CURRICULUM VITAE

Bradley B. Sageman
Department of Earth and Planetary Sciences
Northwestern University

RESEARCH INTERESTS

Stratigraphy – sequence stratigraphy, astrochronology, chemostratigraphy
Molluscan paleoecology
Sedimentary geochemistry/biogeochemistry
Paleoclimatology/paleoceanography
Energy, Sustainability, Decarbonization

EDUCATION

Ph.D. 1985-1991	Department of Geological Sciences, University of Colorado, Boulder, CO
	Dissertation: Stratigraphy, carbon geochemistry, and paleobiology of the Upper Cenomanian Hartland Shale Member, Greenhorn Formation, Western Interior, U.S., 572 p.
B.Sc. 1975 - 1979	Department of Biology Denison University, Granville, OH

PRE-DOCTORAL AWARDS, HONORS AND FELLOWSHIPS

1987-1988	Fulbright Scholarship, Institut für Geologie und Paläontologie, Universität Tübingen, Germany

POST-DOCTORAL AWARDS, HONORS AND FELLOWSHIPS

2019	Fulbright Scholarship, University of Birmingham, UK
2018	Outstanding Paper of the Year, *Journal of Sedimentary Research*
2016	Associated Student Government, Faculty Honor Roll
2006	Elected Fellow, Geological Society of America
2004	Hewlett Award for Curricular Development: *Incorporation of HyperInteractive Teaching Technology in Undergraduate Teaching*
2001	Outstanding Paper of the Year, *Journal of Sedimentary Research*
1997 -2000	DuPont Young Professor Award
1997	Associated Student Government, Faculty Honor Roll
1996	Associated Student Government, Faculty Honor Roll
1994	Hewlett Award for Curricular Development: EARTH 331

EMPLOYMENT

MSES Acad. Director (2019-) ISEN Co-Director (2013-) ISEN Associate Dir. (2010-13)	Trienen's Institute for Sustainability & Energy Northwestern University (formerly ISEN)
Department Chair (2005-18) Professor (2004-24) Associate Professor (1998-04) Assistant Professor (1992-98)	Department of Earth & Planetary Sciences Northwestern University Evanston, IL
Research Associate (1991-92)	Dept of Geosciences, Penn State University University Park, PA

FUNDING HISTORY

EA: Isotope Ratio Mass Spectrometer for the Northwestern University Stable Isotope Biogeochemistry Laboratory, **National Science Foundation,** CANCELLED**,** 3/25 – 2/26, $442,662 (Co-I's Osburn, Sageman, Hurtgen, Axford, Blair)

Enabling CO_2 Drawdown in the US Midwest through Enhanced Carbonate Mineral Weathering, U.S. **Department of Energy (DOE)** – selected for funding but CANCELLED?, 1/25 – 12/27, $5,141,608 (Co-I's Jacobson, Sageman, and Egerton-Warburton).

Experimental and Numerical Development of Protocols for Enhanced Rock Weathering: Verifying Carbon Capture Criteria and Biological Impacts, **Paula M. Trienen's Institute for Energy and Sustainability**, Northwestern University, 5/24 – 4/26; $410,908 (Co-I's, Jacobson, Sageman, Zerega, and Egerton-Warburton).

EA: Peripheral Replacements for the Northwestern University Stable Isotope Biogeochemistry Laboratory, EAR-2335204, **National Science Foundation,** 3/24 – 2/25, $240,528 (Co-I's Osburn, Sageman, Hurtgen, Axford, Blair).

Midwest Nuclear DAC Hub (MINDAC), DE-FE0032386 001, **U.S. Department of Energy (DOE),** *2/24 – 4/26,* $2,969,478 (Co-I's Dunn, Sargent, Farha, Sageman, Reguant, Su, Xie, Zhou, Urgun-Demirtas, Sloan, Ferdous).

Collaborative Research: Developing a new Lower Cretaceous time scale: Foundation for the next generation of paleoceanographic and biogeochemical studies, **National Science Foundation/NERC** EAR-1951835, 11/20 – 10/25 (2 NCE's awarded due to pandemic-related delays and other factors), $976,092 ($301,854 to Co-PI Sageman)**.**

The Nature of Things: Extending Cretaceous Paleoclimate Studies to the Southern Hemisphere Development of the first Australian Offshore-Onshore Correlation of Cenomanian-Turonian Strata, **Weinberg College of Arts and Science Innovation Grant** (W Award), 2019, $16,250.

Tectonic, paleoclimatic and paleoceanographic history of the Mentelle Basin and Naturaliste Plateau at southern high latitudes during the Cretaceous, International Ocean Drilling Program, Expedition 369; **National Science Foundation** OCE-1450528 to support PhD. student Matt Jones for post-cruise research, 2018-19, $25,261.

The Strontium Isotope Composition of Neoproterozoic Carbonates: Implications for the Carbon Cycle and the Evolution of the Biosphere, NASA Exobiology Program, **NASA Exobiology** 6104011600-60047836, M. Hurtgen, A. Jacobson, and B. Sageman, 2017-20, $491,234.

Monitoring the Rate and Extent of Ocean Acidification with Ca isotopes, **Institute for Sustainability and Energy at Northwestern (ISEN)**, seed funding to B. Sageman, A. Jacobson and M. Hurtgen, 2015-16, $11,584.

Collaborative Research: High-resolution Cretaceous terrestrial climate records of temperature, weathering and hydrologic response to hyperthermals in Songliao Basin, China, **National Science Foundation**, EAR1424474, 2014-2016, $317,000 ($51,000 to Co-PI Sageman)**.**

ELT Collaborative Research: Perturbation of the Marine Food Web and Extinction During the Oceanic Anoxic Event at the Cenomanian/Turonian Boundary; **National Science Foundation**, EAR1338316, 2013-2017, $1,000,000 ($114,000 to Co-PI Sageman)**.**

Development of a Campanian Cyclostratigraphic Framework, 2013 The Institut Francais du Petrole Named Grant, **AAPG Foundation** – student grant submitted by advisee Matt Jones, $2,500.

Cyclostratigraphic Analysis of Gulf Coast Campanian Strata, 2013 GCAGS Student Grant submitted by advisee Matt Jones, **Gulf Coast Association of Geologic Societies**, $2,000.

Cyclostratigraphic Analysis of the Eagleford Formation, 2013 Graduate Student Research Grant, submitted by advisee Matt Jones, **Geologic Society of America**, $1,794.

Building a Carbon Center at Northwestern, **ISEN** grant, Northwestern Univ., 9/13-6/14: $53,928

Understanding Controls on Natural Carbon Sequestration, **ISEN** grant, Northwestern Univ., 9/01/2011 – 8/31/2012, $51,000.

Drivers of Natural Carbon Sequestration, **ISEN** grant, Northwestern Univ., 9/1/12 – 8/31/13, $50,000.

Collaborative Research: Integrating Radioisotopic and Astronomical Time Scales for the Cretaceous, **National Science Foundation**, EAR0958905, 2010-14, $488,500 ($81,000 to Co-PI Sageman).

Upgrade Of Sedimentary Geology Preparation Lab And Marine Sedimentary Biogeochemistry Lab, **National Science Foundation**, EAR0930002, 2009-10, $81,450 to Co-PI's Sageman & Hurtgen.

Collaborative Research: Testing Hypotheses for the Laramide Orogeny, **National Science Foundation**, EAR 0810201, 2008-11, $410,692 ($48,226 to Co-PI Sageman).

Tracking atmospheric and vegetation change across Cenomanian-Turonian Oceanic Anoxic Event II, **National Science Foundation**, EAR0643290, 2006-09, $181,000 to P.I. Sageman (co-PI McElwain receives no direct funding support as a non-U.S. participant).

Linking marine & terrestrial records of the Cenomanian-Turonian Oceanic Anoxic Event to test the pCO2 drawdown hypothesis using fossil plant cuticle, **Geological Society of America**, Graduate Student Research Grant 2005, $2600 to Ph.D. advisee Rich Barclay.

Linking the marine & terrestrial records: Using fossil plant cuticle to test the pCO2 drawdown hypothesis for the marine Cenomanian-Turonian anoxic event (93 Ma), submitted to The **Evolving Earth Foundation**, Graduate Student Research Grant 2005, $3000 to Ph.D. advisee Rich Barclay.

Unlocking Earth's mysteries with 93 million year old fossil plants, **The Field Museum**, Research Grant 2005, $3000 to Ph.D. advisee Rich Barclay.

Linking the marine & terrestrial records of the Cenomanian-Turonian oceanic anoxic event to test the pCO2 drawdown hypothesis using fossil plant cuticle, **The Colorado Scientific Society**, Graduate Student Research Grant 2005, $1000 to Ph.D. advisee Rich Barclay.

Linking the marine & terrestrial records: Using fossil plant cuticle to test the pCO2 drawdown hypothesis for the marine Cenomanian-Turonian anoxic event (93 Ma), **The Western Interior Paleontological Society**, Research Grant 2005, $550 to Ph.D. advisee Rich Barclay.

The rise of Angiosperms and the role of CO2: A test of the CO2-decline hypothesis, **The Paleontological Society**, S.J. Gould Award 2005 - $500 to Ph.D. advisee Rich Barclay.

Support of cuticle database development project, 2005 subaward from Packard Award to Dr. Peter Wilf, **Penn State University**, $6750 to Ph.D. advisee Rich Barclay.

The Role of Mineral Surface Processes During Burial and Hydrocarbon Burial/Storage, submitted January 2005, **American Association of Petroleum Geologists** - Alexander and Geraldine Wanek Grant, $2000 for advisee Joniell Borges.

Re-examination of causal factors in the formation of Cretaceous source rock and chalk facies, Cretaceous Western Interior Seaway, January, 2005, **DOSECC**, $4500 for advisee Rob Locklair.

Origin and character of organic-carbon rich chalky facies (source rocks) of the Niobrara unconventional gas play, 2004-06; **Petroleum Research Fund**, $118,772 to PI-Sageman.

Latitude-dependent climatic responses to Milankovitch orbital forcing and its expression in Cretaceous rocks of the Northern Hemisphere. *REU Supplement 2003* - **National Science Foundation**; $2400 to PI Sageman for support of undergraduate Nancy Lin as laboratory assistant.

Linked geochemical - mineralogical analysis of Cretaceous gas shales in core, Wattenburg Field; submitted Feb. 1, 2003, **EnCana Oil and Gas Inc.**, $50,000 for PI Sageman.

Latitude-dependent climatic responses to Milankovitch orbital forcing and its expression in Cretaceous rocks of the Northern Hemisphere. **National Science Foundation**; 2000; $150,000 to PI-Sageman.

Origin, character, and stratigraphic hierarchy of organic carbon-rich siltstones in the Brushy Canyon Formation (Guadalupian): Proposal for geochemical assessment of source rocks within a sequence stratigraphic framework, 1997. **The Brushy Canyon Consortium** - (6 major oil companies); $100,000 to PI-Sageman.

Collaborative research: Organic carbon burial, anoxia, and ecological-evolutionary events in the appalachian basin during the Middle to Late Devonian (Eifelian-Famennian), 1997-00. **National Science Foundation**; $160,000 to PI Sageman (with co-PI's D. Hollander, T. Lyons, and C. Brett).

Origin, character, and stratigraphic hierarchy of source rocks in the Brushy Canyon Formation (Middle Permian, Guadalupian), Guadalupe Mountains, Texas: a pilot study. 1997 grant from **Mobil Oil Co.**; $26,000 to PI-Sageman.

High-resolution stratigraphic and sedimentologic of skeletal limestone deposits in the Greenhorn Cyclothem: Paleoenvironmental implications and application to sequence stratigraphic studies, EAR9419099*,* 1994. **American Chemical Society/Petroleum Research Fund**. $20,000 to PI-Sageman.

TEACHING AND ADVISING

Areas of teaching:

Introductory Physical Geology	(majors)
Stratigraphy and Sedimentology	(majors/grad students)
Field Methods in Stratigraphy	(majors/grad students)
Paleobiology/Evolutionary Theory	(non-majors; majors/grad students)
Sedimentary Geochemistry	(majors/grad students)
Energy, climate and sustainability	(majors and non-majors)
Science of Decarbonization	(non-majors; majors/grad students)

Courses taught:

EARTH 101 - *Geological Processes and Products*
EARTH 114 – *Evolution and the Scientific Method*
EARTH 201 – *Surface Processes (aka Earth Systems Revealed)*
EARTH 203 - *Historical Geology*
EARTH 330 - *Sedimentary Geology*
EARTH 331 - *Field Problems in Sedimentary Geology*
EARTH 340 – *Paleobiology*
EARTH 342/ISEN 410 – *Topics in Contemporary Energy & Climate Change*
SCS 391 - *Domination of the American Southwest*
EARTH 450 - *Advanced Topics in Sedimentary Geology:*
Carbon cycle and pCO_2 Reconstructions
Advanced Quantitative Stratigraphy
ISEN 130/230 - *Climate Change & Sustainability: Economic & Ethical Dimensions*
SCS 370 – *Environmental Field School*

Curriculum development:

2024-25 –**EARTH 344 - *The Scientific Foundations of Decarbonizatio*n**, new course with dept. colleague Prof. A. Jacobson; I have been developing the lectures over the past few months and the course is scheduled to run in the spring quarter of 2025.

2024 – I filled in for colleague Jacobson (who had research leave) to teach EARTH 201, the department's introductory physical geology course for majors.

2021 – I adapted EARTH 114 to an online format during the pandemic and taught it during winter quarter 2021.

2020 – I taught EARTH 201, a class I last taught in 2009, during Spring quarter 2020 because colleague A. Jacobson was on research leave. Due to the COVID-19 pandemic I had to adapt the course to an online format.

2018 – I revised EARTH 330 – *Sedimentary Geology* because I felt that students would benefit from increased feedback and some modest lab experience in preparation for the fall quarter follow-up course, EARTH 331. Past exam questions were converted to weekly homework assignments, significantly increasing the amount of grading effort required for the class.

2017 – I taught a new course, adopted from a faculty colleague who was on a one-year research leave. The class, EARTH 342/ISEN 410 – *Topics in Contemporary Energy & Climate Change,* is a 300/400-level version of material I present in ISEN 230, but my contribution to ISEN230 is typically only 4 lectures. As such, this class constituted a new preparation.

2017 – I initiated a revision of ISEN 230 this year, working to focus the course material on values and ethics related to climate change. This was the original intent of the class, and

although it was thought that inclusion of economic and philosophical dimensions in one class would be enriching, we have learned it is very difficult to adequately address both in a 10-week class. The new version of the class will run in Spring 2018.

2016 – As EARTH department chair, I initiated an effort to revise the EARTH undergraduate curriuclum, in part to perform a decadal update, but more importantly, to allow new faculty members to implement their own perspectives and have a role in shaping our curriculum. The new major requirements were approved by the WCAS Curricular Review Committee and went into effect in AY2018-19.

2011 – I revised ISEN 130 as part of ISEN curricular revision, changing to ISEN 230 and shifting emphasis to policy and ethics. New title - *Climate Change and Sustainability: Political, Economic and Ethical Dimensions*

2010 – I developed ISEN 130 - *Sustainability: Energy, Environment, and Ethics* with co-instructors Friesema and Sheldon in 2010.

2010 – I co-taught SCS-370 *Environmental Field School* with Yael Wolinsky; EARTH 105-online offered to high school students in AP science track during Fall quarter.

2009 – I initiated development of an online geoscience course for the Center for Talent Development (EARTH 105-online; *Climate Catastrophes in Earth History*); a former PhD advisee (A. Murphy) ultimately took over and taught the class.

2009 – I taught several lectures on *Charles Darwin and Evolutionary Theory* for the Alumnae of Northwestern continuing education program, Jan 6 – Mar 10, 2009.

2003 – I assumed responsibility for EARTH 201-*Surface Processes* and developed the course with a new textbook, new lab exercises, and new pedegogic approach. I also revised EARTH 114, using na ew textbook and new pedagogy.

1999 – I developed a new 100-level course for the SERTS program (Science and Engineering Research and Teaching Synthesis): GEOL 114 – *Uniformity, Catastrophe, and the Meaning of Evolution,* taught initially in F1999 and completely revised for F2003.

1998 – I collaborated with NU faculty (D. Schejbal, P. Freisema) to develop and teach an innovative new course linking the Environmental Science Program and University College: *Domination of the American Southwest*, which included a week-long field trip to the Glen Canyon National Recreation Area in southern Utah.

1997 – I was invited to participate in an IGERT grant to the National Science Foundation (Integrated Graduate Education and Research Training program) linking Departments of Environmental Engineering, Chemistry, and Geological Sciences.

1996 – I initiated a graduate level seminar series in sedimentary geology for the department.

1994 – I initiated GEOL 319 *Field Problems in Sedimentary Geology* (development of new course - supported by a Hewlett Award for curricular development).
- I initiated GEOL 317 *Paleobiology* (development of new course)
- I redesigned GEOL 313 *Sedimentary Geology* (change of existing course)

1993 – I redesigned GEOL 101 *Geological Processes and Products* (change of existing course)

Advising:

Undergraduate research advisees	who left Northwestern to pursue…
F22 - : Jonathan Chen	currently enrolled
F21-23 : Dana Small	PhD. candidate, U. of CA-Berkeley
S17-S18: Caroline Schuette	Research assistant, Lincoln Park Zoo
W17-S18: J. Todes (w/M. Osburn)	PhD. candidate, U. of Chicago

S15-S16: T. Kukla	completed PhD., Stanford U.
W11-S13: J. Mills	completed Ph.D., UC-Berkeley; Hierloom Carbon
W11-S13: A. Mayer	completed Ph.D., UC-Berkeley; LLNL
F12- S13: R. Saywitz	completed Envir. Sci. major, Northwestern
W07-S08: C. Carney	Mass spectrometry lab manager, UCSC
S06-F06: B. Chartoff	Director, Data Visualization, Urban Institute
S98-05: A. Erhardt (nee Blecha)	Assoc. Prof., U of KY
F02-S04: P. Dejtrakulwong	completed Ph.D. at Stanford
F99-S02: M. Williams	completed M.S. at Ohio State U.
F01-S02: P. Pancoskova	completed M.S. at Northwestern
S97-F97: T. Huynh	completed M.S. at USC; Assoc. Dir. SCEC
F96: C. Albrecht-Buehler	completed M.S. at Northwestern
F93-S95: B. Van Mooy	Senior scientist, WHOI-MIT
F97: K. Carrigan	completed med school; practicing physician

Graduate research **advisees** (or co-advisees):

F24 – : Aidan Burdick (PhD., Axford lead)	currently enrolled
F22 – : **Allegra Tashjian** (PhD., Jacobson lead)	currently enrolled
F21 – : **Chuyan Wan** (PhD., Jacobson lead)	currently enrolled
F18 – : **Luca Podrecca** (PhD.)	currently enrolled
F20 – 22: **Katarina Savatic** (PhD.)	completed M.S.; CDM Smith Inc.
F16 – 20 : A. Nelson (PhD., Jacobson lead)	completed Ph.D.; LDGO/Cella Mnrl Storage
F16 – 22 : **G. Kitch** (PhD., Jacobson lead)	completed Ph.D.; NOAA, Wash., D.C.
F15 – 21 : **J. Wang** (PhD.; w/Hurtgen, Jacobson)	completed Ph.D.; Yale U., post doc
F13 – 19: J. McFarlin (PhD.: Axford lead)	completed Ph.D.; CU-Boulder, post-doc
F13 – 16: J. Lazarz (Jacobsen lead)	completed PhD., Los Alamos Natl. Lab
F13 – 14: R. Bush (McInerney lead)	completed Ph.D.; Northwestern Asst. Prof. Instr.
F13 – 14: A.Baczynski (McInerney lead)	completed Ph.D.; Penn State, post-doc
F12 – 18: **M. Jones**	completed PhD.; UMI-AnnArbor, post doc.
F10 – 19: T. Bollman (vdLee lead; Ph.D.)	completed PhD.; Chevron Corp.
F10 – 16: B. Kristall (Hurtgen lead)	completed PhD.; private sector
F08 – 14: **M. Gomes** (Hurtgen lead)	completed Ph.D.; J. Hopkins U. Asst. Prof.
F06 – 13: **Young Ji Joo** (Ph.D.)	completed Ph.D.; Pukyong Natl. U., Asst. Prof.
F05 – 11: **D. Adams** (Hurtgen lead; Ph.D.)	completed Ph.D.; Exxon-Mobil; EarthBridge Inc.
F04 – 11: **R. Barclay** (w/McElwain)	completed Ph.D.; Smithsonian Inst.
F01 – 08: **J. Flaum**	completed Ph.D.; Exxon; U.S. Geol. Survey
F01 – 07: **J. Borges** (w/Huh)	completed Ph.D.; Chevron Corp.
F01 – 07: **R. Locklair**	completed Ph.D.; Chevron Corp.
F02 – 04: **P. Pancoskova**	completed M.S.; private sector
F02 – 03: **M. Fortwengler**	completed M.S.; Shell Oil Co. geologist
F01 – 03: **R. Shivaraj**	completed M.S.; secondary education
F97 – 03: **S. Meyers**	completed Ph.D.; U Wisc.-Madison, Prof.
F98 – F99: **S. Pimley**	completed M.S.; private sector
W94 – S00: **A. Murphy**	completed Ph.D.; U. Phoenix instructor
F93 – S94: **L. Hass**	completed M.S., private sector
W96 – S00: J. Werne (w/Hollander)	completed Ph.D., U Pittsburg, Professor
W96 – S00: M. Smith (Hollander lead)	completed Ph.D., private sector
F92 – F93: J. Rich (w/Birchfield)	completed Ph.D., private sector
F93 – S97: C. Gong (Hollander lead)	completed Ph.D.; Exxon-Mobil Corp.

Pre- and Post-doctoral advisees:

2021-2023: **Anna Waldeck**, PhD., Harvard University, worked on geochemical assessment of ocean acidification, (co-advised with dept. colleagues A. Jacobson and M. Hurtgen); left for research associate position at Brown U.
2017-19: **Benjamin Linzmeier**, PhD, University of Wisconsin-Madison, working on geochemical assessment of ocean acidification, (co-advised with dept. colleagues A. Jacobson and M. Hurtgen), currently Assistant Professor, University of South Alabama.
2013-14: **Dorothée Husson**, Ph.D., University Pierre and Marie Curie (UPMC) working on carbon sequestration and carbon mineralization under high pressure (co-advised with my colleagues, S. Jacobsen and C. Bina)
1999-03: **Jiri Laurin**, Fulbright Scholar, Ph.D. candidate from Charles U., Czech Republic (I served as an outside member on his dissertation committee); currently research scientist, Czech Academy of Sciences
1997-99: **Dr. C.A. Ver Straeten**, Northwestern University Environmental Council post-doctoral fellow; currently research scientist, New York State Geological Survey.

SERVICE

Northwestern University

Departmental and program offices

F22-25: Director of Undergraduate Studies
F05-S18: Department Chair
F00-S02: Seminar Director
F97-S03: Director of Undergraduate Studies
F98-S03: Chair - Departmental Honors Committee
F01-S03: Chair, Faculty Search Committee
F98-S99: Chair, Faculty Search Committee
W93-S96: Co-director, Graduate Admissions Committee
F92-F96: Chair - Krumbein Lecture Committee

Departmental and program committees

F24- : Member, Faculty Search Committee
F22 - : Member, Curriculum Committee
F13-18: As chair I participated ex officio on numerous faculty search committees, curriculum committees, outreach committees, and computing committees.
F01-S07: Member – Departmental building/relocation committee
W95-S05+W12-S13: Member - Faculty Search Committees

College or University committee office or membership

W20- : Academic Director, Master of Science Program in Energy & Sustainability
F13- : Co-Director, Trienen's Institute for Sustainability and Energy
W13-21: Co-Chair, Sustainability Council
F09-S18: Chair, ISEN curriculum committee
W14: Member, Faculty Senate Committee on Global Warming
W09-S18: Advisory board member, Center for Interdisciplinary Exploration & Research in Astrophysics (CIERA)
S10-13: ISEN Associate Director of Education and Special Projects
W-S11 : Search Committee Member, Science/Engineering sustainability position
W-S10 : Co-Chair, Environmental Sciences Committee
F09-S10: Member, Executive Committee, Northwestern Institute of Sustainable Practices
F09-S10: Member, Physical Sciences and Engineering Advisory Board
F03-S07: Member, Curricular Policies Committee
F95-S06: Member - Environmental Sciences Program Committee

F01-S02: Co-chair – Environmental Sciences Task Force
F01-S02: Member – Board of College Scholars
F00-S02: Member - Committee on Academic Standing
S00-S01: Member - Ad hoc Committee for Promotion of Lecturer Faculty
F99-S00: Member -Environmental Council Core Management Group
S94: CAS Representative for Prospective Undergraduate Applicants Panel

Student relations

F94-S07: Faculty Associate, Shepard Residential College; Hosted Shepard student dinner and attended various residential college events and outings.
F94-F06: Departmental field trip leader (Colorado-Utah '94; Iowa '00; Wisconsin '01, Big Bend and Yellowstone NP's'06; Yucatan '10)

Peer Review Activities

Books: SEPM Special Publications; GSA Special Publications; Columbia University Press; Springer Verlag

Journal reviews: ***American Journal of Science, Associate Editor*** (2015-2025)

Palaios (Associate Editor 96-03)	*Nature*	*Geology*
Paleoceanography &Paleoclimatology	*GSA Bulletin*	*AAPG Bulletin*
Chemical Geology	*Sedimentology*	*Earth Sci. Rev.*
Journal for Sedimentary Research	*Int. Journal of Earth Sciences.*	*Science Advances*
Scientific Reports	*Earth & Planetary Science Letters*	
Cretaceous Research	*Palaeogeog, Palaeoecol., & Palaeoclim.*	

Funding Agencies: National Science Foundation, Earth Sciences
Sedimentary Geology & Paleontology (Panel Member)
Low temperature geochemistry and geobiology
American Chemical Society, Petroleum Research Fund
Netherlands Organization for Scientific Research
National Geographic Society

Other Peer Review service:

Geological Society of America: L.L. Sloss Award Committee, 2005-08
National Research Council: *Understanding Earth's Deep Past: Lessons for our Climate Future*

Professional Affliations

Member: American Geophysical Union (AGU), Geological Society of America (GSA), Geochemical Society (GS), Society for Sedimentary Geology (SEPM), International Association of Sedimentologists (IAS).

Other Professional Service

Voting Member, Cretaceous Subcommittee of International Commission on Stratigraphy; 2011-24
Voting Member, International Subcommission of ICS on Timescale Calibration; 2025-28

PUBLICATIONS [H-index: Scopus-46; ResearchGate/GoogleScholar-55]

117. Podrecca, L.G., Masterson, A.L., Hurtgen, M.T., Taylor, J., Lloyd, J.M., Selby, D., and Sageman, B.B., 2025, Microbial Sulfate Reduction Regulated by Relative Sea Level Change in a Pleistocene – Holocene Sedimentary Record: Insights from Loch Duart, Scotland, UK, *Chemical Geology* 677: 122633

116. Taylor, J., Selby, D., Lloyd, J.M. , Smeaton, C., Bendle, J., Allison, M., Ling, Y., Podrecca, L., Sageman, B.B., Austin, W., and Szidat, S., 2025, Palaeoenvironmental reconstruction of a fjord catchment NW Scotland, UK since the Last Glacial Maximum: A multi-geochemical approach, *Quaternary Science Reviews* 356: 109311.

115. Liu, Z., Tian, H., Sageman, B.B., Wu, Y., Li, T., Wang, X., Cen, W., and Chen, J., 2024, Multiple controls on the preservation of organic matter in the lower Mississippian Luzhai Formation black shale in southern China, *Palaeogeography, Palaeoclimatology, Palaeoecology* 655: 112508.

114. Li, Y., Singer, B.S., Takashima, R., Schmitz, M.R., Podrecca, L, Sageman, B.B., Selby, D., Yamanaka, T., Mohr, M.T., Hayashi, K, Tomaru, T., Savatic, K., 2024, Radioisotopic chronology of ocean anoxic event 1a: Framework for analysis of driving mechanisms, *Science Advances* 10: eadn8365 (2024).

113. Trayler, R.B., Meyers, S.R., Sageman, B.B., and Schmitz, M.D., 2024, Bayesian integration of astrochronology and radioisotope geochronology, *Geochronology* 6: 107–123. https://doi.org/10.5194/gchron-6-107-2024.

112. Fortiz, V., Oakes, R. Boudinot, F.G., Jones, M.M., Leckie, R.M., Sageman, B.B., Sepúlveda, J., and Bralower, T.J., 2024**,** Paleoceanographic Significance of Calcareous Nannofossil Assemblages in the Tropic Shale of Utah, during Oceanic Anoxic Event 2 at the Cenomanian-Turonian Boundary, *Micropaleontology* 70 (3): 205-224.

111. Sageman, B.B., Jones, M.M., Arthur, M.A., Niezgodzki, I. and D. Horton, 2024, Late Cenomanian Plenus Event in the Western Interior Seaway, Special Section on "11th International Cretaceous Symposium, Warsaw 2022. *The 200th Anniversary of the Cretaceous System.* Proceedings Volume", edited by I. Walaszczyk, E.A.M. Koutsoukos, M. Machalski, J.W.M. Jagt and E.Jagt-Yazykova. *Cretaceous Research* 156: https://doi.org/10.1016/j.cretres.2023.105798.

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Laurin, J. and *Sageman, B.B., 2005, Controls on stratigraphic architecture of Cenomanian-Turonian strata, Western Interior basin, Geological Society of America *Abstracts with Programs*, Vol. 37, No. 7, p. 337

Meyers, S. R., and Sageman, B. B., 2005, Resolving Milankovitch in the paleoclimate record: Consideration of signal and noise, Geological Society of America *Abstracts with Programs*, Vol. 37, No. 7, p. 525.

Sageman, B.B., 2005, *Causal Factors for Cretaceous OAE's: Insights From the Cenomanian-Turonian*, COE Program for Neo-Science of Natural History, OAE Symposium, University of Hokkaido, Sapporo, Japan, Sept. 21-23, 2005, invited speaker.

Sageman, B.B., 2005, *The temporal record of C-cycling and black shales; Orbital Time Scales and Proxy Records from Cretaceous OAE's*, NSF-Sponsored Workshop on Proxies, December 10-11, 2005, Hotel Nikko, San Francisco, invited speaker.

Lyons, T.M., Sageman B.B., and Anbar, A., 2005, presided for session T6. *Marine Anoxia over Geologic Time—Where, When, Why, and Cause and Effect Relationships to the Evolving Biosphere*, Earth System Processes II Meeting, Calgary, August 8-11, 2005.

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Locklair, R. E. and Sageman, B. B., 2004, Development of Coniacian-Santonian orbital timescale and comparative estimates of primary production vs. dilution for Late Cretaceous chalk facies, Abstracts with Program, Annual Geological Society of America Meeting, Denver, CO, Nov. 7-10, 2004.

Meyers, S. R., and Sageman, B. B., 2004, Cenomanian/Turonian Orbital Chronologies and Burial Flux Estimates: Calibrating the Biogeochemical Reconstruction of Oceanic Anoxic Event II, Abstracts with Program, Annual Geological Society of America Meeting, Denver, CO, Nov. 7-10, 2004.

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of the Mancos Shale and the Niobrara Formation, Western Interior basin, Abstracts with Program, Annual Geological Society of America Meeting, Denver, CO, Nov. 7-10, 2004, p. A345.

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Sageman, B.B., Meyers, S.R., and Lyons, T.W., 2003, Role of sulfate reduction in organic matter degradation and molybdenum accumulation: Theoretical framework and application to Cenomanian-Turonian organic matter burial event, Goldschmidt Conference, Sept. 7-12, 2003, Kurashiki, Japan, *Geochimica Cosmochimica Acta*, v. 67 (18, S1), p. A407.

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Locklair, R. E. and Sageman, B. B., 2003, Use of spectral techniques for evaluation of orbital forcing of sedimentation in the Upper Cretaceous (Turonian-Campanian) Niobrara Formation, Western Interior, USA, Abstracts with Program, Annual Geological Society of America Meeting, Seattle, WA, Nov. 2-5, 2003.

Lyons, T. W., Anbar, A. D., Gill, B. C., Meyers, S. R., Sageman, B. B., Cruse, A. M., Wilde, P., and Scott, C. T., 2003, Molybdenum accumulation in organic-rich sediments and sedimentary rocks, Abstracts with Program, Annual Geological Society of America Meeting, Seattle, WA, Nov. 2-5, 2003.

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Pancoskova, P., and *Sageman, B. B., 2003, Analysis of nearshore stratigraphic architecture of Middle Santonian to Early Campanian deposits of the Western Interior basin, Utah, U.S.A., Abstracts with Program, Annual Geological Society of America Meeting, Seattle, WA, Nov. 2-5, 2003.

Sageman, B.B., and Lyons, T.W., 2003, Integrated conceptual model for the biogeochemistry of black shales and oxygen-deficient marine environments, Abstracts with Program, Annual Geological Society of America Meeting, Seattle, WA, Nov. 2-5, 2003.

Meyers, S.R., and Sageman, B.B., 2002, Analysis of sediment/geochemical accumulation rates and molluscan evolutionary rates during the Cenomanian-Turonian biotic crisis, Western Interior Seaway, JOI/USSSP/NSF Workshop on Cretaceous Climate-Ocean Dynamics, Flourissant, CO, July 14-17, 2002.

Laurin, J., Sageman, B.B., Meyers, S.R., and Waltham, D.A., 2002, Relative sea level history of the uppermost Cenomanian of southwestern Utah: evidence for Milankovitch-driven eustasy? JOI/USSSP/NSF Workshop on Cretaceous Climate-Ocean Dynamics, Flourissant, CO, July 14-17, 2002; Abstract Volume, p. 48-49.

Meyers, S.R. and Sageman, B.B, 2002, Production and Preservation in the Cretaceous Western Interior Sea, Gordon Research Conference on Organic Geochemistry, Holderness, NH, July 28 - August 2, 2002.

Laurin, J., and Sageman, B.B., 2001, Depositional and relative sea level history of the Cenomanian/Turonian interval, Dakota and Straight Cliffs Formations of the Western Interior Basin, SW Utah. Geolines, v. 13, p. 88.

Locklair, R. and Sageman, B., 2002, Organic-rich siltstones in the Permian Brushy Canyon Formation, West Texas: Does grain size matter? Abstracts with Program, Southeastern/North-Central Regional Geological Society of America Meeting, April 4, 2002, Lexington, KY.

Meyers, S.R., Sageman, B., and Hollander, D., 2002, Orbital time scales, ocean anoxic events, and controls on the accumulation of organic carbon in the Cretaceous Western Interior Seaway, Abstracts with Program, Southeastern/North-Central Regional Geological Society of America Meeting, April 4, 2002, Lexington, KY.

Locklair, R. and Sageman, B., 2002, Origin, character, and stratigraphic hierarchy of organic-rich siltstones in deep-water facies, Upper Permian (Guadalupian) Brushy Canyon Formation, west Texas, Annual Meeting, Society for Organic Petrology, Houston, Texas, March 3-6, 2002.

Sageman, B.B., and Arthur, M. A., 2001, Role of enhanced nutrient recycling and eutrophication in development of Devonian organic carbon-rich deposits: data and modeling results from the Appalachian Basin. Abstracts with Program, Annual Geological Society of America Meeting, Boston, MA, Nov. 1-10, 2001, p. A39.

Williams, M. J. and Sageman, B. B., 2001, Analysis of organic carbon accumulation across a bulk sedimentation gradient: Late Cenomanian, Hartland Shale Member, Western Interior U.S., Abstracts with Program, Annual Geological Society of America Meeting, Boston, MA, Nov. 1-10, 2001, p. A101.

Meyers S. R, and Sageman, B. B., 2001, Identification and interpretation of sedimentary hiatus using evolutive harmonic analysis, Abstracts with Program, Annual Geological Society of America Meeting, Boston, MA, Nov. 1-10, 2001, p. A442.

Sageman, B.B., Meyers, S.R., and Hinnov, L.A., 2001, Use of Orbital Time Scale to Evaluate Molluscan Biozones and Evolutionary Rates during the Late Cenomanian-Early Turonian, Western Interior Basin (USA), Eos, Transactions of American Geophysical Union, Fall Meeting Abstracts, San Francisco, CA, Dec. 9-14, 2001, p. 1140.

Laurin, J., and *Sageman, B.B., 2000, Test case for evaluating relative roles of eustasy, tectonics and sediment supply in a foreland basin, Abstracts with Program, Annual Geological Society of America Meeting, Reno NV, Nov. 9-18, 2000, p. A155.

Meyers, S. R., and Sageman, B. B., 2000, Quantitative cyclostratigraphic analysis of late Cenomanian-early Turonian deposits of the Cretaceous Western Interior (North America), Abstracts with Program, Annual Geological Society of America Meeting, Reno NV, Nov. 9-18, 2000, p. A145.

Sageman, B.B., 2000, Recent advances in the study of ancient marine source rocks, Gordon Research Conference on Organic Geochemistry, Holderness School, Plymouth, New Hampshire, Aug 13-18, 2000.

Workshops/Research Group Meetings

Invited speaker, 12th International Cretaceous Symposium, August 2025, Hannover, Germany

Invited speaker, NSF-EARTHTIME workshop, Oct. 2016, Denver Federal Center: *Stratigraphic integration of geochronologic data.*

Invited speaker, Rocky Mountain Section, Society for Sedimentary Geology, monthly luncheon lecture, Feb 28, 2014. *Development of Cenomanian-Campanian chronostratigraphy for the resource-rich facies and basins of the Western Interior region.*

Invited Participant, NSF *EARTHCUBE* Workshop, Oct. 1-3, 2013, University of Wisconsin-Madison.

Co-organizer, NSF-SEES workshop, *Natural and Engineered Carbon Sequestration*, in assoc. with Geol. Soc. Amer. Meeting, Minneapolis, MN, October 7-8, 2011.

Co-organizer, NSF-workshop, *An Internet Resource for Integrating Plate Tectonic and Paleogeographic Mapping with On-line Earth Science Databases*, Field Museum, July 19-21, 2011.

Invited Participant, NSF Sponsored Workshop on Earth-Time Program, Sept. 11-12, 2006, Santa Fe Institute, Santa Fe, New Mexico.

Invited speaker, Colorado Energy Research Institute and Colorado School of Mines, Meeting of Research Consortium in Shale Gas, May 9, 2006,

Invited speaker, presented *Causal Factors for Cretaceous OAE's: Insights From the Cenomanian-Turonian*, COE Program for Neo-Science of Natural History, OAE Symposium, University of Hokkaido, Sapporo, Japan, Sept. 21-23, 2005.

Invited speaker, presented *The temporal record of C-cycling and black shales; Orbital Time Scales and Proxy Records from Cretaceous OAE's*, NSF-Sponsored Workshop on Proxies, December 10-11, 2005, Hotel Nikko, San Francisco.

Session co-chair for session T6. *Marine Anoxia over Geologic Time—Where, When, Why, and Cause and Effect Relationships to the Evolving Biosphere*, Earth System Processes II Meeting, Calgary, August 8-11, 2005, with T. Lyons, T.M. and A. Anbar.

Invited Participant, NSF Deep-Time GeoSystems Workshop, Sept. 9-11, 2004, NSF Headquarters, Arlington, VA.

Invited Participant, First NSF Deep-Time Paleoclimate Workshop, May 15-17, 2003, NSF Headquarters, Arlington, VA.

Organizer/host/speaker for first Midcontinent Mini-conference on "Innovations in Stratigraphic, Biogeochemical, and Geomicrobiological Studies,", July 14-15, 2000, Department of Geological Sciences, Northwestern University; workshop supported by NU Environmental Council.

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