Curriculum Vitae

Brittany D Brand, Ph.D.

Boise State University
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CURRENT POSITION

Associate Professor, Geosciences, College of Arts and Sciences, Boise State University, Boise, Idaho (July 2018 - Present).

Director, Boise State University Hazard and Climate Resiliency Consortium (August 2017 - Present)

EDUCATION

PhD, Geology (2008)
Arizona State University, Tempe, AZ, Volcanology
Dissertation: Mafic Phreatomagmatic Volcanism and Density Current Dynamics. Arizona State University, Tempe, AZ, (2008)

MS, Geology (2004)
Boise State University, Boise, Idaho, Volcanology
Thesis: Stratigraphy and Origin of the Phreatomagmatic Deposits at Sinker Butte Volcano, Western Snake River Plain, Idaho. Boise State University, Boise, Idaho, (2004)

BS, Geology (2002)
Wright State University, Dayton, Ohio
Thesis: Characterizing Heterogeneity in the Sundre and New Rockford Aquifers, North Dakota, Using Indicator Geostatistics. Wright State University, Dayton, Ohio, (2002)

RELEVANT PREVIOUS EMPLOYMENT

Assistant Professor, Geosciences, College of Arts and Sciences, Boise State University, Boise, Idaho (December 2012 – July 2018).

Lecturer, Earth and Space Sciences, University of Washington, Seattle, Washington (September-December, 2012)

Research Scientist/Engineer 3, Earth and Space Sciences, University of Washington, Seattle, Washington (2009 to 2011)

Lecturer Part-Time, Earth and Space Sciences, University of Washington, Seattle, Washington (2009 to 2011)

BIOGRAPHY

I am Director for the Boise State Hazard and Climate Resilience Institute (HCRI):

https://www.boisestate.edu/research-hcri/

The HCRI fosters interdisciplinary and cross sector collaboration to build connected, thriving, resilient communities. provides a platform to connect researchers, students, and community partners to collaboratively address community resilience research and practical needs. We envision a world where researchers and community partners regularly work together to address societal challenges, effectively translating research to practice.

Hazard Preparedness Research: I work to bridge the gap between science and society by combining research, outreach, and education. My research group and I investigate ways to motivate preparedness actions for natural hazards by engaging individuals in active (experiential) learning opportunities. The goals of our efforts are to help residents personalize risk and develop positive attitudes toward the efficacy of taking protective actions.

Community Resilience: My community resilience research focuses on engaging a diverse group of community members and researchers to co-develop community-driven, locally relevant resilience metrics that holistically assess community disaster resilience needs. Methods include a multidimensional analysis of the social, human, natural, economic, and physical capitals, and the integration of existing resilience efforts (e.g., hazard mitigation plans; sustainability plans) to address local needs. We aim to explore the resources and connections that enable a community (or region) to address chronic stresses and recover from acute shocks — fostering healthy, resilient, thriving communities.

Volcanology Research: My volcanology research focuses on eruption dynamics, sediment transport in volcanic flows and volcanic hazard assessment. The foundation of my research is field-based observation and measurements, which are used for development and validation of experimental and numerical models. Establishing relationships between depositional characteristics and eruptive processes is a fundamental first step toward answering outstanding questions regarding the controls on eruption dynamics, mechanisms of sediment transport and hazards associated with sediment gravity flows, and the local and global consequences of volcanism on Earth and other planets.

COURSES TAUGHT AT BOISE STATE UNIVERSITY

UF100 Un)Natural Disasters: A Geoscience Perspective on Natural Hazards, Climate Change, and Society
GEOS 242 - Communication in the Earth Sciences
GEOS 460/560 – Volcanology
GEOS 562 – Advanced Field Methods in Volcanology
GEOS 586 – Selected topics in Volcanology

GEOS 597, Special Topics – Advanced Physical Volcanology
GEOS 597, Special Topics - Graduate Writing Seminar
GEOS 497/GEOPH 597 Special Topics – Volcanology Field Course in Chile
ANTH 494/GEOS 494 (summer short course) Volcanoes of the Western Snake River Plain
HONORS 392 – Honors Colloquium – Volcanoes and Society
HONORS 392 – Honors Colloquium – Natural Hazards, Vulnerability, and Risk

COURSES TAUGHT AT THE UNIVERSITY OF WASHINGTON

ESS 100 – Living with Volcanoes
ESS 300 – Geology of the National Parks
ESS 300 – Volcanoes and Glaciers of the Pacific Northwest
ESS 400 – Geoscience Communication
ESS 500 – Pyroclastic Density Current Seminar
ESS 400 – Field Geology (Field Camp)

NON-CREDIT INSTRUCTION

Certification, FEMA, 8 participants, October 2012 – Present

PEER-REVIEWED JOURNAL PUBLICATIONS

MacPherson-Krutsky, C, **Brand, B.D.**, Lindell, M. (in review) Resident's Information Seeking Behavior and Protective Action in the Portland Metropolitan Area. Risk Analysis [*Graduate Student Paper; Published with BSU Affiliation]

MacPherson-Krutsky, C, **Brand, B.D.**, Lindell, M. (in review) From Information to Protective Action along the Cascadia Subduction Zone: Evaluating Risk Communication and Public Preparedness in Metropolitan Portland, OR. Earthquake Spectra [*Graduate Student Paper; Published with BSU Affiliation]

Marshall, A.A, **Brand, B.D**., Martínez, V., Bowers, J.M., Walker, M., Wanless, V.D., Andrews, B.J., Manga, M., Valdivia, P., and Giordano, G., (in review), The mafic Curacautín ignimbrite of Llaima volcano, Chile. Journal of Volcanology and Geothermal Research. [*Graduate Student Paper; Published with BSU Affiliation]

Valdivia, P., Marshall, A.A., **Brand, B.D** and Manga, M., (in review), Mafic explosive volcanism at Llaima volcano (Chile): 3D X-ray microtomography reconstruction of pyroclast to constrain shallow conduit processes. Bulletin of Volcanology. [*Graduate Student Paper; Published with BSU Affiliation]

Graettinger, A., Bennis, K., Brand., B.D., Reynolds, E., Nolan, J. (accepted) Basaltic phreatomagmatic fissure at 71 Gulch Part 2: Unusual pyroclasts from sediment magma mingling and melting. Bulletin of Volcanology

Zrelak, P. J., Pollock, N. M., **Brand, B. D**., Sarocchi, D., & Hawkins, T. (2020). Decoding pyroclastic density current flow direction and shear conditions in the flow boundary zone via particle-fabric analysis. *Journal of Volcanology and Geothermal Research*, *402*, 106978. [*Undergraduate Student Paper; Will be published with BSU Affiliation]

Lube, G., Breard, E. C., Esposti-Ongaro, T., Dufek, J., & **Brand, B.** (2020). Multiphase flow behaviour and hazard prediction of pyroclastic density currents. *Nature Reviews Earth & Environment*, 1-18.

MacPherson-Krutsky, C, **Brand, B.D.**, Lindell, M. (2020) Does Updating Natural Hazard Maps to Reflect Best Practices Increase Viewer Comprehension of Risk? International Journal of Disaster Risk Reduction. Volume 46. [*Graduate Student Paper; Published with BSU Affiliation]

Pollock, N. M., **Brand, B. D.,** Rowley, P. J., Sarocchi, D., & Sulpizio, R. (2019). Inferring pyroclastic density current flow conditions using syn-depositional sedimentary structures. *Bulletin of Volcanology*, *81*(8), 46. [*Graduate Student Paper; Published with BSU Affiliation]

Brand, B. D., Brascia, K., & Sass, M. (2019). The Community Outreach Model of Service-Learning: A Case Study of Active Learning and Service-Learning in a Natural Hazards, Vulnerability, and Risk Class. *Higher Learning Research Communication*.

Brand, B.D., Schlegel, M, & McMullin-Messier, P (2019). "Map Your Hazards!": Assessing Hazards, Vulnerability, and Risk Through an Active Learning-Based Educational Module. In *Interdisciplinary Teaching About Earth and the Environment for a Sustainable Future* (pp. 213-231). Springer, Cham.

Gase, A. C., Bradford, J. H., & **Brand, B. D.** (2018). Estimation of porosity and water saturation in dual-porosity pyroclastic deposits from joint analysis of compression, shear, and electromagnetic velocities. Geophysics, 83(3), ID1-ID11. [*Graduate Student Paper; Published with BSU Affiliation]

Anderson, J. F., Johnson, J. B., Steele, A. L., Ruiz, M. C., & **Brand, B. D**. (2018). Diverse eruptive activity revealed by acoustic and electromagnetic observations of the 14 July 2013 intense vulcanian eruption of Tungurahua volcano, Ecuador. Geophysical Research Letters. [*Graduate Student Paper; Published with BSU Affiliation]

Brand, B.D., Pollock, Nicholas, Sarocchi, Damiano, Dufek, Josef, and Clynne, M.A. (2017) Field-Trip guide for exploring pyroclastic density current deposits from the May 18, 1980, eruption of Mount St. Helens, Washington: U.S. Geological Survey Scientific Investigations Report 2017–5022–C, 34 p., https://doi.org/10.3133/sir20175022C.

Gase, A. C., **Brand, B. D.,** Bradford, J. H. (2017) Evidence of erosional self-channelization of pyroclastic density currents revealed by ground-penetrating radar imaging at Mount St. Helens, Washington (USA). Geophysical Research Letters, 44(5), 2220-2228. [*Graduate Student Paper; Published with BSU Affiliation]

Corwin, K. A., **Brand, B. D.,** Hubbard, M. L., Johnston, D. M. (2017) Household preparedness motivation in lahar hazard zones: assessing the adoption of preparedness behaviors among laypeople and response professionals in communities downstream from Mount Baker and Glacier Peak (USA) volcanoes. Journal of Applied Volcanology, 6(1), 3. [*Graduate Student Paper; Published with BSU Affiliation]

Brand, B.D., Bendaña, S., Self, S., Pollock, N. (2016) Topographic controls on pyroclastic density current dynamics: Insight from 18 May 1980 deposits at Mount St Helens, Washington (USA). J. Volcanol. Geotherm. Res. 321, 1-17. http://dx.doi.org/10.1016/j.jvolgeores.2016.04.018 [Published with BSU Affiliation]

Pollock, N. M., **Brand, B. D.,** & Roche, O. (2016). The controls and consequences of substrate entrainment by pyroclastic density currents at Mount St Helens, Washington (USA). Journal of Volcanology and Geothermal Research, 325, 135-147. [*Graduate Student Paper; Published with BSU Affiliation]

Brand, B. D., Mackaman-Lofland, C., Pollock, N. M., Bendaña, S., Dawson, B., & Wichgers, P. (2014). Dynamics of pyroclastic density currents: Conditions that promote substrate erosion and self-channelization—Mount St Helens, Washington (USA). Journal of Volcanology and Geothermal Research, 276, 189-214. [Published with BSU Affiliation]

Brand B.D., Gravely, D., Clarke, A.B., Nemeth, K. (2014) A combined field and numerical approach to understanding dilute pyroclastic density current dynamics and hazard potential: Auckland Volcanic Field, New Zealand. Journal of Volcanology and Geothermal Research, 276, 215-232. [Published with BSU Affiliation]

Bandfield, J. L., Song, E., Hayne, P., **Brand, B.,** Ghent, R., Vasavada, A. R., Paige, D. A. (2014). Granular Flow Features and Highly Insulating Materials Surrounding Fresh Lunar Craters. ICARUS. 231, 221-231. [Published with BSU Affiliation]

Mackaman-Lofland, C., **Brand, B.,** Taddeucci, J. (2014). Sequential Fragmentation Theory to Understand Emplacement Dynamics of Pyroclastic Density Currents – Mt St Helens. Journal of Volcanology and Geothermal Research, 275, 1-13. [*Undergraduate Student Paper; Published with BSU Affiliation]

Agustín-Flores, J., Németh, K., Cronin, S. J., Lindsay, J. M., Kereszturi, G., **Brand, B. D**., Smith, I. E. (2014). Phreatomagmatic eruptions through unconsolidated coastal plain sequences, Maungataketake, Auckland volcanic field (New Zealand). Journal of Volcanology and Geothermal Research, 276, 46-63. [*Graduate Student Paper; Published with BSU Affiliation]

Roche, O., Niño, A., Mangeney, **Brand, B.,** Pollock, N., Valentine, G. A. (2013). Dynamic Pore Pressure Variations Induce Substrate Erosion by Pyroclastic Flows. Geology, 41(10), 1107-1110.

Bandfield, J. L., Edwards, C. S., Montgomery, D. R., **Brand, B**. (2013). The Dual Nature of the Martian Crust: Young Lavas and Old Clastic Materials. ICARUS, 22, 188-199.

Brand, B., Clarke, A. B. (2012). An Unusually Energetic Basaltic Phreatomagmatic: Using deposit characteristics to constrain dilute pyroclastic density current dynamics. Journal of Volcanology and Geothermal Research, 243-244, 81-90.

Brand, B.D., and Heiken, G. (2009) Tuff cones, tuff rings, and maars of the Fort Rock–Christmas Valley Basin, Oregon: Exploring the vast array of pyroclastic features that record violent hydrovolcanism at Fort Rock and the Table Rock Complex, in: O'Connor, J.E., Dorsey, R.J., and Madin, I.P., eds., Volcanoes to Vineyards: Geologic Field Trips through the Dynamic Landscape of the Pacific Northwest: Geological Society of America Field Guide 15, p. 1–18.

Brand, B.D., Clarke, A.B. (2009) The architecture, eruptive history, and evolution of the Table Rock Complex, Oregon (USA): from a Surtseyan to an energetic maar eruption Journal of Volcanology and Geothermal Research. 180: 203-224. http://dx.doi.org/10.1016

Brand, B.D., Semken, S., Clarke, A.B. (2008). Eruptive Conditions and Depositional Processes of Narbona Pass Maar Volcano, Navajo Volcanic Field, Navajo Nation, New Mexico (USA). Bulletin of Volcanology 71:49-77, doi 10.1007/s00445-008-0209-y.

Brand, B.D., White, C.M. (2007) Origin and stratigraphy of phreatomagmatic deposits at the Pleistocene Sinker Butte Volcano, Western Snake River Plain, Idaho. Journal of Volcanology and Geothermal Research 160: 319-339.

OTHER PEER-REVIEWED CONTRIBUTIONS

Brand, B., Broz, P., Hargitai, H. (2015). Hydrovolcanic Features. In: Hargitai H, Kereszturi Á, eds, Encyclopedia of Planetary Landforms. Vol 2 (F-O) Springer Science+Business Media LLC New York, ISBN 978-1-4614-3133-6, DOI 10.1007/978-1-4614-3134-3, pp 946-951 [Published with BSU Affiliation]

Brand, B., Broz, P., Hargitai, H. (2015). Tuff Cones. In: Hargitai H, Kereszturi Á, eds, Encyclopedia of Planetary Landforms. Vol 3 (P-Z) Springer Science+Business Media LLC New York, ISBN 978-1-4614-3133-6, DOI 10.1007/978-1-4614-3134-3, pp 2197-2204 [Published with BSU Affiliation]

Brand, B., McMullin-Messier, P., Schlegel, M. (2014). Map Your Hazards! – Assessing Hazards, Vulnerability and Risk. [Published with BSU Affiliation]
http://serc.carleton.edu/integrate/teaching_materials/map_hazards/index.html

Nobes, D. C., Gravley, D. M., **Brand, B.,** Bloomberg, S. H., Garden, T. O., Lindsay, J. M. (2012). Ground Penetrating Radar Imaging of Auckland Volcanic Surge Deposits. Proceedings of the 14th International Conference on Ground Penetrating Radar, III, 659-664.

Brand, B.D. (2004) Field Guide for GSA Rocky Mountain/Cordilleran GSA meeting in Boise, Idaho: Basalt Emergent Volcanoes and Maars, Sinker Butte-Snake River Canyon, Idaho**.** Premeeting, 1 day Field Trip for Rocky Mountain/ Cordilleran sectional GSA meeting in Boise, Idaho.

POPULAR MEDIA CONTRIBUTIONS

Brand, B. (2018). Lava, ash flows, mudslides and nasty gases: Good reasons to respect volcanoes. The Conversation.

Brand, B. (2015). Where Were You When the Mountain Blew? Remembering the Eruption of Mount St Helens. The Conversation.

Brand, B. (2015). Chile's Calbuco Volcano Erupts Without Warning. What Can We Expect Next?. The Conversation.

STUDENT THESES

Pollock, N. M. (2019). Synthesizing Field and Experimental Techniques to Investigate the Enigmatic Processes Occurring at the Base of Pyroclastic Currents. Boise State University (Ph.D.)

Gase, A. (2017) Near-surface geophysical investigations of pyroclastic deposits from the 18 May 1980 eruption of Mount St Helens: Constraints on geophysical properties and implications for erosional self-channelization of pyroclastic density currents. Boise State University (M.S.)

Corwin, K. (2016) Living in Lahar Zones: Assessing Hazard Exposure, Risk Perception, and Preparedness Behaviors in Communities within the Mount Baker and Glacier Peak Volcanic Hazard Zones. Boise State University (M.S.)

Pollock, N. (2013). Field evidence for substrate entrainment by pyroclastic density currents and its effect on downstream dynamics at Mount St Helens, Washington (USA). University of Washington (M.S.)

INVITED CONFERENCE ABSTRACTS AND PRESENTATIONS

Brand, B.D., (2017) Effective education strategies for natural hazard messaging. Oregon Emergency Preparedness Workshop, Bend, OR, 10-15 April.

Brand, B.D., Hollar, S., Nielsen, T., Breidenbach, C., Yatsko, C., Adams, A., Welburn, H. (2017) Student-developed outreach strategies to address natural hazards, vulnerability and risk. Oregon Emergency Preparedness Workshop, Ben, OR, 10-15 April.

Brand, B.D., (2017, June) Assessing the influence of cultural variables, perceptions, and hazard information on household emergency preparedness. Cascade Volcano Observatory. Vancouver, WA.

Brand, B.D., (2016) Promoting Community Resilience to Critical Events using an Active-learning Education Module: Map your Hazards! Oregon Emergency Management Association Keynote Speaker, Gleneden Beach, OR, 3-6 Oct.

Brand, B.D., Dietrich, A., Lindell, M. (2016) Promoting Community Resilience to Critical Events using an Active-learning Education Module: Map your Hazards! Oregon Emergency Preparedness Workshop, Warm Springs, OR, 5-8 April.

Brand, B.D., Pollock, N., Mackaman-Lofland, C., Bendana, S. (2013) Dynamics of pyroclastic density currents: Conditions that promote substrate erosion and self-channelization - Mount St Helens, Washington. **(*Invited)** Abstract: NH33B-3895 presented at the 2014 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.

Brand, B.D., Dufek, J. Mackaman-lofland, C.A., Pollock, N. 2011. Integrating field and numerical techniques to understand the dynamics of pyroclastic density currents: Mount St Helens **(*Invited)** Abstract V54C-03. Presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.

INVITED PRESENTATIONS

Brand, B.D., (2016, November) The erosive nature of pyroclastic density currents – A summary of findings from the 18 May 1980 Mt St Helens (USA) deposits with implications for future work. Society for Mineral Exploration. Boise, ID.

Brand, B. (2015, November). Dynamics of pyroclastic density currents: Conditions that promote substrate erosion and self-channelization — Mount St Helens, Washington (USA). Lecture, Oregon State University. Corvallis, OR.

Brand, B., Pollock, N., & Gase, A. (2015, June). Dynamics of pyroclastic density currents: Conditions that promote substrate erosion and self-channelization — Mount St Helens, Washington (USA). Lecture, Université de Rennes 1. Rennes, France.

Brand, B., Pollock, N., & Gase, A. (2015, June). Dynamics of pyroclastic density currents: Conditions that promote substrate erosion and self-channelization — Mount St Helens, Washington (USA). Lecture, Institut de Physique du Globe de Paris. Paris, France.

Isom, S., & Brand, B. (2015, May). Identifying Distinguishing Characteristics of Secondary Pyroclastic Density Currents. Lecture, Cascade Volcano Observatory. Vancouver, WA.

Brand, B. (2015, May). Pyroclastic Density Currents from the May 18th, 1980 Eruption of Mount St Helens. Lecture, Cascade Volcano Observatory. Vancouver, WA.

Brand, B. (2014, August). Pyroclastic Density Currents from the May 18th, 1980 Eruption of Mt St Helens – The Story Retold. Lecture, presented at The American Quaternary Association: AMQUA, Seattle, Washington.

Brand, B., & Bandfield, J. (2013, July). Martian Volcanology. Lecture. Boise Art Museum.

Brand, B. (2013, May). Pyroclastic Density Currents from the May 18th, 1980 Eruption of Mount St Helens – The Story Retold. Lecture, Northwest Geological Society, presented at Northwest Geological Society 2013 Symposium, Seattle, WA.

Brand, B. (2013, February). Integrating Field and Numerical Techniques to Understand the Dynamics of Pyroclastic Density Currents: Mount St Helens. Seminar, University of Idaho. Moscow, Idaho.

Brand, B. (2012, October). Integrating Field and Numerical Techniques to Understand the Dynamics of Pyroclastic Density Currents: Mount St Helens. Seminar, Istituto Nazionale di Geofisica e Vulcanologia Sicily. Sicily, Italy.

Brand, B. (2012, October). Integrating Field and Numerical Techniques to Understand Volcanic Processes: Mount St Helens. Seminar, Istituto Nazionale di Geofisica e Vulcanologia Roma. Rome, Italy.

Brand, B. (2012, April). Integrating Field and Numerical Techniques to Understand Volcanic Processes: Mount St Helens. Seminar, Central Washington University. Washington.

Brand, B. (2012, March). Integrating Field and Numerical Techniques to Understand Volcanic Processes: Mount St Helens. Seminar, Boise State University. Boise, Idaho.

Brand, B. (2011, November). Integrating Field and Numerical Techniques to Understand Volcanic Processes. Seminar, Western Washington University. Washington.

Brand, B. (2011, July). Integrating Field and Numerical Techniques to Understand Volcanic Processes: Mount St Helens. Seminar, Macquarie University. Sydney, Australia.

Brand, B. (2011, April). Integrating Field and Numerical Techniques to Understand Volcanic Processes: Mount St Helens. Seminar, Lehigh University. Bethlehem, Pennsylvania.

Brand, B. (2011, March). Integrating Field and Numerical Techniques to Understand Volcanic Processes. Seminar, University of Washington. Seattle, Washington.

Brand, B. (2010, September). Integrating Field and Numerical Techniques to Understand Volcanic Processes: Mount St Helens. Seminar, Boise State University. Boise, Idaho.

Brand, B. (2010, April). Integrating Field and Numerical Techniques to Understand Volcanic Processes: Mount St Helens. Lecture, Vancouver Volcanic Studies group. Vancouver, British Columbia.

Brand, B. (2010, April). Volcanoes of the Pacific Northwest. Lecture, Pacific Science Center, presented at Science Cafe, Seattle, Washington.

Brand, B. (2010, March). Integrating Field and Numerical Techniques to Understand Volcanic Processes: Mount St Helens. Seminar, University of Nevada. Reno, Nevada.

SELECTED CONFERENCE ABSTRACTS

Brand, B.D., Pollock, N., Gase, A., Sarocchi, D., Roche, O. (2017) The erosive nature of pyroclastic density currents – A summary of findings from the 18 May 1980 Mt St Helens (USA) deposits. IAVCEI conference, Portland, Oregon, 14-18, Aug. Poster Presentation.

Brand, B.D., Dietrich, A., Lindell, M. (2017) Promoting household preparedness to natural hazards using active-based learning. IAVCEI conference, Portland, Oregon, 14-18, Aug. Oral Presentation.

Brand, B.D., Dietrich, A., Lindell, M. (2016) Promoting Community Resilience to Natural Hazards using Active-based Learning. Cities on Volcanoes conference, Puerto Varas, Chile, 20-25, Nov. Poster Presentation.

Brand, B.D., Pollock, N., Gase, A., Sarocchi, D., Roche, O. (2016) The erosive nature of pyroclastic density currents – A summary of findings from the 18 May 1980 Mt St Helens (USA) deposits with implications for future work. Cities on Volcanoes conference, Puerto Varas, Chile, 20-25, Nov. Poster Presentation.

Brand., B.D., Yu, Pei-Lin, Hubbard, M., Johnston, D. (2015) Promoting Community Resilience to Critical Events through Implementation of a Community-based, Interdisciplinary Education Module. Presented at the Natural Hazards Workshop in Bloomfield, CO, 19 – 22 of July.

Brand, B.D., Bendaña, S., Self., S. (2015) Constraining the role of topography, slope and confined-vs-unconfined flow on pyroclastic density current transport and depositional processes: Mt. St. Helens. Abstract: VS06:14:45. Presented at the 2015 IUGG meeting in Prague, Czech Republic, 22 of June – 2 of July.

Brand, B.D., McMullin-Messier, P., Schlegel, M. (2014) Map Your Hazards! – an Interdisciplinary, Place-Based Educational Approach to Assessing Natural Hazards, Social Vulnerability, Risk and Risk Perception. Presented at the 2013 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.

Clarke, A. B., **Brand, B**., De' Michieli Vitturi, M. (2013). Modeling dilute pyroclastic density currents on Earth and Mars. Paper, presented at American Geophysical Union, San Francisco, CA.

Clarke, A. B., **Brand, B.,** Voight, B. (2013). Modeling dynamics and sedimentation of dilute pyroclastic density currents. Paper, presented at International Association of Volcanology and Chemistry of the Earth's Interior, Japan.

Brand, B.D., Pollock, N., Mackaman-Lofland, C., Bendana, S. (2013) Pyroclastic Density Currents from the May 18th, 1980 Eruption of Mt St Helens (Washington, USA) - Uncovering the influence of surface roughness, substrate erosion and self-channelization. Abstract: 1A1 3G-03 presented at 2013 IAVCEI meeting, Kagoshima, Japan, 20-23 July.

Brand, B.D., Gravley, D., Clarke, A.B., Bloomberg, S.H. 2012. Pyroclastic Density Current Hazards in the Auckland Volcanic Field, New Zealand. Abstract: V52C-08 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.

Brand, B.D., Dufek, J. Mackaman-Lofland, C. (2011) Topographically Influenced Channelization of Pyroclastic Density Currents: Mount St Helens. International Union of Geodesy and Geophysics IAVCEI session V10S4, Abstract 1420. Oral Presentation

Brand, B., Dufek, J., Mackaman-Lofland, C. A., & Pollock, N. (2011). Integrating Field and Numerical Techniques to Understand the Dynamics of Pyroclastic Density Currents: Mount St Helens. Paper, presented at 2011 AGU Fall Meeting, San Francisco, California.

Brand, B.D., Gravley, D., Bloomberg, S., Nemeth, K., Augustin-Flores, J. (2011) Pyroclastic Density Current Hazards in the Auckland Volcanic Field (New Zealand): Maungataketake Volcano. International Union of Geodesy and Geophysics IAVCEI session V14, Abstract 4512

Brand, B.D. and Clarke, A.B. (2010), The dynamics of pyroclastic density currents on Mars, Abstract P11B-1339 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.

Brand, B.D. and Clarke, A.B. (2009) Comparing the dynamics of dilute pyroclastic density currents on Earth and Mars. Geological Society of America Annual Meeting, 2009. Paper number: 276-7. Oral Presentation

Brand, B.D. and Clarke, A.B. (2008) Combining field and numerical techniques to understand the dynamics of dilute density currents. International Association of Volcanology and Chemistry of the Earth's Interior From source to vent; Session 1-m Explosive volcanism Oral Presentation

Brand, B.D. and Clarke, A.B. (2007) Evidence for an Unusually Energetic Basaltic Phreatomagmatic Eruption at the Table Rock Complex in South-central Oregon (USA): Using field evidence to constrain surge flow dynamics AGU 2007: San Francisco, CA: V23E-04 Oral Presentation

SELECTED STUDENT-AUTHOR CONFERENCE ABSTRACTS

Pollock, N., **Brand., B.D.,** Rowley, P., Roche, O., Sarocchi, D., Sulpizio, R. (2017) Using shear-induced, wave-like depositional features to infer flow conditions of pyroclastic density currents at Mount St Helens, Washington, USA. IAVCEI conference, Portland, Oregon, 14-18, Aug. Poster Presentation.

Garcia, G., Brand., B.D., Bandfield, J. (2017) Developing a thermophysical and geomorphologic framework to identify evidence for ancient explosive volcanism on Mars. IAVCEI conference, Portland, Oregon, 14-18, Aug. Poster Presentation.

Marshall, A., **Brand., B.D.** (2017) When good volcanoes go bad – The causes and consequences of mafic explosive volcanism, Llaima volcano, Chile. IAVCEI conference, Portland, Oregon, 14-18, Aug. Poster Presentation.

Garcia, G., **Brand., B.D.,** Bandfield, J. (2017) Developing a thermophysical and geomorphologic framework to identify evidence for ancient explosive volcanism on Mars. 2017 Lunar and Planetary Sciences Conference. The Woodlands, Texas, 20-24 Mar.

Gase, A., **Brand, B.D.,** Bradford, J. (2016) Erosional self-channelization of pyroclastic density currents - Evidence from ground-penetrating radar imaging at Mt. St. Helens, Washington (USA). American Geophysical Union Conference. V14A-08 oral presentation. Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.

Hawkins, T., Sarocchi, D., **Brand, B.D.,** Pollock, N. (2016) Three-Dimensional Grain Shape-Fabric from Unconsolidated Pyroclastic Density Current Deposits: Implications for Extracting Flow Direction and Insights on Rheology. V43E-3186 poster presentation. Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.

Gase, A., Bradford, J. H., **Brand, B.,** Gravley, D., Hampton, S., & Dougherty, A. (2015). GPR investigation of pyroclastic density current deposits at Mount St Helens, Washington. Paper, Society for Exploration Geophysics, presented at the 2nd Near Surface Asia Pacific Conference, Society for Exploration Geophysics, Waikoloa, Hawaii.

Gase, A., Bradford, J., **Brand, B.D.** (2015) Ground penetrating radar and active seismic investigation of stratigraphically verified pyroclastic deposits. Abstract: NS41A-1916. Presented at the 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.

Corwin, K., **Brand, B.D.** (2015) Preparing for Volcanic Hazards: An Examination of Lahar Knowledge, Risk Perception, and Preparedness around Mount Baker and Glacier Peak, WA. Abstract: PA43C-2205. Presented at the 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18

Anderson, J., Johnson, J., Bowman, D., Ronan, T., **Brand, B.D.** (2015) Scoria Fallout Modeling and the 3 March 2015 VEI-2 Eruption of Villarica Volcano, Chile. Abstract V44C-01. Presented at the 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.

Pollock, N., **Brand, B.D.,** (2015) Field evidence for substrate entrainment by pyroclastic density currents and its effect on downstream dynamics at Mount St Helens (USA). Abstract VS06p-384. Presented at the 2015 IUGG meeting in Prague, Czech Republic, 22 of June – 2 of July.

Gase, A., Bradford, J., **Brand, B.D.,** Gravley, D., Dougherty, A., Hampton, S. (2015) GPR imaging of pyroclastic density current deposits at Mount St. Helens, Washington. Abstract VS06p-385. Presented at the 2015 IUGG meeting in Prague, Czech Republic, 22 of June – 2 of July.

Meerscheidt, H.C. (also goes by Mallonee, Helena), **Brand, B.D**., deWet, A, Bleacher, J., Hamilton, C., Samuels, R., (2014) The Influence of Topographic Obstacles on Basaltic Lava Flow Morphologies. Abstract: V13C-4795 Presented at the 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.

Isom, S.,, **Brand, B.D**., (2014) Identifying Distinguishing Characteristics of Secondary Pyroclastic Density Currents. Abstract: V21B-4785 Presented at the 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.

Corwin, K., **Brand., B.D.** (2014) Volcanic Risk Perception and Preparedness in Communities within the Mount Baker and Glacier Peak Lahar Hazard Zones. Abstract: NH33B-3904 Presented at the 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.

Meerscheidt, H.C. (also goes by Mallonee, Helena), **Brand, B.D**., deWet, A, Bleacher, J., Samuels, R., Hamilton, C., Garry, B., Bandfield, J.L. Shatter Complex Formation in the Twin Craters Lava Flow, Zuni-Bandera Field, New Mexico. Abstract : V53C-2806 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.

Pollock, N., **Brand, B.** (2013). Field Evidence for Substrate Entrainment by Pyroclastic Density Currents and its Effect on Downstream Dynamics at Mount St Helens, Washington (USA). Paper, presented at 2013 IAVCEI Meeting, Kagoshima, Japan.

Bendana, S., **Brand, B.,** Self, S., & Dufek, J. (2012). Effects of Slope on the Dynamics of Pyroclastic Density Currents from May 18th, 1980 Mt. St. Helens Eruption. Paper, presented at 2012 AGU Fall Meeting, San Francisco, California.
Pollock, N., **Brand, B.** (2012). Investigation into the Erosive Capacity of Pyroclastic Density Currents at Mount Saint Helens, Washington (USA). Paper, presented at 2012 AGU Fall Meeting, San Francisco, California.

Mackaman-Lofland, C., **Brand, B.,** & Taddeucci, N. (2012). Particle Size-Density Relationships in Pyroclastic Deposits: Using Component Subpopulations to Elucidate Depositional Conditions. Paper, presented at 2012 AGU Fall Meeting, San Francisco, California.

Herr, K., **Brand, B.,** Hamlin, N., Ou, J., Thomas, B., & Tudor, E. (2012). Perception of Natural Hazards and Risk among University of Washington Students. Paper, presented at 2012 AGU Fall Meeting, San Francisco, California.

Dawson, B., **Brand, B.,** & Dufek, J. (2011). Clast Comminution During Pyroclastic Density Current Transport: Mt St Helens. Paper, presented at 2011 AGU Fall Meeting, San Francisco, California.

Mackaman-Lofland, C., **Brand, B.,** & Dufek, J. (2010). A Closer Look at the Pyroclastic Density Current Deposits of the May 18, 1980 Eruption of Mt St Helens. Paper, presented at 2010 AGU Fall Meeting, San Francisco, California.

SUPERVISED GRADUATE STUDENTS

Doctoral Advisor and Committee Chair, "Assessing the influence of cultural variables, perceptions, and earthquake hazard information on household emergency preparedness". August 2017 – August 2021
Advised: MacPherson-Krustky, Carson

Doctoral Advisor and Committee Chair, "When good volcanoes go bad – the causes and consequences of explosive mafic volcanism – Llaima, Chile.". August 2016 - Present
Advised: Marshall, Aaron

Doctoral Advisor and Committee Chair, "Field evidence for substrate entrainment by pyroclastic density currents and its effect on downstream dynamics at Mount St Helens, Washington (USA).". January 2014 - Present
Advised: Pollock, Nicholas

Master's Advisor and Committee Chair, "Developing a thermophysical and geomorphologic framework to identify evidence for ancient explosive volcanism on Mars". August 2015 - Present
Advised: Garcia, Gabriel

Master's Advisor and Committee Chair, "Self-channelization in pyroclastic density currents". August 2014 – May 2017
Advised: Gase, Andrew

Master's Advisor and Committee Chair, "Volcanic hazard and risk perception and preparedness in communities within the Mount Baker and Glacier Peak Lahar Hazard Zones". August 2013 - August 2016
Advised: Corwin, Kimberley

Master's Advisor and Committee Chair, "Field evidence for substrate entrainment by pyroclastic density currents and its effect on downstream dynamics at Mount St Helens, Washington (USA)." June 2011 - December 2013
Advised: Pollock, Nicholas

SUPERVISED UNDERGRADUATE STUDENTS

Supervised Research, " Terrestrial volcanology as an analog for identifying Martian volcanoes". January 2017 – Present
Advised: Schweitzer, Alex

Supervised Research, " Three-Dimensional Grain Shape-Fabric from Unconsolidated Pyroclastic Density Current Deposits: Implications for Extracting Flow Direction and Insights on Rheology ". May 2017 – Present
Advised: Zrelak, Patrick

Supervised Research, " Three-Dimensional Grain Shape-Fabric from Unconsolidated Pyroclastic Density Current Deposits: Implications for Extracting Flow Direction and Insights on Rheology ". January 2016 – December 2016
Advised: Hawkins, Trevor

Supervised Research, "Identifying Distinguishing Characteristics of Secondary PDCs – Mt St Helens, Washington.". October 2013 - May 2015
Advised: Isom, Shelby

Supervised Research, "The influence of topographic obstacles on basaltic lava flow morphologies". April 2013 - May 2015
Advised: Mallonee, Helena

Supervised Research, "New insights into the proximal bedded pyroclastic density current deposits at Mt St Helens". 2011 - 2013
Advised: Bendana, Sylvana (University of Washington)

Supervised Research, "Sequential fragmentation theory to understand emplacement dynamics of pyroclastic density currents – Mt St Helens". May 2009 - July 2013
Advised: Mackaman-Lofland, Chelsea (University of Washington)

Supervised Research, "'Effects of topography on erosional capacity of pyroclastic density currents: A case study from Mt. St. Helens ". 2012 - 2013
Advised: Schwartz, Richard (University of Washington)

Supervised Research, "'Effects of topography on erosional capacity of pyroclastic density currents: A case study from Mt. St. Helens ". 2012 - 2013
Advised: Sharp, Chad (University of Washington)

Supervised Research, "Perception of Volcanic Hazard and Risk in the Pacific Northwest – an Educational Approach". 2011 - June 2013
Advised: Herr, Katherine (University of Washington)

Supervised Research, "Perception of Volcanic Hazard and Risk – Comparing Japan and the Pacific Northwest". 2012 - June 2013
Advised: Ling, Angel (University of Washington)

Supervised Research, "Perception of Volcanic Hazard and Risk in the Pacific Northwest – an Educational Approach". 2012 - June 2013
Advised: Ou, Jeffrey (University of Washington)

Supervised Research, "Pumice abrasion and the production of fine ash during transport in pyroclastic density currents, Mt St Helens, WA". 2011 - June 2012
Advised: Dawson, Blaine (University of Washington)

Supervised Research, "Pyroclastic density currents dynamics – deposit study at Mt St Helens, WA". 2011 - June 2012
Advised: Wichgers, Pamela (University of Washington)

Supervised Research, "Perception of Volcanic Hazard and Risk in the Pacific Northwest – an Educational Approach". January 2012 – December 2012
Advised: Tudor, Erin (University of Washington)

Supervised Research, "Perception of Volcanic Hazard and Risk in the Pacific Northwest – an Educational Approach". January 2012 – June 2012
Advised: Thomas, Brian (University of Washington)

Supervised Research, "Perception of Volcanic Hazard and Risk in the Pacific Northwest – an Educational Approach". January 2012 – June 2012
Advised: Hamlin, Nicole (University of Washington)

Supervised Research, "Perception of Volcanic Hazard and Risk in the Pacific Northwest – an Educational Approach". 2010 –2011
Advised: Hansan, Zurriya (University of Washington)

Supervised Research, "Perception of Volcanic Hazard and Risk in the Pacific Northwest – an Educational Approach". March – June 2011
Advised: Tan, Phillip (University of Washington)

Supervised Research, " Visiting Scholar from Aberdeen College, Scotland, Perception of volcanic hazards and risk among Mt Rainier National Park tourists ". Summer 2010
Advised: Donaldson, Rosemary (University of Washington)

OTHER DIRECTED LEARNING – GRADUATE STUDENT COMMITTEES

- PhD - Geoscience thesis committee of Sylvana Bendaña (August 2017 – present).
- M.S. - Geophysics thesis committee of Matthew VonLintig (December 2016 – present).
- M.S. – Geoscience thesis committee of Katie Gibble (November 2015 – May 2017).
- M.S. - Geophysics thesis committee of Hugo Ortiz (November 2015 – December 2016).
- M.S. - Geoscience thesis committee of Amanda Laib. (August 2013 – December 2016).
- M.S. - Geophysics thesis committee of Alex Miller. (September 2015 – May 2016).
- PhD - Geoscience thesis committee of Darin Schwartz. (October 2015 - Present).
- PhD - Geophysics thesis committee of Jake Anderson. (August 2013 - Present).
- M.S. - Geophysics thesis committee of Brian Terbush. (January 2013 - December 2014).
- M.S. - Geophysics thesis committee of Philippa Demonte. (January 2013 - August 2014).

FUNDED GRANT PROPOSALS

OSP-sponsored grants submitted from 2009 – Present

Proposal Title	Agency	Submission Date	Status	AY Time	Amount
Exploring the Magmatic, Crustal, and Conduit Conditions Required for Mafic, Plinian Volcanism	NSF Petrology and Geochemistry	2/18	Awarded	10% PI	$548,467
Assessing the influence of cultural variables, perceptions, and earthquake hazard information on household emergency preparedness.	NSF CMMI – Infrast Mgmt & Extreme Events	9/17	Awarded	10% PI	$536,202
When 'good' volcanoes go bad – The causes and consequences of basaltic explosive volcanism	National Geographic Society	1/15	Awarded	N/A PI	$19,711
Mobility of Pyroclastic Density Currents: Integrating Field and Experimental Techniques to Understand the Controls and Consequences of Erosion	NSF Petrology and Geochemistry	1/14	Awarded	10% PI	$262,068
The Dynamics of Explosive Phreatomagmatic Events on Mars: The Role of Atmospheric Pressure in Determining Eruptive Style and Deposit Architecture	NASA Mars Fundamental Research Program	7/11	Awarded	Collabo-rator	$63,000
Collaborative Research: A Closer Look at the May 18th, 1980 Pumice Plain Deposits: Implications for Assessing Eruptive Conditions and Pyroclastic Density Current Dynamics	NSF Petrology and Geochemistry	7/09	Awarded	50% PI	$241,326
					AWARDED: $1,670,774 **AWARDED TO BSU: $1,366,448**

Non-OSP sponsored Grants submitted through Boise State University 2013 – Present

Proposal Title	Agency	Proposal Date	Status	Amount
Seed funds for research pilot	Promoting Community Resilience to Critical Events Through Implementation of a Community-based, Interdisciplinary Education Module	9/2014	Awarded	$14,291
Map your Hazards! – Combining Natural Hazards with Societal Issues	InTeGrate is funded by a 5-year STEP Center grant from the National Science Foundation. They funded our module development.	2/2013	Awarded	$15,000
				AWARDED: $29,291

EDITORIAL AND REVIEW ACTIVITIES

BOOK REVIEW

- **Academic Press** - Encyclopedia of Volcanoes, Number of Items Reviewed: 1, (November 2014 - Present)
- **Pearson**, Number of Items Reviewed: 1, (November 2013 - Present)

JOURNAL REVIEW

- **Earth and Planetary Sciences**, Number of Items Reviewed: 1, (January 2014 - Present)
- **Frontiers**, (January 2014 - Present)
- **Journal of Volcanology and Geothermal Research**, Number of Items Reviewed: 2, (January 2014 - Present)
- **G-Cubed**, Number of Items Reviewed: 1, (December 2013 - Present)
- **Bulletin of Volcanology**, Number of Items Reviewed: 5, (March 2013 - December 2013)

GRANT REVIEW

- **National Science Foundation – Petrology and Geochemistry**, Number of Items Reviewed: 5, (January 2014 - Present)

REVIEW PANEL

- **National Science Foundation – Petrology and Geochemistry**, Review Panel (April 2017)

CONSULTING EXPERIENCE

- Consultant for National Geographic Society story on Mud Volcanoes in Sicily, via email (March, 2017)

- Consultant, BBC iWonder Documentary Program, via email. (December 2015 - January 2016).

PROFESSIONAL DEVELOPMENT

- Faculty Training, "Spanish –Grammar Review," Boise State University, Boise, Idaho. (August 2016 - November 2016).
- Center for Teaching and Learning, "Boise State Teaching Scholars program," Center for Teaching and Learning at Boise State University, Boise, Idaho. (August 2014 - May 2015).
- Faculty Training, "Spanish 201," Boise State University, Boise, Idaho. (August 2014 - December 2014).
- Interdisciplinary mentor program, "Faculty Connections Interdisciplinary mentor program," Boise State University, Boise, Idaho. (September 18, 2013 - May 2014).
- Center for Teaching and Learning, "Great Ideas for T & L - Special Workshop: Helping Students use Reflection to Make Connections and Generate Deeper Learning," Center for Teaching and Learning - BSU, Boise, Idaho. (January 14, 2014).
- Center for Teaching and Learning, "Great Ideas for T & L - Special Workshop: Opening Plenary Session," Center for Teaching and Learning - BSU, Boise, Idaho. (January 14, 2014).
- Center for Teaching and Learning, "reat Ideas for T & L - Special Workshop: Mastering the Interactive, Critical Thinking Lecture," Center for Teaching and Learning - BSU, Boise, Idaho. (January 14, 2014).
- Tutorial, "Blackboard basics – getting started," Center for Teaching and Learning - BSU, Boise, Idaho. (January 13, 2014).
- Faculty Training, "Spanish 102," Boise State University, Boise, Idaho. (January 2013 - May 2013).
- Workshop, "NSF Science: Becoming The Messenger," National Science Foundation, Boise, Idaho. (May 29, 2013).
- Workshop, "Serc Carleton Integrate workshop for module and course development," NAGT/Science Education Resource Center (SERC) Carleton College, Northfield, MN. (May 19, 2013 - May 22, 2013).
- Workshop, "Proposal writing workshop supported by the Resources to Transform Undergraduate Geoscience Education (RTUGeoEd) project," University of South Florida - RTUGeoEd supported project, Tampa, Florida. (March 14, 2013 - March 17, 2013).
- Faculty Training, "Faculty Connections – Good Advice About Tenure and Promotion," Boise State University, Boise, Idaho. (February 11, 2013).

UNIVERSITY-COLLEGE-DEPARTMENT SERVICE/HONORS

UNIVERSITY COMMITTEES

- Boise State University Latin Dance Club faculty advisor (Dec. 2016 – Present).
- Department of Geosciences Undergraduate Program Committee. (2017 – 2018).
- Department of Geosciences Graduate Program Committee. (2018 – Present)
- Committee Member, Fulbright Scholar Committee member – responsible for reviewing and interviewing Fulbright candidates each year. (September 24, 2014 - Present).
- Panel Member, Boise State University Science Day Competition. (September 2013 - September 2014).

OTHER

- Director for the Boise State Hazard and Climate Resiliency Consortium (August 2017 – Present)
- Presenter, Boise State University Center for Teaching and Learning workshop on Communication in the Discipline courses. (October 2016)
- Presenter, Campaign for Boise State University to be accepted into the Rocky Mountain Cooperative Ecosystems Studies Unit (CESU). (August 2015 - November 2015).
- Guest Speaker, Center for Teaching and Learning - Active Learning at Lunch Series. (October 16, 2015).
- Organizer of the BSU STEM day activities for the volcanology group, BSU STEM day activities - volcanology group. (February 7, 2015).
- Guest Speaker, Boise State University Honors College interdisciplinary lunch series. (April 18, 2014).

COMMUNITY SERVICE/HONORS

OUTREACH

- NSF Women in STEM Panel Member (December 2019)
- Presenter, Thinks and Drinks, Boise, Idaho (September 2018)
- Presenter, Highlands Elementary School. (October 2016)
- Presenter, BSU Science and Engineering Day. (February 2016 - Present)
- Field Trip Leader, Idaho Museum of Mining and Geology (one day-long field trip per year). (September 2015 - Present)
- Field trip organizer and leader, Geogirls! (August 2015 - Present)
- Volunteer, Mount St Helens Institute. (July 2010 - Present)
- Presenter, Children's School. (December 2015)
- Presenter, Garfield Elementary School Demonstration. (April 2015)
- Guest Speaker, Discovery Center - Science Cafe. (March 18, 2014)
- Guest Speaker, Boise Art Museum (BAM), Boise, Idaho. (August 2013 - December 2013)
- Presenter, The Catholic Home Educators of the Treasure Valley, Boise, Idaho. (October 9, 2013 - November 28, 2013)
- Guest Speaker, Local Home School group - Lego League competition, Boise, Idaho. (September 25, 2013 - November 28, 2013)

DOCUMENTARIES

- National Geographic (2019-2020) – *X-Ray Earth* science consultant and participant
- Science Channel (2018 – 2019) – *What on Earth Season 5* science consultant and participant
- Science Channel (2017 – 2018) – *What on Earth Season 4* science consultant and participant
- Science Channel (2016 – 2017) – *What on Earth Season 3* science consultant and participant http://www.sciencechannel.com/tv-shows/what-on-earth/
- Science Channel (2015 – 2016) – *What on Earth Season 2* science consultant and participant http://www.sciencechannel.com/tv-shows/what-on-earth/
- Science Channel (2015 – 2016) – *NASA Unsolved Mysteries* science consultant and participant http://www.sciencechannel.com/tv-shows/nasas-unexplained-files/nasas-unexplained-files-videos/
- Idaho Public Television (2015 – 2016) – *Volcano Science* consultant and participant http://idahoptv.org/sciencetrek/topics/volcanoes/
- Science Channel (2014 – 2015) – *What on Earth Season 1* science consultant and participant http://www.sciencechannel.com/tv-shows/what-on-earth/

DOCUMENTARIES continued

- Discovery Channel (2013 – 2014) – *Science in Extreme Situations* science consultant and participant
- British Broadcasting Corporation (BBC; 2013) - *Pompeii* science consultant and participant http://www.bbc.co.uk/programmes/p0170c57 (clip)
- Discovery Channel (2013) – *Pompeii* science consultant and participant
- National Geographic (2011) - *How To Build a Volcano* science consultant and participant http://www.nationalgeographic.com.au/tv/how-to-build-a-volcano/
- History Channel (2010) – *How the Earth Was Made – Mount St Helens (WA)* science consultant and participant https://www.youtube.com/watch?v=c4HOADoVwUk

PROFESSIONAL SERVICE

- Field Trip Leader for 2017 IAVCEI Professional Field Trip to Mt St Helens
  Brand, B.D et al. (2017) Geological Survey Scientific Investigations Report 2017–5022–C, 34 p., https://doi.org/10.3133/sir20175022C
- Guest Speaker, FEMA-Sponsored Volcanoes Crisis Course. (October 2013).Committee Member,
- Geohazards Field Station - Buffalo, NY, Buffalo, New York. (September 2011 - Present).
- University of Washington Earth and Space Sciences Faculty Excellence in Teaching Award (2012)
- Program Coordinator, Pacific Northwest Volcanology Group, Mt. St. Helens. (August 2011 - Present).
- Attendee, Meeting, Large-scale experimental Facility Workshop, Buffalo, New York. (2010).
- Attendee, Meeting, Volcano Exploration Project: Pu`u `O`o (VEPP). (July 2010).

AWARDS AND HONORS

- Oregon Emergency Management Association Keynote Speaker, Gleneden Beach, OR (October, 2016)
- COAS travel award (2015)
- University of Cincinnati Clermont College, Ohio, Keynote Commencement Speaker, University of Cincinnati Clermont College. (April 2013).
- University of Washington Earth and Space Silences Annual Teaching Award (2012)

COLLABORATORS

Collaborator	Institution and Department
Dr. Ben Andrews	Smithsonian Institution
Dr. Joshua Bandfield	Space Science Institute
Dr. Roberto Bartali	Geology Institute at Universidad Autonóma de San Luis Potosi, Mexico
Dr. Jake Bleacher	NASA Goddard
Dr. John Bradford	Boise State University – Geophysics
Dr. Peter Broz	Academy of Sciences, Czech Republic
Dr. Amanda Clarke	Arizona State University
Dr. Michael Clynne	United States Geologic Survey Menlo Park
Dr. Andrew Dewet	Franklin and Marshall College
Dr. Alexa Dietrich	Wagner College – Anthropology
Mrs. Carolyn Driedger	Cascade Volcano Observatory
Dr. Josef Dufek	Georgia Institute of Technology
Dr. Arvin Farin	Boise State University – Civil Engineering
Dr. Francisco Gutierrez Ferrer	Universidad de Chile
Cynthia Gardner	Cascade Volcano Observatory
Dr. Guido Giordano	Università Degli Studi Roma Tre Rome, Italy
Dr. Darren Gravley	University of Canterbury
Dr. Christopher Hamilton	University of Arizona
Dr. Henrik Hargati	NASA Goddard
Dr. Jairo Hernandez	Boise State University – Civil Engineering
Dr. Monica Hubbard	Boise State University – Public Policy
Dr. Jeffrey Johnson	Boise State University – Geophysics
Dr. David Johnston	GNS Science, New Zealand
Dr. Michael Lindell	University of Washington
Dr. Jan Lindsay	University of Auckland
Dr. Michael Manga	University of California, Berkeley
Dr. Anne Mangeney	Institut de Physique du Globe de Paris – Geophysics
Dr. Hans-Peter Marshall	Boise State University – Geophysics
Dr. Larry Mastin	Cascade Volcano Observatory
Dr. Pamela McMullen-Messier	Central Washington University
Dr. Mattia de' Michieli Vitturi	Istituto Nazionale di Geofisica e Vulcanologia, Pisa, Italy
Dr. David Montgomery	University of Washington
Dr. Karoly Nemeth	Massey University

Dr. Yarko Niño	Universidad de Chile
Dr. Jose Luis Palma	Universidad de Concepción, Chile
Dr. Olivier Roche	Laboratoire Magmas et Volcans, Clermant-Ferrand, France
Dr. Damiano Sarocchi	Geology Institute at Universidad Autonóma de San Luis Potosi, Mexico
Dr. Melissa Schlegel	College of Western Idaho
Dr. Stephen Self	The Open University
Dr. Roberto Sulpizio	Università degli Studi di Bari Aldo Moro, Bari, Italy
Dr. Jacopo Taddeuchi	Istituto Nazionale di Geofisica e Vulcanologia, Italy
Dr. Greg Valentine	University at Buffalo
Dr. Ken Wohletz	Los Alamos National Laboratory, New Mexico
Dr. Pei-Lin Yu	Boise State University – Anthropology