the twentieth and twenty-first history symposia of the International Academy of Astronautics*, Innsbruck, Austria, 1986; Brighton, United Kingdom, 1987. Lloyd H. Cornett, Jr., volume editor; R. Cargill Hall, series editor. San Diego, Calif., Published for the American Astronautical Society by Univelt, 1993. (AAS history series, v. 15) (IAA history symposia, v. 9) p. 259–284. illus.

Asendorf, Kurt. Zum Gedächtnis der Astronomen-Dynastie Herschel (aus Hannover). *Nachrichten der Olbers-Gesellschaft Bremen*, Nr. 166, Juli 1994: 14–16. illus.

The illustration depicts the tombstone of Caroline Herschel, with a transcription of the epitaph.

Aveni, Anthony F., and Giuliano Romano. *Orientazioni di templi e rituali etruschi*. In *Rivista di archeologia*. anno 18; 1994. Roma, G. Bretschneider. p. 57–67.

Axford, W. Ian, and M. I. Verigin. Konstantin Gringauz 1918–1993. *Advances in space research*, v. 16, no. 4, 1995: 5–7.

Bag, A. K. *Mathematical and astronomical heritage of India*. In *Mathematics, astronomy and biology in Indian tradition; some conceptual preliminaries*. New Delhi, Project of History of Indian Science, Philosophy and Culture, 1995. (PHISPC monograph series on history of philosophy, science and culture in India, 3) p. 110–128.

Bai, Limin. *Mathematical study and intellectual transition in the early and mid-Qing*. *Late imperial China*, v. 16, Dec. 1995: 23–61.

Describes how the 17th-century study of mathematics as practical learning “was gradually narrowed by the evidential scholarship of the eighteenth century, and ... was limited to rediscovering the lost mathematical astronomy of the past.”

Includes a glossary of romanized Chinese terms with characters provided.

Bamford, Greg. Popper and his commentators on the discovery of Neptune: a close shave for the law of gravitation? *Studies in history and philosophy of science*, v. 27, June 1996: 207–232. illus.

Banfi, G. Il campo di forza di J. Kepler per i moti planetari, e la sua riattualizzazione nella nuova teoria cosmologica di H. Alfvén. *Giornale di astronomia*, v. 23, mar. 1996: 2–8. illus.

Bartelik, Marek. “Shooting the Moon”: Julie Saul Gallery. *Artforum*, v. 34, Apr. 1996: 104. illus.

Reviews a show subtitled “A Historical Survey of Lunar Photographs,” which displayed “more than thirty works spanning over a hundred and twenty years of selenography.” Among them were albumen prints by Lewis Morris Rutherford and modern daguerrotypes by Robert Shlaer.

The show is more briefly noted by Eric Gibson in “Lunar Longings,” in *ARTnews*, v. 95, Apr. 1996, p. 40.

Bartha, Lajos. Az első magyarországi meteorológiai és csillagászati múzeum. [The first museum of meteorology and astronomy in Hungary] In *Technikatörténeti szemle*. 21; 1994/95. Budapest, Országos Műszaki Múzeum, 1995. p. 81–99. illus., plan.

English summary.

Barthalot, Raymonde. Les riches heures de l’astronomie berlinoise. *Ciel et espace*, no 309, janv. 1996: 64–68. illus. (part col.), ports.

Barton, Tamsyn S. Astrology and the state in imperial Rome. In *Shamanism, history, and the state*. Edited by Nicholas Thomas and Caroline Humphrey. Ann Arbor, University of Michigan Press, 1994. p. 146–163.

Barton, Tamsyn S. Augustus and Capricorn: astrological polyvalency and imperial rhetoric. In *Journal of Roman studies*. v. 85; 1995. London, Society for the Promotion of Roman Studies. p. 33–51. illus.

Bauer, Barbara. Sprüche in Prognostiken des 16. Jahrhunderts. In *Kleinstformen der Literatur*. Hrsg. von Walter Haug und Burghart Wachinger. Tübingen, M. Niemeyer, 1994. (Fortuna vitrea, Bd. 14) p. 165–204. facsim.

Becker, Barbara J. Dispelling the myth of the able assistant: Margaret and William Huggins at work in the Tulse Hill Observatory. In *Creative couples in the sciences*. Helena M. Pycior, Nancy G. Slack, and Pnina G. Abir-Am, editors. New Brunswick, N.J., Rutgers University Press, 1996. (Lives of women in science) p. 98–111. ports.

The portraits appear on the fourth page of plates (following p. 176).

Bednarczyk, Andrzej. Z dziejów idei życia we wszechświecie: epoka oświecenia (Fontenelle, Huygens, Kant). W trzeczsetną rocznicę śmierci Christiaana Huygensa (1629–1695). *Kwartalnik historii nauki i techniki*, r. 40, nr. 3, 1995: 7–48. port.

English summary.

Beekman, George W. E. Mercurius en Vulcanus: hete hangijzers dicht bij de zon. *Zenit*, 22. jaarg., okt. 1995: 435–437. illus., port.

Includes a box, “IJs op Mercurius” (p. 436).



Begemann, Friedrich. Noble gases and meteorites. *Meteoritics*, v. 31, Mar. 1996: 171–176. illus., ports. (part col.)

Reviews “a hundred years of research on noble gases in meteorites.”

Bem, Jerzy. Przemysław Rybka (1923–1995). *Kwartalnik historii nauki i techniki*, r. 40, nr. 3, 1995: 169–170. port.

The portrait precedes p. 169.

Benzenhöfer, Udo, and Kathrin Pfister. Die zu Lebzeiten erschienenen Praktiken und Prognostikationen des Paracelsus. In *Paracelsus (1493–1541)*. “Keines andern Knecht ...” Im Auftrag des Landes Salzburg hrsg. von Heinz Dopsch, Kurt Goldammer, Peter F. Kramml. Salzburg, A. Pustet, 1993. p. 235–242. col. facsimis.

See also “Die Signaturenlehre des Paracelsus” (p. 167–169), by Wolf-Dieter Müller-Jahncke, and “Die Krankheitslehre des Paracelsus” (p. 95–100), by Heinrich Schipperges, which includes discussion of the “ens astrale,” the first of five essences governing human life, according to the teachings of Paracelsus, and “astronomia,” the second of his four pillars of the house of medicine.

A more extensive discussion of the second pillar can be found in chapter 12, “Zweite Säule: ‘Die Astronomie’ oder Astrologie” (p. 150–162), in Franz Rueb’s *Mythos Paracelsus* (München, Quintessenz, 1995).

Bernstein, Jeremy. The reluctant father of black holes. *Scientific American*, v. 274, June 1996: 80–85. illus., ports.

“Albert Einstein’s equations of gravity are the foundation of the modern view of black holes; ironically, he used the equations in trying to prove these objects cannot exist.”

Blaauw, Adriaan, and Michael W. Feast. Adriaan Jan Wesselink (1909–1995). *Zenit*, 22. jaarg., nov. 1995: 483–484. port.

Includes a box, “De afmeting van een Cepeïde [sic]” (p. 484).

Blaauw, Adriaan, and Michael W. Feast. Adriaan Wesselink. In *Royal Astronomical Society. Quarterly journal*, v. 37, Mar. 1996: 95–97.

Booy, Cor, Aad van der Brugge, Arie Mak, and Hugo van Woerden. In memoriam: J. C. van der Meulen [1908–1995] *Zenit*, 23. jaarg., feb. 1996: 78. port.

Bos, Egbert P. The spot on the moon. (The views of John Buridan, Nicholas of Oresme, Albert of Saxony and Marsilius of Inghen, with an edition of Marsilius of Inghen’s *Quaestiones in librum Aristotelis De caelo et mundi II*, 14). In *Internationales Marsilius-von-Inghen-Kongress, 2d, Lublin, 1991*. Marsilius von Inghen: Werk und Wirkung. Akten des zweiten Internationalen Marsilius-von-Inghen-Kongresses. Hrsg. von Stanisław Wielgus. Lublin, Redakcja Wydawnictw KUL, 1993. p. 195–216.

The Latin text of an extract from Marsilius’s work, from MS Cuyk (St. Agatha), Kruissherenklooster C 12, ff. 154rb–155ra, appears as an appendix on p. 212–216.

Boxmeer, Henri van. Poussières d’archives ... Les méridiennes de Quetelet (suite). *Ciel et terre*, v. 111, nov./déc. 1995: 188–191; v. 112, janv./fév. 1996: 15–17. illus.

Contents: Le pavillon astronomique et la méridienne de Bruges.—Le pavillon astronomique et la méridienne de

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“Unter Benutzung dieser verschiedenen Angaben hoffe ich einigermaßen wahrscheinlich zu machen, dass Wilhelm von Moerbeke bei seiner Übersetzungsarbeit von einem eigenrümlichen Interesse für Astrologie (jedenfalls im kosmologischen Sinne) geleitet wurde, das mit der Verbreitung gewisser aus dem Arabischen übersetzter pseudoaristotelischer Schriften, insbesondere des Secretum Secretorum, in Beziehung gebracht werden kann.”

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- Collins, Adela Y. The seven heavens in Jewish and Christian apocalypses. *In* Death, ecstasy, and other worldly journeys. Edited by John J. Collins, Michael Fishbane. Albany, State University of New York Press, 1995. p. 59-93.
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- Dawes, H. A. L. Kepler & platonic solids: the first accurate planetarium that was never made. *Bulletin of the Scientific Instrument Society*, no. 48, Mar. 1996: 23-24. illus.
- Dejaiffe, René J. Le centième anniversaire de la Société Royale belge d'Astronomie, de Météorologie et de Physique du Globe (S.R.B.A.). *Ciel et terre*, v. 111, nov./déc. 1995: 134-147. illus., facsim., ports.
- Another portrait of Fernand Jacobs, founder of the society, appears on the outside back cover of the issue.

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Dorner, Josef. Die Skalen der ägyptischen Auslaufuhr aus Ephesos. In Von der Bauforschung zur Denkmalpflege. Festschrift für Alois Machatschek zum 65. Geburtstag. Wien, Phoibos Verlag, 1993. p. 45–50. illus., maps.

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A biographical sketch is followed by lists of primary editions published from the 18th century to the present, primary bibliographic sources, monographic publications about Kepler, and further secondary literature. The main part of the bibliography, which follows these lists, describes in detail and provides library locations for 76 published works by Kepler, in chronological sequence of first editions, with any later printings listed below the entry for the original edition. These entries are grouped in four sections: publications other than calendars issued during Kepler’s lifetime, posthumous publications, calendars produced in Graz, and calendars produced in Linz.

Dünnhaupt’s bibliography, published 1990–93, occupies six volumes (4723 p.). The sixth includes a subject index that provides references to works on astrology, astronomy, comets, and eclipses by other writers of the period, such as Athanasius Kircher, Johann Praetorius, Johann Leonard Rost, and Johann Jacob Zimmermann.

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Describes “tool-driven” (as opposed to concept-driven) revolutions—one that permitted Bradley to discover the aberration of light, and one foreseen by Zwicky, made possible by the charge-coupled device.

Dzērvītis, Uldis. Nāc un pastāsti par savu mūžu! [Come and tell about your life!] Zviagžpotā debess, 1995. gada rudens: 34–42. ports.

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The Einstein Tower. Progressive architecture, v. 76, Sept. 1995: 85. illus., plan.

Elkins, James. On the impossibility of close reading: the case of Alexander Marshack. Current anthropology, v. 37, Apr. 1996: 185–226. illus.

Includes, on p. 201–220, comments by Michael Boxendall, David Carrier, T. J. Clark, Iain Davidson, Whitney Davis, Francesco d’Errico, Richard Godden, Claudia Brodsky Lacour, Alexander Marshack, Marc Redfield, Göran Sonesson, Henry Staten, and Randall White. Elkins’s reply appears on p. 220–224.

Ernst, Germana. Scienza, astrologia e politica nella Roma barocca. La biblioteca di don Orazio Morandi. In Bibliothecae selectae, da Cusano a Leopardi. A cura di Eugenio Canone. Firenze, L. S. Olschki, 1993. (Lessico intellettuale europeo, 58) p. 217–252.

Farrell, Charlotte. The ninth-century renaissance in astronomy. Physics teacher, v. 34, May 1996: 268–272. illus., map, port.

Includes a box, “Use of the Astrolabe” (p. 271).

A color photograph of a 12th-century Persian astrolabe is reproduced on the front cover of the issue.

Fazzo, Silvia. L’astrologia nel mondo romano. In Civiltà dei Romani. Un linguaggio comune. A cura di Salvatore Settis. Milano, Electa, 1993. p. 105–113. illus. (part col.)

Feast, Michael W. South African astronomy: lessons for the future from the past. Address at the 175th anniversary function of the Observatory, Cape. In Astronomical Society of Southern Africa. Monthly notes, v. 55, Feb. 1996: 6–9.

Feldhay, Rivka. Producing sunspots on an iron pan: Galileo's scientific discourse. In *Science, reason, and rhetoric*. Edited by Henry Krips, J. E. McGuire, and Trevor Melia. Pittsburgh, Pa., University of Pittsburgh, 1995. p. 119–143.

See also Peter Machamer's "Comment: A New Way of Seeing Galileo's Sunspots (and New Ways To Talk Too)," on p. 145–152.

Ferrari, Leo C. Saint Augustine's various conversions: some insights of modern science. *Religious studies and theology*, v. 12, Jan. 1992: 24–35.

"In summary, then, a scientific approach to Augustine's various conversions has revealed some startling insights. First, there is strong evidence that certain enigmatical allusions to terror and superstition are understandable if it be realized that what later became known as Halley's Comet was part of the reason for Augustine's falling in with the Manichees. Secondly, the otherwise idiosyncratic emphasis on celestial phenomena early in the fifth book of the Confessions makes sense in view of the fact that two spectacular solar eclipses helped precipitate the religious crisis which left him waiting with 'intense longing' for the coming of the Manichean Bishop, Faustus, to Carthage, where Augustine was then teaching ..."

A *Riposte* by Francis Firth follows on p. 36–38, and Ferrari's *Responsio*, on p. 39–41.

Ferreira, António M. Do bom uso da matemática na propagação da fé. *Oceanos*, no. 12, nov. 1992: 82–87. col. illus.

"Durante quase duzentos anos, jesuítas portuguesas foram figuras proeminentes entre os letrados da Corte imperial chinesa. Alguns deles foram matemáticos e astrónomos e a sua contribuição para o progresso das ciências na China é inestimável."

Includes, on p. 84–87, the text of a letter (in Portuguese translation) from Fr. André Pereira, dated Nov. 20, 1732, at Peking.

Finkelberg, Aryeh. Plural worlds in Anaximander. *American journal of philology*, v. 115, winter 1994: 485–506.

Shows that Anaximander's theory concerned successive rather than coexisting worlds.

Fitzgerald, Burton. Reminiscences of visits to the Alvan Clark factory. *Journal of the Antique Telescope Society*, v. 9, fall 1995: 4–9. illus., ports.

The reminiscences, written during the 1960s, were transcribed and edited by Kenneth Launie.

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Folkerts, Menso. Johannes Praetorius (1537–1616)—ein bedeutender Mathematiker und Astronom des 16. Jahrhunderts. In *History of mathematics: states of the art. Flores quadrivii*—studies in honor of Christoph J. Scriba. Edited by Joseph W. Dauben, Menso Folkerts, Eberhard Knobloch, Hans Wussing. San Diego, Academic Press, 1996. p. 149–169. facsim.

Abstract in English.

Formica, Marina. Tra cielo e terra. Gli almanacchi romani del XVII e XVIII secolo. In *Studi settecenteschi*. 15. Napoli,

Bibliopolis, 1995. p. 115–162.

Fraser, Brian. Astronomy in the lives of the indigenous people of Southern Africa. In *Astronomical Society of Southern Africa. Monthly notes*, v. 54, Dec. 1995: 126–131.

Text of presidential address given at the society's 1995 annual general meeting.

Freudenthal, Gad. Maimonides' stance on astrology in context: cosmology, physics, medicine, and providence. In *Moses Maimonides: physician, scientist, and philosopher*. Edited by Fred Rosner and Samuel S. Kottek. Northvale, N.J., J. Aronson, 1993. p. 77–90.

Gal, Ofer. Producing knowledge in the workshop: Hooke's 'inflection' from optics to planetary motion. *Studies in history and philosophy of science*, v. 27, June 1996: 181–205. facsim.

Galassi, Cristina. *Arti liberali, pianeti, età dell'uomo, ore del giorno nella "camera delle Rose" di Palazzo Trinci; la metafora del "tempo che passa" in un cielo pittorico degli inizi del Quattrocento*. In *Bollettino storico della città di Foligno*. v. 15. Foligno, 1991. p. 35–50. illus.

Galluzzi, Paolo. *Ratio/ragione in Galileo del dialogo tra la ragione e l'esperienza*. In *Colloquio internazionale del Lessico intellettuale europeo, 7th, Rome, 1992*. Ratio. VII Colloquio internazionale, Roma, 9–11 gennaio 1992. Atti, a cura di M. Fattori e M. L. Bianchi. Firenze, L. S. Olschki, 1994. (*Lessico intellettuale europeo*, 61) p. 379–401.

García Avilés, Alejandro. Alfonso X, Albumasar y la profecía de Cristo. In *Imafronte*. v. 8/9; 1992/93. Homenaje a la profesora Virginia de Mergelina. Murcia, Universidad de Murcia [1994?] p. 189–200. illus.

Summary in English.

Relates to a passage in Albumasar's *Introductorium in astronomiam* that had been interpreted by some as prophesying the birth of Christ.

Gerdes, Dieter. Friedrich Wilhelm Bessel in Bremen and Lillenthal, 1799–1810. *Nachrichten der Olbers-Gesellschaft Bremen*, Nr. 173, Apr. 1996: 4–7.

"Zum 150. Todestag des Astronomen am 17. März 1846 und dem gleichen Jahrestag der Entdeckung des Planeten Neptun am 23. September 1846."

Gilbert, James. Burhoe and Shapley: a complementarity of science and religion. *Zygon*, v. 30, Dec. 1995: 531–539.

"The development of Ralph Wendell Burhoe's philosophy of religion and science occurred in the shadow of the continuing dialogue about the place of science in American society. Like his friend and mentor, Harvard astronomer Harlow Shapley, Burhoe was distressed and intrigued by the troubled postwar relations between science and religion. Unlike Shapley, however, Burhoe sought to create a new modernism, a blend of religion and science that would allow each to develop and complement the other."

Gingerich, Owen. Neptune, Velikovsky, and the name of the game. *Scientific American*, v. 275, Sept. 1996: 181, 183. illus., col. port. (Wonders)

The story of the discovery of Neptune is contrasted with Velikovsky's writings to illustrate the point that "Coherence

the power of the grand explanation, not isolated proofs and predictions, gives science its strength and cogency. Understanding is the name of the game."

Glasner, Ruth. The Hebrew version of *De celo et mundo* attributed to Ibn Sīnā. *Arabic sciences and philosophy*, v. 6, Mar. 1996: 89–112.

An appendix compares quotations from two Hebrew versions and gives an English translation of Shlomo ben Moshe's version.

Goddu, André L. Consequences and conditional propositions in John of Glogovia's and Michael of Biestrzykowa's commentaries on Peter of Spain, and their possible influence on Nicholas Copernicus. In *Archives d'histoire doctrinale et littéraire du Moyen Âge*. t. 62; 1995. Paris, Librairie philosophique J. Vrin. p. 137–188.

Appendices provide Latin texts of the relevant commentaries.

Goldstein, Bernard R. Astronomy and astrology in the works of Abraham ibn Ezra. *Arabic sciences and philosophy*, v. 6, Mar. 1996: 9–21.

Gómez Aranda, Mariano. Teorías astronómicas y astrológicas en el *Comentario de Abraham Ibn Ezra al Libro del Eclesiastés*. *Sefarad*, año 55, fasc. 2, 1995: 257–272.

Summary in English.

Goulding, Robert. Henry Savile and the Tyconic world-system. In London. *University. Warburg Institute*. *Journal of the Warburg and Courtauld Institutes*. v. 58. London, 1995. p. 152–179. illus., facsimis.

Green, Matthew. The sacred sky of the Navajo and Pueblo. *Griffith observer*, v. 60, Mar. 1996: 2–11, 14–16. illus.

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

Greenberg, John L. Isaac Newton and the problem of the earth's shape. *Archive for history of exact sciences*, v. 49, no. 4, 1996: 371–391. illus.

Greer, R. G. H. In memoriam: Sir David Robert Bates, FRS. 1916–1994. *Planetary and space science*, v. 42, Nov. 1994: 901–904. ports.

Gresky, Wolfgang. Der Laienastronom Anton Thraen aus Holungen (1843–1902). In *Gauss-Gesellschaft*. *Mitteilungen*. Nr. 32. Göttingen, 1995. p. 55–63. illus., ports.

Grice, Noreen. *Musica mundana: the heavenly harmony*. *Griffith observer*, v. 59, Dec. 1995: 2–9. illus.

On the music of the spheres.

Griesser, Markus. Auf den Spuren des Grossen Kometen von 1811. *Orion*, 54. Jahrg., Feb. 1996: 16–19. illus., facsimis., port.

Gurshteĭn, Aleksandr A., and K. V. Ivanov. *Vozrozhdeniia po ukazaniu svyshe*. *Priroda*, okt. 1995: 124–126.

Research in recently opened archives reveals why the Soviets decided to rebuild the Pulkovo Observatory after the Second World War, despite its unfavorable location.

Gutzwiller, Martin C. Der Mond in der menschlichen Geschichte. *Sterne und Weltraum*, 35. Jahrg., Nr. 8/9, 1996:

620–628. illus. (part col.), facsimis., col. ports.

Hall, A. Rupert, and A. D. C. Simpson. An account of the Royal Society's Newton telescope. In *Royal Society of London*. *Notes and records*, v. 50, Jan. 1996: 1–11. illus.

Hall, Bert S. Astronomical and navigational instruments. In *Medieval France, an encyclopedia*. William W. Kibler, Grover A. Zinn, editors. New York, Garland Pub., 1995. (Garland reference library of the humanities, v. 932) (Garland encyclopedias of the Middle Ages, v. 2) p. 79.

Hankins, Thomas L., and Robert J. Silverman. Athanasius Kircher's sunflower clock. In *their Instruments and the imagination*. Princeton, N.J., Princeton University Press, 1995. p. 14–36. facsimis., ports.

Hansen, Reimer. Aus Tycho Brahes Korrespondenz mit Herzog Ulrich von Mecklenburg, 1597–1599. In *Vera lex historiae: Studien zu mittelalterlichen Quellen*. Festschrift für Dietrich Kurze zu seinem 65. Geburtstag am 1. Januar 1993. Hrsg. von Stuart Jenks, Jürgen Sarnowsky und Marie-Luise Laudage. Köln, Böhlau, 1993. p. 197–221.

Includes text of four letters from Tycho and rough drafts of five from Herzog Ulrich, all previously unpublished.

Harrison, Edward R. Our evolving view of the universe. In *Nobel Conference, 27th, Gustavus Adolphus College, 1991*. Bang: the evolving cosmos. Edited by Richard Fuller. Lanham, Md., University Press of America, 1994. p. 1–17. illus.

On the cosmological implications of Olbers's paradox.

Followed by "Questions and Comments" on p. 18–23.

Hasegawa, Ichiro. Further comments on the identification of meteor showers recorded by the Arabs. In *Royal Astronomical Society*. *Quarterly journal*, v. 37, Mar. 1996: 75–78.

Hasegawa, Ichiro, and Syuichi Nakano. Periodic comets found in historical records. In *Nihon Temmon Gakkai*. *Publications of the Astronomical Society of Japan*, v. 47, no. 5, 1995: 699–710. illus.

"The following comets are identified with those of records found in Chinese, Korean, and Japanese histories: Periodic Comet Pons-Gambart (D/1827 M1 = 1827 II) = Comet 1110 K1, Comet 1861 J1 (1861 II) = Comet 1500 H1, and Comet 1337 M1 = Comet 1468 S1."

Hazen, Martha L. Surfing the Harvard plate collection: historical outbursts of V725 Aquilae. In *American Association of Variable Star Observers*. *Journal*, v. 24, no. 1, 1996: 14–16. illus.

Hazzard, Richard A. Theos Epiphane: crisis and response. *Harvard theological review*, v. 88, Oct. 1995: 415–436. illus.

Discusses the symbolism of stars and comets on coins of the Ptolemies and argues that two such images on the Berry tetradrachm support his identification of the sovereign portrayed on the obverse as Ptolemy V Epiphane.

Heilbron, John L. Churches as scientific instruments. *Bulletin of the Scientific Instrument Society*, no. 48, Mar. 1996: 4–9. illus., facsimis.

"During the 17th and 18th centuries cathedrals in Bologna, Rome, Florence, and Paris served as centers of astronomical investigation—or, to speak in our overheated lan-

guage—as state-of-the-art, world-class, solar observatories.”

Heinen, Anton M. Allāh—the infinite and omnipresent God sought along well-defined spatial lines. *In Proceedings of the Colloquium on Popular Customs and the Monotheistic Religions in the Middle East and North Africa*, Budapest, 19–25th September 1993. Edited by A. Fodor, A. Shivtiel. Budapest, Eötvös Loránd University Chair for Arabic Studies & Csoma de Kőrös Society Section of Islamic Studies, 1994. (The Arabist, Budapest studies in Arabic, 9/10) p. 3–16.

On changing practices regarding determination of the *qibla*, and its connection with the zodiacal sign Capricorn.

Heise, John. Door de ruimte: Röntgenastronomie. *Natuur & techniek*, 63. jaarg., sept. 1995: 594–603. illus. (part col.) (100 jaar Röntgen)

Hentschel, Klaus. Measurements of gravitational redshift between 1959 and 1971. *Annals of science*, v. 53, May 1996: 269–295. illus.

Stresses “the importance of new measurement techniques such as wavelength modulation, electronic amplification, and scattering of atomic beams to the emergence of new tests of Einstein’s prediction, which were perceived by the scientific community as the first ‘clean’ verifications of GRS. In particular, the race to be the first to apply the Mössbauer effect to the GRS problem is described. As soon as the Mössbauer effect was stabilized, it was transformed into a measurement technology that in turn triggered new types of experimental tests of GRS.”

Hill, Richard S. Regarding the star of Bethlehem. *In Royal Astronomical Society of Canada. Journal*, v. 89, Dec. 1995: 264–265.

Letter to the editor discussing three factors that should be considered in treating this problem.

History of astronomy. Chairperson and editor: S. Débarbat. *In International Astronomical Union. General Assembly, 22d, The Hague, 1994. Highlights of astronomy*. v. 10. Dordrecht, Boston, Kluwer Academic Publishers, 1995. p. 113–142.

Partial contents: 75 years of the IAU. Blaauw, A. The birth and first decades of the IAU. DeVorkin, D. H. The International Union for Cooperation in Solar Research: prelude to the IAU. Dumont, S., and M. J. Martres. International survey of the solar activity under the leadership of the IAU. Gurshtein, A. A. The 1958 IAU General Assembly in Moscow. Gingerich, O. American foreign policy, China and the IAU: Leo Goldberg’s memoirs. Dobrzycki, J. Astronomers: writers of the history of astronomy. Sullivan, W. T. Finding a home for early radioastronomy: IAU or URSI? Welther, B. L. The first women appointed to IAU commissions. Débarbat, S. V. A call for indirect sources to serve for the history of the IAU. McNally, D. The general secretaries of the IAU. Pişmiş, M. P. Fifty years remembrance of astrophysics within the IAU.—Most of these papers are followed by brief comments under the heading “Discussion.” Authors and titles only of poster papers are given on p. 130.

Work in progress. Gingerich, O. The background and current status of the General History of Astronomy. Brosche, P., and W. R. Dick. A new working group in history and its activities: the “Arbeitskreis Astronomiegeschichte” [sic] of the Astronomische Gesellschaft [sic] Edmondson, F. K.

AURA, Kitt Peak and Cerro Tololo—the early years. Dick, S. J. The NASA SETI history project. Anderer, M. P. John Mellish and the craters of Mars. Haynes, R. F. A history of Australian astronomy. Butcher, H. R. Twenty-five years at Westerbork. Ansari, S. M. R. Recent work on the history of astronomy in India. Bajaja, E. History of Argentine astronomy. Orchiston, W. History of astronomy research in New Zealand: a brief report. Ansari, S. M. R. Modern astronomy and its archival material in the Afro-Asian observatories. Débarbat, S. V. Up to date proper motions of stars from old “Carte du Ciel” plates.—In addition to comments under the heading “Discussion” following most papers, this section includes some very short reports and names the authors and titles of poster papers.

Hoerner, Sebastian von. Astrologie, nach eigener Erfahrung. *Sterne und Weltraum*, 35. Jahrg., Nr. 3, 1996: 196–197. illus.

Describes a scientific test of astrology conducted ca. 1950 at the Institut für Parapsychologie in Freiburg, the results of which were never published—presumably because they did not support the director’s expectations.

Hoffleit, Dorrit. From early sadness to happy old age. Comments on astrophysics, v. 18, no. 4, 1996: 207–221.

Autobiographical.

Hoffleit, Dorrit. Self-styled curmudgeon, W. J. Luyten, 1899–1994. *In American Association of Variable Star Observers. Journal*, v. 24, no. 1, 1996: 43–49. port.

Holenstein Weidmann, Pia. Sterne, Zeichen, Zukunft. *In Nova acta paracelsica, Beiträge zur Paracelsus-Forschung*. n.F., 8. Einsiedeln, 1994. p. 37–55.

Hopf, Cornelia. Hanseniana in der Forschungs- und Landesbibliothek Gotha. Eine Ausstellung zum 200. Geburtstag von P. A. Hansen. *Sterne und Weltraum*, 35. Jahrg., Nr. 8/9, 1996: 612–613. col. facsim., col. port.

L’Horloge planétaire de Lorenzo della Volpaia. *Archives internationales d’histoire des sciences*, v. 44, déc. 1994: 377.

Reports the start of restoration work at the Museo di storia della scienza in Florence on an astronomical clock dating from the latter part of the 15th century. The clock was originally intended for King Matthias Corvinus of Hungary, but since he died before its completion, the clock was acquired by the Florentine government and installed in the Palazzo Vecchio.

Horowitz, Wayne. An astronomical fragment from Columbia University and the Babylonian revolts against Xerxes. *In Journal of the Ancient Near Eastern Society*. v. 23; 1995. New York, Jewish Theological Seminary. p. 61–67.

Hughes, Peter. Heavenly timepiece. *Country life*, v. 186, Apr. 23, 1992: 54–55. col. illus., port.

Concerns a recently restored “monumental Louis XV astronomical clock in the Wallace Collection ... the movement and astronomical train [of which] were designed by Alexandre Fortier and made by Michel Stollewerck.”

Hulst, Hendrik C. van de. Herinneringen aan Chandrasekhar. *Zenit*, 22. jaarg., dec. 1995: 518–519. ports.

Includes a box, “De Chandrasekhar-limiet” (p. 519).

Hunger, Hermann. Ein Kommentar zu Mond-Omina. *In*

Vom Alten Orient zum Alten Testament. Festschrift für Wolfram Freiherrn von Soden zum 85. Geburtstag am 19. Juni 1993. Hrsg. von Manfred Dietrich und Oswald Loretz. Kevelaer, Verlag Butzon & Bercker, 1995. (Alter Orient und Altes Testament, Bd. 240) p. 105–118.

Provides transcription and German translation, with notes, of Tablet TU 17.

Hurly, R. F. Thomas Maclear, geodetic surveyor. *In* *Astronomical Society of Southern Africa. Monthly notes*, v. 54, Dec. 1995: 110–111.

Hutchison, Keith. Why does Plato urge rulers to study astronomy? *Perspectives on science*, v. 4, spring 1996: 24–58.

Ilgauds, Hans J., and Gisela Münzel. Heinrich Bruns, Felix Hausdorff und die Astronomie in Leipzig. *In* *Vorlesungen zum Gedenken an Felix Hausdorff*. Hrsg. von E. Eichhorn und E.-J. Thiele. Berlin, Helderermann, 1994. p. 89–106. illus., ports.

In memoriam William "Bill" H. Wehlauf (1926–1995). *In* *International Astronomical Union. Symposium, 176th, Vienna, 1995. Stellar surface structure. Proceedings of the 176th Symposium of the International Astronomical Union, held in Vienna, Austria, October 9–13, 1995*. Edited by Klaus G. Strassmeier and Jeffrey L. Linsky. Dordrecht, Boston, Kluwer Academic Publishers, 1996. p. xiii–xv. port.

The Inspiration of astronomical phenomena; a conference on the influence of observed celestial events upon world culture. Selected papers. Guest editor: Raymond E. White. *Leonardo*, v. 29, no. 2, 1996: 123–125, 127–137, 139–143, 145–154. illus.

Contents: White, R. E. [Introduction]—Sandback, A. B. Prologue.—Consolmagno, G. J. Astronomy, science fiction, and popular culture: 1277 to 2001 (and beyond).—Dick, S. J. Other worlds: the cultural significance of the extraterrestrial life debate.—Miller, R. The archaeology of space art.—Pacholczyk, J. Music and astronomy in the Muslim world.—Stoeger, W. R. Astronomy's integrating impact on culture: a Ladrîerean hypothesis.

Introduction. Scientific genealogy of George B. Field. *In* *The Physics of the interstellar medium and intergalactic medium. A meeting in honor of Professor George B. Field. EIPC, Marciana Marina, Isola d'Elba, Italy, 20–24 June 1994*. Edited by A. Ferrara, C. F. McKee, C. Heiles, and P. R. Shapiro. San Francisco, Astronomical Society of the Pacific, 1995. (Astronomical Society of the Pacific conference series, v. 80) p. xiii–xvi. port.

The introduction is chiefly an account of Field's career. The portrait appears on p. [viii]

Jager, Cornelis de, and Willem de Graaff. In memoriam: Korving van Amerongen. *Zenit*, 22. Jahrg., jan. 1995: 38. port.

Jefferies, John T., and Jack B. Zirker. Richard Nelson Thomas. *Physics today*, v. 49, Aug. 1996, pt. 1: 81.

Jeffreys, Bertha S., *Lady*. Cambridge professors and the observatories. *Observatory*, v. 116, Feb. 1996: 33–34.

Points out some errors in Sir Fred Hoyle's autobiography, *Home Is Where the Wind Blows*, concerning "events in Cambridge in 1944–6 and 1954–5." Sir Fred's acknowledgment follows on p. 34.

Junge, F. W., T. Böttger, and A. Hiller. Die Tunguska-Katastrophe von 1908. *Neue Ergebnisse universitärer Forschungszusammenarbeit zwischen Leipziger und Moskauer Geowissenschaftlern*. Universität Leipzig, Nov. 1995: 16–17. illus., port.

Kaper, Olaf E. The astronomical ceiling of Deir el-Haggar in the Dakhleh Oasis. *In* *Journal of Egyptian archaeology*. v. 81; 1995. London, Egypt Exploration Society. p. 175–195. illus., plan.

Kellner, Menachem. Maimonides and Gersonides on astronomy and metaphysics. *In* *Moses Maimonides: physician, scientist, and philosopher*. Edited by Fred Rosner and Samuel S. Kottke. Northvale, N.J., J. Aronson, 1993. p. 91–96.

Kennedy, Edward S. Ibn Mu'adh on the astrological houses. *In* *Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften*. Bd. 9. Frankfurt am Main, Institut für Geschichte der Arabisch-Islamischen Wissenschaften an der Johann Wolfgang Goethe-Universität, 1994. p. 153–160. illus.

Kerr, Frank J. The early history of galaxy searches in the ZOA. *In* *Unveiling large-scale structures behind the Milky Way. Workshop at the Observatoire de Paris-Meudon, 18–21 January 1994*. Edited by C. Balkowski and R. C. Kraan-Korteweg. San Francisco, Astronomical Society of the Pacific, 1994. (Astronomical Society of the Pacific conference series, v. 67) p. 3–6. illus.

Discussion: p. 6.

Kilkenny, David. Alan Cousins, a brief biography. *In* *Precision photometry. Proceedings of a conference held to honour A W J Cousins in his 90th year, South African Astronomical Observatory, Observatory, Cape Town, South Africa, 2–3 February 1993*. Editors: D Kilkenny, E Lastovica, J W Menzies. Observatory, Cape Town, South African Astronomical Observatory, 1993. p. 1–8. ports.

Another portrait appears as the frontispiece of the volume.

King, David A. Some illustrations in Islamic scientific manuscripts and their secrets. *In* *The Book in the Islamic world; the written word and communication in the Middle East*. Edited by George N. Atiyeh. Albany, State University of New York Press; Washington, D.C., Library of Congress, 1995. p. 149–177. illus., facsim.

Pages 170–171, 174, and 176–177 have erroneous running heads.

Most of the essay relates to astronomy.

Knobloch, Eberhard. Zur Rezeption der arabischen Astronomie im 15. und 16. Jahrhundert. *In* *History of mathematics: states of the art. Flores quadrivii—studies in honor of Christoph J. Scriba*. Edited by Joseph W. Dauben, Menso Folkerts, Eberhard Knobloch, Hans Wussing. San Diego, Academic Press, 1996. p. 237–261.

Abstract in English.

Knorr, Wilbur R. Two medieval monks and their astronomy books: MSS. Bodley 464 and Rawlinson C. 117. *Bodleian Library record*, v. 14, Apr. 1993: 269–284. facsim.

Concerns Michael of Northgate and John of London, monks of St. Augustine's Abbey, Canterbury, during the 14th century.

Koch, Johannes. Der Dalbanna-Sternenkatalog. *In Die Welt des Orients*. Bd. 26; 1995. Göttingen, Vandenhoeck & Ruprecht. p. 43–85.

Contents: 1. Transliteration und Übersetzung.—2. Die Dalbanna-Regel.—3. Kommentar.—4. Astronomischer Befund.—5. Datierung.

Kochhar, Rajesh K. History of astronomy in India. *In Bharatiya Jyotir Vijyan Parishad. Bulletin of the Astronomical Society of India*, v. 23, Sept. 1995: 271.

Extended abstract only.

Kokort, Wolfgang. Astronomische Längebestimmungen in der frühen Neuzeit. *Sudhoffs Archiv*, Bd. 79, Heft 2, 1995: 165–172.

Summary in English.

Kovalevsky, Jean. Bruno Morando. *Journal des astronomes français*, no 50, fév. 1996: 2.

Krafft, Fritz. Die 'Copernicanische Revolution.' *In Antike und Abendland; Beiträge zum Verständnis der Griechen und Römer und ihres Nachlebens*. Bd. 40; 1994. Berlin, New York, W. de Gruyter. p. 1–30. illus.

Krupp, Edwin C. Grace under pressure: the diamond of the skies. *Griffith observer*, v. 60, Feb. 1996: 12–18. illus., ports.

On celebrations of the observatory's 60th anniversary.

Künzl, Ernst. Sternenhimmel beider Hemisphären: ein singulärer römischer Astralglobus der mittleren Kaiserzeit. *Antike Welt*, 27. Jahrg., Nr. 2, 1996: 129–134. illus. (part col.)

Describes a Roman celestial globe made of bronze hemispheres, dating from A.D. 150–200, in the collections of the Römisch-Germanisches Zentralmuseum in Mainz. It shows the Milky Way, the zodiac, and 47 constellations.

Another color illustration appears on the front cover of the issue.

Kummer, Hans J. Hans Kienle [1895–1975]: ein Lebensbild zu seinem 100. Geburtstag. *Sterne und Weltraum*, 35. Jahrg., Nr. 4, 1996: 266–269. ports.

Kunitzsch, Paul. 'Abd al-Malik ibn Hābib's *Book on the Stars*. *In Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften*. Bd. 9. Frankfurt am Main, Institut für Geschichte der Arabisch-Islamischen Wissenschaften an der Johann Wolfgang Goethe-Universität, 1994. p. 161–194.

Includes Arabic text with English translation.

Kunitzsch, Paul, and Richard P. Lorch. Abū Naṣr and Ḥabash on maṭāli' al-samt. *In Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften*. Bd. 9. Frankfurt am Main, Institut für Geschichte der Arabisch-Islamischen Wissenschaften an der Johann Wolfgang Goethe-Universität, 1994. p. 43–82. illus.

Includes Arabic text with English translation.

Kunitzsch, Paul. The Arabic nomenclature on Coronelli's 110 cm celestial globes. *In Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften*. Bd. 9. Frankfurt am Main, Institut für Geschichte der Arabisch-Islamischen Wissenschaften an der Johann Wolfgang Goethe-Universität, 1994. p. 91–98.

Kunitzsch, Paul. The second Arabic manuscript of Ptolemy's

*Planisphaerium*. *In Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften*. Bd. 9. Frankfurt am Main, Institut für Geschichte der Arabisch-Islamischen Wissenschaften an der Johann Wolfgang Goethe-Universität, 1994. p. 83–89.

Kunte, P. K. Sixteenth century observation of comets in India. *In Bharatiya Jyotir Vijyan Parishad. Bulletin of the Astronomical Society of India*, v. 23, Dec. 1995: 577.

Abstract only.

La Cotardière, Philippe de. Milton Humason, chasseur de spectres. *Ciel et espace*, no 312, avril 1996: 60–64. illus., ports.

Includes a box, "Hubble par Humason" (p. 62), an extract from the French edition of Sharov and Novikov's biography of Hubble.

Lamb, Weldon. Tzotzil Maya cosmology. *In Tribus; Jahrbuch des Linden-Museums*. Nr. 44; Okt. 1995. Stuttgart, Linden-Museum Stuttgart, Staatliches Museum für Völkerkunde. p. 268–279.

"Almost every Tzotzil Maya town in mountainous central Chiapas, Mexico, regards itself as the navel of the universe. These communities hold in common many beliefs about the cosmos but they do differ on the details. This study sketches several contemporary (1950–1980) traditions about the directions, the structure of the earth, the heavens and the underworld: the world pillars, and some of the stars and planets."

Launie, Kenneth. Burton Fitzgerald and the Clark firm. *Journal of the Antique Telescope Society*, v. 9, fall 1995: 10–11. illus., map.

Lay, Juliane. *L'Abrégé de l'Almageste: un inédit d'Averroès en version hébraïque*. *Arabic sciences and philosophy*, v. 6, Mar. 1996: 23–61.

Abstract in English: p. 3.

Legon, John A. R. The Orion correlation and air-shaft theories. *Discussions in Egyptology*, no. 33, [Sept.?] 1995: 45–56. illus., map.

Le Prado-Madaule, Danielle. Les météores dans la théologie naturelle de Pierre de La Primaudaye: une contribution originale à l'évolution de la météorologie dans la seconde moitié du XVIe siècle. *Nouvelle revue du XVIe siècle*, no 13/2, 1995: 239–265.

Lértora Mendoza, Celina A. Fuentes para la historia de la astronomía de los siglos XIV y XV. *Eclipses y tablas. Mathesis*, v. 10, agosto 1994: 291–312.

"Apéndice: Catálogo de manuscritos citados": p. 304–311.

Levitt, Stephan H. Some paintings of Rāhu and Keru from Gujarat. *In Baroda (City). Oriental Institute. Journal*, v. 40, Mar./June 1991: 255–273. plate.

The plate reproduces two paintings of Ketu.

Lichański, Jakub Z. Średniowieczne rękopisy astrologiczne w zbiorach Biblioteki Narodowej. *In Warsaw. Biblioteka narodowa. Rocznik*. 26; 1990. Warszawa, 1993. p. 5–24. facsim.

English summary.



"The study concentrates on three mediaeval manuscripts on astrology in possession of the National Library." These are designated No. 9802, Baw. 46; No. 9731, Baw. 26, and No. 9895, Pot. 1.

Lökkös, Antal. "Practiques et prognostications": almanachs populaires en langue française imprimés à Genève au début du XVIIe siècle. *Librarium, Zeitschrift der Schweizerischen Bibliophilen-Gesellschaft*, 35. Jahr, Aug. 1992: 133–141. facsim.

Lorch, Richard P. Ptolemy and Maslama on the transformation of circles into circles in stereographic projection. *Archive for history of exact sciences*, v. 49, no. 3, 1995: 271–284. illus.

McAllister, James W. Circles and ellipses in astronomy. *In his Beauty & revolution in science*. Ithaca, Cornell University Press, 1996. p. 163–181.

McCarthy, Daniel. The lunar and Paschal tables of *De ratione paschali* attributed to Anatolius of Laodicea. *Archive for history of exact sciences*, v. 49, no. 4, 1996: 285–320. facsim.

McCrea, Sir William H. Obituary: Subrahmanyan Chandrasekhar. *Observatory*, v. 116, Apr. 1996: 121–124.

McCready, William D. Isidore, the Antipodeans, and the shape of the earth. *Isis*, v. 87, Mar. 1996: 108–127. illus., facsim.

McKim, Richard. Gérard de Vaucouleurs, 1918–1995: an appreciation. *In British Astronomical Association, London. Journal*, v. 106, Apr. 1996: 63.

McMullin, Ernan. Long ago and far away: cosmology as extrapolation. *In Nobel Conference, 27th, Gustavus Adolphus College, 1991*. Bang: the evolving cosmos. Edited by Richard Fuller. Lanham, Md., University Press of America, 1994. p. 105–145.

"... an elegant and lucid account of cosmological knowledge from its beginnings in Babylonia and Greece to the modern inflationary hypothesis."

Followed by "Questions and Comments" on p. 146–152.

Maïiâ Borisovna Ogir'. *Izvestiia Krymskoï astrofizicheskoï observatorii*, t. 86, 1992: 211. port.

Marcin Król z Żurawicy (ok. 1422–przed 1460)—ojciec "Krakowskiej szkoły astronomicznej." *Matematyka*, r. 48, wrzes./paźdz. 1995: 259.

Signed K. W.

An illustration appears on p. 258.

Mauray, Jean P. Léon Foucault, l'artisan de la science. *Ciel et espace*, no 310, fév. 1996: 64–68. illus. (part col.), col. port.

Mazzucconi, Fabrizio. In memoria di Brunella Monsignor-Fossi. *Giornale di astronomia*, v. 23, giugno 1996: 2. port.

Methuen, Charlotte. Maestlin's teaching of Copernicus: the evidence of his university textbook and disputations. *Isis*, v. 87, June 1996: 230–247.

"Appendix: Maestlin's surviving disputations": p. 246–247.

Methuen, Charlotte. The role of the heavens in the thought of Philip Melanchthon. *Journal of the history of ideas*, v. 57, July 1996: 385–403.

"For Melanchthon, astronomy is an essential component of philosophy—so important, in fact, that philosophy is 'maimed and mutilated' without it."

Michalec, Adam. 522 rocznica urodzin Mikołaja Kopernika. *Urania (Kraków)*, r. 66, lip./sierp. 1995: 212–213.

Mietelski, Jan. Jeszcze o historii Obserwatorium Krakowskiego. *Postępy astronomii*, t. 43, stycz./mar. 1995: 48. illus.

Mietelski, Jan, and Jerzy Michalski. Wiesław Wiśniewski (1931–1994). *Postępy astronomii*, t. 43, stycz./mar. 1995: 41–43. illus., ports. (Sylwetki)

Includes a box, "Wzor obserwatora," by Tomasz Kwiatkowski (p. 42).

Mills, Allan A. Altitude sundials for seasonal and equal hours. *Annals of science*, v. 53, Jan. 1996: 75–84. illus.

Mills, Allan A. The 'eye error' of the cross staff, with a method for calculating the original dimensions of modified or missing parts. *Bulletin of the Scientific Instrument Society*, no. 48, Mar. 1996: 15–18. illus.

Molnar, Michael R. Astrological omens commemorated on Roman coins: clues to Caesar's fortune. *Celator*, v. 10, Mar. 1996: 14–16, 18–19. illus.

Moore, Patrick. Colin Alistair Ronan (1920–1995). *In Royal Astronomical Society. Quarterly journal*, v. 37, Mar. 1996: 93–94.

Murray, C. Andrew. Obituary. Alan Hunter (1912–1995). *Observatory*, v. 116, June 1996: 206–208.

Murray, C. Andrew, and Robert B. Hanson. Thomas Edward Lutz (1940–1995). *In Royal Astronomical Society. Quarterly journal*, v. 37, Mar. 1996: 91–92.

Nadezhin, D. K. Gamow and the physics and evolution of stars. *Space science reviews*, v. 74, Nov. 1995: 456–461. illus.

Naël, Julien. Audouin Dollfus, astronome en ballon. *La Recherche*, no 284, fév. 1996: 24–26. col. illus.

Nagami, N. Chinese local records of the 1862 Perseids and the 1885 Andromedids. *Earth, moon, and planets*, v. 68, Jan./Mar. 1995: 435–441.

Narlikar, Jayant V. Abbe' Georges Lemaître: father of the primeval atom. *Current science*, v. 67, Dec. 25, 1994: 950–953. illus., port.

See also the editor's comment, "Georges Lemaître," on p. 915–916.

A photograph of Lemaître and Norbert Wiener is reproduced on the front cover of the issue.

Newlands, Carole E. Stellar connections. *In her Playing with time: Ovid and the Fasti*. Ithaca, Cornell University Press, 1995. (Cornell studies in classical philology, v. 55) p. 27–50.

"Chapter 1 deals with the poem's star myths, a subject that is central to Ovid's originality in the *Fasti*. Far from being ornamental digressions, the star myths form a major part of Ovid's design for the *Fasti*, supplementing his account of Roman origins by introducing a series of inset narratives drawn from the world of Greek mythology ... The importance of the stars to the poem is indicated by the separate

introduction that Ovid gives them in Book 1.295–310, in which he locates the astronomical portion of his poem within the hellenistic tradition of learned poetry and, at the same time, indicates that the stars introduce a set of values that stand firmly apart from Roman male values of careerism and militarism.”

Nicholson, H. B. Aztec calendar stone. *In* Encyclopedia of Latin American history and culture. Barbara A. Tenenbaum, editor in chief. v. 1. New York, C. Scribner's Sons, 1996. p. 254–255. illus.

Nicklies, Charles E. Cosmology and the labors of the months at Piacenza: the crypt mosaic at San Savino. *Gesta*, v. 34/2, 1995: 108–125. illus., plans.

“The revived popularity of the theme of the zodiac in the twelfth century can certainly be connected to textual sources. It resulted primarily from a renewed interest in the constellations that followed the Latin translation of ancient Greek and Muslim cosmological treatises.”

Nicolaïdis, Efthymios. Quelques notes au sujet des manuscrits byzantins sur les tables astronomiques persanes: la *Παραδοσις* et la *Συναξις*. *In* Thesaurismata; bollettino dell'Istituto ellenico di studi bizantini e postbizantini di Venezia. v. 25; 1995. Venezia. p. 39–48.

Nieuwenhuis, Henk. Astronomisch fresco in het Midden-Oosten. *Zenit*, 23. jaarg., mei 1996: 228–229. illus. (part col.)

On the eighth-century zodiac of Qusayr 'Amrah in Jordan.

Nisters, Josef. Anmerkungen zu drei Sonnenuhrfunden aus Mainz. *In* Mainzer Zeitschrift. Jahrg. 84/85; 1989/90. Mainz, Verlag des Mainzer Altertumsvereins, 1990. p. 387–389. illus.

The sundials were found during excavations in central Mainz. One, made of bone, is dated 1592. The second, a fragment made of wood, is estimated to date from the 15th or 16th century, and the third, a horizontal dial of which only a quarter remains, is made of slate and judged to date from the 18th or 19th century.

Ogilvie, Marilyn B. Patterns of collaboration in turn-of-the-century astronomy: the Campbells and the Maunder. *In* Creative couples in the sciences. Helena M. Pycior, Nancy G. Slack, and Pnina G. Abir-Am, editors. New Brunswick, N.J., Rutgers University Press, 1996. (Lives of women in science) p. 254–266. ports.

The portraits appear on the 13th and 14th pages of plates (following p. 176).

O Mara, Patrick F. Can the Gizeh pyramids be dated astronomically? Logical foundations for an Old Kingdom astronomical chronology. *Discussions in Egyptology*, no. 33, [Sept.?] 1995: 73–85; no. 34, [Jan.?] 1996: 65–82.

Contents: 1. On the existence of unlabeled lunar and Sothic dates.—2. Searching for OK Sothic and festival dates.

Ordway, Frederick I. The legacy of Schiaparelli and Lowell. *In* History of rocketry and astronautics. Proceedings of the twentieth and twenty-first history symposia of the International Academy of Astronautics, Innsbruck, Austria, 1986; Brighton, United Kingdom, 1987. Lloyd H. Cornett, Jr., volume editor; R. Cargill Hall, series editor. San Diego, Calif.,

Published for the American Astronautical Society by Univelt, 1993. (AAS history series, v. 15) (IAA history symposia, v. 9) p. 33–63. illus., facsimils., ports.

Ose, Ieva. Mode oder Aberglaube—Planetengottheiten auf Renaissancekacheln Lettlands. *Keramos*, Heft 144, Apr. 1994: 37–42. illus.

Ostrow, Steven F. Cigoli's *Immacolata* and Galileo's moon: astronomy and the Virgin in early seicento Rome. *Art bulletin*, v. 78, June 1996: 218–235. illus.

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Followed by extracts from Buridan's *Du ciel et du monde*, livre II, problème 22 (p. 305–314), and Oresme's *Le Livre du ciel et du monde*, livre II, ch. 25 (p. 315–333).

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Sreekantan, B. V. Historical perspective on Indo-Japan scientific collaboration. In *Bharatiya Jyotir Vijyan Parishad. Bulletin of the Astronomical Society of India*, v. 23, Sept. 1995: 247–253. illus.

Staatsbibliothek Preussischer Kulturbesitz. *Mss. (Germ. fol. 642)*. Die Lateinisch-deutsche 'Berliner Nativitätsprognostik.' Hg. von Nigel F. Palmer. In *Licht der Natur: Medizin in Fachliteratur und Dichtung. Festschrift für Gundolf Keil zum 60. Geburtstag*. Hrsg. von Josef Domes, Werner E. Gerabek, Bernhard D. Haage, Christoph Weisser und Volker Zimmermann. Göttingen, Kümmerle, 1994. (Göppinger

Arbeiten zur Germanistik, Nr. 585) p. 251–291. facsim.

Transcription of a 15th-century manuscript, half the leaves of which are either partly or completely torn out. The text consists of an introduction followed by predictions arranged by zodiacal sign.

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Summary in German.

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“One seems to have occurred over Amazonia, near the Brazil-Peru border, on August 13, 1930, whilst the other was over British Guyana on December 11, 1935. It is noted that these dates coincide with the peaks of the Perseids and the Geminids, although any association with those meteor showers is very tentative.”

Steinert, Klaus G. Engelhardts astronomische Arbeiten in Dresden. *Die Sterne*, Bd. 72, Heft 2, 1996: 63–72. illus., port.

Stępień, Kazimierz. Profesor Stefan Piotrowski [1910–1985]—w jedenastą rocznicę śmierci. *Postępy astronomii*, t. 43, październik/grudzień. 1995: 184–185. port. (Sylwetki)

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Targosz, Karolina. Mikołaj Kopernik jednym z *Trzech filozofów* Giordiana? *Kwartalnik historii nauki i techniki*, r. 40, nr. 3, 1995: 49–87. illus.

English summary.

Taub, Liba C. ‘Canned astronomy’ versus cultural credibility: the acquisition of the Mensing Collection by the Adler Planetarium. *Journal of the history of collections*, v. 7, no. 2, 1995: 243–250. illus.

This issue reproduces papers presented at a conference on the origins and evolution of collecting scientific instruments, held during September 1994 at the Museum Boerhaave in Leiden. Several other papers include information on astronomical instruments and their collection.

Teague, E. T. H. Carrington’s method of determining sunspot positions. *In* *British Astronomical Association, London. Journal*, v. 106, Apr. 1996: 82–85. illus.

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Trimble, Virginia. ... and how we know that ... *Beam line*, v.

24, spring 1994: 35–44; summer: 28–37; v. 25, spring 1995: 25–33. illus., ports. (The Universe at large)

Contents: 1. The solar neutrino problem & how we know that stars run on nuclear energy.—2. Fossil radioactivities & how we know that the solar system formed in a hurry.—3. COBE & how we know that the universe went through a hot, dense phase.

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Varisco, Daniel M. An anonymous 14th century almanac from Rasulid Yemen. *In* *Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften*. Bd. 9. Frankfurt am Main, Institut für Geschichte der Arabisch-Islamischen Wissenschaften an der Johann Wolfgang Goethe-Universität, 1994. p. 195–228.

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Vartak, P. V. The date of *Viṣṇu Purāṇa*—fixed by astronomical evidences. *In* *Baroda (City). Oriental Institute. Journal*, v. 41, Mar./June 1992: 165–170.

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Vilaine, Christiane. Christian Huygens (1629–1695): physicien-géomètre hollandais et astronome-académicien français. *Journal des astronomes français*, no 49, nov. 1995: 29–32. facsim.

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Vospominaniia o Grigorii Abramoviche i Pelagee Fedorovne Shainakh. *Izvestiia Krymskoï astrofizicheskoi observatorii*, t. 90, 1995: 110–161.

Reminiscences of G. A. and P. F. Shain, contributed by È. S. Brodskaia, V. A. Hagen-Thorn, T. B. Gerasimovich, V. N. Gopasiuk, I. M. Gordon, N. P. Grushinskii, P. P. Dobronravina, E. I. Ios’ko, I. G. Ios’ko, N. D. Kalinenkov, E. B. Kostiakova, A. G. Masevich, O. N. Mitropol’skaia, V. B. Nikonov, S. B. Pikel’ner (written in 1957), M. B. Popova, V. K. Prokof’ev, I. I. Pronik, A. B. Severnyi, V. V. Sobolev, E. K. Kharadze, N. E. Khimiia, V. L. Khokhlova,

P. V. Shcheglov, A. IA. Shaĭn, and I. S. Shklovskii (written in 1981).

Waagen, Elizabeth O. William Tyler Olcott, 1873–1936. *In American Association of Variable Star Observers. Journal*, v. 24, no. 1, 1996: 50–58. port.

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“... reports the current proposals to make a fit setting for Stonehenge, and what may happen now.”

Walker, Christopher B. F. The Dalbanna text: a Mesopotamian star-list. *In Die Welt des Orients*. Bd. 26; 1995. Göttingen, Vandenhoeck & Ruprecht. p. 27–42.

Provides transcription of the incomplete text assembled from a number of fragments.

Wang, P. K., and G. L. Siscoe. Some early descriptions of aurorae in China. *Annales geophysicae: atmospheres, hydro-spheres and space sciences*, v. 13, May 1995: 517–521.

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Warner, Brian. Historical development. *In his Cataclysmic variable stars*. Cambridge, New York, Cambridge University Press, 1995. (Cambridge astrophysics series, 28) p. 1–26. illus.

Warner, Deborah J. Keith's American heliostat. *Rittenhouse*, v. 10, Feb. 1996: 58–64. illus.

Wei, Lilly. Dorothea Rockburne, stargazer. *Art in America*, v. 82, Oct. 1994: 110–113. col. illus. (Painting on the wall, 1)

“Rockburne's recent wall paintings evoked the explorations of physicists and astronomers as well as dreamlike fictions of astral space.”

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“In Rathenow, Kreisstadt des Landkreises Havelland und traditionell gewachsene ‘Stadt der Optik,’ befindet sich ein einzigartiges Fernrohr—das verkürzte Medialfernrohr des Ingenieurs und Amateurastronomen Edwin Rolf (1899–1991). Nach seiner Restaurierung soll es den Schülern der Bruno-H.-Bürgel-Schule zur Verfügung stehen.”

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