

## CURRICULUM VITAE

### Julie Brigham-Grette

**Address:** Department of Geosciences,  
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**Born:** Albion, Michigan, 11 Jan 1955

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**Citizenship:** United States of America

**Married:** Roger O. Grette, Sept. 1983

**Children:** Karl O. Grette, Oct. 1990

Erik W. Grette, Sept. 1993

### EDUCATION

Albion College, Albion, Michigan, B.A., Geology, *Magna cum laude*, 1976

University of Colorado, Boulder, Colorado, M.Sc., Geology, August 1980

Masters Thesis: Stratigraphy, Amino Acid Geochronology, and Genesis of Quaternary Sediments, Broughton Island, S.E. Baffin Island, Canada (J.T. Andrews, Advisor)

University of Colorado, Boulder, Colorado, PhD, Geology, May, 1985

Dissertation: Marine Stratigraphy and Amino Acid Geochronology of the Gubik Formation, western Arctic Coastal Plain, Alaska (G.H. Miller and D.M. Hopkins, Advisors)

### EMPLOYMENT HISTORY

*Post-doctoral Research Fellow*, Department of Quaternary Geology, Geomorphology, and Marine Geology, University of Bergen, Norway, November 1983 to December 1984.

*Post-doctoral Research Fellow*, Department of Geology, University of Alberta, Edmonton, Alberta, and Geological Survey of Canada, May 1985 to May 1987.

*Assistant Professor*, Department of Geology and Geography, University of Massachusetts, Amherst, September, 1987 to 1993.

*Visiting Professor*, Alaska Quaternary Center, University of Alaska Museum, Fairbanks, Alaska, January to June 1990.

*Associate Professor*, Department of Geosciences, University of Massachusetts, Amherst, September, 1993 to 2001.

*Associate Department Head*, Department of Geosciences, University of Massachusetts, Amherst, September 1998 to 2000; then 2001 to 2004.

*Acting Department Head*, Department of Geosciences, University of Massachusetts, Sept 2000 to Aug 2001

*Professor*, Department of Geosciences, University of Massachusetts, Amherst, September, 2001 to present.

## HONORS

- 2002 Elected Fellow, Geological Society of America  
2003 Albion College Distinguished Alumni Award  
2011-2012 UMASS Samuel F. Conti Faculty Research Fellowship

## GRANTS AND AWARDS (current funding in bold)

- 1976 W.A. Tarr Award, Senior Geology Award, Albion College  
1980 Arthur Campbell Award, Department of Geological Sciences, University of Colorado, \$400  
1980 Waldrop Award, Department of Geological Sciences, University of Colorado, \$1000  
1981 Harold T. Sterns Fellowship, Geological Society of America, \$1000  
1981 J. Hoover Mackin Award, Geological Society of America, Quaternary Geology and Geomorphology Division, \$500  
1981 Exxon Student Research Grant, Department of Geological Sciences, University of Colorado, \$500  
1981 Outstanding Woman Geoscientist Award, Association of Women Geoscientists, Denver Chapter  
1981 *National Science Foundation* Dissertation Improvement Grant, Division of Polar Programs, 2 years, \$4,860  
1980-1981 Several Grants-In-Aid of Dissertation Research from: Arctic Institute of North America, \$2800; Sigma Xi Research Council, \$525; Explorers Club, \$1,200; Geological Society of America, \$530.  
1983 Nominated for University of Colorado Research and Creative Work Award by the Geology Faculty, University of Colorado  
1984 Royal Norwegian Council for Science and Technology Post-doctoral Fellowship for North Sea Quaternary Stratigraphy, Bergen, Norway.  
1985-1987 University of Alberta/Geological Survey of Canada Post-doctoral Fellowship for Quaternary Stratigraphy and Geochronology of the Canadian Beaufort Sea  
1987-1989 *National Science Foundation*, Division of Polar Programs, Grant 87-14671, Correlation and Chronology of Marine Transgressions, western Alaska, \$96,075. (Co-PI D.M. Hopkins, University of Alaska, \$43,360)  
1990-1992 *National Science Foundation*, Division of Polar Programs, Grant 89-22980, Stratigraphy, Extent, and Paleoclimatic implications of middle Pleistocene Glacial/Interglacial Conditions in Coastal NW Alaska, \$127,243.  
1991-1994 *National Science Foundation*, Division of Polar Programs, Grant 90-15234, Late Cenozoic History of the Bering Strait, \$185,557. (Co-PI D.M. Hopkins, University of Alaska, \$169,548).  
1992-1994 National Park Service, Anchorage, Alaska. Cooperative Research Agreement Subcontract, Surficial Geology of northern Bering Land Bridge National Preserve and Paleoclimate history of North Killeak Lake, \$45,000  
1995-1998 *National Science Foundation*, Division of Polar Programs, Grant 94-23730, Collaborative Research: Pleistocene Glacial Ice History and Interglacial

- Paleoclimatic History in the NE Russian Arctic -- comparisons with Alaska, \$350,000, with significant contributions from the National Park Service.
- 1995-1997 University of Massachusetts Faculty Research Grant, Increased age resolution using D/L aspartic acid in Arctic mollusks, \$5,000.
- 1997-1998 *National Science Foundation*, Division of Atmospheric Sciences, Grant 96-15768, The Paleoclimatic record of El'gygytgyn Lake, NE Russia: a pilot study, \$66,982.
- 1998-1999 Alfred Wegener Institute, Potsdam, Germany, Matching funds toward collaborative Research of El'gygytgyn Lake, NE Russia, \$17,500
- 1997-1998 Co-PI on *National Science Foundation* workshop, Beringian Paleoenvironments, with Scott Elias, University of Colorado, Sept 20-22, 1997 \$60,128 (UMass portion \$7700)
- 2000-2001 *National Science Foundation* Earth System History, Atmospheric Sciences, Grant 99-05813, Paleoclimate Record of El'gygytgyn Lake, \$298,663.
- 2000-2002 *National Science Foundation* Arctic Natural Sciences, Late Pleistocene Glacial and Sea Level History of Wrangel Island, Northeast Siberia, Co-PI with Pat Anderson, University of Washington, and post-doc Lyn Gualtieri. (most funds at UW)
- 2001-2002 International Continental Drilling Program Science Workshop Funding for Science and Planning at El'gygytgyn Crater Lake, \$48,000
- 2001-2004 *National Science Foundation* Arctic Natural Sciences, "Marine Climate and Relative Sea Level Across Central Beringia: Collaborative Research" with Lloyd Keigwin and Neal Driscoll, Woods Hole. WHOI: \$655,177; UMASS: \$201,516,
- 2004 Pre-proposal to International Continental Drilling Program (ICDP) Proposal: Status of Planning and Progress toward Scientific Drilling at El'gygytgyn Crater Lake, Northeast Siberia, Russia, \$3.4 million; in collaboration with German, Russian and Austrian colleagues. JBG lead PI. ICDP Executive response in June was a green light to continue planning. Full proposal due Jan 15, 2005
- 2003-2004 National Science Foundation Arctic Natural Sciences and Paleoclimate Programs, "Proxy development for interpreting the paleoclimate record from El'gygytgyn Crater Lake, \$99,300.
- 2003-2006 National Science Foundation Arctic Natural Sciences/ATM. Svalbard REU Program, UMass Senior Investigator (Mt. Holyoke lead institution with Hampshire College, Bates College, and Northern Illinois University); UMass \$18.6k; total \$550k)
- 2005-2010 International Continental Drilling Program (ICDP) Full Proposal: Scientific Drilling at El'gygytgyn Crater Lake, Northeast Siberia, Russia, Funded \$2.2 M contribution for Drilling and Logistics; in collaboration with German, Russian and Austrian colleagues. JBG is US Chief Scientist.
- 2006-2012 National Science Foundation Earth Sciences, Collaborative Research: Millennial Scale Arctic Climate Change for the last 3.6 Myr: Scientific Drilling at Lake El'gygytgyn, NE Russia, (JBG lead, co-PIs are Laurie Brown and Steve Petsch; senior personnel Steve Burns and Rob DeConto) Award# 0602471, \$1,418,562 (science funding only; in addition, NSF provided \$5M in logistics funding; international sources provided another \$5M in logistics funding.)

- 2007-2012 National Science Foundation Arctic Natural Sciences #0649006. Svalbard REU Program at Lake Linne and Ny Ålesund, UMass Senior Investigator (lead institution Hampshire College, with Mt. Holyoke, Bates College, and Northern Illinois University); \$924,974 for program; UMass \$54,860.
- 2007-2009 National Science Foundation Division of Research on Learning in Formal and Informal Settings (DRL), IPY STEM Polar Connections, (Co-PI with Mort Sternhiem). Award 0732945, \$597k.
- 2010-2012 Joint Civilian Research and Development Foundation-Russian Foundation for Basic Research -- Climate Change and Energy Grant. Millennial scale Record of Western Arctic Climate Change for the past 1.5 Million years from Lake El'gygytyn, NE Russia (\$15,999 to UMass; \$80k to NEISRI in Magadan, Russia).
- 2011-2014 National Science Foundation Arctic Natural Sciences ARC 1023537. Late Quaternary Sea Ice history of the Beringian Arctic Gateway. (S. Petsch – co-PI). \$509,455.

### **PROFESSIONAL ORGANIZATIONS**

- American Geophysical Union  
(Paleoceanography-Paleoclimatology Chairman 2010-2012)
- American Quaternary Association  
(Sec. 1990-98; President Elect 2002-2004; President 2004-2006)
- Arctic Institute of North America
- Association of Women Geoscientists
- Canadian Quaternary Association
- Geological Society of America
- IGBP PAGES  
(Science Steering Committee chairman 2003-2008)
- Sigma Xi

### **PROFESSIONAL SOCIETY APPOINTMENTS AND BOARDS**

- 1988-1990 Elected Panel Member, GSA Quaternary Geology and Geomorphology Division
- 1990 Editorial Board Member of the journal *Quaternary International*.
- 1990-1998 Elected Secretary, American Quaternary Association
- 1991-1992 *National Science Foundation*, Division of Polar Programs, Earth Sciences Proposal Review Panel Member.
- 1996 *National Science Foundation*, OPP Arctic Interdisciplinary Panel Member
- 1994-1996 Elected non-PI Representative to NSF Arctic System Science Council
- 1996 Editorial Board Member of the journal *Quaternary Science Reviews*
- 1995-1997 Standing Advisor to U.S. Arctic Research Commission
- 1996-1998 U.S. Arctic Research Commission Logistics Joint Task Force
- 1997 Editorial Advisor of the journal *Arctic*
- 1997-1999 *National Science Foundation* Earth System History, Standing Panel Member

1998 Member of Writing Task Force for *National Science Foundation* PARCS  
*Paleoenvironmental Arctic Sciences* document

1998-2001 Elected, NSF PALE (Paleoclimatology of Arctic Lakes and Estuaries)  
Science Steering Committee now redesigned into NSF PARCS  
Paleoenvironmental Arctic Sciences.

1999-2000 U.S. Chair, Scientific Delegation to Svalbard for *National Science  
Foundation*, Shared Norwegian/U.S. Scientific Collaborations and Logistical  
Platforms, August 16-19, 1999.

1998-2000 Elected Panel Member, GSA Quaternary Geology and Geomorphology  
Division

1999-2001 *National Science Foundation* Antarctic Glaciology & Geophysics Joint Panel

2000-2002 Member, IGBP-PAGES (Past Global Changes) International Science  
Steering Committee

2000-2002 Member, NSF Earth System History Science Steering Committee

2000-2003 Member, NSF New Arctic Logistics Task Force under Simon Stephenson.

2002-2005 Member, Scientific Advisory Group to the Barrow Arctic Research Consortium  
(BASC).

2002-2008 USA representative to the International Continental Drilling Program Subcommittee  
on Lake Drilling.

2002-2004 President-Elect, American Quaternary Association (vice President)

2002-2004 Member, NSF Office of Polar Programs Advisory Committee,  
([http://www.nsf.gov/od/opp/opp\\_advisory/start.htm](http://www.nsf.gov/od/opp/opp_advisory/start.htm)).

2003-2004 Vice Chair, Science Steering Committee, International Geosphere-  
Biosphere Program-PAGES (Past Global Changes)

2003-2004 NSF Earth System History (ESH/MESH) Steering Committee member.

2004-2006 President, American Quaternary Association

2004-2009 Science Steering Committee Chairman, International Geosphere-Biosphere  
Program-PAGES (Past Global Changes).  
<http://www.pages.unibe.ch/contact/people.html>

2003-2008 US representative on the Science Advisory Group of the International  
Continental Drilling Program, Potsdam, Germany, on behalf of the National  
Science Foundation.

2005-2007 National Research Council Committee Member on the Assessment of U.S.  
Coast Guard Polar Icebreaker Roles and Future Needs.

2006-2009 Among 5 Lead Authors, U.S. Climate Change Science Program Synthesis &  
Assessment Product 1.2, Past Climate Variability and Change in the Arctic  
and High Latitudes, <http://www.climatechange.gov/Library/sap/default.htm>.

2007-present External Advisory Committee to LacCore, University of Minnesota. The  
US National Lake Core Repository.

2008-present Member of the Polar Research Board, National Academy of Sciences.

2010-2012 – Chair, American Geophysical Union -- Paleoclimatology  
Paleoclimatology Focus Group; and AGU Council Member

2010-2012 -- Co-Chair (with Linda Hinnov, John Hopkins), DOSECC Scientific Steering  
Committee to direct renewed US Continental Drilling Program.

2011-2012 - Co-Chairman (with Bob Bindschadler, NASA). National Research Council, Polar Research Board Formal Study of The Legacy of the US International Polar Year. Study report in press, 2012.

2012-2013 – Vice Chair, DOSECC Board of Directors.

### **SYMPOSIUM/WORKSHOP CONVENOR, ORGANIZER**

Co-Chairman of Quaternary Dating Methods Special Session, INQUA Congress, in Ottawa, Canada, August 1987. (with Dr. Nathaniel Rutter, University of Alberta).

Co-chairman of a workshop "Tertiary/Early Pleistocene Stratigraphy and Paleoclimate of the Arctic Regions", October 15-17, 1987, in Denver, Colorado, (with Drs. John V. Matthews, Jr, Geological Survey of Canada, and Charles Schweger, University of Alberta).

Co-Chairman, with Scott Elias, NSF-sponsored workshop on "Beringian Paleoenvironments", Sept. 20-22, 1997, Florissant, CO, The Nature Place, 100 participants.

Leader and Organizer, 63<sup>rd</sup> Annual Friends of the Pleistocene Field Conference, June 2-4, 2000, New Drainage History for Glacial Lake Hitchcock, \$8000 budget with over 100 participants.

Chairman, International Continental Drilling Program Workshop on Science and Research Plans for Lake El'gygytgyn, Nov. 10-12, 2002, in Amherst MA, Lord Jeffery Inn, 25 participants.

Co-convenor, Global Change and Paleoenvironments sessions/working groups, with Gerald Haug, International Continental Drilling Program, March 30 April 1, 2005, Potsdam Germany.

Invited session chair, U.S. Climate Change Synthesis and Assessment (CCSP 1.2) Past climate variability and change in the Arctic and at high latitudes: Multiagency Scoping Workshop May, 10-11, 2005, USGS, Denver.

Chairman, Brigham-Grette, J., US Scientific Access to the Russian Arctic; Sept 22, 2010. National Research Council, Polar Research Board Workshop and Forum. Washington DC. Funded by US State Department, NSF, NOAA; involving personnel from Department of State, NSF, NOAA, NASA, USARC, U.S. Coast Guard, and the U.S. Navy. Final Report completed.

Chairman, Brigham-Grette, J., May 23-24, 2011. Toward a Strategic Plan for a U.S. Continental Scientific Drilling: Into a New Decade, DOSECC Workshop, Arlington VA. Proceedings Report listed elsewhere.

## LECTURE INVITATIONS FOR DEPARTMENT SEMINARS etc

University of Delaware	Dec. 1987	Massachusetts Inst of Technology	Oct. 1999
Bates College	Mar. 1988	University of Nebraska	Oct. 2000
University of Alberta	Aug. 1988	Williams College	Nov. 2000
University of Connecticut	Fall. 1988	University of Alaska Fairbanks	Aug. 2002
Univ. Northern Illinois	Oct. 1989	University of Minnesota	Mar, 2003
Lamont-Doherty, Columbia Univ.	Dec. 1989	NE Assoc of Engineering Geologists	Feb. 2004
University of Alaska	Apr. 1990	Brown University	Apr. 2004
U.S. Geological Survey	May, 1990	Wesleyan University	Dec. 2004
University of Vermont	Dec. 1990	University of Maine	Mar 2006
Quebec Geoscience Center	Mar. 1991	University of Cincinnati	April 2006
University of North Dakota	Apr. 1991	Boston College	Jan 2007
Rutgers University	Oct. 1992	Northern Illinois Univ	April 2007
Colgate College	Mar. 1993	Assoc Women Geoscientists	Oct. 2007
University of Maine	May 1993	Univ of Bern/ProClim	Mar 2008
Mt. Holyoke College	May, 1994	Lamont-Doherty, Columbia	April 2008
University of Nebraska	Oct. 1994	Arctic Summit Week April Russia	2008
Colby College	Feb. 1996,	Greensboro Day Sch Public Lecture	Feb 2009
April 2005		US Embassy-Moscow	Mar 2009
Smith College	Mar. 1996	Univ of Alaska-Anchorage	Mar 2010
Boston University	Apr. 1996	Univ of Alaska-Fairbanks	Mar 2010
Syracuse University	Apr. 1996	UMass Daffodil Lecture MC	April 2010
Univ. Courses on Svalbard, Norway	Oct. 1996,	University of Arizona	Nov 2010
Nov. 1997, Nov. 1998, Oct. 1999		Brown University	Feb 2012
University of Bergen	Nov. 1996	Colby College	Apr 2012
Norwegian Geological Survey	Nov. 1996		
North Dakota State University	Oct. 1997		

## FIELD EXPERIENCE

Two field summers in 1978 and 1979 along the northeast coast of Cumberland Peninsula, Baffin Island, Canada, on foot and by freighter canoe mapping Quaternary sediments and describing stratigraphic sections. During the summers of 1980 and 1981, worked 150 km of the Arctic coast of northern Alaska on foot and by Zodiak west of Barrow to Wainwright, later using a helicopter to extend the field mapping and stratigraphic work over a field area of 28,700 km<sup>2</sup> from Wainwright down to Cape Beaufort and west to the Meade River. In early 1984, participated on a 7-day research cruise of the University of Bergen, Norway, conducting seismic studies of Quaternary sediments in several fjords along western Norway. Studies in the Beaufort Sea have included participation in joint industry/government coring projects from platforms through the sea ice and man-made ice islands in March 1985, and February 1986. Likewise this research involved core-logging and sampling of Quaternary sediments on a 5 week joint industry/government geotechnical drilling program in 1985, and 2 weeks assisting with shipboard government geophysical surveys in September of 1986. Since 1987 field work in western and northwestern Alaska has involved mapping on foot or by inflatable boat in remote coastal areas of Seward Peninsula, Kotzebue Sound (1988, 1989, 1991, 1992 1996; similar work is ongoing in northeastern Russia (1991, 1992, 1995, 1996). Led major expedition for lake coring in Eastern Siberia, May 1998; most

recent field work on Lake El'gygytyn Crater completed in July-Aug-Sept. 2000; and summer 2003. Field work on Wrangel Island in the East Siberian Sea with Lyn Gaultieri in summer 2001. Co-PI on two three-week science cruises aboard the USCGC Healy across the Bering Sea, summer 2002. Local field work ongoing in the Connecticut Valley, Massachusetts.

Biggest logistical effort of my career was in organizing the \$10 M Lake El'gygytyn Drilling Program for 2008-2010 in Northeast Russia with German, Russian and Austrian colleagues. Coring operations included 5 months of field work from November 2008 to May 2009; UMass team of Julie Brigham-Grette and grad students Kenna Wilkie and Addie Holland on site for 3 months (late Feb to mid-May).

I also mentor undergraduate REU students (Research Experience for Undergraduates) studying modern glacial and glacial-marine processes in Kongsfjord, Svalbard, out of the research community of Ny Alesund, in 2005, 2009 and 2011.

### **GENERAL RESEARCH INTERESTS**

Research is concerned with late Cenozoic marine and terrestrial/lacustrine stratigraphic problems in Arctic regions and in regional correlations and paleoclimate reconstructions, especially across Arctic North America and eastern Russia. Long-range research interests are in the paleoclimate and sea level/sea ice history of the Bering Strait region and seas, the circum-Arctic coast, Arctic climate evolution and system changes, deglacial history of New England, and in the development of better paleoclimate proxies.

### **RECENT UNIVERSITY COMMITTEES & Other SERVICE**

Member, Provost Search Committee, Jan-May 2004.

Past Standing Member, Department Faculty Senate Representative and Rules Committee of Faculty Senate

Past Member, Awards Committee for College of Natural Sciences and Mathematics, in consultation with Associate Dean Gordon Wyse.

Member and past chair, Faculty Senate Research Library Council.

Standing Member, Board of Trustees of the Friends of the Library.

University Representative, Arctic Research Consortium of the United States. Annual.

Member, Search Committee for Dean of NSM, Spring, 2005.

Member, University Convocation Nomination Committee Summer 2005

Member, Natural Sciences and Mathematics Awards Committee, April 2005

College of Natural Sciences Promotion and Performance Committee, 2009-2011

### **REFEREED PUBLICATIONS** (in chronological order)

#### **Journals and Monographs**

**Brigham, J.K.**, 1983, Stratigraphy, amino acid geochronology, and correlation of Quaternary sea level and glacial events, Broughton Island, Arctic Canada, *Canadian Journal of Earth Science*, v.20, n.4, 577-598.



- Brigham, J.K.**, 1983, Intrashell variations in amino acid concentrations and isoleucine epimerization ratios in fossil *Hiatella arctica*, *Geology*, v.11, 509-513.
- Mode, W.N., Nelson, A.R., and **Brigham, J.K.**, 1983, A facies model of Quaternary glacial-marine cyclic sedimentation along eastern Baffin Island, Canada, In Molnia, B.F., ed., *Glacial-Marine Sedimentation*, Plenum Publishing Co., New York, p. 495-533.
- Sejrup, H.P., Miller, G.H., **Brigham-Grette, J.**, Lovlie, R., and Hopkins, D.M., 1984, Amino acid epimerization implies rapid sedimentation rates in Arctic Ocean cores, *Nature*, v.310, 772-775.
- Carter, L.D., **Brigham-Grette, J.**, Marincovich, Jr., L., Pease V.L., and Hillhouse, U.S., 1986, Late Cenozoic Arctic Ocean Sea Ice and Terrestrial Paleoclimate, *Geology*, v.14, p. 675-678.
- Miller, G.H., Jull, A.J.T., Linick, T., Sutherland, D., Sejrup, H.P., **Brigham, J.K.**, Bowen, D.Q., and Mangerud, J., 1987, Racemization derived late Devensian temperature reduction in Scotland, *Nature*, V. 326, n. 6113, p. 593-595.
- Sejrup, H.P., Aarseth, I., Ellingsen, K.L., Lovlie, R., Reither, E., Bjorklund, K., **Brigham-Grette, J.**, Jansen, J., and Stoker, M., 1987, Quaternary Stratigraphy of the Fladen Area, Central North Sea: A multidisciplinary approach, *J. of Quaternary Science*, V.1, n.1, p. 35-58.
- Miller, G.H., and **Brigham-Grette, J.**, 1989, Amino acid Geochronology: Resolution and Precision in Carbonate Fossils, IN, N. Rutter and J. Brigham-Grette and N. Catto, guest eds., "Applied Aspects of Quaternary Geochronology", *Quaternary International*. v. 1, p. 111-128.
- Rutter, N.W., **Brigham-Grette, J.**, and Catto, N. Editors, 1989, "Applied Aspects of Quaternary Geochronology", proceedings volume from the 1987 INQUA Congress Special Session No.29. *Quaternary International*, vol. 1, 166pg.
- Sejrup, H.P., Nagy, J., and **Brigham-Grette, J.**, 1989, Foraminiferal stratigraphy and amino acid geochronology of Quaternary Sediments in the Norwegian Channel, northern North Sea. *Norsk Geologisk Tidsskrift*, v. 69, 111-124.
- Blasco, S.M., Fortin, G., Hill, P.R., O'Connor, M.J., and **Brigham-Grette, J.**, 1990, The late Neogene and Quaternary Stratigraphy of the Canadian Beaufort Shelf, IN A. Grantz, L. Johnson, and J.F. Sweeney, eds., *The Arctic Ocean Region*, V. L, Boulder, Colorado: *Geological Society of America, The Geology of North America*, p.459-490.
- Dinter, D., Carter, L.D., and **Brigham-Grette, J.**, 1990. Late Cenozoic Geologic Evolution of the Alaskan North Slope and adjacent continental shelves. IN A. Grantz, L. Johnson, and J.F. Sweeney, eds., *The Arctic Ocean Region*, V. L, Boulder, Colorado: *Geological Society of America, The Geology of North America*, p.459-490.
- Huston, M.M., **Brigham-Grette, J.**, and Hopkins, D.M., 1990, Paleogeographic significance of middle Pleistocene glaciomarine deposits on Baldwin Peninsula, Northwest Alaska, *Annals of Glaciology*, v. 1, p. 111-114. (Huston's master's thesis under JBG)
- Kaufman, D.S., Walter, R.C., **Brigham-Grette, J.**, and Hopkins, D.M., 1991, Age of the Nome River (middle Pleistocene) glaciation, northwestern Alaska. *Quaternary Research*, v. 36, p.277-293.

- Brigham-Grette, J.** and Carter, L.D., 1992, Pliocene marine transgressions of northern Alaska: Circumarctic Correlations and Paleoclimate, *Arctic*, v.43(4), p.74-89.
- Hamilton, T.D., and **Brigham-Grette, J.**, 1991, The last interglaciation in Alaska: Stratigraphy and paleoecology of potential sites, *Quaternary International*, v. 10-12. p. 49-71
- Kaufman, D.S., and **Brigham-Grette, J.**, 1993. Aminostratigraphic correlations and paleotemperature implications, Pliocene-Pleistocene high sea level deposits, northwestern Alaska. *Quaternary Science Reviews*. vol. 12, 21-33.
- Aber, J.S., Bluemle, J.P., **Brigham-Grette, J.**, Dredge, L.A., Sauchyn, D.J. and Ackerman, D.L., **1995**, Glaciotectonic Data Base and Mapping of North America, IN J.S. Aber (editor), *Glaciotectonics and Mapping Glacial Deposits*., Canadian Plains Research Center, Canadian Plains Proceedings 25, Regina, Canada, 177-200.
- Lindbo, D.L., **Brigham-Grette, J.**, and Veneman, P.L.M., 1994, Depositional and Post-Depositional Features in the Late Illinoian and Late Wisconsin Till of Massachusetts, Soil Science Society of America Special Publication No. 34, *Whole Regolith Pedology*, 75-95.
- Brigham-Grette, J.**, and Hopkins, D.M., 1995, Emergent-Marine record and Paleoclimate of the Last Interglaciation along the northwest Alaskan coast, *Quaternary Research*, v. 43, 154-173.
- Brigham-Grette, J.**, 1996, Geochronology of Glacial Deposits, Chapter 14, in J. Menzies, Editor., *Past Glacial Environments--Sediments, Landforms, and Techniques*, Butterworth Heinemann: Oxford, 377-410.
- Goodfriend, G. A., **J. Brigham-Grette**, and G. H. Miller, 1996, Enhanced age resolution of the Marine Quaternary Record in the Arctic using Aspartic Acid Racemization dating of Bivalve shells, *Quaternary Research*, V. 45, 176-187.
- Kuzmina, N.N., Taldenkova, E.E., Kulikov, O.A., Oreshkina, T.V., Sulerzhitskii, L.D., Turkova, M.E., Khoreva, I.M., Sjumova, G.M., and **Brigham-Grette, J.** 1997, Stratigraphy and the Neogene-Quaternary sedimentation Environment in the Northwestern Shelf and Coast of the Tartar Strait, *Stratigraphy and Geological Correlation*, v.5, n.5, 478-498 (English translation of Russian Journal).
- Fyles, J.G., McNeil, D.H., Matthews, J.V., Barendregt, R.W., Marincovich, L., Jr., Brouwers, E., Bednarski, J., **Brigham-Grette, J.**, Ovenden, L.O., Baker, J., and Irving, E., 1998, Hvitland Beds (Late Pliocene), White Point Lowland, Ellesmere Island, Arctic Canada. *Geological Survey of Canada Bulletin* 512.
- Pushkar, V.S., Roof, S.R., Cherepanova, M.V., Hopkins, D.M., Ivanov, V.F., and **Brigham-Grette, J.**, 1999, Paleogeographic and paleoclimatic significance of diatoms from Middle Pleistocene marine and glaciomarine deposits on Baldwin Peninsula, northwestern Alaska, *Paleogeography, Paleoclimatology, Paleoecology*, v. 152, 67-85
- Gualtieri, L., Glushkova, O. and **Brigham-Grette, J.**, 2000, Field evidence for restricted ice extend during the last glacial maximum in the Koryak Mountains of Chukotka, Far Eastern Russia, *Geological Society of America Bulletin*. 112, 1106-1118 (part of Gualtieri's PhD under JBG)

- Rittenour, T., **Brigham-Grette, J.** and Mann, M., 2000, ENSO-like climate teleconnections in New England during the Late Pleistocene. *Science*, 288, 1039-1042. (part of Rittenour's master's thesis under JBG)
- Elias, S.E. and **Brigham-Grette, J.** (Guest Editors), (2001) Paleoenvironments of Beringia, (34 papers). *Quaternary Science Reviews* v. 20 (1-3), 574 pages.
- Brigham-Grette, J.**, and Hopkins, D.M., Ivanov, V.F., Basilyan, A., Benson, S.L., Heiser, P and Pushkar, V., 2001, Last interglacial (Isotope Stage 5) glacial and sea level history of coastal Chukotka Peninsula and St. Lawrence Island, western Beringia, *Quaternary Science Reviews* v. 20 (1-3), 419-436
- Khim, B.K., Krantz, D.E. and **Brigham-Grette, J.**, 2001, Stable isotope profiles of fossil bivalves and last interglacial paleoclimate in the Bering Strait, *Quaternary Science Reviews*, v. 20 (1-3), 463-484.
- Brigham-Grette, J.**, 2001, New perspectives on Beringian Quaternary paleogeography, stratigraphy, and glacial history, *Quaternary Science Reviews*. v. 20 (1-3), 15-24.
- Gualtieri, L. and **Brigham-Grette, J.**, 2001, The age and origin of the Little Diomed Island Upland Surface. *Arctic* 54 (1), 12-21. (part of Gualtieri's PhD under JBG)
- Nowaczyk, N.R., P. Minyuk, M. Melles, **J. Brigham-Grette**, O. Glushkova, M. Nolan, A.V. Lozhkin, T.V. Stetsenko, P. Andersen, S.L. Forman, 2002, Magnetostratigraphic results from impact crater Lake El'gygytgyn, north - eastern Siberia : a 300kyr long high - resolution terrestrial paleoclimatic record from the Arctic, *Geophysical Journal International*. 150, 109-126
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- Brigham-Grette, J.** Editor, desktop publisher, and co-author, 63<sup>rd</sup> Annual Friends of the Pleistocene Field Conference GuideBook, June 2-4, 2000, New Drainage History for Glacial Lake Hitchcock, *UMass Department publication No. 73*, 125 pages.
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- Brigham-Grette, J.** and Melles, M., 2009, Complex Drilling Logistics for Lake El'gygytgyn, Russia, *Scientific Drilling* magazine 7, March 2009, 38-39.
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### **BOOK REVIEWS**

- Brigham-Grette, J.** 1991, The Environmental Record in Glaciers and Ice Sheets, by H. Oeschger, and C.C. Langway, Jr. Editors, *FOR Journal of Geological Education*, v. 39, no. 2
- Brigham-Grette, J.**, 1993, *Cape Cod and the Islands: the Geologic Story*, by Robert N. Oldale, Parnassus Imprints, 209 pages; in *Bulletin of the Massachusetts Archeological Society*, vol. 54, no.2, pgs 79-80.
- Brigham-Grette, J.**, 1995, *The Antarctic Paleoenvironment: a Perspective on Global Change Part one, 1992*, edited by J. P. Kennett and D. a. Warnke. Antarctic Research Series vol. 56 American Geophysical Union, 385 pages ; and *The Antarctic Paleoenvironment: a Perspective on Global Change Part Two, 1993*, edited by J. P. Kennett and D. a. Warnke. Antarctic Research Series vol. 60, American Geophysical Union, 273 pages for the *Journal of Sedimentary Research*.
- Brigham-Grette, J.** 1998, *Glacial Geology: Ice Sheets and Landforms*, by Matthew R. Bennett (Univ. of Greenwich, UK) and Neil F. Glasser (Liverpool John Moores Univ., UK). John Wiley & Sons LTD, Chichester, England. 1996; 364 pg. For *Journal of Cold Regions Engineering*.
- Brigham-Grette, J.**, 2004, One if by Land, Two if by Sea: review of "Lost World: Rewriting Prehistory- How New Science is Tracing America's Ice Age Mariners,

by Tom Koppel, Atria Books, 2003", *Geotimes*-February, American Geological Institute.

### **CONTRIBUTOR**

*Opportunities and Priorities in Arctic Geoscience*, compiled by committee on Arctic Solid Earth Geosciences (Arthur Grantz, Chairman). U.S. National Research Council 1991, 67 pg.

*Logistics Recommendations for an Improved U.S. Arctic Research Capability*, Terry Tucker and Peter Schlosser, Co-Chairman), U.S. Arctic Research Commission and the National Science Foundation Office of Polar Programs Arctic Science Section through the Arctic Research Consortium of the U.S. (ARCUS). 1997, 88 pg.

*Opportunities for Collaboration Between the United States and Norway in Arctic Research: A Workshop Report*. (J. **Brigham-Grette**, USA, and Dag O. Hessen, Norway, National Co-chairs), National Science Foundation Office of Polar Programs Arctic Science Section through the Arctic Research Consortium of the U.S. (ARCUS). 2000, 102 pg.

*Arctic Research Support and Logistics: Strategies for the 21<sup>st</sup> Century*, Terry Tucker and Peter Schlosser, Co-Chairman), National Science Foundation Office of Polar Programs Arctic Science Section, through the Arctic Research Consortium of the U.S. (ARCUS). 2003, 102 pg.

*Assessment of U.S. Coast Guard Polar Icebreaker Roles and Future Needs*, 2005, Polar Icebreaker In a Changing World: An Assessment of U.S. Needs: National Research Council, 134 pages. (**JBG part of committee of 15**)

*Lessons and Legacies of the International Polar Year 2007-2008.*, **J. Brigham-Grette** and Bob Bindshadler Co-Chairs. Nation Academy of Sciences, 2012. 230 pg.

### **MASTERS THESES SUPERVISED**

**David Lindbo**, Characterization of selected Massachusetts Tills, May 1990. Now works in federal soils laboratory.

**Matthew Huston**, Middle Pleistocene marine and glacial stratigraphy of Baldwin Peninsula, Northwest Alaska: a record of glaciation and sea level change. Feb. 1991. High School Science Teacher in Seattle.

**Laura Quinn**, Non-thesis Masters, Project title: Hydrologic properties of a high Arctic river and lake system. May 1991. Homemaker.

**Maria Uhle**, Sedimentology, stratigraphy, and chronology of the Late Wisconsinan marine regression of southern Maine. Feb. 1992., PhD at Ohio State, then Univ. Professor West VA, and now at National Academy of Sciences, Washington DC.

**Sonja Benson**, Pleistocene stratigraphy and ice extent across central Beringia. Sept 1994. Now works in private consulting.

**Karen Mulvey**, Middle and late Pleistocene interglacial records on the Kotzebue Sound Region of Northwest Alaska. (1994). Teaching in the UK.

- Steve Charron**, Surficial mapping and paleoecological studies in the Bering Land Bridge National Preserve. Sept 1995. Now works in industry
- Jon Child**, Late Wisconsinan Glacial fluctuations in the Wonder Lake region of Denali National Park, Alaska. (field work initiated summer 1992 in collaboration with Dr. Al Werner, Mt. Holyoke College). Feb. 1995. Now works in
- David Mostoller**, Relative-age dating of middle and late Pleistocene moraines in Tanyurer River Valley, Chukotka, NE Russia. August 1997. Now works in environmental consulting industry.
- Amy Patrick**, GC/HPLC Analysis of Marine mollusks from the Bering Strait, Senior Honors Thesis, June 1998. PhD program at Univ. MN. Now Assoc. Professor at Western Illinois University in environmental writing.
- David Korewjo**, Middle Pleistocene Marine biostratigraphy of Gubik Formation, North slope of Alaska, Completed June 1999. Forensics geologist for the Federal Bureau of Investigation (FBI).
- Tammy Rittenour**, Drainage History of Glacial Lake Hitchcock and the Terrace History of the Connecticut valley, Completed June 1999. PhD at Univ. Nebraska. After a postdoc in Sweden, now a postdoc at Utah State University.
- Trent Hayden**. Sea Level history of northern Wrangel Island: Was there a East Siberian Ice Sheet? Completed June 2002. Working in environmental consulting.
- Mike Apfelbaum**, Paleoclimate Expression of the Last Interglacial and the Recent Holocene from the Sediments of El'gygytyn Lake, Northeast Siberia, Russia. Completed June 2003. Now working for environmental consulting firm Boston.
- Celeste Asikainen**, 2004. Sedimentology of a 65 ka record from El'gygytyn Crater Lake. Now in PhD program at UMass.
- Zach Lundeen**, 2005, Isotopic signature and Sea Level history of the Bering Strait region, Alaska. Completed PhD 2012, University of Utah.
- Beth Caissie**, 2006, Diatom stratigraphy and late Pleistocene sea ice history of the Bering Strait region. See below.
- Caitlin Majocka**, 2006, Iron Diagenesis and redox conditions in El'gygytyn Crater Lake, NE Siberia. Now working for Massachusetts DEP.
- Cecily Sharko**, (Fall 2010) Sea ice biomarkers and ice extent in the eastern Bering Sea
- Addie Holland** (Sept 2011) Exploring Isotopic Signatures of Lake El'gygytyn Sediments for Evidence of Anoxia and Methane cycling over the past 50,000 years. (now NE Climate Center Coordinator, UMass).
- Jeremy Wei** (in progress) Analysis of color in Lake El'gygytyn Sediments.
- Ben Pelto (starting Fall 2012).**

### DISSERTATIONS SUPERVISED

- Steven Roof**, Paleoclimatic significance of Middle Pleistocene glacial deposits in the Kotzebue Sound Region, Northwestern Alaska. (May, 1995). Now tenured on Natural Sciences Faculty at Hampshire College.
- Lyn Gualtieri**, Pleistocene Glacial History of the Lower Anadyr River Basin, NE Russia. Completed August, 1998. 1999 - Fulbright in Iceland, then three yr. post-doc at

University of Washington funded by NSF. Now Assistant Professor at Seattle University.

**Beth Caissie**, Quantitative Approaches to Reconstructing Past Sea Ice duration and extent in the Bering and Chukchi Seas. 2012. Now Assistant Professor at Iowa State University fall 2012

**Kenna Wilkie**, Compound Specific Hydrogen Isotopes of Lipid Biomarkers in Lake El'gygytgyn, NE Russia. 2012 (now Post-doc, University of Toronto).

**James J. Kocis** start Jan 2011, Development of biomarker IP-25 as a proxy for past sea ice extent.

### **POST-DOCS SUPERVISED**

**Timothy Cook**, 2010-2011. Sedimentology of Lake Elgygytgyn drill cores – sedimentation and paleoclimate of the past 3.6 Myrs in arctic Russia.

In addition, I have served as an active member of PhD committees for over a dozen graduate students in the departments of Geosciences, Electrical Engineering, and Anthropology. In the past, I have been the external examiner of PhDs at University of Alberta and University of Delaware.