

Appendix: Student Research Conducted on the Whipple Museum's Collections since 1995

1995

'Nineteenth-century wave motion machines', MPhil essay (Wh.2007; Wh.3747; Wh.4517; Wh.4558).

1996

'How late is late medieval? Some preliminary notes on an armillary sphere in the Whipple collection', MPhil essay (Wh.0336).

'Educating the astronomer: the use and collection of gothic teaching instruments', MPhil dissertation (Wh.0336).

1997

'Making waves: a history of the wave machine', MPhil essay (Wh.2007; Wh.3747; Wh.4517).

'Representing Euclid in the eighteenth century', MPhil essay (Wh.0368).

'Circles of heaven: an unusual silver celestial planisphere in the Whipple Museum', Pt II dissertation (Wh.1762).

1998

'The 19th-century papier-mâché models of human and comparative anatomy by Louis Thomas Jérôme Auzoux', MPhil essay (various Auzoux models in the Whipple collection).

'Mathematical models and the visual expression of theory', MPhil essay (various mathematical models in the Whipple collection).

'Aspects of a Korean astronomical screen of the mid-eighteenth century from the Royal Palace of the Yi Dynasty (Choson Kingdom, 1392 to 1910)', Pt II dissertation (Wh.0935).

'Navicula de Venetiis: construction and characteristics', Pt II dissertation (Wh.0731; Wh.5902).

1999

'Geography as a game: the case of a puzzle globe', MPhil essay (Wh.4608).

'A study of a nineteenth century jigsaw globe from the Whipple collection', Pt II dissertation (Wh.4608).

2000

'The decline and fall of the astrolabe', MPhil essay (various astrolabes in the Whipple collection).

'On the use of the globe: the Earl of Castlemaine's English Globe and Restoration mathematics', MPhil essay (Wh.1466).

'The Victorian scientific instrument-maker's trade catalogue: marketing & patronage', MPhil essay (various trade and sales literature in the Whipple collection).

'A case study of two armillary spheres made by Richard Glynne, 1715 and 1725', MPhil essay (Wh.0784; Wh.0785).

'Representing time and motion: Sekiya, the Gilbreths, and chronophotographic art', MPhil essay (Wh.3461).

'The Duddell oscillograph: making waves visible', MPhil essay (Wh.4328; Wh.3331).

'An early Italian globe? A critical study of a terrestrial globe in the Whipple Museum', MPhil essay (Wh.0365).

'An eighteenth century Japanese celestial globe', MPhil essay (Wh.5617).

'Study of an astrological astrolabe in the Whipple collection', Pt II dissertation (Wh.4552).

'Bearing the heavens: astronomers, instruments, and the communication of astronomy in early-modern Europe', PhD thesis (Wh.0336)

2001

'Phrenology goes bust!: the material culture of a nineteenth century popular science', MPhil essay (Wh.2744; Wh.4618).

'Sounding the depths: trials and tribulations in the development of sounding machines', MPhil essay (Wh.2970).

2002

- 'A casket of useful knowledge: study of a case of geological specimens in the Whipple Museum', MPhil essay (Wh.3395).
- 'Thoughts relating to a study of the British Drug Houses' capillator (1924)', MPhil essay (Wh.5244).
- 'The many "odd things which a microscopist delights to own": aspects of nineteenth-century popular microscopy', MPhil essay (Wh.1844).
- 'Some preliminary notes on a manuscript in the Whipple collection', MPhil essay (Wh.5358).
- 'Writing the history of astronomy: Flamsteed and Sherburne', Pt II dissertation (E268).

2003

- 'Reforming mathematics: late nineteenth century mathematical models', MPhil dissertation (various mathematical models in the Whipple collection).
- 'Nineteenth century vacuum techniques and applications', MSc dissertation (various air pumps in the Whipple collection).
- 'Embodying the abstract: mathematical models in Cambridge', MPhil essay (various mathematical models in the Whipple collection).
- 'The mind of the frontispiece: myth, meaning and motivation in Sherburne's *Manilius*', Pt II dissertation (E268).
- 'Sherburne's library and its relation to his history of astronomers', Pt II dissertation (E268).
- 'A study of the Lusuerg instruments in the Whipple Museum', Pt II dissertation (Wh.0323; Wh.0865; Wh.1609; Wh.1612).

2004

- 'Using globes and celestial planispheres in Restoration England', PhD thesis (Wh.1466; Wh.1762).
- 'The social life of observatories and their scientific instruments from the late seventeenth to the early nineteenth centuries', MA dissertation (various astronomical instruments in the Whipple collection).
- '"Every Boy & Girl a Scientist": instruments and the domestication of scientific instruments in interwar Britain', MPhil essay (Wh.4565).

'Instrument-making families', Pt II dissertation (various instruments in the Whipple collection).

'Why make fakes?', Pt II dissertation (Wh.0226; Wh.0306; Wh.0365; Wh.0563; Wh.1148; Wh.1149; Wh.1639).

'Instruments in context: telling the time in England, 1350–1500', PhD thesis (Wh.0731; Wh.1264; Wh.5902).

2005

'Shagreen, science and status: a study of the materials used to make early telescopes', Pt II dissertation (Wh.2662; Wh.0251).

2006

'Papier-mâché flowers, fruits and seeds: the botanical models of Louis Thomas Jérôme Auzoux', MPhil essay (various botanical models by Auzoux in the Whipple collection).

'Cultures of science, magic and masculinity in twentieth-century toy chemistry sets', MPhil essay (various chemistry sets in the Whipple collection).

'The use of instruments in propagating Newtonianism: the Musser Copernican Planetarium', MPhil essay (Wh.5812).

'Are orreries "Newtonian"? A consideration of the material, textual and pictorial evidence', Pt II dissertation (Wh.1275).

'Touching numbers: the pocket electronic calculator in advertising', MPhil essay (Francis Hookham Collection of Hand Held Electronic Calculators).

2007

'The images that accompany *The Sphere of Marcus Manilius* by Edward Sherburne', Pt II dissertation (E268).

'Mathematics in motion: understanding Olivier's movable hyperbolic paraboloid model', MPhil essay (Wh.5795).

2008

'Mogg's Celestial Sphere (1812): a catalogue of conversation', MPhil essay (Wh.5620).

'Remodeling the electrocardiograph at the Cambridge Scientific Instrument Company', MPhil essay (various ECG machines and

related ephemera by the Cambridge Scientific Instrument Company).

'Practical mathematics in one foot: the story of a slide rule from the 18th century', MPhil essay (Wh.1451).

'Finding out about an X-ray crystallography camera', MPhil essay (Wh.3469).

'Models of the eye in the Whipple Museum', Pt II dissertation (Wh.2037; Wh.5825; Wh.6068; Wh.6194; Wh.6202).

'An exploration of a seventeenth-century terrestrial globe held in the Whipple Museum collection', Pt II dissertation (Wh.2691).

2009

'Teacher, toy or calculator? Reflections of mathematics, education and society in a 20th-century American object', MPhil essay (Wh.5821).

'Botany of the air: experiments, airships and agriculture in 1930', MPhil essay (Wh.5826).

'Materializing Edinburgh in Egypt: the five inch Great Pyramid standard of Charles Piazzi Smyth', MPhil essay (Wh.1155).

'Materials for a history of science in Cambridge: meanings of collections and the 1944 scientific instrument exhibition at the University of Cambridge', MPhil dissertation (history of the Whipple Museum and its collection).

'Long in the tooth: a study of a papier-mache set of horses' teeth', MPhil essay (Wh.6135).

'The Edinburgh Stereoscopic Atlas of Anatomy (1905–6): anatomical representation between two and three dimensions', MPhil essay (Wh.6247).

'Designer nature: the papier-mâché botanical teaching models of Dr. Auzoux in nineteenth-century France, Great Britain, and America', PhD thesis (various botanical models by Auzoux in the Whipple collection).

2010

'Telescopic tracings: astronomy, art, and the Varley family', MPhil essay (Wh.0069).

'Cube roots: A. H. Frost's model of a magic cube in the Whipple Museum', MPhil essay (Wh.1251).

'Robin Hill's cloud camera: an analysis of the development of the fisheye lens at Cambridge University', MPhil essay (Wh.1635; Wh.2170; Wh.4416; Wh.5732).

'Modelling nature: the case of the Whipple Museum's pomological models', MPhil essay (Wh.6267).

2011

"The art in science and the science in art": glass models of flowers and fungi', MPhil essay (Wh.5826).

2012

'Something in the world: looking into a Spanish globe', MPhil essay (Wh.5892).

'Negretti & Zambra's scientific instruments: a new dimension to the Victorian culture of travel', Pt III essay (various instruments and sales literature by Negretti & Zambra in the Whipple collection).

'Bumps across borders: towards a transnational historiography of phrenology c. 1838', MPhil essay (various objects and ephemera relating to phrenology in the Whipple collection).

'Astrolabes in context: a reappraisal of medieval astronomical instruments', MPhil dissertation (Wh.1264).

'Sounding in silence: the mechanics of discipline in the early nineteenth-century Royal Navy', MPhil essay (Wh.2970).

'Philips' Popular Manikin: the culture of flap anatomies around 1900', MPhil essay (Wh.5852).

2013

'Playing with the eyes: a comparative history of two rare stereoscopic instruments', MPhil essay (Wh.2902; Wh.2117).

'Alexander Crum Brown's knitted mathematical models', MPhil essay (Wh.4469; Wh.4470).

'Models as mathematics: intellectual functions of physical models in nineteenth-century mathematical practice', MPhil essay (Wh.5175).

'The Edinburgh stereoscopic atlas of anatomy and anatomy teaching in medical schools, c. 1905–1930', MPhil essay (Wh.6247).

'Discipline and pedagogy: molecular model kits and the doing of synthetic organic chemistry', MPhil essay (Wh.5815).

'Kurt Ziesing's "Tectonic Globe of the Earth": a case of tectonics without plates', MPhil essay (Wh.6383).

'An early nineteenth-century "museum microscope" and cultures of collecting', Pt III dissertation (Wh.0200).

'News from Mars: transatlantic mass media and the practice of new astronomy', PhD thesis (Wh.1264; Wh.6067; Wh.6211; Wh.6238; Wh.6604; Wh.6605).

2014

'Stacks, pacs, and system hacks: handheld calculators as an alternative history of personal computing', MPhil essay (Francis Hookham Collection of Hand Held Electronic Calculators).

'Robert S. Whipple, as collector, donor and historian (1871–1953)', Pt III dissertation (history of the Whipple Museum and its collection).

'Models of authority: the place of geological models in the visual language of geology', Pt III dissertation (Wh.1581; Wh.6529).

'"Educated at the shrine of nature": Eliza Brightwen's Bible Album and the study of natural theology', Pt III essay (Wh.6517).

'Men, mines, and machines: Robert Were Fox, the dip circle and the Cornish system', Pt III dissertation (Wh.6538).

2015

'The teaching diagrams of John Stevens Henslow: botany in 19th-century Cambridge', MPhil essay (sixty-six botanical teaching diagrams by Henslow in the Whipple collection).

'Logic, labour, and organisation: establishing EDSAC in Cambridge', MPhil essay (Wh.5901).

'Colour values: Joseph Lovibond's Tintometer and the scientific meanings of vision', MPhil essay (Wh.4521; T338).

'The harmonograph and its locations in late Victorian Britain: public display and laboratory settings', Pt III essay (Wh.2033; Wh.6243).

2016

'Cantabrigian collaborative commercialisation: collaborations between Cambridge University scientists and scientific instrument manufacturers, *circa* 1890–1960', MPhil dissertation (various scientific instruments in the Whipple collection).

'Hill's cloud camera in the Whipple Museum: meteorological communication, cloud classification', MPhil essay (Wh.1635; Wh.2170; Wh.4416; Wh.5732).

'The philosophical foundation of Maxwell's induction model', MPhil essay (Wh.2455).

- 'Using historical microscopes to understand microscopic anatomical observations by Marcello Malpighi and Nehemiah Grew', MPhil essay (Wh.0211).
- 'The Morden, Berry and Lea terrestrial globe (c. 1683)', MPhil essay (Wh.2691).
- "'The whole matter of interference microscopes is ... becoming rather complex": Sir Andrew Huxley and the design and dissemination of his custom interference microscope', MPhil essay (E519; Wh.6574).
- 'Signpost to a forgotten science: Stokes's Capital Mnemonical Globe (1870s)', MPhil essay (Wh.6600).
- 'Charles Elcock and the Postal Microscopical Society: a nineteenth-century scientific community', MPhil essay (Wh.6601).
- 'Things of science: science kits and educating young scientists 1940–1980', Pt II dissertation (Wh.6615).

2017

- 'Unpacking boxes in British maritime history (18th–19th century)', MPhil essay (various instrument boxes and packing crates in the Whipple collection).
- 'A Korean astronomical screen at the Whipple Museum: parsing a composite cosmography', MPhil dissertation (Wh.0935).
- 'False measures: seventeenth-century English gauging instruments', MPhil essay (Wh.6239).
- 'The moonshot Briton and the media: Francis Bacon's hydrogen–oxygen fuel cell', MPhil essay (Wh.6081).

2018

- 'Wollaston hypsometers vs. mountain barometers in nineteenth-century surveying', MPhil essay (Wh.2883; Wh.2890).
- '(Un)folded proteins: Courtauld's chemical models, British industrial fibre development, and the search for the α -helix', MPhil essay (Wh.5815).
- 'Collecting habits and valuable antique scientific instruments: what can annotated sales catalogues tell us?', Pt III essay (history of the Whipple Museum and its collection).
- 'Characterising collections: on the preservation of old scientific apparatus at the Cavendish Laboratory and the Whipple Museum, Cambridge', Pt III dissertation (history of the Whipple Museum and its collection).

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- ‘Chicken heads & Punnett squares: Reginald Punnett and the role of visualization in early genetics research, Cambridge, 1900–1930’, MPhil essay (Wh.6547).
- ‘Classifying a calculator of cranial categorisation: investigating knowledge claims embedded in Professor Arthur Thomson’s trigonometer’, MPhil essay (Wh.6638).

