

Kirsten E. P. Nicolaysen

Department of Geology, Whitman College, Walla Walla, WA 99362

Phone: 509-527-4934, Email: nicolakp@whitman.edu

Social media: <https://www.facebook.com/IslandsOfThe4Mountains>

Web: <https://www.whitman.edu/academics/majors-and-minors/geology/geology-faculty-and-staff/kirsten-nicolaysen>

RECENT RESEARCH ACCOMPLISHMENTS

- Guest editor, *Quaternary Research*, v. 91, Aleutian Islands, May 2019.
- Co-principal investigator of NSF-funded multidisciplinary project for investigations Aleutian volcanoes and their environments during prehistory, including Holocene eruptions, paleotsunamis, paraglaciation, and anthropogenic change
- Co-leader or leader of three Keck Geology Consortium Research Experiences for Undergraduates: Makushin volcano, Unalaska (2009-2010; with R. Hazlett); Islands of Four Mountains, AK with Virginia Hatfield (2014-15); Powder River Volcanic Field, NE Oregon (2012-13, with Nicholas Bader);

PROFESSIONAL EXPERIENCE *(abbreviated)*

Sept. 2020 to present	Professor, Department of Geology, Whitman College
January to June 2017	Sabbatical visitor, University of Sydney
August to Dec. 2016	Visiting Professor Investigator 1, Yachay Tech, Ecuador
Jan. 2014 - July 2016	Chair, Department of Geology, Whitman College
Aug. 2011 to Aug. 2020	Associate Professor, Department of Geology, Whitman College
Aug. 2006 to 2011	Assistant Professor, Department of Geology, Whitman College
Jan. 2002 – Aug. 2006	Assistant Professor, Department of Geology, Kansas State University
September to Dec. 2001	Visiting Assistant Professor, Université Libre de Bruxelles, Belgium.
Sept. 2000 – Aug. 2001	Instructor/ Assistant Professor, Dept. of Geology, Lawrence University
Dec. 1998 – Feb. 1999	Shipboard Scientist, Ocean Drilling Program
January to March 1998	Visiting Researcher, Bishop Museum and the University of Hawai'i
July to Sept. 1997	Visiting Researcher, Brussels Free University - ULB, Belgium
February to April 1996	Shipboard Scientific Staff, BMRG06 cruise, Southeast Indian Ridge

SPECIAL RECOGNITION

At Whitman College: G. Thomas Edwards Award for Excellence in the Integration of Teaching and Scholarship, May 2018; At Kansas State University: William L. Stamey Teaching Award, College of Arts & Sciences, April 2004; Coombs Award for Effective Teaching in Geology, October 2003.

SYNERGISTIC SERVICE ACTIVITIES (last 5 years)

Associate editor: *Geochemistry* (2020)

Peer reviewer: *Bulletin Volcanology*, *Quaternary Research*, *J. Petrology*, *Chemical Geology*, *J. Archaeological Science*, *J. Geophysical Research*, *Geology*, NSF

Member organizing committee March for Science Sydney, Australia (2017)

<https://www.smh.com.au/technology/thousands-march-across-australia-for-science-and-reason-in-public-policy-20170422-gvqbbo.html>

Councilor, Mineralogical Society of America (2012-2015)

PROFESSIONAL PREPARATION

Colorado College	Geology, <i>cum laude</i> , Phi Beta Kappa	B.A. (1992)
University of Wyoming	Geology	M.Sc. (1994)
M.I.T.	Geochemistry	Ph.D. (2001)

LANGUAGES

English, French, Spanish

SELECTED PEER-REVIEWED PUBLICATIONS (* indicates student author)

Co-authored 30+ publications (Aleutian volcanism, Unangan lithic tools, Kerguelen, SEIR)

- Power, J., Roman, D., Lyons, J., Haney, M.M., Rasmussen, D., Plank, T., **Nicolaysen, K.**, Izbekov, P., Werner, C., Kaufman, M., Volcanic Seismicity Beneath Chuginadak Island, Alaska (Cleveland and Tana Volcanoes): Implications for Magma Dynamics and Eruption Forecasting, *submitted J. Volcanology and Geothermal Research*, August 2020.
- Hatfield, V., **Nicolaysen, K.**, West, D.L., Krylovich, O., Bruner, K., Savinetsky, A., Vasyukov, D., MacInnes, B.T., Khasanov, B., Persico, L., Okuno, M., 2019, Human resilience and resettlement among the Islands of Four Mountains, Aleutians, Alaska: *Quaternary Research*, doi: 10.1017/qua.2018.149.
- Persico, L., Lanman*, H., Loopesko*, L., Bruner, K., **Nicolaysen, K.**, 2018, Geomorphic processes influence human settlement on two islands in the Islands of Four Mountains, AK: *Quaternary Research*, p. 1-19, doi:10.1017/qua.2018.112.
- Lerner*, A.H., Crowley, P.D., **Nicolaysen, K.**, and Hazlett, R.W., 2018, Stratigraphy, distribution, and evidence for mafic recharge triggering of the ca. 8.5 ka Driftwood Pumice, Makushin Volcano, Alaska: *Journal of Volcanology and Geothermal Research*, v. 357, p. 362-377. doi.org/10.1016/j.jvolgeores.2018.05.006.
- Okuno, M., Izbekov, P., **Nicolaysen, K.**, Nakamura, T., Savinetsky, A., Vasyukov, D., Krylovich, O., Khasanov, B., Miranda*, J., Persico, L., Hatfield, V., West, D., Bruner, K., 2017, AMS radiocarbon dates on peat section related with tephra and archaeological sites in Carlisle Island, The Islands of Four Mountains, Alaska: *Radiocarbon*, v. 59, 1771-1778. doi:10.1017/RDC.2017.130.
- Hatfield, V., Bruner, K., West, D., Savinetsky, A., Krylovich, O., Khasanov, B., Vasyukov, D., Antipushina, Z., Okuno, M., Crockford, S., **Nicolaysen, K.**, MacInnes, B., Persico, L., Izbekov, P., Neal, C., Bartlett III*, T., Loopesko*, L., Fulton*, A., 2017, At the Foot of the Smoking Mountain: The 2014 Archaeological Investigations in the Islands of Four Mountains: *Arctic Anthropologist*, v. 53, p. 141-159.

SELECTED PEER-REVIEWED PUBLICATIONS cont'd.

- Bader, N.E., **Nicolaysen, K.P.**, Lopez-Maldonado, R., Murray, K.E., Mudd, A.C., 2015, Extensive middle Miocene weathering interpreted from a well-preserved paleosol, Cricket Flat, Oregon, USA: *Geoderma*, v. 239-240, p. 195-205. doi: 10.1016/j.geoderma.2014.10.007.
- Nicolaysen, K.**, Johnson*, T., Wilmerding, E., Hatfield, V., West, D., McGimsey, G., 2012, Provenance of obsidian fragments recovered from Adak Island, central Aleutian Islands: Evidence for long-distance transport of lithic material, in West, D., Hatfield, V., Wilmerding, E., Gualtieri, L., and Lefevre, C., eds., *The People Before: The Geology, Paleoecology and Archaeology of Adak Island, Alaska*. Oxford, British Archaeological Reports International Series 2322, p. 195-210.
- Chatterjee, N., and **Nicolaysen, K.**, 2011, An intercontinental correlation of the mid-Neoproterozoic Eastern Indian Tectonic Zone: evidence from the gneissic clasts in Elan Bank conglomerate, Kerguelen Plateau: *Contributions to Mineralogy and Petrology*, doi: 10.1007/s00410-011-0699-z.
- Nicolaysen, K.P.**, F.A. Frey, J.J. Mahoney, K.T.M. Johnson, D.W. Graham, 2007, Influence of the Amsterdam/St. Paul hotspot along the Southeast Indian Ridge between 77° and 88°E: Correlations of Sr, Nd, Pb and He isotopic variations with ridge segmentation: *Geochemistry, Geophysics, Geosystems*, (G-Cubed), #2006GC001540R.
- Singer, B., Jicha, B., Leeman, W., Rogers, N.W., Thirlwall, M., Ryan, M.F., **Nicolaysen, K.**, 2007, Along strike trace element and isotopic variation in Aleutian Island arc basalt: Subduction melts sediments and dehydrates serpentine. *Journal of Geophysical Research*, v. 112, B06206 (doi:10.1029/2006JB004897).
- Nicolaysen, K.**, and Ritterbush, L., 2005, Critical thinking in geology and archaeology: interpreting scanning electron images of a lithic tool: *Journal of Geoscience Education*, v. 53, p. 166-172.
- Nicolaysen, K.**, Bowring, S., Frey, F.A., Weis, D., Ingle, S., Pringle, M.S., Coffin, M.F., and the Leg 183 Shipboard Scientific Party, 2001, Provenance of Proterozoic garnet-biotite gneiss recovered from Elan Bank, Kerguelen Plateau, southern Indian Ocean: *Geology*, v. 29, p. 235-238.
- Frey, F.A., Weis, D., Yang, H.-J., **Nicolaysen, K.**, Leyrit, H., Giret, A., 2000, Temporal geochemical trends in Kerguelen Archipelago basalts: evidence for decreasing magma supply from the Kerguelen Plume: *Chemical Geology*, v. 164, p. 61-80.
- Nicolaysen, K.**, Frey, F.A., Hodges, K.V., Weis, D., Giret, A., 2000, ⁴⁰Ar/³⁹Ar Geochronology of flood basalts, from the Kerguelen Archipelago, southern Indian Ocean: Implications for Cenozoic eruption rates of the Kerguelen Plume: *Earth and Planetary Science Letters*, v. 174, p. 313-328.

SOCIAL MEDIA WRITING

<https://www.facebook.com/IslandsOfThe4Mountains/> Posts written for NSF related research.

RECENT PUBLICATIONS, NON-PEER REVIEWED

- Nicolaysen, K.**, 2020, contributed to 5 photographs (including cover photo) published in the article A Tough, Versatile People by David Malakoff, *American Archaeology*, June 2020
- Nicolaysen, K.**, 2009, Rim of Fire essay, in Wilson, K., ed., *The Aleutian Islands of Alaska: Living on the Edge* University of Alaska Press, Fairbanks, 300 p.

GRADUATE ADVISERS

Frederick A. Frey, Massachusetts Institute of Technology
Dominique A.-M. Weis, now at University of British Columbia
James D. Myers, University of Wyoming

STUDENT RESEARCH ADVISING

(as of 2020, 50 students directly mentored; ~60% women, ~20% members of under-represented groups)

Undergraduate researcher advisees (Whitman College)

S Ndayambaje (2020-21)
N Caliandro (2020-21)
MJ Wilner (2018-19, 2019-20)
Gustavo Bejar Lopez (2019-20)
Laura Bedoyan (2018-19)
Megan Cooke (2018-19)
Cait Mazzoleni (2018-19)
Jessica Bersson (2018; Keck REU)
Caroline Dickey (2018)
David Burt (2016)
Emily Deacon (2016)
Jon Miranda (2016)
Sam H. Sheffer (2016)
Lydia Loopesko (2015; Keck REU)
Shannon Blair (2015)
Aaron Cohen (2014)
Kate Elkind (2014)
Kerry Streiff (2014; Keck REU)

William Bender (2013; Keck REU)
Cassandra Smith (2013; REU)
Adele Thornton (2013; REU)
Matthew Hanson (2012; REU)
Emily Johnson (2012; Keck REU)
Elizabeth "Janna" Rozar (2012)
Elizabeth Forbes (2011; Keck REU)
Courtney Porter (2011)
Clare Tochilin (2011; Keck REU)
Tamara Carley (2008)
Season Martin (2008)
Peter Meleney (2008)
Ryuhei Yokokawa (2008)
Emily Seider (2007; Keck REU)
Taylor Johnson (2007)

Co-mentored Erica Pitcavage, Henry Lanman

Keck Geology Consortium students co-mentored

Allan Lerner (Amherst Coll.)
Adam Curry (Pomona Coll.)
Allison Goldberg (Williams Coll.)
Lauren Idleman (Colgate Coll.)
Max Siegrist (Beloit Coll.)
Michael Baez (Cal. State Fullerton)
Rebecca Rodd (U.C. Davis)
Johnny Ray Hinojosa (Williams Coll.)

Luke Ferguson (Pomona Coll.)
Anne Fulton (Pomona Coll.)
Thomas Bartlett III (Colgate Coll.)

KSU undergraduates mentored

Shaun Carter
Leisa Meitl
Samantha Allan

M.Sc. students (mentored at Kansas State University)

Michael Brown (graduated May 2004) - SAR and petrologic data illuminate the eruption sequence of post-caldera andesites, Yunaska Volcano, Aleutian arc.
Habib Diop (graduated August 2008) - Geochemical variation within 24.5 Ma basalts of the Trois Menestrels section, Kerguelen Archipelago.
Katrina Pekar (graduated August 2006) - Establishing the chronology of Quaternary eruptions of Mt. Cleveland volcano, eastern Aleutian arc.