
Alexander Michael Morgan

Department of Environmental Sciences

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EDUCATION

- 2011- Ph.D. with advisor Prof. Alan Howard. Department of Environmental Sciences, University of Virginia; Charlottesville, VA
- 2006-2010 B.S. with advisor Prof. Erik Asphaug. Department of Earth and Planetary Sciences, University of California, Santa Cruz; Santa Cruz, CA

PROFESSIONAL EXPERIENCE

- 2011- Research and Teaching Assistant, University of Virginia, Charlottesville, VA 22904
- 2010-2011 Research Associate, SETI Institute, Mountain View, CA 94043
- 2007-2010 Technician, Santa Cruz Seaside Company, Santa Cruz, CA 95060

COMPETITIVE FUNDING AND ACADEMIC AWARDS

- Department of Environmental Sciences, University of Virginia Chair's Award, \$500, 2015
- Smithsonian Institution Predoctoral Fellowship, \$36,700, 2015
- University of Virginia Raven Honor Society, 2015
- Geologic Society of America Graduate Student Research Grant, \$1176, 2015
- Seed Award, National Center for Airborne Laser Mapping: "Investigating Triggers for Channel Avulsion on Alluvial Fans", 2/2015
- Exploratory Research Award, Dept. of Environmental Sciences, Univ. of Virginia: "Investigating Flow Processes and Sedimentology in the Death Valley Region", \$1500, 2014
- Arthur A. Pegau Award (outstanding geoscience student), Dept. of Environmental Sciences, Univ. of Virginia, \$500, 2013
- NASA Graduate Student Researchers Program Fellow, \$30,000, 2012-2013
- UC Santa Cruz CODEP Travel Award, \$500, 2010

LEADERSHIP ACTIVITIES

- Graduate Student Representative to AGU Planetary Science Focus Group, 2015-present
- Graduate School of Arts and Sciences Representative to Univ. of Virginia Honor Committee, 2014-2015
- Organized the first annual Univ. of Virginia Space Sciences Symposium (collaboration of five departments at UVA and the National Radio Astronomy Observatory), 2013
- Graduate Student Association Executive Committee, Dept. of Environmental Sciences, Univ. of Virginia, 2012-2013

TEACHING AND MENTORING

Courses taught:

Fundamentals of Geology Laboratory

Planetary Geology/Astronomy Laboratory

Fall '11, Spring '12, Fall '13, Fall '14

Spring '13, Spring '14, Spring '15

PROFESSIONAL SOCIETIES

American Geophysical Union (Planetary Science Focus Group Graduate Student Representative)
Sigma Xi
Geological Society of America
Community Surface Dynamics Modeling System
Association of Environmental and Engineering Geologists
American Association of Petroleum Geologists

FIELD EXPERIENCE

Death Valley, California: Flow processes geomorphic history of alluvial fans
Ka'ū Desert, Hawai'i: Aeolian transport of basaltic sediment
Atacama Desert, Chile: Flow processes on Mars-analogue alluvial fans
Black Rock Desert, Nevada: Meandering channels in a non-vegetated area
San Benito, California: Geologic mapping of the New Idria Mines region

PEER-REVIEWED PUBLICATIONS

4. Matsubara, Y., Howard, A. D., **Morgan, A. M.** (*in prep*). Fluvial sedimentology of the Quinn River, Nevada.
3. Moore, J. M., Howard, A. D., **Morgan, A. M.** (2014). The Landscape of Titan as Witness to its Climate Evolution. *Journal of Geophysical Research-Planets* 119, 2060-2077, doi:10.1002/2014JE004608
2. **Morgan, A. M.**, Howard, A. D., Hopley, D. E. J., Moore, J. M., Dietrich, W. E., Williams, R. M. E., Burr, D. M., Grant, J. A., Wilson, S. A., Matsubara, Y. (2014). Sedimentology and climatic environment of alluvial fans in the martian Saheki crater and a comparison with terrestrial fans in the Atacama Desert. *Icarus* 229, 131-156, doi:10.1016/j.icarus.2013.11.007
1. Durda, D., Movshovitz, N., Richardson, D., Asphaug, E., **Morgan, A.**, Rawlings, A.R., Vest, C. (2009). Experimental determination of the coefficient of restitution for meterscale granite spheres. *Icarus* 211, 849-855. doi:10.1016/j.icarus.2010.09.003

SELECTED CONFERENCE ABSTRACTS

Morgan, A.M., Howard, A. D., Moore, J. M., Beyer, R.A. Simulating Fine grained Alluvial Fan Sedimentation on Mars. Abstract P51D-1756, AGU Fall Meeting, San Francisco, CA. Dec. 9-13, 2013

Morgan, A. M., Howard, A. D., Hopley, D. E. J., Matsubara, Y., Moore, J. M., Parsons, R. A., Dietrich, R. M. E., Burr, W. D. Williams, D. M., Hayes, A. G. The alluvial fans of northern Chile as a terrestrial analog of the fan systems on Mars. Abstract#1986, 8th IAG International Conference on Geomorphology, Paris, France. August 27-31, 2013

Morgan, A.M., Howard, A.D., Moore, J.M., Hopley, D. E. J., Beyer, R.A. Episode(s) of intense alluvial deposition during an era of drought on Mars: Evidence from fans at Saheki (and Gale?). Abstract P11B-1830, AGU Fall Meeting, San Francisco, CA, Dec. 37, 2012

REFERENCES

Prof. Alan Howard (Graduate advisor)

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