

## Curriculum Vitae William Brent Garry

### EDUCATION

- 2006 Ph.D., Geology, *University at Buffalo*, SUNY Buffalo, New York  
Emplacement of channeled flows in subaerial, submarine, simulated, and extraterrestrial environments.  
Advisor: Dr. Tracy K. P. Gregg
- 2001 M.S., Geology, *University of Kentucky*, Lexington, Kentucky  
Stratigraphy, structure, and tectonic setting of the Dunaway Mountain thrust sheet in the Appalachian fold and thrust belt, the Ashville 7.5-minute quadrangle, Alabama. Advisor: Dr. William A. Thomas
- 1999 B.S., Geology, *College of William and Mary*, Williamsburg, Virginia  
Field characteristics, mineralogy, and geochemistry of an orbicular serpentinite in the Diana Mills pluton, Buckingham County, Virginia. Advisor: Dr. Brent E. Owens

### PROFESSIONAL EXPERIENCE

- Nov. 2009 - present *Research Scientist*, Smithsonian Institution, National Air and Space Museum, Center for Earth and Planetary Studies, Washington, D.C.
- July 2008 - present *Space suit subject/Science team*, NASA Desert RATS/Lunar Electric Rover field tests
- Mar. 2008 - present *Participating Scientist*, NASA Lunar Reconnaissance Orbiter, LROC Team
- Nov. 2006 - Oct. 2008 *CEPS Post-Doctoral Fellow*, Smithsonian Institution, National Air and Space Museum, Center for Earth and Planetary Studies, Washington, D.C.
- Sept. 2005 - Oct. 2006 *Research Scientist*, Smithsonian Institution, National Air and Space Museum, Center for Earth and Planetary Studies, Washington, D.C.
- Aug. 2001 - Aug. 2005 *Research/Teaching Assistant*, Department of Geology, University at Buffalo
- Aug. 1999 - July 2001 *Research/Teaching Assistant*, Department of Geology, University of Kentucky

### NASA GRANTS

#### *Principal Investigator*

- 2010 - 2013 NASA Dawn at Vesta - Participating Scientist (DAVPS), 3 yrs, \$205,000.
- 2009 - 2011 NASA Moon and Mars Analog Mission Activities (MMAMA), 2 yrs, \$70,000.
- 2008 - 2011 NASA Lunar Reconnaissance Orbiter Mission (LRO), 3 yrs, \$101,000.
- 2008 - 2010 NASA Lunar Advanced Science and Exploration Research (LASER), 2 yrs, \$78,000.
- 2008 - 2009 NASA Moon and Mars Analog Mission Activities (MMAMA), 1 yr, \$50,000.

#### *Co-Investigator*

- 2010 - 2014 NASA Mars Data Analysis Program, 3 yrs, \$103,000.
- 2009 - 2012 NASA Planetary Geology and Geophysics (PG&G), 3 yrs, \$189,000.
- 2009 - 2012 NASA Moon and Mars Analog Mission Activities (MMAMA), 3 yrs, \$219,000.
- 2008 - 2011 NASA Mars Data Analysis Program, 3 yrs, \$176,000.

### GEOLOGY FIELD RESEARCH

- 2006 - present *Emplacement of inflated lava flows*, McCarty's and Carrizozo lava flows, New Mexico
- 2005 - present *Emplacement of channeled lava flows*, Kilauea, Mauna Loa, and Mauna Kea, Hawai'i
- 2003 - present *EVA & Moon-Mars Mission Simulations*, Hawai'i, New Mexico, Belize, Arizona, Utah
- July 2002, Aug. 2003 *Doctoral Research*, Kilauea volcano, Hawai'i
- Nov. 2001 *Doctoral Research*, East Pacific Rise, Pacific Ocean
- Jan. - Mar. 2001 *Master's Research*, Geologic Mapping of Ashville, Alabama
- Jan. 1998 - May 1999 *Undergraduate Research*, Diana Mills, Virginia

### GEOLOGY FIELD WORKSHOPS

- Oct. 2008 *Track of the Yellowstone hotspot*, Idaho, GSA Annual Meeting
- May 2006 Co-Instructor, *Geology of Hawaii Field Camp* for *College of William and Mary*, Virginia
- Aug. 2004 *Planetary Science Summer School*, Jet Propulsion Laboratories (JPL), California
- July 2004 *Advanced Field Class in Volcanology*, Western USA
- Aug. 2003 *NASA Field Workshop in Volcanology*, Kilauea volcano, Hawai'i
- May 1999 *Geology Field Camp*, Colorado Plateau, Southwest USA

## AWARDS & ACCOLADES

2006	<i>Pegrum Award for Excellence in Research</i> , Dept. of Geology, University at Buffalo, \$750
2005	<i>College of Arts and Sciences Dissertation Fellowship</i> , University at Buffalo, \$4000
2002 – 2004	<i>Pegrum Travel Awards</i> Dept. of Geology, University at Buffalo, \$800
2003	<i>Harold T. Stearns Fellowship Award</i> , Geological Society of America (GSA), \$1600
2003	<i>Mark Diamond Research Fund</i> , University at Buffalo, \$1063
2001	<i>EDMAP (Educational Mapping) Grant</i> , United States Geological Survey (USGS), \$5500
2001	<i>Teaching Assistant Award</i> , University of Kentucky

## PROFESSIONAL ORGANIZATIONS

1996 - present	Geological Society of America (GSA)
2002 - present	American Geophysical Union (AGU)
2006 – present	National Association of Underwater Instructors (NAUI) #45160

## EDUCATION OUTREACH & VOLUNTEER SERVICE

2010	<i>Science Organizing Committee</i> , NASA Lunar Science Forum
2008 - present	<i>Internal and External Reviewer</i> , NASA Research Proposals
2008 - present	Organized <i>conference sessions</i> “Analog sites and field exercises for training planetary field geologists” (2008) and “Field geology on other planets” (2010) for GSA meetings.
2008	<i>Dwornik Judge</i> , 39 <sup>th</sup> Lunar and Planetary Science Conference
2007 - present	<i>Invited Speaker</i> , NASA Education Sandbox at Penn State (June, 2008), NASA Goddard Space Flight Center (Jan. 2009), AIAA club at George Washington University (Feb. & Nov. 2009), Dept. of Geology at University of Nevada-Las Vegas (May, 2009)
2006 - present	<i>Space Day, Mars Day, Moon Day</i> , Smithsonian Air and Space Museum, Washington DC
2000	<i>Space Camp Counselor</i> , U.S. Space and Rocket Center, Huntsville, Alabama

## PUBLICATIONS

### GSA Special Paper

Garry, W.B. and J.E. Bleacher, eds., *Analogues for Planetary Exploration, Geological Society of America Special Paper*, 35 manuscripts accepted and in final preparation. Anticipated publication: Spring 2011.

### Journal Articles

- Garry, W.B., and J.E. Bleacher, Emplacement scenarios for Vallis Schröteri, Aristarchus Plateau, the Moon, in Ambrose, W., and D.A. Williams., eds., *Recent advances in lunar stratigraphy, Geological Society of America Special Publication*, accepted.
- Glaze, L.S., S.M. Baloga, W.B. Garry, S.A. Fagents, and C. Parcheta (2009) A hybrid model for leveed lava flows: Implications for eruption styles on Mars. *J. Geophys. Res.*, v. 114, E07001, doi:10.1029/2008JE003278.
- Zimbelman, J.R., W.B. Garry, A.K. Johnston, and S.H. Williams (2008) Emplacement of the 1907 Mauna Loa basalt flow as derived from precision topography and satellite imaging, *J. Volc. Geotherm. Res.*, 177, 4, 837-847, doi:10.1016/j.jvolgeores.2008.01.042.
- Garry, W.B., J.R. Zimbelman, and T.K.P. Gregg (2007) Morphology and emplacement of a long channeled lava flow near Ascræus Mons volcano, Mars, *J. Geophys. Res.*, 112, E08007, doi:10.1029/2006JE002803.
- Garry, W.B., T.K.P. Gregg, A. Soule, and D. Fornari (2006) Formation of submarine lava channel textures: Insights from laboratory simulations, *J. Geophys. Res.*, 111, B03104, doi:10.1029/2005JB003796.

## SELECTED CONFERENCE ABSTRACTS (First Author Only)

- Garry, W.B., M.S. Robinson, and the LROC Team (2010) Observations of flow lobes in the Phase I lava flows, Mare Imbrium, the Moon, *41<sup>st</sup> Lunar and Planetary Science Conference*, Abstract 2278.
- Garry, W.B., and J.E. Bleacher (2010) Field geology conducted from the Lunar Electric Rover, NASA Desert RATS 2009: Strategies for human surface science operations on the Moon, *41<sup>st</sup> Lunar and Planetary Science Conference*, Abstract 2209.
- Garry, W.B., J.R. Zimbelman, J.E. Bleacher, L.S. Crumpler (2009) Topography and inflation features of the 1859 Mauna Loa lava flow, Hawai'i: Applications to inflated flows on Mars, *40<sup>th</sup> Lunar and Planetary Science Conference*, Abstract 1200.

- Garry, W.B., J.E. Bleacher, N.H. Warner (2008) Current research issues for lunar sinuous rilles: Vallis Schröteri, Aristarchus Plateau, the Moon, *Geological Society of America Annual Meeting*, Abstract 324-5. INVITED.
- Garry, W.B., J.R. Zimbelman, J.E. Bleacher (2008) Morphology and emplacement processes at the distal end of the Carrizozo lava flow, New Mexico: Implications for Martian sheet flows, *39<sup>th</sup> Lunar and Planetary Science Conference*, Abstract 1734.
- Garry, W.B., J.E. Bleacher, N.H. Warner (2008) Emplacement scenarios for Vallis Schröteri, Aristarchus Plateau, the Moon. *39<sup>th</sup> Lunar and Planetary Science Conference*, Abstract 2261.
- Garry, W.B., J.R. Zimbelman, J.E. Bleacher, D.A. Williams, M. Trumble (2007) Geologic Mapping of Ascraeus Mons Volcano, Mars at 1:1 M scale: An Analysis of the geomorphology and formation of Ascraeus Chasmata, *Geological Society of America Annual Meeting*, Abstract 218-3.
- Garry, W.B., J.R. Zimbelman (2007) Morphology and emplacement of long lava flows in the Tharsis Volcanic Province, Mars. *Eos Trans. AGU*, 88(23), Jt. Assem. Suppl., Abstract P34A-04.
- Garry, W.B., J.R. Zimbelman, J. R., T.K.P. Gregg (2006) Emplacement of a long lava flow near Ascraeus Mons volcano, Mars, *37<sup>th</sup> Lunar and Planetary Science Conference*, Abstract 1508.
- Garry, W.B., T.K.P. Gregg (2005) Analysis of downstream transitions in morphology and structure of lava channels on Mars, *36<sup>th</sup> Lunar and Planetary Science Conference*, Abstract 2019.
- Garry, W.B., T.K.P. Gregg, A. Harris (2004) Channel formation in viscous fluids independent of scale and composition, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract V31D-02.
- Garry, W.B., T.K.P. Gregg (2003) Structural and morphologic zones of channel-levee systems in laboratory simulated flows, *Geological Society of America Annual Meeting*, Abstract 132-11.