CURRICULUM VITAE FRANK ROBERT ETTENSOHN

OFFICE

Department of Earth & Environmental Sciences
University of Kentucky
101 Slone Building
Lexington, KY 40506-0053

Phone: 859-257-1401; FAX: 859-323-1938; E-mail: fettens@uky.edu

MILITARY SERVICE

CPT., U.S.A.R. (Corps of Engineers), 1970–1977 (active duty, 1970–1971), Ret.

EDUCATION

Ph.D., University of Illinois at Urbana-Champaign, 1975

Dissertation: Stratigraphic and Paleoenvironmental Aspects of Upper Mississippian Rocks (Newman Group), East-Central Kentucky (Adviser: D.B. Blake)

M.S., University of Cincinnati, 1970

Thesis: Pre-Illinoisan Glacial Lake Clays of the Cincinnati Region (Adviser: R.H. Durrell)

B.S. in Geology (High Honors), University of Cincinnati, 1969

APPOINTMENTS

Editor-in-Chief, Journal of the Kentucky Academy of Science, 2021-present

Visiting Professor, Chengdu University of Technology, Chengdu, China, May, 2015

Embassy Science Fellow, U.S. Department of State, Ukraine, 2014

Senior Petroleum Geologist, Energy Programs, Bureau of Energy Resources, U.S. Department of State, Jefferson Science Fellow, 2013–2014

Director, University of Kentucky Honors Program, 2008–2012

Fulbright Lecturer/Researcher, Tribhuvan University, Kirtipur, Nepal (Pakistan and India), Feb.–Aug. 2006

Visiting Professor, Escuela Superior Politecnica del Litoral (ESPOL), Guayaquil, Ecuador, Dec., 2005–Jan., 2006

Visiting Professor, China University of Geosciences, Beijing, May–Aug., 2005; June, 2006; Dec., 2008–Jan., 2009; May–July, 2010; June–July, 2012; May, 2015; Mar., 2018; June, 2019; Dec., 2019–Jan., 2020.

Math and Science Education Program Faculty, U.K. College of Education, 1999– present

Chairman, Department of Geological Sciences, University of Kentucky, 1997–2005

Professor of Geological Sciences, University of Kentucky, 1987–present

Fulbright Lecturer/Researcher, Novosibirsk State University, Novosibirsk, R.F.S.S.R., Soviet Union, Feb.–June 1989

Acting Chairman, Department of Geological Sciences, University of Kentucky, 1985–86

Associate Professor of Geology, University of Kentucky, 1981–87

Field-Camp Director, University of Kentucky Geology Field Camp, Crested Butte, Colorado, 1977–81, 1984–85, 1992–93, 1995, 1997–98, 2001, 2009, 2011, 2013, 2015, 2017, 2019

Assistant Professor of Geology, University of Kentucky, 1975–81

Graduate Teaching Assistant, University of Illinois, 1971–75

High-School Math Teacher, Greenhills-Forest Park City School District, Cincinnati, Ohio, 1971

Combat Engineer Platoon Leader, Ft. Belvoir, Virginia, 1970–1971

Part-time Teaching Assistant, University of Cincinnati, Cincinnati, Ohio, 1970

TEACHING

Sedimentary and General Geology; courses taught at various times include:

Stratigraphy (undergraduate/graduate, U.S. and China)

Geology of Gas Shales (graduate, China)

Sedimentary Petrology (undergraduate/graduate)

Advanced Stratigraphy (graduate)

Carbonate Petrography (graduate, U.S. and China)

Freshman Discovery Seminar (Dinosaurs & Disasters; The Kentucky-Bahama Connection: undergraduate)

Honors (World Food Issues III; Living within Limits)

Dinosaurs and Disasters (undergraduate)

Field Geology and Summer Field Camp (undergraduate)

Geology for Elementary Teachers (undergraduate)

Mankind's Place in the Universe (undergraduate)

Landforms (undergraduate)

Sedimentary Geology (undergraduate, U.S. and Nepal)

Historical Geology (undergraduate)

Introductory Geology (undergraduate, U.S. and China)

Introductory Geology Laboratory (undergraduate)

Seminar in Geological Sciences (undergraduate and graduate)

Global Tectonics (graduate, Nepal)

Micropaleontology (graduate)

Paleoecology (graduate)

Paleoecology Seminar and Bahamas Field Trip (graduate)

Seminar on Structure and Tectonics (graduate)

Invertebrate Paleobiology and Evolution (Paleontology) (undergraduate/graduate)

Ecology (Arts and Sciences Minicollege: Modern Studies Curriculum, undergraduate)

Natural Science II (Arts and Sciences Minicollege: Modern Studies Curriculum, undergraduate)

Topics in Structure and Tectonics: Integrating Sedimentary Petrography and Isotope Geochemistry with Evidence from the Field and Literature to Attack a Geologic Problem (graduate)

Topics in Tectonics and Stratigraphy: Clastic Sedimentary Petrology as a Tool in Developing Tectonic Context (graduate)

UNIVERSITY AND PROFESSIONAL ACTIVITIES

A&S Humanities Area Committee, 2024-

Supervisor for Moroccan Visiting Scholar, Ayman Agharabi, 2023–2024

North American Commission on Stratigraphic Nomenclature (G.S.A. rep.), 2022–2025

Geological Society of Kentucky, President, 2016; Past President, 2017; President-elect, 2020; President, 2021; Past-President, 2022

Supervisor for Iraqi Visiting Scholar, Dr. Amna Handhal, 2020–2021

Kentucky Academy of Science, Vice President, 2018; President-elect, 2019; President, 2020; Past-president, 2021; Journal Editor-in-Chief, 2021–

Supervisor for Chinese Visiting Scholar, Jun Li, 2018–2019

Amer. Institute of Professional Geol. Certified Professional Geologist CPG-11978, 2019–present

Science Advisory Committee, Living Arts & Science Center, 2013-present

DoS/NAS Jefferson Science Fellowship Review Panel, 2015–2017

Phi Kappa Phi, President, U.K. Chapter, 2015–2017

Cralle Foundation/Joan Cralle Day Fellowship Faculty Review Committee, 2013

North American Commission on Stratigraphic Nomenclature (G.S.A. rep.), 2012–2015, 2023–

U. K. International Advisory Council, 2009–2012

Kentucky Section, AIPG, Vice President, 2009; President Elect, 2010; President, 2011; Past President, 2012

Editorial Board, *Kaleidescope*, 2008–present

Kentucky Academy of Science, Geology Section, Section Secretary, 2007, 2014; Section Chair, 2008, 2015; Vice President, 2018; President-Elect, 2019; President, 2020

Supervisor for Chinese Visiting Scholar, Zeng Min, 2007–2009.

Academic Area Advisory Committee for the Physical and Engineering Sciences, 2007–2009, 2017-2020

Senate Hearing Panel on Privilege and Tenure, 2007–2010

College of Education, Dept. of Curriculum & Instruction Faculty Search Committee, 2007–2008

Council for the International Exchange of Scholars, Specialist (Geology) Peer Review Committee, 2007–2010

A&S Social Sciences Advisory Committee, Fall, 2006

Journal-Journeys Program, 2006–2007

U.K. Honors Program, 2005–2013; Director, 2008-2012

U. K. AMSTEMM Program Advisory Board, 2005–present

Graduate Council, University of Kentucky, 2004–2005

Appalachian Math-Science Partnership (AMSP) Science Advisory Council, 2003–2007

Kentucky NSF EPSCoR, Research Enhancement Grant Review Panel, 2003–2006, 2013–2014

Posters-at-the-Capitol Mentor, Frankfort, KY, 2002–2003, 2006–2007

Supervisor for Chinese Visiting Scholar, Chuanheng Zhang, 2002–2003

Fayette County Math, Science, and Technology Center Research Program Mentor, 2002–2003

U.K. College of Arts & Sciences General Curriculum Committee, 2002–2003

Joint Chairman, Joint Annual Meeting, North-Central and Southeastern Sections, Geological Society of America, Lexington, KY, 2001–2002

Chairman, Field Trip Committee, Joint Annual Meeting, North-Central and Southeastern Sections, Geological Society of America, Lexington, KY, 2001–2002

Educational Testing Service Validation/Standard-Setting Panel in Earth and Space Sciences, 2000

Kentucky NCUR Advisory Board, 1999–2001

Lexington Area Science Education Reform (LASER) Summer Science Program, 1999

Chair, Review Committee for the Kentucky Geological Survey, 1999

Invited Session Chair, International Symposium on Deltas, Cairo, Egypt, 1999

The President's Initiative on Undergraduate Education, 1998–1999

UK Task Force on Mathematics, Science, and Technology Education, 1998–1999

KET Professional Development Seminars in Earth Science, 1998–2002

Committee on Research and Policy, Kentucky Water Resources Research Institute, 1998–2001

Arboretum Advisory Board, 1997–1999

Standards-based Pre-service Elementary Science Education Project, 1996

College of Arts & Sciences Area A Curriculum Committee, 1995–1997

Academic Area Advisory Committee for the Physical and Engineering Sciences, 1994–1997

Technical editor, *Journal of Paleontology*, 1994–1997

Science Education Initiative Committee, Undergraduate Studies, University of Kentucky, 1994–1997

Council for the International Exchange of Scholars, Geology Discipline Committee, 1993–1996 (Chairman, 1994–1996)

Scientific Advisor, Kentucky Paleontological Society, 1993–present

Registered Professional Geologist #0318 in Kentucky, 1993-present

Arts & Sciences – U.S.P. Pilot Study Project (Modern Studies Curriculum), 1992–1997

Board of Directors, Institute for Mining and Minerals Research, 1992–1994

Director of Undergraduate Studies, Department of Geological Sciences, 1992–1997

Member, Eastern Oil Shale Symposium Technical Advisory Committee, 1992–1995

College of Arts and Sciences Area Committee in Math and Sciences, 1991–1994

Director of Graduate Studies, Department of Geological Sciences, 1991–1992

Vice President and Board of Directors, Kentucky State Museum of Natural History, 1991–present

Ad Hoc Member, Lexington Campus Research Advisory Committee, 1991

Appalachian Explorers Program: 1991, 1994

Member, Organizing Committee, International Symposium on Black Shale Basins and Related Mineral Deposits (IUGS-IGCP Project 254), 1991

Established and ran a short course on black shales for geologists from Mobile Oil Co., Summer 1991

Dept. of Earth & Environmental Sciences, Geology Graduate Studies Committee, 1977–present; Geology Faculty Secretary, 1981–1982; Geology course-scheduling coordinator, 1983–1987; Personnel & Budget Committee, 1986–89, 1993–4, 1997–2005, 2007–08, 2024–2025; Awards Committee (Chairman), 1989–2005; Curriculum Committee, 1989–1990, 2018–2021

Library Liaison, 1989–2015

Committee to Evaluate and Review School of Biological Sciences, College of Arts and

Sciences, 1989-1990

Committee on Earth Science Education in Kentucky, 1987–1989

University Committee to evaluate bond-issue grants, 1987

Committee to evaluate Academic Advising and Student Records Offices, College of Arts and Sciences (subcommittee chairman), 1986–1987

Invited to attend G.S.A. Penrose Conferences, 1977, 1986

PEW Foundation Board (Faculty Scholars), 1985–1996

University Undergraduate Council, 1985–1987

Tenure and promotion review – Wayne State University; College of William and Mary; SUNY at Fredonia; University of Kansas; University of West Virginia; University of Mississippi; Quaid-I-Azam University, Pakistan; University of Wah, Pakistan; Hashemite University, Jordan; Yarmouk University, Jordan

Acting Chairman, Aug., 1985-Jan., 1986

University representative to Appalachian Basin Industrial Associates, 1983–1991

Invited colloquium speaker – Houston Geological Society, Pennsylvania Association of Petroleum Geologists, Kentucky Geological Society, Ft. Worth Geological Society, Univ. of Oklahoma, Univ. of Tennessee, Ohio State University, Morehead State University, Eastern Kentucky Univ., Appalachian State, Tulane, Indiana University, Univ. of Illinois, Univ. of Cincinnati, V.P.I., Univ. of West Virginia, Transylvania University, University of Kentucky, Washington Geological Society, Kentucky Paleontological Society, Indiana Geological Survey, U.S. Geological Survey, U.S. State Department, National Academy of Sciences, China University of Geosciences, Chengdu Institute of Technology, SINOPEC, Oklahoma State University, Oklahoma City Geological Society: various times since 1982

Graduate Faculty, 1983-present

Governor's Scholars Advisory Committee, 1982

Grant/Scholarship proposal review in stratigraphy and paleontology, biotic surveys and inventories, surficial processes, and systematic biology for – National Academy of Sciences, N.S.F., U.S.G.S., Petroleum Research Fund, U.S. Civilian Research Development Foundation, National Geographic Society, Hubert Humphrey Fellowship, National Environmental and Resources Council (United Kingdom), Kentucky-NSF EPSCoR, DoS/NAS Jefferson Science Fellowship Review Panel, Swiss Excellence Scholarship for Foreign Scholars, and the Croatian National Science Foundation: various times since 1981

Bahamas Field Trip, 1979–present

Session convener at Geological Society of America regional and national meetings, various times since 1979

Consultant, environmental geology and black-shale geology, limestones, petroleum geology, mortars and building stone, 1979–1980, 2001–2005, 2014–2015

Text-book reviews in general geology, historical geology, field geology and

paleontology for Freeman, Burgess, Wiley, Allen and Unwin, and West publishing companies, various times since 1977

Thesis and dissertation advisor (40 M.S., 12 Ph.D.), 1976-present

Faculty Advisor, Sigma Gamma Epsilon, 1976-present

Associate Member, Graduate Faculty, 1976–1982; Full Member, 1983–present

Field trip leader for IX-ICC and national and regional A.A.P.G., G.S.A., Kentucky Section, A.I.P.G. and Kentucky Soc. of Prof. Geologists meetings, 1976, 1979, 1981, 1984, 1992, 2002, 2004, 2007, 2009, 2010, 2011, 2012, 2013, 2022, 2023

Director, Elementary Geology Lab, 1976-1977, 1991-1992

Undergraduate advising, 1975–2005

Review journal articles for – A.A.P.G. Bulletin; Geological Journal; Geosphere; Journal of Sedimentary Petrology, Southeastern Geology, A.G.U. Antarctic Research Series; Journal of Paleontology, Journal of Geology, Geology, Sedimentary Geology, Paleobiology, G.S.A. Bulletin; G.S.A. Special Papers; New York State Museum Bulletin; Ohio Journal of Science; S.E.P.M. Contributions in Sedimentology and Paleontology, Tectonophysics; Palaeogeography, Palaeoclimatology, Palaeoecology; Palaios; Bulletins of American Paleontology; Journal of Sedimentary Research; Canadian Society of Petroleum Geology Memoirs, Sedimentary Basins of the World Series; American Association of Petroleum Geologists Memoirs; American Journal of Science; Carbonates and Evaporites; Ore Geology Reviews; Applied Geochemistry; Arabian Journal of Geosciences; Marine and Petroleum Geology; International Journal of Mining Science and Technology; Journal of the Kentucky Academy of Sciences; ACS Earth and Space Chemistry; Precambrian Research; Basin Research; Sedimentology; Journal of Geodynamics; and Petroleum Science and Technology: various times since 1975

Geology Undergraduate Studies Committee, 1975–1977, 1989–present Coordinator, Annual Sedimentation Seminar, 1975–1976

PROFESSIONAL AFFILIATIONS

AAAS (Fellow)

Geological Society of Washington

American Association of Petroleum Geologists (AAPG)

American Geophysical Union (AGU)

Amer. Institute of Professional Geologists (AIPG) (Vice President, Kentucky Section, 2009; President-Elect, 2010; President, 2011); CPG, 2019

American Geological Institute (AGI)

Geological Society of America (Fellow)

Geological Society of Kentucky (formerly Kentucky Society of Professional Geologists); (Eastern Sect.: Treasurer, 1977–78; Vice-President, 1978–79; President, 1984–85;

President-elect, 2015–2016; President, 2016–2017; President-elect, 2020; President, 2020-2021.

International Association of Sedimentologists (IAS)

International Palaeontological Association

Kentucky Academy of Science, Vice President, 2018, pres. Elect, 2019 (Geol. Section: Secretary, 1978–80, 2006–2007, 2014; President, 1979–80, 2007–08, 2015)

Palaeontological Association

Paleontological Research Institution (PRI)

Paleontological Society (Pres., Southeastern Section and paleo Council, 1983–1984)

Sigma Gamma Epsilon (Tarr Award, 1969; Advisor, Chi Chapter, 1975-present)

Fulbright Association

National Association of Geology Teachers

National Earth Science Teachers Association

Phi Beta Kappa

Phi Kappa Phi (Univ. of KY Chapter: Membership Chair, 2009; Scholarship Com., 2010–12, Chair, 2011–12; President elect, 2013–14; President, 2015–16)

ACADEMIC HONORS, AWARDS, GRANTS

American Association of Petroleum Geologists Honorary Membership (for those who have distinguished themselves by their service and devotion to *AAPG*, as well as the science and profession), 2024

Eastern Section AAPG John T. Galey Award (highest honor bestowed by the Section, to recognize distinguished geoscientists whose outstanding accomplishments and contributions to our profession and its application have been directed toward the betterment of society), 2024

Session T174 at 2023 G.S.A. Annual Meeting in Pittsburgh, PA, honoring career and research achievements of Frank R. Ettensohn: Paleozoic Stratigraphic and Tectonic Evolution of the Appalachian Foreland: In Honor of Frank R. Ettensohn

\$19,700 – U.S. Geological Survey, Three-Dimensional Mapping of the Upper Lexington Limestone, Inner Bluegrass Region, 8/2022–8/2023

\$124,590 – Norwegian Petroleum Directorate, The Paleozoic Barents Sea Project: When the Arctic meets the Bluegrass, 5/2020–12/2023

A.I.P.G. Ben H. Parker Memorial Distinguished Service Medal, 2019

A.A.P.G. Grover E. Murray Distinguished Educator Award, 2018

Albert Nelson Marquis Lifetime Achievement Award, 2018

A.A.A.S. Fellow, 2015-2016

\$5000 – Rubicon Geological Consulting Grant to complete and publish a black-shale core-logging manual for Kentucky, 2015

Kentucky Geologist of the Year (Kentucky Geological Society), 2013–2014

Embassy Science Fellow, U.S. Department of State, Kiev, Ukraine, 2014

Jefferson Science Fellowship, U.S. Dept. of State, 2013–2014

College of Arts & Sciences Distinguished Professor, 2014

\$16,900 – Women and Philanthropy Scholarships for Honors students' travel abroad, 2013

Service Award, Kentucky Society of Professional Geologists, 2011

Presidential Award, Amer. Institute of Professional Geologists, Kentucky Section, 2011

\$21,000 – Women and Philanthropy Scholarships for Honors students' travel abroad, 2011

Superlative Award, Distinguished University Scientist, Kentucky Academy of Science, 2010

Lifetime Achievement Award, Amer. Institute of Prof. Geologists, Kentucky Section, 2009

Educator of the Year Award, Eastern Section, A.A.P.G., 2008

Invited Keynote Speaker for topical session T61, Aspects of the tectonic setting and structural history of shale basins that lead to unconventional reservoir rock, at 2008 G.S.A. Annual Meeting, Houston, TX

A.I. Levorsen Best Paper Award, 2007, A.A.P.G. Eastern Section Meeting, Lexington, KY.

A.I. Levorsen Best Paper Award, 2006, A.A.P.G. Eastern Section Meeting, Buffalo, NY.

\$35,740 - **Ettensohn, F.R.**, agreement through NSF Appalachian Math-Science Partnership (AMSP) for salary and salary savings to help develop and implement summer institutes and college training courses in the earth sciences for elementary and high school teachers in the Appalachian region, 9/1/2003 – 8/30/2007.

\$2,368,748 - Brion, G., **Ettensohn, F.R.**, and Fryar, A.E., Kentucky Environmental Research and Education Consortium (KEREC): University of Kentucky Environmental Research and Training Laboratories (ERTL): NSF/EPSCoR, 3/1/2002 – 2/28/2005.

\$1800 - **Ettensohn, F.R.**, Undergraduate Investigation of Early Cretaceous Dinosaur Trackways in Sattler, Texas: Heritage Museum of the Texas Hill Country, 6/1/2002–8/30/2003.

\$51,929 - Ettensohn, F.R., Krupa, J., and Stevens, J.T., Understanding Scientific Process through Modeling Past and present Causes in the Earth, Life and Environmental Sciences for Middle- and High-School Teachers, Central Kentucky:

Kentucky Council on Postsecondary Education, 1/1/01–6/30/02.

\$59,986 - Ettensohn, F.R., Krupa, J., and Stevens, J.T., A Kentucky-Wide Approach to Middle School Professional Development in the Sciences, Central Kentucky: Kentucky Council on Postsecondary Education, 1/1/99 – 6/30/00.

\$53,814 - Ettensohn, F.R., Troland, T., and Stevens, J.T., Teacher Professional Development in the Earth and Space Sciences for Core-Content Assessment in High School Science, Central Kentucky: Kentucky Council on Postsecondary Education, 1/1/98 – 6/30/99.

Who's Who of Emerging Leaders in America; Who's Who in America, 1992-present

\$15,000 grant from the U.S. Bureau of Mines - Feasibility Study for Producing a Photographic Core-Logging Manual for the Devonian-Mississippian Oil and Gas Shales of Kentucky and Nearby Areas, 1990–1991

\$1500 grant from the Mable Pew Myrin Trust, U.K. Appalachian Studies Program - Distribution and Significance of the Portwood Member of the New Albany Shale, 1989–1990

Fulbright Lectureship, Soviet Union, 1989; Nepal, 2006

\$3,963 REU Supplement from the National Science Foundation - The Tectonic Significance of a Devonian Sedimentary Breccia in a Cratonic Black-Shale Sequence (New Albany Shale), Central Kentucky, 1988

\$1,500 Summer Teaching Improvement Grant, University of Kentucky, 1988

\$1600 grant from Lake-Ronel Oil Co., Texas - Characterization and Paleoenvironmental Interpretation of the Louisville Limestone, West-Central Kentucky, 1987—1988

\$82,569 - **Ettensohn, F.R.**, Use of Interbasinal Relationships in the Devonian-Mississippian Black-Shale Sequence to Decipher the History of the Acadian Orogeny: NSF – 6/1986-5/1989.

\$29,313, Appalachian Basin Industrial Associates in research assistantships, 1983-1991

Fellow, Geological Society of America, 1982-present

Who's Who in the South and Southeast, 1982–present

American Men and Women of Science, 1982-present

\$200 Grant for Educational Improvement (Univ. of Kentucky Mini-grant), 1977–1978

\$343,472 grant from Department of Energy - Stratigraphic and paleoenvironmental analysis of the Upper Devonian-Lower Mississippian black shales of Eastern Kentucky, 1976-1980

\$1,000, Penrose Bequest Research Grant - Paleoenvironmental analysis of Mississippian carbonates in east-central Kentucky, 1974

Sigma Xi, 1974

Research Grant from Shell Oil Company, 1973

Phi Kappa Phi (Graduate Honorary; U.K. Charter member), 1973-present

\$1,200, Penrose Bequest Research Grant - Paleoenvironmental analysis of Mississippian carbonates in east-central Kentucky, 1973

\$500 Sigma-Xi grant-in-aid-Paleoenvironmental analysis of Mississippian carbonates in east-central Kentucky, 1973

University of Illinois Fellow, 1971-1974

Fenneman Fellow, University of Cincinnati, 1969–1970

University of Cincinnati Scholarship, 1969–1970

Phi Beta Kappa, 1969

Sigma Gamma Epsilon (Geology Honorary), 1969

W.A. Tarr Award for outstanding student in geology, University of Cincinnati, 1969

University of Illinois Summer Field Camp Scholarship, 1968

Awards from Bucher Fund in Geology, University of Cincinnati, 1966–1968

Wurlitzer Foundation Fellow, University of Cincinnati, 1965–1969

McMicken Honorary Scholarship, University of Cincinnati, 1965–1966

CONSULTING

Subsurface carbonate systems and characterization, carbonate quarry location, petrography of mortars and building stones for conservationists, porosity of carbonate building stones, core and geophysical log characterization, weathering phenomena in building stone and bricks, reservoir characterization.

PUBLICATIONS: PAPERS, GUIDEBOOKS, MAPS, REVIEWS, and CHARTS

- *Refereed; (coauthor *italics*: former or present student collaborators and presenters)
- *Ettensohn, F.R., 1974, The pre-Illinoisan lake clays of the Cincinnati region: Ohio Journal of Science, v. 74(4), p. 214–226.
- *Ettensohn, F.R., 1975, The autecology of *Agassizocrinus lobatus*: Journal of Paleontology, v. 49 (6), p. 1044–1061.
- *Ettensohn, F.R., 1976, New Mastodon finds from southwestern Ohio: Ohio Journal of Science, v. 76 (2), p. 71–72.
- **Ettensohn, F.R.,** 1977, Synsedimentary tectonic activity in the upper Newman Limestone and Pennington Formation, *in* Dever and others, Kentucky Geological Society Guidebook, Annual Fall Field Conference, p. 18–29.
 - **Ettensohn, F.R.,** Fulton, L.P., and Kepferle, R.C., 1977, Use of the scintillometer and gamma-ray logs for correlation from the subsurface to the surface in black shale, *in* Schott and others, Proceedings, First Eastern Gas Shales Symposium, D.O.E., Morgantown, W.VA.: MERC/SP-77/5, p. 678–690.
- *Kepferle, R.C., **Ettensohn, F.R.,** and Wilson, E.N., 1978, Preliminary stratigraphic cross section showing radioactive zones in the Devonian black shales in the southern part of the Appalachian Basin: U.S. Geological Survey Chart OC-85.

- *Ettensohn, F.R., and Glass, H.D., 1978, Clay-mineral stratigraphy of pre-Illinoisan lake clays from the Cincinnati region: Journal of Geology, v. 86, p. 393–402.
- *Ettensohn, F.R., 1978, Acrothoracic barnacle borings from the Chesterian of eastern Kentucky and Alabama: Southeastern Geology, v. 20 (1), p. 27–31.
- *Ettensohn, F.R., and Peppers, R.A., 1979, Palynology and biostratigraphy of Pennington shales and coals (Chesterian) at selected sites in northeastern Kentucky: Journal of Paleontology, v. 53 (2), p. 453–474.
 - *Ettensohn, F.R., Fulton, L.P., and Kepferle, R.C., 1979, Use of scintillometer and gamma-ray logs for correlation and stratigraphy in homogeneous black shales: Geological Society of America Bulletin, v. 90, p. 828–849.
 - **Ettensohn, F.R.**, and Dever, G.R., Jr., eds., 1979, Carboniferous geology from the Appalachian Basin to the Illinois Basin through eastern Ohio and Kentucky: Guidebook for Field Trip No. 4, (includes 11 articles authored or co-authored by Ettensohn), IX International Congress of Carboniferous Stratigraphy and Geology, Lexington, KY, 93 p.
- *Ettensohn, F.R., 1980, An alternative to the Barrier-Shoreline model for deposition of Mississippian and Pennsylvanian rocks in northeastern Kentucky: Geological Society of America Bulletin, v. 91, p. 130–135 (pt. II, v. 91, p. 934–1056).
 - *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Structure contour map on the base of the Ohio Shale in eastern Kentucky: Morgantown Energy Technology Center, U.S. Department of Energy, 1 sheet, scale 1:370,000, METC/EGSP Series No. 507.
 - *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Structure contour map on the base of the West Falls Formation (Rhinestreet Shale, Unit 7) in eastern Kentucky: *ibid.*, METC/EGSP Series No. 508.
 - *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Structure contour map on the base of the Java Formation/Olentangy Shale (Unit 6) in eastern Kentucky: *ibid.*, METC/EGSP Series No. 509.
 - *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Structure contour map on the base of the lower Huron Shale Member (Unit 5) of the Ohio Shale in eastern Kentucky: *ibid.*, METC/EGSP Series No. 510.
 - *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Structure contour map on the base of the middle Huron Shale Member (Unit 4) of the Ohio Shale in eastern Kentucky: *ibid.*, METC/EGSP Series No. 511.
 - *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Structure contour map on the base of the upper Huron Shale Member (Unit 3) of the Ohio Shale in eastern Kentucky: *ibid.*, METC/EGSP Series No. 512.
 - *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Structure contour map on the base of the Three Lick Bed (Unit 2) of the Ohio Shale in eastern Kentucky: *ibid.*, METC/EGSP Series No. 513.
 - *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Structure contour map on the base of the Cleveland Shale Member of the Ohio Shale in eastern Kentucky: *ibid.*, METC/EGSP Series No. 514.

- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Isopachous map of the Devonian black-shale sequence (New Albany-Chattanooga-Ohio Shale) in eastern Kentucky: *ibid.*, METC/EGSP Series No. 515.
- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Isopachous map of the Rhinestreet Shale (Unit 7) in eastern Kentucky: *ibid.*, METC/EGSP Series No. 516.
- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Isopachous map of the Upper Olentangy Shale (Unit 6) in eastern Kentucky: *ibid.*, METC/EGSP Series No. 517.
- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Isopachous map of the middle Huron Shale Member (Unit 5) of the Ohio Shale in eastern Kentucky: *ibid.*, METC/EGSP Series No. 518.
- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Isopachous map of the upper Huron Shale Member (Unit 4) of the Ohio Shale in eastern Kentucky: *ibid.*, METC/EGSP Series No. 519.
- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Isopachous map of the Three Lick Bed (Unit 3) of the Ohio Shale in Eastern Kentucky: *ibid.*, METC/EGSP Series No. 520.
- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1980, Isopachous map of the Three Lick Bed (Unit 2) of the Ohio Shale in eastern Kentucky: *ibid.*, METC/EGSP Series No. 522.
- *Ettensohn, F.R., 1980, *Paragassizocrinus*: Systematics, phylogeny, and ecology: Journal of Paleontology, v. 54, p. 978–1007.
- *Barron, L.S.*, and **Ettensohn, F.R.**, 1980, A bibliography of the paleontology and paleoecology of the Devonian-Mississippian black-shale sequence in North America: Technical Information Center, U.S. Department of Energy, DOE/METC/5202-13 (UGR File #418), 86 p.
- 1981 Ettensohn, F.R., and *Barron, L.S.*, 1981, Depositional model for the Devonian-Mississippian black-shale sequence of North America: A tectono-climatic approach: Technical Information Center, U.S. Department of Energy, DOE/METC/12040-2, 80 p.
 - *Ettensohn, F.R., 1981, *Crininicaminus haneyensis* gen. et. sp. nov., a new agglutinated worm tube from the Chesterian of east-central Kentucky: Journal of Paleontology, v. 55, p. 479–482.
 - *Broadhead, T.W., and **Ettensohn, F.R.,** 1981, A new *Brockocystis* (Echinodermata: Rhombifera) from the Lower Silurian (Llandovery) of Kentucky: Journal of Paleontology, v. 55, p. 773–779.
 - *Barron, L.S.*, and **Ettensohn, F.R.**, 1981, Paleoecology of the Devonian-Mississippian black shale sequence in eastern Kentucky: Technical Information Center, U.S. Department of Energy, DOE/ET/12040-151, 75 p.
 - **Ettensohn, F.R.**, and *Barron, L.S.*, 1981, Depositional model for the Devonian-Mississippian black shales of North America: A paleoclimatic approach, Field Trip 3, *in* Roberts, T.G. (ed.), G.S.A. Cincinnati '81 field trip guidebooks: American Geological Institute, Falls Church, Virginia, v. II, p. 344–361.
 - **Ettensohn, F.R.,** 1981, Field Trip 4, Part II, Mississippian-Pennsylvanian boundary in north-eastern Kentucky, *in* Roberts, T.G. (ed.), G.S.A. Cincinnati '81 guidebooks:

American Geological Institute, Falls Church, Virginia, v. 1, p. 195–247.

- *Ettensohn, F.R., 1981, A case for substrate influence on infrabasal-cone morphology of two Paleozoic stemless crinoid genera from eastern Kentucky: Southeastern Geology, v. 22, p. 169–175.
- *Wilson, E.N., Zafar, J.S., and **Ettensohn, F.R.**, 1981, Rome Trough Section: A stratigraphic section through the Devonian-Mississippian black-shale sequence in Tennessee, Kentucky, and West Virginia: Morgantown Energy Technology Center, U.S. Department of Energy, METC/EGSP Series No. 500.
- *Wilson, E.N., Zafar, J.S., and **Ettensohn, F.R.**, 1981, Southern Tie Section: A stratigraphic through the Devonian-Mississippian black-shale sequence in Ohio, Kentucky, West Virginia and Virginia: Morgantown Energy Technology Center, U.S. Department of Energy, METC/EGSP Series No. 501.
- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1981, Isopach map of highly radioactive black shale in the Chattanooga Shale of south-central Kentucky: Morgantown Energy Technology Center, U.S. Department of Energy, 1 sheet, scale 1:370,000, METC/EGSP Series No. 502.
- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1981, Isopach map of highly radioactive black shale in the West Falls Formation in Kentucky: *ibid.*, METC/EGSP Series No. 503.
- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1981, Isopach map of highly radioactive black shale in the Java Formation in Kentucky: *ibid.*, METC/EGSP Series No. 504.
- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1981, Isopach map of highly radioactive black shale in the Three Lick Bed and Huron Shale Member of the Ohio Shale in Kentucky: *ibid.*, METC/EGSP Series No. 505.
- *Dillman, S.B.*, and **Ettensohn, F.R.**, 1981, Isopach map of highly radioactive black shale in the Cleveland Shale Member of the Ohio Shale in Kentucky: *ibid.*, METC/EGSP Series No. 506.
- **Ettensohn, F.R.**, and *Barron, L.S.*, 1982, A tectonic-climatic approach to the deposition of the Devonian-Mississippian black-shale sequence of North America: Program, Fall Meeting, October 11 and 15, 1982, Appalachian Basin Industrial Associates, p. 161–249.
 - *Ettensohn, F.R., and *Bliefnick, D.M.*, 1982, Conodonts from a section of Upper Newman Limestone and Pennington Formation (Middle and Upper Chester), northeastern Kentucky: Journal of Paleontology, v. 56, p. 1482–1488.
- **Ettensohn, F.R.**, and *Barron, L.S.*, 1983, A tectonic-climatic approach to the deposition of the Devonian-Mississippian black-shale sequence of North America: Proceedings, 1982 Eastern Oil Shale Symposium, Kentucky Department of Energy and the University of Kentucky Institute for Mining and Minerals Research, Lexington, p. 5–37.
- 1984 Ettensohn, F.R., and *Elam, T.D.*, 1984, The Sunbury Shale and Bedford-Berea sequence near the black-shale outcrop belt in east-central and south-central Kentucky: Proceedings, 1983 Eastern Oil Shale Symposium, University of Kentucky Institute for Mining and Minerals Research and the Kentucky Energy Cabinet, Lexington, p. 143–149
 - Ettensohn, F.R., and Elam, T.D., 1984, Locating a Late Devonian-Early Mississippian

- pycnocline in eastern Kentucky: Program, Spring Meeting, March 22 and 23, 1984, Appalachian Basin Industrial Associates, Morgantown, p. 99–126.
- **Ettensohn, F.R.**, *Dever, G.R.*, *Jr.*, and *Grow, J.S.*, 1984, Fossil soils and subaerial crusts in the Mississippian of eastern Kentucky, *in* Rast, N., and Hay, H.B. (eds.). Field trip guides for Geological Society of America Annual meeting, Southeastern and Northcentral Sections, Lexington, p. 84–105.
- *Ettensohn, F.R., 1984, Unattached Paleozoic stemless crinoids as environmental indices: Geobios Special Memoir No. 8, p. 63–68.
- * Gordon, L.A., and Ettensohn, F.R., 1984, Stratigraphy, depositional environments and regional dolomitization of the Brassfield Formation (Llandoverian) in east-central Kentucky: Southeastern Geology, v. 25, p. 101–115.
- *Ettensohn, F.R., Rice, C.L., *Dever, G.R., Jr.*, and *Chesnut, D.R.*, 1984, Slade and Paragon Formations: New stratigraphic nomenclature for Mississippian rocks along the Cumberland Escarpment in Kentucky: U.S. Geological Survey Bulletin 1065-B, 37 p.
- *Hale, A.P., and Ettensohn, F.R., 1984, Micromorphological features observed in pedogenic carbonates (caliche) on San Salvador Island, Bahamas: Proceedings of the Second Symposium on the Geology of the Bahamas, 1984, p. 265–277.
- **Ettensohn, F.R.,** 1985, The nature and effects of water depth during deposition of the Devonian-Mississippian black shale: Proceedings, 1984 Eastern Gas Shales Symposium, Institute for Mining and Minerals Research, Lexington, KY, p. 333–346.
 - *Ettensohn, F.R., 1985, Controls on the development of Catskill Delta Complex basin facies: Geological Society of America Special Paper 201, p. 65–77.
 - *Ettensohn, F.R., 1985, The Catskill Delta Complex and the Acadian Orogeny: A model: Geological Society of America Special Paper 201, p. 39–48.
 - Pashin, J.C., and Ettensohn, F.R., 1985, Paleoenvironments of the Bedford-Berea sequence (Devonian-Mississippian), Northeastern Kentucky and south-central Ohio: Program, Spring Meeting, April 11 and 12, 1985, Appalachian Basin Industrial Associates, Morgantown, v. 8, p. 32-76.
 - *Ettensohn, F.R., and, *Elam, T.D.*, 1985, Defining the nature and location of a Late Devonian-Early Mississippian pycnocline in eastern Kentucky: Geological Society of American Bulletin, v. 96, p. 1313-1321.
 - *Ettensohn, F.R., and *Chesnut, D.R.*, 1985, Echinoderm paleoecology and paleoenvironments from the Glen Dean/Bangor and lower Pennington (Chesterian), south-central Kentucky, *in* Dutro, J.T., Jr., and Pfefferkorn, H.W., eds., Paleontology, paleoecology, and paleogeography: Compte Rendu, Neuvième Congrès International de Stratigraphie et de Géologie du Carbonifère, Carbondale, Southern Illinois University Press, v. 5, p. 349-360.
 - *Ettensohn, F.R., and *Chesnut, D.R.*, 1985, Depositional environments and stratigraphy of the Pennington Formation (Upper Viséan-Namurian A), east-central and eastern Kentucky, U.S.A., *in* Escobedo, J.L., and others (eds.), Compte Rendu, Dixième Congrès International de Stratigraphic et de Géologie du Carbonifère, Madrid, v. 3, p. 269–283.
- *Ettensohn, F.R., and *Gordon, L.A.*, 1986, Stratigraphy, depositional environments, and

regional dolomitization of the Brassfield Formation in east-central Kentucky: Reply to discussion: Southeastern Geology, v. 26, p. 195-198.

Ettensohn, F.R., *Pashin, J.C.*, and *Jacobs, G.W.*, 1986, Characteristics of shallow-water, marine, shelf silts and sands: Two Paleozoic examples from eastern Kentucky: Program, Spring Meeting, April 24-25, 1986, Appalachian Basin Industrial Associates, Morgantown, v. 10, p. 197-211.

*Ettensohn, F.R., Amig, B.C., Pashin, J.C., Greb, S.F., and others, 1986, Paleoecology and paleoenvironments of the bryozoan-rich Sulphur Well Member, Lexington Limestone (Middle Ordovician), central Kentucky: Southeastern Geology, v. 26, p. 199-210.

*Ettensohn, F.R., 1986, The Mississippian-Pennsylvanian transition along Interstate 64, northeastern Kentucky, *in* Neathery, T.L., ed., Southeastern Section of the Geological Society of America: Boulder, Colorado, Geological Society of America Centennial Field Guide, v. 6, p. 37-41.

Ettensohn, F.R., Lewis, S.E., Langenheim, R.L., Jr., and Gaskill, D.L., 1986, Geologic map of southwest Cement Creek, *in* Gaskill, D.L., and others, Geologic map of the Crested Butte Quadrangle, Gunnison County, Colorado: U.S. Geological Survey Geologic Quadrangle Map GQ-1580.

- **Ettensohn, F.R.**, and *Geller, K.L.*, 1987, Tectonic control of interbasinal relationships between Devonian black shales in the Illinois and Appalachian basins of Kentucky: Proceedings, 1986 Eastern Oil Shale Symposium, Kentucky Energy Cabinet Laboratory, Lexington, KY, p. 303-314.
 - *Ettensohn, F.R., 1987, Rates of relative plate motion during the Acadian Orogeny based on the spatial distribution of black shales: Journal of Geology, v. 95, p. 572-582.
 - *Pashin, J.C., and Ettensohn, F.R., 1987, An epeiric shelf-to-basin transition: Bedford-Basin sequence northeastern Kentucky and south-central Ohio: American Journal of Science, v. 287, p. 893-926.

Geller, K.L., and **Ettensohn, F.R.**, 1987, Interbasinal relationships between Devonian Black Shales in the Illinois and Appalachian basins of Kentucky: Fall 1987 volume, Appalachian Basin Industrial Associates, Morgantown, v. 13, p. 15-37.

- *Ettensohn, F.R., *Dever, G.R., Jr.*, and *Grow, J.S.*, 1988, A paleosol interpretation for profiles exhibiting subaerial exposure "crusts" from the Mississippian of the Appalachian Basin: Geological Society of America Special Paper 216, p. 49-79.
 - * Chesnut, D.R., and Ettensohn, F.R., 1988, Hombergian (Chesterian) echinoderm paleontology and paleoecology, south-central Kentucky: Bulletins of American Paleontology, v. 95, no. 330, 102 p.

Ettensohn, F.R., and *Gooding, P.J.*, 1988, Middle Devonian through Lower Mississippian rocks from a transition area between the Appalachian and Illinois basins, *in* Smosna, R., A walk through the Paleozoic of the Appalachian Basin: AAPG Eastern Section Meeting Core Workshop, Appalachian Geological Society, Charleston, p. 76-92.

Pashin, J.C., and Ettensohn, F.R., 1988, Tide- and storm-related sandstones in the Bedford-Berea sequence, northeastern Ohio and northwestern Pennsylvania: Fall

Program, Appalachian Basin Industrial Associates, v. 14, p. 2-35.

- *Ettensohn, F.R., *Miller, M.L., Dillman, S.B, Elam, T.C., Geller, K.L., Swager, D.R., Markowitz, G., Woock, R.D., and Barron, L.S.*, 1988, Characterization and implications of the Devonian-Mississippian black-shale sequence, eastern and central Kentucky, U.S.A.: Pycnoclines, transgression, regression, and tectonism, *in* McMillan, N.M.J., Embry, A.F, and Glass, D.J., eds., Devonian of the World, Proceedings of the Second International Symposium on the Devonian System: Canadian Society of Petroleum Geologists Memoir 14, v. 2, p. 323–345.
- *Woodrow, D.L., Dennison, J.M., **Ettensohn, F.R.**, Sevon, W.D., and Kirchgasser, W.T., 1988, The Middle and Upper Devonian of the Appalachian Basin, United States, *in* McMillan, N.J., Embry, A.F., and Glass, D.J., eds., Devonian of the World, Proceedings of the Second International Symposium on the Devonian System: Canadian Society of Petroleum Geologists Memoir 14, v. 1, p. 277-301.
- **Ettensohn, F.R.**, *Goodman, P.T.*, Norby, R.D., and *Shaw, T.H.*, 1989, Stratigraphy and biostratigraphy of the Devonian-Mississippian black shales in west-central Kentucky and adjacent parts of Indiana, *in* Proceedings, 1988 Eastern Oil Shale Symposium: Institute for Mining and Minerals Research, Lexington, KY, p. 237–245.
 - Pashin, J.C., and Ettensohn, F.R., 1989, The Bedford fauna (Late Devonian) of Kentucky and Ohio: Paleoecologic and sedimentologic dynamics of the dysaerobic zone: Spring Program, April, 1989, Appalachian Basin Industrial Associates, v. 15, p. 42–64.
 - *Rodriguez, R., **Ettensohn, F.R.**, and *Goodman, P.T.*, 1989, Preliminary interpretation of a seismic section from the north end of San Salvador, Bahamas, *in* Mylroie, J.E., ed., Proceedings of the 4th Symposium on the Geology of the Bahamas: Bahamian Field Station, San Salvador, Bahamas, p. 305–312.
 - *Ettensohn, F.R., and *Chesnut, D.R., Jr.*, 1989, Nature and probable origin of the Mississippian-Pennsylvania unconformity in the eastern United States, *in* Yugan, J., and Chun, L., eds., Compte Rendu, Onzième Congrès International de Stratigraphie et de Géologie du Carbonifère: Nanjing, Nanjing University Press, v. 4, p. 145–159.
- 1990 Ettensohn, F.R., 1990, Estimating absolute depths for Devonian-Mississippian black shales in eastern United States: Implications for eustatic vs. tectonic control of "sealevel:" Fall Program, Appalachian Basin Industrial Associates, Morgantown, v. 17, p. 40–139.
 - **Ettensohn, F.R.**, and Bayan, M.R., 1990, Occurrence and significance of a zoned halloysite (10Å) and allophane deposit below Devonian black shales in central Kentucky: Southeastern Geology, v. 31, p. 1–25.
- **1991 Ettensohn, F.R.**, 1991, Review of "Argillaceous Rock Atlas," by N.R. O'Brien and R.M. Slatt: Economic Geology, v. 86, p. 904.
 - *Ettensohn, F.R., 1991, Flexural interpretation of relationships between Ordovician tectonism and stratigraphic sequences, central and southern Appalachians, U.S.A., *in* Barnes, C.R., and Williams, S.H., eds., Advances in Ordovician geology: Geological Survey of Canada, Paper 90-9, p. 213–224.
 - Ettensohn, F.R., *Barnett, S.F.*, and Norby, R.D., 1991, Middle Devonian black shales in Kentucky, *in* Proceedings, 1990 Eastern Oil Shale Symposium: U.K. Institute for Mining

and Minerals Research, Lexington, p. 218-226.

Ettensohn, F.R., 1991, Critical factors in the origin of Kentucky's oil and gas shales: Highlights, v. 10, no. 4, p. 1–2.

- *Pashin, J.C., and Ettensohn, F.R., 1992, Paleoecology and sedimentology of the dysaerobic Bedford fauna (Late Devonian), Ohio and Kentucky, U.S.A.: Palaeogeography, Paleoclimatology, Palaeoecology, v. 91, p. 21–34.
 - *Huysken, K.T., Ettensohn, F.R., and Wicander, R., 1992, Palynology and biostratigraphy of selected Middle and Upper Devonian black-shale sections in Kentucky: Michigan Academician, v. 24, p. 355–368.

Ettensohn, F.R., 1992, Controls on the origin of the Devonian-Mississippian oil and gas shales, east-central United States, *in* Proceedings, 1991 Eastern Oil Shale Symposium: U.K. Institute for Mining and Minerals Research, Lexington, p. 417–425.

Ettensohn, F.R., and *Hendricks, R.T.*, 1992, Core-logging manuals for eastern oil and gas shales: Highlights, v. 11, no. 4, p. 3–4.

Ettensohn, F.R., 1992, Fossils, *in* Kleber, J.E., ed., The Kentucky encyclopedia: University of Kentucky Press, Lexington, p. 348–349.

Ettensohn, F.R., ed., 1992, Changing interpretations of Kentucky geology--layer-cake, facies, flexure, and eustacy: Centennial field trip, University of Kentucky Department of Geological Sciences: Geological Society of America Annual Meeting Field Trip No. 15, Ohio Geological Survey, 184 p. (Guidebook edited by F.R. Ettensohn and includes 34 articles authored or coauthored by F.R. Ettensohn).

- *Ettensohn, F.R., 1992, Controls on the origin of the Devonian-Mississippian oil and gas shales, east-central United States: Fuel, v. 71, p. 1487-1492.
- *Ettensohn, F.R., 1992, Mississippian parts of the section at Frenchburg: Structural influence along the Kentucky River Fault Zone, *in* Cecil, C.B., and Eble, C.F., eds., Paleoclimate controls on Carboniferous sedimentation and cyclic stratigraphy in the Appalachian Basin: Guidebook, Geological Society of America Annual Meeting Field Trip No. 2, Coal Geology Division, U.S. Geological Survey Open File Report 92-546, p. 87–90.

Ettensohn, F.R., 1992, The Mississippian-Pennsylvanian systemic boundary on the Waverly Arch apical island, *in* Cecil, C.B., and Eble, C.F., eds., Paleoclimate controls on Carboniferous sedimentation and cyclic stratigraphy in the Appalachian Basin: Guidebook, Geological Society of America Annual Meeting Field Trip No. 2, Coal Geology Division, 76–81.

*Ettensohn, F.R., and Cecil, C.B., 1992, The Olive Hill Clay Bed of Crider (1913) on the Waverly Arch apical island, *in* Cecil, C.B., and Eble, C.F., eds., Paleoclimate controls on Carboniferous sedimentation and cyclic stratigraphy in the Appalachian Basin: Guidebook, G.S.A. Annual Meeting Field Trip No. 2, Coal Geology Division, U.S. Geological Survey Open File Report 92-546, p. 81–85.

Ettensohn, F.R., and *Lierman, R.T.*, 1992, Chesterian, humid-type, residual paleosols from the Slade Formation, *in* Cecil, C.B., and Eble, C.F., eds., Paleoclimate controls on Carboniferous sedimentation and cyclic stratigraphy in the Appalachian Basin:

Guidebook, G.S.A. Annual Meeting Field Trip No. 2, Coal Geology Division, U.S. Geological Survey Open File Report 92-546, p. 85–87.

*Ettensohn, F.R., 1993, Possible flexural controls on the origins of extensive, ooid-rich, carbonate environments in the Mississippian of the United States, *in* Zuppan, C.W., and Keith, B., eds., Mississippian oolites of North America: American Association of Petroleum Geologists Studies in Geology # 35, p. 13–30.

Ettensohn, F.R., and *Hendricks, R.T.*, 1993, Development of a core-logging manual for the eastern oil and gas shales, *in* Proceedings, 1992 Eastern Oil Shale Symposium: University of Kentucky Institute for Mining and Minerals Research, Lexington, p. 287–293.

Ettensohn, F.R., and *Pashin, J.C.*, 1993, Mississippian stratigraphy of the Black Warrior basin and adjacent parts of the Appalachian basin: Evidence for flexural interaction between two foreland basins, *in* Pashin, J.C., ed., New perspectives on the Mississippian System of Alabama, Guidebook for the 30th Annual Field Trip: Alabama Geological Society, Tuscaloosa, p. 29–40.

- Bayan, M.R., and Ettensohn, F.R., 1994, Supergene alteration of substrates below Devonian-Mississippian oil and gas shales: Origin and significance, *in* Proceedings, 1993 Eastern Oil Shale Symposium: University of Kentucky Institute for Mining and Minerals Research, Lexington, p. 376–380.
 - *Ettensohn, F.R., 1994, Development and potential of core-logging manuals: Geotechnical Testing Journal, v. 17, p. 393–398.

Hendricks, R.T., Ettensohn, F.R., Stark, T.J., and Greb, S.F., 1994, Geology of the Devonian strata of the Falls of the Ohio Area, Kentucky-Indiana: Stratigraphy, sedimentology, paleontology, structure, and diagenesis, Field Guide, Annual Field Conference of the Geological Society of Kentucky: Kentucky Geological Survey, Series XI, 65p.

- *Ettensohn, F.R., 1994, Tectonic control on formation and cyclicity of major Appalachian unconformities and associated stratigraphic sequences, *in* Dennison, J.M., and Ettensohn, F.R., eds., Tectonic and eustatic controls on sedimentary cycles: SEPM Concepts in Sedimentology and Paleontology, v. 4, p. 217–242.
- *Dennison, J.M., and **Ettensohn, F.R.**, eds., 1994, Tectonic and eustatic controls on sedimentary cycles: SEPM Concepts in Sedimentology and Paleontology, v. 4, 264p.
- *Ettensohn, F.R., 1994, Marine, organic-rich, dark-shale deposition on North American parts of Pangea, Carboniferous to Jurassic: Effects of supercontinent organization, *in* Beauchamp, B., Embry, A.F., and Glass, D., eds., Carboniferous to Jurassic Pangea: A global view of environments and resources: Canadian Society of Petroleum Geology Memoir 17, p. 743-762.
- **Ettensohn, F.R.**, 1995, Global and regional controls on origin and burial of organic matter in Devonian-Mississippian black shales of North America: Bulletin, Houston Geological Society, v. 37, p. 12-17.
 - * Pashin, J.C., and Ettensohn, F.R., 1995, Reevaluation of the Bedford-Berea Sequence in Ohio and adjacent states: Forced regression in a foreland basin: Geological Society of America Special Paper 298, 68p.

- *Ettensohn, F.R., and Kulp, M.A., 1995, Structural-tectonic control on Middle-Late Ordovician deposition of the Lexington Limestone, Central Kentucky, *in* Cooper, J.D., Droser, M.L., and Finney, S.C., eds., Ordovician Odyssey: Short Papers for the Seventh International Symposium on the Ordovician System: Pacific Section, Society for Sedimentary Geology (SEPM), Fullerton, p. 261–264.
- *Barnett, S.F., Ettensohn, F.R., and Norby, R.D., 1995, The Carpenter Fork Bed, a new and older black-shale unit at the base of the New Albany Shale in central Kentucky: Characterization and significance: Southeastern Geology, v. 35, p. 187–210.
- **Ettensohn, F.R.**, 1996, Review of "Atlas of Mesozoic and Cenozoic Coastlines," by Smith, A.G., Smith, D.G., and Funnell, B.M.: Journal of Geoscience Education, v. 44, p. 227-228.
- *Ettensohn, F.R., 1997, An experiment in collaborative mapping at geology field camp: Journal of Geoscience Education, v. 45, p. 229–234.
 - *Ettensohn, F.R., 1997, Assembly and dispersal of Pangea: Large-scale tectonic effects on coeval deposition of North American, marine, epicontinental black shales: Journal of Geodynamics, v. 23, p. 287–309.
 - **Ettensohn, F.R.**, Greb, S.F., and Rast, N., 1997, Fossils, ball-and-pillow structures, and tempestites evidence for earthquakes and storms in a shallow sea, Lexington Limestone, *in* Greb, S.F., Dever, G.R., Jr., and Anderson, W.H., Economic geology of the Inner Blue Grass Region: 1997 Annual Field Trip of the Kentucky Society of Professional Geologists, Kentucky Geological Survey, p. 25–27.
 - **Ettensohn, F.R.**, and *Pashin, J.C.*, 1997, Development of multiple unconformities during the Devonian-Carboniferous transition on parts of Laurussia, *in* Podemski, M., et al., eds., Proceedings of the XIII International Congress on the Carboniferous and Permian: Prace Państwowego Instytutu Geologicznego, CLVII, Warszawa, Part 1, p. 77–86.
- *Ettensohn, F.R., and Brett, C.E., 1998, Tectonic components in third-order Silurian cycles: Examples from the Appalachian Basin and global implications, *in* Landing, E., and Johnson, M., eds., Silurian Cycles, Linkages of dynamic stratigraphy with atmospheric, oceanic, and tectonic changes: New York State Museum Bulletin 491, p. 145–162.
 - *Ettensohn, F.R., 1998, Compressional tectonic controls on epicontinental black-shale deposition: Devonian-Mississippian examples from North America, *in* Schieber, J., Zimmerle, W., and Sethi, P., eds., Shales and Mudstones: Basin studies, sedimentology, and paleontology, v. 1: E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, p. 109–128.
 - **Ettensohn, F.R.**, 1998, The Mississippian section at Pound Gap: A tectono-stratigraphic overview, *in* Eble, C.F., Greb, S.F., and Dever, G.R., Jr., eds., Geology of Pound Gap Roadcut, Letcher County, Kentucky, 1998 Annual Field Conference of the Kentucky Society of Professional Geologists: Kentucky Society of Professional Geologists, Lexington, p. 13-23.
 - **Ettensohn, F.R.**, and *Chesnut, D.R., Jr.*, 1998, Overview of the Pennington Formation at Pound Gap, *in* Eble, C.F., Greb, S.F., and Dever, G.R., Jr., eds., Geology of Pound Gap Roadcut, Letcher County, Kentucky, 1998 Annual Field Conference of the Kentucky

Society of Professional Geologists: Kentucky Society of Professional Geologists, Lexington, p. 24-27.

Greb, S.F., and **Ettensohn, F.R.**, 1998, Geology of the upper Pennington Formation at Pound Gap, *in* Eble, C.F., Greb, S.F., and Dever, G.R., Jr., eds., Geology of Pound Gap Roadcut, Letcher County, Kentucky, 1998 Annual Field Conference of the Kentucky Society of Professional Geologists: Kentucky Society of Professional Geologists, Lexington, p. 28-31.

Ettensohn, F.R., and Greb, S.F., 1998, The Little Stone Gap Limestone - Pride Shale Interval, *in* Eble, C.F., Greb, S.F., and Dever, G.R., Jr., eds., Geology of Pound Gap Roadcut, Letcher County, Kentucky, 1998 Annual Field Conference of the Kentucky Society of Professional Geologists: Kentucky Society of Professional Geologists, Lexington, p. 50-53.

Ettensohn, F.R., and Greb, S.F., 1998, The Upper Newman Limestone at Pound Gap, *in* Eble, C.F., Greb, S.F., and Dever, G.R., Jr., eds., Geology of Pound Gap Roadcut, Letcher County, Kentucky, 1998 Annual Field Conference of the Kentucky Society of Professional Geologists: Kentucky Society of Professional Geologists, Lexington, p. 59-62.

Ettensohn, F.R., 1998, The Devonian-Mississippian black-shale sequence at Pound Gap, *in* Eble, C.F., Greb, S.F., and Dever, G.R., Jr., eds., Geology of Pound Gap Roadcut, Letcher County, Kentucky, 1998 Annual Field Conference of the Kentucky Society of Professional Geologists: Kentucky Society of Professional Geologists, Lexington, p. 87-96.

- *Rast, N., Ettensohn, F.R., and Rast, D.E., 1999, Taconian seismogenic deformation in the Appalachian orogen and the North American craton, *in* Mac Niocaill, C., and Ryan, P.D., eds., Continental Tectonics: Geological Society of London Special Publication 164, p. 127-137.
- Pool, C.A., King, B.C., and **Ettensohn, F.R.**, 2001, Volcanic, ash-tempered "Fine Paste" pottery at Tres Zapottes, Veracruz, Mexico: La Tinaja, v. 13, p. 7-8.

Ettensohn, F.R., 2001, Possible flexural controls on Paleozoic delta complexes in compressional tectonic regimes: Examples from the Appalachian Basin, U.S.A., *in* Zaghloul, Z.M., and Elgamal, M.M., eds., Deltas, modern and ancient: Proceeding of the 1st International Symposium on the Deltas: Cairo, Egypt, Mansoura University, p. 239-255.

Pashin, J.C., and Ettensohn, F.R., 2001, The Bedford-Berea lowstand wedge (Upper Devonian): Flexurally modified deltaic deposits in the Appalachian foreland basin, U.S.A., in Zaghloul, Z.M., and Elgamal, M.M., eds., Deltas, modern and ancient: Proceeding of the 1st International Symposium on the Deltas: Cairo, Egypt, Mansoura University, p. 257-259.

*Ettensohn, F.R., and Brett, C.E., 2002, Stratigraphic evidence for continuation of Taconian orogeny into Early Silurian time: *in* Mitchell, C.E., and Jacobi, R., eds., Taconic convergence: Orogen, foreland basin, and craton: Physics and Chemistry of the Earth, v. 27, p. 279-288.

Ettensohn, F.R., and Smath, M.L., eds., 2002, Guidebook for geology fieldtrips in

- Kentucky and adjacent areas, 2002 Joint Meeting of the North-Central Section and Southeastern Section of the Geological Society of America: Lexington, University of Kentucky, 169 p. (includes three papers coauthored by Ettensohn; see 2003 below).
- *Ettensohn, F.R., Greb, S.F., *Chesnut, D.R., Jr.*, Harris, D.C., Harris, C.E., Eble, C.F., Howell, P.D., *Watson, A.E.*, and Johnson, W.K., 2002, Mississippian stratigraphy, depositional environments, and tectonic framework of the Central Appalachian Basin, eastern Kentucky, U.S.A., *in* Hills, L.V., Henderson, C.M., and Bamber, E.W., eds., Carboniferous and Permian of the World: Canadian Society of Petroleum Geologists Memoir 19, p. 22-40.
- *Greb, S.F., *Chesnut, D.R., Jr.*, Dever, G.R., Jr., Harris, D.C., **Ettensohn, F.R.**, *Mason, C.E., Andrews, W.M.*, Howell, P.D., Eble, C.F., Caudill, M.R., Houck, K.J., and Nelson, W.J., 2002, Pound Gap A new reference section for Mississippian strata on Pine Mountain, central Appalachian Basin, U.S.A., *in* Hills, L.V., Henderson, C.M., and Bamber, E.W., eds., Carboniferous and Permian of the World: Canadian Society of Petroleum Geologists Memoir 19, p. 696-709.
- *Ettensohn, F.R., Hohman, J.C., Kulp, M.A., and Rast, N., 2002, Evidence and implications of possible far-field responses to Taconian Orogeny: Middle-Late Ordovician Lexington Platform and Sebree Trough, east-central United States: Southeastern Geology, v. 41, p. 1-36.
- *Ettensohn, F.R., Rast, N., and Brett, C.E., eds., 2002, Ancient seismites: Boulder, Colorado, Geological Society of America Special Paper 359, 190 p.
- **Ettensohn, F.R.**, Rast, N., and Brett, C.E., 2002, Preface, *in* Ettensohn, F.R., Rast, N., and Brett, C.E., eds., Ancient seismites: Boulder, Colorado, Geological Society of America Special Paper 359, p. vii-viii.
- *Ettensohn, F.R., Kulp, M.A., and Rast, N., 2002, Interpreting ancient marine seismites and apparent epicentral areas for paleo-earthquakes, Middle Ordovician Lexington Limestone, central Kentucky, *in* Ettensohn, F.R., Rast, N., and Brett, C.E., eds., Ancient seismites: Geological Society of America Special Paper 359, p. 177–190.
- Andrews, W.M., Ettensohn, F.R., Gooding, P.J., and Smath, M.L., eds., 2002, Impact of geology on human history at Camp Nelson and Perryville, central Kentucky, Kentucky Society of Professional Geologists Annual Field trip, September 19–21, 2002: Lexington, Kentucky Society of Professional Geologists, 112 p. (contains 7 papers coauthored by Ettensohn; see below).
- **Ettensohn, F.R.**, Kuhnhenn, G.L., and *Johnson, W.*, 2002, Stratigraphic and depositional framework, *in* Andrews, W.M., Ettensohn, F.R., Gooding, P.J., and Smath, M.L., eds., Impact of geology on human history at Camp Nelson and Perryville, central Kentucky, Kentucky Society of Professional Geologists Annual Field trip, September 19-21, 2002: Lexington, Kentucky Society of Professional Geologists, p. 4–10.
- Ettensohn, F.R., and Hickman, J.B., 2002, Structural Framework, *in* Andrews, W.M., Ettensohn, F.R., Gooding, P.J., and Smath, M.L., eds., Impact of geology on human history at Camp Nelson and Perryville, central Kentucky, Kentucky Society of Professional Geologists Annual Field Trip: Lexington, Kentucky Society of Professional Geologists, p. 11–14.

Ettensohn, F.R., Kuhnhenn, G.L., and *Johnson, W.*, 2002, Stop 1 - Shallow-ramp storm beds and cycles in the lower Lexington Limestone, *in* Andrews, W.M., et al., eds., Impact of geology on human history at Camp Nelson and Perryville, central Kentucky, Kentucky Society of Professional Geologists Annual Field trip: Lexington, Kentucky Society of Professional Geologists, p.61-66.

Ettensohn, F.R., and Kuhnhenn, G.L., 2002, Stop 2 - Shallow-ramp peritidal carbonates in the Tyrone Formation, upper High Bridge Group, *in* Andrews, W.M., et al., eds., Impact of geology on human history at Camp Nelson and Perryville, central Kentucky, Kentucky Society of Professional Geologists Annual Field trip: Lexington, Kentucky Society of Professional Geologists, p. 66-71.

Ettensohn, F.R., Kuhnhenn, G.L., and *Andrews, W.M., Jr.*, 2002, Stop 3 - Shallow-ramp, platform-lagoonal carbonates in the Oregon and Camp Nelson formations, High Bridge Group, *in* Andrews, W.M., et al., eds., Impact of geology on human history at Camp Nelson and Perryville, central Kentucky, Kentucky Society of Professional Geologists Annual Field trip: Lexington, Kentucky Society of Professional Geologists, p. 71-76.

Ettensohn, F.R., *Johnson, W.K.*, Hickman, J.B., and Kuhnhenn, G.L., 2002, Stop 4 - Intermediate-ramp, shallow, open-marine carbonates: Tempestites and seismites in the Grier member, Lexington Limestone, *in* Andrews, W.M., et al., eds., Impact of geology on human history at Camp Nelson and Perryville, central Kentucky, Kentucky Society of Professional Geologists Annual Field trip: Lexington, Kentucky Society of Professional Geologists, p. 76-83.

Ettensohn, F.R., Hickman, J.B., Anderson, W.H., and Kuhnhenn, G.L., 2002, Stop 5 – Lexington Fault System and displacement between the Camp Nelson and Lexington limestones, *in* Andrews, W.M., et al., eds., Impact of geology on human history at Camp Nelson and Perryville, central Kentucky, Kentucky Society of Professional Geologists Annual Field trip: Lexington, Kentucky Society of Professional Geologists, p. 83–84.

Ettensohn, F.R., and Smath, M.L., eds., 2003, Guidebook for geology fieldtrips in Kentucky and adjacent areas, 2002 Joint Meeting of the North-Central Section and Southeastern Section of the Geological Society of America: Kentucky Geological Survey Guidebook 2, Series XII, 170 p. (contains 3 papers coauthored by Ettensohn; see below).

Ettensohn, F.R., Johnson, W., Stewart, A., Solis, M., and White, T., 2003, Middle and Upper Mississippian stratigraphy and depositional environments in east-central Kentucky: The new Bighill exposure, in Ettensohn, F.R., and Smath, M.L., eds., Guidebook for geology fieldtrips in Kentucky and adjacent areas, 2002 Joint Meeting of the North-Central Section and Southeastern Section of the Geological Society of America: Kentucky Geological Survey Guidebook 2, Series XII, p. 14-34.

Hendricks, R.T., Ettensohn, F.R., and Whittemore, R.E., 2003, Silurian through Lower Mississippian geology, paleontology, and economic influence in the Falls of the Ohio Region, Kentucky/Indiana, *in* Ettensohn, F.R., and Smath, M.L., eds., Guidebook for geology fieldtrips in Kentucky and adjacent areas, 2002 Joint Meeting of the North-Central Section and Southeastern Section of the Geological Society of America: Kentucky Geological Survey Guidebook 2, Series XII, p. 35–58.

Ettensohn, F.R., and *Stewart, A.K.*, 2003, Middle and Late Ordovician seismites from central Kentucky, *in* Ettensohn, F.R., and Smath, M.L., eds., Guidebook for geology fieldtrips in Kentucky and adjacent areas, 2002 Joint Meeting of the North-Central Section and Southeastern Section of the Geological Society of America: Kentucky Geological Survey Guidebook 2, Series XII, p. 129–151.

Ettensohn, F.R., and Gates, A.E., eds., 2004, Tectonics of the Appalachian Belt, Rast Memorial Issue: Journal of Geodynamics (Special Issue), v. 37, 680 p.

Ettensohn, F.R., and Gates, A.E., 2004, Preface: Journal of Geodynamics, v. 37, p. 297–299.

- *Jewell, H.E., and Ettensohn, F.R., 2004, An ancient seismite response to Taconian farfield forces: The Cane Run Bed, Upper Ordovician (Trenton) Lexington Limestone, central Kentucky: Journal of Geodynamics, v. 37, p. 487–511.
- *Ettensohn, F.R., 2004, Modeling the nature and development of major Paleozoic clastic wedges in the Appalachian Basin, U.S.A.: Journal of Geodynamics, v. 37, 657–681.
- *Ettensohn, F.R., Kasl, J.M., and Stewart, A.K., 2004, Structural inversion and origin of a Middle/Late Ordovician carbonate buildup: Evidence from the Tanglewood and Devils Hollow members, Lexington Limestone, central Kentucky (USA): Palaeogeography, Palaeoclimatology, Palaeoecology, v. 210, p. 249–266.

Gooding, P.J., and **Ettensohn, F.R.**, 2004, Mississippian-Devonian black shales of Kentucky: East-west transect in five cores from the Appalachian Basin to the Illinois Basin, *in* Gustason, E.R., and Sageman, B.B., organizers, Shale resource core workshop: Denver, Rocky Mountain Association of Geologists and Rocky Mountain Section, SEPM, Part 4, 42 p.

Ettensohn, F.R., 2004, Field trip route and physiography, *in* Smath, R.A., ed., The Bighill exposure and a little beyond, 2004 Joint Field Trip: Lexington, Kentucky Society of Professional Geologists and Kentucky Section of the American Institute of Professional Geologists, p. 1–3.

Ettensohn, F.R., *Johnson, W., Stewart, A., Solis, M.*, and *White, T.*, 2004, Stratigraphy and depositional environments of the Middle and Upper Mississippian Slade and Paragon formations, Bighill exposure, east-central Kentucky, *in* Smath, R.A., ed., The Bighill exposure and a little beyond, 2004 Joint Field Trip: Lexington, Kentucky Society of Professional Geologists and Kentucky Section of the American Institute of Professional Geologists, p. 18–43.

Ettensohn, F.R., 2005, Controls on the origin of Devonian black-shale facies on Laurussia: Palaeogeography, palaeoclimate, and tectonics, *in* Yolkin, E.A., Izokh, N.G., Obut, O.T, and Kipriyanova, T.P., eds., Contributions, International Conference, "Controls on the origin of Devonian black-shale facies on Laurussia: Palaeogeography, palaeoclimate, and tectonics (IGCP 499 Project/SDS Joint Field Meeting):" Novosibirsk, Publishing House of SB, RAS, "GEO" Branch, p. 49–51.

*Mabesoone, J.M., **Ettensohn, F.R.** Van Loon, A.J., and Neuman, V.H., 2005, Chapter 1. Long-term cyclicities: Introduction, *in* Mabesoone, J.M., and Neuman, V.H., eds., Cyclic development of sedimentary basins, Developments in sedimentology, 57: Amsterdam,

Elsevier, p. 1–14.

- *Ettensohn, F.R., 2005, Chapter 5. The sedimentary record of foreland-basin, tectophase cycles: Examples from the Appalachian basin, *in* Mabesoone, J.M., and Neuman, V.H., eds., Cyclic development of sedimentary basins, Developments in Sedimentology, 57: Amsterdam, Elsevier, p. 139–172.
- *Mabesoone, J.M., Abed, A.M., Dasgupta, P.K., **Ettensohn, F.R.**, Goroshko, M.V., Markevich, P.V., Pavelić, D., and Suprunenko, O.I., 2005, Chapter 14. Overview, *in* Mabesoone, J.M., and Neuman, V.H., eds., Cyclic development of sedimentary basins, Developments in sedimentology, 57: Amsterdam, Elsevier, p. 425–448.
- *Su, W., Li, Z., Shi, X., Zhou, H., Huang, S., Liu, X., Chen, X., Zhang, J., Yang, H., Jia, L., Huff, W.D., and Ettensohn, F.R., 2006, K-bentonites and black shales from the Wufeng-Longmaxi formations (Early Paleozoic, South China), and Xiamaling Formation (Early Proterozoic, North China—Implications for tectonic processes during two important transitions (in Chinese with English abstract): Earth Science Frontiers, v. 13, p. 82–95.
- *Ettensohn, F.R., Ausich, W.I., Kammer, T.R., Chesnut, D.R., Jr., and *Johnson, W.K.*, 2007, Carboniferous echinoderm zonation in the Appalachian Basin, eastern USA, *in* Wong, T. E. ed., Proceedings of the XVth International Congress on Carboniferous and Permian Stratigraphy: Netherlands Journal of Geosciences (Geologie en Mijnbouw), v. 84, p. 177–189.
 - **Ettensohn, F.R.**, and Smath, R.A., 2007, The Camp Nelson Formation near the Carmeuse Mine, Maysville, Kentucky, *in* Lower Paleozoic stratigraphy of the Maysville area, 2007 Spring Field Trip of the Kentucky Section of the American Institute of Professional Geologists: Lexington, Kentucky Section, American Institute of Professional Geologists, p. 5–19.
 - *Su Wen-bo, Li Zhi-ming, **Ettensohn, F.R.**, Johnson, M.E., Huff, W.D., Wang Wei, Ma Chao, Li Lu, Zhang Lei, Zhao Hui-jing, 2007, Distribution of black shale in the Wufeng-Longmaxi formations (Ordovician-Silurian), South China: Major controlling factors and implications (in Chinese with an English abstract): Earth Science Journal of the China University of Geosciences, v. 32, p. 819–827.
 - *Su Wen-bo, Li Zhi-ming, **Ettensohn, F.R.**, Johnson, M.E., Huff, W.D., Wang Wei, Ma Chao, Li Lu, Zhang Lei, Zhao Hui-jing, 2007, Tectonic and eustatic control on the distribution of black-shale source beds in the Wufeng and Longmaxi formations (Ordovician-Silurian), South China (in Chinese with English abstract): Frontiers of Earth Science in China, v. 1, p. 470–481.
- *Su Wenbo, Zhang Shihong, Huff, W.D., Li Huaikun, **Ettensohn, F.R.**, Chen Xiaoyu, Yang Hongmei, Han Yigui, Song Biao, and Santosh, M., 2008, SHRIMP zircon U-Pb ages of K-bentonite beds in the Xiamaling Formation: Implications for revised subdivision of the Meso- to Neoproterozoic history of the North China Craton: Gondwana Research, v. 14, p. 543–553.
 - *Ettensohn, F.R., 2008, Chapter 4, The Appalachian foreland basin in the eastern United States, *in* Miall, A., ed., The Sedimentary basins of the United States and Canada: Sedimentary Basins of the World, Amsterdam, Elsevier, p. 105–179.
- *Blake, D.B., and Ettensohn, F.R., 2009, The complex morphology of a new Lower

- Silurian Asteroid (Echinodermata): Journal of Paleontology, v. 83, p. 63-69.
- *Over, D.J., Lazar, R., Baird, G.C., Schieber, J., and **Ettensohn, F.R.**, 2009, *Protosalvinia* Dawson and associated conodonts of the Upper *trachytera Zone*, Famennian, Upper Devonian in the eastern United States: Journal of Paleontology, v. 83, p. 70–79.
- *Su, Wenbo, Huff, W.D., **Ettensohn, F.R.**, Liu, Xiaoming, Zhang, Ji'en, and Li, Zhi-ming, 2009, K-bentonite, black-shale and flysch successions at the Ordovician-Silurian transition, South China: Possible sedimentary responses to the accretion of Cathaysia to the Yangtze Block and its implications for the evolution of Gondwana: Gondwana Research, v. 15, p. 111–130.
- Ettensohn, F.R., Lierman, R.T., and Mason, C.E., 2009, Upper Devonian–Lower Mississippian clastic rocks in northeastern Kentucky: Evidence for Acadian alpine glaciation and models for source-rock and reservoir-rock development in the eastern United States, Spring Field Trip, April 18, 2009: Lexington, American Institute of Professional Geologists—Kentucky Section, 52 p. (contains 7 articles coauthored by F.R. Ettensohn).
- Ettensohn, F.R., Lierman, R.T., Mason, C.E., and Clayton, G. 2009, Changing physical and biotic conditions on eastern Laurussia: Evidence from Late Devonian to Middle Mississippian basinal and deltaic sediments of northeastern Kentucky, U.S.A., Field Trip No. 2, North American Paleontological Convention—2009: Cincinnati, North American Paleontological Convention—2009, 82 p.
- *Ettensohn, F.R., 2009, 3:The Mississippian of the Appalachian Basin, *in* Greb, S.F., and Chesnut, D.R., Jr., eds., Carboniferous geology and biostratigraphy of the Appalachian Basin: Kentucky Geological Survey Special Publication 10, p. 22–31.
- *Ettensohn, F.R., Ausich, W.I., Kammer, T.W., *Johnson, W.K.*, and Chesnut, D.R., Jr., 2009, 11: Carboniferous echinoderm succession in the Appalachian Basin, *in* Greb, S.F., and Chesnut, D.R., Jr., eds., Carboniferous of the Appalachian and Black Warrior basins: Kentucky Geological Survey Special Publication 10, p. 85–93.
- *Gao, L., Zhang, C., **Ettensohn, F.R.**, Shi, X., and Wang, Z., 2009, The Jingnan orogenic belt between the Yangtze and Cathaysia blocks for Neoproterozic context: Acta Geoscientica Sinica, v. 30, supp. 1, p. 10–11.
- *Ettensohn, F.R., and *Johnson, W.K.*, 2009, 12: Carboniferous coral succession in the Appalachian Basin, *in* Greb, S.F., and Chesnut, D.R., Jr., eds., Carboniferous geology and biostratigraphy of the Appalachian Basin: Kentucky Geological Survey Special Publication 10, p. 94–97.
- **Ettensohn, F.R.**, Lierman, T., and Mason, C., 2010, History and geology of the Natural Bridge–Red River Gorge Area, Spring Field Trip, April 17, 2010: Lexington, American Institute of Professional Geologists—Kentucky Section, 50 p.
 - *Ettensohn, F.R., 2010, Origin of Late Ordovician (mid-Mohawkian) temperate-water conditions on southeastern Laurentia: Glacial or tectonic? *in* Finney, S., and Berry, W.B.N., eds., The Ordovician Earth System: Geological Society of America Special Paper 466, p. 163–175.

- *Coates, J.W., Ettensohn, F.R., and Rowe, H.D., 2010, Correlations across a facies mosaic within the Lexington Limestone of central Kentucky, U.S.A., using whole-rock stable-isotope compositions, *in* Finney, S., and Berry, W.B.N., eds., The Ordovician Earth System: Geological Society of America Special Paper 466, p. 177–193.
- *Su, W., Li, H., Huff, W.D., **Ettensohn, F.R.**, Zhang, S., Zhou, H., and Wan, Y., 2010, SHRIMP U-Pb dating for a K-bentonite bed in the Teiling Formation, North China: Chinese Science Bulletin (English edition), v. 55, p. 3312–3323.
- *Ettensohn, F.R., Zhang, C., Gao, L., and Lierman, R.T., 2011, Soft-sediment deformation in epicontinental carbonates as evidence of paleoseismicity with evidence for a possible new seismogenic indicator: Accordian folds: Sedimentary Geology, v. 235, p. 222–233.
 - Lierman, T., **Ettensohn, F.R.**, and Mason, C., 2011, Geology of the Carter Caves area, Spring Field Trip, April 30, 2011: Lexington, American Institute of Professional Geologists—Kentucky Section, 40 p.
 - Clepper, M., Ettensohn, F.R., Nuttall, B., and Smath, R., 2011, New approaches to understanding the Upper Ordovician Lexington Limestone in the Bluegrass Region of central Kentucky: Kentucky Society of Geologists Fall Field Trip, September 24, 2011: Lexington, Kentucky Society of Professional Geologists, 26 p.
- **Ettensohn, F.R.**, and Greb, S.F., 2012, Fossil collecting at Grant Lake and Calloway Creek limestone outcrops, *in* National Association of State Boards of Geology (ASBOG) Council of Examiners Workshop, Field Trip: April 15, 2012: Lexington, Kentucky Board of Registration for Professional Geologists and Kentucky Geological Survey, p. 17–33.
 - *Ettensohn, F.R., Lierman, R.T., *Udgata, D.P.*, and Mason, C.E., 2012, The Early-Middle Mississippian Borden-Grainger-Fort Payne delta/basin complex: Field evidence for delta sedimentation, basin starvation, mud-mound genesis, and tectonism during the Neoacadian Orogeny, *in* Eppes, M.C., and Bartholomew, M.J., eds., From the Blue Ridge to the Coastal Plain: Field Excursions in the Southeastern United States: Geological Society of America Field Guide 29, p. 345–395.
 - *Ettensohn, F.R., and Lierman, R.T., 2012, Chapter 4, Large-scale tectonic controls on the origin of Paleozoic, dark-shale, source-rock basins: Examples from the Appalachian foreland-basin region, eastern United States, *in* Gao, D., ed., Tectonics and sedimentation: Implications for petroleum systems: American Association of Petroleum Geologists Memoir 100, p. 95–124.
- *Ettensohn, F.R., Lierman, R.T., Mason, C.E., *Andrews, W.M.*, Jr., *Hendricks, T., Phelps, D.J.*, and *Gordon, L.A.*, 2013, The Silurian of central Kentucky, U.S.A.: Stratigraphy, paleoenvironments and paleoecology, *in* Laurie, J.R., ed., Siluro-Devonian Studies II: Memoirs of the Australasian Palaeontologists, v. 44, p. 159–189.
 - *Gao, L., Ding, X., Yin, C., Zhang, C., and **Ettensohn, F.R.**, 2013, Qingbaikouan and Cryogenian in South China: Constraints by SHRIMP zircon U-Pb dating: Acta Geologica Sinica, v. 87, p. 1540–1553.
 - *Zeng, M., Ettensohn, F.R., and Wilhelm, D.B., 2013, Upper Mississippian (Lower Carboniferous) carbonate stratigraphy and syndepositional faulting reveal likely Ouachita flexural forebulge effects across eastern Kentucky, U.S.A.: Sedimentary

- *Li, H.K., Su, W.B., Zhou, H.Y., Xiang, Z.Q., Tian, H., Yang, L.G., Huff, W.D. and Ettensohn, F.R., 2014, The first precise age constraints on the Jixian System of the Meso- to Neoproterozoic Standard Section of China: SHRIMP zircon U-Pb dating of bentonites from the Wumishan and Tieling formations in the Jixian Section, North China: Acta Petrologica Sinica, v. 30, p. 2999–3012.
- *Ettensohn, F.R., and *Hendricks, R.T.*, 2015, Photographic core-logging manual for rocks within and adjacent to the Devonian–Mississippian black-shale sequence in Kentucky and nearby areas: Morehead, Rubicon Geologic Consulting, 54 p.

Ettensohn, F.R., Mason, C.E., and Lierman, R.T., 2015, Silurian, Devonian, and Mississippian hydrocarbon-rich horizons in northeastern Kentucky: Perspectives in the field, American Institute of Professional Geologists (Kentucky Section) Professional Development Field Trip: Lexington, Kentucky Section, American Institute of Professional Geologists, 76 p.

- *Ausich, W.I., Peter, M.E., and **Ettensohn, F.R.**, 2015, Echinoderms from the Lower Silurian Brassfield Formation of east-central Kentucky: Journal of Paleontology, v. 89, p. 245–256.
- *Ettensohn, F.R., and Lierman, R.T., 2015, Using black shales to constrain possible tectonic and structural influence on foreland-basin evolution and cratonic yoking: Late Taconian Orogeny, Late Ordovician Appalachian Basin, eastern USA, *in* Gibson, G.M., Roure, F. and Manatschal, G. (eds.), Sedimentary basins and crustal processes at continental margins: From modern hyper-extended margins to deformed ancient analogues: Geological Society, London, Special Publications, 413, p. 119–141.
- *Zeng, M., Zhang, X., Cao, H., **Ettensohn, F.**, Cheng, W., and Lang, X., 2016, Late Triassic initial subduction of the Bangong-Nujiang Ocean beneath Qiangtang revealed: Stratigraphic and geochronologic evidence from Gaize, Tibet: Basin Research, v. 28 (1), p. 147–157.

*Koirala, D.R., Ettensohn, F.R., Clepper, M., 2016, Eustatic and far-field tectonic control on the development of an intra-platform carbonate-shoal complex: Upper Tongue of the Tanglewood Member, Upper Ordovician Lexington Limestone, central Kentucky, U.S.A.: Sedimentary Geology, v. 345, p. 1–18.

Ettensohn, F.R., Dattilo, B.F., Dockstader, D., and Herbert, B., 2016, Geology field trip to the Clifty Falls area, Madison, Indiana, *in* Smath, R.A., Ettensohn, F.R., and Smath, M.L., compilers, History and geology of Madison, Indiana, and Clift Falls State Park, Geological Society of Kentucky Fall Field Trip, November 5, 2016: Kentucky Geological Survey, Guidebook 1, Series 13, 48 p. (http://kgs.uky.edu/kgsweb/olops/pub/kgs/GB1 13.pdf).

*Koirala, D.R., Ettensohn, F.R., 2017, Diagenetic history of the Upper Tanglewood Member (Upper Ordovician) of the Lexington Limestone, central Kentucky, U.S.A., with special emphasis on petrographic differences between deformed and undeformed beds: Journal of Nepal Geological Society, v. 53, p. 9-16.

- Greb, S., Eble, C., Mason, C., and **Ettensohn, F.R.**, 2017, The Berea Petroleum System in northeastern Kentucky, Geological Society of Kentucky Annual Field Trip: Lexington, Geological Society of Kentucky, 50 p.
- **Ettensohn, F.R.**, 2018, Notes for a carbonate core-logging workshop: Lexington, Geological Society of Kentucky and Kentucky Section, American Institute of Professional Geologists, 43 p.
 - *Zeng, M., and Ettensohn, F.R., and Spangenberg, J.E., 2018, Bedding-parallel lenticular soft-sediment deformation structures: A type of seismite in extensional settings?: Tectonophysics, v. 747–748, p. 128–145.
 - Gilliam, W.G., Mason, C.E., Lumm, D.K., and **Ettensohn, F.R.**, 2018, A geotraverse from Breaks Interstate Park to Natural Tunnel State Park, Geological Society of Kentucky 2018 Fall Field Trip, October 12 and 13: Lexington, Geological Society of Kentucky, 31 p.
- *Ettensohn, F.R., 2019, Geologic origins of the North American shale-gas revolution: Can it happen elsewhere?, *in* Boughdiri, M., et al., eds., Paleobiodiversity and tectonosedimentary records in the Mediterranean Tethys and related eastern areas: Advances in Science, Technology & Innovation (ASTI), IEREK Interdisciplinary Series for Sustainable Development, Proceedings of the 1st Conference of the Arabian Journal of Geosciences (CAJG): Switzerland, Springer, v. 9, p. 279–281 (https://doi.org/10.1007/978-3-030-01452-0_67).
 - *Gooding, P.J., and **Ettensohn, F.R.**, 2019, Mississippian-Devonian black shales of Kentucky: East-west transect in five cores from the Appalachian Basin to the Illinois Basin: Kentucky Geological Survey, KGS Map and Chart MCS 5, Series 13, Publication No. 17982; doi:10.13140/RG.2.2.20029.31207; (https://kgs.uky.edu/kgsweb/olops/pub/kgs/MCS5_13.pdf).
 - *Ettensohn, F.R., Pashin, J.C., and Gilliam, W., 2019, The Appalachian and Black Warrior Basins: Foreland Basins in the Eastern United States, *in* Miall, A.D., ed., The Sedimentary basins of the United States and Canada, 2nd ed.: Sedimentary Basins of the World, Amsterdam, Elsevier, p. 129–237.
 - *Guo, W.L., Su, W.B., Zhang, J., Li, H.M., Zhou, H.Y., Li., H.K., **Ettensohn, F.R.**, and Huff, W.D., 2019, Zircon U-Pb dating and HF isotopes of bentonites from the Teiling Formation, a new exposure of the Jixian Section, Tianjin, North China Craton: Acta Petrologica Sinica, v. 35, p. 2433–2454.
 - Lumm, D.K., Popp, J.T., and **Ettensohn, F.R.**, 2019, Notes for clastics and coal corelogging workshop: Lexington, Kentucky Section, American Institute of Professional Geologists and Geological Society of Kentucky, 35 p.
- *Harris, A.W., Ettensohn, F.R., and Carnahan-Jarvis, J., 2020, Paleoecology and taxonomy of *Schoenaster carterensis*, a new encrinasterid ophiuroid species from the Upper Mississippian (Chesterian) Slade Formation of northeastern Kentucky, U.S.A.: Journal of Paleontology, v. 94, p. 531–547; doi: 10.1017/jpa.2019.107.

- *Ettensohn, F.R., Seckinger, D.C., Eble, C., Clayton, G., Li, J., Martins, G., Lo, E., Hodelka, B., Harris, F., and Taghizadeh, N., 2020, Age and tectonic significance of diamictites at the Devonian-Mississippian transition in the Central Appalachian Basin: Geological Society of America Field Guide 57, p. 79–103.
- *Ettensohn, F.R., Clayton, G., Lierman, R.T., Mason, C.E., Krause, F.F., DeBuhr, C., Brackman, T.B., *Anderson, E.D.*, Dennis, A.J., and Pashin, J.C., 2020, Late Devonian lonestones, diamictites, and black shales from the Appalachian Basin: Discerning relationships and implications for Late Devonian Appalachian history and glacially driven sea-floor anoxia: Geological Society of America Special Paper 545, p. 67–88.
- *Udgata, D.B.P., and Ettensohn, F.R., 2020, Middle Mississippian (late Osagean, early Viséan) Floyds Knob glauconite interval, Borden and Ft. Payne formations, Appalachian and Illinois basins, central Kentucky, U.S.A.: The synergistic influence of tectonics, paleoclimate and paleogeography: Geological Society of America Special Paper 545, p. 115–150.
- *Handhal, A.M., Hussein, A.A., Al-Abadi, A.M., and **Ettensohn, F.R.**, 2020, Spatial modeling of hydrocarbon productivity from the Nahr Umr Formation at Luhais oil field (southern Iraq) using GIS-based multi-criteria decision-making and Shannon's entropy models: Natural Resources Research, v. 30, p. 765–787; https://doi.org/10.1007/s11053-020-09751-y.
- * Zeng, M., Zhang, R., Li, C., Chen, S., Liu, X., **Ettensohn, F.R.**, and Bie, L., 2021, Reconstructing ocean-plate stratigraphy (OPS) to understand accretionary style and mélange fabric: Insights from the Bangong-Nujiang suture (Tibet, China): Geophysical Research Letters, v. 48 (18), Article number e2021GL094457, 12 p.
 - *Ismail, M.J., **Ettensohn, F.R.**, Handhal, A.M., and Al-Abadi, A.M., 2021, Carbonate–facies analysis of the Upper Cretaceous Mishrif Formation in southern Iraq using borehole image logs and core thin-section descriptions: Marine and Petroleum Geology, v.133 (2), 105324; https://doi.org/10.1016/j.marpetgeo.2021.105324.
- *Martins, G. de A., Ettensohn, F. R., and Knutsen, S.-M., 2022, The Appalachian area as a tectonostratigraphic analogue for the Barents Sea shelf: Basin Research, v. 34 (1), p. 274–299; https://doi.org/10.1111/bre.12619.
 - *Ettensohn, F.R., Gilliam, W., Li, J., and Zeng, M., 2022, Timing and evolution of the Mississippian sedimentary system on southeastern Laurussia: Evidence from the Appalachian area, U.S.A.: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 591, 110874, 19 p.; https://doi.org/10.1016/j.palaeo.2022.110874.
 - * Handhal, A.M., **Ettensohn, F.R.**, and Al-Abadi, A.M., 2022, Spatial assessment of gross reservoir heterogeneity using geostatistics and GIS-based, tree, machine-learning classifiers: A case study from the Zubair Formation, Rumaila oil field, southern Iraq: Journal of Petroleum Science and Engineering, v. 208, Part B, 109482; https://doi.org/10.1016/j.petrol.2021.109482.

- **Ettensohn, F.R.,** Lewis, R.T., Mason, C.E., and Clayton, G., 2022, Organic-rich rocks and associated sediments near the Devonian-Mississippian boundary in northeastern Kentucky, Field Trip 409 for the Joint North-Central and Southeastern Section Meeting of the Geological Society of America: Morehead, KY, PrintUSA, 106 p.
- Over, D.J., Mason, C.E., and **Ettensohn, F.R.**, 2022, Conodonts and biostratigraphy of the Upper Devonian Ohio Shale in eastern Kentucky, *in* Ettensohn, F.R., Lewis, R.T., Mason, C.E., and Clayton, G., 2022, Organic-rich rocks and associated sediments near the Devonian-Mississippian boundary in northeastern Kentucky, Field Trip 409 for the Joint North-Central and Southeastern Section Meeting of the Geological Society of America: Morehead, KY, PrintUSA, p. 73–84.
- *Li, J., Tang, S., **Ettensohn, F.R.**, Shen, Y., Xu, Z., and Lo, E., 2022, Characterization of pore structure in Carboniferous–Permian gas shales and tight sandstones of the coalbearing succession in the Qinshui Basin, north China: Arabian Journal of Geosciences, v. 15, 1125 (https://doi.org/10.1007/s12517-022-10325-w).
- *Su, W.-B., Li, W.-G., Song, B., Di, Y.-J., Zhou, H.-Y., Wang, H., Wang, J., **Ettensohn, F.R.**, and Huff, W.D., 2022, SHRIMP Zircon U-Pb geochronology of the Tuffite Layer in the Shi'nagan Group, Inner Mongolia, North China Craton: North China Geology, v. 45, no. 2, p. 51–67.
- *Bloxon, J.M., Saylor, B.Z., and **Ettensohn, F.R.**, 2022, Subsurface relationships between the Sebree Trough and carbonate-siliciclastic mixing in the Upper Ordovician Lexington-Trenton and Point Pleasant-Utica intervals in Ohio, USA, using multivariate statistical well log analysis: Ohio Journal of Science, v. 122 (2), p. 52–74.
- *Chen, S., Zeng, M., Tian, J., Ren, K., Liu, Z., Zhao, Z., Chen, X., Ettensohn, F.R., and Adatte, T., 2023, Microbe-mediated marine authigenic formation of ooidal chamosite: Insights from the Upper Ordovician carbonates of the southwestern Yangtze Platform (China): Sedimentology, v. 70, 24 p. (https://doi.org/10.1111/sed.13091.
 - *Martins, G., Ettensohn, F.R., and Knutsen, S.-M., 2023, Use of backstripping in the Triassic–Middle Jurassic, south-central Barents Sea shelf succession to understand regional tectonic mechanisms and structural responses: Tectonophysics, v. 853, 229797, 47 p. (https://doi.org/10.1016/j.tecto.2023.229797).
 - Ettensohn, F.R., Lewis, R.T., and Mason, C.E., 2023, The Devonian-Mississippian boundary and associated sediments in northeastern Kentucky, Spring Field Trip for the Geological Society of Kentucky: Morehead, KY, PrintUSA, 106 p.
 - *Ettensohn, F.R., and Martins, G., 2023, Tectonic, foreland-basin origins of Upper Ordovician black gas shales in the Appalachian Basin of eastern United States: Estonian Journal of Earth Sciences, v. 72 (1), p. 30–33.
 - *Davis, S., **Ettensohn, F.R.**, Andrews, W.M., and Martins, G., 2023, Using 3-D mapping to understand an Upper Ordovician buildup and facies complex in the upper Lexington Limestone, central Kentucky, USA: Estonian Journal of Earth Sciences, v. 72 (1), p. 14–17.

*Handhal, A.M., Aljazaeri, M.Q., Abdulnaby, W., **Ettensohn, F.R.**, Al-Abadi, A.M., and Ismail, M.J., 2023, Relationship between structural style and the petroleum system of Siba Gas Field, southern Iraq: Marine and Petroleum Geology, v. 155, 106396; https://doi.org/10.1016/j.marpetgeo.2023.106396.

*Ettensohn, F.R., Seckinger, D.C., Moecher, D.P., and Eble, C.F., 2023, Paleoenvironmental and tectonic implications of an Upper Devonian glaciogenic succession from east-central West Virginia, U.S.A.: Geological Society of America Field Guide 66, p. 1–27.

*Ettensohn, F.R., A fossil urasterellid asteroid (Asteroidea; Echinodermata) from the Upper Ordovician (Katian) Grant Lake Limestone in Bath County, east-central Kentucky, U.S.A.: Journal of the Kentucky Academy of Science, v. 84, p. 48–53.

*Martins, G., Ettensohn, F.R., and Knutsen, S.-M., 2024, Using the tectophase conceptual model to assess Late Triassic–Early Jurassic far-field tectonism across the south-central Barents Sea shelf: Frontiers in Earth Science (Sedimentology, Stratigraphy and Diagenesis Section), v. 11, 1305893, 20 p.; (doi: 10.3389/feart.2023.1305893).

Press
*Ettensohn, F.R., and Gilliam, W.G., Basin yoking: Mechanisms, examples, and significance from the Appalachian area of North America, *in* Allen, J., Jackson, W., Weislogel, A., and McKay, M., eds., Late Proterozoic to Paleozoic North American Tectonics: A celebration of the life and career of William A. Thomas: Geological Society of America Special Paper.

Submitted
Ran, B., Li, Z., Liu, S., Chen, D., Ettensohn F.R., Han, Y., Ye, Y., Song, J., Wang, H., and
Ding, Y., Linking the earliest Paleozoic foreland basin in South China to the final
assembly of Gondwana: Submitted to Sedimentary Geolgy.

Ismail, M.J., Ettensohn, F.R., Abdullah, R.A., Handhal, A.M., and Al-Abadi, A.M., High-resolution sequence stratigraphy and petrophysical analysis of the Lower part of Sa'di Formation in selected wells within West Qurna oilfield, southern Iraq: Submitted to Kuwait Journal of Science.

Al-Abadi, A., Handhal, A.M., **Ettensohn, F.R.**, Saleh, E., Hussein, A.A., and Aljasim, M., Long-term forecasting of water-cut values using multivariate time-series analysis: The AB reservoir unit of the Zubair Formation in the Rumaila oilfield, southern Iraq: Submitted to Journal of Petroleum Exploration and Production Technology.

Agharabi, A., Gourari, L., Karrat, L., **Ettensohn, F.**, Har, N., Balica, C., and Magdas, A., Paleoclimatic implications and depositional settings for Mid- to Late Holocene calcareous tufas on the Bourkaïz tufa fan, Saïs Basin, northern Morocco: Submitted to Quaternary Research.

Agharabi, A., Karrat, L. Ettensohn, F.R., Har, N., Gourari, L., Bedelan, H., Balica, C.; and Mircescu, C., The clay mineralogy of Quaternary overbank and tufa deposits from the Saïs plain around Fez, Morocco: Submitted to Scientific African.

In Clayton, G., Ettensohn, F.R., Goodhue, R., Paterson, N.W., Rooney, A., Wicander, R. The age, depositional environments and palaeogeographic setting of the Late Devonian Three Lick Bed in northeastern Kentucky, U.S.A: to be submitted to Palaeogeography, Palaeoclimatology, Palaeoecology.

Koirala, D.R., and **Ettensohn, F.R.**, Constraints on the interpretation of possible seismogenic, soft-sediment deformation: Examples from the Upper Ordovician Lexington Limestone, northeast-central Kentucky: to be submitted to Journal of Geodynamics.

Ettensohn, F.R., Harris, A.W., and Carnahan-Jarvis, J., Systematics, ontogeny, ethology, and paleoecology of the Late Mississippian (Chesterian) crinoid *Phanocrinus bimagniramus* (n. comb.) from the Slade Formation, northeastern Kentucky, U.S.A.: to be submitted to the Journal of Paleontology.

*Refereed

PUBLICATIONS: **REFEREED ABSTRACTS** (coauthor *italics*: former or present student collaborators and presenters)

- **Ettensohn, F.R.,** 1969, The influence of ground water access routes on concretionary development in proglacial lake sediments: Geological Society of America Abstracts with Programs, v. 1 (7), p. 59–60.
- 1974 Ettensohn, F.R., 1974, Stratigraphy and depositional environments of the upper Newman Limestone, northeastern Kentucky: Geological Society of America Abstracts with Programs, v. 6 (4), p. 353.

Ettensohn, F.R., 1974, The autecology of *Agassizocrinus*: Geological Society of America Abstracts with Programs, v. 6 (7), p. 726.

- 1975 Ettensohn, F.R., and Dever, G.R., 1975, Tectonic control of carbonate sedimentation in the Newman Group (Middle and Late Mississippian) northeastern Kentucky: AAPG and SEPM Annual Meeting Abstracts, v. 2, p. 22–23.
 - **Ettensohn, F.R.,** 1975, A new depositional model for the Middle and Late Mississippian Newman Group, northeastern Kentucky: Geological Society of America Abstracts with Programs, v. 7 (7), p. 1069.
- 1976 Ettensohn, F.R., 1976, Stratigraphic, paleoenvironmental and structurally related aspects of Middle and Upper Mississippian rocks (Newman and Pennington Formations), east-central Kentucky: AAPG Bulletin, v. 60 (9), p. 1619–1620.
 - **Ettensohn, F.R.,** 1976, Environmental and evolutionary significance of Paleozoic stemless crinoids: Geological Society of America Abstracts with Programs, v. 8, p. 856–857.
- 1978 *Miller, M.L.*, and Ettensohn, F.R., 1978, A preliminary microscopic examination of Devonian and Lower Mississippian black shales in east-central Kentucky: Geological Society of America Abstracts with Programs, v. 10 (4), p. 176.
 - Swager, D.R., and Ettensohn, F.R., 1978, The stratigraphy of Devonian-Mississippian black shales along the east-central Kentucky outcrop belt: Geological Society of America Abstracts with Programs, v. 10 (4), p. 199.
- **Ettensohn, F.R.**, and *Chesnut, D.R.*, 1979, Echinoderm paleoecology and paleoenvironments from the Glen Dean and lower Pennington (Chesterian), south-central Kentucky: Abstracts of Papers, IX International Congress of Carboniferous Stratigraphy and Geology, p. 62–63.

Ettensohn, F.R., 1979, Substrata influence on the infrabasal cone morphology of some Paleozoic stemless crinoids: Geological Society of America Abstracts with Programs, v. 11 (2), p. 422.

Chesnut, D.R., and Ettensohn, F.R., 1979, The Paleoecology and echinoderm faunas of the lower Pennington in south-central Kentucky: Geological Society of America Abstracts with Programs, v. 11 (4), p. 174.

1980 Gordon, L.A., and Ettensohn, F.R., 1980, The paleontology and paleoecology of a hardground from the Silurian Brassfield Formation: Geological Society of America Abstracts with Programs, v. 12 (4), p. 178.

Barron, L.S., and **Ettensohn, F.R.**, 1980, Paleontology and paleoecology of a prominent green-shale horizon in the Upper Devonian black shales of east-central Kentucky: Geological Society of America Abstracts with Programs, v. 12, p. 128.

Ettensohn, F.R., and *Barron, L.S.*, 1981, Tectono-climatic model for origin of Devonian-Mississippian black gas shales of east-central United States: Book of Abstracts, AAPG Annual Convention, p. 54; also AAPG Bulletin, v. 65, p. 923.

Ettensohn, F.R., 1981, Synsedimentary tectonism and the Mississippian-Pennsylvanian boundary in east-central Kentucky: Geological Society of America Abstracts with Programs, v. 13, p. 447–448.

Ettensohn, F.R., and *Barron, L.S.*, 1981, Origin of the Devonian-Mississippian black shales of east-central United States: A tectono climatic model: Geological Society of America Abstracts with Programs, v. 13, p. 447.

Gordon, L.A., and Ettensohn, F.R., 1981, Early uplift of the proto-Cincinnati Arch and its influence on Early Silurian paleogeography, east-central Kentucky: Geological Society of America Abstracts with Programs, v. 13, p. 462.

Horrell, M.A., and Ettensohn, F.R., 1982, Tidal-flat deposits in the Ordovician Oregon Formation of central Kentucky: Geological Society of America Abstracts with Programs, v. 13, p. 27.

Elam, T.D., and Ettensohn, F.R., 1982, Stratigraphy of paleoenvironmental aspects of the Bedford-Berea sequence and Sunbury Shale in west-central parts of the Appalachian Basin: Geological Society of America Abstracts with Programs, v. 14, p. 482.

Ettensohn, F.R., and *Barron, L.S.*, 1982, A tectonic-climatic approach to the deposition of the Devonian-Mississippian black shale sequence of North America: Abstracts, 1982, Eastern Oil Shale Symposium, Institute for Mining and Minerals Research, Lexington, KY, p. 3.

1983 Horrell, M.A., and Ettensohn, F.R., 1983, Determining cyclicity in an Ordovician peritidal sequence using Markov Chain analysis: Geological Society of America Abstracts with Programs, v. 15, p. 98.

Ettensohn, F.R., 1983, Framework for the development of Catskill Delta Basin-Facies: Geological Society of America Abstracts with Programs, v. 15, p. 132.

Ettensohn, F.R., 1983, Relationship between Catskill Delta Basin deposits, subsidence, and the Acadian Orogeny: Geological Society of America Abstracts with Programs, v.

15, p. 145.

Ettensohn, F.R., 1983, Paleozoic stemless crinoids as environmental indices: Résumés, Premier Congrès International de Paléoécologie, Lyon, p. 57.

Ettensohn, F.R., and *Chesnut, D.R.*, 1983, Depositional environments and stratigraphy of the Pennington Formation (Upper Visean-Namurian A), east-central Kentucky: X International Congress of Carboniferous Stratigraphy and Geology, Abstracts Volume, Madrid, C.N.G. y I.G.M.E, p. 197.

Ettensohn, F.R., and *Elam, T.D.*, 1983, The Sunbury Shale and Bedford-Berea sequence near the black-shale outcrop belt in east central and south-central Kentucky: Abstracts, 1983, Eastern Oil Shale Symposium, Institute for Mining and Minerals Research, Lexington, KY, p. 15.

Ettensohn, F.R., 1984, Relationship between the Devonian-Early Mississippian clastic wedge and the Acadian Orogeny: Geological Society of America Abstracts with Programs, v. 16, p. 136.

Ettensohn, F.R., and *Chesnut, D.R.*, 1984, Possible relationships between the Mississippian-Pennsylvanian unconformity and the Alleghanian Orogeny in the central Appalachians: Geological Society of America Abstracts with Programs, v. 16, p. 137.

Dever, G.R., Jr., **Ettensohn, F.R.**, and Haney, D.C., 1984, Relationship between the Kentucky River Fault System and Paleozoic sedimentation in eastern Kentucky: Geological Society of America Abstracts with Programs, v. 16, p. 133.

Chesnut, D.R., and Ettensohn, F.R., 1984, Life mode of *Pterotocrinus* in the lower Pennington (Lower Carboniferous) of east-central Kentucky: Geological Society of America Abstracts with Programs, v. 16, p. 128.

Grossnickle, E.A., and Ettensohn, F.R., 1984, Tempestites in the Middle Ordovician Curdsville Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 16, p. 142.

1985 Ettensohn, F.R., Amig, B.C., Pashin, J.C., Greb, J.R., Harris, M.Q., Black, D.J., Cantrell, D.J., Smith, C.A., McMahan, T.M., Axon, A.G., and McHargue, G.J., 1985, Paleoecology and paleoenvironments of the bryozoan-rich Sulphur Well Member, Lexington Limestone (Middle Ordovician), Central Kentucky: Geological Society of America Abstracts with Programs, v. 17, p. 286.

Hale, A.P., and Ettensohn, F.R., 1985, Pedogenic origin of subaerial exposure crusts on San Salvador Island, Bahamas: Geological Society of America Abstracts with Programs, v. 17, p. 94.

Ettensohn, F.R., 1985, Functional morphology of a unique late Paleozoic stemless crinoid: Geological Society of America Abstracts with Programs, v. 17, p. 91.

Mellon, C., and **Ettensohn, F.R.**, 1985, Conodont biostratigraphy of the Duffin Bed, New Albany Shale, east-central Kentucky: Geological Society of America Abstracts with Programs, v. 17, p. 124.

Ettensohn, F.R., *Dever, G.R.*, *Jr.*, and *Grow, J.*, 1985, A paleosol interpretation for Mississippian subaerial exposure crusts from the Appalachian Basin: Geological Society of America Abstracts with Programs, v. 17, p. 576.

Ettensohn, F.R., *Pashin, J.C.*, and *Jacobs, G.W.*, 1986, Shallow-water marine siltstones in Paleozoic shelf deposits of Kentucky: American Association of Petroleum Geologists Bulletin, v. 70, p. 588.

Ettensohn, F.R., 1986, Use of clastic wedges to interpret the nature and significance of water depth during deposition of Devonian-Mississippian black shales: Abstracts, Society of Economic Paleontologists and Mineralogists Annual Midyear Meeting, v. 3, p. 33–34.

Pashin, J.C., and Ettensohn, F.R., 1986, Epeiric shelf-slope-basin sedimentation: Bedford-Berea sequence (Devonian-Mississippian), northeastern Kentucky and south-central Ohio: Abstracts, Society of Economic Paleontologists and Mineralogists Annual Midyear Meeting, v. 3, p. 87–88.

Ettensohn, F.R., 1986, Tectonic control of interbasinal relationships between Devonian black shales in the Illinois and Appalachian basins of Kentucky: Abstracts, 1986 Eastern Oil Shale Symposium, Commonwealth of Kentucky Energy Cabinet and U.S. Department of Energy, KCERL, Lexington, KY, p. 44.

Ettensohn, F.R., 1987, Carbonate paleosols in the Mississippian carbonates of northeastern Kentucky: Transactions, Kentucky Academy of Science, v. 48, p. 48.

Ettensohn, F.R., *Miller, M.L., Dillman, S.B., Elam, T.D., Geller, K.L.,* and *Swager, D.R.*, 1987, Implications from the Devonian black-shale sequence of eastern and central Kentucky: transgressions, regressions, pycnoclines and tectonism: Programs and Abstracts, Second International Symposium on the Devonian System, Calgary, p. 76.

Woodrow, D.L., Dennison, J.M., **Ettensohn, F.R.**, Sevon, W.D., and Kirchgasser, W.T., 1987, The Middle and Upper Devonian of the Appalachian Basin, United States: Program and Abstracts, Second International Symposium on the Devonian System, Calgary, p. 253.

Ettensohn, F.R., and *Chesnut, D.C.*, 1987, Nature and probable origin of the Mississippian-Pennsylvanian unconformity in eastern United States: Abstracts of Papers, 11th International Congress of Carboniferous Stratigraphy and Geology, Beijing, v. 1, p. 280–281.

Chesnut, D.C., and Ettensohn, F.R., 1987, The synecology and autecology of echinoderms from the Paragon Formation (Pennington Group, Upper Visean-Namurian A) of Kentucky, U.S.A.: Abstracts of Papers, 11th International Congress of Carboniferous Stratigraphy and Geology, Beijing, v. 1, p. 139–141.

1988 Ettensohn, F.R., 1988, Nature and origin of Devonian-Mississippian black-shale sequence in eastern and central Kentucky: Program and Abstracts, 19th Annual Appalachian Petroleum Geology Symposium, West Virginia Geological and Economic Survey Circular No. C-42, p. 18–20.

Ettensohn, F.R., and Moshier, S.O., 1988, Modern Bahamian analogs to Paleozoic carbonate environments in Kentucky: Introduction to a short course in the Bahamas: Abstracts of the Technical Sessions, Kentucky Oil and Gas Association, Fifty-second Annual Meeting, Kentucky Geological Survey, p. 13.

Ettensohn, F.R., 1988, Interpretation of relationships between Taconic tectonic events and Ordovician stratigraphic sequences, southern and central Appalachians, U.S.A.:

Program and Abstracts, Fifth International Symposium on the Ordovician System, Memorial University of Newfoundland, St. John's Newfoundland, Canada, p. 30.

Axon, A.G., and Ettensohn, F.R., 1988, Anatomy of a Late Ordovician (Cincinnatian) crinoid-garden community, southwestern Ohio: Geological Society of America Abstracts with Programs, v. 20, p. A372.

Ettensohn, F.R., *Goodman, P.T.*, Norby, R.D. and *Shaw, T.H.*, 1988, Stratigraphy and biostratigraphy of the Devonian-Mississippian black shales in west-central Kentucky and adjacent parts of Indiana and Tennessee: Abstracts 1988 Eastern Oil Shale Symposium, University of Kentucky, U.S. Department of Energy, Kentucky Energy Cabinet, Lexington, KY, p. 36–37.

Ettensohn, F.R., 1989, Possible flexural mechanisms for origins of extensive, ooid-rich, carbonate environments, Middle and early Late Mississippian, east-central United States: American Association of Petroleum Geologists Bulletin, v. 73, p. 1029–1030.

Barnett, S.F., Ettensohn, F.R., and Mellon, C., 1989, Tectonic and flexural significance of Middle Devonian graben-fill sequences in New Albany Shale, central Kentucky: American Association of Petroleum Geologists Bulletin, v. 73, p. 1027.

Barnett, S.F., Ettensohn, F.R., and Mellon, C., 1989, Tectonic significance of a Middle Devonian black shale and breccia in the Carpenter Fork graben, central Kentucky: Transactions of the Kentucky Academy of Science, v. 50, p. 119.

Ettensohn, F.R., *Mellon, C.C.*, and *Barnett, S.F.*, 1989, Origin and significance of the Portwood Member of the New Albany Shale: Transactions of the Kentucky Academy of Science, v. 50, p. 120.

Hendricks, R.T., Ettensohn, F.R., Mason, C.E., and Stoffer, P.W., and Koontz, T.L., 1989, Beach deposits in the Devil's Hollow Member of Lexington Limestone (Middle and Upper Ordovician) of central Kentucky: Transactions of the Kentucky Academy of Science, v. 50, p. 120–121.

Mason, C.E., and Ettensohn, F.R., 1989, Biostratigraphy and paleoenvironmental inferences from a new ammonoid occurrence, Slade Formation (Mississippian), eastern Kentucky: Transactions of the Kentucky Academy of Science, v. 50, p. 121.

Norby, R.D., *Shaw, T.H.*, **Ettensohn, F.R.**, and *Goodmann, P.T.*, 1989, Biostratigraphy of the New Albany Shale (Devonian-Mississippian) in the west-central Kentucky area: Geological Society of America Abstracts with Programs, v. 21, p. 43.

Ettensohn, F.R., 1989, Use of flexural mechanisms to explain relationships between Ordovician stratigraphy and tectonism, central and southern Appalachians: Geological Society of America Abstracts with Programs, v. 21, p. A35.

1990 Ettensohn, F.R., 1990, The Mississippian System in the Appalachian Basin: A flexural relaxation response following the Acadian Orogeny: Geological Society of America Abstracts with Programs, v. 22, p. 13.

Ettensohn, F.R., 1990, Carbonate paleosols and paleoclimatic indicators: Examples from the Slade Formation (Upper Mississippian), Eastern Kentucky: Geological Society of America Abstracts with Programs, v. 22, p. A333.

Ettensohn, F.R., and Barnett, S.F., 1990, Middle Devonian black shales in Kentucky:

Abstracts, 1990 Eastern Oil Shale Symposium, University of Kentucky Institute for Mining and Minerals Research and U.S. Department of Energy, Lexington, KY, p. 31.

Ettensohn, F.R., 1991, Sponge-trilobite relationships inferred from sponge-derived, soft-sediment trace fossils: Geological Society of America Abstracts with Programs, v. 23, p. 27.

Ettensohn, F.R., 1991, Appalachian unconformities reflecting orogenic events: Geological Society of America Abstracts with Programs, v. 23, p. 26.

Pashin, J.C., and Ettensohn, F.R., 1991, Availability of nutrients and habitable substrates in the dysaerobic zone: The Bedford fauna (Devonian) of Ohio and northeastern Kentucky: Geological Society of America Abstracts with Programs, v. 23, p. 113.

Watson, A.E., and Ettensohn, F.R., 1991, Nature and origin of the Mississippian-Pennsylvanian unconformity in the Cumberland Gap area: Geological Society of America Abstracts with Programs, v. 23, p. 146.

Ettensohn, F.R., 1991, Controls on the origin of Devonian-Mississippian oil and gas shales, east-central United States: Abstracts, 1991 Eastern Oil Shale Symposium, U.K. Institute of Mining and Minerals Research and Center for Applied Energy Research, Lexington, p. 67.

Ettensohn, F.R., 1991, Tectonic, paleoclimatic; and paleographic controls on Paleozoic epicontinental black-shale deposition, Appalachian Basin, U.S.A.: Abstracts, International Symposium, Black-shale basins and related mineral deposits, Novosibirsk, v. 1, p. 204.

1992 Pashin, J.C., and Ettensohn, F.R., 1992, What happened between the Acadian and Alleghanian orogenies: Flexural analysis of Appalachian Mississippian stratigraphy to decipher the record: Geological Society of America Abstracts with Programs, v. 24, p. A290.

Pashin, J.C., and Ettensohn, F.R., 1992, Reevaluation of the Bedford-Berea sequence in Ohio and adjacent states: New perspectives on sedimentation and tectonics in foreland basins: Geological Society of America Abstracts with Programs, v. 24.

Ettensohn, F.R., and *Hendricks, R.T.*, 1992, Development of a core-logging manual for the eastern oil and gas shales: Abstracts, 1992 Eastern Oil Shale Symposium, U.K. Institute for Mining and Minerals Research and Center for Applied Energy Research, Lexington, p. 50.

Bayan, M.R., Eivazi, F., and **Ettensohn, F.R.**, 1992, Halloysite-allophane relationship in central Kentucky: Agronomy Abstracts, p. 361.

Norby, R.D., and **Ettensohn, F.R.**, 1992, Stratigraphy and biostratigraphy of the New Albany Shale (Devonian-Mississippian) in the Illinois basin: American Association of Petroleum Geologists Bulletin, v. 76, p. 1282.

1993 Bayan, M.R., and Ettensohn, F.R., 1993, Supergene alteration of substrates below Devonian-Mississippian oil and gas shales: Origin and significance: Abstracts, 1993 Eastern Oil Shale Symposium: U.K. Institute for Mining and Minerals Research, p. 63.

Ettensohn, F.R., 1993, Using Late Devonian-Mississippian black-shale stratigraphy to

infer pycnocline position and the likely predominance of tectonic or eustatic influence thereon: Geological Society of America Abstracts with Programs, v. 25, p. A-339.

Ettensohn, F.R., 1994, Flexural interpretation of Mississippian stratigraphy in the Black Warrior basin: Geological Society of America Abstracts with Programs, v. 26, p. 12.

Ettensohn, F.R., *Barnett, S.F.*, and Norby, R.D., 1994, Late-Middle to Late Devonian (Givetian-Famennian) tectonic and stratigraphic history of central Kentucky: Geological Society of America Abstracts with Programs, v. 26, p. 14–15.

Mason, C.E., and Ettensohn, F.R., 1994, Taphonomic and paleoenvironmental inferences from a cephalopod shell-bank occurrence, Mississippian Slade Formation, northeastern Kentucky: Geological Society of America Abstracts with Programs, v. 26, p. 53.

Ettensohn, F.R., 1994, Global and regional controls on origin and burial of organic matter in Devonian-Mississippian black shales of North America: Official Program, 1994 AAPG Annual Convention, p. 146–147.

Ettensohn, F.R., 1994, Stream diversion, glaciation, and origin of the Lower Narrows, Cement Creek, Gunnison County, Colorado: Geological Society of America Abstracts with Programs, v. 26, p. 12.

1995 Ettensohn, F.R., 1995, Origin and location of unconformities and related diagenetic alternation associated with tectonically related foreland-basin sequences: Geological Society of America Abstracts with Programs, v. 27, p. 51–52.

Ettensohn, F.R., 1995, Assembly and disassembly of Pangea: Effects on coeval deposition of North American black shales, Carboniferous to Jurassic: Geological Society of America Abstracts with Programs, v. 27, p. 51.

Kulp, M.A., and **Ettensohn, F.R.**, 1995, Paleoenvironmental interpretation of the Brannon Member: Evidence for synsedimentary tectonism in the Middle Ordovician Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 27, p. 67.

Ettensohn, F.R., and *Pashin, J.C.*, 1995, Development of multiple unconformities during the Devonian-Carboniferous transition in parts of Laurussia: Abstracts, XIII International Congress on Carboniferous-Permian, Warszawa, Państwowy Instytut Geologiczny, p. 35–36.

Ettensohn, F.R., 1995, Large-scale tectonic constraints on deposition of North American Devonian-Mississippian black shales: Geological Society of America Abstracts with Programs, v. 27, p. A-400.

Rast, N., and **Ettensohn, F.R.**, 1995, Effects of seismic disturbance on epicontinental depositional systems in the Ordovician and Devonian rocks of central Kentucky: Geological Society of America Abstracts with Programs, v. 27, p. A-381.

1996 Andrews, W.M., Jr., and Ettensohn, F.R., 1996, Local and regional structural controls on deposition of the Brassfield Formation west of the Cincinnati Arch, Kentucky: Geological Society of America Abstracts with Programs, v. 28, p. 2.

Ettensohn, F.R., and Brett, C.E., 1996, Did Taconian convergence continue into Silurian time? — Stratigraphic evidence from northwestern parts of the Appalachian foreland

basin: Geological Society of America Abstracts with Programs, v. 28, p. 52.

Ettensohn, F.R., *Kulp, M.A.*, and Rast, N., 1996, Far-field foreland responses to Taconian orogeny: Evidence from the Jessamine Dome region and the Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 28, p. 52.

Barnett, S.F., Ettensohn, F.R., and Norby, R.D., 1996, A new graben-bound, Middle Devonian black-shale unit at the base of the New Albany Shale in central Kentucky: Characterization and significance: Geological Society of America Abstracts with Programs, v. 28, p. 37.

Andrews, W.M., Jr., and Ettensohn, F.R., 1996, Regional and local structural controls on deposition of the Lower Silurian (Llandoverian) Brassfield Formation west of the Cincinnati Arch: Program and Abstracts, The James Hall Symposium: Second International Symposium on the Silurian System: Rochester, University of Rochester, p. 25.

Ettensohn, F.R., and Brett, C.E., 1996, Stratigraphic manifestations of Silurian tectonism from the Appalachian foreland basin and adjacent craton: Program and Abstracts, The James Hall Symposium: Second International Symposium on the Silurian System: Rochester, University of Rochester, p. 50.

Ettensohn, F.R., 1996, Central Colorado Geologic Mapping Company — An experiment in business-style, collaborative geology field camp: Geological Society of America Abstracts with Programs, v. 28, p. A-269.

1997 Ettensohn, F.R., 1997, Paleoseismites in the Ordovician Lexington Limestone: Evidence and implications for epicontinental sedimentation: Proceedings, 2nd Annual Kentucky Geosciences Symposium: Lexington, The Kentucky Society for Professional Geologists, p. 1.

Schmidt, S.R., and Ettensohn, F.R., 1997, Sequence stratigraphy of the Late Ordovician Bardstown Member, Drakes Formation and "reef" occurrences in north-central Kentucky: Proceedings, 2nd Annual Kentucky Geosciences Symposium: Lexington, The Kentucky Society for Professional Geologists, p. 16.

Ettensohn, F.R., and *Kulp, M.A.*, 1997, Stratigraphic and structural framework of Grandville-like lithologies in the Tanglewood Member, Middle and Upper Ordovician Lexington Limestone, central Kentucky: American Association of Petroleum Geologists Bulletin, v. 81, p. 1549–1550 (also *in* 1997 Eastern Section AAPG and TSOP Joint Meeting, Abstracts and Program, v. 14, p. 33–34).

Ettensohn, F.R., *Kulp, M.A.*, and Rast, N., 1997, Recognition of seismogenic influence during Paleozoic epicontinental sedimentation: Examples from the Middle Ordovician Lexington Limestone, central Kentucky: American Association of Petroleum Geologists Bulletin, v. 81, p. 1550 (also *in* 1997 Eastern Section AAPG and TSOP Joint Meeting, Abstracts and Program, v. 14, p. 34).

Ettensohn, F.R., and *Pashin, J.C.*, 1997, Significance of unconformity distribution in space and time from the Devonian-Mississippian transition on parts of Laurussia: Geological Society of America Abstracts with Programs, v. 29, A-117.

1998 Garland, B.N., and Ettensohn, F.R., 1998, Life and times on a Middle Ordovician

edrioasteroid firmground from the Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 30, p. 13.

Garland, B.N., and **Ettensohn, F.R.**, 1998, Paleoecology and taphonomy of a Middle Ordovician edrioasteroid firmground, central Kentucky: Journal of the Kentucky Academy of Science, v. 59, p. 103–104.

Rast, N., Rast, D.E., and **Ettensohn, F.R.**, 1998, Seismic events in the geologic past - a historical perspective: Geological Society of America Abstracts with Programs, v. 30, p. A-398.

Ettensohn, F.R., Rast, N., and *Kulp, M.A.*, 1998, Paleoseismites in the Ordovician Lexington Limestone, central Kentucky: Evidence and implications for marine epicontinental sedimentation: Geological Society of America Abstracts with Programs, v. 30, p. A-399.

Barnett, S., and Ettensohn, F.R., 1998, Possible tsunamites from the Middle Devonian Duffin Bed, New Albany Shale, south-central Kentucky: Geological Society of America Abstracts with Programs, v. 30, p. A-399.

1999 Ettensohn, F.R., 1999, Flexural controls on Paleozoic delta complexes in compressional regimes: Examples from the Appalachian Basin, U.S.A.: Book of Abstracts, First International Symposium on the Deltas, Mansoura University, Cairo, Egypt, p. 28–29.

Pashin, J.C., and Ettensohn, F.R., 1999, The Bedford-Berea lowstand wedge (Upper Devonian): Flexurally modified deltaic deposits in the Appalachian foreland basin, U.S.A.: Book of Abstracts, First International Symposium on the Deltas, Mansoura University, Cairo, Egypt, p. 30–31.

Barnett, S.F., and Ettensohn, F.R., 1999, Origin and age of the Duffin breccia, New Albany Shale, central Kentucky — a possible Middle Devonian tsunamite?: Geological Society of America Abstracts with Programs, v. 31, p. A-3—A-4.

Ettensohn, F.R., 1999, Taconian far-field effects and the origin of the Middle-Late Ordovician Lexington Platform and Sebree Trough, east-central United States: Geological Society of America Abstracts with Programs, v. 31, p. A-15.

Gooding, P.J., and Ettensohn, F.R., 1999, Petroleum geochemistry and source-rock analysis evaluation of hydrocarbon reservoirs in Kentucky: American Association of Petroleum Geologists Annual Convention, April 11-14, 1999, San Antonio, Texas, Official Program, v. 8, p. A49.

Greb, S.F., Chesnut, D.C., Jr., Dever, G.R., Jr., Harris, D., **Ettensohn, F.R.**, *Mason, C.*, Andrews, W.M., Howell, P., Eble, C.F., Caudill, M.R., Houck, K., and Nelson, W.J., Pound Gap — A new reference section for Devono-Carboniferous strata on Pine Mountain, central Appalachian Basin, U.S.A., Programme with Abstracts, XIV International Congress on Carboniferous-Permian, Calgary, University of Calgary, p. 45.

Ettensohn, F.R., Greb, S.F., Chesnut, D.R., Jr., Harris, D.C., Dever, G.R., Jr., *Mason, C.E.,* Howell, P.D., Eble, C.F., Caudill, M.R., Houck, K., and *Watson, A.E.*, 1999, Mississippian stratigraphy, depositional environments, and tectonic framework of the central Appalachian basin, eastern Kentucky, U.S.A.: Programme with Abstracts, XIV International Congress on Carboniferous-Permian, Calgary, University of Calgary, p. 36.

Garland, B.N., and Ettensohn, F.R., 1999, Origin of a Middle Ordovician edrioasteroid hardground from the Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 31, p. A-463.

Rast, N., and **Ettensohn, F.R.**, 1999, Far-field effects at convergent boundaries of cratons – Laurentian-lapetus border during the Taconian Orogeny: Geological Society of America Abstracts with Programs, v. 31, p. A-475.

- **Ettensohn, F.R.**, Rast, N., and *Kulp, M.A.*, 2000, Locating possible epicentral areas for paleoearthquakes, Middle Ordovician Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 32, p. A-215.
- 2001 Lambert, J.R., Ettensohn, F.R., Holbrook, A.L., and Stewart, A.K., 2001, Understanding bryozoan bioherms in the Tanglewood and Grier members, Lexington Limestone (Middle Ordovician), through modern, small, patch-reef analogues: Geological Society of America Abstracts with Programs, v. 33, p. A-57.

Jewell, L.H., and **Ettensohn, F.R.**, 2001, Origin of deformation in the Cane Run Bed, Middle Ordovician Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 33, p. A-59.

Ettensohn, F.R., Rast, N., and *Kulp, M.A.*, 2001, Interpreting ancient marine seismites from the Middle-Late Ordovician Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 33, p. A-60.

Kasl, J.M., and **Ettensohn, F.R.**, 2001, The nature and origin of the Devils Hollow member, Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 33, p. A-60.

Ettensohn, F.R., 2001, Tectonic roles in the origin of marine epicontinental black shales: Geological Society of America Abstracts with Programs, v. 33, p. A-101.

Jewell, H.L., and **Ettensohn, F.R.**, 2001, Nature and origin of the Cane Run Bed, Lexington Limestone, central Kentucky: Journal of the Kentucky Academy of Science, v. 62, p. 83.

Lambert, J.R., Ettensohn, F.R., and Holbrook, A.L., 2001, Possible modern analogues to bryozoan bioherms in the Tanglewood and Grier members, Lexington Limestone, central Kentucky: Journal of the Kentucky Academy of Science, v. 62, p. 83–84.

Stewart, A.K., and Ettensohn, F.R., 2001, Understanding soft-sediment deformation in a Middle/Late Ordovician calcarenitic shoal complex: Geological Society of America Abstracts with Programs, v. 33, p. A-256.

Mason, C.E., and **Ettensohn, F.R.**, 2001, Tectonic control of Sunbury (Kinderhookian) and Borden (Osagean) deposition in northeastern Kentucky: Journal of the Kentucky Academy of Science, v. 62, p. 84.

- **Ettensohn, F.R.**, 2002, Approximating absolute depths for Devonian-Mississippian black shales in the northern Appalachian Basin, eastern United States: Implications for eustatic vs. tectonic control of sea level: Geological Society of America Abstracts with Programs, v. 34, p. A-38.
 - Greb, S.F., **Ettensohn, F.R.**, and Obermeier, S.F., 2002, Developing a classification scheme for seismites: Geological Society of America Abstracts with Programs, v. 34, p.

A-102.

Barnett, S.F., and **Ettensohn, F.R.**, 2002, Tsunamites as seismites: A probable example from the Middle Devonian Duffin Bed, New Albany Shale, south-central Kentucky: Geological Society of America Abstracts with Programs, v. 34, p. A-102.

Ettensohn, F.R., and *Kasl, J.M.*, 2002, Changes across the Trenton-Maquoketa (sub-Sulphur Well) unconformity: Stratigraphic responses to structural inversion and initiation of the Tanglewood buildup, Middle and Upper Ordovician Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 34, p. 15.

2003 Dahlem, M.J., and **Ettensohn, F.R.**, 2003, Origin of a Middle Ordovician edrioasteroid firmground, Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 35, p. 17.

Ettensohn, F.R., 2003, Origin of the Middle-Late Ordovician Sebree Trough, east-central United States: Geological Society of America Abstracts with Programs, v. 35, p. 18–19.

Ettensohn, F.R., Ausich, W.I., Kammer, T.R., Chesnut, D.R., Jr., and *Johnson, W.K.*, 2003, Carboniferous echinoderm zonation in the Appalachian Basin, eastern United States: International Congress on Carboniferous and Permian Stratigraphy, Utrecht, The Netherlands, 10-16 August 2003, Universiteit Utrecht, p. 145–146.

Barnett, S.F., and **Ettensohn, F.R.**, 2003, A possible Middle Devonian tsunamite: Duffin Bed, New Albany Shale of south-central Kentucky: Geological Society of America Abstracts with Programs, v. 35, p. 602.

2004 Coates, J.W., Ettensohn, F.R., and Clepper, M., 2004, Establishing a temporal/correlative framework for the Upper Ordovician (Trenton) Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 36, p. 88.

Weir, W.K., Cuffey, R.J., and **Ettensohn, F.R.**, 2004, Bryozoan reef-mounds in the Lexington Limestone (Ordovician, Kentucky): Geological Society of America Abstracts with Programs, v. 36, p. 109.

Caudill, M.J., and **Ettensohn, F.R.**, 2004, Paleoecology of an Early Cretaceous dinosaur trackway site, upper Glen Rose Formation, Sattler, Texas: Geological Society of America Abstracts with Programs, v. 36, p. 116.

Ettensohn, F.R., 2004, Regional, structural controls on the development of the Taconian foreland and foreland basin during Mohawkian time, east-central United States: Geological Society of America Abstracts with Programs, v. 36, p. 117.

Ettensohn, F.R., 2004, Origin of Late Ordovician (Caradoc) temperate-water conditions on Laurentia: Glacial or tectonic?: Abstracts, 32nd International Geological Congress – Florence, 2004, Part 2, p. 988.

Coates, J.W., Ettensohn, F.R., and Rowe, H. D., 2004, Relationships between whole-rock, stable-isotope composition and lithologic units in the Upper Ordovician Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 36, p. 76.

Ettensohn, F.R., and *Lowe, A.C.*, 2005, Trace fossils produced by tabulate coral colonies, Upper Ordovician (Mohawkian) Tyrone Formation, central Kentucky, U.S.A.: Geological Society of America Abstracts with Programs, v. 37, p. 4.

Clepper, M., Ettensohn, F.R., and Coates, J., 2005, Lithostratigraphic framework of the Tanglewood buildup, Lexington Limestone (Upper Ordovician) of the Bluegrass Region, central Kentucky: Geological Society of America Abstracts with Programs, v. 37, p. 13.

Coates, J.W., and Ettensohn, F.R., 2005, Conjoined use of stratigraphic/paleontologic parameters in establishing a temporal framework for the Upper Ordovician (Caradocian) Lexington Limestone, central Kentucky, U.S.A.: Geological Society of America Abstracts with Programs, v. 37, p. 143.

Ettensohn, F.R., 2006, Uniformitarianism: Using geology in Nepal to understand foreland basin development elsewhere: Curriculum vitae and abstracts, Synergizing Fulbright activities in south Asia and the U.S.: New Delhi, USEF in India, p. 17.

Ettensohn, F.R., and *Lowe, A.C.*, 2006, Trace fossils produced by in-situ coral corolla, Upper Ordovician (Mohawkian) of central Kentucky, U.S.A., Origin and implications for ethological classification: Abstracts of the Second International Palaeontological Congress: Beijing, University of Science and Technology of China Press, p. 178–179.

Coates, J.W., Ettensohn, F.R., and Rowe, H., 2006, Using "isotope zones" for regional correlation in an Upper Ordovician platform facies-mosaic: Lexington Limestone, central Kentucky, U.S.A.: Contributions, International Symposium, Palaeogeography and global correlation of Ordovician events (IGCP 503 Project): Novosibirsk, Trofimuk Institute of Petroleum Geology and Geophysics, Siberian Branch, Russian Academy of Sciences, Academic Publishing House "GEO," p. 11–12.

Ettensohn, F.R., 2006, Black-shale source rocks as indicators of Paleozoic tectonic history in the Appalachian basin: Official Program with Abstracts, 35th Annual Meeting, Eastern Section, AAPG, p. 19.

Ettensohn, F.R., 2007, Interpreting the origin and nature of unconformities in the Appalachian foreland basin: Geological Society of America Abstracts with Programs, v. 39, p. 8.

Russell, N.E., and Ettensohn, F.R., 2007, Storm-bed taphonomy of Late Ordovician (Edenian) cyclocystoids from the Millersburg Member, Lexington Limestone, central Kentucky: Geological Society of America Abstracts with Programs, v. 39, p. 36.

Landrum, N.W., Ettensohn, F.R., and Ettensohn, M.F., 2007, Characterizing and interpreting the microstratigraphy of a stromatolite/thrombolite from a hypersaline inland lake, San Salvador, Bahamas: Geological Society of America Abstracts with Programs, v. 39, p. 69.

Russell, N.E., and Ettensohn, F.R., 2007, Taphonomy of Late Ordovician cyclocystoids from the Millersburg Member, Lexington Limestone, central Kentucky: Journal of the Kentucky Academy of Science, v. 68, p. 111.

Landrum, N.W., Ettensohn, M.F., and Ettensohn, F.R., 2007, Characterizing potential environmental controls on stromatolite morphology using stable-isotope analysis and

micro-stratigraphy: Journal of the Kentucky Academy of Science, v. 68, p. 111.

Ettensohn, F.R., 2007, Horses, Kentucky Bluegrass, and the origin of Upper Ordovician carbonate reservoir and source rocks in east-central United States: Program with Abstracts, 36th Annual Meeting, Eastern Section, AAPG, p. 33.

Ettensohn, F.R., Lierman, T.R., and Mason, C.E., 2007, Dropstones, glaciation, and black shales: New inferences on black-shale origins from the upper Ohio Shale in northeaster Kentucky: Program with Abstracts, 36th Annual Meeting, Eastern Section, AAPG, p. 33–34.

Ettensohn, F.R., and *Vest, M.B.*, 2007, Preliminary study of a producing, Late Mississippian, low-stand sand body at the base of the Big Lime on and near the Pine Mountain Thrust Sheet in southeastern Kentucky and northeastern Tennessee: Relationships to Ouachita tectonism: Program with Abstracts, 36th Annual Meeting, Eastern Section, AAPG, p. 34.

Wilhelm, D.B., and Ettensohn, F.R., 2007, From clastic to carbonate facies: Borden Delta destruction and evolution of the Slade carbonate platform: Tectonics versus eustasy: Program with Abstracts, 36th Annual Meeting, Eastern Section, AAPG, p. 59.

2008 Coates, J.W., Ettensohn, F.R., and Rowe, H., 2008, Isotope chemostratigraphy and correlation in an Upper Ordovician platform facies-mosaic: Lexington Limestone, central Kentucky, U.S.A.: Geological Society of America Abstracts with Programs, v. 40, p. 5.

Ettensohn, F.R., and McDowell, T., 2008, Carbonate petrology, conservation, and the characterization of historic mortars: Geological Society of America Abstracts with Programs, v. 40, p. 32.

Gooding, P., and **Ettensohn, F.R.**, 2008, Hydrocarbons sourced from the Mississippian-Devonian black shales in the Appalachian Basin: 2008 AAPG Annual Meeting, AAPG Abstracts, v. 17, p. 69.

Ettensohn, F.R., 2008, Large-scale tectonic controls on the origin of Paleozoic, black-shale, source-rock basins in the Appalachian foreland-basin region: Geological Society of America Abstracts with Programs, v. 40, p. 233.

Ettensohn, F.R., Lierman, T.R., and Mason, C.E., Dennis, A.J., and *Anderson, E.D.*, 2008, Kentucky dropstones and the case for Late Devonian alpine glaciation in the Appalachian Basin (USA) with implications for Appalachian tectonism and black-shale sedimentation: Geological Society of America Abstracts with Programs, v. 40, p. 395.

Udgata, D.B.P., and **Ettensohn, F.R.**, 2008, Significance of green-mineral or verdine facies from Upper Ordovician and Middle Mississippian rocks in the western Appalachian Basin, east-central Kentucky: Geological Society of America Abstracts with Programs, v. 40, p. 482.

Ettensohn, F.R., 2008, Tectonism, estimated water depths, and the accumulation of organic matter in the Devonian-Mississippian black shales of the northern Appalachian Basin: Final Program and Abstracts, AAPG – SPE Eastern Meeting, Conference and Exhibition, p. 36.

Ettensohn, F.R., 2009, Paleogeography and tectonic influence on shale gas systems: Abstracts with Author Biography & Notes, Houston Geological Society Applied Geoscience Conference (AGC), US Gulf Region Mudstones as Unconventional Shale Gas/oil Reservoirs, p. 25–28.

Zeng, Min, and Ettensohn, F.R., 2009, A new type of carbonate seismite and its implications for the depositional history of the Middle Mississippian (Meramecian) St. Louis Member of the Slade Formation, east-central Kentucky: Geological Society of America Abstracts with Programs, v. 41, p. 55.

Ettensohn, F.R., Zhang, C., and Gao, L., 2009, Interpreting soft-sediment deformation in epicontinental carbonates as evidence of paleoseismicity, *in* Pascussi, V., and Andreucci, S., eds., Book of Abstracts, 27th International Association of Sedimentologists (IAS), Meeting: Sassari, Editrice Democratica Sarda, p. 156.

Ettensohn, F.R., Lierman, T.R., and Mason, C.E., 2009, Inferences from a glacial dropstone in Late Devonian black shales, Eastern Kentucky, U.S.A., *in* Pascussi, V., and Andreucci, S., eds., Book of Abstracts, 27th International Association of Sedimentologists (IAS), Meeting: Sassari, Editrice Democratica Sarda, p. 506.

Su, W., Li, H., Huff, W.D., **Ettensohn, F.R.**, Zhang, S., Zhou, H., and Wan, Y., 2009, SHRIMP U-Pb age of the first K-bentonite bed in the Tieling Formation: Further tightens the voluminous Meso- to Neoproterozoic carbonate-dominated succession of the North China Craton with the Columbia supercontinent cycle: Program and Abstracts, 2009 IAGR Annual Convention & 6th International Symposium on Gondwana to Asia: Hanoi, Viet Nam.

2010 Ettensohn, F.R., 2010, Tectonic/structural control on the development of temperate-water carbonates: Upper Ordovician Lexington Limestone, Central Kentucky, U.S.A., *in* Schwarz, E., Georgieff, S.M., Piovana, E., and Ariztegui, D., eds., Abstracts Volume, 18th International Sedimentological Congress: La Plata, International Association of Sedimentologists, p. 330.

Ettensohn, F.R., and Su, W., 2010, Using dark shales to understand orogeny and foreland-basin development in time and space: Examples from the eastern United States and southern China, *in* Schwarz, E., Georgieff, S.M., Piovana, E., and Ariztegui, D., eds., Abstracts Volume, 18th International Sedimentological Congress: La Plata, International Association of Sedimentologists, p. 331.

Clayton, G., Mason, C.E., **Ettensohn, F.R.**, Lierman, R.T., Goodhue, R., and Rooney, A., 2010, Palynological correlations of a Late Devonian dropstone in Kentucky with diamictite-bearing sections in Maryland and Pennsylvanian: Geological Society of America Abstracts with Programs, v. 42, p. 643.

Udgata, D.B.P., and **Ettensohn, F.R.**, 2010, Foreland-basin sedimentary response to lithospheric relaxation during Neoacadian tectonism: Geological Society of America Abstracts with Programs, v. 42, p. 649.

2011 Ettensohn, F.R., 2011, Acadian/Neoacadian tectonic framework of Devonian-Mississippian sedimentation in the Appalachian foreland basin: Geological Society of America Abstracts with Programs, v. 43, p. 96.

Ettensohn, F.R., Lierman, R.T., and Mason, C. E., 2011, Possible relationships between Late Devonian alpine glaciation and black shales: Geological Society of America Abstracts with Programs, v. 43, p. 139.

Lierman, R.T., Clayton, G., **Ettensohn, F.R.**, Mason, C.E., and *Anderson, E.D.*, 2011, Evidence for Late Devonian (Famennian) alpine glaciation in the Appalachian Basin: A granitic lonestone from Upper Devonian black shales in northeastern Kentucky: Geological Society of America Abstracts with Programs, v. 43, p. 152.

Ettensohn, F.R., 2011, Flexural and Sedimentary Responses of the Appalachian Foreland Basin to Neoacadian Orogeny: Geological Society of America Abstracts with Programs, v. 43, p. 366.

Udgata, D.B.P., and **Ettensohn, F.R.**, 2011, Sediment Starvation in the Central and Distal Appalachian Foreland Basin during the Neoacadian Orogeny, The Floyds Knob Bed of Kentucky, Indiana, Tennessee and Virginia: Causes and Implications: Geological Society of America Abstracts with Programs, v. 43, p. 366.

Lierman, R.T., **Ettensohn, F.R.**, Mason, C.E., and Clayton, G., 2012, Age, petrology and geochemistry of a Late Devonian Ionestone from the Upper Devonian Ohio Shale (Cleveland Mbr.), east-central Kentucky: Geological Society of America Abstracts with Programs, v. 44, p. 6–7.

Ettensohn, F.R., 2012, Generating Devonian-Mississippian black-shale repositories in the Appalachian Basin: Refinig the tectonic models: Geological Society of America Abstracts with Programs, v. 44, p. 6.

Ettensohn, F.R., 2012, Approximating water depths during deposition of Devonian–Mississippian black shales in the northern Appalachian Basin: Geological Society of America Abstracts with Programs, v. 44, p. 6.

Clepper M. L., Ettensohn, F.R., and Coates, J., 2012, Using Discontinuity Surfaces for Stratigraphic Discrimination in the Upper Ordovician Lexington Limestone, Central Kentucky, U.S.A.: Geological Society of America Abstracts with Programs, v. 44, p. 81.

Clayton, G., Paterson, N.W., Mason, C.E., **Ettensohn, F.R.**, Lierman, R.T., Goodhue, R., Rooney, A., and Wicander, R., 2012, Palynostratigraphy and palynofacies of Upper Devonian rocks in the Appalachian Basin, U.S.A.: Program and Abstracts, 45th Annual Meeting of AASP, The Palynological Society, and Meeting of the Commission Internationale de la Microflore du Paléozoïque Subcommissions, p. 16–17.

Ettensohn, F.R., and Lierman, R.T., 2012, The Appalachian Basin: Compressional tectonic controls on the development and sedimentary infill of a composite foreland basin due to Paleozoic convergence: Proceedings, 34th International Geological Congress 2012: Canberra, Australian Geoscience Council, p. 854.

- 2013 Zeng, M., and Ettensohn, F.R., 2013, Upper Mississippian stratigraphy and syndepositional faulting reflect likely Ouachita flexural forebulge effects, east-central Kentucky, U.S.A.: Geological Society of America Abstracts with Programs, v. 45, p. 476.
- O'Bryan, A., Ettensohn, F.R., and Hower, J., 2014, High-resolution organic petrography of the Cleveland Shale (Ohio Shale Formation, northeastern Kentucky): Integrated approaches of unconventional reservoir assessment and optimization, Applied Geoscience Conference: Houston, Houston Geological Society, p. 92.

O'Bryan, A., Ettensohn, F.R., Hower, J., and Eble, C., 2014, Origin and nature of cyclicity in the Devonian Cleveland Shale (Ohio Shale Formation, northeastern Kentucky): Annual Meeting, Ohio Valley Organic Petrographers.

Ettensohn, F.R., Lierman, R.T., Mason, C.E., Clayton, G., 2014, Possible Late Devonian glaciogenic influence on coeval, foreland-basin, black-shale deposition: Geological Society of America Abstracts with Programs, v. 46, p. 58.

Ettensohn, F.R., 2014, Clastic wedges as responses to crustal relaxation following orogenic loading: Examples from the Appalachian foreland basin: Geological Society of America Abstracts with Programs, v. 46, p. 84.

Ettensohn, F.R., and Chesnut, D.R., Jr., 2014, Functional morphology of the unusually large crinoid stems of *Rhabdocrinus*? from the Upper Mississippian Slade Formation, eastern Kentucky, U.S.A., *in* Cerdeño, E. (comp.), Abstract Volume, 4th International Palaeontological Congress, Mendoza, Argentina, p. 520.

Mason, C.E., **Ettensohn, F.R.**, and R. Thomas Lierman, 2014, An Early Silurian dysaerobic fauna from eastern Kentucky, U.S.A.: Changing Paleozoic patterns of dominance and trophic structure in dysaerobic communities, *in* Cerdeño, E. (comp.), Abstract Volume, 4th International Palaeontological Congress, Mendoza, Argentina, p. 573.

Zeng, M., **Ettensohn, F.R.**, and Zhang, R., 2014, Stratigraphic and geochronologic evidence for Late Triassic initial subduction of the Bangong-Nuijiang (Tethys) Ocean beneath Qiantang: Geological Society of America Abstracts with Programs, v. 46, p. 441

Ettensohn, F.R., 2014, Possible tectonic and structural control on Ordovician blackshale distribution during the Taconian orogeny, northern Appalachian Basin, U.S.A.: Geological Society of America Abstracts with Programs, v. 46, p. 626.

Ettensohn, F.R., 2014, Energy diplomacy and the implications of U.S. shale gas: Eastern Unconventional Oil & Gas Symposium 2014, Lexington, Kentucky Geological Survey and Center for Applied Energy Research, University of Kentucky, p. 22–23 (http://www.euogs.org/proceedings/2014/013-ettensohn-euogs2014.pdf).

Ettensohn, F.R., 2014, Early tectonic controls on the preservation and distribution of organic matter in gas shales: Eastern Unconventional Oil & Gas Symposium 2014, Lexington, Kentucky Geological Survey and Center for Applied Energy Research, University of Kentucky, p. 29–30 (http://www.euogs.org/proceedings/2014/021-ettensohn-euogs2014.pdf).

Koirala, D., Ettensohn, F.R., and Clepper, M.L., 2015, Depositional environments in the Upper Tongue of the Tanglewood Member, Upper Ordovician Lexington Limestone, Bluegrass Region, central Kentucky, U.S.A.: Geological Society of America Abstracts with Programs, v. 47, p. 21.

Harris, A.W., and Ettensohn, F.R., 2015, A history and census report from two Late Mississippian bryozoan/echinoderm faunules, Powell County, east-central Kentucky: Geological Society of America Abstracts with Programs, v. 47, p. 81.

Ettensohn, F.R., 2015, Using soft-sediment deformation to characterize and constrain Paleozoic, marine, epicontinental seismicity: Central Kentucky Ordovician, east-central United States: Geophysical Research Abstracts (EGU General Assembly, 2015), v. 17, EGU2015-6805.

Ettensohn, F.R., 2015, The Sebree Trough: Probable origin and control by intraplate paleotectonic structures and the Taconian Orogeny: Abstracts, AAPG Eastern Section, 44th Annual Meeting, Indianapolis, Indiana, 2015, p. 35.

Ettensohn, F.R., 2015, Tectonic and structural control of Ordovician black-shale distribution during the Taconian Orogeny, northern Appalachian Basin, U.S.A.: Utica and related black shales: Abstracts, AAPG Eastern Section, 44th Annual Meeting, Indianapolis, Indiana, 2015, p. 35–36.

Koirala, D., **Ettensohn, F.R.**, and *Clepper, M.L.*, 2015, Eustatic and far-field tectonic control on the distribution of a carbonate shoal: Example from the Upper Ordovician upper Tanglewood member of the Lexington Limestone, central Kentucky, U.S.A.: Abstracts, AAPG Eastern Section, 44th Annual Meeting, Indianapolis, Indiana, 2015, p. 42–43.

Ettensohn, F.R., 2015, Cratonward extension of dark, gas-shale deposition through basin yoking: Examples from the Ordovician and Devonian of North America: Geological Society of America Abstracts with Programs, v. 47, p. 221.

Harris, A.W. and Ettensohn, F.R., 2015, A comparison of environmental constraints on Late Mississippian (Chesterian) echinoderm faunules from east-central Kentucky, U.S.A.: Geological Society of America Abstracts with Programs, v. 47, p. 765.

Koirala, D., Ettensohn, F.R., and Clepper, M.L., 2015, Sequence and event stratigraphy on a Late Ordovician carbonate buildup: Parasequences and seismites in the upper part of the Lexington Limestone (Edenian), central Kentucky, U.S.A.: Geological Society of America Abstracts with Programs, v. 47, p. 829.

2016 Ettensohn, F.R., 2016, Relationships between Acadian/Neoacadian tectonism (Devonian–Mississippian) along the eastern margin of Laurussia and coeval sedimentation in the Appalachian foreland basin: Geological Society of America Abstracts with Programs, v. 48 (2), doi:10.1130/abs/2016NE-272771.

Whalen, P.J., and Ettensohn, F.R., 2016, Evaluating pyroclastic sedimentary rocks: Examples from the Oligocene of central Colorado: Geological Society of America Abstracts with Programs, v. 48 (3), doi:10.1130/abs/2016SE-271967.

Ettensohn, F.R., 2016, The phenomenon of North American shale gas: Geology and development: Geological Society of America Abstracts with Programs, v. 48 (5), doi:10.1130/abs/2016NC-275601.

Freeman, R., Bemis, S., *Ettensohn, F.R.*, Idstein, P., and Yeager, K., 2016, A departmental open house for increased engagement and recruiting of general education geoscience students: Earth Educators' Rendezvous, 2016 (http://serc.carleton.edu/earth_rendezvous/2016/program/posters/thursday/136407.html).

Ettensohn, F.R., 2016, Gas shales: A largely North American Phenomenon?: Program with Abstracts, AAPG Eastern Section, 45th Annual Meeting, Lexington, Kentucky, 2016, p. 35.

Gooding, P., Smath, R., Eble, C.F., and **Ettensohn, F.R.**, 2016, A Devonian *Callixylon* log of the *Archaeopteris* tree found in Marion County, Kentucky: Program with Abstracts, AAPG Eastern Section, 45th Annual Meeting, Lexington, Kentucky, 2016, p. 38.

Whalen, J.P., and Ettensohn, F.R., 2016, The West Elk Breccia: Evidence of a massive volcanic debris avalanche in the eastern Gunnison River valley, west-central Colorado, U.S.A.: 2016 American Geophysical Union Fall Meeting Program: https://agu.confex.com/agu/fm16/meetingapp.cgi/Paper/145559.

Curl, D., Nuttall, B., Smath, R.A., and **Ettensohn, F.R.**, 2016, ESRI Story Map: Cove Spring park, Frankfort, Kentucky: Abstract, Kentucky Association of Mapping Professionals (KAMP) GIS Conference, Northern Kentucky Convention Center: http://kgs.uky.edu/storymap/covespring/#.

2017

Harris, A.W., and Ettensohn, F.R., 2017, Population analysis of a Late Mississippian (Chesterian) echinoderm faunule across four contiguous depositional environments, Carter County, east-central Kentucky: Geological Society of America Abstracts with Programs, v. 49 (2), doi: 10.1130/abs/2017NE-291240 (https://gsa.confex.com/gsa/2017NE/webprogram/Paper291240.html).

Ettensohn, F.R., and *Udgata, D.P.*, 2017, The Borden-Grainger-Ft. Payne stratigraphic complex of the Appalachian Basin, central Kentucky, U.S.A.: The synergistic influence of tectonics, paleoclimate, and paleogeography: Geological Society of America Abstracts with Programs, v. 49 (3), doi: 10.1130/abs/2017SE-291372 (https://gsa.confex.com/gsa/2017SE/webprogram/Paper291372.html).

Ettensohn, F.R., 2017, Large-scale tectonic and structural controls on Ordovician black-shale distribution (Utica and Martinsburg) during the Taconian Orogeny, northern Appalachian Basin, U.S.A.: Monday afternoon poster presentations, Theme 4, Structure/Geomechanics; Contractual Structure/Tectonics [AAPG]; 2017 AAPG Annual Meeting

(http://www.searchanddiscovery.com/abstracts/html/2017/90291ace/abstracts/2612815. html).

Whalen, P., and Ettensohn, F., 2017, The Oligocene West Elk Breccia: Evidence for massive volcanic debris avalanches in the eastern Gunnison River Valley, west-central Colorado, U.S.A.: IAVCEI Scientific Assembly Abstracts, Submission 1222, p. 1218 (http://iavcei2017.org/IAVCEI%202017%20Abstracts.pdf).

Ettensohn, F.R., 2017, Plate tectonics and the phenomenon of North American oil and gas shales: Abstract Book, William Smith Meeting, 2017, Plate Tectonics at 50: Geological Society of London, p. 106 (https://www.geolsoc.org.uk/~/media/shared/documents/Events/2017/WS17%20Plate%20Tectonics%20abstract%20book.pdf).

Ettensohn, F.R., and Gilliam, W., 2018, An earlier inception for the Acadian Orogeny in the central Appalachians? Possible evidence from migrating Helderbergian (Late Silurian–Early Devonian) black-shale basins: Geological Society of America Abstracts with Programs, v. 50 (3), ISSN 0016-7592, doi: 10.1130/abs/2018SE-313214 (https://gsa.confex.com/gsa/2018SE/meetingapp.cgi/Paper/313214).

Reis, A.J., Seckinger, C., Sherman, A.R., Hodelka, B., Herbert, B., Lyon, E., Zotto, S.C., Taghizadeh-Alamdari, N., Erhardt, A., and Ettensohn, F.R., 2018, Preliminary study of a Middle Mississippian (late Osagean; early Viséan) Fort Payne carbonate mud-mound complex, Cumberland County, south-central Kentucky: Geological Society of America Abstracts with Programs, v. 50 (3), ISSN 0016-7592, doi: 10.1130/abs/2018SE-312883 (https://gsa.confex.com/gsa/2018SE/meetingapp.cgi/Paper/312883).

Harris, A.W., and Ettensohn, F.R., 2018, A statistical approach to understanding diversity in an Upper Mississippian (Chesterian) echinoderm-rich unit across four contiguous lithofacies, Carter County, northeastern Kentucky: Geological Society of America Abstracts with Programs, v. 50 (3), ISSN 0016-7592, doi: 10.1130/abs/2018SE-313205 (https://gsa.confex.com/gsa/2018SE/meetingapp.cgi/Paper/313205).

Herbert, B., and Ettensohn, F.R., 2018, What is Edriocrinus?: Geological Society of America Abstracts with Programs, v. 50 (3), ISSN 0016-7592, doi: 10.1130/abs/2018SE-313092 (https://gsa.confex.com/gsa/2018SE/meetingapp.cgi/Paper/313092).

Harris, A.W., Ettensohn, F.R., and Carnahan-Jarvis, J., 2018, Geological and statistical attributes of two echinoderm-bearing faunas from the Upper Mississippian (Chesterian) Ramey Creek member, Slade Formation, eastern Kentucky, U.S.A.: Geological Society of America Abstracts with Programs, v. 50 (6), doi: 10.1130/abs/2018AM-319840

(https://gsa.confex.com/gsa/2018AM/webprogram/Paper31840.html).

Ettensohn, F.R., *Whalen, P.J.*, and Stork, A., 2018, A debris-avalanche origin for the West Elk Breccia in the eastern Gunnison area, Colorado, U.S.A.: Geological Society of America Abstracts with Programs, v. 50 (6), doi: 10.1130/abs/2018AM-319899 (https://gsa.confex.com/gsa/2018AM/webprogram/Paper319899.html).

Ettensohn, F.R., 2019, Interaction of regional structure, tectonics, paleogeography and paleoclimate to explain rapid change from warm-water to temperate-water conditions across east-central Laurentia at the Late Ordovician Blackriverian–Trenton (Turinian–Chatfieldian; late Sandbian) transition: Geological Society of America Abstracts with Programs, v. 51 (3), ISSN 0016-7592, doi: 10.1130/abs/2019SE-327727 (https://gsa.confex.com/gsa/2019SE/meetingapp.cgi/Paper/327727).

Harris, A.W., Ettensohn, F.R., and Carnahan-Jarvis, Jill, 2019, Paleoecological and statistical analysis of a new ophiuroid (Echinodermata) from Upper Mississippian (Chesterian) Slade Formation of northeastern Kentucky: Geological Society of America Abstracts with Programs, v. 51 (3), ISSN 0016-7592, doi: 10.1130/abs/2019SE-326814 (https://gsa.confex.com/gsa/2019SE/meetingapp.cgi/Paper/326814).

Seckinger, C. Moecher, D.P., and Ettensohn, F.R., 2019, Detrital-zircon provenance analysis of Neoacadian glacial diamictites from the central Appalachian Basin: Testing for Inner-Piedmont-Terrane dextral translation using clast geochronologic and provenance analysis: Geological Society of America Abstracts with Programs, v. 51 (3), ISSN 0016-7592, doi: 10.1130/abs/2019SE-327577 (https://gsa.confex.com/gsa/2019SE/meetingapp.cgi/Paper/327577).

Ettensohn, F.R., 2019, Photographic core-logging manuals: Development and use: American Institute of Professional Geologists 56th National Conference Program, p. 30-31 (https://aipg.org/page/2019Abstracts).

Ettensohn, F.R., Zeng, M., and Gilliam, W., 2019, Late Mississippian sedimentation on eastern and east-central Laurussia: Interactions between Neoacadian and Ouachita tectonism, eustasy, and paleoclimate: Geological Society of America Abstracts with Programs, v. 51 (5), doi: 10.1130/abs/2019AM-341328 (https://gsa.confex.com/gsa/2019AM/webprogram/Paper341328.html).

Zeng, M., Li, C., Chen, S., Ettensohn, F.R., Zhang, X., 2019, Ocean plate stratigraphy reconstructed from the Bangong-Nujiang Meso-Tethys suture zone (Tibet, China): Insights into subduction initiation and arc-related volcanism: Geological Society of America Abstracts with Programs, v. 51 (5), doi: 10.1130/abs/2019AM-333507; (https://gsa.confex.com/gsa/2019AM/webprogram/Paper333507.html).

Ettensohn, F.R., 2019, Extension of Appalachian Basin black-shale source rocks into adjacent intracratonic basins through basin voking: American Association of Petroleum Geologists 48th Annual Eastern Section Meeting, Program with Abstracts, p. 56–57.

Ettensohn, F.R., and Li, J., 2019, The origin and significance of the Lower Mississippian Sunbury Shale in east-central United States: American Association of Petroleum Geologists 48th Annual Eastern Section Meeting, Program with Abstracts, p. 57–58.

Li, J. and Ettensohn, F.R., 2019, Origin and tectonic implications of the Lower Mississippian Sunbury Shale in east-central United States: Journal of the Kentucky Academy of Science, v. 80, p. 123-124; (https://mms.kyscience.org/members/publication/program_issue.php?iid=663225).

Ettensohn, F.R., 2020, Filling a foreland basin: Models from the Appalachian Basin: 2020 Geological Society of America Abstracts with Programs, v. 52 (2), ISSN 0016-7592; doi: 10.1130/abs/2020SE-344634;

(https://gsa.confex.com/gsa/2020SE/meetingapp.cgi/Paper/34463).

Ettensohn, F.R., Clayton, G., and Mason, C.E., 2020, Latest Devonian alpine glaciation from the central Appalachian Basin and its possible influence on coeval black-shale deposition: Geological Society of America Abstracts with Programs, v. 52 (6); doi: 10.1130/abs/2020AM-352512; (https://gsa.confex.com/gsa/2020AM/meetingapp.cgi/Paper/352512).

Martins, G., Ettensohn, F.R., and Knutsen, S.-M., 2021, Appalachian-Basin analogs as a tool for understanding the geology of the Barents Sea shelf: Geological Society of America Abstracts with Programs., v. 53 (2): doi: 10.1130/abs/2021SE-362211.

Ettensohn, F.R., 2021, Using the confluence of flexural models, biostratigraphy and absolute dating to determine the duration of clastic-wedge formation in two Appalachian tectophases: Geological Society of America Abstracts with Programs., v. 53 (2): doi: 10.1130/abs/2021SE-362329.

Ettensohn, F.R., 2021, Using black shales to discern basin yoking: Geological Society of America Abstracts with Programs., v. 53 (3): doi: 10.1130/abs/2021NC-362216.

Ettensohn, F.R., 2021, Black shales as typical parts of foreland-basin, tectonostratigraphic sequences from the Appalachian Basin, U.S.A. (id: 737), *in* Bábek, O., and Vodrážková, S., eds., Book of Abstracts, 35th IAS Meeting of Sedimentology (Prague, 2021), T05-SS04 - Black shales: Past depositional systems and modern environments: Olomouc, Palacký University of Olomouc, p. 150; (https://iasprague2021.gcon.me/programme).

Martins, G., **Ettensohn, F.R.**, and Knutsen, S.-M., 2021, Understanding the tectonostratigraphic development of the Upper Permian–Middle Jurassic clastic succession on the Barents Sea Shelf: Geological Society of America Abstracts with Programs, v. 53 (6); doi: 10.1130/abs/2021AM-365012.

Ettensohn, F.R., *Li, J.*, and Gilliam, W., 2022, Neoacadian tectonism and the origin of the Sunbury Shale, east-central United States: Geological Society of America Abstracts with Programs, v. 54 (4); doi: 10.1130/abs/2022NC-375682.

Martins, G., Ettensohn, F., and Knutsen, S., 2022, Tectonostratigraphic Evolution of the Barents Sea Shelf: Lessons from the Appalachian Basin: Conference Proceedings, 83rd European Association of Geoscientists & Engineers (EAGE) Annual Conference & Exhibition, Jun 2022, Volume 2022, p. 1–5 (https://doi.org/10.3997/2214-4609.202210604; or https://www.earthdoc.org/content/papers/10.3997/2214-4609.202210604).

Ettensohn, F., 2022, Origins and implications of the U.S. shale-gas "revolution:" Program, AIPG 2022 National Conference, Technical Presentation Abstracts, p. 22 (https://aipg.org/page/2022ConferenceAbstracts).

Martins, G., Ettensohn, F., and Knutsen, S., 2022, Using the Appalachian Superbasin as an analogue to the Permo-Carboniferous succession and petroleum-systems of the Barents Sea shelf: IMAGE '22 Official Program, Second International Meeting for Applied Geoscience & Energy©, 2022 Society of Exploration Geophysicists and the American Association of Petroleum Geologists, p. 436–440 (https://library.seg.org/doi/epdfplus/10.1190/image2022-3738174.1).

Ettensohn, F.R., 2022, Interpreting the Mississippian System of the Appalachian Basin as a flexural response to Neoacadian tectonism: 51st Annual meeting of the Eastern Section, American Association of Petroleum Geologists (ESAAPG), Program with Abstracts, p. 37(chrome-

extension://efaidnbmnnnibpcajpcglclefindmkaj/https://conferences.illinois.edu/ESAAPG/docs/Booklet-ESAAPG_2022.pdf).

Ettensohn, F.R., 2022, North American shale gas, once again - 'revolution' or 'evolution?': 2022 Annual Meeting Program, Kentucky Academy of Science; (https://mms.kyscience.org/members/publication/program_issue.php?iid=1112921#Geo logy).

Ettensohn, F.R., 2023, Late Ordovician trace fossils left by fixosessile coral colonies at a pre-bentonite diastem, central Kentucky. USA: Geological Society of America Abstracts with Programs, v. 55 (2); (doi: 10.1130/abs/2023SE-386090).

Ettensohn, F.R., 2023, Understanding the spatial and temporal distribution of Appalachian orogenies using the sedimentary record of flexural, foreland-basin tectophase cycles: Examples from the Taconian orogeny: Geological Society of America Abstracts with Programs, v. 55 (2); (doi: 10.1130/abs/2023SE-386164).

Davis, S., Ettensohn, F.R., and Andrews, W.M., 2023, Using 3-dimensional mapping to determine the possibility of structural control on development of the Upper Ordovician Lexington Limestone, central Kentucky, U.S.A.: Geological Society of America Abstracts with Programs, v. 55 (2); (doi: 10.1130/abs/2023SE-385805).

Ettensohn, F.R., 2023, Horses, bourbon, and radon: Geological connections in the Central Kentucky Bluegrass: The Many Facets of Geoscience, American Institute of Professional Geologists 2023 60th Anniversary Conference Abstracts, p.30; (https://aipg.org/page/202360thAnniversaryConfAbstracts).

Martins, G., Ettensohn, F.R., and Knutsen, S., 2023, Unlocking foreland tectonostratigraphy: The tectophase model: SEG/AAPG IMAGE Technical Program Short Abstracts, IMAGE 2023, Houston Texas: IMAGE 23_ShortAb_091323_reduced.pdf, p. 2874–2877; https://www.imageevent.org/program/technical-program-short-abstracts.

Eble, C., and Ettensohn, F.R., 2023, Palynomorph biostratigraphy of Late Devonian strata in northeast West Virginia: Geological Society of America Abstracts with Programs, v. 55 (6); (doi: 10.1130/abs/2023AM-392610).

Ettensohn, F.R., 2023, Black shales and basin yoking in the Appalachian foreland: Geological Society of America Abstracts with Programs, v. 55 (6); (doi: 10.1130/abs/2023AM-395815).

Herbert, C.E., and Ettensohn, F.R., 2023, Revised classification and paleoecology of the Devonian stemless crinoid genus *Edriocrinus* Hall, 1858: Geological Society of America Abstracts with Programs, v. 55 (6); (doi: 10.1130/abs/2023AM-393408).

Ettensohn, F.R., 2023, The Kentucky Bluegrass origins of horse farming, bourbon, and radon!: Kentucky Academy of Science 2023 Annual Meeting Program, November 3–4, 2023: Journal of the Kentucky Academy of Science, v. 84, p. 158. (https://mms.kyscience.org/members/publication/program_issue.php?iid=1238787#Geo Talks).

Mickelson, M., and Ettensohn, F.R., 2024, Re-examination of a Middle-Mississippian carbonate mud-mound complex in south-central Kentucky: Geological Society of America Abstracts with Programs, v. 56 (2): (doi: 10.1130/abs/2024SE-398602).

Agharabi, A., Karrat, L., Gourari, L., Har, N., and **Ettensohn, F.R.**, 2024, Paleoclimatic implications of Mid- to Upper Holocene calcareous tufa deposits from the Bourkaïz alluvial fan, northern Morocco: Geological Society of America Abstracts with Programs. v. 56 (2); (doi: 10.1130/abs/2024SE-398221).

POST-DOCS/VISITING SCHOLARS SUPERVISED:

Chuanheng Zhang, 2002–2003, China University of Geosciences, Beijing, P.R.C.

Zeng Min, 2007–2009, China University of Geosciences, Beijing, P.R.C.

Jun Li, 2018–2019, China University of Mining and Technology, Beijing, P.R.C.

Amna M. Handhal, 2020–2021, University of Basrah, Iraq

Ayman Agharabi, 2023–2024, Sidi Mohamed Ben Abdellah University, Morocco

THESES AND DISSERTATIONS DIRECTED:

1978 Paleoenvironmental study of the Chaffee Group (Upper Devonian) in northeast Gunnison County, Colorado (David M. Rettew: M.S.)

Stratigraphy of the Upper Devonian-Lower Mississippian shale sequence in the eastern Kentucky outcrop belts (Dennis R. Swager: M.S.)

A petrographic study of the Upper Devonian-Lower Mississippian black shales in Eastern Kentucky (Michael L. Miller: M.S.)

1980 Echinoderms from the lower part of the Pennington Formation (Chesterian) in south-central Kentucky (Donald R. Chesnut: M.S.)

Subsurface geology of the Upper Devonian-Lower Mississippian black-shale sequence in Eastern Kentucky (Scott B. Dillman: M.S.)

Stratigraphy and paleoenvironments in the Lower Silurian Brassfield Formation of Eastern Kentucky (Larry A. Gorden: M.S.)

1981 Paleoenvironmental analysis of the Oregon Formation (Middle Ordovician) in central Kentucky (Mark A. Horrell: M.S.)

Stratigraphic and paleoenvironmental aspects of the Bedford-Berea sequence and Sunbury shale in eastern Kentucky (Tim D. Elam: M.S.)

Pedogenic carbonates (Caliche) in the Lower Newman limestone (Mississippian) of northeastern and east-central Kentucky: Evidence for subaerial exposure, weathering and soil formation (Jeff Grow: M.S.)

Paleontology and paleoecology of the Upper Devonian-Lower Mississippian black-

shale sequence in Eastern Kentucky (Lance S. Barron: M.S.) 1984 Evidence for pedogenesis in Pleistocene-Holocene carbonates on San Salvador Island, Bahamas (A.P. Hale: M.S.) 1985 Paleoenvironmental analysis of the Bedford-Berea sequences (Devonian-Mississippian), northeastern Kentucky and south-central Ohio (Jack Pashin: M.S.) Tempestites and depositional interpretations of the Middle Ordovician Curdsville Limestone of Central Kentucky (E.A. Grossnickel: M.S.) Stratigraphic relationships between the Devonian-Mississippian black-shale sequence in the Appalachian and Illinois basins (K.L. Geller: M.S.) 1986 Characterization and origin of the Garrard Siltstone (Upper Ordovician), central and eastern Kentucky (G. Jacobs: Ph.D.) Echinoderm systematics and paleoecology, Lexington limestone and parts of the Clays Ferry Formation (Middle Ordovician), central Kentucky (C.A. Smith: M.S.) 1987 A preliminary paleoecological study of the Cincinnatian (Maysvillian) crinoid garden (A. Axon; M.S.) Stratigraphy and paleoenvironments, Sawatch Formation (Cambrian), Cement Creek area, Gunnison County, Colorado (M.K. Allex: M.S.) 1988 Lithofacies and paleoenvironments, Lower Pennsylvanian rocks, Kentucky State Route 80 near the Rockcastle River (B.C. Amig: M.S.) Stratigraphic analysis of the Carboniferous rocks of the central Appalachian Basin (D.R. Chesnut: Ph.D., with N. Rast) 1990 Reevaluation of the Bedford-Berea sequence in Ohio and adjacent states: Epeiric sedimentation and relaxational tectonics in a foreland basin (J.C. Pashin: Ph.D.) Characterization and paleoenvironmental interpretation of the Louisville and Lego formations, west-central Kentucky (D. Phelps: M.S.) 1992 Paleoecology of a Cincinnatian (Upper Ordovician) crinoid-garden community from southwestern Ohio (A. Axon: Ph.D.) 1995 Paleoenvironmental interpretation of the Brannon Member, Middle-Upper Ordovician Lexington Limestone, Bluegrass Region of Central Kentucky (M.A. Kulp: M.S.) Tectonic implications of the erosional and depositional features in Upper Meramecian and Lower Chesterian (Mississippian) carbonate rocks of south-central and eastcentral Kentucky (G.R. Dever, Jr.: Ph.D.)

The Portwood Member (Upper and Middle Devonian) of the New Albany Shale of central Kentucky: Nature and origin (S.F. Barnett: Ph.D.)

- 1996 Stratigraphy and sedimentology of the Silurian (Wenlockian) Laurel Member of the Salamonie Dolomite in Kentucky and adjacent southeastern Kentucky (R.T. Hendricks: M.S.)
- 1997 Structural control on the origin and nature of the Brassfield Formation (Lower Silurian) west of the Cincinnati Arch (W.M. Andrews, Jr.: M.S.)

- 1998 Petrography, facies stratigraphy, and depositional environments of the Big Lime (Middle and Upper Mississippian) on the Pine Mountain Overthrust, Southeastern Kentucky (E.S. Johanson: M.S.) "Reef" occurrence and sequence stratigraphy, Upper Ordovician Bardstown Member, Drakes Formation, north-central Kentucky (S.R. Schmidt: M.S.) 2000 Subsurface characterization of a new clastic, gas-producing unit at the base of the Big Lime in southeastern Kentucky and northeastern Tennessee (M.B. Vest: M.S.) 2001 The nature and origin of the Devils Hollow Member, Lexington Limestone, central Kentucky (J.M. Kasl: M.S.) The origin of the Cane Run Bed, Lexington Limestone, central Kentucky (H.E. Jewell: M.S.) 2002 Penecontemporaneous faulting within the Pennsylvanian Pikeville to Four Corners Formations, Breathitt Group, southeastern Kentucky (G.C. Cornett: M.S.) Origin of the middle tongue of the Tanglewood Member, Lexington Limestone, and its soft-sediment deformation, Middle Ordovician, central Kentucky (A.K. Stewart: M.S.) 2003 Origin of a Late Ordovician edrioasteroid firmground, Sulphur Well Member, Lexington Limestone, central Kentucky (M.J. Dahlem: M.S.) 2004 The sedimentation, stratigraphy, and petrology of a coal-ash pond in Carroll County, Kentucky (R.B. Jewell: M.S.) 2006 Developing a temporal framework for the Upper Ordovician Lexington Limestone, central Kentucky, U.S.A.: Biostratigraphy, chemostratigraphy, and event-stratigraphy (J. Coates: Ph.D.) 2008 From clastic to carbonates: Tectonic and eustatic controls on the transition from the Borden delta to the Slade carbonate platform (D.B. Wilhelm: M.S.) 2010 Carbonate stratigraphy of the lower part of the Slade Formation (Mississippian) and the soft-sediment deformation in the St. Louis Member, Kentucky, U.S.A. (co-advised with C. Jianping, China University of Geosciences, Beijing) (M. Zeng: Ph.D.) 2011 Lithostratigraphic and paleoenvironmental framework of the Upper Ordovician Lexington Limestone, Bluegrass Region, central Kentucky (M. Clepper: Ph.D.) Depositional and stratigraphic significance of marine, green-clay, mineral facies in the Lower–Middle Mississippian Borden and Fort Payne formations, western Appalachian and eastern Illinois Basins, Kentucky (D. Udgata: Ph.D)
- 2012 Geology of the Eau Claire Formation and Conasauga Group in part of Kentucky and analyses of their suitability as cap rocks for deeper CO₂ sequestration (R. Bandy: M.S., co-advised with Steve Greb)
- The nature and origin of cyclicity in the Cleveland Member of the Ohio Shale (Upper Devonian), northeastern Kentucky, U.S.A. (A. O'Bryan: M.S.)
- The Oligocene West Elk Breccia: Evidence for massive volcanic debris avalanches in the eastern Gunnison River valley, west-central Colorado, U.S.A. (P. Whalen: M.S.)

Interpretation of the depositional environments and soft-sediment deformation in the upper tongue of the Tanglewood Member (Upper Ordovician) of the Lexington Limestone, central Kentucky, U.S.A. (D.R. Koirala: Ph.D.)

- 2018 Occurrence and attributes of two echinoderm-bearing faunas from the Upper Mississippian (Chesterian; Iower Serpukhovian) Ramey Creek Member, Slade Formation, eastern Kentucky, U.S.A. (A.W. Harris: Ph.D.)
- The revised systemtics and paleoecology of the Devonian stemless crinoid genus Edriocrinus Hall, 1858 (C.E. Herbert: M.S.)
- The Appalachian system of basins and platforms as a tectonostratigraphic analogue to the Barents Sea shelf: Where Arctic meets the Appalachians (G. Martins: Ph.D.)

 Using 3-Dimensional mapping to determine the possibility of structural control on development of the Upper Ordovician Lexington Limestone, central Kentucky, U.S.A. (S. Davis: M.S.)

In Progress

Re-Examination of a Middle Mississippian Carbonate Mud-Mound Complex from the Fort Payne Formation in South-Central Kentucky (M. Michelson: M.S.)

Origin and nature of the Strodes Creek Member, Lexington Limestone, central Kentucky (C. Mendenhall: M.S.)

rev: 10/1