RECENT PUBLICATIONS RELATING TO THE HISTORY OF ASTRONOMY

Books and Pamphlets

Agar, Jon. Science and spectacle: the work of Jodrell Bank in post-war British culture. Amsterdam, Harwood Academic Publishers, 1998. xx, 260 p. illus. (Studies in the history of science, technology and medicine, v. 5)

Ancient astronomy and celestial divination. Edited by N. M. Swerdlow. Cambridge, Mass., MIT Press, 1999. 378 p. illus. (Dibner Institute studies in the history of science and technology)

Contents: Swerdlow, N. M. Introduction.—1. Reiner, E. Babylonian celestial divination.—2. Rochberg, F. Babylonian horoscopy: the texts and their relations.—3. Walker, C. B. F. Babylonian observations of Saturn during the reign of Kandalanu.—4. Hunger, H. Non-mathematical astronomical texts and their relationships.—5. Grasshoff, G. Normal star observations in late Babylonian astronomical diaries.—6. Brack-Bernsen, L. Goal-year tablets: lunar data and predictions.—7. Aaboe, A. A new mathematical text from the astronomical archive in Babylon: BM 36849.—8. Britton, J. P. Lunar anomaly in Babylonian astronomy.—9. Swerdlow, N. M. The derivation of the parameters of Babylonian planetary theory with time as the principal independent variable.—10. Jones, A. A classification of astronomical tables on papyrus.—11. Goldstein, B. R., and A. C. Bowen. The role of observations in Ptolemy's lunar theories.—12. Tihon, A. Theon of Alexandria and Ptolemy's *Handy Tables*.

The Art of time. [Greenwich, Conn., Bruce Museum of Arts and Science, 1999?] 44 p. illus. (part col.)

Exhibition checklist and errata slip laid in.

Contents: Sturges, H. Acknowledgments.—Smith, M. The art of time.—Snellenburg, J. Measuring time.—Ehlinger, C. Connecticut clocks.—Bartky, I. R. Nineteenth-century American timekeeping.—Adams, G. Time in art.

Bartky, Ian R. Selling the true time: nineteenth-century timekeeping in America. Stanford, Calif., Stanford University Press, 2000. xvi, 310 p. illus., facsims., group port., maps.

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Coles, Peter. Einstein and the total eclipse. Duxford, Cambridge, Icon Books; New York, Totem Books, 1999. 71 p. illus. (Postmodern encounters)

Constructions of time in the late Middle Ages. Edited by Carol Poster and Richard Utz. Evanston, Ill., Northwestern University Press, 1997. 206 p. illus. (Disputatio, an international transdisciplinary journal of the late Middle Ages, v. 2)

Partial contents: Travis, P. W. Chaucer's *Chronographiae*, the confounded reader, and fourteenth-century measurements of time.—Laird, E. S. Astrolabes and the construction of time in the late Middle Ages.—Cárdenas, A. J. A learned king enthralls himself: escapement and the clock mechanisms in Alfonso X's *Libro del saber de astrologia*.—Vilhjalmsson, T. Time and travel in Old Norse society.—Akkach, S. Ibn 'Arabî's cosmogony and the Sufi concept of space and time.

Conti, Giovan Stefano. Lettere a Ruggiero Giuseppe Boscovich. A cura di Edoardo Proverbio. Roma, Accademia nazionale delle scienze detta dei XL, 1996-98. 2 v. facsims. (Scritti e documenti, 18, 22) (Documenti boscovichiani, 4-5)

Contents: v. 1. 1760-1771.—v. 2. 1771-1784.

Couteau, Paul. Le ciel est mon jardin. Paris, Flammarion, 2000. 225 p.

DeVorkin, David H. Henry Norris Russell, dean of American astronomers. Princeton, Princeton University Press, 2000. xix, 499 p., [8] p. of plates.

Drake, Stillman. Essays on Galileo and the history and philosophy of science. Selected and introduced by N. M. Swerdlow and T. H. Levere. Toronto, Buffalo, University of Toronto Press, 1999. 3 v. illus., facsims., plates, ports.

Contents: v. 1. Preface. Acknowledgments. Introduction. Prologue. Drake's speech on receiving the international Galileo Prize for History of Italian Science. pt. 1. Galileo: biographical and general. pt. 2. Galileo: bibliographical and textual studies. pt. 3. Galileo: scientific method and philosophy of science. pt. 4. Galileo: astronomy.—v. 2. pt. 5. Galileo: *Dialogue Concerning the Two Chief World Systems*. pt. 6. Galileo: motion and mechanics, including the *Discourses on Two New Sciences*.—v. 3. pt. 7. Galileo: instruments. pt. 8. History of science: ancient, medieval, Renaissance, Seventeenth Century. pt. 9. Philosophy of science and language. A bibliography of the writings of Stillman Drake. Index.

Drevnîaîa astronomiîa: nebo i chelovek. Tezisy dokladov mezhdunarodnoĭ nauchno-metodicheskoĭ konferenfsii (19-24 noîabrîa 1997 goda); programma konferenfsii. Moskva, Komissiîa po paleoastronomii EAAS, 1997. 68 p.

Ducrocq, Albert. L'éclipse. Monaco, Éditions du Rocher, 1999. 259 p., [8] p. of plates. illus. (part col.), facsims. (part col.), port. + 1 éclipsographe.

Contents: 1. Quand une vague d'obscurité déferle.—2. Chaldéens et chinois observent longuement.—3. Une architecture conforme de l'univers: l'astronomie.—4. Le mouvement de la Lune fait le désespoir des astronomes.—5. Pourquoi une éclipse totale de Soleil est un phénomène critique.—6. Les ressources de l'informatique et de la règle à éclipse.—7. L'Éclipse la plus courte: beaucoup de grains de Baily.—8. La fantastique couronne du Soleil.—9. Planètes et étoiles d'un ciel étrange.—10. Les éclipses d'Einstein.—11. Quand finira le temps des éclipses.—12. Si la Lune n'avait pas existé.

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1543 and all that; image and word, change and continuity in the proto-scientific revolution. Edited by Guy Freeland, Anthony Corones. Dordrecht, Boston, Kluwer Academic Publishers, 2000. xv, 404 p. illus., facsims., plan, ports. (Australasian studies in history and philosophy of science, v. 13)

Partial contents: Kemp, M. Vision and visualisation in the illustration of anatomy and astronomy from Leonardo to Galileo.—Freeland, G. The lamp in the temple: Copernicus and the demise of a medieval ecclesiastical cosmology.—Corones, A. Copernicus, printing and the politics of knowledge.—Thomason, N. 1543—the year that Copernicus didn't predict the phases of Venus.—Brundell, B. Bellarmine to Foscarini on Copernicanism: a theologian's response.

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Contents: Johann Carion und der Beginn der Astronomie in Berlin.—Kalendermacher und der Beginn der akademischen Astronomie.—Johann Elert Bode.—Die Akademiesternwarte unter dem Direktorat von Encke.—Wilhelm Julius Foerster—Forschungsorganisation und Wissenschaftspopularisierung.—Arthur von Auwers und "Die Geschichte des Fixsternhimmels."—Astrophysik—ein neues Forschungsgebiet an der Akademie der Wissenschaften und der Berliner Sternwarte.—Die astronomische Forschung nach dem II. Weltkrieg unter dem Dach der Akademie der Wissenschaften.—Universitäre Astronomie im geteilten Berlin.—Hundert Jahre populärwissenschaftliche Arbeit in der Astronomie.

Giovanni Schiaparelli: storico della astronomia e uomo di cultura. Atti del Seminario di studi organizzato dall'Istituto italiano per l'Africa e l'Oriente e dall'Istituto di fisica generale applicata dell'Università degli studi di Milano. Milano, 12-13 maggio 1997, Osservatorio astronomico di Brera. A cura di Antonio Panaino e Guido Pellegrini. Milano, Mimesis—IsIAO, 1999. 193 p. illus., facsims. (Collana Mimesis)

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Contents: From classical astronomy to astrophysics: an introduction.—New technologies, new astronomy.—Charlier and stellar statistics.—Lundmark and the Lund Observatory.—From Uppsala and Stockholm to the stars.—The many cultures of astronomy.

Homet, Jean M. Cadrans solaires en Queyras. Photographies de Franck Rozet. Aix-en-Provence, Édisud, 2000. 117 p. col. illus., col. map.

Instrument—Experiment; historische Studien. Im Auftrag des Vorstandes der Deutschen Gesellschaft für Geschichte der Medizin, Naturwissenschaft und Technik hrsg. von Christoph Meinel. Berlin, Diepholz, Verlag für Geschichte der Naturwissenschaften und der Technik, 2000. 423 p. illus., facsims.

Partial contents: Staley, R. Michelson's interferometer: experiment or instrument?—Keil, I. Aus den Augsburger optischen Werkstätten des 17. Jahrhunderts.—Oestmann, G. Uhren- und Instrumentenbau in Norddeutschland: die Dynastie der Hager in Braunschweig-Wolfenbüttel.—Voskuhl, A. Schein und Strahlung: die Anfänge der Messung von Sonnenstrahlung im 19. Jahrhundert und ihre Replikation.

International Congress on the History of Sciences, *20th, Liège, 1997.* Proceedings of the XX[th] International Congress of History of Science (Liège, 20–26 July 1997). v. 5. The spread of the scientific revolution in the European periphery, Latin America and East Asia. Edited by Celine A. Lértora Mendoza, Efthymios Nicolaïdis and Jan Vandersmissen. pt. 3. East Asia. Turnhout, Brepols, 2000. (De diversis artibus, t. 45) p. 145–192. facsims.

Includes lists of the Chinese characters representing romanized terms used in the respective papers.

Contents: Fung, K.-W. Christopher Clavius and Li Zhizao.—Hashimoto, K. The earliest evidence of the introduction of Kepler's laws into China as is observed in the *Lifa wenda*.—Lu, D. Guimao yuan calendar (1732–1911) and Isaac Newton's theory of the moon's motion.—Cervera Jiménez, J. A. Dominican contributions to science in the 16th and 17th centuries. The example of Fray Juan Cobo in East Asia.

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Contents: Predislovie.—1. Sobolev, V. V. Obshchiĭ obzor.—2. Gulîâev, A. P., and M. S. Zverev. Astrometriiâ.—3. Kholshevnikov, K. V. Nebesnaîâ mekhanika.—4. Gurshteĭn, A.

A., and I. N. Minin. Fizika solnechnoĭ sistema.—5. Gel´freĭkh, G. B., and Ė. V. Kononovich. Fizika solnt͡sa.—6. Gorbatskiĭ, V. G. Fizika zvezd.—7. Voshchinnikov, N. V., and L. P. Osipkov. Galakticheskai͡a astronomiia.—8. Hagen-Thorn, V. A., and A. D. Chernin. Vnegalakticheskai͡a astronomiia.—9. Gulia͡ev, A. P., and A. K. Kolesov. Astronomiia v universitetakh.—10. Hagen-Thorn, V. A., and A. K. Kolesov. Nauchnye uchrezhdeniia.

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Jordanus, *Nemorarius*. Il planisfero di Giordano Nemorario. [A cura di] Rocco Sinisgalli, Salvatore Vastola. Fiesole, Edizioni Cadmo, 2000. 95 p. illus. (Domus perspectivae, 6)

Latin and Italian in parallel columns.

Jungnickel, Christa, *and* Russell McCormmach. Cavendish: the experimental life. Rev. ed. Lewisburg, Pa., Bucknell, 1999. xvi, 814 p. illus., facsims., geneal. tables, maps, ports.

In the third part, "Henry Cavendish," see particularly chapter 6, "Earth," with sections entitled "Philosophical Tours in Britain," "Entire Globe," "Weighing the World," and "The Cavendish Experiment."

Although the index contains no heading for astronomy, among the relevant topics treated or touched on are the Greenwich-Paris triangulation, the 1761 and 1769 transits of Venus, the Hindu calendar, stars, double stars, comets, marine chronometers, and telescopes.

This revision includes, as part four, "Henry Cavendish's Scientific Letters" (p. 515–731). Among his correspondents, listed on p. 527, were Nevil Maskelyne, William Herschel, Charles Blagden, and John Michell.

Karl Friedrich Zöllner and the historical dimension of astronomical photometry. A collection of papers on the history of photometry. C. Sterken, K. B. Staubermann [eds.] Brussels, VUB Press, 2000. 186 p. illus., facsims., map, ports.

Contents: Sterken, C., and K. B. Staubermann. Preface.—I. Instruments of Zoellner's era. 1. Hearnshaw, J. B. Nineteenth century visual photometers and their achievements. 2. Geyer, E. H. The reversion spectrometer of Karl Friedrich Zöllner. 3. Geyer, E. H. Friedrich Magnus Schwerd (1792–1871) and his double-beam photometer. 4. Bartha, L. Zöllner and Zöllner-type photometers in Hungary. 5. Staubermann, K. B., and others. The replication of an original Zöllner-photometer. 6. Staubermann, K. B. Lessons from replicating Zöllner's photometer.—II. Zoellner's photometric data. 7. Sterken, C. Astrophysical insights based on archeo-photometry. 8. Sterken, C. The data content of Zöllner's catalogue. 9. Sterken, C., and K. B. Staubermann. Visual magnitudes based on Zöllner's catalogue.—III. Zoellner's personality. 10. Dick, W. R. Friedrich Zöllner's personal papers. 11. Dick, W. R., and G. Münzel. Friedrich Zöllner's correspondence with Wilhelm Foerster. 12. Münzel, G. Friedrich Zöllner's relation to the staff of Leipzig observatory.—IV. Studies on K.-F. Zoellner. 13. Herrmann, D. B. Zöllner studies at Archenhold Obsrvatory 1974–1994. 14. Hamel, J. Bibliography of publications by K.-F. Zöllner 1834–1882.

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See particularly sections 6, "Streit um die Figur der Erde" (p. 69–81); 9, "Kurzzeitige Variationen des Magnetfeldes und Polarlichter" (p. 116–129); 10, "Das Gravitationsgesetz bewährt sich auf der Erde" (p. 130–138); 16, "Licht von der Sonne und aus den Polgebieten der Erde" (p. 225–245); and 17, "Lord Kelvin und das Alter der Erde" (p. 246–255).

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Contents: Kruit, P. C. van der, and K. van Berkel. Preface.—1. Blaauw, A. Meeting Kapteyn in the Kapteyn Room.—2. Heijden, P. van der. The 'lost letters' of J. C. Kapteyn.—3. Krul, W. E. Kapteyn and Groningen: a portrait.—4. Sitter, W. R. de. Kapteyn and de Sitter; a rare and special teacher-student and coach-player relationship.—5. Feast, M. W. Kapteyn and South Africa.—6. DeVorkin, D. H. Internationalism, Kapteyn and the Dutch pipeline.—7. Berkel, K. van. Growing astronomers for export: Dutch astronomers in the United States before World War II.—8. Smith, R. W. Kapteyn and cosmology.—9. Gingerich, O. Kapteyn, Shapley, and their universes.—10. Kinman, T. D. Kapteyn and the selected areas: a personal perspective.—11. Sullivan, W. T. Kapteyn's influence on the style and content of twentieth century Dutch astronomy.—12. Gilmore, G. F. Surveys and star counts: the Kapteyn legacy.—13. Perryman, M. A. C. Modern astrometry.—14. Kruit, P. C. van der. The Milky Way compared to external galaxies.—15. Schmidt, M. Kapteyn's (m, log r) table and cosmology.—16. Woltjer, L. Kapteyn's unfortunate universe.—Appendix: A. J. H. Oort's public lecture of 1926: "Non-Light-Emitting Matter in the Stellar System", introduced and translated by P. C. van der Kruit.—Appendix: B. Berkel, K. van, and P. C. van der Kruit. Note on E. R. Paul's translation of H. Hertzsprung-Kapteyn's biography of J. C. Kapteyn.

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Partial contents: IV. Astronomia. 1. Studi astronomici nei monasteri prima di Galileo. 2. Astronomia monastica nel XVII secolo. 3. I monaci della cerchia di Galileo. 4. Giovanni Alberto Colombo insegnante di astronomia e meteorologia.—V. Astronomia applicata. 1. Scienze nautiche. 2. Costruzione di strumenti ottici. 3. Trattatisti di gnomonica e costruttori di orologi solari. 4. Monaci e riforme del calendario. Cronologia.—X. Astrologia e alchimia. 1. Placido Titi: "l'Astrologia è vero scienza." 2. Benedetto Mazzotta astrologo e alchimista. Relevant illustrations appear on plates 1, 2, and 4 in v. 1.

Milbrath, Susan. Star gods of the Maya: astronomy in art, folklore, and calendars. Austin, University of Texas Press, 1999. 348 p., [23] p. of plates. illus., map. (The Linda Schele series in Maya and pre-Columbian studies)

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Contents: Fiala, A. D. Dedication of the history session to Leroy E. Doggett, 1941–1996.—Dick, S. J. History of the American Nautical Almanac Office.—Wilkins, G. A. The history of H.M. Nautical Almanac Office.—Waff, C. B. Navigation vs. astronomy: defining a role for an American nautical almanac.—Moyer, A. E. Simon Newcomb at the Nautical Almanac Office.—Gutzwiller, M. C. Wallace Eckert, computers, and the Nautical Almanac Office.—Carter, M. S., P. Cook, and B. J. Luzum. The contributions of women to the Nautical Almanac Office, the first 150 years.

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