RECENT PUBLICATIONS RELATING TO THE HISTORY OF ASTRONOMY

Books, Pamphlets, and Special Issues of Periodicals


Greek and English on facing pages.


See particularly Books VI-VIII, describing the construction and uses of astronomical instruments, instruments for navigation, and sundials (p. 149-255). These are followed by “The Use of the Sector in the Construction of Solar Eclipses” (p. 258-264) and Stone’s supplement (p. 265-325), which includes discussion of quadrants, octants, and refracting and reflecting telescopes. Several pages are also given to an account of telescopic discoveries.


In his introduction Henry L. Gilcas of the Lowell Observatory calls this work “a unique story of the lives of about a dozen people associated with making observations of the sun’s radiant energy every clear day possible for a period of over five years in the early 1920s” from “an isolated mountain peak in the southern Arizona desert.”


Text in Latin with introduction in French.


Engel, Johann. Astrolabio plano con las tablas del ascendente: contiene todas las horas y minutos, las ecuaciones de las casas del cielo, la permanencia del concebido en el útero materno, con un tratado sobre las natividades útil y bello, sin olvidar las horas desiguales en los diversos climas del mundo. (Venecia, Juan Emerico de Spira, el 9 de junio de 1494.) Traducción: Mariano Gracia Moros. Responsable de la edición, corrección y notas: Juan Francisco Esteban Lorente. Zaragoza, iberCaja, 1995. 224 p. illus., facsims.

Spanish translation of his Astrolabium in Tabulis Ascendens.


Astronomy and cosmology are emphasized.

The introduction (p. ix-xxxvi), in English, is followed by Kleinert’s “Kommentar zu einer Schrift Eulers über die Schwerkraft” (p. lxxvii-cciii).


Includes texts in Arabic.


See part 5 (p. 159–186) on the creation of the luminaries on the fourth day, as recorded in the first chapter of Genesis.


Boudet and Charmasson contributed to the work on astronomical and astrological terms.


Contents: Le lingue del classico.—Manenti, A. Presentazione.—Cappelletti, V. Galilei e la razion scientifica.—Campa, R. La época de Galileo.—Vallota, A. D. Galileo: su tiempo y el nuestro.—Ferrín, I. La contribución de Galileo a la astronomía.—Lluberes D., P. Galileo y la matemización de la naturaleza.—García Sánchez, F. J. Galileo en la automatización del círculo.—Moutsopoulos, E. A. Galileo’s revised trial critically reviewed. An epistemological and axiological approach.

Each of the seven essays is followed by abstracts in Italian and English.


Contents: Preface.—ch. 1. Basic geometry.—ch. 2. Special numbers.—ch. 3. The earth.—ch. 4. The heavenly bodies.—ch. 5. The seasons.—ch. 6. The moon.—ch. 7. Celestial visitors.—ch. 8. Laws of nature.—ch. 9. Creation vs. evolution.—ch. 10. The universe.—Glossary of Hebrew terms.

Tobias Mayer's moon map on folded leaf in pocket.
Latin and German translations on facing pages.
Includes "Observationes astronomicae per annum 1772 und 1773. Astronomische Beobachtungen der Jahre 1772 und 1773" (p. 8-53), and, in connection with Mayer's moon map, "Ad Tabulam Selenographicam animadversiones. Anmerkungen zur selenographischen Tafel" (p. 122-139).

Brief, chronologically arranged sketches of 715 scientists.
English summary: p. 146.

Partial contents: Grant, E. Astronomy, cosmology, and cosmography.—Burnett, C. S. F. Astrology.—Wallis, F. Chronology and systems of dating.
Each topical section is accompanied by a select bibliography.

The history of the collection that precedes the catalog includes a section entitled "Mathematik und astronomisches Weltbild" (p. 21-30), and the subject index provides references to catalog entries for books on astronomy.


In addition to the detailed catalog descriptions, there are several essays and appendices of interest for the history of astronomy: "Astrologer's Globes and a Standard" (p. 160–161) and "Islamic Celestial Globes and Related Instruments" (p. 168–174), both by Emilie Savage-Smith; "The Planispheric Astrolabe," by Francis Maddison (p. 186–189, 192–196); two appendices by Emilie Savage-Smith, "Modern Indian Globes" (p. 406–413) and "Metallurgical Analyses of Celestial Globes" (p. 414–415), and a third, unsigned appendix, listing star names found on an Iranian celestial globe and a Moroccan planispheric astrolabe, with English equivalents (p. 416).


A collection of brief reminiscences by many friends, associates, and colleagues.

Abstract in English.
The essay by Cuna is entitled “Editoria e testi de re medica. La controversia fra Nicola Antonio Stigliola e i medici patavini.”

Delle apparenze celesti is published for the first time.


Arrangement is by constellation; for each, the relevant text from Eratosthenes and Hyginus, in English translation, is followed by the translator's commentary.


**Articles, Including Essays in Books and Papers in Proceedings**


"The aim of this paper is to look for astronomical evidence for these four related Indian eras."


Shows "that a history of an organization can be enriched by reevaluating and analysing the things that were screened out."


See also (1) Astrolabium, column 122–123, in two parts: A, Hunger, H., Babylonien, and B, Kunitzsch, P., Griechische Kultur; and (2) Astrologie, column 123–126, in three parts: A, Hübner, W., Begriff; B, Hunger, H., Alter Orient; and C, Hübner, W., Griechenland und Rom.


Reproduces a study first published in 1887 in a source that is now hard to find even in Germany.

The Greek text is accompanied by a preface and notes in Latin.


A list of Father van de Vyver’s works is given on p. 110–111.


Includes Italian translation of passages from Siderius Nuncius relating to Galileo’s observations of the Jovian satellites.


The illustration appears on Tafel 1, bound at the end of the volume.


About Cecilia Payne-Gaposchkin.


“After the work of Copernicus was printed and published, the alleged human narcissism did not suffer the slightest blow. What really happened is that people asked whether the earth deserved such a place of honor, a place that sets it on an equal footing with the other celestial bodies, nay with the sun. This consequence of the heliocentric idea was not felt as an argument in favor of the new world-view, but as an obstacle against it.”


Abstract in English.


“Around 1800, Laplace had an intense correspondence with his colleagues in Gotha on problems in celestial mechanics, especially on the lunar theory. Most of these letters are not included in Roger Hahn’s New calendar of the correspondence of P. S. Laplace (1994).”


Chiefly about the women employed at the royal observatories in Greenwich and Edinburgh. The group portrait is of the women at the Harvard College Observatory. 


Notes that 1998 will mark the 150th anniversary of the death of Caroline Herschel and the birth of Lady Huggins.


An appendix entitled “Paper Instruments Known To Have Been Marketed in London, 1600–1700: a Preliminary Listing” appears, with illustrations and references, on p. 7–15. Among the instruments included are dials, quadrants, and planispheres.

See also A. V. Simcock’s note on p. 37, “Regiomontanus, the Man in the Moon.”


The text of the Derveni papyrus, discovered at a site near Saloniki in 1962, is believed to date from the late 5th century B.C. and is classified “as a commentary on an Orphic theogony.” The script in which it is written is assigned to 340–320 B.C.; “it is the most ancient literary papyrus which has been preserved.”


“The yardstick for gauging distances within the solar system is the earth’s mean distance to the sun, formally termed the astronomical unit. Few people know that its precise value was determined by radar. Still fewer know that electrical engineers, not astronomers, established that value. Even more unlikely, electrical engineers pulled off this and other scientific feats at laboratories set up to conduct military R&D, not astronomical inquiry. In fact, their achievement contributed to the rise of an entirely new field of scientific endeavor known today as planetary radar astronomy.”

Includes a box, “The leap to the sun” (p. 36).


“The inscriptions left behind by ancient Indian rulers like the Kusānas and the Guptas contain valuable informations on the early calendrical astronomy of India. The object of the present paper is to investigate this calendrical astronomy using these inscriptions as source material.”


Includes discussion of the contributions to, or interest in, astronomy of Elisabetha Hevelius, Margaret Flamsteed, Caroline Herschel, Mary Somerville, Margaret Herschel and Richarda Airy, Jane and Caroline Lassell, Margaret Huggins, Dorothea Klumpke, Elizabeth Brown, Mary Proctor, Gertrude Bacon, and C. A. Barbour.

Instruments intended for use in observatories and for navigation are included in the discussion.


On Grote Reber's first successful receiver.


On the meteor storm of Nov. 27, 1872 (the remains of Biela's Comet), and the Celtic origin of All Saint's Day.


On the 30th anniversary of the discovery of pulsars, and on celebrations of the summer solstice.


Includes an appendix explaining Chinese technical terms.


On the representation of Claudius Ptolemy in works of the Latin West as one of the kings of Egypt, following his identification as such by Isidore of Seville.


Summary in English.


“What good is the fact that each planet offers a marvellous vantage point in regards the universe if there be no observers? For a philosophy which is as integrally finalistic as that of Bernardin de Saint-Pierre, nothing in nature is in vain. Therefore, other planets are inhabited, and we can describe them by analogy.”


Sir James South’s troubles resulted from his attempt to obtain a telescope that would surpass Struve’s refractor at Dorpat (now Tartu).


“K Gödel published two seminal papers on general relativity theory and its application to the study of cosmology ... I review these two papers, and the developments that resulted from them.”


On the Senmut ceiling, “the earliest known surviving example of a type of ancient Egyptian art that has been called the Egyptian celestial diagram. It is the oldest known extensive astronomical display in the world.”


On the 1761 expeditions of Chappe d'Auteroche and Le Gentil.


“It is suggested that it turns out to be an impossible task to separate Kepler’s platonism from his realism.”


“It is suggested that the swords were used in practices or ceremonies associated with making and keeping the time by counting nights, and determining what was a propitious day.”


Much attention is given to the Prague astronomical clock.
An appendix lists clockmakers in Prague, 14th-16th century, and clockmakers in other Bohemian towns during the same period.


"Il caso della più celebre stella del ciefo reste più che mai aperto."

Contents: Il racconto dell’evangelista Matteo.—Le interpretazioni: da Giotto a Keplero.—Le previsioni degli astronomi babilonesi.—La stella di Natale e le dispute sulla astrologia.


"Cent’anni fa veniva ritrovato a Coligny (Francia) un calendario d’epoca gallica che costringe a riconsiderare le conoscenze matematiche e astronomiche dei druidi celtici."


Analyzes the use of references in 1,179 papers published in *Astronomy and Astrophysics* during the years 1975–95.


Includes passages in Aramaic with English translation.


Discusses history and current work.


The author suggests "that the notion of an experimental verification" in Grosseteste's scientific treatises "has to do mainly with the use of mathematics, especially geometry, in questions of astronomy and astrology."


"The discovery of radioactivity about 100 years ago permitted the measurement of absolute time in the distant past and transformed our understanding of the evolution of our planet from the origin of the Solar System to the development of Homo Sapiens."


Findings at the Calendar II complex in Vermont are cited as evidence for the presence of Europeans in ancient New England.


"This year marks the centenary of the final result of Sir David Gill’s 25-year campaign to evaluate the solar parallax."


Also included in this issue are Estonian translations of two articles by Õpik that appeared in the Irish Astronomical Journal, "Comments on Cosmic Physics" (v. 9, Sept. 1969) and "Astronomy and the News Media" (v. 13, Mar./June 1978), and an article published in Estonian in 1947 on biology and national ideology.


"Many scholars starting with Tilak have suggested that Vedic Vena is Venus but this identification has been disputed. In this article we provide further arguments in support of this identification. We also review the question of the knowledge of the planets in the third millennium B.C."


Kennedy provides detailed table of contents of Al-Zij al-Shâmil fi Tahdîb al-Kâmîl and table of contents of the Madrid excerpts from Al-Zij al-Qâwin fi Funûn al-Ṭârîkh wa’l-Taqwîm.


A history of the U.S. Naval Observatory's southern hemisphere outstation in New Zealand, where astrometric observations were carried out during the years 1987–96.


"L'intuition de deux génies méconnus, le Russe Alexandre Friedmann et le Belge Georges Lemaître, va révolutionner la cosmologie. Leurs travaux sont publiés pour la première fois en France."


The obituary is followed, on p. 234–235, by a report, signed Andrew J. Hollis, on the 1997 Distinguished Lecture of the British Geological Survey, presented on Feb. 20 by Dr. Shoemaker.


Notes the presence of images of the terrestrial globe on Greek and Roman coins.


Results of investigations "suggest a more complex relationship between site locations, astronomical events, and the landscape than has hitherto been appreciated."


"We believe that a most important element in our understanding of past peoples is to recognize their awareness of the sky."


Morante López, Rubén B. Los observatorios subterráneos. La Palabra y el hombre, nueva época, no. 94, abr./jun. de 1995: 35–71. illus., plans.


See also p. 315–317 on E. A. Milne.


"My thesis is that the 16-letter futhark in the unique order of its letters designates a calendar formula for the phases of the waxing moon from new to full, and the same futhark repeated backwards recounts the waning moon from full to new ... In addition to this, the 13 consonant runes are used to represent 13 months of 28 days identical to the Celtic BLN 'bethluismion' tree ogham and match the BLN consonants letter for letter. Finally, the 16-letter futhark plus three additional runes is used to locate each of the 19 years of the Metonic Cycle in a lunar-solar perpetual calendar of ancient origin ..."

See also Moyer's "What the Greeks Knew Too; an Addendum to 'Runes and Moons'" in v. 29, summer/fall 1994, p. 20–21.


An account "woven in a connected and coherent way" around the lives and work of Copernicus, Tycho, Galileo, and Newton.


Includes Greek text with Russian translation and commentary.
Summary in French.


North, John D. Macrocosm and microcosm in Paracelsus. In Neue Beiträge zur Paracelsus-Forschung. Hrsg. von Peter Dilg und Hartmut Rudolph. Stuttgart, Akademie der Diözese Rottenburg-Stuttgart, 1995. (Hohenheimer Protokolle, Bd. 47) p. 41-58. “The task I have been given is that of explaining some of his astronomical and cosmographical sources, and while there is universal agreement that they must exist, since Paracelsus repeatedly boasts his astrological credentials, I have to say at the outset that they are as elusive as the man himself.”


Qu, Anjing. Bian Gang: a mathematician of the 9th century. Historia scientiarum, v. 6, July 1996: 17-30. illus. “... his calendrical researches and discoveries were a major contribution to Chinese science ... From an analysis of his methods of constructing the calendar, Bian Gang may be evaluated as one both an outstanding mathematician and a great astronomer among ancient and medieval Chinese calendar-makers.”

A correction appears in the Feb. 10 issue, p. 225.


Rosenfeld, Boris. The history of the seven-day week. Erdem, cilt 9, Eylül 1996: 749–757. illus.

Autobiographical.
Includes a box, “Proseguire i suoi programmi,” by Francesco Bertola (p. 19).

“This paper has been prepared to record new information about the site subsequent to the Connicks' discovery, namely, the summer solstice sunset event, the autumnal equinox sunrise alignment, the autumnal equinox sunset event, and the confirmation of the 59-day summer solstice prediction event. The vernal equinox should produce the same effect observed on the autumnal equinox, but this has not been verified to date.”


Contents: Narlikar, J. V. Tributes to Chandra.—Eggleton, P. P. Chandrasekhar and white dwarfs.—Padmanabhan, T. Stellar dynamics and Chandra.—Lynden-Bell, D. Consequences of one spring researching with Chandrasekhar.—Ashtekar, A. Chandrasekhar's contributions to general relativity.—Wali, K. C. Chandra remembered.—Narlikar, J. V. Chandra, Newton and the Principia.—Chandrasekhar, S. Shakespeare, Newton and Beethoven or patterns of creativity [the second Nora and Edward Ryerson Lecture, delivered at the University of Chicago, Center for Public Policy, on Apr. 22, 1975]


A portrait of the author appears on p. iii of the issue.


"Une version abrégée de cet article a été présentée sous forme de communication hors du IXe Congrès de l'Association internationale des Études Néo-Latines (Bari, Août-Septembre 1994)."


R. S. Freitag
Library of Congress
April 1998