Research and Creative Achievement

Cluster areas:
Cluster areas reflect strategic, long-term project areas, each with multiple outcomes. The cluster areas are coordinated and complementary in nature. Each involves a synergy between traditional print publication and the digital humanities. Each expresses a facet of my general professional interests and dovetails with my curatorial goals.

1. History of science and theology
2. Science Education, Education, and the History of science
3. History of geology
4. History of science and visual representation
5. Exhibitions and the History of science

Projects in progress:

- Editor, Edition Open Sources (EOS). EOS is a peer-reviewed, scholarly publishing series in both digital and physical formats. Digital-format publications in EOS are free and immediately accessible to the public worldwide under a creative commons license. Development of the platform is conducted by the Max Planck Institute for the History of Science in Berlin (MPI). The project now continues as a collaborative venture between MPI and the OU Department of the History of Science and the OU History of Science Collections.

- “Early Geology and Contingent Order: The Significance of T. F. Torrance for the History of Science.” Torrance was one of the most important English-language theologians of the 20th century. He was also a noted philosopher of science (e.g., a friend and literary executor of Michael Polanyi) and made important contributions to intellectual history. In this paper, I assess the significance of Torrance’s work for the history of geology as part of a larger project to assess his significance for the history of science and theology more widely considered.

- Kerry Magruder, Brent Purkaple, Gary Deddo, eds., T. F. Torrance Bibliography Project (The T. F. Torrance Theological Fellowship, 2017 and ongoing); tftorrance.org

- Kerry Magruder and Brent Purkaple, eds., “The Sky Tonight: Cultural Archaeology and Geography of the Stars” (skytonight.org; forthcoming 2018). The ancients believed that, when they gazed into the heavens, they were peering through many layers of swiftly turning spheres. In the same way, today we gaze at the night sky filtered through many layers of cultural heritage and representation. The stars have a living history which shapes how we experience the sky tonight. A cultural archaeology of the night sky seeks to unearth how the interpretation of any constellation has changed over time. It is inseparable from a cultural geography of the night sky that seeks to trace how the interpretation of a star pattern has varied around the world. This digital humanities project
will illustrate the cultural archaeology and geography of the stars and its significance for modern appreciation of the night sky (more).

• Kerry Magruder and Brent Purkaple, eds., “Lynx Open Ed” project (lynx-open-ed.org, 2015-ongoing). This digital humanities project focuses on the creation and distribution of exhibit-related Open Educational Resources based on scholarship in the history of science and collaborative engagement with educators.

• “Galileo’s World Reprise Exhibit.” Collaborators: Brent Purkaple, James Burnes, and David Davis. Now that the Galileo’s World exhibit year is over, the 350 original rare books on display at the different locations have been returned to the University’s special collections. A reprise of Galileo’s World remains available in Bizzell Memorial Library. It features a new gallery, The Sky at Night (reprise), designed for a general audience, which includes books on display last year at 3 different locations. It also features a new Rotating Gallery, designed to sample selections from the galleries originally hosted at other locations. This rotating display will change regularly over the course of the next several years.

General Interests

As Curator of the History of Science Collections, my work focuses on expanding the holdings of rare materials to build on current strengths and to address emerging areas of research interest; on curating participatory exhibitions to engage the OU community and beyond and to increase the visibility of the history of science program; on facilitating digital initiatives of the Collections including the special collections digital library and Edition Open Sources (EOS); and on supporting exhibit-related educational outreach via the activities of the OU Academy of the Lynx.

The educational arm of the OU Academy of the Lynx is Lynx Open Ed. We seek to collaborate with educators in exhibit-based learning by creating, field-testing and sharing Open Educational Resources (OER’s). We invite researchers, graduate students, and others to join us as a participating educator, museum worker, amateur astronomer, student, scholar, sponsor or docent. Currently we are developing OER’s related to the Galileo’s World exhibition (2015-2018).

My research and creative activities outside of my curatorial responsibilities engage three aspects of early modern history of science: Theories of the Earth, science and religion, and visual representation. Each of these aspects of early modern science is interpreted from a perspective informed by the cultural history of the book so that, for example, I investigate Theories of the Earth as a contested print tradition.

Theories of the Earth constituted a tradition of print publications addressing the nature and history of the Earth which thrived during the 17th and 18th centuries. Theories of the Earth reveal the varied contexts in which diverse historical sensibilities emerged regarding the Earth and cosmos - developments which have been referred to as the so-called “temporalization of the great chain of being,” or the transition “from natural history to the history of nature.” Publications in this multi-disciplinary tradition often proved controversial, in large part because an investigation of some aspect of the Earth from one scholarly perspective would quickly be countered by an alternative view representing a different disciplinary context, geographical region, or natural philosophical tradition. For this reason, Theories of the Earth offer historians an attractive opportunity to better understand the emergence of the historical sciences in relation to how disciplinary boundaries changed in the early modern period and how the modern scientific disciplines emerged in the 18th and 19th centuries.

Other interests include the history of science in science education, the history of natural theology, and implementation of digital academic workflows on Mac and iOS.

Education

2003 MLIS., School of Library and Information Science, University of Oklahoma

2000 Ph.D., History of Science, University of Oklahoma.

1985 M.A., Science Education, Truman State University
1983 B.A., Biology, Truman State University

Academic Positions, Teaching

Curator, History of Science Collections, University of Oklahoma Libraries, January 2009-present
The John H. and Drusa B. Cable Chair, Fall 2011 - present
Associate Professor of Bibliography, University of Oklahoma Libraries, Summer 2010 - present
Assistant Professor of Bibliography, University of Oklahoma Libraries, Fall 2004 - Summer 2010
Librarian, History of Science Collections, University of Oklahoma Libraries, 2004-2008
Acting Librarian, History of Science Collections, University of Oklahoma Libraries, 2000-2003

History of Science Department, University of Oklahoma, 2000-present (Assistant Professor of the History of Science, 2000-2009; Associate Professor of the History of Science, 2010-present)
  • HSCI 3013, History of Science to Newton (online): Fall 04, Spr 05, Fall 05-08, Spr 2014.
  • HSCI 5990, History of Science graduate seminar (team-taught), ongoing basis.
  • HSCI 5970: Research, Criticism and Analysis (historiographical seminar), Fall 2001.
  • HSCI 3023: History of Science since the age of Newton, Summer 1998.
  • HSCI 5550/6970: directed readings (history of geology, history of the book, history of science and science education), supervised internships, ongoing basis.

Assistant Professor of Natural Sciences, Oklahoma Baptist University, 1994–1998.
  • History of Science: 312, to Newton; and 313, after Newton.
  • Natural Science (interdisciplinary, laboratory-based, historically-organized science courses for junior-level liberal arts students): US 311 (physical sciences); US 312 (life sciences); GNSC 320 Earth sciences; and Topics in Astronomy Education.
  • OBU Science Education program, Director. Advising, supervising student teachers, teaching ED 398 Secondary Science Teaching Methods.
  • OBU Planetarium, Director. Responsibilities included integrating planetarium shows across the liberal arts curriculum, supervising 10-12 student workers, maintenance and technical operation, program production, show presentations, and teaching GNSC 250 Planetarium Operations.

Professional Presentations

“iPads in the Classroom: Using iBooks Author to create interactive, multimedia semester projects,” presentation with Hunter Heyck, OU Teaching Scholars Initiative, 10/19/2012.
“Global Visions: Depictions of Spaceship Earth before Apollo,” invited colloquium presentation, Departments of Meteorology and Earth Sciences, Texas Tech University, Lubbock, TX, April 27, 2012.
• Galileo Commemoration of the University of Arkansas, Fort Smith, 1/21/2010.
• Okie-Tex national star party, sponsored by the Oklahoma City Astronomy Club, held near Black Mesa, Kenton, OK, 9/18/2009.
• International Year of Astronomy lecture series sponsored by the Homer L. Dodge Department of Physics and Astronomy, held at Sam Noble Oklahoma Museum of Natural History, 1/21/2009.
• NASA Research Center, Langley, VA, 7/8/2008
• Virginia Air & Space Center, Hampton, VA, 7/8/2008
• Michigan State University, invited colloquium sponsored by the Physics-Astronomy Department and the Lyman Briggs School of Science, 4/12/07.
• New Mexico State University, Physics Department colloquium, February 24th, 2006.
• Online version received Star Award of the Griffith Observatory (one of the oldest and largest US planetariums) in 2005 (Collections online exhibits were discontinued Fall 2010).
• Truman State University, Physics Department colloquium, April 1, 2005.
• Florida State University, Physics Department colloquium, October 23, 2003.

“Copernicus and his Revolutions: A Guided Tour”
• Galileo Commemoration of the University of Arkansas, Fort Smith, 1/21/2010.
• Okie-Tex national star party, sponsored by the Oklahoma City Astronomy Club, held near Black Mesa, Kenton, OK, 9/17/2009.
• Florida State University, invited colloquium sponsored by the Physics Department, 1/24/08.
• Michigan State University, invited colloquium sponsored by the Physics-Astronomy Department and the Lyman Briggs School of Science, 4/11/07.
• University of Oklahoma, Physics-Astronomy Department colloquium, 2/9/06.

“The Shape of the Earth”
• Southern Nazarene University, Bethany, OK, invited public evening lecture, 4/28/08.


“Kenneth L. Taylor: A Student Tribute,” 5/5/2006, one of four invited presentations at a public Symposium held in the University of Oklahoma Memorial Union sponsored by the History and History of Science Departments to honor retiring faculty David Levy and Kenneth L. Taylor by recognizing the impact of their scholarship upon their respective fields.


“The Sphaera of Gabriele Beati and Jesuit Cosmology after Galileo,” invited banquet address for the annual conference of the Midwest Junto for the History of Science, held at Truman State University, Kirkville, Missouri, April 2 2005.


NOVA, “Galileo’s Battle for the Heavens,” aired on PBS October 2002. I provided the producers with images from books seen in this film. The first-listed institutional credit is to the History of Science Collections, University of Oklahoma Libraries, and the first-listed individual consultant credit is to myself.


“Reassessing a Contested Textual Tradition: Jacques Roger and the Historiography of Theories of the Earth,” OU History of Science Department colloquium, spring 2002.


“The Prometheus Project of the OU History of Science Collections,” Workshop for Digitization in the History of Science, The Dibner Institute and MIT, March 2002.


“Journey to the Center of the Earth (from Kircher to Verne),” Linda Hall Library, Kansas City, Missouri, January 8, 1998.

“History of Science and the Planetarian,” Southwest Association of Planetariums (SWAP) conference, Austin, TX, in 1994.

**Publications — Public writing**

Kerry V. Magruder and Brent Purkaple, *Galileo’s World Exhibit Guide*, published by the University of Oklahoma Libraries, August 2015, 2016, and 2017. This Exhibit Guide is the most complete source of content for the *Galileo’s World* exhibition, designed for educators, group leaders, classes, and individual study beyond the first walk-through. This Exhibit Guide interlinks all 20 galleries from 7 different locations of the *Galileo’s World* exhibition, covering about 350 rare books. About 1,000 pages. Available free on the iBook Store (Mac and iOS platforms only) and online at lynx-open-ed.org/glance. See also the Learning Leaflets and other exhibit-related open educational resources (OER’s) at lynx-open-ed.org.


Exhibit booklet: *Darwin@the Library*, published by the University of Oklahoma Libraries, June 2011 (enhanced iBook format, download at the iBookstore for Mac and iOS platforms).

“This is NOT a Medieval Woodcut!,” http://kvmagruder.net/flatEarth/index.html.


“The Lynx,” newsletter of the University of Oklahoma Academy of the Lynx, a support organization for the History of Science Collections.
— No. 1, October, 2002.


**Publications — Specialist literature**


**Exhibitions, History of Science Collections**

October 24, 2017

printed volume published by Charles Darwin displayed along with Museum artifacts and specimens.

2012 Exhibit booklet: The Living Library, the University of Oklahoma Libraries, published on ouhos.org on August 19, 2012. http://ouhos.org/2012/08/19/ipad-exhibit-guide/ The content of this non-refereed exhibit guide is the result of a research project of equivalent effort as a published article. In addition, in its technical dimension, using the interactive iBooks Author format for deployment on iPads is also a work of innovative creative achievement.

8/2015-2016: Kerry V. Magruder, Exhibit Curator. “Galileo’s World: Bringing Worlds Together.” A joint exhibition of 350 rare books and other objects in 21 galleries in 7 locations celebrating the 125th anniversary of the University of Oklahoma. Galleries include the following in Bizzell Memorial Library (co-curators listed where appropriate): Music of the Spheres; Galileo, Engineer; Galileo and China; The Controversy over the Comets; The New Physics; The Galileo Affair. At the Sam Noble Museum of Natural History (co-curated by Tom Luczycki, Katrina Menard and James Burnes): Galileo, Natural History and the Americas; and Galileo and Microscopy. At the National Weather Center: Copernicus and Meteorology; Galileo and Kepler; Galileo and Experiment; Space Science after Galileo. At the Fred Jones Jr. Museum of Art (co-curated by Francesca Giani and Mark White): Galileo and the Telescope; The Moon and the Telescope; The Sky at Night. At the Athletic Department, Headington Hall: Galileo and Sports. At the Health Sciences Campus, Bird Library: Galileo and Anatomy; Galileo and Health Care. At the OU-Tulsa Campus, Schusterman Library: The Scientific Revolution. Additional partners in the Galileo’s World exhibition include the Museo Galileo in Florence (instrument replicas and animated tutorial videos), as well as the OU College of Engineering (“Tower of Pisa” replica), the OU College of Fine Arts (production of Monteverdi’s Orfeo), and other academic programs. See galileo.ou.edu and the Exhibit Guide, Learning Leaflets and other exhibit-related open educational resources at oulynx.org.

Displays, History of Science Collections

“Galileo and the Academy of the Lynx,” Fall 2002
“Meteorology: A Meeting Place of Many Disciplines,” Spring 2004
“Questioning the Stony Ichthyolites: An Exhibit for the 2004 Joint Conference of the American Society of Ichthyologists and Herpetologists,” Summer 2004
“Recent Acquisitions of the History of Science Collections,” Fall 2004
“Insect Portraits,” Summer 2005
“Copernicus and his Revolutions: In honor of Owen Gingerich,” September 2006
Prepared exhibits for football home game days, Fall semesters of 2006 and 2008
“By the Hand of...; manuscripts in the History of Science Collections,” Summer
“Skeletons, Monsters, Witches and More: A Halloween Exhibit,” October
“Thanksgiving Dinner with all the fixin’s,” November
“Winter Holidays!” December
“Women’s Contributions to the Scientific Enterprise,” with Marilyn Ogilvie, Spring 2007
Consultant for Huntington Library exhibition “Beautiful Science: Ideas that Changed the World”; onsite visit (6/11/08-6/13/08); with regular correspondence up through attendance at opening ceremony and banquet (10/31/08).

“The Many Faces of the Moon,” Fall 2009, for IYA 09.
Jens Rud Nielsen and the 20th Century Revolution in Physics: A Tribute to the OU Physics/Astronomy Centennial,” with JoAnn Palmeri, Fall 2010; numerous posts at ouhos.org.

“Technology and the Early Printed Book,” with JoAnn Palmeri, Spring 2011; a tribute to the centennial of the OU College of Engineering; brochure at ouhos.org.


Member, Graduate Student Committees

Evan Rich, PhD, Astronomy, pending
Renae Wall, PhD, Astronomy, pending
Domonique Poncelet, MA, Education, pending
Younes Mahdavi, PhD History of Science, pending
Tiffany Neill, PhD Science Education, pending
Jonathan Annis, PhD Fine Arts, pending
Carolyn Scearce, PhD History of Science, pending
James Burnes, PhD History of Science, pending
Quentin Biddy, PhD Science Education, pending
Brent Purkaple, PhD History of Science, pending
Kirsti Gaither, PhD History of Science, pending
Margaret Gaida, PhD History of Science, May 2017
Harold Kihega, PhD Science Education, 2016
Carrie Miller-Deboer, PhD Science Education, Spring 2015 (co-chair 2011)
Brent Purkaple, MA History of Science, May 2015
Quentin Biddy, MA Science Education, Fall 2014
James Burnes, MA History of Science, Summer 2014
Harold Kihega, MA Science Education, 2013
Jeffrey Crawford, PhD Physics, 2013
John Stewart, PhD History of Science, 2013
Henry Zepeda, PhD History of Science, 2013
Julie Grissom, PhD History of Science, 2013
Walid Shihabi, PhD Science Education, 2012
Matt Stock, PhD Fine Arts, 2012
Kirsti Gaither, MA History of Science, 2012
Tony Yates, PhD Science Education, Fall 2011
Leslie John Flanagan, PhD Fine Arts, Spring 2011
Geary Crofford, PhD Science Education, Spring 2011
Melissa Rickman, PhD History of Science, Spring 2011 (co-chair)
Tom Hoyt, MA History of Science, 2011
Jason Brogden, MA History of Science, Spring 2010 (chair)
Jason Oakes, PhD Philosophy, Fall 2009
Russell Hunter, MA History of Science, Summer 2009
J Harvey, MA History of Science, Summer 2009
John Stewart, MA History of Science, Spring 2008
Julia Daine, MA Museum Studies, Spring 2008 (chair)
Rick Tison, PhD History of Science, Spring 2008
Dan Vincent, PhD Science Education, Spring 2006
Ryan Powell, MA History of Science, Fall 2004
Melissa Rickman, MA History of Science, Fall 2003
Kelly Lankford, PhD History, 2003
Darcy LeFevre, MA History of Science, 2002
Kathleen Tierney, MA History of Science, 2001

Honors, Grants, Awards

• Co-PI with Stephen Weldon (12/2013); requested $351,844 from the Alfred P. Sloan Foundation for “Isis Development Platform.” 2014: Funded.
• The John H. and Drusa B. Cable Chair of the History of Science Collections, 9/26/2011.
• Election to membership in INHIGEO, the International Commission for the History of the Geosciences, Fall 2004 (one of 11 American members at time of election).
• Received $3000 in Fall 2004 from the College of Arts and Sciences for a Proposal for Development of an Online Course (HSCI 3013).
• Received $18,300 in Summer 2006 as Co-Principal Investigator, with Stephen Weldon, of a College of Arts and Sciences IT grant to digitize images useful for teaching. The budget funded a Graduate Assistant in the History of Science Collections (2006-07) under my supervision.

Service

University of Oklahoma Libraries

• 2004-present: Facilitate the research of over 40 residential scholars who hold research privileges in the History of Science Collections, and assist non-residential visiting scholars (including 5-10 Mellon Travel Fellows per year).
• 2004-present: Facilitate the History of Science Collections’ hosting of production of the History of Science Society’s annual Isis Critical Bibliography under the direction of Ass’t Prof. Stephen Weldon and three graduate assistants.
• Coordinate and supervise (with Stephen Weldon) the academic aspects of the Edition Open Sources platform, including the EOS post-doctoral fellow.
• 2013-2014: Member, Bizzell Library Master Planning Committee
• Member, OU Libraries search committees, 2013-2014: Chelsea Julian; David Davis; Sean Richards; Tara Carlisle; Melissa Rickman.
• 2011-2012: Member, Dean of OU Libraries search committee
• 2011-2012: Chair, Western History Collections Librarian search committee
• Provide several dozen presentations per year to classes in the History of Science Collections and to off-campus classes and adult groups. Examples:
  • “Treasures of the History of Science Collections,” invited banquet speaker for the Friends of the Library, University of Science & Arts of Oklahoma in Chickasha, May 9, 2006;
  • “The Star of Bethlehem and the History of Science,” Genesis Class, Westminster Presbyterian Church, Oklahoma City (presented on three different occasions in 2009-2012).
• “Treasures of the Bizzell Bible Collection,” invited banquet speaker for the Love County OU Alumni Club, Marietta, OK, April 19, 2012.

• Provide an average of several tours per week of the History of Science Collections to campus guests.

• Faculty sponsor, Sooner Mac User Group, 2005-2007.

University of Oklahoma

• 2005-2006: Voting member, History of Science Department faculty search committee; Jamil Ragep, chair.

• 2006-2007: Voting member, History of Science Department faculty search committee; Steven J. Livesey, chair. Filled three faculty positions for the History of Science Department.

• Spring 2006: Member, Graduate College Dissertation Awards Committee to select the outstanding humanities doctoral dissertation of 2005; chaired by Diana Beal.

• Spring and Summer 2006: Member, Renaissance Project planning committee for the 2006-2007 “Science, Technology and Ethics” campus-wide emphasis, chaired by Robert Con Davis-Undiano.

• 2007-2008: Darwin 2009 Project planning committee; organizing member and co-chair.

• 2007-2011: Chair, Organizational Support Committee, History of Science Department.

• 2008-2009: Member, Committee A, History of Science Department.

• Spring 2008: Member, Graduate College Dissertation Awards Committee to select the outstanding humanities doctoral dissertation of 2007; chaired by Janis Paul.

• 2010-2011: Voting member, Faculty Search Committee for Astronomy (position filled)

• 2011-2012: Voting member, Faculty Search Committee for Astronomy (position filled)

• 2012: Committee A member, History of Science Department

• 2013-2015: Committee A member, History of Science Department

Professional

• 2007-present: International Commission for History of the Geosciences (INHIGEO, 1 of 11 elected members from USA at time of election; the 11-member limit was removed in 2011).

• 2011-2015: Advisory Board member, Green Scholars Initiative.

• 2011-2012: E-Publications Officer, History of the Earth Sciences Society (HESS).

• 2008-2009: Secretary, History of the Earth Sciences Society (HESS).


Organized and moderated a session on “Government and the Earth Sciences” at the HSS annual convention in Washington, D.C., November 1-4, 2007. The session was sponsored by HESS. Acceptance of sessions was competitive; the session was approved by HSS in May 2007.

• 10/14/2014 and 10/13/2015: Women in Science K12 conference, Mabee Center, Tulsa, OK (10/14), invited; prepared & distributed materials.

• 2011-2015: Member, Advisory Board, World History of Science Online (WHSO).

• 2014-2015: Member, Editorial board, Edition Open Sources (University of Oklahoma and Max Planck Institute for the History of Science).