Ethan Finley Baxter

Professor
Department of Earth & Environmental Sciences

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Professional Preparation

Yale University - Geology & Geophysics	B.S. 1995
University of California, Berkeley - Geology	Ph.D. 2000
California Institute of Technology - Prize Postdoctoral Fellow in Geochemistry	Sept 2000-Oct 2002

Appointments

Professor of Earth & Environmental Sciences, Boston College	July 2017 - present
Chair, Dept. of Earth & Environmental Sciences, Boston College	July 2016 - present
Associate Professor of Earth & Environmental Sciences, Boston College	July 2015 – June 2017
Associate Professor of Earth & Environment, Boston University	July 2012 - June 2015
Guest Professor, ETH Zurich, Switzerland	Jan 2011- Aug 2011
Associate Professor of Earth Sciences, Boston University	Sept 2008 - July 2012
Assistant Professor of Earth Sciences, Boston University	Nov 2002 - Aug 2008

Research Interests

- **Isotope Geochemistry & Geochronology:** development of innovative methods to measure geologic rates and timescales at the highest levels of precision and accuracy. Measurement and modeling of isotope ratios as a tracer of dynamic geologic processes ranging from the mantle, to the crust, to the Earth's surface.

- **Kinetics of Tectonometamorphic Processes:** measurement and model applications of the rates, timescales and mechanisms of solid earth processes including reaction, deformation, mass transport, metamorphism & tectonics. Integrated field-based, experimental, modeling, thermodynamic, and isotope geochemical approaches.

- **Earth History:** evolution and origin of platetectonics and long term global geochemical cycles. Interplay of the Earth's solid interior with the hydrosphere, atmosphere, and climate. Development of the geological archive of diverse Earth processes and events.

Grant History *(all dollar amounts shown are funds coming to Ethan Baxter at his home institution)*

- **NSF Grant** BCS-1916824 "Collaborative Research: An Isotopic Approach to the Spatial Analysis of State Agropastoral Economies in Bronze and Iron Age Central Anatolia", start date July 1, 2019; PI: Marston; Co-PI: Meiggs; Senior Personnel: Baxter; **$48,604** (BC portion)

- **NSF Grant** PIRE-1545903 "ExTerra Field Institute and Research Endeavor (E-FIRE)", start date June 1, 2016; PI: Kohn; Co-PIs: Penniston-Dorland, Feineman; Senior Personnel: Barnes, Baxter, Bebout, Caddick, Hacker, Klein, Marschall, Smye; **$356,688** (BC portion)

- **NSF Grant** EAR-1250497/1561882 “Collaborative Research: Field-Based Quantification of Dehydration Flux from Subducting Lithologies, Syros and Sifnos, Greece”, start date January 1, 2013; PI Baxter; Co-PI Caddick; **$296,571** (BU/BC portion; includes $30,000 supplement March 2016)

- **NSF Grant** EAR-1049350 “Detrital Garnet Sm/Nd Geochronology: A New Window into Earth's Tectonic Past”, start date: September 1, 2010; PI Baxter; **$123,977**

- **NSF Grant** EAR-1019845 “Collaborative Research: Geochronology of Carbonate Mineralization in the Lithosphere”, start date: September 1, 2010; PI: Baxter; Co-PI: Maher; **$177,057** (BU portion)

- **NSF Grant** EAR-0948308 “Collaborative Research: Testing for Rapid Pulses of Crustal-scale Heat and Mass Transfer by Fluids in Metamorphic "Hot Spots", New Hampshire, USA”, start date: August 1, 2010; PI: Ague; Co-PIs: Baxter, Chamberlain; **$178,839** (BU portion)

- **NSF Grant** EAR-0949390 “Facility Support: Phase Two of a NSF/Boston University partnership ensuring long-term technician support for the BU TIMS Facility”, start date: May 15, 2010; PI: Baxter; Co-PIs: Jackson, Kurtz, Murray; **$140,000**

- **NSF Grant** EAR-0911582 “Collaborative Research: Developing a Practical and Quantitative Method for Measurement of Metamorphic Porphyroblast Crystallization Kinetics and Strain Rate”, start date: July 1, 2009; PI: Hirsch; Co-PIs: Stowell, Baxter; **$104,952** (BU portion)

- **NSF Grant** EAR-0549641 “Technical Support: Laser Ablation and Inductively Coupled Plasma Laboratories - Renewal”, start date: Sept. 15, 2006; PI: Plank; Co-PIs: Kurtz, Murray, Baxter; **$160,000**

- **NSF Grant** EAR-0547999 “CAREER: Rates and Timescales of Metamorphic Reactions at Convergent Plate Boundaries”, start date: January 1, 2006; PI: Baxter; **$522,996**

- **NSF Grant** EAR-0521266 “Acquisition and Development of a Thermal Ionization Mass Spectrometer Facility at Boston University”, start date: September 15, 2005; PI: Baxter; Co-PIs: Kurtz, Plank, Murray; **$683,770**

- **NSF Grant** OPP-0441104 "SGER: Sr, Nd Isotopic Investigation of the Source and Age of Antarctic Surface Salts", start date: July 1, 2004; PI: Baxter; **$26,504**

- **NSF Grant** EAR-0337527 “Partitioning of Noble Gases Between Crustal Minerals: Implications for Geochronology", start date: March 1, 2004; PI: Baxter; **$155,102**

Awards & Honors

- **Mineralogical Society of America, Fellow**, 2017. Members who have contributed significantly to the advancement of mineralogy, crystallography, geochemistry, petrology, or allied sciences and whose scientific contribution utilized mineralogical studies or data, may be designated as Fellows upon proper accreditation by the Committee on Nomination for Fellows and election by the Council

- **Mineralogical Society of America Distinguished Lecturer**, 2011-2012. Two or three lecturers are nominated by the Society each year. With the support of MSA, Lecturers travel to approximately nine host institutions in North America and Europe to present one, two, or three research seminars.

- **F.W. Clarke Medal**, 2007. Awarded annually by the Geochemical Society to one early-career scientist for a single outstanding contribution to geochemistry or cosmochemistry. Awarded at the 2007 Goldschmidt Conference, Cologne Germany (*citation: DePaolo, D.J., 2008. GCA, v. 72, p. S6*)

- **2nd Annual Boston University Faculty Awards Recognition Luncheon**, May 2007. Invited and recognized by the University Provost for awards in research and/or teaching during 2006-2007.

- **Boston University Undergraduate Research Opportunities Program (UROP) Mentor of the Year, Nominee**, 2006-2007.

- **1st Annual Boston University Faculty Awards Recognition Luncheon**, May 2006. Invited and recognized by the University Provost for awards in research and/or teaching during 2005-2006.

- **Journal of the Geological Society; Young Author Award, 2002** for "Prograde temperature-time evolution in the Barrovian type locality constrained by precise Sm/Nd garnet ages from Glen Clova, Scotland" co-authored by Profs. J.J. Ague and D.J. DePaolo.

- **California Institute of Technology, Geochemistry Option Postdoctoral Fellowship**, 2000-2001. Awarded on a competitive basis for departmental research salary and support

- **Berkeley Geochronology Center Scholarship**, 1998-99 and 1999-2000: awarded on a competitive basis to support research involving geochronology

- **AGU Outstanding Student Paper Award**. Tectonics Section, 1999 Fall Meeting

- **George D. Lauderback Award**, UC Berkeley, 1999: to recognize a graduate student distinguished in general scholarship of the earth sciences and whose studies involve significant field work

- **Belknap Prize**, Yale University, 1995: outstanding graduating senior in geology

- **Hammer Prize**, Yale University, 1995: for excellence in the Senior Thesis Oral Presentation

- **Penfield Prize**, Yale University, 1994: for excellence in mineralogy

Invited Departmental Lectures *(* indicates MSA Distinguished Lecture Tour)*

2017	Boston College, Dept. of Chemistry	Reconstructing Geochemical Reactions
	Los Alamos National Lab, Chemistry Div.	Innovations in Sm-Nd Chronology with TIMS
	Harvard University	The Chronology of Dehydration
2015	Univ. of British Columbia, Canada	The Chronology of Dehydration
	Woods Hole Oceanographic Inst.	The Chronology of Dehydration
2014	Univ. of Rochester	The Chronology of Dehydration
	Univ. of Massachusetts, Amherst	The Chronology of Dehydration
	Boston College	A Long Story Short: Metamorphic Pulses
	Boston College	The Mineralogy of Climate Change
2013	Univ. of Science & Technology, Hefei, China	The Chronology of Dehydration
	Univ. of Science & Technology, Hefei, China	Untold Story of Noble Gas Geochronology
	Univ. of Science & Technology, Hefei, China	A Long Story Short: Metamorphic Pulses
	Chinese Acad. Geological Sci., Beijing, China	A Long Story Short: Metamorphic Pulses
	Tongji University, Shanghai, China	A Long Story Short: Metamorphic Pulses
	Virginia Tech	A Long Story Short: Metamorphic Pulses
	University of New Hampshire	The Chronology of Dehydration
2012	Yale University	A Long Story Short: Metamorphic Pulses
	Macquarie University, Australia	A Long Story Short: Metamorphic Pulses
	Sydney University, Australia	A Long Story Short: Metamorphic Pulses
	Australian National University, Australia	A Long Story Short: Metamorphic Pulses
	University of Kentucky	*A Long Story Short: Metamorphic Pulses
	University of Kentucky	*Untold Story of Noble Gas Geochronology
	Colorado College	*A Long Story Short: Metamorphic Pulses
	Colorado College	*Garnet: “Tree Rings” of the Crust
	University of Iowa	*A Long Story Short: Metamorphic Pulses
	University of Lausanne, Switzerland	*A Long Story Short: Metamorphic Pulses
	University of Lausanne, Switzerland	*Untold Story of Noble Gas Geochronology

	University of Lausanne, Switzerland	*Garnet: "Tree Rings" of the Crust
	Charles University, Prague, Czech Rep.	*A Long Story Short: Metamorphic Pulses
	Charles University, Prague, Czech Rep.	*Untold Story of Noble Gas Geochronology
	University of St. Andrews, Scotland	*A Long Story Short: Metamorphic Pulses
	University of St. Andrews, Scotland	*Garnet: "Tree Rings" of the Crust
	University of Calgary, Canada	*A Long Story Short: Metamorphic Pulses
	University of Calgary, Canada	*Garnet: "Tree Rings" of the Crust
	Montana State University	*A Long Story Short: Metamorphic Pulses
	Montana State University	*Garnet: "Tree Rings" of the Crust
	University of Minnesota	*A Long Story Short: Metamorphic Pulses
	University of Minnesota	*Garnet: "Tree Rings" of the Crust
2011	University of Houston	A Long Story Short: Metamorphic Pulses
	Ecole Normale Supérieure de Lyon, France	A Long Story Short: Metamorphic Pulses
	University of Bochum, Germany	A Long Story Short: Metamorphic Pulses
	University of Dublin, Ireland	A Long Story Short: Metamorphic Pulses
	ETH Zurich, Switzerland	A Long Story Short: Metamorphic Pulses
	ETH Zurich, Switzerland	Untold Story of Noble Gas Geochronology
	ETH Zurich, Switzerland	10ppm on 4ng of Nd: Analytical methods
2010	University of Maryland	Pulses of Mineral Growth
	University of Texas at Austin	Pulses of Mineral Growth
	Pennsylvania State University	Pulses of Mineral Growth
2009	Dartmouth College	Pulses of Mineral Growth
	University of Colorado	Pulses of Mineral Growth
	University of Florida	Pulses of Mineral Growth
	University of Florida	Untold Story of Noble Gas Geochronology
2008	University of Oslo, Norway	Teasing Time Out of Earth's Evolving Crust
	Geoforschungszentrum, Potsdam, Germany	Teasing Time Out of Earth's Evolving Crust
	Boston College	Teasing Time Out of Earth's Evolving Crust
	Woods Hole Oceanographic Institute	Teasing Time Out of Earth's Evolving Crust
2007	Boston University – Chemistry	Reconstructing Very Slow Reaction Rates
	Boston University – Earth Sciences	Teasing Time Out of Earth's Evolving Crust
	Massachusetts Institute of Technology	Teasing Time Out of Earth's Evolving Crust
	Stanford University	Teasing Time Out of Earth's Evolving Crust
	Syracuse University	Teasing Time Out of Earth's Evolving Crust
	Syracuse University	Untold Story of Noble Gas Geochronology
	University of Chicago	Teasing Time Out of Earth's Evolving Crust
	University of California, Berkeley	Teasing Time Out of Earth's Evolving Crust
	Yale University	Teasing Time Out of Earth's Evolving Crust
2005	Boston College	Natural rates of metamorphic reactions
	Miami University (Ohio)	Noble Gas Partitioning and Transport
	Rutgers University	Noble Gas Partitioning and Transport
	University of Arizona	Noble Gas Partitioning and Transport
	University of Massachusetts	Natural rates of metamorphic reactions
	University of New Hampshire	Natural rates of metamorphic reactions
2004	Colgate University	Natural rates of metamorphic reactions
	Hamilton College	Natural rates of metamorphic reactions
	Oregon State University	Excess Argon In Geochronology
	Rensselaer Polytechnic Institute	Excess Argon In Geochronology
	University of Oregon	Natural rates of metamorphic reactions
	University of Vermont	Natural rates of metamorphic reactions
	Yale University	Noble Gas Partitioning and Transport
2003	Woods Hole Oceanographic Institute	Excess Argon In Geochronology
2002	Boston University	Excess Argon In Geochronology
	California Institute of Technology	Excess Argon In Geochronology

	University of California - Los Angeles	Excess Argon In Geochronology
	University of Chicago	Excess Argon In Geochronology
	University of Toronto	Excess Argon In Geochronology
2001	Brown University	Natural rates of metamorphic reactions
	Massachusetts Institute of Technology	Natural rates of metamorphic reactions
	University of California – Berkeley	Natural rates of metamorphic reactions
	University of Chicago	Natural rates of metamorphic reactions

Synergistic Professional Activities

- AGU Heads and Chairs of Earth and Space Science Departments Workshop. December 8th, 2019, San Francisco, CA.
- 2018 Goldschmidt Conference (Boston, MA) Local Organizing Committee, Member, (2016-2018)
- 2018 Post-Goldschmidt Weekend Workshop for EFIRE Participants, hosted at Boston College. About 30 attendees from the United States and Europe.
- Keynote speaker at "Petrochronology Workshop", a pre-GSA workshop related to publication of a new RiMG book with the same title, October 2017.
- National Science Foundation "EarthScope Awards for Geochronology Student Research (AGeS) Program" Review panel member, Spring 2015, 2016, 2017, 2018, 2019
- Keynote speaker at NSF-sponsored "Earthscope Institute: Geochronology and the Earth Sciences", GSA pre-conference workshop, October 2014.
- Co-convener (with several others) of 2014 Goldschmidt Session "Putting the Little 't' in P-T-H2O-t: novel integrations of geochronology and thermodynamics", Sacramento, California
- Lead guest editor (co-guest editors Mark Caddick and Jay Ague) of Elements Magazine issue on "Garnet: common mineral, uncommonly useful", December 2013 publication date
- Co-convener (with Mark Caddick and Jay Ague) of 2013 AGU Session "Garnet: common mineral, uncommonly useful)
- Presented an invited keynote lecture at 2013 Goldschmidt pre-conference workshop "ExTerra 2013: Understanding subduction through the study of exhumed terranes", Florence, Italy
- Co-convener (with Randy Parrish, Blair Schoene, and Laura Webb) of 2013 Goldschmidt Session "Innovations in Geochronology: Present Developments and a Vision for 2020", Florence, Italy
- Co-convener (with Geoff Fraser and Suzanne Baldwin) of 2012 International Geological Congress Session "Rates of metamorphic processes", Brisbane, Australia
- Attended GeoPRISMS "Exterra" Workshop, at AGU Conference, December 2011
- Co-convener (with Becky Flowers, Stacia Gordon, Greg Dumond) of 2011 Goldschmidt Session "Calibrating the thermomechanical evolution of the continental crust", Prague, Czech Republic
- Presented invited hour long lecture at MSA/GS Short Course on Diffusion in Napa, CA, Dec. 11-12 2010. 102 attendees.
- Co-convener (with Mark Caddick & Jay Ague) of 2010 GSA Session "Garnet and its use in unraveling metamorphic and tectonic processes".

- Co-convener (with Stacia Gordon, Eric Goergen, Holger Stunitz, Donna Whitney, Mark Jessel, & Mike Williams) of 2010 GSA Session "Coupling of deformation and chemical processes in Earth".

- National Science Foundation - "Committee of Visitors" panel member, for NSF EAR Instrumentation and Facilities Program 2010.

- DIFKINTRA Workshop, Physics of Geological Processes, Univ. of Oslo, Norway, March 5-7, 2008. Invited to run a full afternoon workshop on kinetics and diffusion.

- Co-convener (with David Shuster) of 2008 Goldschmidt Session "Physics and Chemistry of Thermochronology", Melbourne, Australia

- Co-convener (with Daniela Rubatto & Kurt Stuewe) of 2007 Goldschmidt Session "High-grade Metamorphism: Duration and Rates", Cologne, Germany

- National Science Foundation – Geochemistry & Petrology Panel 2006 (one-time appointment)

- Co-convener (with Jay Ague & Greg Hirth) of 2004 AGU Session "Quantitative Constraints on the Rates of Reaction, Deformation and Mass Transfer"

- Associate Editor for American Journal of Science - since January 2003

- Attended NSF-sponsored "Early Career Faculty Workshop" - June 2003

- Membership in: Geological Society of America, American Geophysical Union, Mineralogical Society of America, The Geochemical Society

- Reviewer of manuscripts for: American Journal of Science, American Mineralogist, Chemical Geology, Contributions to Mineralogy and Petrology, Earth and Planetary Science Letters, Elements, Geology, Geochimica et Cosmochmica Acta, Geological Society of America Bulletin, Journal of Metamorphic Geology, Journal of the Geological Society of London, International Journal of Mass Spectrometry, Nature Geoscience, Norwegian Journal of Geology, Quaternary Geology, Reviews in Mineralogy & Geochemistry

- Reviewer of proposals for: DOE Basic Energy Science, Netherlands Organization for Scientific Research , NSF-EAR Tectonics, NSF-EAR Petrology & Geochemistry, NSF-EAR Education and Human Resources, NSF-EAR Instrumentation and Facilities, NSF-Office of Polar Programs, NSF-MRI Major Research Instrumentation, Swiss National Science Foundation

Advisors

- Graduate advisor: Donald DePaolo

- Postdoctoral Advisors: Paul Asimow, Kenneth Farley

Student Research Advised

Postdoctoral Scholars

- **Stephanie Walker** – BC postdoc July 2017 -

- **Paul Starr** – BC postdoc January 2017 -

- **Katie Maneiro (**neé **Eccles) –** BC postdoc September 2016 – August 2017

Ph.D

- **Katie Maneiro (**neé **Eccles) –** BU Ph.D. degree awarded Sept 2016 (*postdoc at BC; now professor at Wheaton College, IL*)

- **Nora Dragovic (**neé **Sullivan)** – BU Ph.D. degree awarded Jan 2015 (*postdoc at MIT; now Director of Students - Science and Math, Univ. of South Carolina*)

- **Besim Dragovic** – BU Ph.D. degree awarded 2013 (*postdoc at Virginia Tech; now professor at Univ. of South Carolina*)

Masters.

- **Alex Leich** – BC M.S. candidate 2018-

- **Thomas Farrell** – BC M.S. degree awarded August 2019 (*now in PhD program at Boise State*)

- **Anna Gerrits** – BC M.S. degree awarded December 2018 (*now working at renewable energy company, Galehead Development)*

- **Jamie Kendall** – BC M.S. degree awarded December 2016 (*now teaching at Parker School, Ayer MA*)

- **Emily Stewart** – BU M.A. degree awarded August 2015 (*now Ph.D. candidate at Yale University*)

- **Anthony Pollington** - BU M.A. degree awarded Dec. 2008 (*Ph.D. Univ. Wisconsin*; *now Research Scientist at Los Alamos Natl. Lab*)

- **Leah Samanta (Mehl)** - BU M.A. degree awarded Dec. 2007 (*now working in environmental consulting, Haley Aldrich*)

- **Patricia Clay** - BU M.A. degree awarded Sept. 2006 (*Ph.D. Open University*; *now Research Associate at Manchester University, UK)*

Undergraduate

- **Claire Hines** 2022 – BC Undergraduate research 2019-present

- **Alexander Ronan** 2021 – BC Undergraduate research 2018-present

- **Annie Haws** 2019 – BC Undergraduate research 2016-2018; Senior Thesis 2018-2019 (*now Ph.D. candidate at Yale*)

- **Sarah Marvin** 2019 – BC Undergraduate Senior Research 2018

- **Justin Mistikawy** 2017 – BC Undergraduate Senior Thesis, 2016-2017 (*now M.S. candidate at UMass Amherst*)

- **Margaret Cahill 2016** – BC Undergraduate Senior Thesis, 2015-2016

- **Evan Ramos 2015** – BU Undergraduate Directed Study, 2014; UROP Summer 2014; Senior Thesis 2014 (*now Ph.D. candidate at University of Texas, Austin*)

- **Darwin Janes 2015** – BU Undergraduate Directed Study, 2013; Senior Thesis 2014 (*now Masters candidate at Lehigh University*)

- **Claire Ostwald 2013 –** BU Undergraduate Directed Study, 2011-2012; Senior Thesis 2012-2013 (*now Ph.D. candidate at Boise State*)

- **Greg Wissink 2011** – BU Undergraduate Directed Study 2009-2010 (*now Ph.D. candidate at Syracuse*)

- **Grace Andrews 2010** – BU Undergraduate Directed Study 2007-2008; Senior Thesis 2009-2010 (*Ph.D. Northwestern Univ; postdoc Univ of Southampton UK*)
- **Michelle Jordan 2009** – BU Undergraduate Senior Thesis 2008-2009 (*now Ph.D. candidate at UCLA*)
- **Raul Brens 2008** – BU Undergraduate Directed Study 2008 (*M.A. Florida International; now Ph.D. candidate at Macquarie University, Australia*)
- **Eileen Koury 2008** – BU Undergraduate Directed Study 2007
- **Julie Barkman 2007 -** UROP Summer 2006; BU Undergraduate Senior Thesis 2006-2007 (*M.A. UNH; NSF Graduate Fellowship Awardee)*
- **Caitlin Masaric-Johnson 2006** – BU Undergraduate Directed Study 2005-2006
- **Rachel Potter 2006** – BU Undergraduate Senior Thesis 2005-2006 (*M.A. Univ. of Maryland*)
- **Aaron Mayville 2005 -** BU Undergraduate Directed Study 2004
- **Jennifer Levine 2005** – UROP Summer 2004; BU Undergraduate Directed Study 2004-2005 (*Ph.D. LDEO Columbia University; now post-doc at WHOI*)
- **Penny Lancaster 2004 -** BU Undergraduate Senior Thesis 2003-2004 (*M.A. U. Wisconsin; Ph.D. Bristol, UK; post-doc Univ. of Dublin, Ireland; now post-doc at Univ. of Portsmouth, UK*)

Teaching

Boston College

- **Igneous, Metamorphic, & Ore Petrology** (EESC 3378); 8-9 students, Fall 2017, Fall 2019
- **CORE Renewal: Building Habitable Planet – Origins and Evolutions of the Earth** (EESC1701); 18 students, Spring 2017, 2019 ("Enduring Questions" class in parallel with Prof. Natana Delong-Bas, Theology)
- **Isotope Geochemistry & Geochronology** (EESC5591); 11-12 students, Fall 2016, 2018
- **Earth Materials** (EESC2200); 20-26 students; Spring 2016, 2018, 2020
- **Earth Systems Seminar** (EESC699201); 8 students; Fall 2015

Boston University

- **Mineralogy** (ES222); 4-17 students; Fall 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014
- **History of the Earth** (ES302); 15-50 students; Spring 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2013, 2015
- **Geochemical Modeling** (ES571 – new course); 4-12 students; Fall 2003, Spring 2006, Spring 2012
- **Isotope Earth Science** (ES771 – new course); 2-13 students; Fall 2004, Spring 2007, Fall 2008, Fall 2010, Spring 2014
- **Dynamic Earth** (ES101); Summer 2010, Summer 2013
- **Seminar in Earth Science** (ES587,588); 1-3 students; Fall 2004, Spring 2005

Boston College & Departmental Service

- Chair, Department of Earth & Environmental Sciences – July 2016 to present
- Director of Boston College TIMS Facility – July 2015 to present
- Boston College Energy and Environmental Alumni Network, Executive Committee – February 2018 to present
- Schiller Director Search Committee – 2019
- Integrated Sciences Program Development Committee, 2019
- Panelist, BC Management Development Program – 2018, 2019
- Boston College Management Development Program – September 2017 to May 2018
- Boston College Global Engagement Committee – September 2017 to 2018
- University Engineering Envisioning Workshop – October 30th, 2017
- University Institute for Integrated Science and Society Implementation Group – 2016-2017
- BC in Ireland Science Committee – 2016
- Advancing Research and Scholarship Day Planning Subcommittee - 2016
- Invited Speaker, Parents Weekend MCAS Open House, September 30, 2016
- McCarthy Prize Judging Committee, May 2016
- University Research and Science Strategic Planning Subcommittee, April 2016
- Graduate Committee, Department of Earth & Environmental Sciences – Sept 2015 to July 2016

Boston University & Departmental Service

- Director of BU TIMS Facility – Sept 2005 to June 2015
- Charles River Campus Laboratory Safety Committee - Sept 2005 to June 2015
- Academic Advisor (~50 undeclared students per year) – Sept 2004 to June 2015
- Co-Chair University Academic Advising Network, Nov 2013 to June 2015
- Tectonics Faculty Search Committee Chair, 2013-2014
- Solid Earth Geophysics Faculty Search Committee Chair, 2012-2013
- ES-GE Merger Vision Committee, Spring 2012
- Search Committee for CAS Associate Dean of Student Academic Life, 2010
- Admission Interview Committee, Seven-Year BU Medical School Program, 2009,2010
- CAS Academic Advising Task Force, 2009-2010

- Associate Chairman, Earth Science 2008-2009, 2011-2012
- College of Arts & Sciences Academic Policy Committee – Fall 2006-2009
- Director of Graduate Admissions, Earth Sciences – Fall 2005 to Jan 2007; 2008-2009
- Geochemistry/Petrology Faculty Search Committee Chair – 2007-2008
- Earth Science Department Seminar Series Organizer – 2004-2005, 2005-2006
- Discussion Facilitator, "Responsible Conduct of Research" – Oct 2004
- Discussion Facilitator, CAS New Teaching Fellow Orientation – 2003, 2004
- Academic Orientation – Summer 2004, 2005, 2006
- CAS Spring Open House Program Class Visits – 2003, 2004, 2005, 2006
- Redesigned Earth Sciences Department Website – 2003
- New Graduate Student Breadth Evaluation Committee – 2003-2004, 2004-2005, 2005-2006

Community Outreach

- Public Presentation and Gallery Walk for Patrons at McMullen Museum, one hour
    - Nov 1 2019 – A Geological Journey Through the Landscape Art of William Trost Richards, adult audience of ~15
    - Nov 2 2019 – The Art and Science of the Earth: Every Rock Has a Story, children and parents audience of ~25
- Grades K, 4, 6 Presentations for Acton-Boxborough School system, including six different grade schools – May 29,31 and June 3,4,5 2019:
    - "*Every Rock Tells a Story*" – Grade K, fifteen classes, ~300 students
    - "*Water*" – Grade 4, seventeen classes, ~425 students
    - "*The Rocks and Minerals of Climate Change*" – Grade 6, eighteen classes, ~485 students
- Professional Development Seminar for Acton-Boxborough Regional School District 4th Grade Teachers "*Water Throughout the Earth System*" – September 2018
- Grades K, 6 Presentations for Acton-Boxborough School System, including six different grade schools – May 30, June 5,6 2018
    - "*Every Rock Tells a Story*" – Grade K, eleven classes, ~220 students
    - "*The Rocks and Minerals of Climate Change*" – Grade 6, eighteen classes, ~485 students
- Grades K, 6 Presentations for Acton-Boxborough School system, including five different grade schools – June 5,6 2017:
    - "*Every Rock Tells a Story*" – Grade K, seven classes, ~140 students
    - "*The Rocks and Minerals of Climate Change*" – Grade 6, nine classes, ~225 students

- Grades K, 4, 6 Presentations for Acton-Boxborough School system, including five different grade schools – May 25,26 2016:
    - "*Every Rock Tells a Story*" – Grade K, five classes, ~90 students
    - "*Why Do We Mine The Earth?*" – Grade 4, four classes, ~95 students
    - "*The Rocks and Minerals of Climate Change*" – Grade 6, ten classes, ~240 students
- Professional Development Seminar for Acton-Boxborough K-6 Teachers "*Earth's Early History – Geoscience Research and Education*" – April 2016
- Professional Development Seminar for Acton-Boxborough K-6 Teachers "*The Rocks and Minerals of Climate Change*" – October 2015
- Volunteer Classroom presentations for Acton-Boxborough community grades pre-K, K, 2nd – 2013, 2015
- Public lecture at Weston Observatory "*The Rocks and Minerals of Climate Change*" October 2015
- "RoBOT: Rocks Beneath Our Toes" High School Outreach Program – Fall 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2017 (five high school programs, >110 high school students, >90 undergraduates)
- Led 3-hour visit to BU TIMS Facility for Weston High School chemistry students, Spring 2015
- Led 2-hour visit to BU TIMS Facility for Concord-Carlisle High School earth science students, Spring 2010
- Led "GBEST" Greater Boston Earth Science Teachers on local field trip – Sept 2005
- Presented invited lecture for the Nashua (NH) Mineral Society – 2004
- Presented invited lecture for the North Shore (MA) Rock and Mineral Society – 2003
- Coordinated ES222 Mineralogy field trip and final class presentations with members of Nashua (NH) Mineral Society who attended – 2004, 2005
- ES222 Mineralogy Field Trip to Western Mass featured in *Worcester Telegram* & *Gazette* newspaper article – Oct 2003
- Live-to-tape interview about The Old Man On The Mountain for PBS's "Greater Boston" – aired May 2003

Peer-Reviewed Publications *(* Baxter advisee; †BC/BU TIMS Facility user & collaborator)*

Submitted, In Revision, or Invited for Submission (not including numerous others "in prep"):

- *†Dragovic, N.C., **Baxter, E.F.,** Mojzsis S.J., Cates, N.L., Koenig, A.E. (in revision) Neoarchean (2575 Ma) metamorphic garnets of the Nuvvuagittuq Supracrustal Belt (Québec, Canada) and the subtle effects of ancient inherited zircon inclusions on Sm-Nd ages. Re-submission planned for *Chemical Geology.*
- **Baxter, E.F**., Ague, J.J., *†Pollington, A.D., Caddick, M.J., *†Dragovic, B., *†Dragovic, N.C. (INVITED Review paper, in prep). Metamorphic Pulses. *Lithos*.

Published:

- †Sjöqvist, A.S.L., Zack, T., †Honn, D.K., **Baxter, E.F**., 2020. Modification of a rare-earth element deposit by low-temperature partial melting during metamorphic overprinting: Norra Kärr alkaline complex, southern Sweden. *Chemical Geology*, **545**, https://doi.org/10.1016/j.chemgeo.2020.119640

- *†Gerrits, A.R., Inglis, E., *†Starr, P.G., Dragovic, B., **Baxter, E.F**., Burton, K. (2019) Release of oxidizing fluids in subduction zones recorded by iron isotope zonation in garnet. *Nature Geoscience*. https://doi.org/10.1038/s41561-019-0471-y

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