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EDUCATION **Ph.D.**, 1989, Geology, University of Cincinnati. Primary emphasis: geomechanics. Secondary emphasis: engineering geology and hydrogeology. Advisor: Arvid M. Johnson.

M.S., 1985, Geology, University of Cincinnati. Primary emphasis: structural geology.

B.S. cum laude, 1982, Geology, Bowling Green State University.

EMPLOYMENT **William C. Haneberg, LLC, Albuquerque, New Mexico**

Consulting geologist and advisor specializing in geohazard and risk assessment, climate impacts, and use of geoscience information to support policy decisions, 7/23 – present.

University of Kentucky, Lexington, Kentucky

State geologist and director, Kentucky Geological Survey and research professor, Earth and Environmental Sciences, 9/16 – 6/23. Faculty affiliate, Appalachian Studies Program, 3/22 – present.

Fugro Marine GeoServices (formerly Fugro GeoConsulting), Houston, Texas

Senior consultant and quantitative geohazards team leader, 1/15 – 8/16. Previously consultant and quantitative geohazards team leader, 10/11 -12/14.

Haneberg Geoscience, Seattle, Washington and Cincinnati, Ohio

Consulting engineering geologist specializing in geohazard assessment, digital terrain modeling, and computational geology, 7/99 – 10/11.

New Mexico Institute of Mining and Technology, Socorro and Albuquerque, New Mexico

Senior engineering geologist and assistant director, New Mexico Bureau of Mines and Mineral Resources. Albuquerque satellite office manager. Previously engineering geologist and assistant director, and engineering geologist, 1/89 – 6/99. NMIMT tenure granted 1992.

Department of Geology, University of Cincinnati, Cincinnati, Ohio

Graduate assistant, Department of Geology, 9/82 - 5/85 and 9/86 - 5/88.

Hydrogeologist, Groundwater Research Center, 6/87 - 8/87.

Manitou Exploration Company, Granville, Ohio

Petroleum geologist, 6/85 - 7/86.

Bowling Green State University, Bowling Green, Ohio

Graduate teaching assistant, Department of Geology (summer field camp), 6/82 - 8/82.

Undergraduate research assistant, Department of Geology, 1/82 - 5/82.

William C. Haneberg

Albuquerque, New Mexico

ADJUNCT FACULTY APPOINTMENTS	<p>Adjunct Professor, University of Kentucky, College of Arts and Sciences (Earth and Environmental Sciences) and College of Nursing, 8/23 – present.</p> <p>Adjunct Professor, University of Cincinnati, Department of Geology, 9/09 – 10/11.</p> <p>Adjunct Associate Professor, Department of Geology, Portland State University, 9/00 – 12/00</p> <p>Faculty Adjunct, New Mexico Institute of Mining & Technology, Department of Earth & Environmental Sciences and Department of Mineral & Environmental Engineering, 1/90 – 9/05.</p>
LICENSES AND CERTIFICATION	<p>Professional Geoscientist, Texas, #11398</p> <p>Professional Geologist, Kentucky, #171390</p> <p>Professional Geologist, Wisconsin, #356</p> <p>Licensed Geologist, Engineering Geologist, and Hydrogeologist, Washington, #501</p> <p>Certified Professional Geologist, American Institute of Professional Geologists, #10311</p>
PROFESSIONAL AFFILIATIONS	<p>Fellow, Geological Society of America</p> <p>Member, American Geophysical Union</p>
PATENT	<p>Automated Mapping of Features of Interest. United States patent application 17/271,138 filed 24 February 2021 (co-inventor with Christine Devine)</p>
LITIGATION SUPPORT	<p>Terbush v United States, United States Court for the Eastern District of California, Case No. 1:02-CV-05509-SMS. Deposed as expert for the plaintiffs regarding use of airborne LiDAR data to map rock discontinuities related to groundwater flow and a fatal rock-fall in Yosemite National Park. 2009.</p> <p>Angeles et al v McKesson et al, United States Court for the Central District of California, Case No. 2:01-CV-10532. Deposed as expert for the plaintiffs regarding effect of surface loading from large rubble piles on shallow aquifer system compaction, groundwater flow, and contaminant transport. 2007.</p> <p>Skow v State et al, Iowa Courts Case No. 08562 LALA004727. Deposed as expert for the plaintiffs regarding effects of highway embankment construction on earth movement and damage to an adjacent home. 2004.</p> <p>Water Rights Hearing, New Mexico Office of State Engineer, SP 03919. Testified under oath as expert for the applicant (US Forest Service) regarding leach field effluent travel time calculations as pertinent to water rights return flow credit. 1994.</p>
HONORS AND AWARDS	<p>Invited Speaker, Pardee Keynote Symposium, Looking to the Future of Environmental and Engineering Geology: EEGD 75th Anniversary, Geological Society of America Annual Meeting, 9-12 October 2022.</p> <p>Invited Speaker, Binghamton Geomorphology Symposium: Geomorphology in the Anthropocene, 15-17 October 2021 (remote presentation).</p>

Invited Keynote Speaker, XIII Congress, International Association for Engineering Geology and the Environment, San Francisco, 17-21 September 2018.

Invited Keynote Speaker, 7th Technical Conference in Eastern Asia on Geo-Natural Disasters, Chengdu, China, 12-14 May 2018.

Invited Keynote Speaker, 3rd North American Symposium on Landslides, Roanoke, Virginia, 4-8 June 2017.

Outstanding Reviewer, *Environmental & Engineering Geoscience*, 2013.

Richard H. Jahns Distinguished Lecturer, Association of Environmental & Engineering Geologists and Geological Society of America, 2011.

Samuel Mayfield Distinguished Lecturer, Bowling Green State University, Department of Geology, 2010.

Claire P. Holdredge Award, Association of Environmental & Engineering Geologists, for *Computational Geosciences with Mathematica* as a publication judged to be an outstanding contribution to the advancement of the profession, 2006.

Meritorious Service Award, Geological Society of America, Engineering Geology Division, 2006.

Visiting Scholar, Western Michigan University, Department of Geosciences, 2006.

Presidential Citations, Association of Environmental & Engineering Geologists, 2004, 2006-2010, 2021.

Editor's Citation for Excellence in Scientific Refereeing, American Geophysical Union, 2002.

Certificate of Distinction from the New Mexico State Engineer for contributions made as a member of the Costilla Dam Independent Review Team resulting in the State's recovery of nearly \$5 million in cost overruns associated with the reactivation of a dormant landslide, 1994.

Outstanding Teaching Assistant, Department of Geology, University of Cincinnati, 1985.

**PROFESSIONAL
SERVICE**

**BOARDS AND
COMMITTEES**

AEG Foundation, Board of Directors, member, 2023-present.

National Geospatial Advisory Committee, US Department of the Interior, member, 2020-2023.

Quarterly Journal of Engineering Geology and Hydrogeology, editorial board member, 2018-present.

Kentucky Geographic Information Advisory Council, ex officio member, 2018-2023.

University of Kentucky, Kentucky Water Resources Research Institute, ex officio advisory board member, 2017-2023.

University of Kentucky, Center for Applied Energy Research, ex officio advisory board member, 2016-2023.

Kentucky Board of Registration for Professional Geologists, ex officio member, 2016-2023.

Society for Underwater Technology, Houston Offshore Site Investigation & Geotechnics Committee, 2015-2016.

Environmental & Engineering Geoscience, Editorial Policy Board. Chair, 2007-2010. Member, 2001-2007. Joint AEG-GSA appointee, 2008-2010. GSA appointee, 2001-2007. Associate Editor, 1995-2001.

The Hillside Trust, Cincinnati, Ohio, Trustee, 2010-2011.

Geological Society of America, Engineering Geology Division, Chair, 2003-04. Previously vice-chair (2002-03), secretary (2001-02), and management board member-at-large (2000-01).

Association of Environmental & Engineering Geologists, Digital and Electronic Technology in Geology Technical Working Group, Chair, 2007-2011.

Geological Society of America. Professional Development Committee, Chair, 2004-2006. Committee member, 2003-2004.

Geological Society of America, Engineering Geology Division, Annual Meeting Joint Technical Program Committee Representative, 2002 and 2003.

International Association for Engineering Geology, Member, Commission No. 1 (Engineering Geologic Visualization and Characterization), 2007-present.

Geological Society of America, *Ad Hoc* Committee on Divisions. Member, 2006.

Association of Engineering Geologists, Shlemon Conference Operational Committee, 2004.

New Mexico State Engineer, Mid-Rio Grande Technical Advisory Committee, 1995-1999.

New Mexico Interstate Stream Commission, Regional Water Planning Work Group, 1996.

New Mexico Institute of Mining & Technology, Institute Senate Research Committee, 1992-1994.

Geological Society of America, External Awards Committee, Member, 1998.

Geological Society of America, Engineering Geology Division, E.B. Burwell, Jr. Award Panel, 1990-1992.

Western States Seismic Policy Council, State delegate from New Mexico, alternate years 1992-1998.

U.S. Forest Service, National Advanced Resource Technology Center Faculty, April 1995.

New Mexico Institute of Mining & Technology, Institute Senate, Vice-chair, 1994-1995.

City of Cincinnati, Infrastructure Commission. Member, 1987.

PROFESSIONAL SERVICE **Climate & Health**. 2022 Spring Conference, Center for Clinical and Translational Science, University of Kentucky. (co-chair with E. Haynes).

CONFERENCES AND SESSIONS ORGANIZED OR CHAIRED **From Global to Local—Why Geology Matters for Human Health**. 2018 GSA Annual Meeting (with B. Overfield, A. Wolfe, S. Datta, and R.B. Finkleman).

Origin, Transport, and Fate of Geogenic Carcinogens. 2017 AGU Fall Meeting (with B. Overfield, G. Plumlee, and E. Hahn).

Advances in Quantitative Geohazard and Georisk Assessment. 2015 Offshore Technology Conference (with Z. Medina-Cetina).

Advances in Submarine Slope Stability. 2013 Offshore Technology Conference.

Working with Uncertainty and Complexity in Modern Engineering Geology. 2013 AEG Annual Meeting (with J. Keaton).

Mass Wasting in Disturbed Watersheds. AEG Shlemon Conference, Durango, Colorado, Spring 2006 (with S. Cannon, J. Coe, and P. Santi).

Fractured Rock Characterization in Applied Geology. Geological Society of America 2006 Annual Meeting.

Earth Fissures. AEG Shlemon Conference, El Paso, Texas, April 2004 (with J.R. Keaton).

GIS, GPS, and Remote Sensing Applications in Geologic Hazard Assessment. Geological Society of America 2004 Annual Meeting (with N. Levine).

Characterizing Complexity in Geomechanics, Engineering Geology, and Hydrogeology. Geological Society of America 2003 Annual Meeting (with E. Medley).

Humans as Geologic Agents. Geological Society of America 2002 Annual Meeting (with J. Ehlen and R. Larson).

Nothing Ventured, Nothing Gained: Geology and Risk Assessment in the 21st Century. Geological Society of America 2001 Annual Meeting (with S. Burns).

Faults and Subsurface Fluid Flow: Fundamentals and Applications to Hydrogeology and Petroleum Geology. Geological Society of America Penrose Conference, Taos, New Mexico, September 1997 (with J.C. Moore, L.B. Goodwin, and P.S. Mozley).

Quantifying Hazardous Natural Processes for Risk Assessment. Association of Engineering Geologists 1996 Annual Meeting (with J.R. Keaton).

Instability of Clay and Shale Hillslopes. Geological Society of America 1992 Annual Meeting (with R.W. Fleming).

**PROFESSIONAL
SERVICE**

MANUSCRIPT
OR PROPOSAL
REVIEWER

Nature, Remote Sensing, Radiation and Environmental Biophysics, GSA Bulletin, Geology, Earth Surface Processes & Landforms, Water Resources Research, Geomorphology, Journal of Geology, Journal of Geophysical Research, Bulletin of the Seismological Society of America, Landslides, Canadian Geotechnical Journal, International Journal of Rock Mechanics and Mining Sciences, Catena, Engineering & Environmental Geoscience, Engineering Geology, Hydrogeology Journal, Journal of Geotechnical Engineering, American Association of Petroleum Geologists Bulletin, Clays and Clay Minerals, Annals of Geophysics, Advances in Water Resources, Computers & Geosciences, Advances in Space Research, Heritage, Kansas Geological Survey, U.S. Geological Survey, Columbia University Press, Oxford University Press, National Science Foundation, U.S. Department of Energy, Wyoming Water Resources Research Institute, Kentucky Water Resources Research Institute, Petroleum Research Fund.

**CONFERENCE
PANEL**

Rhetoric, ethics, and knowledge coproduction: Engaging with discourses of transdisciplinarity (Chair: B. McGreavy; Panelists: N. Stormer, L. Cagle, **W. Haneberg**, K. Walker, P. Hernandez-Trujillo, C. Hinojosa, A. King-Kostelac). Rhetoric Society of America, Baltimore, Maryland, May 2022. <https://rhetoricsociety.confex.com/rhetoricsociety/2022/meetingapp.cgi/Session/1519>.

BOOKS

Haneberg, W.C., 2004, *Computational Geosciences with Mathematica*: Springer, 381 pp.

WRITTEN OR EDITED Ehlen, J., **Haneberg, W.C.**, and Larson, R.L., editors, 2006, *Humans as Geologic Agents*: Geological Society of America Reviews in Engineering Geology, 158 pp.

Haneberg, W.C., Mozley, P.S., Moore, J.C., and Goodwin, L.B., editors, 1999, *Faults and Subsurface Fluid Flow in the Shallow Crust*: American Geophysical Union Geophysical Monograph 113, 220 pp.

Haneberg, W.C. and Anderson, S.A., editors, 1995, *Clay and Shale Slope Instability*: Geological Society of America Reviews in Engineering Geology 10, 160 pp.

PAPERS Johnson, S.E. and **Haneberg, W.C.**, submitted, Machine learning for mapping surficial geology. *Earth Surface Processes and Landforms*.

PEER REVIEWED JOURNALS AND BOOKS Hahn, E.J., **Haneberg, W.C.**, Stanifer, S.R., Rademacher, K., and Rayens, M.K., 2023, Geologic, seasonal, and atmospheric predictors of indoor home radon values. *Environmental Research: Health* 1(2), 025011, <https://doi.org/10.1088/2752-5309/acdcb3>.

Khabiri, S., Crawford, M.M., Koch, H.J., **Haneberg, W.C.**, and Zhu, Y., 2023, An assessment of negative samples and model structures in landslide susceptibility characterization based on Bayesian network models. *Remote Sensing* 15(12: 3200), <https://doi.org/10.3390/rs15123200>

Johnson, S.E., **Haneberg, W.C.**, Bryson, L.S., and Crawford, M.M., 2023, Measuring ground surface elevation changes in a slow-moving colluvial landslide using combinations of regional airborne lidar, UAV lidar, and UAV photogrammetric surveys: *Quarterly Journal of Engineering Geology and Hydrogeology* 56(2), <https://www.doi.org/10.1144/qjegh2022-078>.

Crawford, M.M., Dortch, J.M., Koch, H.J., Zhu, Y., **Haneberg, W.C.**, Wang, Z., and Bryson, L.S., 2022, Landslide risk assessment in eastern Kentucky, USA: developing a regional scale, limited resources approach: *Remote Sensing* 14(24), 6246, <https://doi.org/10.3390/rs14246246>.

Zhu, Y., Dortch, J.M., and **Haneberg, W.C.**, 2022, Non-affine georectification to improve the topographic fidelity of legacy geologic maps: *International Journal of Applied Earth Observation and Geoinformation* 115, 103127, <https://doi.org/10.1016/j.jag.2022.103127>.

Stanifer, S., Hoover, A.G., Rademacher, K., Rayens, M.K., **Haneberg, W.** and Hahn, E.J., 2022. Citizen science approach to home radon testing, environmental health literacy and efficacy. *Citizen Science: Theory and Practice* 7(1): 26, 1:13, <https://doi.org/10.5334/cstp.472>.

Haneberg, W.C., Johnson, S.E., and Gurgun, N., 2021, Response of the Laprak, Nepal, landslide to the 2015 M_w 7.8 Gorkha earthquake: *Natural Hazards* 111, 567–584, <https://doi.org/10.1007/s11069-021-05067-z>.

Zhu, Y., Wang, Z., Carpenter, N.S., Woolery, E.W., and **Haneberg, W.C.**, 2021, Mapping fundamental site periods and corresponding amplifications for the Jackson Purchase region of western Kentucky, central United States: *Bulletin of the Seismological Society of America* 111(4), 1868–1884, <https://doi.org/10.1785/0120200300>.

Zhu, Y., Massey, M.A., Dortch, J.M., **Haneberg, W.C.**, and Curl, D., 2021, An intelligent swath tool to characterize complex topographic features: Theory and application in the Teton Range, Licking River, and Olympus Mons. *Geomorphology* 387, <https://doi.org/10.1016/j.geomorph.2021.107778>.

Crawford, M.M., Dortch, J.M., Koch, H.J., Killen, A.A., Zhu, J., Zhu, Y., Bryson, L.S., and **Haneberg, W.C.**, 2021, Using landslide-inventory mapping for a combined bagged-trees and logistic-regression approach to landslide susceptibility in eastern Kentucky: *Quarterly Journal of Engineering Geology and Hydrogeology* 54(4), <https://doi.org/10.1144/qjegh2020-177>.

Haneberg, W.C., Wiggins, A., Curl, D.C., Greb, S.F., Andrews, W.M., Jr., Rademacher, K., Rayens, M.K., and Hahn, E.J., 2020, A geologically based indoor-radon potential map of Kentucky: *GeoHealth* 4, e2020GH000263, <https://doi.org/10.1029/2020GH000263>.

Chapella H., **Haneberg W.**, Crawford M., Shakoor A., 2019, Landslide inventory and susceptibility models, Prestonsburg 7.5-min quadrangle, Kentucky, USA, in Shakoor A. and Cato K. (eds), *IAEG/AEG Annual Meeting Proceedings*, San Francisco, California, 2018 - Volume 1. Springer, Cham, p. 217-226.

Haneberg, W.C., 2018, Lidar, in P.T. Bobrowsky and B. Marker, editors, *Encyclopedia of Engineering Geology*: Springer Cham, <https://doi.org/10.1007/978-3-319-12127-7>.

Haneberg, W.C., 2017, Emerging trends and technologies in spatially distributed landslide hazard assessment, in J.V. DeGraff and A. Shakoor, editors, *Landslides: Putting Experience, Knowledge and Emerging Technologies into Practice*: AEG Special Publication 27, p. 21-32.

Westgate, Z.J., **Haneberg, W.C.**, and White, D.J., 2016, Modelling spatial variability in as-laid embedment for high pressure and high temperature (HPHT) pipeline design: *Canadian Geotechnical Journal* 53, p. 1853-1865, <https://dx.doi.org/10.1139/cgj-2016-0091>.

Haneberg, W.C., 2016, Incorporating correlated variables into GIS-based probabilistic submarine slope stability analyses, in G. Larmarche et al, editors, *Submarine Mass Movements and Their Consequences*: Springer, Advances in Natural and Technological Hazards Research 41, 529-536, https://doi.org/10.1007/978-3-319-20979-1_53.

Haneberg, W.C., Devine, C.A., Feregrino, D.N.V., and Calderón, M.O., 2015, Optimizing deep-water pipeline routes in areas of geologic complexity—an example from the Gulf of Mexico, in V. Meyer, editor, *Frontiers in Offshore Geotechnics III*: London, Taylor & Francis, p. 963-968 <https://doi.org/10.4043/25785-MS>.

Haneberg, W.C., 2015, Understanding the element of time in probabilistic submarine slope stability analysis, in V. Meyer, editor, *Frontiers in Offshore Geotechnics III*: London, Taylor & Francis, 957-962, <https://doi.org/10.1201/b18442-140>.

Haneberg, W.C., Kelly, J.T., Graves, H.L., and Dan, G., 2015, A GIS based multicriteria decision support approach to deep-water drilling hazard maps: *The Leading Edge* 34(4), 398-404, <https://doi.org/10.1190/tle34040398.1>

Murari, M.K., Owen, L.A., Dortch, J.M., Caffee, M.W., Dietsch, C., Fuchs, M., **Haneberg, W.C.**, Sharma, M.C., and Townsend-Small, A., 2014, Timing and climatic drivers for glaciation across monsoon-influenced regions of the Himalayan-Tibetan orogeny: *Quaternary Science Reviews* 88, 159–182, <https://doi.org/10.1016/j.quascirev.2014.01.013>.

Gurung, N., **Haneberg, W.C.**, Ramana, G.V., and Datta, M., 2011, Engineering geology and stability of the Laprak landslide, Gorkha District, Nepal: *Environmental & Engineering Geoscience* 17(1), 23-38, <https://doi.org/10.2113/gseegeosci.17.1.23>.

Haneberg, W.C., 2009, Improved optimization and visualization of drilling directions for rock mass discontinuity characterization: *Environmental & Engineering Geoscience* 15(2), 107-113, <https://doi.org/10.2113/gseegeosci.15.2.107>.

Haneberg, W.C., Cole, W.F., and Kasali, G., 2009, High-resolution LiDAR-based landslide hazard mapping and modeling, UCSF Parnassus Campus, San Francisco, USA: *Bulletin of Engineering Geology and the Environment* 68, 273-286, <https://doi.org/10.1007/s10064-009-0204-3>.

Adam, B., Dietsch, C., Owen, L.A., Caffee, M.W., Spotila, J.A., and **Haneberg, W.C.**, 2009, Exhumation and incision history of the Lahul Himalaya, northern India, based on (U-Th)/He

thermochronometry and terrestrial cosmogenic nuclide dating techniques: *Geomorphology* 107(3-4), 285-299, <https://doi.org/10.1016/j.geomorph.2008.12.017>.

Dortch, J.M. Owen, L.A., **Haneberg, W.C.**, Caffee, M.W., Dietsch, C., and Kamp, U., 2009, Nature and timing of large landslides in the Himalaya and Transhimalaya of northern India: *Quaternary Science Reviews* 28, 1037-1054, <https://doi.org/10.1016/j.quascirev.2008.05.002>.

Haneberg, W.C., 2009, Simplified analysis of vibration induced rock toppling: *Environmental & Engineering Geoscience* 15(1), 41-45, <https://doi.org/10.2113/gseegeosci.15.1.41>.

Haneberg, W.C., 2008, Using close range terrestrial digital photogrammetry for 3-D rock slope modeling and discontinuity mapping in the United States: *Bulletin of Engineering Geology and the Environment* 67(4), 457-469, <https://doi.org/10.1007/s10064-008-0157-y>.

Haneberg, W.C., 2008, Elevation errors in a LIDAR digital elevation model of West Seattle and their effects on slope stability calculations, in R.L. Baum, J. Godt, and L. Highland, editors, *Landslides and Engineering Geology of the Greater Seattle Area, Washington: Geological Society of America Reviews in Engineering Geology* 20, 55-66, [https://doi.org/10.1130/2008.4020\(03\)](https://doi.org/10.1130/2008.4020(03)).

Haneberg, W.C., 2006, Effects of digital elevation model errors on spatially distributed seismic slope stability calculations: an example from Seattle, Washington: *Environmental & Engineering Geoscience* 12(3), 247-260, <https://doi.org/10.2113/gseegeosci.12.3.247>.

Haneberg, W.C., 2004, Simulation of 3-D block populations to characterize outcrop sampling bias in block-in-matrix rocks (bimrocks): *Felsbau* 22(5), 19-26, <http://bimrocks.com/wp-content/uploads/2010/07/HanebergFelsbau2004.pdf>

Haneberg, W.C., 2004, A rational probabilistic method for spatially distributed landslide hazard assessment: *Environmental & Engineering Geoscience* 10(1), 23-47, <https://doi.org/10.2113/10.1.27>.

Haneberg, W.C., Bauer, P.W., and Chávez, W.X., Jr., 2002, Multilevel geologic hazard assessment mapping in the Rio Grande gorge, northern New Mexico, USA, in P. T. Bobrowsky, editor, *Geoenvironmental Mapping: Method, Theory and Practice*: A.A. Balkema, 75-91.

Haneberg, W.C., 2000, Deterministic and probabilistic approaches to geologic hazard assessment: *Environmental & Engineering Geoscience* 6(3), 209-226, <https://doi.org/10.2113/gseegeosci.6.3.209>.

Heynekamp, M.R., Goodwin, L.B., Mozley, P.S., and **Haneberg, W.C.**, 1999, Controls on fault-zone architecture in poorly lithified sediments, Rio Grande rift, New Mexico: implications for fault zone permeability and fluid flow, in Haneberg, W.C., Mozley, P.S., Moore, J.C., and Goodwin, L.B., editors, *Faults and Subsurface Fluid Flow in the Shallow Crust*: American Geophysical Union Geophysical Monograph 113, 27-50, <https://doi.org/10.1029/GM113p0027>

Whitworth, T.M., **Haneberg, W.C.**, Mozley, P.S., and Goodwin, L.B., 1999, Solute sieving induced calcite precipitation on pulverized quartz sand— experimental results and implications for the membrane behavior of fault gouge, in Haneberg, W.C., Mozley, P.S., Moore, J.C., and Goodwin, L.B., editors, *Faults and Subsurface Fluid Flow in the Shallow Crust*: American Geophysical Union Geophysical Monograph 113, 49-158, <https://doi.org/10.1029/GM113p0149>

Haneberg, W.C., 1999, Effects of valley incision on the subsurface state of stress— theory and application to the Rio Grande valley near Albuquerque, New Mexico: *Environmental & Engineering Geoscience* 5(1), 117-131, <https://doi.org/10.2113/gseegeosci.V.1.117>

- Haneberg, W.C.**, Gomez, P., Gibson, A., and Allred, B., 1998, Preliminary measurements of stress-dependent hydraulic conductivity of Santa Fe Group aquifer system sediments, Albuquerque Basin, New Mexico: *New Mexico Geology* 20(1), 14-20, <https://doi.org/10.58799/NMG-v20n1.14>
- Haneberg, W.C.**, 1995, Steady-state groundwater flow across idealized faults: *Water Resources Research* 31(7), 1815-1820, <https://doi.org/10.1029/95WR01178>
- Haneberg, W.C.**, 1995, Depth-porosity relationships and virgin specific storage estimates for the upper Santa Fe Group aquifer system, central Albuquerque Basin, New Mexico: *New Mexico Geology* 17(4), 62-71, <https://doi.org/10.58799/NMG-v17n4.62>
- Haneberg, W.C.**, 1995, Groundwater flow and the stability of heterogeneous infinite slopes underlain by impervious substrata, in Haneberg, W.C. and Anderson, S.A., editors, *Clay and Shale Slope Instability*: Geological Society of America Reviews in Engineering Geology 10, 63-78, <https://doi.org/10.1130/REG10-p63>
- Haneberg, W.C.** and Friesen, R.L., 1995, Tilts, strains, and ground-water levels near an earth fissure in the Mimbres Basin, New Mexico: *Geological Society of America Bulletin* 107(3), 316-326, [https://doi.org/10.1130/0016-7606\(1995\)107<0316:TSAGWL>2.3.CO;2](https://doi.org/10.1130/0016-7606(1995)107<0316:TSAGWL>2.3.CO;2)
- Haneberg, W.C.** and Gökce, A.Ö., 1994, *Rapid water-level fluctuations in a thin colluvium landslide west of Cincinnati, Ohio*: U.S. Geological Survey Bulletin 2059-C, <https://pubs.usgs.gov/bul/2059c/report.pdf>
- Haneberg, W.C.** and Bauer, P.W., 1993, Geologic setting and dynamics of a rockslide along NM 68, Rio Grande gorge, northern New Mexico: *Bulletin of the Association of Engineering Geologists*, v. 30, p. 7-16.
- Haneberg, W.C.**, Austin, G.S., and Brandvold, L.A., 1993, Soil lead distribution at an abandoned smelter site in Socorro, New Mexico: *Environmental Geology*, v. 21, p. 90-95.
- Haneberg, W.C.**, 1993, Drape folding of compressible elastic layers— II. Matrix solution for two-layer folds: *Journal of Structural Geology*, v. 15, p. 923-932.
- Haneberg, W.C.**, 1992, Drape folding of compressible elastic layers— I. Analytical solutions for vertical uplift: *Journal of Structural Geology*, v. 14, p. 713-721.
- Haneberg, W.C.**, 1992, Geologic hazards in New Mexico— Part 2: *New Mexico Geology*, v. 14, p. 45-52.
- Haneberg, W.C.**, 1992, Geologic hazards in New Mexico— Part 1: *New Mexico Geology*, v. 14, p. 34-41.
- Haneberg, W.C.**, 1991, Pore pressure diffusion and the hydrologic response of nearly-saturated, thin landslide deposits to rainfall: *Journal of Geology*, v. 99, p. 886-892.
- Haneberg, W.C.**, 1991, Observation and analysis of short-term pore pressure fluctuations in a thin colluvium landslide complex near Cincinnati, Ohio: *Engineering Geology*, v. 31, p. 159-184.
- Haneberg, W.C.** and Tripp, G., 1991, An irrigation-induced debris flow in northern New Mexico: *Bulletin of the Association of Engineering Geologists*, v. 28, p. 359-374.
- Haneberg, W.C.**, 1990, A Lagrangian interpolation method for three-point problems: *Journal of Structural Geology*, v. 12, p. 945-947.
- Haneberg, W.C.**, 1988, Some possible effects of consolidation on growth fault geometry: *Tectonophysics*, v. 148, p. 309-316.

Haneberg, W.C., 1982, A paradigmatic analysis of Darwin's use of uniformitarianism in *The Origin of Species: Compass*, v. 60, p. 89-94.

- PAPERS**
CONFERENCE
PROCEEDINGS
NOT PEER
REVIEWED
- Haneberg, W.C.**, 2018, Repeat AUV MBES surveys for deepwater seafloor change detection: 2018 Offshore Technology Conference, Paper OTC-28738-MS.
- Haneberg, W.C.**, Brumley, K., and Kucera, M.S., 2016, A GIS approach to quantitative ice gouge depth mapping, analysis, and prediction: 2016 Arctic Technology Conference, Paper OTC-27425-MS.
- Devine, C.A. and **Haneberg, W.C.**, 2016, Optimization methods for Arctic pipeline route selection: 2016 Arctic Technology Conference, Paper OTC-27391-MS.
- Zhang, Z., Wardlaw, S., and **Haneberg, W.C.**, 2016, Seismic AVO analysis for shallow hazard assessments in stratigraphically complicated areas in onshore Alaska locations. Society of Petroleum Engineers Western Regional Meeting, 23-26 May, Anchorage, Alaska, Paper SPE-180455-MS.
- Devine, C.A., **Haneberg, W.C.**, Lee., H., Liu, M., and Chang, G., 2016, A sensible approach to subsea pipeline route determination—moving from hand-drawn routes to geologically constrained, least-cost optimized paths: 2016 Offshore Technology Conference, Paper OTC-26940-MS.
- Trandafir, A.C. and **Haneberg, W.C.**, 2016, Top-hole formation pore pressure assessment at deepwater well sites using a geotechnical approach: 2016 Offshore Technology Conference, Paper OTC-26994-MS.
- Haneberg, W.C.**, Campbell, K.J., and Mackenzie, B., 2016, Concept stage site assessments, deepwater development risks, and long-term value preservation: Why getting it right the first time is more important than ever: 2016 Offshore Technology Conference-Asia, 22-25 March 2016, Kuala Lumpur, Malaysia, Paper OTC-26520-MS.
- Haneberg, W.C.**, 2015, Stochastic incorporation of uncertainty and subjectivity in deepwater pipeline route optimization: Offshore Technology Conference, Paper OTC-25785-MS.
- Haneberg, W.C.**, Bruce, B., Kelly, J.T., and Davis, L., 2015, A simple model for glory hole dredge spoil dispersion assessment: Arctic Technology Conference, 23-25 March,, Paper OTC-22606-MS.
- Haneberg, W. C.**, 2014, Evaluating the effects of input cost surface uncertainty on deep-water petroleum pipeline route optimization, in G. Lolino, D. Giordan, K. Thuro, C. Carranza-Torres, F. Wu, P. Marinos, and C. Delgado, editors, *Engineering Geology for Society and Territory-Volume 6*: Springer International Publishing, 351-355.
- Haneberg, W. C.** and Campbell, K. J., 2014, Evolution of a submarine mass-transport complex in space and time, in G. Lolino, A. Manconi, J. Locat, Y. Huang, and M. Canala Artigas, editors, *Engineering Geology for Society and Territory-Volume 4*: Springer International Publishing, 205-208.
- O'Leary, L., Spinewine, B., **Haneberg, W.**, Clare, M., Thomas, S., and Wu., H., 2014, An integrated sediment mobility and scour assessment: characterization, calibration, and mitigation studies for a pipeline in the South China Sea: Offshore Technology Conference Asia, 25-28 March 2014, OTC -24872-MS.

Keaton, J.A. and **Haneberg, W.C.**, 2013, Landslide inventories and uncertainty associated with ground truth, in F. Wu and S. Qi, editors, *Global View of Engineering Geology and the Environment*. London, Taylor & Francis, 105-110.

Haneberg, W.C., Bruce, B., and Drazba, M.C., 2013, Using qualitative slope hazard maps and quantitative probabilistic slope stability models to constrain least-cost pipeline route optimization: 2013 Offshore Technology Conference, OTC-23980-MS.

Haneberg, W.C., 2012, Spatially distributed probabilistic assessment of submarine slope stability, in P. Allan and 9 others (editors), *Offshore Site Investigation and Geotechnics: Proc.*, 7th International Offshore Site Investigation and Geotechnics Conference, London, UK, 551-556.

Watts, C.F., Underwood, S.A., **Haneberg, W.C.**, and Rogers, J.D., 2012, Fully rationalized equations for incorporating joint water pressure in rock slope stability analyses at Glacier Point in Yosemite National Park, California, in E. Eberhardt, C. Froese, K. Turner, and S. Leroueil, editors, *Landslides and Engineered Slopes (Volume 2): Proc.*, 11th International & 2nd North American Symposium on Landslides, Banff, 3-8 June, 2012.

Gates, W.C.B. and **Haneberg, W.C.**, 2012, Comparison of standard structural mapping results to 3-D photogrammetric model results: Boundary Transformer Banks rockfall mitigation project, Metaline Falls, Washington: Proc., 46th US Rock Mechanics/Geomechanics Symposium, Chicago, 24-27, ARMA Paper 12-368.

Pate, K. and **Haneberg, W.C.**, 2011, Photogrammetric and LIDAR 3-D rock slope discontinuity mapping and interpretation surveys to improve baseline information for planning, design, and construction of capital improvement projects at hydroelectric facilities: Proc., 45th US Rock Mechanics/Geomechanics Symposium, San Francisco, CA, June 26–29, 2011 (ARMA 11-520).

Haneberg, W.C., 2008, Revisiting an old project with new technology— digital terrain modeling and multi-layered virtual geologic hazard mapping along a proposed highway realignment, Rio Grande gorge, New Mexico, in Proceedings, 59th Highway Geology Symposium, Santa Fe, May 5-9, 2008, paper #5.2, 21 pp.

Haneberg, W.C., 2007, Directional roughness profiles from three-dimensional photogrammetric or laser scanner point clouds, in E. Eberhardt, D. Stead, and T. Morrison, editors, *Rock Mechanics: Meeting Society's Challenges and Demands: Proceedings*, 1st Canada-U.S. Rock Mechanics Symposium, Vancouver, May 27-31, 2007, p. 101-106.

Haneberg, W.C., Norrish, N.I., and Findley, D.P., 2006, Digital outcrop characterization for 3-D structural mapping and rock slope design along Interstate 90 near Snoqualmie Pass, Washington: *Proceedings, 57th Annual Highway Geology Symposium*, Breckenridge, Colorado, September 27-29, 2006, p. 146-160.

Haneberg, W.C., Creighton, A.L., Medley, E.W., and Jonas, D.A., 2005, Use of LiDAR to assess slope hazards at the Lihir gold mine, Papua New Guinea, in O. Hungr, R. Fell, R. Couture, and E. Eberhardt, editors, *Landslide Risk Management: Proceedings of International Conference on Landslide Risk Management*, Vancouver, Canada, 31 May - 3 June, 2005, Supplementary CD.

Haneberg, W.C., 2000, Influence of valley form on the subsurface state of stress— application of simple elastic models to understand modes of Appalachian coal mine roof failure, in J. Girard, M. Liebman, C. Breeds, and T. Doe, editors, *Pacific Rocks 2000 (Proc. Fourth North American Rock Mechanics Symposium, Seattle, July 31 - August 1, 2000)*: Balkema, p. 873-879.

Haneberg, W.C., 1993, Uncertainty in estimates of soil lead contamination at the Billing smelter site, Socorro, New Mexico, in S.N. Hoose, editor, *Proc. Symposium on Ethical Considerations in the Environmental Practice of Engineering Geology and Hydrogeology*, 36th

Annual Meeting, Association of Engineering Geologists, San Antonio, Texas, October 14, 1993, p. 30-37.

Haneberg, W.C. and Friesen, R.L., 1992, Diurnal groundwater level and deformation cycles near an earth fissure in the subsiding Mimbres Basin, New Mexico, in M.L. Stout, editor, *Proc. 35th Annual Meeting, Association of Engineering Geologists, Long Beach, California, October 2-9, 1992*, p. 46-53.

Haneberg, W.C., Reynolds, C.B., and Reynolds, I.B., 1991, Geophysical characterization of soil deformation associated with earth fissures near San Marcial and Deming, New Mexico, in A.I. Johnson, editor, *Land Subsidence (Proc. 4th International Symposium on Land Subsidence, Houston, Texas, May 12-18, 1991)*: International Association of Hydrological Sciences Publication No. 200, p. 271-280.

CONFERENCE ABSTRACTS Dortch, J., O'Dell, M., Thigpen, R, and **Haneberg, W.C.**, submitted, Quantifying the effects of anthropogenesis on flood severity using the July 2022 catastrophic flood event in Letcher County, KY as a type example: American Geophysical Union 2023 Fall Meeting.

NO PAPER **Haneberg, W.C.**, 2023, Downstream attenuation of extreme flood recurrence intervals—an example from the 2022 eastern Kentucky floods: AEG News 66(4), 2023 Annual Meeting Program with Abstracts, p. 84.

Haneberg, W. and Johnson, S., 2023, Geomorphometric thresholding and machine learning approaches to surficial engineering geologic mapping: AEG News 66(4), 2023 Annual Meeting Program with Abstracts, p. 84.

Johnson, S. and **Haneberg, W.** 2023, Machine learning for mapping surficial geology in Kentucky: AEG News 66(4), 2023 Annual Meeting Program with Abstracts, p. 87.

Saha, S., **Haneberg, W.**, Dortch, J., Crawford, M., Curl, D., and Koch, H., 2022, An interactive statewide spatial hazard analysis, detection, and environmental change tool (SHADE-C): American Geophysical Union 2022 Fall Meeting, GC42T-0952.

Adams, E. and **Haneberg, W.**, 2022, Endowments as tools to expand diversity in the geoscience field: American Geophysical Union 2022 Fall Meeting, ED42C-0611.

Haneberg, W.C., 2022, Models here, models there; models, models everywhere or: how I learned to stop worrying and love being wrong: Geological Society of America Abstracts with Programs 54(5), <https://doi.org/10.1130/abs/2022AM-380643> (invited Pardee Keynote Symposium speaker).

Haneberg, W.C., 2022, Laprak revisited: Understanding the response of a large Himalayan landslide to the 2015 Gorkha earthquake. AEG News 66(4), 2022 Annual Meeting Program with Abstracts, p. 75

Crawford, M.M., Dortch, J.M., Koch, H.J., and **Haneberg, W.C.**, 2022, Advancing landslide susceptibility and risk mapping through FEMA hazard mitigation projects in eastern Kentucky: Geological Society of America Abstracts with Programs 54(5), doi: 10.1130/abs/2022AM-380672.

Thomas, A., Andrews, W., Crawford, M., and **Haneberg, W.**, 2022, Field tests of a UAV-compatible spectrometer to evaluate its suitability for detailed soil radon potential mapping: Geological Society of America Abstracts with Programs 54(5), doi: 10.1130/abs/2022AM-380324.

Haneberg, W.C., Johnson, S.E., and Gurung, N., 2022, Laprak revisited: Understanding the response of a large Himalayan landslide to the 2015 Gorkha earthquake: *AEG News* 65(4), (2022 Annual Meeting Program with Abstracts), p. 74.

Hammond, M., **Haneberg, W.**, and Dortch, J., 2022, Geomorphic quantification of colluvial deposits in the interior low plateaus using lidar-derived maps: *Geological Society of America Abstracts with Programs* 54(4), <https://doi.org/10.1130/abs/2022NC-374550>

Koch, H., Dortch, J.M., and **Haneberg, W.**, 2022, Developing geomorphic landform maps of central Kentucky using lidar-based terrain interpretation: *Geological Society of America Abstracts with Programs*, vol. 54(4), <https://doi.org/10.1130/abs/2022NC-373288>.

Andrews, W., Pearson, A., and **Haneberg, W.C.**, 2022, Using UAV-compatible gamma ray spectrometry to map variability of soil radionuclides: *Geological Society of America Abstracts with Programs* 54(3), <https://doi.org/10.1130/abs/2022NE-375294>.

Haneberg, W.C. and Rayens, M.K., 2021, Understanding the occurrence of legitimate and erroneous multiple values at single locations in a large geohealth data set: insights from the Kentucky indoor radon map project: *American Geophysical Union 2021 Fall Meeting*, GH25B-0639.

Haneberg, W.C. and Cagle, L.E., 2021, Shifting the locus of expertise: using human-centered design to engage non-traditional geoscience stakeholders in Appalachian Kentucky: *American Geophysical Union 2021 Fall Meeting*, SY53A-06.

Johnson, S.E. and **Haneberg, W.C.**, 2021, Elevation change detection thresholds in a slow-moving colluvium landslide in the Cincinnati area using combinations of regional LiDAR, structure from motion photogrammetry, and UAV-LiDAR: *American Geophysical Union 2021 Fall Meeting*, NH22B-08.

Crawford, M., Dortch, J.M., Koch, H., Zhu, Y., and **Haneberg, W.**, 2021, Landslide susceptibility and risk mapping in the Big Sandy Area Development District, eastern Kentucky: *Geological Society of America Abstracts with Programs* 53(6), <https://doi.org/10.1130/abs/2021AM-369100>.

Conley, N., Wolfe, A., Stanifer, S., **Haneberg, W.**, and Hahn, E., 2021, Development of a comic book to promote radon mitigation and testing: *American Public Health Association Annual Meeting*, Denver, October 24-27, 2021, presentation 509147.

Haneberg, W.C. and Cobb, J.C., 2021, Paul Potter and the Kentucky Geological Survey: *Geological Society of America Abstracts with Programs* 53(3), <https://doi.org/10.1130/abs/2021NC-362689>.

Haneberg, W.C., Cagle, L.E., Dillon, A.E., Mardon, S.M., and Sanchez, M.E., 2020, Science communication as dialogue, not monologue: engaging underserved geological survey stakeholders in Appalachian Kentucky: *American Geophysical Union 2020 Fall Meeting*, SY308-06.

Johnson, S. and **Haneberg, W.C.**, 2020, Documenting decadal scale landslide movement using sequential lidar and structure from motion digital elevation models in the Cincinnati and Northern Kentucky Metropolitan Area: *American Geophysical Union 2020 Fall Meeting*, NH009-0004.

Crawford, M.M., Koch, H.J., Dortch, J.M., Killen, A.A., and **Haneberg W.C.**, 2020, Landslide susceptibility mapping and risk assessment, eastern Kentucky: *Geological Society of America Abstracts with Programs* 52(6), <https://doi.org/10.1130/abs/2020AM-355833>.

Hahn, E.J., Wolfe, A., Rayens, M.K., Stanifer, S., Hoover, A., and **Haneberg, W.**, 2020, A citizen science approach to promote residential radon testing in rural communities: American Public Health Association, 2020 Annual Meeting and Expo, Session 3063.0.

Crawford, M.M., Koch, H.J., Dortch, J.M., and **Haneberg, W.C.**, 2019, Comparison of lidar-based landslide hazard assessments for eastern Kentucky: American Geophysical Union 2019 Fall Meeting, NH43B-07.

Haneberg, W.C., 2018, Comparing LiDAR and legacy digital elevation models to quantify topographic change in areas of mountaintop removal coal mining, McDowell and Pikeville quadrangles, Kentucky: Geological Society of America Abstracts with Programs 50(6), <https://doi.org/10.1130/abs/2018AM-320360>.

Crawford, M.M., **Haneberg, W.C.**, Wang, Z., Lynch, M.J., and Carpenter, N.S., 2018, Landslide and earthquake hazard assessment and communication in Kentucky: Geological Society of America Abstracts with Programs 50(6), <https://doi.org/10.1130/abs/2018AM-319188>.

McConnell, D. and **Haneberg, W.C.**, 2017, Gas hydrate characterization from a 3D seismic dataset in the deepwater eastern Gulf of Mexico: 9th International Conference on Gas Hydrates, Denver CO, June 25-30, <https://www.osti.gov/biblio/1434192>.

Haneberg, W.C., 2017, Insight from the statistics of nothing: estimating limits of change detection using inferred no-change areas in DEM difference maps and application to landslide hazard studies: American Geophysical Union 2017 Fall Meeting, NH43A-0186.

Haneberg, W.C. and Johnson, S., 2017, Double Gaussian filtering to suppress noise and improve identification of new landslides on DEM difference maps: Geological Society of America Abstracts with Programs 49(6), <https://doi.org/10.1130/abs/2017AM-305313>.

Chapella, H.C., **Haneberg, W.C.**, and Crawford, M.M., 2017, LiDAR-based landslide inventory and susceptibility, Prestonsburg 7.5-minute quadrangle, KY: Geological Society of America Abstracts with Programs 49(6), <https://doi.org/10.1130/abs/2017AM-303869>.

Haneberg, W.C. and Gurung, N., 2016, Response of the Laprak landslide to the 2015 Nepal earthquake and implications for the utility of simple infinite slope models in regional landslide hazard assessment: American Geophysical Union Fall Meeting, Abstract NH34B-06.

Haneberg, W.C., 2013, Advances in deep and ultra-deep water site investigation and geohazard assessment during the past 50 years: Geological Society of America *Abstracts with Programs*, v. 45, no. 7, p. 720.

Haneberg, W.C., 2013, Working with uncertainty and variability in geohazard assessment for deep-water petroleum exploration and development: *AEG News*, v. 56 (Program with Abstracts, 2013 Annual Meeting), p. 62.

Haneberg, W.C. and Keaton, J.R., 2012, Ground truth: an obstacle to landslide hazard assessment: Geological Society of America Abstracts with Programs, v. 44, no. 7, p. 345.

Haneberg, W.C., 2011, Structural significance of lineaments inferred from high-resolution lidar digital elevation models in areas with heavy vegetation or soil cover: Geological Society of America *Abstracts with Programs*, v. 43, no. 5, p. 407.

Haneberg, W.C., 2011, Richard H. Jahns distinguished lecture: The landslide that ate Laprak: Geological Society of America *Abstracts with Programs*, v. 43, no. 5, p. 215.

Stohr, C., Stumpf, A., Stiff, B.J., and **Haneberg, W.**, 2011, Describing inaccessible outcrops along the Middle Fork of the Vermillion River, Illinois: Geological Society of America *Abstracts with Programs*, v. 43, no. 5, p. 449.

Watts, C.F., Rogers, J.D., **Haneberg, W.C.**, and Underwood, S.A., 2011, Reconstructing water system triggering theories for rockfalls from Glacier Point, Yosemite National Park: *AEG News*, v. 54 (Program with Abstracts, 2011 Annual Meeting), p. 116.

Townsend-Small A., **Haneberg, W.**, Dietsch, C., Owen, L.A., 2011, Vulnerability of soil and river organic carbon to global change in the Ganges River headwaters, subtropical Indian Himalayas: American Society of Limnology and Oceanography Winter Meeting, February 2011, San Juan, Puerto Rico.

Haneberg, W.C. and Watts, C.F., 2010, Using Airborne LiDAR for forensic structural geology—two rockfall case histories from Yosemite National Park: *Geological Society of America Abstracts with Programs*, v. 42, no. 5, p. 37. (invited Pardee Keynote Symposium presentation)

Haneberg, W.C. and Harris, A.G., 2010, Preliminary evaluation of Ohio Statewide Imagery Program airborne LiDAR for abandoned underground coal mine detections, Mineral Ridge area, Trumbull County, Ohio: *Geological Society of America Abstracts with Programs*, v. 42, no. 5, p. 284.

Watts, C.F., Rogers, J.D., **Haneberg, W.C.**, and Underwood, S.A., 2010, 3D visualization of rockfalls at Glacier Point, Yosemite National Park, CA, Using ArcGIS and Google Earth: *AEG News*, v. 53 (Program with Abstracts, 2010 Annual Meeting), p. 97.

Weppner, E., Hoyt, J., and **Haneberg, W.**, 2009, Comparison of slope stability models derived from 1-m LiDAR DEM, Freshwater Creek and Ryan Slough watershed, Humboldt County, California: *Geological Society of America Abstracts with Programs*, v. 41, no. 7, p. 678.

Haneberg, W.C., 2009, Airborne LiDAR as a practical tool for high resolution geologic mapping— a decade of lessons learned and potential revealed: *Geological Society of America Abstracts with Programs*, v. 41, no. 7, p. 431. (invited presentation)

Haneberg, W.C., 2009, A Mathematica package for equal area projection and analysis of rock mass discontinuity orientations: *AEG News*, v. 52 (Program with Abstracts, 2009 Annual Meeting), p. 75-76.

Haneberg, W.C., 2009, Virtual mapping as a practical engineering geology tool— brave new paradigm or more new clothes for the emperor?: *AEG News*, v. 52 (Program with Abstracts, 2009 Annual Meeting), p. 75.

Dortch, J., Owen, L.A., **Haneberg, W.C.**, Caffee, M.W., Dietsch, C., and Kamp, U., 2009, Nature and timing of large landslides in the Himalaya and Transhimalaya of northern India: *AEG News*, v. 52 (Program with Abstracts, 2009 Annual Meeting), p. 68. (invited presentation)

Weppner, E., Hoyt, J., and **Haneberg, W.C.**, 2008, LiDAR-based landslide hazard modeling using PISA-m, SHALSTAB, and SMORPH, Freshwater Creek and Ryan Slough watershed, Humboldt County, California: *Eos, Trans. AGU*, v. 89, no. 53, Fall Meeting Supplement, Abstract H41K-04.

Haneberg, W.C. and Gurung, N., 2008, Reconnaissance engineering geology of the Laprak landslide, Gorkha District, western Nepal: *AEG News*, v. 51 (Program with Abstracts, 2008 Annual Meeting), p. 66.

Haneberg, W.C., 2008, Rapid prototyping of computer models to characterize discontinuous rock masses: *AEG News*, v. 51 (Program with Abstracts, 2008 Annual Meeting), p. 66.

Love, D.W., Allen, B.D., Chamberlin, R.M., and **Haneberg, W.C.**, 2008, Preliminary interpretation of six years of tiltmeter motions above the flanks of the Socorro magma body, central Rio Grande Rift: New Mexico Geological Society 2008 Spring Meeting.

Haneberg, W.C., 2007, Large-scale terrain visualization using SRTM digital elevation models: an example from the Indian Himalaya: *Geological Society of America Abstracts with Programs*, v. 39, no. 6, p. 166.

Haneberg, W.C., 2007, Using airborne LiDAR and GIS technologies for field verified virtual landslide hazard mapping— a new approach to an old problem with examples from Papua New Guinea and San Francisco: *Geological Society of America Abstracts with Programs*, v. 39, no. 6, p. 439.

Haneberg, W.C. and Medley, E.W., 2007, Internal structure of the San Andreas fault zone at the A.R. Wilson Quarry, Aromas, California, as inferred from 3-D digital outcrop modeling: *Geological Society of America Abstracts with Programs*, v. 39, no. 6, p. 454.

Haneberg, W.C., Cole, W.F., and Kasali, G., 2007, LiDAR based landslide hazard mapping and modeling using a multi-layered GIS approach, UCSF Parnassus Campus, San Francisco, California. Association of Environmental & Engineering Geologists 2007 Annual Meeting, Los Angeles.

Haneberg, W.C., Burk, R.L., Findley, D.P., and Norrish, N.I., 2007, Virtual structural mapping using 3-D digital rock slope models, I-90 near Snoqualmie Pass, Washington: *Geological Society of America 2007 Cordilleran Section Meeting Abstracts with Programs*, v. 39, no. 4, p. 24.

Haneberg, W.C., 2006, Digital photogrammetry for 3-D structural mapping and rock mass characterization: *Association of Environmental & Engineering Geologists 2006 Annual Meeting Program with Abstracts*.

Haneberg, W.C., 2006, Elevation errors in a LiDAR digital elevation model and their effects on slope stability calculations: *Association of Environmental & Engineering Geologists 2006 Annual Meeting Program with Abstracts*.

Haneberg, W.C., 2006, Measurement and visualization of directional roughness profiles using three-dimensional point clouds: *Geological Society of America 2006 Annual Meeting Abstracts with Programs*, v. 38, no. 7, p. 27.

Troost, K.G., Wisher, A.P., and **Haneberg, W.C.**, 2006, A multifaceted approach to high-resolution geologic mapping of Mercer Island, near Seattle, Washington, *Geological Society of America 2006 Annual Meeting Abstracts with Programs*, v. 37, no. 7, p. 164.

Haneberg, W.C., 2005, Enhancing LiDAR digital elevation models to identify and characterize the surficial expression of faults: *Geological Society of America Abstracts with Programs*, v.37, p. 476. (invited presentation)

Haneberg, W.C., 2005, 3-D digital rock mass characterization using high-resolution photogrammetric or laser scanner point clouds: *Geological Society of America Abstracts with Programs*, v.37, p. 245.

Haneberg, W.C., Medley, E., Creighton, A.L., and Jonas, D.A., 2005, Use of LiDAR for a preliminary terrain hazard assessment at the Lihir gold mine, Papua New Guinea: *AEG News*, v. 48 (Annual Meeting Program with Abstracts), July 2005, p. 68.

Haneberg, W.C., 2004, Effects of digital elevation model errors on slope angle, static factor of safety, and Newmark acceleration uncertainty in GIS-style landslide hazard modeling: *Geological Society of America Abstracts with Programs*, v.36, p. 297.

Clark, J.A. and **Haneberg, W.C.**, 2004, GIS based methods for three-dimensional evaluation of liquefaction susceptibility, Albuquerque, NM: *Geological Society of America Abstracts with Programs*, v.36, p. 298.

Haneberg, W.C., 2003, Monte Carlo simulation of 3-D block populations to characterize borehole and outcrop sampling bias: Geological Society of America *Abstracts with Programs*, v. 35, no. 6, September 2003, p. 41.

Haneberg, W.C., Emmingham, W., Everest, F., Marston, R., Collison, A., Tarboton, D., and Twiss, R., 2003, The role of independent peer review panels in the management of forested lands: Geological Society of America *Abstracts with Programs*, v. 35, no. 6, September 2003, p. 351. (invited presentation)

Love, D.W., Allen, B., Chamberlin, R., and **Haneberg, W.**, 2003, First year's data from tiltmeters installed around the margins of the uplift above the Socorro magma body: New Mexico Geological Society 2003 Spring Meeting.

Haneberg, W.C., 2002, Humans as inadvertently hazardous geologic agents: Geological Society of America 2002 Annual Meeting Abstracts with Program.

Haneberg, W.C., 2001, Spatially distributed probabilistic landslide hazard modeling as a first step towards quantitative risk assessment: Geological Society of America 2001 Annual Meeting Abstracts with Program.

Clark, J.A. and **Haneberg, W.C.**, 2001, Engineering geologic and liquefaction susceptibility analysis of the Inner Valley, Rio Grande Basin, Albuquerque, New Mexico: GSA 2001 Rocky Mountain/South-Central Section Meeting Abstracts with Programs.

Haneberg, W.C., 2000, An analytical method for estimating the probabilistic stability and reliability of forested slopes with variable pore water pressure: Western Pacific Geophysics Meeting, Tokyo, June 2000 (invited presentation).

Dunn, A.B., and **Haneberg, W.C.**, 1999, Geologic setting and preliminary hydrologic analysis of the Costilla dam, New Mexico, landslide: Geological Society of America 1999 Annual Meeting Abstracts with Program.

Haneberg, W.C., and Dunn, A.B., 1999, Reactivation of the Costilla dam, New Mexico, landslide during dam reconstruction: Geological Society of America 1999 Annual Meeting Abstracts with Program.

Haneberg, W.C., 1999, Influence of lateral earth pressure on the Coulomb failure potential of dry and saturated slopes in granular materials: Association of Engineering Geologists 1999 Annual Meeting, Salt Lake City, UT.

Love, D.W., Thomas, Jan, and **Haneberg, W.C.**, 1999, Origami leads to orogeny: Use of three-dimensional paper models for geoscience education from mineralogy to earthquakes: New Mexico Geological Society 1999 Spring Meeting.

Haneberg, W.C., 1998, Influence of a forest road on the deposition of debris flow sediments, northern New Mexico: American Geophysical Union 1998 Fall Meeting.

Dunn, A.B. and **Haneberg, W.C.**, 1998, Geologic setting of the Costilla dam, New Mexico, landslide: Association of Engineering Geologists 1998 Annual Meeting, Seattle, WA.

Haneberg, W.C., 1998, Recent history of debris flow activity in the Bitter Creek drainage, northern New Mexico: *New Mexico Geology*, v. 20, pp. 47-48.

Mozley, P., Hall, J., Davis, J.M., Goodwin, L., Heynekamp, M., and **Haneberg, W.C.**, 1998, Spatial distribution of calcite cement in the Santa Fe Group, Rio Grande rift, New Mexico, USA: 15th International Sedimentological Conference, Alicante, Spain, April 1998.

Haneberg, W.C., 1997, Calculated effects of valley incision on the state of stress in the Santa Fe Group aquifer system, Albuquerque Basin, New Mexico: American Geophysical Union 1997 Fall Meeting.

Haneberg, W.C., 1997, The past, present, and future of engineering geology: *New Mexico Geology*, v. 19, p. 48 (invited presentation). (Talk given at New Mexico Geological Society spring meeting.)

Mozley, P.S., Whitworth, T.M., **Haneberg, W.C.**, Goodwin, L.B., and Heynekamp, M., 1997, Controls on the spatial distribution of calcite cementation in fault zones: *AAPG-SEPM Annual Meeting Abstracts*, v. 6, p. 85.

Haneberg, W.C., 1997, First order analysis of stresses in a layered elastic half space with periodic topography— implications for land subsidence potential above incised aquifer systems: *Geological Society of America Abstracts with Programs, South-Central/Rocky Mountain Sections*, v. 29, p. 12 (invited presentation).

Haneberg, W.C., Bauer, P.W., and Chavez, W.X., Jr., 1996, Geologic, engineering geologic, and geologic hazards maps of a proposed highway corridor, Rio Grande gorge, northern New Mexico: *Geological Society of America Abstracts with Programs, 1996 Annual Meeting*, v. 28, p. 282 (invited presentation).

Haneberg, W.C., Goodwin, L.B., Heynekamp, M., and Mozley, P.S., 1996, Field observations and numerical models of the influence of faults on groundwater flow in clastic aquifer systems: *Geological Society of America Abstracts with Programs, 1996 Annual Meeting*, v. 28, p. 255.

Goodwin, L.B. and **Haneberg, W.C.**, 1996, Deformational fabrics and inferred permeability of faulted sands from the Rio Grande rift, New Mexico: *Geological Society of America Abstracts with Programs, 1996 Annual Meeting*, v. 28, p. 255.

Heynekamp, M.R., Goodwin, L.B., Mozley, P.S., and **Haneberg, W.C.**, 1996, The influence of grain size on dragging and mixing of poorly consolidated sediments along a normal fault: Implications for cross-fault fluid flow: *Geological Society of America Abstracts with Programs, 1996 Annual Meeting*, v. 28, p. 255.

Sigda, J.M., Mozley, P.S., Goodwin, L.B., and **Haneberg, W.C.**, 1996, Small displacement fault controls on single phase permeability in poorly consolidated sands: *Geological Society of America Abstracts with Programs, 1996 Annual Meeting*, v. 28, p. 256.

Whitworth, T.M., **Haneberg, W.C.**, DeRosa, G., Romero, D., Mozley, P.S., and Goodwin, L.B., 1996, Solute sieving by pulverized quartzofeldspathic sands-- experimental results and implications for the membrane behavior of fault gouge: *Geological Society of America Abstracts with Programs, 1996 Annual Meeting*, v. 28, p. 256.

Haneberg, W.C., 1996, Deterministic and probabilistic approaches to hazard assessment: Association of Engineering Geologists 1996 Annual Meeting Abstracts.

Mozley, P.S., Goodwin, L.B., Heynekamp, M., and **Haneberg, W.C.**, 1996, Using the spatial distribution of calcite cementation to infer paleoflow conditions in fault zones: Examples from the Albuquerque Basin, New Mexico: *AAPG-SEPM Annual Meeting Abstracts*, v. 5, p. 102.

Haneberg, W.C., 1995, Geophysical log derived estimates of compaction potential for the upper Santa Fe Group aquifer system, Albuquerque Basin, New Mexico: *EOS, Transactions American Geophysical Union, 1995 Fall Meeting Supplement*, p. 197.

Haneberg, W.C. and Hawley, J.W., 1994, Porosity and permeability characteristics of lithofacies in the upper Santa Fe Group, Albuquerque Basin, New Mexico: *Geological Society of America Abstracts with Programs, 1994 Annual Meeting*, v. 26, p. 204.

Haneberg, W.C., Goodwin, L. B., and Ferranti, C. J., 1994, Pseudotachylyte in a metamorphic core complex— analytical modeling of the effect of compositional variation on frictional melting: *Geological Society of America, 1994 Annual Meeting Abstracts with Programs*, v. 26, n. 7, p. 269.

Haneberg, W.C., 1994, Simple analytical solutions for steady-state groundwater flow across faults: *Geological Society of America Abstracts with Programs, 1994 Rocky Mountain Section Meeting*, v. 26, p. 16.

Haneberg, W.C., 1993, Pressure head distribution and the stability of heterogeneous frictional soils: *EOS, Transactions American Geophysical Union, 1993 Fall Meeting Supplement*, p. 310 (invited presentation).

Haneberg, W.C., 1992, A mass balance model for the hydrologic response of fine-grained hillside soils to rainfall: *Geological Society of America Abstracts with Programs, 1992 Annual Meeting*, v. 24, p. 203 (invited presentation).

Haneberg, W.C., 1992, Compressibility, stiffness, and some numerical experiments with layered drape folds in compressible elastic media: *New Mexico Geology*, v. 14, p. 62.

Bauer, P.W. and **Haneberg, W.C.**, 1992, Geologic setting for rapid mass-wasting in the Rio Grande gorge area, Taos County, New Mexico: *New Mexico Geology*, v. 14, p. 63.

Friesen, R.L. and **Haneberg W.C.**, 1992, Digital documentation of deformation and groundwater levels near an earth fissure in the Mimbres Basin, New Mexico: *New Mexico Geology*, v. 14, p. 63.

Haneberg, W.C., 1992, Thin-plate analysis of land subsidence and fissuring in the Mimbres Basin, southern New Mexico: *Geological Society of America Abstracts with Programs, 1992 Cordilleran Section Meeting*, v. 24, p. 30.

Haneberg, W.C., 1991, Grain size distributions and sedimentary facies associated with a modern debris flow in northern New Mexico: *Geological Society of America Abstracts with Programs, 1991 Annual Meeting*, v. 23, p. 40.

Haneberg, W.C. and Tripp, G., 1991, An irrigation-induced debris flow near Cordova, New Mexico: *Geological Society of America Abstracts with Programs, 1991 Rocky Mountain/South-Central Section Meeting*, v. 23, p. 29.

Haneberg, W.C., 1991, Mechanics of single-layer drape folding— some simple models with practical applications: *New Mexico Geology*, v. 13, p. 65.

Haneberg, W.C., 1990, Draping and differential compaction of compressible elastic soil layers under the influence of gravity: *Geological Society of America Abstracts with Programs, 1990 Annual Meeting*, v. 22, p. 246-247.

Haneberg, W.C. and Reynolds, C.B., 1990, Geophysical constraints on a mechanical model for the origin of the San Marcial earth fissure: *New Mexico Geology*, v. 12, p. 38.

Reynolds, C.B., Reynolds, I.B., and **Haneberg, W.C.**, 1990, Refraction velocity sections— an aid in shallow reflection interpretation: *Expanded Abstracts, 60th Annual Meeting, Society of Exploration Geophysicists, San Francisco, California*, v. 1, p. 383.

Haneberg, W.C., 1989, Field observations and theoretical insights on the response of hillside soils to rainfall: *Geological Society of America Abstracts with Programs, 1989 Annual Meeting*, v. 21, p. 230.

Haneberg, W.C., 1989, Propagation of boundary pore pressure perturbations through saturated or tension saturated soils: *Abstracts and Program, 32nd Annual Meeting, Association of Engineering Geologists, Vail, Colorado, October 1-6, 1989*, p. 76.

Haneberg, W.C., 1985, Dilational fractures in the Lower Cambrian Rome Formation, southwest Virginia: *American Association of Petroleum Geologists Bulletin*, v. 70, p. 782.

Haneberg, W.C., 1984, Fracturing and brecciation along the Max Meadows thrust near Wytheville, Virginia: *American Association of Petroleum Geologists Bulletin*, v. 68, p. 483.

**MISCELLANEOUS
PUBLICATIONS**

Conley, N., Hahn, E.J., Hall, A., **Haneberg, W.**, Minter, K., Myers, M., Sanders, B., Wolfe, A.L., 2020, Invisible Enemy: The Rise of Radon. University of Kentucky, <https://breathe.uky.edu/sites/breathe.uky.edu/files/RiseofRadon.TheInvisibleEnemy.pdf>

Hahn, E.J., Conley, N.B., **Haneberg, W.C.**, Anderson-Hoagland, E., and Hardwick, C., 2020, Transforming public health systems to integrate radon and tobacco control: *Radon Reporter*, March 2020, p. 20.

Haneberg, W.C., 2007, Book Review— *Statistics of Earth Science Data* by Graham Borradaile: *Environmental & Engineering Geoscience*, v. 11, p. 189-190.

Haneberg, W.C., 2005, New quantitative landslide hazard assessment tools for planners, in J.C. Schwab, P.L Gori, and S. Jeer, editors, *Landslide Hazards and Planning: American Planning Association, Planning Advisory Service Report Number 533/534*, p. 76-84.

Haneberg, W.C., 2005, Book Review— *An Introduction to Programming with Mathematica* by Paul Wellin, Richard Gaylord, and Samuel Kamin: *Computers & Geosciences*, v. 31, p. 1300-1301.

Haneberg, W.C., 2002, To exclude or not to exclude: The when and why of landslides: *Claims* (March).

Haneberg, W.C., 2001, A probabilistic approach to spatially distributed landslide hazard modeling: *Earth Observation Magazine*, v. 10, no. 12, p. 10-12.

Haneberg, W.C., 2000, Book Review— *The Rock Physics Handbook* by Gary Mavko, Tapan Mukerji, and Jack Dvorkin: *Environmental & Engineering Geoscience*, v. 5, p. 489-490.

Haneberg, W.C., 1997, Book Review— *Geology Applied to Engineering* by Terry R. West: *Journal of Geoscience Education*, v. 45, p. 85.

Haneberg, W.C., 1995, Book Review— *Unsaturated Zone Hydrology* by Gary L. Guymon, *Journal of Geology*, v. 103, p. 370.

Haneberg, W.C., 1994, Quemado Lake dam: *34th Annual Field Conference Guidebook*, New Mexico Geological Society, p. 44.

Haneberg, W.C., Riestenberg, M.M., Pohana, R., and Diekmeyer, S., 1992, *Cincinnati's Geologic Environment: A Trip for Secondary School Science Teachers*: Ohio Division of Geological Survey, Guidebook 9, 23 p.

Haneberg, W.C., 1991, Cuspate-lobate folds along a sedimentary contact, Los Lunas volcano, New Mexico, in B. Julian and J. Zidek, editors, *Field Guide to Geologic Excursions in New Mexico*

and Adjacent Areas of Texas and Colorado: New Mexico Bureau of Mines and Mineral Resources Bulletin 137, p. 162-163.

Haneberg, W.C., 1991, Book Review— *Analysis of Geologic Structures* by N.J. Price and J.W. Cosgrove: *GSA Today*, v. 1, no. 5, p. 103.

**GOVERNMENT
REPORTS**

Crawford, M.M., Koch, H.J., Dortch, J.M., **Haneberg, W.C.**, 2022, *Landslide Susceptibility Map of Pike County, Kentucky*. Kentucky Geological Survey Contract Report CNR-49-13.

Crawford, M.M., Koch, H.J., Dortch, J.M., Killen, A.A., **Haneberg, W.C.**, 2022, *Landslide Susceptibility Map of Martin County, Kentucky*. Kentucky Geological Survey Contract Report CNR-48-13.

Crawford, M.M., Koch, H.J., Dortch, J.M., **Haneberg, W.C.**, 2022, *Landslide Susceptibility Map of Martin County, Kentucky*. Kentucky Geological Survey Contract Report CNR-47-13.

Crawford, M.M., Koch, H.J., Dortch, J.M., **Haneberg, W.C.**, 2022, *Landslide Susceptibility Map of Johnson County, Kentucky*. Kentucky Geological Survey Contract Report CNR-46-13.

Crawford, M.M., Koch, H.J., Dortch, J.M., **Haneberg, W.C.**, 2022, *Landslide Susceptibility Map of Floyd County, Kentucky*. Kentucky Geological Survey Contract Report CNR-45-13.

Haneberg, W.C., 2010, *Preliminary Evaluation of Española Basin Aquifer Compaction Potential*: prepared for the New Mexico Office of State Engineer under contract to URS Corporation.

Haneberg, W.C., 2004, *Review and Analysis of 2002 and 2003 Heritage Park Post-Stabilization Slope Failures, Washington State Capitol Campus*: unpublished report prepared under contract to the Engineering and Architectural Services Division, Washington Department of General Administration, Olympia, WA.

Collison, A., Emmingham, W., Everest, F., **Haneberg, W.**, Marston, R., Tarboton, D., and Twiss, R., 2003, *Phase II Report, Independent Scientific Review Panel on Sediment Impairment and Effects on Beneficial Uses of the Elk River and Stitz, Bear, Jordan and Freshwater Creeks*: report prepared for the North Coast Regional Water Quality Control Board, Santa Rosa, CA.

Collison, A., Emmingham, W., Everest, F., **Haneberg, W.**, Marston, R., Tarboton, D., and Twiss, R., 2002, *Final Report on Sediment Impairment and Effects on Beneficial Uses of the Elk River and Stitz, Bear, Jordan and Freshwater Creek*: report prepared for the North Coast Regional Water Quality Control Board, Santa Rosa, CA, 62 p.

Stone, B.D., Allen, B.D., Mikolas, M., Hawley, J.W., **Haneberg, W.C.**, Johnson, P.S., Gomez, P., Gibson, A., Allred, B., and Thorn, C.R., 1998, *Preliminary lithostratigraphy, interpreted geophysical logs, and hydrogeologic characteristics of the 98th Street core hole, Albuquerque, New Mexico*: U.S. Geological Survey Open-File Report 98-210, 82 p.

Haneberg, W.C., Allred, B., Gomez, P., and Gibson, A., 1998, *Consolidation test results, triaxial permeability values, and particle size distributions, 98th Street ground water monitoring well, Albuquerque, New Mexico*: New Mexico Bureau of Mines & Mineral Resources Open-File Report 436.

Haneberg, W.C. and Hawley, J.W., editors, 1996, *Characterization of hydrogeologic units in the northern Albuquerque Basin*: New Mexico Bureau of Mines & Mineral Resources Open-File Report 402-C, 227 p.

Haneberg, W.C., 1994, *Estimation of infiltration time lag for return flow credit, Santa Fe Ski Area, Santa Fe National Forest*: report for water rights hearing on behalf of U.S. Forest Service, 20 p.

Haneberg, W.C. and Friesen, R.L., 1993, *Tilting of surficial strata and groundwater level fluctuations in the subsiding Mimbres Basin, New Mexico*: New Mexico Water Resources Research Institute Report No. 274, 85 p.

Catanach, R.B., D'Appolonia, E., James, R.L., O'Neil, A.L., and **Haneberg, W.C.**, 1992, *Report of the independent review panel of the Costilla Dam slide*: New Mexico Interstate Stream Commission, 32 p.

Bretz, R.E., Kieft, T.L., Docher, A., Brandvold, D., Grande, C., Haase, S., **Haneberg, W.**, Stephens, C., and Hendrickx, J., 1992, *In-place slurry-phase production pit bioremediation*: Summary Report, PERF Project 92-17, 19 p.

Haneberg, W.C., Bauer, P.W., and Chavez, W.X., Jr., 1992, *Rio Grande gorge highway corridor study, Rinconada to Pilar*: New Mexico Bureau of Mines and Mineral Resources Open-File Report 437, 22 p.

Haneberg, W.C. and Tripp, G., 1990, *Engineering geologic investigations of an irrigation-induced debris flow near Cordova, Rio Arriba County, New Mexico*: New Mexico Bureau of Mines and Mineral Resources Open-File Report 371, 80 p.

Haneberg, W.C., 1990, *Use of seismic reflection profiles to characterize soil deformation associated with earth fissures and groundwater withdrawal near Deming, New Mexico*: New Mexico Bureau of Mines and Mineral Resources, Open-File Report 367, 19 p.

Johnson, A.M., Lowell, T.V., Nash, D., Cruikshank, K., **Haneberg, W.**, Riestenberg, M., Neavel, K., Harrar, W., Olson, R., Rosemeyer, D., and Spurling, W., 1987, *Report and recommendations on maintenance of deteriorating retaining walls and streets damaged by landslides, City of Cincinnati*: City of Cincinnati Infrastructure Commission Internal Report, 48 p.

Lowell, T.V. and **Haneberg, W.C.**, 1987, *A three-dimensional mapping technique to provide base line data for landslide hazard assessment*: Department of Geology, University of Cincinnati, Final Report to the University Program Advisory Committee (UPAC), 55 p.

GRADUATE STUDENTS

Hudson Koch, *Various effects on landslide modeling performance*. Ph.D. in Earth & Environmental Sciences, University of Kentucky, in progress. Committee member.

Sarah Johnson, *Applications of digital terrain modeling to address problems in geomorphology and engineering geology*. Ph.D. in Earth & Environmental Sciences, University of Kentucky, 2023. Principal advisor.

Alexandria Thomas, *Field tests of a UAV-compatible spectrometer to evaluate its suitability for detailed soil radon potential mapping*. M.S. in Earth & Environmental Sciences, University of Kentucky, 2023. Principal advisor.

William R. Swanger, II, *Deformation of wall rocks and overburden sequences proximal to salt diapirs in Salt Valley, Utah: Implications for predicting subseismic damage in salt tectonic systems*. M.S. in Earth & Environmental Sciences, University of Kentucky, 2022. Committee member.

Matthew Crawford, *Hydrologic monitoring and 2-D electrical resistivity imaging for joint geophysical and geotechnical characterization of shallow landslides*. Ph.D. in Earth & Environmental Sciences, University of Kentucky, 2018. Committee member.

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Patricia Varela, *Probabilistic risk mapping coupling Bayesian networks and GIS, and Bayesian parameter estimation of landslide's probability of failure*. Ph.D. in Civil Engineering, Texas A&M University, 2017. Committee member.

Matthieu Sturzenegger, *An evaluation of rock slope characterization using digital photogrammetry and laser scanning techniques*. Ph.D. in Earth Sciences, Simon Fraser University, Canada, 2010. Committee member.

Narayan Gurung, *Landslide investigation and mitigation: a case study of Laprak landslide, Gorkha, Nepal*. M.Tech in Geotechnical and Geoenvironmental Engineering, Indian Institute of Technology, Delhi, India, 2009. External co-supervisor.

Jodi Clark, *Liquefaction susceptibility mapping of the shallow alluvium, Inner Valley, Rio Grande Basin, Albuquerque, New Mexico*. M.S. in Geology, NM Tech, 2004. Research advisor.

Geoff Rawling, *Hydrogeologic characterization of the Sand Hill fault zone, Albuquerque Basin, New Mexico*. Ph.D. in Geology, NM Tech, 2001. Committee member.

Andrew Dunn, *Geology and hydrogeology of the Costilla Dam landslide, northern New Mexico*. M.S. in Hydrology, NM Tech, 2001. Research advisor.

Michiel Heynekamp, *Controls on fault-zone architecture and fluid flow in poorly consolidated sediments: The Sand Hill fault, central New Mexico*. M.S. in Geology, NM Tech, 1998. Committee member.

Daniel Detmer, *Permeability, porosity, and grain size distributions of Pliocene and Quaternary sediments in the Albuquerque Basin, central New Mexico*. M.S. in Geology, NM Tech, 1995. Research advisor.

William Linderfelt, *Field study of capture zones in a shallow sand aquifer*. Ph.D. in Hydrology, NM Tech, 1994. Committee member.

Y.-C. Hsieh, *Identification of debris flow and soil creep deposits in Copper Canyon, Socorro County, New Mexico*. M.S. in Geology, NM Tech, 1994. Research advisor.

Robert Friesen, *Cyclic flexure of surficial strata near an earth fissure in the Mimbres Basin, southern New Mexico*. M.S. in Mineral Engineering, NM Tech, 1992. Research advisor.

Garret Ross, *Environmental geologic maps of Santa Fe County, New Mexico*. M.S. in Mineral Engineering, NM Tech, 1992. Research advisor.

Valerie Rhodes, *Laboratory study of geogrid-reinforced sand-clay mixtures from Cenozoic basin-fill deposits, central New Mexico*. M.S. in Mineral Engineering, NM Tech, 1991. Research advisor.

TEACHING UNIVERSITY	Geol 699	Geology Colloquium (University of Cincinnati, 2009, 10, 11)
	Geol 331	Elementary Structural Geology (University of Cincinnati 2010, 11)
	Geol 394	Digital Terrain Modeling (Northern Kentucky University, 2010)
	Geol/Hydro 572	Mechanics of Earth Surface Processes (New Mexico Tech, 1997, 98)
	Geol/Hydro 504	Hydrogeology (New Mexico Tech,, team taught, 1994)
	Geol/Geoph 558	Mechanics of Earthquakes (New Mexico Tech, team taught, 1994)
	Geol 571	Mechanics of Geologic Processes (New Mexico Tech, 1993)
	Geol 391	Structural Geology (Portland State University, 2000)
	Min Engr 540	Numerical Methods in Geotechnical Engrg (New Mexico Tech, 1990, 92)
	Min Engr 581	Geologic Hazards (New Mexico Tech, 1991)
Min Engr 427	Site Investigation (New Mexico Tech, 1992)	

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- TEACHING** **Digital Terrain Modeling with Airborne LiDAR.** Association of Environmental & Engineering Geologists Annual Meeting, Los Angeles, September 24, 2007.
- PROFESSIONAL**
- SHORT COURSES** **Virtual Structural Mapping Using 3-D Digital Rock Slope Models.** Association of Environmental & Engineering Geologists Annual Meeting, Los Angeles, September 25, 2007 (with J. Keaton, G. Poropat, and A. Gaich).
- Introduction to Computational Hydrogeology: Developing Solutions to Groundwater Flow and Transport Equations.** Northwest Environmental Training Center, Seattle WA, February 9-10, 2005.
- Environmental Statistics for Site Managers,** Northwest Environmental Training Center, Seattle WA, June 25-26 and August 21-22, 2003.
- Applied Hydrogeologic Site Characterization for Environmental Professionals,** Northwest Environmental Training Center, Seattle WA, May 29-30, 2003.
- What are the Odds? An Introduction to Probabilistic Methods for Environmental and Engineering Geologists.** AEG-AIPG 2002 Joint Annual Meeting, Reno, September 2002.