RECENT PUBLICATIONS RELATING TO THE HISTORY OF ASTRONOMY

Ruth Freitag
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— *Books and Pamphlets* —

Abstracts of contributed talks and posters presented at the scientific fall meeting of the Astronomische Gesellschaft at Potsdam, September 26–30, 1994. Hamburg, 1994. 262 p. illus. (Astronomische Gesellschaft. Abstract series, 10)

Partial contents: Contributed talks. Dick, W. R. Astronomiegeschichte und Denkmalpflege—das Beispiel Berlin/Potsdam. Treder, H. J., and W. Schröder. Jacobi und die Himmelsmechanik. Rienitz, J. The telescope without ocular, from the early history of the instrument. Brosche, P. The astrogeodetic work of G. C. Lichtenberg. Wünsch, J. Astrometric observations of Mars by Hevelius.—Poster. Wolfschmidt, G. The foundation of the Einstein tower in Potsdam. Börngen, F. Potsdam and Babelsberg in the asteroids-sky.

Abū Ma'shar. The abbreviation of the introduction to astrology, together with the medieval Latin translation of Adelard of Bath. Edited and translated by Charles Burnett, Keiji Yamamoto, Michio Yano. Leiden, New York, E. J. Brill, 1994. 170 p. (Islamic philosophy, theology and science: texts and studies, v. 15)

Translation of the *Kitāb al-mudḫal al-ṣaġīr ilā ilm aḥkām al-nuǧūm.*

Arabic and English translation on facing pages, followed by Adelard's Latin version, also with English translation on facing pages.

Appel, John W. Francisco José de Caldas, a scientist at work in Nueva Granada. Philadelphia, American Philosophical Society, 1994. 154 p. illus., maps, ports. (American Philosophical Society, Philadelphia. Transactions, v. 84, pt. 5)

Includes a section, "At Home in the Observatory, 1806–1810" (p. 69–94), describing Caldas's work in astronomy and meteorology at Bogotá.

Aujac, Germaine. La sphère, instrument au service de la découverte du monde; d'Autolycos de Pitanè à Jean de Sacrobosco. Caen, Paradigme, 1993. 379 p. illus. (Collection Varia, no 11)

Contents: Préface.—1. ptie. Sphérique et géocentrisme. Le géocentrisme en Grèce ancienne? (1975). Stoïcisme et hypothèse géocentrique (1989). Regards sur l'astronomie grecque (1979). Astronomie et géographie scientifique dans la Grèce ancienne (1973). Le zodiaque dans l'astronomie grecque (1980).—2. ptie. Sphérique et sphéropée. Sphérique et sphéropée en Grèce ancienne (1976). Autolycos de Pitanè, prédécesseur d'Euclide (1984). Euclide et la sphérique: le traité des phénomènes (1975). La sphéropée, ou la mécanique au service de la découverte du monde (1970). Une illustration de la sphéropée: l'Introduction aux Phénomènes de Géminos (1970). Le ciel des fixes et sa représentation en Grèce ancienne (1976). Hipparque et les levers simultanés, d'après le Commentaire aux *Phénomènes* d'Eudoxe et d'Aratos (1979). Globes célestes en Grèce ancienne (1978). L'image du globe terrestre dans la Grèce ancienne.—3. ptie. Applications pratiques. L'île de Thulé de Pythéas à Ptolémée (1989). L'île de Thulé, mythe ou réalité (études de géographie grecque) (1988). Pôles et antipodes en Grèce ancienne (1977). Poseidonios et les zones terrestres: les raisons d'un échec (1976). Les traités "Sur l'Océan" et les zones terrestres (1972). Les représentations de l'espace, géographique et cosmologique, dans l'Antiquité (1981). De quelques représentations de l'espace géographique dans l'Antiquité classique (1979). Les modes de représentation du monde habité, d'Aristote à Ptolémée (1983). La géographie grecque à Alexandrie au second siècle de notre ère (1990).

Aveni, Anthony F. The ancient astronomers. Montreal, St. Remy Press; Washington, D.C., Smithsonian Books, 1993. 176 p. illus.

Barton, Tamsyn. Ancient astrology. London, New York, Routledge, 1994. xxv, 245 p. illus., plates. (Sciences of antiquity)

Bhathal, Ragbir S. Australian astronomer John Tebbutt: the life and world of the man on the $100 note. Kenthurst, N.S.W., Kangaroo Press, 1993. 111 p. illus., ports.

Blaauw, Adriaan. History of the IAU; the birth and first half-century of the International Astronomical Union. Dordrecht, Boston, Kluwer Academic Publishers, 1994. xix, 296 p. illus., ports.

Brind'Amour, Pierre. Nostradamus astrophile; les astres et l'astrologie dans la vie et l'œuvre de Nostradamus. Ottawa, Presses de l'Université d'Ottawa, 1993. 561 p. illus.

Camerota, Michele. Gli scritti *De motu antiquiora* di Galileo Galilei: il Ms. Gal 71. Un'analisi storico-critica. Pref. di Alberto Pala. Cagliari, CUEC editrice, 1992. 182 p.

Contents: 1. Gli scritti *De motu antiquiora*.—2. Il Ms. Gal. 71.—3. Il Ms. Gal. 46.—4. Il frammento *De motu accelerato*.—5. Le misteriose *Aggiunte al Trattato delle Galleggianti*.—6. Conclusione.

Castleden, Rodney. The making of Stonehenge. Illustrated by the author. London, New York, Routledge, 1993. xiv, 305 p. illus., maps, plans.

Collège de France. *Fondation Hugot. Colloque, 1991.* L'Europe en Chine: interactions scientifiques, religieuses et culturelles aux XVIIe et XVIIIe siècles. Actes du colloque de la Fondation Hugot (14–17 octobre 1991), revus et établis par Catherine Jami et Hubert Delahaye. Paris, Collège de

par Catherine Jami et Hubert Delahaye. Paris, Collège de France, Institut des hautes études chinoises; Diffusion, De Boccard, 1993. 255 p. illus. (Mémoires de l'Institut des hautes études chinoises, v. 34)

Partial contents: Huang, Y. L'attitude des missionaires jésuites face à l'astrologie et à la divination chinoises.—Moortgat, G. Verbiest et la sphéricité de la Terre.—Martzloff, J. C. Espace et temps dans les textes chinois d'astronomie et de technique mathématique astronomique aux XVIIe et XVIIIe siécles.—Gernet, J. Espace-temps, science et religion dans la rencontre de la Chine avec l'Europe.

Each of these essays is accompanied by a glossary that provides Chinese or Japanese characters for romanized expressions.

Copernicus, Nicolaus. Documenta copernicana: Briefe. Texte und Übersetzungen. Bearb. von Andreas Kühne unter Mitarbeit von Friederike Boockmann und Stefan Kirschner, und Verwendung der Vorarbeiten von Heribert Maria Nobis. Berlin, Akademie Verlag, 1994. xxviii, 413 p. facsims. (*His* Gesamtausgabe, Bd. 6, 1)

Latin texts with German translations.

Copernicus, Nicolaus. The manuscripts of Nicholas Copernicus' minor works: facsimiles. Edited by Pawe Czartoryski. Warsaw, Polish Scientific Publishers, 1992. 23 p., [331] p. of facsims. (*His* Complete works, v. 4)

Corona, Carmen. Lunarios: calendarios novohispanos del siglo XVII. México, D.F., Publicaciones Mexicanas, 1991. 150 p. (El Día en libros, 48)

Includes, as appendices, texts of the almanac for 1692 of Carlos de Siguenza y Góngora and the *Pronóstico* for the same year by Antonio Sebastián de Aguilar Cantú.

Cremonini e Galilei inquisiti a Padova nel 1604; nuovi documenti d'archivio. [A cura di] Antonino Poppi. Padova, Editrice Antenore, 1992. 105 p. facsims. (Università di Padova. Centro per la storia della tradizione aristotelica nel Veneto. Saggi e testi, 24)

Publishes documents relating to the accusation of heresy against Cremonini and Galileo in Padua in 1604.

Dadić, Žarko. Egzaktne znanosti hrvatskoga srednjovjekovlja. Zagreb, Globus, 1991. 198 p., [16] p. of plates. illus. (Biblioteka Posebna izdanja)

The emphasis is on astronomy (in mediaeval Croatia).

De Copernic à Flammarion. L'astronomie dans les collections des bibliothèques brestoises, 20 septembre–17 octobre 1993. Paris, Ministère de la culture, Direction du livre et de la lecture, 1993. 59 p. illus. (part col.) (Mois du patrimoine écrit, 1993) (Collection (Re)découvertes, 10)

Contents: La Bibliothèque municipale de Brest.—La Bibliothèque du Service historique de la marine à Brest.—Catalogue des œuvres exposées.

Devereux, Paul. Secrets of ancient and sacred places: the world's mysterious heritage. London, Blandford; New York, Distributed in the United States by Sterling Pub. Co., 1992. 192 p. illus. (part col.), maps (part col.), plans (part col.)

Archaeoastronomy is among the topics discussed in the introductory chapters as well as in the treatment of 12 of the 20 sites described.

Dorfer, Anton, *and* Adolf Hohenester. Katalog zur Ausstellung astronomischer Geräte in memoriam Johannes Kepler im "Astronomischen Turm" der Karl-Franzens-Universität Graz. Graz, Foto- und Offsetstelle der Universitätsbibliothek der Karl-Franzens-Universität Graz, 1994. 52 p. illus., facsims., plan.

"In memoriam Johannes Kepler. 11. April 1594: Ankunft von Johannes Kepler in Graz."

Dressler, Alan M. Voyage to the Great Attractor: exploring intergalactic space. New York, A. A. Knopf, 1994. 355 p. illus., ports.

Druga, Ladislav. Hvezdáreň Hurbanovo. Die Sternwarte Hurbanovo. Astronomical Observatory Hurbanovo. Hurbanovo, Slovenské ústredie amatérskej astronómie v Hurbanove, 1992. 63 p. illus. (part col.), music, ports. (part col.)

A shortened version of the Slovak text is presented in German and English.

The observatory was established by Miklós Konkoly Thege.

Edgerton, Samuel Y. The heritage of Giotto's geometry; art and science on the eve of the scientific revolution. Ithaca, N.Y., Cornell University Press, 1991. 319 p. illus., facsims.

See particularly the last three chapters, "Geometrization of Heavenly Space: Raphael's *Disputa*" (p. 193–222); "Geometrization of Astronomical Space: Galileo, Florentine Disegno, and the 'Strange Spottednesse' of the Moon" (p. 223–253), and "Geometry and Jesuits in the Far East" (p. 254–287). A version of the first of these appeared in *Creativity in the Arts and Science* (1990) and was cited in HAD *Newsletter* no. 20.

Ehtreiber, J., Adolf Hohenester, *and* G. Rath. Originalliteratur von Johannes Kepler und seiner Zeit. Katalog zur Ausstellung an der Universitätsbibliothek der Karl-Franzens-Universität Graz. Graz, Foto- und Offsetstelle der Universitätsbibliothek der Karl-Franzens-Universität Graz, 1994. 42 p. facsims., port.

"In memoriam Johannes Kepler. 11. April 1594: Ankunft von Johannes Kepler in Graz."

Fantino, Maria L., *and* Maria R. Monti Cologna. Horae: meridiane in Valle d'Aosta. Quart, Musumeci editore, 1992. 107 p. illus. (part col.), map.

Fasching, Gerhard. Sternbilder und ihre Mythen. Wien, Springer-Verlag, 1993. 310 p. illus.

Forbush, Scott E. Cosmic rays, the sun and geomagnetism: the works of Scott E. Forbush. James A. Van Allen, editor. Washington, D.C., American Geophysical Union, 1993. xviii, 472 p. illus., ports.

"This monograph is a tribute to the character and achievements of Scott Ellsworth Forbush (1904–1984) who, almost single-handedly with only technical assistance, laid the observational foundations for an important part of the subject of solar-interplanetary-terrestrial physics. The heart of his research was the meticulous and statistically

sophisticated analysis of the temporal variations of cosmic-ray intensity as measured by ground-based detectors at various latitudes and altitudes."

Galileo e la cultura padovana. Convegno di studio promosso dall'Accademia patavina di scienze, lettere ed arti nell'ambito delle celebrazioni galileane dell'Università di Padova, 13–15 febbraio 1992. 462 p. illus., facsims., plan, ports.

Partial contents: Poppi, A. Il "De caelesti substania" di Matteo Ferchio fra tradizione e innovazione.—Rosino, L. "Sidereus Nuncius" e le scoperte astronomiche di Galileo a Padova.—Bertola, F. Le osservazioni di Galileo del pianeta Nettuno.

Galindo Trejo, Jesús. Arqueoastronomía en la América antigua. Madrid, Editorial Equipo Sirius, 1994. 263 p., [16] p. of col. plates. illus. (Colección La Ciencia y la tecnología en la historia)

Contents: Arqueoastronomía en Mesoamérica.—Arqueoastronomía en la Región Andina.

Golvers, Noel. The *Astronomia Europaea* of Ferdinand Verbiest, S.J. (Dillingen, 1687). Text, translation, notes and commentaries. Nettetal, Steyler Verlag, 1993. 547 p. illus., facsims., maps, ports. (Monumenta Serica monograph series, 28)

"Jointly published by Institut Monumenta Serica, Sankt Augustin and Ferdinand Verbiest Foundation, Leuven."

Contents: Introduction.—Translation.—Notes and commentaries.—List of Latin neologisms.—The Latin text of *Astronomia Europaea*.—Illustrations.

This citation is a revision of a listing entered under Verbiest in *H.A.D. News* no. 33.

Grafton, Anthony. Joseph Scaliger: a study in the history of classical scholarship. II. Historical chronology. Oxford, Clarendon Press; New York, Oxford University Press, 1993. xviii, 766 p. (Oxford-Warburg studies)

Contents: pt. 1. The turn to chronology.—pt. 2. *Emendatio Temporum*.—pt. 3. Scaliger in Leiden.—pt. 4. *Thesaurus Temporum*.

The first volume of the biography, subtitled *Textual Criticism and Exegesis*, was published in 1983.

Grasshoff, Gerd. Die Interpretation der astronomischen Tagebücher des antiken Babylons. Hamburg, Universität Hamburg, Philosophisches Seminar, 1994. 67 p. illus. (Studien aus dem Philosophischen Seminar, Universität Hamburg, 27)

Grosseteste, Robert. Carmen de mundo et partibus. Ein theologisch-physikalisches Lehrgedicht aus der Oxforder Handschrift Bodleian Digby 41. [Hrsg. von] Axel Bergmann. Frankfurt am Main, New York, P. Lang, 1991. 163 p. facsims. (Lateinische Sprache und Literatur des Mittelalters, Bd. 26)

Poem in Latin, with commentary in German.

Hamel, Jürgen. Nicolaus Copernicus. Leben, Werk und Wirkung. Mit einem Geleitwort von Owen Gingerich. Heidelberg, Spektrum Akademischer Verlag, 1994. 355 p. illus., facsims., ports.

Heinrich, Walther. Altamerikanische Kalender: Zahl und Zeit in Altamerika. Trier, INTI-Verlag, 1993. 114 p. illus.

Henbest, Nigel, *and* Heather Couper. The guide to the galaxy. Cambridge, New York, Cambridge University Press, 1994. 265 p. illus. (part col.), ports.

Herrmann, Dieter B. Ejnar Hertzsprung, Pionier der Sternforschung. Berlin, New York, Springer-Verlag, 1994. 241 p., [36] p. of plates. illus., ports.

Hoffleit, Dorrit. The education of American women astronomers before 1960. Cambridge, Mass., American Association of Variable Star Observers, 1994. 51 p. illus., ports.

Holmberg, Peter. The history of physics in Finland, 1828–1918. Translated from the Swedish manuscript by Pearl Lönnfors. Helsinki, Societas Scientiarum Fennica, 1992 [i.e. 1993] 267 p. illus., facsims., plans, ports. (The History of learning and science in Finland, v. 5.a)

Although a volume (4.b) devoted to astronomy is apparently planned for the series, this volume includes some material relating to the history of astronomy. See particularly the first chapter, "From Our Oldest History of Physics" (p. 14–54), and the sections entitled "August Fredrik Sundell—Physicist, Mathematician and Astronomer" (p. 204–215) and "Hugo Gyldén—Astronomer in Stockholm" (p. 216–220). Research on the aurora borealis is also treated. There is no subject index.

Humboldt, Alexander von. Alexander von Humboldt über das Universum. Die Kosmosvorträge 1827/28 in der Berliner Singakademie. Hrsg. von Jürgen Hamel und Klaus-Harro Tiemann in Zusammenarbeit mit Martin Pape. Frankfurt am Main, Insel Verlag, 1993. 235 p. (Insel Taschenbuch, 1540)

First publication of the text of 16 lectures from a manuscript (Ms. Germ. 4° 2124) in the Staatsbibliothek Berlin, Preussischer Kulturbesitz. The only editorial changes consist in the conversion of obsolete units of measurement to metric system units.

International Conference From Galileo's "Occhialino" to Optoelectronics, *Padova, 1992*. From Galileo's "occhialino" to optoelectronics; international conference, University of Padova, 9–12 June 1992. Edited by Paolo Mazzoldi. Singapore, River Edge, N.J., 1993. xviii, 939 p. illus.

Partial contents: Cooper, A. R. Glass and optics, a historical perspective.—Fiorentini, A., and L. Maffei. What Galileo's brain told Galileo's eye.—Greco, V., G. Molesini, and F. Quercioli. Modern optical testing on the lenses of Galileo.—Van Helden, A. The telescope from Galileo to today.—Cohen, I. B. What Galileo saw: the experience of looking through a telescope.

Johann Adam Schall von Bell SJ, 1592–1666. Ein Kölner Astronom am chinesischen Hof. Diözesan- und Dombibliothek Köln, Ausstellung 29. April–27. Mai 1992. Kaarst, J. Wenger Druck + Verlag [1992?] 56 p. illus. (part col.), col. map, ports.

A portrait of Father Schall is reproduced in color on the front cover.

Contents: Zensen-Grahner, H. Zum Geleit.—Neite, W. Chronologische Tafel zu J. A. Schall von Bells Leben.—

Collani, C. von. Die Jesuiten und die Wissenschaften in China.—Neite, W. Katalog.

Karrer, Peter. Die Götter, die Menschen und das Geld: Astrologie in Nordindien. Eine Studie über astrologische Praktiker aus zwei miteinander konkurrierenden Kasten—Dakots und Brahmanen. Frankfurt (Main), R. G. Fischer, 1991. 187 p. col. illus.

Kay, Richard. Dante's Christian astrology. Philadelphia, University of Pennsylvania Press, 1994. 395 p. illus. (Middle Ages series)

Contents: Introduction.—1. The moon.—2. Mercury.—3. Venus.—4. The sun.—5. Mars.—6. Jupiter.—7. Saturn.—Conclusion.—Appendix 1: Biobibliography.—Appendix 2: Planetary positions for Paradiso.

Kepler, Johann. Le secret du monde. Traduction et notes d'Alain Segonds à partir d'un essai initial de Louis-Paul Cousin. Paris, Gallimard, 1993. 291 p. illus. (Collection Tel, 228)

Translation of *Mysterium cosmographicum.*

Kokott, Wolfgang. Die Kometen der Jahre 1531 bis 1539 und ihre Bedeutung für die spätere Entwicklung der Kometenforschung. Stuttgart, Verlag für Geschichte der Naturwissenschaften und der Technik, 1993. 204 p.

Konkoly Thege Miklós emlékezete. Összeállította: Bartha Lajos; szerkesztette: Tepliczky István. Budapest, Magyar Csillagászattörténeti Csoport, 1991. 23 p. illus. (CSACS közlemények, no. 3, 1991)

In Memoriam Miklós Konkoly Thege, Scholar, Engineer, Artist and Cultural Politician (1842–1916) by Lajos Bartha (8 p.) inserted.

Kosareva, L. M. Kopernikanskaia revoliutsiia: sotsiokul'turnye istoki. Nauchno-analiticheskiĭ obzor. Otv. redaktor, A. M. Kul'kin. Moskva, Akademiia nauk SSSR, Institut nauchnoĭ informatsii po obshchestvennym naukam, 1991. 33 p. (Seriia Naukovedenie za rubezhom)

Kostbare Instrumente und Uhren aus dem Staatlichen Mathematisch-Physikalischen Salon Dresden. Texte: Wolfram Dolz, Joachim Schardin, Klaus Schillinger, Helmut Schramm. Fotografie: Sibylle und Jürgen Karpinski. Leipzig, E. A. Seemann, 1994. 155 p. illus. (part col.)

Contents: Schillinger, K. Vom Entstehung und Werden des Mathematisch-Physikalischen Salons.—Dolz, W., H. Schramm, and K. Schillinger. Wissenschaftliche Instrumente.—Schardin, J. Uhrensammlung.

Kunitzsch, Paul, *and* Richard Lorch. Maslama's notes on Ptolemy's *Planisphaerium* and related texts. München, Verlag der Bayerischen Akademie der Wissenschaften in Kommission bei der C. H. Beck'schen Verlagsbuchhandlung, 1994. 121 p. illus. (Bayerische Akademie der Wissenschaften. Philosophisch-Historische Klasse. Sitzungsberichte, Jahrg. 1994, Heft 2)

Includes Arabic text and English translation, as well as Latin versions, of Maslama's notes.

Lattis, James M. Between Copernicus and Galileo: Christoph Clavius and the collapse of Ptolemaic cosmology. Chicago, University of Chicago Press, 1994. xix, 293 p. illus., facsims., maps, ports.

Lippincott, Kristen. The story of time and space. The Old Royal Observatory at Greenwich, past, present and future. With photos. by Tina Chambers. Tonbridge, Kent, Addax Pub. [1994?] xxxii p. illus. (part col.), maps (part col.), ports. (part col.)

Love, Bruce. The Paris codex: handbook for a Maya priest. With an introd. by George E. Stuart. Austin, University of Texas Press, 1994. xviii, 124 p., [22] p. of facsims. illus., chart, maps.

Lutstorf, Heinz T. Professor Rudolf Wolf und seine Zeit, 1816–1893. Nach bibliothekseigenen, teilweise nichtpublizierten Quellen dargestellt. Zürich, ETH-Bibliothek, 1993. 57 leaves. ports. (Schriftenreihe der ETH-Bibliothek, Nr. 31)

The MK process at 50 years: a powerful tool for astrophysical insight. A workshop of the Vatican Observatory, Tucson, Arizona, U.S.A., September 1993. Edited by C. J. Corbally, R. O. Gray, and R. F. Garrison. pt. 5. The history of MK classification. San Francisco, Calif., Astronomical Society of the Pacific, 1994. (Astronomical Society of the Pacific conference series, v. 60) p. 197–234. illus.

Contents: Osterbrock, D. E. Fifty years ago: astronomy; Yerkes Observatory: Morgan, Keenan and Kellman. Hoffleit, D. Reminiscences on Antonia Maury and the e-characteristic.—McCarthy, M. F. Angelo Secchi and the discovery of carbon stars.—Rountree, J. Newton's rainbow: from a hole in the wall to a window on the universe [summary of a public lecture]

McCarthy, Gavan. Guide to the archives of science in Australia; records of individuals. Port Melbourne, Vic., Thorpe, in association with Australian Science Archives Project & National Centre for Australian Studies, 1991. 291 p. illus., facsims., ports.

Entries are arranged alphabetically by name. Appendix 1, listing individuals by major profession, identifies 39 astronomers and 2 radioastronomers. A few others who worked in astronomy (e.g., Robert Hanbury Brown and Ronald Gordon Giovanelli) are listed as physicists.

McCoy, Ron. Archaeoastronomy: skywatching in the Native American Southwest. Flagstaff, Museum of Northern Arizona Press, 1992. 32 p. illus. (part col.) (Plateau, v. 63, no. 2)

Contents: Introduction.—Skywatching.—Skywatching techniques.—A new interest in skywatching.

Nellen, Henk J. M. Ismaël Boulliau (1605–1694), astronome, épistolier, nouvelliste et intermédiaire scientifique. Ses rapports avec les milieux du "libertinage érudit." Amsterdam, APA-Holland University Press, 1994. 608 p. port. (Études de l'Institut Pierre Bayle, Nimêgue, 24)

Translation of *Ismael Boulliau (1605–1694): nieuwsjager en correspondent.*

Nicolaus Copernicus (1473–1543): Revolutionär wider Willen. Gudrun Wolfschmidt (Hrsg.). Stuttgart, Verlag für Geschichte der Naturwissenschaften und der Technik, 1994.

350 p. illus., facsims., ports.

Contents: Teichmann, J. Copernicus: Mythos und Moderne.—T. 1. Wolfschmidt, G. Der Weg zum modernen Weltbild.—T. 2. Antikes und mittelalterliches Weltbild. Taub, L. C. Das Weltbild des Ptolemaios. Nobis, H. M. Wurzeln der copernicanischen Wende im Mittelalter.—T. 3. Nicolaus Copernicus (1473–1543). Krafft, F. Hypothese oder Realität; der Wandel der Deutung mathematischer Astronomie bei Copernicus. Schmeidler, F. 450 Jahre heliozentrische Lehre des Nicolaus Copernicus. Folkerts, M. Copernicus als Mathematiker. Keil, G. Das medizinische Weltbild des Nicolaus Copernicus. Kühne, A. Die Edition von Briefen und Urkunden im Rahmen der Münchner Copernicus-Ausgabe. Meinhardt, G. Nicolaus Copernicus als Währungspolitiker.—T. 4. Wirkungsgeschichte des Copernicus. Neuser, W. Infinitas infinitatis et finitas finitatis; zur Logik der Argumentation im Werk Giordano Brunos. Bialas, V. Kepler als Vollender der copernicanischen Astronomie. Segre, M. Copernicus' Wirkung in Italien. Knobloch, E. Jesuitenastronomie im Zeitalter des Copernicus. Schneider, I. Isaac Newtons Weltbild als Abschluss der copernicanischen Revolution. Baasner, R. "Du hast uns ein Muster einer wahren Freyheit im Philosophiren gewiesen!" Die Rezeption des Copernicus in der deutschen Aufklärung. Märker, K. Das heutige Weltbild—eine Skizze.—T. 5. Wolfschmidt, G. Katalog zur Copernicus-Ausstellung im Zeiss-Grossplanetarium, Berlin 1994.

Oestmann, Günther. Die astronomische Uhr des Strassburger Münsters: Funktion und Bedeutung eines Kosmos-Modells des 16. Jahrhunderts. Stuttgart, Verlag für Geschichte der Naturwissenschaften und der Technik, 1993. 326 p. illus.

Oriani, Barnaba. Un viaggio in Europa nel 1786; diario di Barnaba Oriani, astronomo milanese. A cura di A. Mandrino, G. Tagliaferri, P. Tucci. Firenze, L. S. Olschki, 1994. 225 p., 9 p. of plates (part col.) illus., facsims., map, ports. (Biblioteca di Nuncius. Studi e testi, 12)

Contents: Notizie sulla vita e sull'opera di Barnaba Oriani.—Notizie sul viaggio di Oriani.—Criteri di edizione.—Diario di viaggio.—Corrispondenza e altri documenti relativi al viaggio.—Elenco delle opere a stampa di Barnaba Oriani.

Parkes: thirty years of radio astronomy. Edited by D. E. Goddard and D. K. Milne. Melbourne, CSIRO, 1994. 162 p. illus., ports.

"This volume was produced as a permanent record of a symposium held on 22nd November 1991 at the CSIRO Parkes Observatory to celebrate the Parkes radio telescope's 30th birthday."

Contents: John Gatenby Bolton, 1922–1993—in memoriam; dedication.—Introduction.—Cooke, D., and R. H. Frater. Welcome to Parkes.—Minnett, H. C. Eulogy to Dr E G Bowen.—Kerr, F. J. The proposal for a giant radio telescope.—Minnett, H. C. The construction of the Parkes 210-ft radio telescope.—Bolton, J. G. Commissioning the Parkes radio telescope—a retrospective view. —Masterson, J. The Parkes telescope—a 30-year photographic history.—Cooper, B. Our first radio receivers.—Brooks, J. W., and M. W. Sinclair. Receivers, electronics and people—past and present.—Hamilton, P. A. Early computing at Parkes.—Wright, A. E. The all-sky continuum surveys.—Savage, A., and J. Wall. Identifications, confirmations, and tribulations.—Manchester, R. N. Pulsars at Parkes—past and present.—Whiteoak, J. B. Early polarisation research at Parkes.—Milne, D. K. Three decades of supernova remnant polarisation, 1962–1992.—Milne, D. K., M. W. Sinclair, and P. Robertson, moderators. When I look back—a forum.—Goss, W. M. A personal view of Parkes spectroscopy, 1967–1974.—Robinson, B. J. Spectral line astronomy at Parkes.—Mathewson, D. S. Parkes and the Magellanic system.—Radhakrishnan, V. The Parkes interferometer.—Ables, J. G. Parkes in the eighties.—Bolton, J. G. Parkes and the *Apollo* missions.—Ables, J. G. The *Giotto* and *Voyager* missions.—Dinn, M. NASA, Parkes and *Voyager*.—Price, M. The North Goobang Philosophical Society and the leather medal (or how I got to North Goobang and how I almost didn't become a radio astronomer).—Ekers, R. D. Closing remarks.—The contributors.

[Professor Meghnad Saha centenary issue] Calcutta, Asiatic Society, 1994. 190 p. (Journal of the Asiatic Society, v. 35, no. 2, 1993)

Contents: Sen, S. N. Meghnad Saha.—Kothari, D. S. Meghnad Saha.—Pant, K. C. Inaugural address.—Rao, U. R. Professor Meghnad Saha—a scientific phenomenon on the Indian scene.—Basu, D. Meghnad Saha: the legendary astrophysicist.—Bhattacharyya, J. C. Saha equation: its impact on astrophysics.—Bhatnagar, A. Recent advancements in solar physics.—Alladin, S. M. The dynamics of interacting galaxies.—Baliga, B. B. Professor Meghnad Saha and the development of nuclear physics in India.—Nag, B. R. Professor M. N. Saha and current Indian science.—Bandyopadhyay, A. Contribution of Professor M. N. Saha to the development of positional astronomy in India.—Sarkar, R. Saha and calendar reform. —Chatterjee, S., and J. Gupta. M. N. Saha: National Planning Committee.—Book review. Sinha, D. K. Saha as a parliamentarian (reviews *Saha in Parliament*, 1993).

The issue also contains a list of Saha's publications (p. 105–117) and reprints three of his papers: "Different Methods of Date-Recording in Ancient and Medieval India, and the Origin of the Śaka Era" (1953), his address to the Royal Asiatic Society of Bengal (1946), and "The Problem of Indian Rivers" (1938).

Reiche, María. Contribuciones a la geometría y astronomía en el antiguo Perú. Lima, Asociación María Reiche para las Líneas de Nasca, Epígrafe Editores, 1993. 571 p. illus., maps (part fold.), plans (part fold., part col.), ports.

Includes an essay, "María Reiche: cincuenta años de investigaciones en el Perú," by Dietrich S. Schulze (p. 21–42).

Richer, Jean. Sacred geography of the ancient Greeks; astrological symbolism in art, architecture, and landscape. Translated by Christine Rhone. Albany, State University of New York Press, 1994. xli, 319 p. illus., maps. (SUNY series in Western esoteric traditions)

Translation of *Géographie sacrée du monde grec*, 3d ed., "with some minor cuts and variations in sequence."

"This book may be controversial. My greatest hope is that a few educated and competent individuals, including archeologists and historians of religion, would be willing to attentively and impartially examine these theories."

Riekher, Rolf. Fernrohre und ihre Meister. 2., stark bearb. Aufl. Berlin, Verlag Technik, 1990. 442 p. illus., facsims., col. plates, ports.

Der rote Planet im Kartenbild. 200 Jahre Marskartographie von Herschel, Beer und Mädler bis zur CD. Konzeption und Katalog: Jürgen Blunck unter Mitwirkung von Lothar Zögner. Gotha, J. Perthes, 1993. 132 p. illus., maps (part col.), ports. (Staatsbibliothek zu Berlin. Preussischer Kulturbesitz. Ausstellungskataloge, n.F., 7)

Saha, Meghnad, *and* Nirmal Chandra Lahiri. History of the calendar in different countries through the ages. New Delhi, Council of Scientific & Industrial Research, 1992. xv, 157–279 p. illus., col. plate.

First published in 1955. "In view of the general usefulness of this scholarly review, which has long been out of print, it has been decided to reprint it. No changes have been made from the original except that 'Corrigenda and Addenda' have been incorporated into the text, and consequently the Bibliography and the Index have been repaginated."

It should be noted that the index includes page references to the entire report of the Calendar Reform Committee, not merely to this portion.

Schiavo, Armando. La meridiana di S. Maria degli Angeli. Roma, Istituto poligrafico e Zecca dello Stato, Libreria dello Stato, 1993. 236 p., [76] p. of facsims. illus. (part fold.), plans (part fold.)

"Nel IV centenario della riforma gregoriana del calendario."

Contents: Il calendario ecclesiastico e le meridiane.—Progetto e strumenti per la linea Clementina, critiche all'iniziativa pontificia e sua medaglia commemorativa.—Notizie biografiche di Francesco Bianchini.—I fratelli Campani.—Orientamento e dimensioni del transetto di S. Maria degli Angeli.—Menomazioni settecentesche della linea Clementina.—Fusi orari, differenze fra ora astronomica ed ora media.—Diagramma della stella polare.—Asterismi, canale o livella ad acqua, segmenti centesimali, distanze angolari del Sole, lunghezza del giorno, calendario.—Precisazione degli equinozi.—Stelle fisse.—Iscrizioni varie.—Gli uomini e le stelle.—Appendice: 1) Vicende della Chiesa; 2) Notizie sul tabernacolo eucaristico del Buonarroti per S. M. degli Angeli.

Includes facsimile reprints of *Compendivm novae rationis restitvendi kalendarivm* (Romae, Apud haeredes A. Bladij, 1577. 18 p.) and *Resolvtioni de alcvni dvbii sopra la correttione dell'anno di Giulio Cesare, ordinata dalla S.D.N.S. Papa Gregorio XIII.* (In Vinetia, Appresso G. Polo, 1583. 35 p.), by Gioseffo Zarlino, as well as extracts from two other publications and two letters.

Schöner, Christoph. Mathematik und Astronomie an der Universität Ingolstadt im 15. und 16. Jahrhundert. Berlin, Duncker und Humblot, 1994. 546 p. (Ludovico Maximilianea. Forschungen, Bd. 13)

Sills-Fuchs, Martha. Der Mittagshirsch: die Wiederentdeckung des keltischen Kalenders. Aus dem Nachlass hrsg., eingeleitet und erg. von Lotte Ingrisch und Manfred A. Schmid. Wien, Edition S, Verlag der Österreichischen Staatsdruckerei, 1990. 176 p.

Sousa, Joaquim Gomes de. O modo de indagar novos astros. Curitiba, Editora UFPR, 1992. 53 p. (Serie Classicos)

Reprint, with an introduction by Prof. Clóvis Pereira da Silva, of a thesis entitled *Disertação sobre o modo de indagar novos astros sem auxilio das observações directas*, presented in 1848 at the Escola Militar da Corte do Rio de Janeiro.

Spalinger, Anthony J. Three studies on Egyptian feasts and their chronological implications. Baltimore, Md., Halgo, 1992. 68 p. illus.

The papers relate to Egyptian calendrics.

Timár, László. Galileo Galilei. Budapest, Galilei Társaság, 1991. 124 p., [16] p. of plates. facsims., map, port.

Trento, Paolo. Astrolabio: storia, funzioni, costruzione. Presentazione di Carlo Maccagni. 2. ed. Roma, Biblioteca del Vascello, 1992. 114 p. illus. (part col.) (Conchiglie)

Verdet, Jean P. Astronomie & astrophysique. Paris, Larousse, 1993. 829 p. illus. (Textes essentiels)

"Empruntés aux grandes figures de la discipline, de Ptolémée à Einstein, les soixante textes regroupés dans ce recueil, dont plus d'un tiers en traduction originale, constituent les étapes essentielles de l'histoire de l'astronomie."

Introductions are provided to the work as a whole and to each of the 30 authors represented.

450 [Vierhundertfünfzig] Jahre Copernicus "De revolutionibus." Astronomische und mathematische Bücher aus Schweinfurter Bibliotheken. Ausstellung des Stadtarchivs Schweinfurt in Zusammenarbeit mit der Bibliothek Otto Schäfer, 21. November 1993–19. Juni 1994. Schweinfurt, Stadtarchiv, 1993. 437 p. illus. (Veröffentlichungen des Stadtarchivs Schweinfurt, 9)

Wolf, Rudolf. Rudolf Wolfs Jugendtagebuch, 1835–1841. Zürich, ETH-Bibliothek, 1993. 129 p., [8] leaves of facsims. illus. (Schriftenreihe der ETH-Bibliothek, Nr. 30)

Pref. signed by Verena Larcher.

— *Articles* —

Abhyankar, Krishna D. A search for the earliest Vedic calendar. Indian journal of history of science, v. 28, Jan./Mar. 1993: 1–14. illus.

Abrahams, Peter. Henry Fitz: a preeminent 19th century American telescope maker. Journal of the Antique Telescope Society, v. 6, summer 1994: 6–10. illus., port.

Another illustration appears on p. 1.

Adam, Karl. Zum megalithischen Visurenkalender Nordwesteuropas. Orion, 51. Jahrg., Feb. 1993: 41.

Anderson, Ronald, Hans R. Bilger, *and* Geoffrey E. Stedman. "Sagnac" effect: a century of earth-rotated interferometers. American journal of physics, v. 62, Nov. 1994: 975–985. illus.

Andersson, K. G. Poincaré's discovery of homoclinic points. Archive for history of exact sciences, v. 48, no. 2, 1994: 133–147. illus.

See Jesper Lützen's "Note by the Communicator of Two Papers, by J. Barrow-Green and by K. G. Andersson, on Poincaré" (p. 105–106).

Andrews, Tamra. The Navajo sky people. Star date, v. 21, Sept./Oct. 1993: 4–7. col. illus.

"To the Navajo Indians, the constellations were more than just star patterns spun from whimsical myth and lore. Each constellation had a personality of its own that formed the basis of Navajo life."

Andrews, Tamra. Snake rattle star. Star date, v. 20, Nov./Dec. 1992: 16–17. illus. (part col.)

On the Pleiades in Mesoamerican cultures.

Ashworth, William J. The calculating eye: Baily, Herschel, Babbage and the business of astronomy. British journal for the history of science, v. 27, Dec. 1994: 409–441.

Aveni, Anthony F. Emissaries to the stars: the astronomers of ancient Maya. Mercury, v. 24, Jan./Feb. 1995: 15–18. illus.

"In a sophisticated culture, people turned to astronomers because heavenly events perplexed them. But as times got hard, arcane science seemed hard to justify. It is the story of ancient Maya astronomy, and of modern astronomy."

Includes a box, "The Rhythm of a Lunar Beat" (p. 17).

Aveni, Anthony F. Meaning in Native American astronomy texts. *In* Transforming texts: classical images in new contexts. Edited by Robert P. Metzger. Lewisburg, Pa., Bucknell University Press; London, Cranbury, NJ, Associated University Presses, 1993. p. 41–53.

Bacchus, Pierre. Jules Verne et l'astronomie. Observations et travaux, no 29, 1. trimestre 1992: 3–19. illus.

Balestra, Dominic J. Galileo's unfinished case and its Cartesian product: method, history, and rationality. International philosophical quarterly, v. 34, Sept. 1994: 307–322.

"By considering the question of the rationality of scientific change, in particular Galileo's case for that change of theory now called 'The Copernican Revolution,' I shall attempt in what follows to disclose indirectly the interwoven fabric of history and method, and its necessity for a proper understanding of science."

Barletti, Raffaele. L'astronomia in Dante. Giornale di astronomia, v. 20, giugno 1994: 5–11.

Barrow-Green, June. Oscar II's prize competition and the error in Poincaré's memoir on the three body problem. Archive for history of exact sciences, v. 48, no. 2, 1994: 107–131. illus.

See Jesper Lützen's "Note by the Communicator of Two Papers, by J. Barrow-Green and by K. G. Andersson, on Poincaré" (p. 105–106).

Barthalot, Raymonde. L'aventure de la Carte du ciel. Ciel et espace, no 275, déc. 1992: 56–59. illus., ports.

Beekman, George W. E. Ein Komet aus dem Jahr 1733 in einem Schiffsjournal wiederentdeckt. Sterne und Weltraum, 33. Jahrg., Nov. 1994: 772.

German version by C. J. C. Shoemaker.

Berger, Christian P. Klein 22 und Oswald von Wolkensteins Geburtsdatum aus astronomisch-chronologischer Sicht. Der Schlern, 67. Jahrg., Dez. 1993: 846–855.

Bernabeu Albert, Salvador. La Comisión Española en la expedición de Chappe d'Auteroche. *In* Ciencia, vida y espacio en Iberoamérica. Trabajos del Programa Movilizador del C.S.I.C., "Relaciones científicas y culturales entre España y América." José Luis Peset, coordinador. v. 3. Madrid, Consejo Superior de Investigaciones Científicas, 1989. (Estudios sobre la ciencia, 10) p. 15–35.

Bialas, Volker. Keplers Ortskatalog von 1627 in der Tradierung der mathematisch-geographischen Kenntnisse aus Antike und Mittelalter. *In* Nuremberg. Germanisches Nationalmuseum. Anzeiger. 1991. Nürnberg, Verlag des Germanischen Nationalmuseums. p. 90–94. illus.

Binney, James J. Galactic astronomy since 1950. *In* The Renaissance of general relativity and cosmology; a survey to celebrate the 65th birthday of Dennis Sciama. [Edited by] George Ellis, Antonio Lanza, John Miller. Cambridge, New York, Cambridge University Press, 1993. p. 110–129.

Contents: 1. The structure of the Milky Way.—2. Large-scale structure of galaxies.—3. Galaxy photometry.—4. Galactic nuclei.—5. Populations and components.—6. Dynamics.

Blomqvist, Jerker. The fall of Phaethon and the Kaalijärv meteorite crater: is there a connection? Eranos, v. 92, spring 1994: 1–16.

Blümlein, Kilian. 2. Der 'Himmel' bei Paracelsus;—Kräfte, Determinationen, Abhängigkeiten. *In his* Naturerfahrung und Welterkenntnis: der Beitrag des Paracelsus zur Entwicklung des neutzeitlichen, naturwissenschaftlichen Denkens. Frankfurt am Main, New York, P. Lang, 1992. (Europäische Hochschulschriften. Reihe XX, Philosophie, Bd. 300) p.

65–84.

Contents: 2.1. Die Analogie: Gestirn—Welt und Krankheit—Körper.—2.2. Die 'impression.'—2.3. Astronomie, Astrologie, Prognosticationes.—2.4. Das Verhältnis von Mikrokosmos und Makrokosmos.

Bond, Peter. The rocky road to the red planet. Astronomy now, v. 8, Jan. 1994: 46–48. illus. (part col.)

"Many Mars probes failed before reaching the planet, but those that succeed[ed] returned exciting pictures and data." Includes a table with information on 24 spacecraft missions to Mars, launched during the years 1960–92.

Bret, Patrice. L'astronome Nicolas-Antoine Nouet (1740–1811), membre de l'Institut d'Égypte, directeur de la Carte de Savoie. *In* Congrès national des sociétés savantes, *116th, Chambéry, 1991*. Les scientifiques et la montagne. Actes du 116e Congrès national des sociétés savantes, Chambéry (29 avril–4 mai 1991). Section d'Histoire des sciences et des techniques. Paris, Éditions du CTHS, 1993. p. 119–147. map, port.

Bris, Isabelle. L'abbé Lemaître, le père du big bang. Ciel et espace, no 279, avril 1993: 58–63. ports.

Brosche, Peter. Ahn-Herr der Lichtablenkung. *In* Lichtenberg-Jahrbuch. 1992. Hrsg. im Auftrag der Lichtenberg-Gesellschaft von Wolfgang Promies und Ulrich Joost. Saarbrücken, Saarbrücker Druckerei und Verlag, 1993. p. 138–146. illus.

Proposes adding Lichtenberg to the list of those who speculated on the possibility of the gravitational bending of light before Einstein developed the general theory of relativity.

Brosche, Peter. Lichtenbergs astrogeodätische Ortsbestimmungen. *In* Lichtenberg-Jahrbuch. 1993. Hrsg. im Auftrag der Lichtenberg-Gesellschaft von Wolfgang Promies und Ulrich Joost. Saarbrücken, Saarbrücker Druckerei und Verlag, 1994. p. 78–106. illus., maps.

Burbidge, E. Margaret. Watcher of the skies. *In* Annual review of astronomy and astrophysics. v. 32; 1994. Palo Alto, Calif., Annual Reviews. p. 1–36. port.

The portrait faces p. 1.

Burkert, Walter. Heraclitus and the moon: the new fragments in *P.Oxy.* 3710. *In* Illinois classical studies. v. 18; 1993. Atlanta, Ga., Scholars Press. p. 49–55.

Burnett, Charles S. F. Adelard of Bath and the Arabs. *In* Rencontres de cultures dans la philosophie médiévale. Traductions et traducteurs de l'antiquité tardive au XIVe siècle. Actes du colloque international de Cassino, 15–17 juin 1989, organisé par la Société internationale pour l'étude de la philosophie médiévale et l'Università degli studi di Cassino. Édités par Jacqueline Hamesse et Marta Fattori. Louvain-la-Neuve, 1990. (Textes, études, congrès, 11) (Rencontres de philosophie médiévale, 1) p. 89–107.

Casini, Paolo. Il mito pitagorico e la rivoluzione astronomica. Rivista di filosofia, v. 85, apr. 1994: 7–33.

Cepītis, Jānis. Bedrīšu akmeņi Latvijā un to arheoastronomiskais skatījums. [Stones with small hollows in Latvia and their archaeoastronomical interpretation] Zvaigžņotā debess, 1993./94. gada ziema: 47–50. illus.

Chabàs, Josep, *and* Bernard R. Goldstein. Andalusian astronomy: *al-Zīj al Muqtabis* of Ibn al-Kammâd. Archive for history of exact sciences, v. 48, no. 1, 1994: 1–41. illus.

Chambliss, Carlson R. Bullion and billon: the astronomical images on old coins. Mercury, v. 24, Jan./Feb. 1995: 23–27. illus.

"Coins are almost as interesting for what's on them as what you can buy with them. From denarii to dollars, coins tell us what people really thought about astronomy."

Chandler, Jennifer. Whiteness and warts. *In* Folklore. v. 105; 1994. London, Folklore Society. p. 100–101.

On the belief in the power of moonlight to cure warts, dating "from at least the time of Pliny (AD 77)."

Chen, Yonghang, *and* Daode Wang. An update of a catalog of Chinese meteorites. Meteoritics, v. 29, Nov. 1994: 886–890.

Provides the name of each meteorite, the place of fall or find (with geographic coordinates), date of fall or find, number of masses, total weight in kilograms, class and type, and composition.

Cílek, Václav. Záznam mešíčních fází na destičce staré 30 000 let. Vesmír, roč. 72, čís. 8, 1993: 475. illus.

Cook, Anthony. Six decades with six astronomers on the front lawn of Griffith Observatory. Griffith observer, v. 58, Nov. 1994: 2–11, 21. illus.

Additional illustrations appear on the outside front and back covers (captions on p. 3 and 23).

Dalen, Benno van. On Ptolemy's table for the equation of time. Centaurus, v. 37, no. 2, 1994: 97–153. illus., facsim.

Davies, Alun C. The art of time at Harvard: museum exhibitions at the Longitude Symposium, 1993. Antiquarian horology, v. 21, summer 1994: 352–358. illus.

DeVicci, Philip A. J. A coinage of astronomical significance. Numismatist, v. 107, July 1994: 956–961. illus.

"Emperor Constantine IX is thought to have struck gold *histamena nomismata* to commemorate the explosion of the star that created the Crab Nebula."

Includes two boxes, "Scyphates" (p. 958) and "Birth of a Supernova" (p. 960).

A photograph of the Crab Nebula and one of the coin under discussion are reproduced in color on the outside front cover of the issue.

Dick, Steven J. Back to the future: SETI before the space age. Planetary report, v. 15, Jan./Feb. 1995: 4–7. col. illus.

"This article is a much abridged version of a fully annotated paper given in the SETI sessions of the 44th Congress of the International Astronautical Federation, held in Graz, Austria, in October 1993."

Dick, Wolfgang R. F. W. Bessel und die russische Wissenschaft—Anmerkungen zum Aufsatz von K. K. Lavrinovič. NTM; internazionale Zeitschrift für Geschichte und Ethik der Naturwissenschaften, Technik und Medizin, neue Ser., v.

1, Nr. 4, 1993: 259–262.

Abstract in English.

Provides corrections of some errors in Lavrinovich's paper, published in *NTM*, 28. Jahrg., Heft 2, 1991/92, and cited in *H.A.D. News* no. 30.

Diederich, Werner. 'Relativistic' arguments in Kepler. *In* Semantical aspects of spacetime theories. Edited by Ulrich Majer and Heinz-Jürgen Schmidt. Mannheim, B.I. Wissenschaftsverlag, 1994. p. 95–102.

Đokić, Milorad. The astronomical observatory of the Belgrade University between 1926 and 1941. *In* National Conference of Yugoslav Astronomers, *10th, Belgrade, 1993.* Proceedings. Edited by M. S. Dimitrijević and D. Djurović. Beograd, 1993. (Publikacije Astronomske opservatorije u Beogradu, sv. 44) p. 115–117.

Echternach, Eddy. 75 jaar Internationale Astronomische Unie. Zenit, 21. jaarg., juli/aug. 1994: 292–293. col. illus., group port.

The group portrait depicts a session of the 3d General Assembly, held at Leiden in 1928.

Edlund-Berry, Ingrid E. M. Etruscans at work and play: evidence for an Etruscan calendar. *In* Kotinos. Festschrift für Erika Simon. Hrsg. von Heide Froning, Tonio Hölscher, Harald Mielsch. Mainz/Rhein, Verlag P. von Zabern, 1992. p. 330–338.

Eelsalu, Heino. Big Fraunhofer's "short" story. The 9½-inch Dorpat refractor. With an introd. by Aarne Haas. Journal of the Antique Telescope Society, v. 6, summer 1994: 13–15. illus.

Another illustration appears on the front cover of the issue.

Eelsalu, Heino. Die Dorpater Sternwarte als astronomische Brücke zwischen Ost und West. *In* Pribaltiüskaia konferentsiia po istorii nauki, *17th, Tartu, 1993.* 17th Baltic Conference on History of Science: Baltic science between the West and the East, Tartu, 4–6 October 1993. Tartu, Tartu Ülikool, 1993. p. 39.

Eelsalu, Heino, *and* Mihkel Jõveer. Ernst Öpiku teaduslike ideede, teooriate ja astronoomiakoolkonna uurimise lähtekohti. [Ausgangsstellen der Theorien der wissenschaftlichen Ideen und der Erforschung der Astronomieschule von Ernst Öpik] *In* Reaalteaduste koolkondade, ideede ja teooriate areng Tartu Ülikoolis. Tartu, 1987. (Tartu. Ülikool. Ajaloo Komisjon. Tartu Ülikooli ajaloo küsimusi, 20) p. 68–73.

Eelsalu, Heino. Märkmeid ja meenutusi sõjajärgsest Tartu astronoomiast. [Notes and reminders of astronomy in postwar years in Tartu] *In* 70 aastat Eesti Ülikooli. Tartu, 1989. (Tartu. Ülikool. Ajaloo Komisjon. Tartu Ülikooli ajaloo küsimusi, 23) p. 132–138.

Eelsalu, Heino. The Tartu (Dorpat) Observatory—a neglected astronomical monument of the history of Tartu University. *In* Tartu Ülikool läbi kolme okupatsiooni. Tartu University through three occupations. Some problems of the history of Tartu University. Tartu, 1991. (Tartu. Ülikool. Ajaloo Komisjon. Tartu Ülikooli ajaloo küsimusi, 25) p. 218–221.

Eelsalu, Heino. Tartu Ülikooli tähetorn ja astronoomia-alane emakeelne kirjandus. [The observatory of Tartu University and astronomical literature in the Estonian language] *In* 70 aastat Eesti Ülikooli. Tartu, 1989. (Tartu. Ülikool. Ajaloo Komisjon. Tartu Ülikooli ajaloo küsimusi, 23) p. 3–6.

Elvius, Aina. Åke Wallenquist, 16 jan. 1904–8 april 1994. Astronomisk tidsskrift, årg. 27, sept. 1994: 123–124.

Eremeeva, Alina I. Otkryvshiĭ nebo dlia vsekh. Vselennaia i my, no. 2, 1994: 60–71. illus., port.

Second part of a two-part article about Camille Flammarion; the first part was cited in *H.A.D. News* no. 33.

Fantoni, Girolamo. La meridiana di Santa Maria degli Angeli. *In* Santa Maria degli Angeli e dei Martiri; incontro di storie. Roma, La Meridiana editori, 1991. (Luoghi, 2) p. 175–181. illus.

Additional illustrations appear on p. 64–65 (fig. 42–43), and a color illustration, with insets showing the mosaics that depict the signs of the zodiac, is presented on the inside of the folded front cover.

The meridian was produced under the direction of Francesco Bianchini and completed in 1702.

Fay, Stephen. Close encounters of a new kind: Stonehenge. Condé Nast traveler, v. 30, Feb. 1995: 154–160, 162–164. col. illus.

Includes inset, "Neolithic Observatory" (p. 156–157), which illustrates and discusses "popular modern interpretations of Stonehenge," and travel advice (p. 163–164). Another color illustration appears on the outside front cover of the issue.

Field, Stephen. Cosmos, cosmograph, and the inquiring poet: new answers to the "Heaven Questions" [T'ien wen] *In* Early China. v. 17; 1992. Berkeley, Society for the Study of Early China and the Institute of East Asian Studies, University of California, Berkeley. p. 83–110. illus.

Finney, Ben. Rediscovering Polynesian navigation through experimental voyaging. Journal of navigation, v. 46, Sept. 1993: 383–394. maps.

Firneis, Maria G. Astronomie und Navigation bis 1650. *In* Was ist neu an der Neuzeit? Österreich zwischen Mittelalter und Barock (1500–1650). Ausstellungskatalog. Idee und Konzept: Gerda Mraz. Eisenstadt, Museum Österreichischer Kultur, 1991. p. 147–154.

The essay is followed, on p. 155–167, by detailed descriptions of 15 exhibits, two of them illustrated, and a glossary. Two others are shown in color on plate 4, which faces p. xv.

See also the section entitled "Alles ist Mass und Zahl" (p. 186–193), which includes a short article by Andreas Wahra entitled "Das Astrolabium und seine Verwendung" (p. 191–192) and descriptions of nine exhibits, two of them illustrated. Two others are among the color illustrations on plate 4.

Fleming, John V. The 'mystical signature' of Christopher Columbus. *In* Iconography at the crossroads. Papers from the

colloquium sponsored by the Index of Christian Art, Princeton University, 23–24 March 1990, edited by Brendan Cassidy. Princeton, N.J., Index of Christian Art, Dept. of Art and Archaeology, Princeton University, 1993. (Index of Christian Art. Occasional papers, 2) p. 197–214. illus.

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