Scientific Instrument Commission Bibliography 20

Twentieth bibliography of books, pamphlets, catalogues and articles on or connected with historical scientific instruments - Spring 2003.

This bibliography contains work published in 2002 and 2003, which came to the compiler's notice before April 2003. It also contains earlier publications which came to his notice after completing the nineteenth bibliography in Autumn 2002. Publications, or notices of publication (please with ISBN) for forthcoming bibliographies may be sent to the compiler:

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Members of the scientific instrument community are invited to send recent titles, especially of publications that may easily escape the compiler's notice, such as descriptive catalogues, exhibition catalogues and papers published in less widely known journals. To avoid duplication, please note that the compiler peruses some forty journals for relevant titles. These range from journals that focus entirely on historic instrumentation, such as the Bulletin of the Scientific Instrument Society, Rittenhouse, Journal of the Antique Telescope Society and Equilibrium, to more general journals on the history of science, technology and culture. A list of these journals is found in previous bibliographies.


ASTROLABES: Astrolabes in the Whipple Museum collection (no date of publication). 20 pages. [Simple booklet for visitors, explaining the astrolabe, and summarily describing 21 astrolabes, which are illustrated in small b/w images].

ASTRONOMY: La Lettre de l'OCIM nr. 84 (Nov-Dec 2002) is a special issue 'Le patrimoine de l'Astronomie', guest edited by Françoise Le Guet Tully and Jean Davoigneau. 78 pages, ISSN 0994-1908. [Well-illustrated series of articles on historic French observatories and their instruments, with some comparative material (light-houses,Italian observatories and museology). Order via www.ocim.fr]


BELLODI, Giuliano, BEVILACQUA, Fabio, BONERA, Gianni, FAUOMO, Lidia (editors), Gli strumenti di Alessandro Volta. Il Gabinetto di fisica dell'Università di Pavia (Università degli Studi di Pavia, Editore Ulrico Hoepli Milano, 2002). 348 pages. ISBN 88-203-2908-5. [The history of the physics cabinet and of the instruments of Alessandro Volta preserved at the Museum for the History of the University of Pavia. The contributions of Bellodi, Brenni, Falomo, Ferraresi, Fregonese, Giudice and others reconstruct the evolution of Volta's cabinet of Pavia and also represent a very detailed catalogue of his collection]

BENNETT, Jim, 'Geometry in context in the sixteenth century: the view from the museum', Early Science and Medicine VII (2002), 214-230. ["Examines the discrepancy between the attitudes of many historians of mathematics to 16th-century geometry and those of museum curators and others interested in practical mathematics and in instruments"].


BERTINI, Marta, 'Il Trattato di Diversi Istrumenti Matematici di Antonio Santucci', Nuncius. Annali di Storia della Scienza XVII (2002), 247-262. [A manuscript, dated 1593, in the Biblioteca Marucelliana in Florence, by Santucci, cosmographer to Ferdinando I dei Medici, contains a description and drawings (not reproduced here) of the most important mathematical instruments of the sixteenth century. The author correlates this to the objects in the Museo di Storia della Scienza in Florence].

BLAKE, Erin C., 'Topographical Prints through the Zograscope', Imago Mundi 54 (2002), 120-124. [Viewing device to give the image an illusion of life and three dimensionality].

BOURGET, Marie-No · le, LICOPPE, Christian, and SIBUM, H. Otto, Instruments, travel and science. Itineraries of precision from the seventeenth to the twentieth century (Routledge Studies in the History of Science, Technology and Medicine, vol. 16) (London and New York, 2002). 320 pages. ISBN 0-415-27295-5. Of instrumental interest are: Simon SCHAFFER, 'Golden means: assay instruments and the geography of precision in the Guinea trade' (20-50); Christian LICOPPE, 'The project for a map of Languedoc in eighteenth-century France at the contested intersection between astronomy and geography: the problem of co-ordination between philosophers, instruments and observations as a keystone of modernity (51-74; winner of the SIC prize for the longest title!); Jim BENNETT, 'The travels and trials of Mr. Harrison's
timekeeper' (75-95); Marie-Noëlle BOURGET, 'Landscape with numbers: natural history, travel and instruments in the late eighteenth and early nineteenth centuries' (96-125); Giuliano PANCALDI, 'Appropriating invention: the reception of the voltaic battery in Europe' (126-155); Kapil RAJ, 'When human travellers become instruments: the Indo-British exploration of Central Asia in the nineteenth century' (156-188); H. Otto SIBUM, 'Exploring the margins of precision' (216-242; American Henry A. Rowland's European travel diary, 1875-76); Richard STALEY, 'Travelling light' (243-272; Albert Michelson's engagement with instruments).


BRENNI, Paolo (with an introduction by G.L'E. Turner), *Strumenti scientifici: dal museo al laboratorio interattivo. Il caso di Como "Città della Scienza"* (Como: Centro di Cultura Scientifica "A. Volta", 2002). 127 pages, colour and b/w photos. [Retraces the history of the most important scientific instrument collections in Como (Tempio Voltiano, Liceo Volta, Istituto Carducci, etc.)]


CLERCQ, Peter de, 'A Note on 18th-century Instruments from Schloss F·stenstein in Silesia', Bulletin of the Scientific Instrument Society 76 (March 2003), 16-19. [The castle is in present-day Poland. The instruments in this collection have vanished in or after World War II].


DELFT, Dirk van, 'De Blauwe Jongens: de opleiding tot instrumentmaker in het Natuurkundig Laboratorium van Heike Kamerlingh Onnes', Gewina 25 (2002), 137-153.[Discusses the school for instrument makers in Leiden University Physics Laboratory, established in 1901].


DYOS, Chris E., 'Wimshurst Machines', Bulletin of the Scientific Instrument Society 75 (2002), 32-33. ['Hands-on' approach, on reconstructing and using these generators]


EVANS, Rand E., 'Morse's Register and the American Method', Rittenhouse 56 (202), 65-83 [Concerns determination of terrestrial longitude]

FRAITURE, Eddy, Uurwerkmakers en uurwerknijverheid in Vlaanderen (Leuven: Uitgeverij Peeters, 2002), 296 pages. ISBN 90-429-1204-9. [On the horological industry in Flandres from the late Middle Ages to c. 1850. Includes a chapter on scientific instruments (Louvain and Antwerp schools) and appendix with biographical data on over2100 clock-makers. My spokesman notes that the biographical info on instrument makers is disappointing, the author appears not to have used the relevant works by Zinner, Rasquin and Meskens.]


Doctrine of the Sphere: A Forgotten Chapter in the History of Globes' (25-44); KROGT, Peter van der, 'Globe Production in the Low Countries and Its Impact in Europe, 1525-1650' (45-60); DEKKER, Elly, 'Innovations in the Making of Celestial Globes' (61-79); HOFMANN, Catherine, 'The Globe as Symbol in Emblem Books in the West, Sixteenth and Seventeenth Centuries' (81-120); LIPPINCOTT, Kristen, 'Power and Politics: The Use of the Globe in Renaissance Portraiture' (121-138); MOKRE, Jan, 'More than Just Spheres: A Curator's Vision for a New Globe Museum in Vienna' (139-148). [For abstracts visit http://www.coronelli.org]


HOSKIN, Michael, 'Herschel's 40ft Reflector: Funding and Functions', Journal for the History of Astronomy 34 (February 2003), 1-32. [A new look at the famous telescope, built in the later 1780s at Slough, near Windsor].

HUGHES, J.T., 'Henry Power (1626-1668) of New Hall, Elland, and experiments on barometric pressure', Transactions of the Halifax Antiquarian Society nr 10 (2002), 14-26 [Amateur construction of barometers for the purpose of experiments].

IANNIELLO, Maria Grazia (with contributions by Luca Carbonari, Daniele Rebuzzi and Silvia Trapanese), La storia dell'Istituto di Fisica della Sapienza attraverso le sue collezioni di strumenti. Catalogo ragionato del museo di fisica di Roma (Roma 2002).242 pages. [This fully illustrated volume retraces the history of the Physics Institute of the University of Rome and is the catalogue of its very rich scientific instrument collection. In the museum of physics there are many important 19th-century apparatus as well as the instruments used by Enrico Fermi and his collaborators].

KENN, Maurice J., 'John Harrison's Unusual and Unique Magnetic Compass', *British Sundial Society Bulletin* 14, ii (June 2002), 81-82 [Author owns a compass, with needle pointing South, made and signed by Harrison in 1718. Signature and dial have been authenticated by Harrison-expert Andrew King].


MARTíNEZ, José M. Vaquero, 'Dos aparatos del antiguo gabineto de física del seminario de San Atón de Badajoz (España)', *LULL Revista de la Sociedad Española de las Ciencias y las Técnicas*, Vol. 24, N.50, 2001, pp. 473-482


NANKIVELL, G.R., 'The Cooke Photovisual Objective and the 22.9 cm Refractor at the Carter Observatory, New Zealand', *Journal of the Antique Telescope Society* 24 (2002), 4-8 [see also Orchiston's paper]


POIRIER, Jean-Paul, and TURNER, Anthony, *Antoine d'Abbadie (Académie des Sciences; Mémoire de la Science 2)* (Paris, 2002). 127 pages, illustrated. [Explorer of Africa and astronomer influenced the scientific world of 19th-century France. In his neo-gothic château, he created an observatory in which all the instruments were decimally divided, as described in the chapter by Anthony TURNER,'Antoine d'Abbadie et son observatoire décimal à Hendaye'].


No ISBN. [Describes and illustrates the most important instruments (19th and early 20th century) preserved in three schools in Bergamo]


SANCHEZ, José Ramón Bertomeu, and BELMAR, Antonio García, eds., *Abriendo las Cajas Negras* (Opening the black boxes). *Colección de instrumentos científicos de la Universitat de Valéncia* (València: Universitat de València, Fundació General de la Universitat de València, 2002). 461 pages. ISBN 84-370-5488-5 [Published to accompany an exhibition of the scientific heritage of Valencia University, held Nov 2002-Jan 2003. With over thirty articles on the history of the Valencia collections, the history of instruments, the precision industry, scientific education, etc. All articles written by non-Spanish authors are also published in their original languages (English and French) in an appendix. A very important and beautifully illustrated work].

SCHILLINGER, Klaus, *Rechengeräte aus der Sammlung des Mathematisch-Physikalischen Salons. Bestandkatalog* (Dresden: Staatliche Kunstsammlungen, Mathematisch-Physikalischer Salon, 1999). 124 pages. ISBN 3-932264-15-0. [Descriptive catalogue of calculating devices in the collection of this Dresden museum, which includes an original Pascaline. Analog calculators, such as sectors and slide rules, are also included].


STAFFORD, Barbara Maria, and TERPAK, Frances, with an object list by Isotta POGGI, *Devices of Wonder. From the World in a Box to Images on a Screen* (Los Angeles: Getty Research Institute, 2002). 406 pages. ISBN 0-89236-590-0. [Exhibition catalogue includes many optical instruments and devices].


Dresden, on the German virtuoso, concentrating on his experiments with burning mirrors. The introductory chapters include one on burning mirrors in Baroque art and iconography.


TURNER, A.J., 'The Observatory and the Quadrant in the Eighteenth Century', Journal for the History of Astronomy 33 (2002), 373-85. [Includes a table of 67 known portable quadrants -- date, maker, characteristics, location --, 19 of which survive].


WALTERS, Alice, 'Importing Science in the Early Republic: Union College's "First Purchase" of Instruments and Books', Rittenhouse 56 (2002), 85-107 [Union College is in Schenectady, NY. Includes large number of instruments imported from the London firm W&S Jones, 1796 and 1797]


WARNER, Deborah, SHERMAN, Roger and HENTSCHEL, Klaus, 'The Several Faces of Earth Induction', Bulletin of the Scientific Instrument Society 76 (2003), 30-34 [On various designs of magnetometers].


WRIGHT, M.T., 'A Planetarium Display for the Antikythera Mechanism', Horological Journal Vol. 144, nr 5 (May 2002), 169-174. [The world's oldest geared mechanism, found in May 1902
off the Greek island of Antikythera, is in the National Museum, Athens. The author argues that Derek de Solla Price's interpretation is unsatisfactory, and shows that a new reconstruction, with epicyclic gearing for the planets, may fit the evidence.

WRIGHT, M.T., 'Epicyclic Gearing and the Antikythera Mechanism. Part I', _Antiquarian Horology_ 27, nr. 3 (March 2003), 270-279.


ZOLLER, Paul, 'On Double Windmills', _Bulletin of the Scientific Instrument Society_ 76 (March 2003), 21-23 [Devices to demonstrate air resistance in physics experiments]

ZUIDERVAART, Huib J., 'Het kistje van Bourjé (1826), succesvol getuigenis van een liefhebber die professional werd', _Gewina_ 25 (2002), 154-9.[Discusses a case with brass gauges to verify metric volume measures in the Museum Boerhaave in Leiden, designed by J.P. Bourjé].