

# Curriculum Vitae

## Elmer Arthur Bettis III

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### Educational and Professional History

#### 1. Higher Education

The University of Iowa, 1990-1995, Geology, Ph.D., 1995  
Iowa State University, 1976-1979, Agronomy, MS, 1979  
Iowa State University, 1971-1975, Anthropology, BS, 1975

#### a) Professional and Academic Positions

Academic Coordinator, Environmental Sciences Program, University of Iowa, 2011-present  
Associate Professor, 2003-present, The University of Iowa, Department of Geoscience  
Associate Research Engineer, IIHR-Hydroscience and Engineering, University of Iowa, 2014-present  
Erskine Fellow, 2006, Canterbury University, Christchurch, New Zealand  
Assistant Professor, 2000-2003, The University of Iowa, Department of Geoscience  
Director, University of Iowa Quaternary Studies Group, 2001-present.  
Visiting Assistant Professor, 1998-spring 2000, The University of Iowa Department of Geoscience  
Adjunct Associate Professor, 1995-1998, University of Iowa Geology Department  
Supervisor, Hydrogeology and Environmental Studies Section, 1996-1998, Iowa Department of Natural Resources, Geological Survey Bureau, Iowa City  
Research Geologist, Stratigraphy and Economic Geology Section, 1993-1996, Iowa Department of Natural Resources-Geological Survey Bureau, Iowa City  
Research Geologist, Environmental Geology Section, 1985-1993, Iowa Department of Natural Resources-Geological Survey Bureau, Iowa City  
Remote Sensing Analyst, 1982-1985, Iowa Geological Survey, Iowa City  
Research Soil Scientist, 1979-1981, Iowa State University Agronomy Department, Ames  
Site Supervisor, 1975-1976, Iowa State University Archaeological Laboratory, Ames

#### b) Honors and Awards

Educational Materials Award Certificate of Excellence, Council for Agricultural Science and Technology 2012  
Rip Rap Archaeological Geology Award, Geological Society of America 2008  
Fellow, Geological Society of America 2000  
Frank Riecken Soil Science Award, Agronomy Department, Iowa State University 1978

#### 2. Memberships

American Quaternary Association (President 2012-2014; President Elect 2010-2012; Council Member 1996-1998, 1998-2000, 2014-2016)  
U.S. National Committee for the International Quaternary Association, The National Academies 2008-2016 (reappointed to second term 2012)  
American Geophysical Union 2014-present  
Center for Global and Regional Environmental Research, University of Iowa 2004-present  
North American Commission on Stratigraphic Nomenclature, 2008-2011 (appointed)

Geological Society of America (Quaternary Geology and Geomorphology Division Council 1994-1996; Archaeological Geology Division Chair 1995-1996, vice Chair 1994-1995, council 1990-1994)  
International Commission on Stratigraphy, Subcommission on Quaternary Stratigraphy, Middle/Late Pleistocene Boundary Working Group 2008-2010  
International Quaternary Association (International Paleopedology Commission; North American Loess Working Group 2004-present)  
International Geological Correlation Program, Working Group 253, 1993-1995

## Teaching at the University of Iowa

### 1. Teaching Assignments

Semester/Year	Advisees		Courses taught		ACE Scores	
	Undergrad.	Graduate	Course # and title	Students enrolled	Overall excellent course	Effective instructor
<i>Spring 2014</i>	65	6	159/12:008 Introduction to Environmental Science	149	5.09	5.39
<i>Fall 2013</i>	72	6	12/44:136 Soil Genesis and Geomorphology	28	5.88	5.79
<i>Spring 2013</i>	42	6	159/12:008 Intoduction to Environmental Science	248	4.88	4.84
<i>Spring, 2013</i>	42	6	12:185/113:189 Approaches to Geoarchaeology	9	5.94	5.86
<i>Fall 2012</i>	52	6	12/44:136 Soil Genesis and Geomorphology	20	5.79	5.88
<i>Spring, 2012</i>	42	6	159:008 Introduction to Environmental Science	278	5.15	5.53
<i>Spring 2012</i>	62	6	12:172 Glacial and Pleistocene Geology	11	6.0	6.0
<i>Fall, 2011</i>	69	6	12/44:136 Soil Genesis and Geomorphology	20	6.0	6.0
<i>Spring 2011</i>	65	4	Geologic Field Trip Selected National Parks	16	5.96	6.0
<i>Spring, 2011</i>	65	4	12:185/113:189 Approaches to Geoarchaeology	9	6.0	6.0
<i>Fall, 2010</i>	62	4	12/44:136 Soil Genesis and Geomorphology	16	5.79	5.93
<i>Fall, 2010</i>	62	4	12:207 Graduate Student Seminar	16	5.67	5.50
<i>Fall, 2010</i>	62	4	159/12:008 Introduction to Environmsntal Science	347	4.58	5.43
<i>Spring, 2010</i>	45	4	12:172 Glacial and Pleistocene Geology	15	5.72	5.88

<i>Spring, 2010</i>	45	4	12:029 Ist Year Seminar	11	4.5	5.81
<i>Fall, 2009</i>	41	5	159:100 Environmental Science Seminar	37	5.82	5.68
<i>Fall, 2009</i>	41	5	12/44:136 Soil Genesis and Geomorphology	12	5.83	5.83
<i>Spring, 2009</i>	45	7	12:185 Approaches to Geoarchaeology	7	5.67	5.63
<i>Spring, 2008</i>	45	7	12:018 Geology of Selected National Parks Field Trip	16	6.0	6.0
<i>Fall, 2008</i>	60	7	12/159:008 Introduction to Environmental Science	411	5.10	4.58
<i>Fall 2008</i>	60	7	12/44:136 Soil Genesis and Geomorphology	12	5.79	5.89
<i>Summer 2008</i>	12	7	12:194 Environmental Field Methods	4	6.0	6.0
<i>Spring 2008</i>	12	7	12:172 Glacial and Pleistocene Geology	23	6.0	5.88
<i>Fall 2007</i>	12	8	12/44:136 Soil Genesis and Geomorphology	18	5.96	5.96
<i>Fall 2007</i>	12	8	12/159:008 Introduction to Environmental Science	412	4.99	5.59
<i>Spring 2007</i>	12	7	12:185 Approaches to Geoarchaeology	17	5.75	6.0
<i>Spring 2007</i>	12	7	12:018 Geology of Selected National Parks Field trip	19	5.97	5.97
<i>Fall 2006</i>	11	6	12/44:136 Soil Genesis and Geomorphology	16	5.95	5.95
<i>Fall 2006</i>	11	6	12/159:008 Introduction to Environmental Science	417	4.78	5.45

<i>Fall 2005</i>	11	10	12/159:008 Introduction to Environmental Science	478	4.28	4.81
<i>Fall 2005</i>	11	10	12:136 Soil Genesis and Geomorphology	17	5.94	5.88
<i>Fall 2005</i>	11	10	159:100 Environmental Seminar	40	5.5	5.5
<i>Spring 2005</i>	13	7	12:018 Geological of Selected National Parks Field trip	15	6.0	6.0
<i>Spring 2005</i>	13	7	12:172 Glacial and Pleistocene Geology	19	5.90	5.94
<i>Fall 2004</i>	13	6	12/44:136 Soil Genesis and Geomorphology	12	5.94	5.94
<i>Summer 2004</i>	13	6	12/159:194 Environmental Field Sampling	11	5.83	5.83
<i>Spring 2004</i>	13	6	12:185 Approaches to Geoarchaeology	19	5.87	5.87
<i>Fall 2003</i>	12		159:010/100 Environmental Seminar	41	5.92	5.90
<i>Fall 2003</i>	12	7	12:136 Soil Genesis and Geomorphology	16	5.8	5.0
<i>Summer 2003</i>	0	6	12:197 Environmental Field Sampling I	11	5.83	5.79
<i>Spring 2003</i>	0	6	12:172 Glacial and Pleistocene Geology	18	5.78	5.78
<i>Spring 2003</i>	0	6	12:018 Geology of Selected National Parks Field Trip	21	5.94	5.87
<i>Fall 2002</i>	0	6	12:136 Soil Genesis and Geomorphology	18	5.75	5.91
<i>Summer 2002</i>	0	6	12:197 Environmental Field Sampling I	9	6.0	6.0
<i>Spring 2002</i>	0	7	12:018 Geology of Selected National Parks	22	6.0	6.0

			Field Trip			
<i>Fall 2001</i>	0	7	12:136 Soil Genesis and Geomorphology	20	5.82	5.92
<i>Fall 2001</i>	0	7	12:008/159:008 Introduction to Environmental Science	390	4.74	5.23
<i>Summer 2001</i>	0	5	12:119 Soils as a Teaching Tool for Elementary Teachers	4	na	na
<i>Summer 2001</i>	0	5	12:197 Environmental Field Sampling I	7	Na	na
<i>Spring 2001</i>	0	5	12:172 Glacial and Pleistocene Geology	20	5.8	5.9
<i>Fall 2000</i>	0	6	12:136 Soil Genesis and Geomorphology	16	5.91	5.8
<i>Summer 2000</i>	0	2	12:197 Environmental Field Sampling I	2	Na	na
<i>Spring 2000</i>	0	2	12:172 Glacial and Pleistocene Geology	19	5.73	5/65
<b>Spring 2000</b>	0	2	12:018 Geology of Selected National Parks Field Trip	23	5.97	5.97
<b>Fall 1999</b>	0	2	12:136 Soil Genesis and Geomorphology	14	5.67	5.67
<i>Fall 1999</i>	0	2	12:008/159:008 Introduction to Environmental Science	258	4.82	5.08
<i>Summer 1999</i>	0	2	12:197 Environmental Field Sampling I	14	na	na
<i>Spring 1999</i>	0	2	12:172 Glacial and Pleistocene Geology	16	5.6	5.7
<i>Spring 1999</i>	0	2	12:018 Geology of Selected National Parks Field Trip	23	6.0	6.0
<i>Fall 1998</i>	0	2	12:005 Introduction to	53	na	na

			Geology			
<i>Fall 1997</i>	0	0	12:136 Soil Genesis and Geomorphology	15	na	na
<i>Fall 1996</i>	0	0	12:145 Sedimentology	17	na	na

## 2. Students Supervised

### a) Ph.D. Candidates

name	years	outcome	Comments
Kayla Schmale	2014	In progress	New, Fall 2014
Tawny Tibbits	2011	In progress	Plan of study accepted; Comprehensive exam completed Spring, 2014
Katherine Rocheford	2009-present	Graduated, 2014	
Maija Sipola	2009-present	In progress	Plan of Study accepted; Comprehensive exam completed Spring 2011; Visiting Assistant Professor, Mankato State Univ. 2014-2015
Adel Haj	2001-2007	graduated	Research Geologist, U.S. Geological Survey, Iowa City, IA
Lori Wozniak	2004-2006	Left program	Graduated Uof IA Pharmacy Program 2010; employed as Pharmacist CVS Minnesota
Stephanie Tassier-Surine	2000 - 2014	Withdrew from program	Post-comps, Plan of study accepted, Full-time employee of Iowa Geological Survey
Joseph Krieg	1996-2007	graduated	Assistant Professor, North Dakota State Univ.
Richard Josephs	1997-2000	graduated	Private Consultant, Minnesota.

### b) M.S. Candidates

name	years	outcome	Comments
Kelli Parsons	2014	In progress	New, Fall, 2014
Jeff Matzke	2011-2013	Graduated 2013	Soil Conservationist, NRCS, Marshall, MN
Vanessa Baratta	2011-2013	Graduated 2013	Hydrologist, Minnesota DNR, St. Paul, MN
Jessica Bruse	2007-2013	Graduated 2013	Reserch Geologist Illinois State Geological Survey
Katherine Rocheford	2007-2009	Graduated 2009	Graduated from Ph.D. program , 2014
Cynthia Wambsgans	2004-2006	Graduated 2006	K-12 science teacher, California
Lindsay James	2005-2007	Graduated 2007	Wetland specialist BWR, Kansas City
Susan Kilgore	2005-2008	Graduated 2008	Graduated from PhD program, U of IA 2013; Assistant Professor Lake Valley College, Fargo, ND
Adrienne Millius	2005-2008	Graduated 2008	State Geologist, Iowa Department of Transportation
Dell Gould	2005-2008	Left program	Geoarchaeologist Louis Berger, New York

Lori Wozinack	2001-2004	Graduated Spring 2004	Pharmacist, Minnesota
Jacob Letts	2000-2003	Graduated 2003	Geoarchaeologist URS, Seattle

**c) Undergraduate Honors Theses**

<b>name</b>	<b>years</b>	<b>outcome</b>	<b>Comments</b>
Natalie O-Shea	2011-present	Graduated 2014	Honors thesis; IREU 2012-2013; Ferenz Research Fellowship, 2014; in Paleoanthropology PhD Program, Columbia U.
Steven Bonett	2011-2012	Graduated 2012	Honors thesis (statistics and actuarial science)
Daniel Murray	2007-2008	Graduated magna cum lauda 2008	Honors thesis IREU 2007-2008; Graduated MS Geology Univ. of Wisconsin-Madison, 2011, Research Geologist, Wisconsin Geological and Natural History Survey
Adriane Millius	2003-2005	Graduated with Honors 2005	Honors Thesis; State Geologist Iowa Department of Transportation

**d) Undergraduate Senior Theses**

<b>name</b>	<b>years</b>	<b>outcome</b>	<b>Comments</b>
Briana McNeil	2012-present	Graduated 2013	Sustainability Project
Spencer Verlo	2010-2011	Graduated 2012	Sustainability Project
John Tiegle	2004-2006	Graduated 2006	Senior Project
Ben Belgrade	2004-2005	Graduated 2005	Senior thesis; graduated Utah State U. 2006, Geoscience Supervisor at BHP Billiton, Houston, TX
William Neumann	2004-2005	Graduated 2005	Senior Project, Geologist BP, Houston TX
Carolyn Moeller	2000-2001	Graduated 2001	Senior thesis; PhD University of Wisconsin-Madison 2009
Michelle Larson	1998	Graduated 1998	Senior Project

**e) Other Thesis/Comprehensive Committee Membership**

<b>name</b>	<b>years</b>	<b>outcome</b>	<b>Comments</b>
Sean Plenner	2012-2014	MS 2014	Civil and Environmental Engineering
Kara Prior	2014-present	MS in progress	Geoscience
Kyle Harvey	2013-present	PhD in progress	Anthropology
Matt Even	2012-2014	MS 2014	Geoscience
Megan Schletter	2010-2013	MS 2013	Geoscience
Ted Marks	2010-	PhD in	Anthropology



	present	progress	
Erica Begun	2009-2013	PhD 2013	Anthropology
Claire Tolmie	2010-2013	PhD 2013	Anthropology
Tim Stroope	2010- 2012	PhD 2012	Geoscience
Meredith Wismer	2011- present	Passed Comps 2012	Anthropology
Ted Neal	2010- present	PhD in progress	Science Education
Bryron Kendall	2008-2011	Left program	Anthropology
Keith Schilling	2007-2010	PhD 2010	Geoscience
Nick Schoenfeldt	2007-2009	PhD 2009	Environmental Engineering
Charles Theiling	2007-2010	PhD 2010	Large River Ecologist, US Army Corp of Engineers
Alex Woods	2006- present	PhD in progress	Anthropology
Jason Thompson	2006-2012	PhD 2012	Anthropology
Meredith Anderson	2006-2012	PhD 2012	Anthropology
Christopher Soldat	2008- 2009	PhD 2009	Education; Science Specialist, Grant Wood AEA
Darren Grafius	2009 -2011	PhD 2011	Geography
Adam Karch	2009	MS 2009	Geoscience
Kyle Strom	2005-2007	PhD 2007	Civil and Environmental Engineering
Dustin White	2005-2006	PhD 2006	Anthropology –University of Alberta, Canada
Kira Westaway	2005-2006	PhD 2006	Geoscience –University of Wollongong, Australia
Grant McCall	2003-2006	PhD 2006	Assistant Professor Tulane U.
Hanna Marsh	2004-2006	MS 2006	Anthropology
Rhiannon Jones	2002-2004	MS 2004	Anthropology
Erica Larsen	2000-2003	PhD 2003	Science Education
Margaret Bradford	1999-2001	PhD 2001	Anthropology
Vionette DeChoudens- Sanchez	2001-2003	MS 2003	Geoscience
Christian Shorey	1999-2001	PhD 2002	Geoscience
Mohammad Sayeeduzzaman	1999-2004	PhD 2004	Geoscience
Heather Quevedo	1999-2003	PhD 2003	Geoscience
Leonard Bleusius	1999-2001	PhD 2002	Geoscience
Daniel Marion	1998-2001	PhD 2002	Geoscience
David Ufnar	1999-2001	PhD 2002	Geoscience
Stephen Wallace	1999-2001	PhD 2001	Geoscience
Richard Slaughter	1999-2001	PhD 2001	Geoscience
Rhawn Denniston	1998-2001	PhD 2001	Geoscience
Lori Goetsch	1999-2001	PhD 2001	Geoscience
Joseph Krieg	1996-1998	MS 1998	Geoscience
Laura Strickland	1997-1999	MS 1999	Geoscience
Elizabeth Shinall	1998-2000	MS 2000	Geoscience
Mary Ellis	1999-2001	MS 2001	Geoscience
Andrew Wallace	1999-2001	MS 2002	Geoscience
Wilfredo Rosado	1999-2003	MS 2003	Geoscience
Roger Gomez	2000-2004	MS 2004	Geoscience

Tim Weisbrod	2003-2005	MS 2005	Geoscience
Susan Kilgore	2009-2013	PhD 2013	Geoscience
Brittany Guzzo	2006-2010	left program	Geoscience
Thomas Marshall	2003-2010	PhD 2010	Geoscience
Diane Rameriz	2010-present	PhD in progress	Geoscience
Chris Haring	2005-2007	MS 2007, PhD in progress	Geoscience
Brittany Flokstra	2003-2011	left program	Civil and Environmental Engineering

### 3. Other Contributions to Instructional Programs

#### a) Teaching Grants

National Great Rivers Research and Education Center Summer Intern \$6000 5/14-8/14

Large Lecture Transformation: Introduction to Environmental Science (A. Ward and E.A. Bettis III), ITS-Instructional Services \$56,770.73 2/13-5/14.

Engaging undergraduates in STEM laboratories using emerging technologies for teaching and learning  
Principal Investigator(s): Adam S. Ward, E. Arthur Bettis (University of Iowa), Anthony Castronovo (University of Iowa). CLAS Instructional Equipment, University of Iowa. 1/13-2/14 \$36,827

Iowa Research Experiences for Undergraduates (ICRU) \$2000 9/14-5/15

Iowa Research Experiences for Undergraduates (ICRU) \$2500 9/12-5/13

Iowa Research Experiences for Undergraduates (IREU) \$5000 9/07-5/08

Iowa Research Experiences for Undergraduates (IREU) \$3000 1/04-1/05

Instructional Technology Grant, Uof IA CLAS \$6,500 4/12

Instructional Technology Grant, Uof IA CLAS \$55,500 3/03-6/03

Equipment to Facilitate Geoscience Research by Gifted and Talented Iowa Elementary School Students.

Iowa Science Foundation \$4,950. 7/01-6/02.

#### b) Short Courses

1) Instructor, Workshop on Improving Hydrogeologic Investigations, Midwest Geosciences Group, Indianapolis, Oakbrook, IL, and Milwaukee, 1997; Minneapolis, 2000

2) Instructor, Landform Sediment Assemblage Training Workshop, U.S. Army Corps of Engineers, Rock Island District, November 18-19, 1999

3) Instructor, Workshop on Geology in Cultural Resource Management Society for American Archeology Annual Meeting, 1995

#### c) Texts

1) Introduction to Environmental Science Laboratory Manual, 8<sup>th</sup> edition. Bettis (2011) Hayden McNeil, Plymouth, MI. 192 pp

2) Introduction to Environmental Science Laboratory Manual, 7<sup>th</sup> edition. Bettis and Nations (eds.). (2008) Hayden McNeil, Plymouth, MI. 211 pp.

3) Introduction to Environmental Science Laboratory Manual, 6<sup>th</sup> edition. Bettis, Nations and Tyke (eds.). (2006) Hayden McNeil, Plymouth, MI. 190 pp.

## Scholarship

### 1. Publications

\* = senior author, major contribution

\*\* = secondary contribution

\*\*\* = equal contribution

\*\*\*\* = minor contribution

+ = co-authors who are grad advisees

#### a. Refereed

- **Monographs**

**E.A. Bettis III** (editor).1995. Archaeological Geology of the Archaic Period in North America Geological Society of America Special Paper 297, Boulder, CO.

- **Journal articles and edited volumes**

1. +\*\* A.R. Prieto, M.V. Romero, I. Vilanova, **E. A. Bettis III**, M.A. Epinosa, A.E. Haj, L. Gómez, and L.I. Bruno. 2014. A multi-proxy study of Holocene environmental change recorded in alluvial deposits along the southern coast of the Pampa region, Argentina. Journal of Quaternary Science 29:329-342.
2. \*\*\* Z. Zhou, X. Cao, T. Chu, J. Mao, R.D. Mandel, **E.A. Bettis III**, and M.L. Thompson. 2014. Composition of clay fraction organic matter in Holocene paleosols revealed by advanced solid-state NMR spectroscopy. Geoderma 223-225:54-61.
3. \*\* D.R. Muhs, J.R. Budahn, J.P. McGeehin, **E.A. Bettis III**, G.S., J.B. Paces, and E.A. Wheeler. 2013. Loess origin, transport, and deposition over the past 10,000 years, Wrangell-St. Elias National Park, Alaska. Aeolian Research 11:85-99.
4. \*\* D.R. Muhs, **E.A. Bettis III**, H.M. Roberts, S.S. Harlan, J.B. Paces and R.L. Reymolds. 2013. Chronology and provenance of last-glacial (Peoria) loess in westwern Iowa and plaeoclimatic implications. Quaternary Research 80: 468-481.
5. \*\*\*\* J.S. Pigati, J.P. McGeehin, D.R. Muhs and **E.A. Bettis III**. 2013. Radiocarbon dating late Quaternary loess deposits using small terrestrial gastropod shells. Quaternary Science Reviews 76: 114-128.
6. +\*\* K.E. Schilling, E. McLelland and **E.A. Bettis III**. 2013. Letting Wet Spots be Wet: Restoring Natural Bioreactors in the Dissected Glacial Landscape. Environmental Management. DOI 10.1007/s00267-013-0142-5.
7. **E.A. Bettis III**. 2012 Climatic and biotic controls on silt production and accumulation of loess. Nature Education Knowledge 3(7): 25.
8. \*\* J.-P. Zonneveld, Y. Zaim, Y. Rizal, R.L. Ciochon, **E.A. Bettis III**, Aswan and G.F. Gunnell. 2012. Ichnological constraints on the depositional environment of the Sawahlunto Formation, Kandi, northwest Ombilin Basin, west Sumatra, Indonesia. Journal of Asian Earth Sciences 45: 106-113.
9. \*+C.H. Theiling, **E.A. Bettis III** and M.E. Heitmeyer. 2012. Hydro-Geomorphic Classification and Potential Vegetation Mapping for Upper Mississippi River Bottomland Restoration. In Studies on Environmental and Applied Geomorphology, T. Piacentini (Ed.). InTech. <http://www.intechopen.com/books/studies-on-environmental-and-applied-geomorphology/hydrogeomorphic-classification-and-potential-vegetation-mapping-for-upper-mississippi-river-bottoml>
10. \*\* Y. Zaim, R.L. Ciochon, J.M. Polanski, F.E. Grine, **E.A. Bettis III**, Y. Rizal, R.G. Franciscus, R.L. Larick, M. Heizler, Aswan and K.L. Eaves. 2011. New 1.5 million-year-old *Homo erectus* maxilla from Sangiran (Central Java, Indonesia). Journal of Human Evolution 61: 363-376.
11. \*\*\* I. Vilanova, A.R. Prieto, S. Stutz and **E.A. Bettis III**. 2010. Holocene vegetation changes along the southeastern coast of the Argentinean Pampa grassland in relation to sea-level

- fluctuations and climate variability: Palynological analysis of alluvial sequences from Arroyo Claromecó. Palaeogeography, Palaeoclimatology, Palaeoecology 298: 210-223.
12. \*\*\* D.R. Muhs, J. Budahn, G. Skipp, J.M. Prospero, D. Patterson and **E.A. Bettis III**. 2010. Geochemical evidence for African dust additions to soils on the Canary Islands, Spain. Terra Nova 22: 399-410.
  13. +\* Jeffrey Dorale, Lori Wozniak, **E.A. Bettis III**, Rolfe Mandel, Scott Carpenter, Edwin Hajic, Neil Lopinot, Jack Ray. 2010. Isotopic Evidence for Younger-Dryas Aridity in the North American Midcontinent. Geology 38 :519-522.
  14. +\*\* Schilling, K.E., Palmer, J.A., **Bettis, E.A. III**, Jacobson, P., Schultz, R.C. and Isenhardt. T.M. 2009. Vertical distribution of total carbon, nitrogen and phosphorus in riparian soils of Walnut Creek, southern Iowa. Catena 77: 266-273.
  15. \*\*R.G. Baker, **E.A. Bettis III**, R.D. Mandel, J.A. Dorale, and G.G. Fredlund. 2009. Mid-Wisconsinan environments on the eastern Great Plains. Quaternary Science Reviews 28: 873-889.
  16. R.L. Ciochon and **E.A. Bettis III**. 2009. Asian *Homo erectus* converges in time. Nature 458: 153-154.
  17. **E.A. Bettis III**, A.K. Millius, S.J. Carpenter, R. Larick, Y. Zaim, Y. Rizal, R.L. Ciochon, S.A. Tassier-Surine, D. Murray, Suminto and S. Bronto. 2009. Way out of Africa: Early Pleistocene paleoenvironments inhabited by *Homo erectus* in Sangiran, Java. Journal of Human Evolution 56: 11-24.
  18. \*D.R. Muhs, **E.A. Bettis III**, J.N. Alienikoff, J.P. McGeehin, J. Beann, G. Skipp, B.D. Marshall, H.M. Roberts, W.C. Johnson, and R. Benton. 2008. Origin and paleoclimatic significance of late Quaternary loess in Nebraska: Evidence from stratigraphy, chronology, sedimentology and geochemistry. Geological Society of America Bulletin 120: 1378-1407.
  19. \*\*J.N. Aleinikoff, D.R. Muhs, **E.A. Bettis III**, W.C. Johnson, C.M. Fanning and R. Benton. 2008. Isotopic evidence for the diversity of Late Quaternary loess in Nebraska: Glaciogenic and non-glaciogenic sources. Geological Society of America Bulletin 120: 1362-1377.
  20. \***E.A. Bettis III**, D.W. Benn, and E.R. Hajic. 2008. Landscape evolution, alluvial architecture, environmental history, and the archaeological record of the Upper Mississippi River Valley. Geomorphology 101:362-377.
  21. \*\*\*D.L. Johnson, D.N. Johnson, D.W. Benn, and **E. A. Bettis III**. 2008. Deciphering complex soil/site formation processes in sands, midcontinental North America . Geomorphology 101: 484-496.
  22. \*\*\*J.K. Huber, **E.A. Bettis III**, and D.J. Quade. 2007. A Late-Glacial/Early-Holocene Pollen and Nonsiliceous Algae Spectrum from Five Island Lake, Northcentral Iowa. Current Research in the Pleistocene 24: 157-158.
  23. \*\*\*J.A. Mason, R.M. Joeckel, and **E.A. Bettis III**. 2007. Middle to late Pleistocene Loess Record in Eastern Nebraska, U.S.A., and Implications for the Unique Nature of Oxygen Isotope Stage 2. Quaternary Science Reviews 26, pp. 773-792.
  24. \***E.A. Bettis III**. 2006. Weathering Profiles. Encyclopedia of Quaternary Science. S. Elias (Ed.). Amsterdam, Elsevier. V. 3, pp. 2119-2129.

25. \*\*\*H.M. Roberts, D.R. Muhs, and **E.A. Bettis III**. 2006. North American Loess Records. Encyclopedia of Quaternary Science. S. Elias (Ed.). Amsterdam, Elsevier. V. 2, pp.1456-1465.
26. \*\*\*\* J.C. Collins, L. Forman, **E.A. Bettis III** and A.K. Fisher. 2005. Collective ritual and sepulchral recycling at the Buck Creek Mounds, Clayton County, Iowa. Journal of the Iowa Archaeological Society 52: 21-73.
27. \*\*\* R.K. Booth, S.T. Jackson, S.L. Forman, J.E. Kutzbach, **E.A. Bettis III**, J. Kreig and D.K. Wright. 2005. A severe centennial-scale drought in mid-continental North America 4200 years ago and apparent global linkages. The Holocene 15: 321-328
28. \*\*\* \*S. Bronto, R. Ciochon, Y. Zaim, R. Larick, A. Wulff, Y. Rizal, S. Carpenter, **E.A. Bettis III**, Sudijono, and Suminto. 2004. Studi Petrologi Basal Grumbulpring, Sebagai Indikasi Volkanisme di Selatan Daerah Sangiran – Jawa Tengah. Journal of Geological Resource 14 (2): 37-50.
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#### **Guidebooks:**

C.W. Rovey II and **E.A. Bettis III**. 2014. Pleistocene geology and classic type sections along the Missouri River valley in western Iowa, *in* Korus, J.T., ed., *Geologic Field Trips along the Boundary between the Central Lowlands and Great Plains*. 2014 Meeting of the GSA North-Central Section. Geological Society of America Field Guide 36. doi:10.1130/2014.0036(02)

\*\*D.J. Quade, **E.A. Bettis III**, K. Woida and S. Tassier-Surine. 2011. Quaternary Geology Near the Moscow Quarry, Muscatine County, Iowa. Pp. 3-14 *In* J. Day, D. Quade and R. Anderson (Eds.) *Geology of the Moscow Quarry, Muscatine County, Iowa*. Geological Society of Iowa, Guidebook 89.

**E.A. Bettis III**, S. Tassier Surine and D.J. Quade. 2010. Quaternary geology of the Iowa City Area. Pp. 143-160 *In* T. Marshall and C.J. Fields (Eds). *The Geology of Klein and Conklin Quarries, Johnson County, Iowa*. Geological Society of Iowa, Guidebook 87. <http://iowageology.org/Pdf/GB87.pdf>

C.W. Rovey II, **E.A. Bettis III**, G. Balco and W.F. Kean. 2010. A Paleomagnetic Reversal Within the Pre-Illinoian Alburnett Formation, Eastern Iowa. Pp. 161-172 *In* T. Marshall and C.J. Fields (Eds). *The geology of Klein and Conklin Quarries, Johnson County, Iowa*. Geological Society of Iowa, Guidebook 87. <http://iowageology.org/Pdf/GB87.pdf>

**E.A. Bettis III**, S. Tassier-Surine and A.E. Haj. 2005. Overview of the Quaternary geology of Martin Marietta's Cedar Rapids Quarry. *In*: Anderson R.A. and Langel, R.J. (editors). Quaternary and Silurian Geology at the Martin Marietta Cedar Rapids Quarry, Iowa. Geological Society of Iowa Guidebook 77. pp. 5-17.

J.A. Mason, **E.A. Bettis III**, H.M. Roberts, D.R. Muhs and R.M. Joeckel. 2004. AMQUA Pre-Meeting Field Trip 1: Last Glacial Loess Sedimentary System of Eastern Nebraska and Western Iowa. Kansas Geological Survey Open File Report 2004-33, Lawrence Kansas. Pp. 1-1 to 1-28.

**E.A. Bettis III**, J.P. Mason, J.B. Swinehart, X. Miao, P.R. Hanson, R.J. Goble, D.P. Loope, P.M. Jacobs, and H.M. Roberts. 2003. Cenozoic eolian sedimentary systems of the USA midcontinent. *In*: Easterbrook, D.J. (editor). Quaternary Geology of the United States, INQUA 2003 Field Guide Volume, Desert Research Institute, Reno, NV. pp.195-218.

C.J. Patterson, A.K. Hansel, D.M. Mickelson, D.J. Quade, **E.A. Bettis III**, P.M. Colgan, E.D. McKay, and A.J. Stumpf. 2003. Contrasting glacial landscapes created by ice lobes of the southern Laurentide Ice Sheet. *In*: Easterbrook, D.J. (editor). Quaternary Geology of the United States, INQUA 2003 Field Guide Volume, Desert research Institute, Reno, NV. Pp. 135-153.

R.D. Mandel and **E.A. Bettis III**. 2001. Late Quaternary Landscape Evolution in the South Fork Big Nemaha River Valley, Southeastern Nebraska and Northeastern Kansas. Midwest Friends of the Pleistocene 47<sup>th</sup> Field Conference. Guidebook No. 11, Conservation and Survey Division, Institute of Agriculture and Natural Resources, University of Nebraska, Lincoln.

**E.A. Bettis III**. 1999. Quaternary Paleogeomorphic Surfaces, Buried Soils, and Weathering Profiles at Conklin Quarry, Iowa City, Iowa.. Pp. 5-21 In Pleistocene and Paleozoic Rocks of East-Central Iowa, R.R. Anderson, editor. 62<sup>nd</sup> Annual Tri-State Geological Conference Guidebook. University of Iowa Department of Geoscience.

#### **Technical Reports:**

**E.A. Bettis III** and D.W. Benn. 2011. Chapter 2, Landscape Modelling pp. 4-14 *In* Phase I Archeological Intensive, Reconnaissance and Architectural Surveys of Alternative 4C and Airport Borrow for the Cedar River Flood Risk Management Feasibility Study, Cedar Rapids, Linn County, Iowa. Bear Creek Archeology, Inc. Cresco, IA. Contract W912EK-08-D-0002, Delivery Order 0031/0032, U.S. Army Corps of Engineers, Rock Island District.

**E.A. Bettis III**. 2010. Geomorphology and Landscape Model. pp.5-13 *In* D.W. Benn, J.B. Thompson and E.A. Bettis III, Background Cultural Research and Geomorphological Investigation of Measures for the Cedar River Flood Risk Management Feasibility Study Linn County, Cedar Rapids, Iowa. BCA 1620, Bear Creek Archeology, Inc., Cresco, IA. Contract W912EK-08-D-0002, Delivery order 0016, Modification 1-4 with the U.S., Army Corps of Engineers, Rock Island District

R.G. Baker, **E.A. Bettis III**, and P. Moss. 2005. Holocene pollen and plant macrofossils in the Sac River valley, pp. 32-37 *In* N.H. Lopinot, J.H. Ray, and M.D. Conner (Eds.), Regional Research and the Archaic Record at the Big Eddy Site (23CE426), Southwest Missouri. Center for Archaeological Research, Southwest Missouri State University, Special Publication No. 4, Springfield.

L. Wozinak, **E.A. Bettis III**, and J. Letts. 2005. Carbon isotope record, pp. 133-146 *In* N.H. Lopinot, J.H. Ray, and M.D. Conner (Eds.), Regional Research and the Archaic Record at the Big Eddy Site (23CE426), Southwest Missouri. Center for Archaeological Research, Southwest Missouri State University, Special Publication No. 4, Springfield.

**E.A. Bettis III.** 2003. Landscape history, geology, geomorphology and pedology, pp. 20-26 *In* L. Bilkre and D.W. Benn, Phase III cultural resources mitigation of Olmid 1 Site (32GF130) Grand Forks County, North Dakota. BCA # 1061, Bear Creek Archeology, Inc. Cresco, Iowa.

D.G. Stanley, **E.A. Bettis III**, and D.J. Quade. 2002. Geoarchaeological investigations at Five Island Lake, Vernon, Emmetsburg and Freedom townships, Palo Alto County, Iowa. BCA # 1030, Bear Creek Archeology, Inc., Cresco, Iowa.

D.W. Benn and **E.A. Bettis III.** 2001. Excavations, Stratigraphy, and Features. Pp. 2-18 *In* Data Recovery Excavations at the Late Woodland Cross Site (13LA309) Louisa County, Iowa. D.W. Benn, Principal Investigator. BCA # 746, Bear Creek Archaeology, Inc. Cresco, IA.

E.R. Hajic, R.D. Mandel and **E.A. Bettis III.** 2000. Stratigraphic and Paleoenvironmental Investigations. Pp. 26-36 *In* N.H. Lopinot, J.H. ray and M.D. Conner (eds.). The 1999 Excavations at the Big Eddy Site (23CE426). Special Publication No. 3, Center for Archaeological research, Southwest Missouri State University, Springfield.

## **2. Published Reviews of Scholarship**

EOS, June 24, 1997, R.A. Dalan, 1p.

Southeastern Archaeology, 1996, M.F. Kolb, 2p.

Geoarchaeology, 1992, J.B. Stoltman, 3p.

## **3. Grants Funded:**

### **a. External**

Critical Zone Observatory for Intensively Managed Landscapes (IML-CZO). National Science Foundation—EAR-1331906 (to University of Illinois). Subaward 2013-04254-01 (from Univ. of Illinois) PI \$160,956.00, December-November, 2014 Renewed for 5 yrs at variable levels, total 5 yr. amount to U. Iowa \$769,740.

Collaborative Research: Stabilized Organic Carbon and Paleoenvironmental Interpretations of Late Quaternary Paleosols. National Science Foundation—EAR- Sedimentary Geology and Paleobiology. Co-PI -- U of IA portion \$86,781, September 1, 2013- October 1, 2016.

Comparing and Contrasting the Use of Bioretention Practices in Iowa. Iowa Department of Agriculture and Land Stewardship (to Johnson County Soil and Water Conservation District), Major participant, \$75,000, July, 2014-June, 2016.

Impacts of Permeable pavers on Soil and Water in Iowa. Iowa Department of Agriculture and Land Stewardship (to Johnson County Soil and Water Conservation District), Major participant, \$75,000, July, 2013-June, 2016.

Site Formation And Taphonomy Of The Late Pleistocene Hominin Site Of Ngandong, Java (Indonesia) LSB Leakey Foundation Co-PI \$35,000, January 1, 2010-January 1, 2011

"Quaternary Grassland Forest Dynamics" -- 18th Biennial Meeting of the American Quaternary Association; Lawrence, Kansas; June 26-28, 2004. National Science Foundation, Paleoclimate Program, PI. \$9,900.

U.S.-Argentina Planning Visit: Stream Responses to Bioclimatic Change in Grasslands of the Americas, E.A. Bettis III, National Science Foundation (INT-0328912). PI. 6/03-7/04. \$4,425.

Refining Homo erectus Geochronology in the Sangiran Dome, Java. L.S.B. Leakey Foundation. Co-PI. 12/02-1/04. \$14,000.

Collaborative Research: A Detailed Chronology of the Loess-Paleosol Record of the Last Glacial/Interglacial Cycle in the North American Midcontinent, E.A. Bettis III, National Science Foundation (EAR 00-87572) . PI. 4/01-5/04. \$124,030.

Geoarchaeology Protocol for Integrated Cultural Resource Management Plans. E.A. Bettis III. Iowa Army National Guard, PI. 5/00-6/03. \$34,285.

Fossil Musk Oxen in Iowa: When Were They Here and What Did They Eat?. E.A. Bettis III. Iowa Science Foundation, PI.7/00-6/01. \$4,750.

Geologic Mapping of a Dune Field in the Green River Lowland, North-Central Illinois. E.A. Bettis III. US Geological Survey, EDMAP Program Co-PI. 5/99-4/00. \$9,500.

Draft Digital Geologic Map of Camp Dodge, Polk County, Iowa. E.A. Bettis III. Iowa Department of Natural Resources. PI. 5/99-8/99. \$23,372.00.

Detailed Particle-Size Analysis of Nebraska Loess Samples. E.A. Bettis III. US Geological Survey. PI. 9/99-12/99. \$1,786.

Detailed Particle-Size Analysis of Alaskan Loess. E.A. Bettis III. US Geological Survey. PI. 5/99-7/99. \$2,469.

Evaluating the Interaction Between Geologists and the Marsokhod Robot During its Field test, February, 1999. Iowa Space Grant Consortium. Co-PI. \$10,000.

Completion of Geologic Mapping Program in Linn County, Iowa. U.S. Geological Survey, STATEMAP Program. 8/96-9/98. \$34,279. PI

Surficial Geologic Mapping of Camp Dodge, Polk County, Iowa. U.S. Department of Defense, LEGACY Grant. 8/95-8/97. \$80,308. PI

Surficial Geologic Mapping of Two 7.5 Minute Quadrangles in Linn County, Iowa. U.S. Geological Survey, STATEMAP Program. 7/95-8/96. \$40,000. PI

Surficial Geologic Mapping of Two 7.5 Minute Quadrangles in Linn County, Iowa. U.S. Geological Survey, STATEMAP Program. 7/94-7/95. \$49,980. PI

Landform Sediment Assemblage Mapping of the Mississippi Valley, Rock Island Corps of Engineers District. 9/94-5/96. \$54,000. PI

Holocene Paleoenvironments in the Central Midwest: Vegetation, Climate and Landscape Evolution. R.G. Baker, E.A. Bettis III, and D.G. Horton. NSF (Geology and Paleontology) 11/93-11/96. \$180,000. Co-PI

Surficial Geologic Mapping of Two 7.5 Minute Quadrangles in Southeast Iowa. U.S. Geological Survey, STATEMAP Program. 8/93-6/94 \$9,000. PI

Chronology of the Archaic Period in Iowa, Iowa Science Foundation. 6/90-6/91 \$4,495. Co-PI

Holocene Paleoclimatology, Paleoecology, and Stream Behavior in Eastern Iowa. R. G. Baker, D. G. Horton, E. A. Bettis III, and W. M. Wendland. NSF (Climate Dynamics/Ecology/Surface Processes). 10/88 - 10/90. \$118,106. Co-PI

Gully Genesis Study. USDA-Soil Conservation Service (Des Moines). 19/88 - 1/90. \$8,500. PI

Archaeological and Geomorphological Survey of Mississippi River Pools 17 & 18, Illinois and Iowa., 4/87 - 5/88. \$37,740. Co-PI

Holocene Stratigraphy and Geomorphic History of the Ames Bog Drainage. Iowa Science Foundation. 1986-1987. \$2,500. Co-PI

Alluvial Stratigraphy of Soap Creek Watershed, Iowa. USDA - Soil Conservation Service, Des Moines, 11/85 - 5/87. \$10,000. PI

Geomorphology of the Saylorville Reservoir Area, U.S. Army Corps of Engineers, Rock Island District, 8/84-12/85. \$54,517. Co-PI

Alluvial Stratigraphy and Chronology: Northeast Iowa. Iowa Division of Historic Preservation 7/83-9/84. \$4,000. PI

**b. internal**

Evaluating the Hydrologic Performance of Bioretention Cells for Mitigating Urban Stormwater Runoff. Center for Global and Regional Environmental Research 6/1/13-6/30/14. \$21,068.

Climate Change and Human Evolution in Java. Center for Global and Regional Environmental Research. 6/1-05-5/31/07. \$25,000. PI

When did humans first arrive in the Solo Basin, Java? New geochronological and paleoecological investigations. Collaborative Interdisciplinary Projects grant. 12/02-11/03. \$25,069. CO-PI.

Documenting environmental and hydrologic change along the southern margin of the Prairie Peninsula, Carver Scientific Research Initiative Grant. 6/02-5/03. \$12,860. PI.

Chronology and sand transport Direction of a Northwestern Illinois Dune Field. E.A. Bettis III. Central Investment Fund for Research Enhancement, 12/00-6/01. \$8,448. PI

Stable Carbon Isotope Record of Holocene Vegetation and Climate Change in Alluvial Fans. E.A. Bettis III. Center for Global and Regional Environmental Research, 8/2000-9/02. \$19,252. PI

Funds for purchase of SediGraph 5100 X-ray particle-size analyser. \$12,200 from Office of the Vice President for Research and \$1000 from the College of Liberal Arts. 5/99.

**4. Fellowships**

Erskine Fellow, University of Canterbury, Christchurch, New Zealand 2/06-7/06

**5. Conference Presentations :**

\* = presenter, volunteered

\*# = invited presenter

## = invited, not presenter

\*\* = grad. advisee presenter

+ = poster

**a. International**

**Invited**



- ##H.M. Roberts, D.R. Muhs, **E.A. Bettis III**, S.L. Harlan, J.B. Paces, and R.L. Reynolds. 2014. Testing the link between increased dustiness and enhanced gustiness using the record of last-glacial (Peoria) loess deposition at Loveland, western Iowa. DUST2014 - 1st International Conference on Atmospheric Dust, Castellana Marina, Italy.
- ## H.M. Roberts, D.R. Muhs, **E.A. Bettis**, S.L. Harlan, J.B. Paces and R.L. Reynolds. 2013 Last-glacial dustiness and enhanced gustiness: deciphering the record of Peoria Loess deposition at Loveland, western Iowa. American Geophysical Union Annual Meeting, San Francisco.
- ##D.R. Muhs, J.N. Aleinikoff, **E.A. Bettis, III**, and K.R. Simmons. 2011. The Diversity of Loess Sources in North America During the Last Glacial Period. Minerva Gentner Symposium on Aeolian Processes, Ben-Gurion University, Israel, October 2011.
- ##G.F. Gunnell, R.L. Ciochon, Y. Zaim, Y Rizal, Aswan, **E.A. Bettis III**, and J.P. Zonneveld. 2011. Ichnology and paleontology of the Sangkarewang, and Sawahlunto Formations (Eocene-Oligocene), Ombilin Basin, West Sumatra, Indonesia. World Conference on Paleontology and Stratigraphy (WCPS 2011), Nakhon Ratchasima, Thailand, p. 255-256.
- \*# **E.A. Bettis III**, Y. Zaim, and Y. Rizal. 2009. Plio-Pleistocene climatic and volcanic controls in high to moderate accommodation space systems in the Solo Basin, Central Java, Indonesia. Variations in Fluvial-Deltaic and Coastal Reservoirs Deposited in Tropical Environments, AAPG Hedberg Research Conference. Jakarta, Indonesia.
- \*# **E.A. Bettis, III**, D.W. Benn and E.R. Hajic. 2008. Landscape Evolution, Alluvial Architecture, Environmental History, and the Archaeological Record of the Upper Mississippi River Valley. 39<sup>th</sup> Binghampton Geomorphology Symposium, Austin, TX.
- \*# **E.A. Bettis III**. 2007. Midcontinent North American Last Glacial Dust Sources. QUEST Workshop, Exeter, UK. November. <http://researchpages.net/QDES/resources/>.
- ## R.G. Baker, J.A. Dorale, **E.A. Bettis III** and R.F. Denniston. 2004. Contrasts in prairie-forest border dynamics in the central vs. southern Midwest. American Quaternary Association Program and Abstracts of the 18<sup>th</sup> Biennial Meeting, Lawrence, KS. p. 107.
- \*# **E.A. Bettis III**. 2002. Late-glacial loess, paleoclimate and people in the North American mid-continent. American Quaternary Association 17<sup>th</sup> Biennial Meeting, Programs and Abstracts, p. 18-19, Anchorage, Alaska.
- Contributed**
- \***E.A. Bettis III**, D.A. Grimley, A.M. Anders, B. Bates and E. Hannan. 2014. Fly Ash As a Time Marker for Anthropocene Alluvial Sedimentation. American Geophysical Union Annual Meeting, San Francisco.
- \***E.A. Bettis III**, A.S. Ward, J. Russell, S. Van Horne, M. Sipola, M.K. Rocheford and M.R. Colombo. 2014. Implementing Calibrated Peer Review (CPR) in a Large-lecture Science Course. American Geophysical Union Annual Meeting, San Francisco.
- +R.D. Mandel and **E.A. Bettis III**. 2014. A 15,500 Year Record of Landscape Response to Climate Change Preserved in Late-Quaternary Alluvial Fans in Midcontinental North America. American Quaternary Association Program and Abstracts of the 23<sup>rd</sup> Biennial Meeting, Seattle, WA. p.87.
- \***E.A. Bettis III**, D.R. Muhs, J. McGeehin, S. Tassier-Surine and J. Beann. 2007. Chronology, Sedimentology and Paleoclimatic Significance of Holocene Loess Along the Delta River, Central

Alaska, USA. 37<sup>th</sup> International Arctic Workshop, Program and Abstracts, Skaftafell, Iceland. pp. 49-50.

+D.R. Muhs and **E.A. Bettis III**. 2004. Soil chemical weathering under prairie in Late Quaternary loess in the Mississippi Valley and Great Plains. American Quaternary Association Program and Abstracts of the 18<sup>th</sup> Biennial Meeting, Lawrence, KS. p161.

+\*\* L.A. Wozniak, **E.A. Bettis III**, R.D. Mandel, E.R. Hajic, N.H. Lopinot, and J.H. Ray. 2004. A Younger Dryas carbon isotope record from soil organic matter on the southern margin of the Prairie Peninsula. American Quaternary Association Program and Abstracts of the 18<sup>th</sup> Biennial Meeting, Lawrence, KS. p183.

+**E.A. Bettis III**, J.A. Mason, H.M. Roberts, and D.R. Muhs. 2003. Mass accumulation rates and competing loess sources during the last glacial period in the Missouri River Basin, North American Midcontinent. XVI INQUA Congress Programs with Abstracts, Las Vegas, NV. p. 199.

+R.G. Baker, **E.A. Bettis III** and J.K. Huber. 2003. Vegetation on the eastern Great Plains during mid-Wisconsin time – late MIS Stage 3 – early MIS Stage 2. XVI INQUA Congress Programs with Abstracts, Las Vegas, NV. p. 164.

+\*\*J.R. Krieg, **E.A. Bettis III**, S.L. Forman, and D.R. Muhs. 2002. The Age and paleoclimatic significance of eolian sand within the Green River Lowland, northwestern Illinois. American Quaternary Association 17<sup>th</sup> Biennial Meeting, Programs and Abstracts, p. 72, Anchorage Alaska.

+H.M. Roberts, D.R. Muhs, G.A.T. Duller, A.G. Wintle, and **E.A. Bettis III**. 2002. Determination of dust flux records in mid-continental North America using optical dating. American Quaternary Association 17<sup>th</sup> Biennial Meeting, Program and Abstracts, p. 112, Anchorage Alaska.

+R.G. Baker and **E.A. Bettis III**. 1991. Impact of EuroAmerican Settlement on the Environment, Iowa, Midwestern, USA. Abstracts, XIII International Congress, International Union for Quaternary Research, Beijing, China, p. 14.

\* **E.A. Bettis III**. 1982. Geochronology of Late Wisconsinan and Holocene Alluvium in the Missouri Drainage of Western Iowa (USA): A Case for Episodic Erosion and Sedimentation. Abstracts, Eleventh International Congress on Sedimentology. McMaster University, Hamilton, Ontario, Canada, p. 136.

## **b. National/Regional**

### **Invited**

## **R.D. Mandel** and **E.A. Bettis III**. 2013. A 15,500 Year Record of Landscape Response to Climate Change Preserved in Late-Quaternary Alluvial Fans in Midcontinental North America. 2013. Geological Society of America, Annual Meeting.  
<https://gsa.confex.com/gsa/2013AM/webprogram/Paper226638.html>

\*\* **E.A. Bettis III**. 2012. Reconstructing Meso and Micro Scale Climatic Patterns from Holocene Buried Soils. Geological Society of America Annual Meeting.  
<https://gsa.confex.com/gsa/2012AM/webprogram/Paper209891.html>

\* **E.A. Bettis III**, C. Theiling and E. Hajic. 2011. Quaternary Stratigraphic Basis for Delineating hydrogeomorphic patches in the Upper Mississippi River Valley. Geological Society of America Annual Meeting. [http://gsa.confex.com/gsa/2011AM/finalprogram/abstract\\_193143.htm](http://gsa.confex.com/gsa/2011AM/finalprogram/abstract_193143.htm)

- \*# **E.A. Bettis III** and E. Hajic. 2007. Latest glacial and Early Holocene megafloods in the Upper Mississippi River Valley. Geological Society of America, North-central/South-central Section Meeting, Lawrence, KS. V. 39: 63.
- \*# **E.A. Bettis III**, H.M. Roberts and J.M. Mason. 2007. Age, origin and provenance of Wisconsin Loess in northeastern Nebraska and adjacent Iowa. Geological Society of America, North-central/South-central Section Meeting, Lawrence, KS. V. 39: 15.
- ## D.R. Muhs, **E.A. Bettis III**, J.N. Aleinikoff, J.P. McGeehin, J. Beann, G.J. Skipp, H.M. Roberts, W.C. Johnson, R. Benton and T.A. Ager. 2007. Origin and paleoclimatic significance of late Quaternary loess in Nebraska. Geological Society of America, North-central/South-central Section Meeting, Lawrence, KS. V. 39: 15.
- ## R. Ciochon, **E.A. Bettis III**, S.J. Carpenter, Y. Zaim and H.E. Marsh. 2007. Paleoecological setting for the arrival and early evolution of *Homo erectus* in the Solo Basin, Java. American Association of Physical Anthropologists Annual Meeting, Philadelphia. American Journal of Physical Anthropology (Supplement 44), pg. 87.
- ## **E.A. Bettis III**. 2006. Upper Mississippi River Valley Sedimentary Architecture and the Archaeological Record. Geological Society of America Annual Meeting. Abstracts with Program. Philadelphia. p. 520.
- \*# **E.A. Bettis III**, S.J. Carpenter, A.E. Haj, Jr. and L. Wozniak. 2005. Stable isotope geochemistry: An important tool in the kit for archaeological and paleoanthropological research. Geologic Contributions to Archaeological Method and Theory Symposium. Iowa Academy of Science Annual Meeting, Mt. Vernon, IA. Abstract Volume. p. 66.
- \*# **E.A. Bettis III**. 2003. Protecting and assessing: Dual roles for geoarchaeology in Cultural Resource Management. Society for American Archaeology 68<sup>th</sup> Annual Meeting, Milwaukee.
- \*# **E.A. Bettis III**. 2001. The nature of the Pleistocene/Holocene transition in the Upper Midwest, USA: Geoarchaeological implications. Geological Society of America, Annual Meeting, Seattle. Abstracts with Programs.
- \*# **E.A. Bettis III**. 2000. Spatial and temporal Patterns of Midcontinent USA Colluvial Landscapes During the Holocene: Interpreting the Archaeological Record. Geological Society of America, Annual Meeting, Denver. Abstracts with Programs.
- ## D.R. Muhs, **E.A. Bettis III**, and J.N. Alienikoff. 2000. Loess as a Sedimentary Body and Its Paleoclimatic Significance. Pardee Symposium, Geological Society of America, Annual Meeting, Denver. Abstracts with Programs.
- \*# **E.A. Bettis III** and D. R. Muhs. 1998. Soil and Carbon Isotopic Evidence of North American Midcontinent Vegetation During the Last Interglacial Period. Geological Society of America Annual Meeting Abstracts with Program 30.
- ## D.J. Quade, **E.A. Bettis III**, and J.D. Giglierano. 1999. Geologic Mapping Using GIS Technology Assists in the Siting of Animal Confinement Operations and Manure Application Areas. Geological Society of America, North Central Section Meeting Abstracts with Programs 31(5):A-66.
- \*# **E.A. Bettis III** and E.R. Hajic. 1996. Geologic Framework for the Paleoindian Record of the Eastern Plains and Prairies. Society for American Archaeology Abstracts of the 61st Annual Meeting : 48.

- \*# **E.A. Bettis III**. 1996. The Evolution of a Pleistocene Chronology in the Type Region of North American Continental Glaciation. Geological Society of America North-Central Section Meeting Abstracts with Programs 28 (6):29.
- \*# **E.A. Bettis III** and D.R. Muhs. 1996. Paleoclimatic Records Extracted from Loess/Paleosol Sequences from Midcontinental North America. American Quaternary Association, Program and Abstracts of the 14th Biennial Meeting pp. 5-7.
- \*# **E.A. Bettis III**, D.R. Muhs, T.W. Stafford, S.A. Mahan, S.D. Cowhens, and W.C. Johnson. 1995. Geochemical Trends in Loess and Paleosol Sequences of the Last Interglacial-Glacial Cycle, Iowa, Nebraska, and Mississippi. Geological Society of America North-Central Section South-Central Sections Meeting Abstracts with Programs 27(3):39-40.
- \*# **E.A. Bettis III**. 1993. Buried Site Potential: Determination, Evaluation and Suggestions for Sampling 10<sup>8</sup> Cubic Meters. Fryxell Symposium, Society for American Archaeology Abstracts of the 58th Annual Meeting p. 21.
- ## R.D. Mandel and **E.A. Bettis III**. 1993. Recognition of the DeForest Formation in the Midwest USA: Implications for Archaeological Research. Fryxell Symposium, Society for American Archaeology Abstracts of the 58th Annual Meeting p. 91.
- \*# **E. A. Bettis III**. 1992. A Brief History of Geoarchaeology in the Eastern Plains. 50th Plains Anthropological Conference Program and Abstracts p.31.
- ## E. R. Hajic and **E. A. Bettis III**. 1991. Landscape Development and the Location of Evidence of Archaic Cultures in the Upper Midwest. Geological Society of America Annual Meeting, Abstracts with Programs : A200.
- ## E. R. Hajic and **E. A. Bettis III**. 1989. Settlement Patterns or Sediment Patterns? -- A Stratigraphic Model for Interpretation of the Archaeological Record of the Upper Mississippi River Basin. Geological Society of America Annual Meeting, Abstracts with Programs : A214.
- \*# **E. A. Bettis III**. 1988. Soil Morphologic Properties and Weathering Zone Characteristics as Age Indicators in Holocene Alluvium in the Upper Midwest. Program and Abstracts, p. 58, Fryxell Symposium, Society for American Archaeology, 53rd Annual Meeting.
- \*# **E. A. Bettis III**. 1988. Pedogenesis in Indian Mounds: Upper Mississippi Valley, USA. Program and Abstracts, p. 16, American Association of Geographers Annual Meeting.
- \*# **E. A. Bettis III**. 1987. Iowa's Interior River Valleys : A Geological Overview. The Proceedings of the Iowa Academy of Science 94(1) Program Abstracts for the 99th Annual Meeting.
- ## G. R. Hallberg and **E. A. Bettis III**. 1986. Evolution of Valleys and Valley Fills in Eastern Iowa: Insights Into Mississippi Valley History. Geological Society of America Annual Meeting Abstracts and Programs 18: 540.
- ## G. R. Hallberg, R. D. Libra, B. E. Hoyer, and **E. A. Bettis III**. 1985. Hydrology, Land use, and Water Quality Relationships in Northeast Iowa. Abstracts, 30th Annual Midwest Groundwater Conference, Minneapolis, MN. Minnesota Department of Natural Resources, et al., p. 9-10.
- ## R. D. Mandel and **E. A. Bettis III**. 1985. Evolution of Holocene Landscapes in River Valleys of the East-central Plains: Extrinsic and Intrinsic Factors in Fluvial Systems. Program with Abstracts 4th Annual TERQUA Symposium, Lawrence, KS, p.23.

# **E. A. Bettis III** and G. R. Hallberg. 1985. Quaternary Alluvial Stratigraphy and Chronology of Roberts Creek Basin, Northeastern Iowa. Pleistocene Geology and Evolution of the Upper Mississippi Valley: A Working Conference. Programs, Abstracts, Field Guide. Winona State University, p. 44-45.

# **E. A. Bettis III** and G. R. Hallberg. 1985. The Savanna (Zwingle) Terrace and 'Red Clays' in the Upper Mississippi River Valley: Stratigraphy and Chronology. Pleistocene Geology and Evolution of the Upper Mississippi Valley: A Working Conference Programs, Abstracts, Field Guide, Winona State University, p. 41-43.

## G. R. Hallberg and **E. A. Bettis III**. 1985. Overview of Landscape Evolution in Northeastern Iowa, II: Wisconsinan. Pleistocene Geology and Evolution of the Upper Mississippi Valley: A Working Conference Programs, Abstracts, Field Guide, Winona State University, p. 36-40.

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\* **E.A. Bettis III**, R.L. Ciochon, R. Larick, Y. Ziam, Suminto, Y. Rizal, M. Reagan, and M. Heizler. 2002. Depositional and environmental context for *Homo erectus* immigration into the Solo Basin, Central Java, Indonesia. Geological Society of America Annual Meeting, Denver. Abstracts with Programs 34: 183.

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+ J.R. Krieg, **E.A. Bettis III**, and R.G. Baker. 1996. Holocene Alluvial Stratigraphy and Paleocology of the Erickson Creek Basin, Story County, Iowa. Geological Society of America North-Central Section Meeting Abstracts with Programs 28 (6):50.

\*\* **E.A. Bettis III**, G.A. Ludvigson, J.D. Giglierano, M.R. Howes, and R.R. Anderson. Surficial Geologic Mapping in Linn County, Iowa: Iowa's Contribution to the STATEMAP Program. 1996. Geological Society of America North-Central Section Meeting Abstracts with Programs 28 (6): 29.

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- \* **E. A. Bettis III** and N. Goldman. 1992. Landscape Evolution and the Disposition of the Archaeological Record in the Mississippi Valley of Southeastern Iowa. Society for American Archaeology, Abstracts of the 57th Annual meeting (607).
- S. L. Forman, **E. A. Bettis III**, B. B. Miller, W. D. McCoy, and E. Oches. 1990. Chronologic Evidence for Multiple Periods of Loess Deposition during the Wisconsinan and Illinoian in the Midcontinent, USA. Geological Society of America Annual Meeting, Abstracts with Programs : A86.
- J. D. Anderson and **E. A. Bettis III**. 1989. Postsettlement Alluvium in the Upper Mississippi River Basin: Recognition, Distribution, and Implications Concerning Floodplain Management. Geological Society of America Annual Meeting, Abstracts with Programs :A304.
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- R. G. Baker and **E. A. Bettis III**. 1988. Early Wisconsinan Vegetation in Southcentral Iowa. Journal of the Iowa Academy of Science 95(1): A18. Program and Abstracts for the 100th Annual Session of the Iowa Academy of Science.
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- R. G. Baker, and **E. A. Bettis III**. 1986. Wisconsinan Ice-marginal Biotic Environments in Iowa. American Quaternary Association, Program and Abstracts of the ninth biennial meeting, p. 118.
- \* **E. A. Bettis III**. 1985. Holocene Stratigraphy and Chronology of the Central Des Moines River Valley, Iowa.. 43rd Plains Anthropological Conference Program and Abstracts .
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\* **E. A. Bettis III**, B. E. Hoyer, and E. R. Hajic. 1984. Alluvial/Colluvial Fan Development in the American Midwest. American Quaternary Association Eighth Biennial Meeting Program and Abstracts: 13.

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## **6. Invited Lectures at other institutions:**

Provenance and Processes: Last Glacial Loess in Midcontinent North America. Geology Department, University of Illinois. Fall, 2014.

Lakeside Laboratory. Urban Stormwater Control and Biodiversity: Examples from Iowa City. Summer Lecture Series. June, 2013.

Lakeside Laboratory. From Shallow Seas to Majestic Prairies: The Geologic Story of Iowa. Fall Lecture series. October, 2012

Reconstructing Meso-and-Micro-Scale Climate Patterns from the Quaternary Paleosol Record of the Midcontinent and Indonesia. Pierre Colloquium, Agronomy Department, Iowa State University 2012.

Climatic and Tectonic Controls on Large River Behavior: An Example from the Early Pleistocene of Indonesia. Department of Geoscience, University of Illinois-Chicago. 2011.

Provenance and Paleoclimatic Significance of North American Loess. Univ. of Texas-Arlington, Department of Geological and Environmental Sciences Seminar, November, 2008.

Geologic Mapping for Environmental Planning. Kansas Geological Survey Seminar Series, April, 2008.

North American Dust Sources and Sinks. Auckland University, Department of Geological Sciences Seminar, May 2006.

Paleoclimatic Significance of North American Dust Records, University of Canterbury, Department of Geological Sciences Seminar, February, 2006

Environments and Timing of *Homo erectus* Dispersal Into Island Southeast Asia, Geological Society of New Zealand Colloquium Series, Christchurch, New Zealand, March, 2006.

No Pollen? No Problem; Using Carbon Isotopes to Reconstruct Vegetation and Paleoclimate. Iowa State University Department of Atmospheric and Geological Sciences Seminar, November, 2005.

The Wind Blew and the Dust Flew: The Geologic Record of Dust in the Midwest. University of South Dakota Geology Department Seminar, October, 2003.

Paleoclimatic Significance of Loess. Northern Illinois University Geography Department Seminar, October, 2001.

Provenance and Paleoclimatic Indicators of Late Glacial Loess. Iowa State University Geological and Atmospheric Sciences Seminar, November, 2000.

Long-Term Sediment Routing Impacts on the Structure and Processes of Channel Systems of the Missouri and Mississippi/Missouri Rivers. Workshop on process Studies of Mississippi Basin Landscapes. Sponsored by the Eastern Earth Surface Processes Team of the US Geological Survey. St. Louis, December, 1999.

Upper Valley Controls on the Long-Term Behavior of the Lower Mississippi Valley. Fisk Symposium, US Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS, 1996.

The Loess Record of the Midcontinent United States As a Paleoclimate Proxy. US Geological Survey Last Interglacial: Timing and Environment Conference. Boulder, CO. 1996.

Geologic Considerations in Management of Cultural Resources. National Park Service Resource Management Conference. Lake Geneva, WI, 1994.

The Last Interglacial Record of the Midcontinent United States. US Geological Survey Conference on Correlation of Marine and Terrestrial Records. Watsonville, CA. 1993.

Holocene Alluvial History of the Upper Midwest. Illinois State Museum, Springfield. 1990.

Geologic Controls on the Archaeological Record in the Des Moines Valley of Central Iowa. Penrose Conference on Geoarchaeology. Sapello Island, GA. 1986.

## **7. Pending Decisions:**

H. Wang and **E.A. Bettis III**. Meltwater megaflood mobilizing sediments in the Mississippi River: damming and inundating the Illinois River Valley during the Bølling/Allerød interstadial. Geology

## **8. In Preparation:**

Y.Rizal, E.A.Bettis III, F. Huffman, Y.Zaim, R. Grün, Aswan, R. Larick M. Sipola, R. Scott, S. Putt and R.L. Ciochon. Ngandong (Java): Homo erectus Late Pleistocene mass death event. Nature. 95% complete. Submission planned 9/14

N. O'Shea, E.A. Bettis III, Y. Zaim, Y. Rizal, Aswan, G. Gunnell, and R. Ciochon. Paleoenvironmental conditions at the Oligocene-Miocene boundary in Sumatra, Indonesia. Journal of Southeast Asian Earth Science. 95% complete. Submission planned 9/14.

R.D. Mandel and E.A. Bettis III. A 13,000 Year Record of Landscape response to Climate Change Preserved in Alluvial Fans in Continental North America (with R.D. Mandel). Invited by Geomorphology. 95% complete due date 11/1/14.

E.A. Bettis III and A. Haj. Reconstruction of meso and micro scale climate patterns using  $\delta^{13}C$  of Soil Organic Matter in Holocene Buried Soils in the Midwest, USA. Quaternary Science Reviews. 90% complete. Submission planned fall, 2014.

D. Grimley, E.A. Bettis III, B. Bates, A. Hannan and A. Anders. Fly Ash As a Time marker for Anthropocene Alluvial Sedimentation. Catena approximately 50% complete. Submission planned winter, 2014.

E.A. Bettis III, V. Baratta, A.S. Ward and D. Mettenberg. Observation and Modelling Performance of a Bioretention Cell, Upper Midwest, USA. Environmental Monitoring. Approximately 30% complete. Submission planned spring, 2015.

E.A. Bettis III, A.N. Papanicolaou and C.G. Wilson Sediment and Soil Carbon Linkages Across Midwestern Landscapes. Earth Surface Processes. Approximately 20% complete. Submission planned spring, 2015.

## Service

### 1. Profession

National Academies, U.S. National Committee for Quaternary Research 2008-2016  
American Quaternary Association President 2012-2014  
North American Commission on Stratigraphic Nomenclature 2008-2011  
Theme Session organizer and Session Chair, Geological Society of America Annual Meeting 2010  
American Quaternary Association Technical Program Committee 2010 Biennial Meeting  
American Quaternary Association Councillor – Earth Surface Processes 2008-2010  
Associate Editor, Geoarchaeology: An International Journal, 2007- 2010  
Joint Technical Program Committee – Geological Society of America Annual Meeting 2009  
Mackin Award Selection Committee, Geological Society of America 2007  
Editor-in-Chief, Geoarchaeology: An International Journal, 2003-2006  
Councillor, American Quaternary Association 2006-2008  
Session Chair, Geological Society of America Annual Meeting, 2006  
Technical Program Chair, American Quaternary Association 2004 Biennial Meeting  
Member (1 of 9), Working Group on Middle/Late Pleistocene Boundary, Subcommittee on Quaternary Stratigraphy, International Commission on Stratigraphy  
Editorial Board, Geoarchaeology (Wiley InterScience), 1999-2003  
Editorial Board, Journal of the Iowa Archaeological Society 1998-2012  
Panel Member, Quaternary Geology and Geomorphology Division, Geological Society of America, 1999-2001  
Councillor, American Quaternary Association, 1996-1999; Biennial Meeting Organizing Committee 1998-2000  
Chair, Geoarchaeology Interest Group, Society for American Archaeology, 1998-1999

Chair, Geoarchaeology Working Group of International Paleopedology Commission, 1996-2000  
Geological Society of America, Nominations Committee of the Archaeological Geology Division  
1995-1997; Archaeological Geology Division Management Board 1989-1992, Chair 1992;  
Technical Review Panel for 1991, 1999 and 2000 Annual Geological Society of America Meetings

### **Symposia organized**

Geoenvironmental Context of Human Migrations. Geological Society of America Annual Meeting, Denver. 2010  
Dust in the Earth System. American Association for the Advancement of Science Annual Meeting, San Diego, CA, 2010.  
Soils as Components of Archaeological Landscapes. Geological Society of America/Soil Science Society of America Joint Annual Meeting, Houston, TX. 2008  
Geoarchaeology of the Archaic Period in North America. Geological Society of America Annual Meeting, 1990.

### **Journal article review**

American Antiquity – 1 review 1998, 2000  
Arctic, Antarctic and Alpine Research – 1 review 2006, 2007  
Biogeochemistry – 1 review 2006, 3 reviews 2007  
Boreas – 1 review 2009  
Canadian Journal of Soil Science – 1 review 2011  
Catena – 1 review 2010  
Earth Science Reviews – 1 review 2009  
Geoarchaeology: An International Journal – 4 reviews in addition to reading and editorial duties on 6 manuscripts in 2009, 107 manuscripts in 2005, 113 manuscripts in 2004, one review 2000, three reviews 2001, one review 2002, 2003, 2 reviews 2007; 3 reviews 2008; 4 reviews 2010, 1 review 2011  
Geoderma – 1 review 2012  
Géographie Physique et Quaternaire – 1 review 2005  
Geological Society of America Bulletin – 1 review 1998, 2000, 2001, 2009  
Geology – 1 review 2000, 2002, 2004, 2007, 2009, 2010  
Geomorphology -- 1 review 2008, 2012, 2 reviews 2013  
Geophysical Research Letters – 1 review 2007  
Global and Planetary Change – 1 review 2000  
Journal of Environmental Quality – 1 review 2014  
Journal of Geophysical Research – 1 review 2013  
Journal of Human Evolution – 1 review 2008, 2009, 2011  
Journal of the Iowa Academy of Science – 1 review 2003  
Nature – 2 reviews 2009, 1 review 2010, 1 review 2011  
Paleogeography, Palaeoclimatology, Palaeoecology – 1 review 2006, 2008, 2009  
Quaternary International—1 review 2007, 2013  
Quaternary Research – 1 review 1999, 2000, 2001, 2003, 2005, 2009, 2013  
Quaternary Science Reviews – 2 reviews 2013  
Soil Horizons – 1 review 2014  
Soil Science Society of America Journal – 1 review 2006  
The Journal of Geology – 1 review 2004  
Water Resources Research – 1 review 2009

### **NSF proposal review**

NSF Panel member (EAR- Paleobiology and Sedimentary Geology) 2011-present  
2 reviews 2013  
1 review 2011  
3 reviews 2010  
2 reviews 2008  
2 reviews 2007

3 reviews 2006  
1 review 2005  
2 reviews 2004  
2 reviews 2003  
2 reviews 2002  
1 review 2001  
2 reviews 2000

**USGeological Survey External Manuscript Review**

1 review 2011  
1 review 2009  
1 review 2008

**Israel Science Foundation proposal review**

1 review 2009

**German Research Foundation (DFG)**

Pannel Member on Review of 'Ancient Cultures, History and the Development of Landscapes  
reviewd draft proposals for 4 graduate schools and 5 clusters of excellence 2006

**National Environment Research Council (UK)**

1 review 2005

**Iowa Science Foundation proposal review**

1 review 2002, 2003,2004

**Tenure Review Referee**

Dr. Paul Hansen, University of Nebraska 2010  
Dr. Richard Josephs University of North Dakota 2006  
Dr. William Moinahan Indiana University, Bloomington 2006

**2. Departmental**

Chair, Adam Ward Mentoring Committee 9/11-2014  
Mentoring Committee Bradley Cramer 9/12-present  
Chair, Hydrogeologist Search Committee (Water Sustainability Cluster Hire) 9/2010-2011  
Director of Graduate Studies 9/08-2011  
Computer Committee 8/07-2011  
Adviory Committee Environmental Science Program 5/03-9-09  
Executive Committee 9/06-9/09  
Executive Committee 9/02-5/04  
Chair, P&T Committee for W.A.Illman 8/05-12/05  
Alumni Relations Committee 9/03-5/07  
Chair, Terrestrial Paleoecologist Search Committee 9/03-5/04  
Search Committee Stable Isotope Position 5/02-9/03  
Curriculum Committee 9/98-9/02  
Search Committee Hydrogeologist Position 9/99-5/00

**3. College**

CLAS Scholarship Committee 2013-present  
Undergraduate Admissions Committee 9/06-9/09  
Panel Member, College of Liberal Arts and Sciences New Faculty Orientation 8/04  
Panel Member, Third Annual Academic Advising Workshop 9/00

**4. University**

Co-Chair, President's Charter Committee on Sustainability 2013-present  
Sustainability Certificate Advisory Committee 9/10-present  
Academic Coordinator, Environmental Sciences Program 2011-present  
Advisory Committee, Environmental Science Program 10/02-present  
External Relations Committee 9/05-5/08  
Family Issues Charter Committee 9/05-5/08  
Search Committee for Director of the Office of the State Archeologist, Office of the Vice President for Research, 8/01-5/02.  
Unit Review Committee (OSA), Office of the Vice President for Research 5-7/01

**Center for Global and Regional Environmental Research (U of IA) proposal review**

4 reviews 2013  
2 reviews 2011  
3 reviews 2009  
2 reviews 2007  
2 reviews 2005  
1 review 2004  
2 reviews 2003  
2 reviews 2002

**University of Iowa Press book manuscript review**

The Iowa Flood of 2008

**5. Community**

Technical advisor (pro bono) stream restoration, bioretention systems  
Organized and undertook planting of 1200 native shrubs in City green space as a carbon offset project for a National Parks Field Trip class (12:018). Have maintained plantings (mowing, mulching, weeding)  
Performed RASCAL stream assessment of Willow Creek  
Instructed City staff in RASCAL stream assessment  
Maintain Longfellow Prairie Nature Trail (with Jeff Schabillion)

**6. State of Iowa**

Mapped soils at Ciha Fen Preserve for the Johnson County Conservation Board as part of field-based projects in Soil Genesis and Geomorphology (12:136), 2009-2014.  
Co-authored a report on managing water pollution with urban wetlands for the Iowa Policy Project. <http://www.iowapolicyproject.org/2013Research/131030-Wetlands.html>  
Reviewer for Council for Agricultural Science and Technology Special Publication SP-31, Assessing the Health of Streams in Agricultural Landscapes: The Impacts of Land Management Change on Water Quality, 2012  
Member, Lake Delhi Dam Failure Response Committee, 2010-2011  
Member of Scoping Committee U.S. Army Corps of Engineers Missouri River Restoration Plan 2009  
Iowa Academy of Science Preserves and Conservation Committee Chair 1992-1993  
Hungry Canyons Alliance Advisory Committee 1992-1998

**Iowa State University Agronomy Department Endowment Proposal Review Panel**

(3 proposals primary reviewer, 2 proposals secondary reviewer) 2004