

## CURRICULUM VITAE

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### **Kenneth D. Adams**

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### **Professional Preparation**

Humboldt State University, Arcata, CA	Geology	B.A.	1987
Montana State University, Bozeman	Earth Sciences	M.S.	1990
University of Nevada, Reno	Geological Sciences	Ph.D.	1997

*Dissertation title: Late Quaternary pluvial history, isostatic rebound, and active faulting in the Lake Lahontan basin, Nevada and California*

### **Appointments**

2014-present	Research Professor, Division of Earth and Ecosystem Sciences, Desert Research Institute (DRI), Nevada System of Higher Education
2005-2014	Associate Research Professor, Division of Earth and Ecosystem Sciences, DRI
2000-2005	Assistant Research Professor, Division of Earth and Ecosystem Sciences, DRI
1998-2000	Research Associate, Division of Earth and Ecosystem Sciences, DRI
2003-present	Cooperating Faculty, Department of Geological Sciences and Engineering, UNR
2001-present	Research Collaborator, The Great Basin Paleoindian Research Unit, Department of Anthropology, UNR
2000-present	Faculty, Graduate Program in Hydrologic Sciences, UNR
1997-1998	Staff Geologist, Kleinfelder Engineering, Salt Lake City, UT
1992-1997	Research Assistant, Department of Geological Sciences, UNR

### **Awards**

2004	Peter B. Wagner Medal of Excellence for DRI Scholars in the Early Stages of Career Development.
2009	Sabbatical Project: Linking hydrologic models to ancient lake levels: New toys in old sand boxes.

### **Publications**

Adams, K.D., 2003a, Age and significance of late Holocene lakes in the Carson Sink, Nevada: Quaternary Research, v. 60, p. 294-306.

Adams, K.D., 2003b, Estimating palaeowind strength from beach deposits: Sedimentology, v. 50, p. 565-577.

Adams, K.D., 2004a, Estimating palaeowind strength from beach deposits-Reply: Sedimentology, v. 51, p. 671-673.

Adams, K.D., 2007a, Late Holocene lake-level fluctuations and sedimentary environments at Walker Lake, Nevada, USA: Geological Society of America Bulletin, v. 119, no. 1/2, p. 126-139.

- Adams, K. D., 2010a, Lake levels and sedimentary environments during deposition of the Trego Hot Springs and Wono tephras in the Lake Lahontan basin, Nevada, USA: *Quaternary Research*, v. 73, p. 118-129.
- Adams, K. D., 2012a, Response of the Truckee River to lowering base level at Pyramid Lake, Nevada, based on historical air photos and LiDAR data: *Geosphere*, v. 8, no. 3, p. 1-21.
- Adams, K.D., Locke, W.W., and Rossi, R., 1992, Obsidian hydration dating of fluvially reworked sediments in the West Yellowstone region, Montana: *Quaternary Research*, v. 38, p. 180-195.
- Adams, K.D., and Wesnousky, S.G., 1998, Shoreline processes and the age of the Lake Lahontan highstand in the Jessup embayment, Nevada: *Geological Society of America Bulletin*, v. 110, no. 10, p. 1318-1332.
- Adams, K.D., and Wesnousky, S.G., 1999, The Lake Lahontan highstand: Age, surficial characteristics, soil development, and regional shoreline correlation: *Geomorphology*, v. 30, no. 4, p. 357-392.
- Adams, K.D., Wesnousky, S.G., and Bills, B.G., 1999, Isostatic rebound, active faulting, and potential geomorphic effects in the Lake Lahontan basin, Nevada and California: *Geological Society of America Bulletin*, v. 111, no. 12, p 1739-1756.
- Adams, K.D., and Minor, T.B., 2002, Historic shoreline change at Lake Tahoe from 1938 to 1998 and its impact on sediment and nutrient loading: *Journal of Coastal Research*, v. 18, no. 4, p. 637-651.
- Adams, K. D., Goebel, T., Graf, K., Smith, G. M., Camp, A. J., Briggs, R. W., and Rhode, D., 2008, Late Pleistocene and early Holocene lake-level fluctuations in the Lahontan basin, Nevada: Implications for the distribution of archaeological sites: *Geoarchaeology*, v. 23, no. 5, p. 608-643.
- Adams, K.D., and Sada, D.W., 2014, Surface water hydrology and geomorphic characterization of a playa lake system: Implications for monitoring the effects of climate change: *Journal of Hydrology*, v. 510, p. 92-101.
- Bills, B. G., Adams, K. D., and Wesnousky, S. G., 2007, Viscosity structure of the crust and upper mantle in western Nevada from isostatic rebound patterns of Lake Lahontan shorelines: *Journal of Geophysical Research*, v. 112, no. B6, B06405, 10.1029/2005JB003941.
- Briggs, R. W., Wesnousky, S. G., and Adams, K. D., 2005, Late Pleistocene and late Holocene lake highstands in the Pyramid Lake subbasin of Lake Lahontan, Nevada, USA: *Quaternary Research*, v. 64, p. 257-263.
- Broecker, W. S., McGee, D., Adams, K. D., Cheng, H., Edwards, R. L., Oviatt, C. G., and Quade, J., 2009, A Great Basin-wide dry episode during the first half of the Mystery Interval?: *Quaternary Science Reviews*, v. 28, no. 25-26, p. 2557-2563.
- Cartwright, A., Quade, J., Stine, S., Adams, K. D., Broecker, W. S., and Cheng, H., 2011, Chronostratigraphy and lake-level changes of Laguna Cari-Laufquen, Rio Negro, Argentina: *Quaternary Research*, v. 76, no. 3, p. 430-440.
- Forney, W., Richards, L.R., Adams, K.D., Smith, J.L., Rowe, T.G., and Minor, T.B., 2001, Assessment of Land Use Change on Water Quality and Ecosystem Health in the Lake Tahoe Basin, Nevada and California: U.S. Geological Survey Open File Report 01-418, 57 p.
- Goebel, T., Hockett, B. S., Adams, K. D., Rhode, D., and Graf, K., 2011, Climate, environment, and humans in North America's Great Basin during the Younger Dryas, 12,900-11,600 calendar years ago: *Quaternary International*, v. 242, p. 479-501.

- House, P.K., and Adams, K.D., 2009, Preliminary geologic map of the southern part of the lower Walker River area, Mineral County, NV, Nevada Bureau of Mines and Geology Open File Report 09-13, 1:24,000-scale.
- House, P.K., and Adams, K.D., 2010, Preliminary geologic map of the northern part of the lower Walker River area, Mineral County, NV, Nevada Bureau of Mines and Geology Open-File Report 10-12, 1:24,000-scale.
- Pierce, K.L., Adams, K.D., and Sturchio, N.C., 1991, Geologic setting of the Corwin Springs Known Geothermal Resources Area in and adjacent to Yellowstone National Park, *in* Sorey, M.S., ed., Effects of potential geothermal development in the Corwin Springs Known Geothermal Resources Area, Montana, on the thermal features of Yellowstone National Park: U.S. Geological Survey Water Resources Investigations Report 91-4052, p. C1-C37.
- Reheis, M., Redwine, J., Adams, K., Stine, S., Parker, K., Negrini, R., Burke, R., Kurth, G., McGeehin, J., Paces, J., Phillips, F., Sarna-Wojcicki, A., and Smoot, J., 2003, Pliocene to Holocene Lakes in the Western Great Basin: New Perspectives on Paleoclimate, Landscape Dynamics, Tectonics, and Paleodistribution of Aquatic Species, *in* Easterbrook, D.J., ed., Quaternary Geology of the United States, INQUA 2003 Field Guide Volume, Desert Research Institute, Reno, NV, p. 155-194.
- Reheis, M.C., Adams, K.D., Oviatt, C.G., and Bacon, S.N., 2014, Pluvial lakes in the Great Basin of the western United States: A view from the outcrop: *Quaternary Science Reviews*, v. 97, p. 33-57.
- Rhode, D., Adams, K.D., and Elston, R., 2000, Geoarchaeology and Holocene landscape history of the Carson Desert, western Nevada, *in* Lageson, D.R., Peters, S.G., and Lahren, M.M., eds., Great Basin and Sierra Nevada: Boulder, Colorado, Geological Society of America Field Guide, v. 2, p. 45-74.
- Sada, D.W., Rosamond, C., and Adams, K.D., 2013, Effects of recreational use on branchiopod egg and ehippia density, Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area, Nevada, USA: *Journal of Crustacean Biology*, v. 33, p. 286-292.
- U.S. Geological Survey, 2004, Quaternary fault and fold database for the Nation, ver 1.0, U.S. Geological Survey Open-File Report 03-417 (<http://earthquake.usgs.gov/hazards/qfaults/>). *The fault and fold database was a multi-investigator, multi-institutional effort to compile existing information for all active faults in the United States. In collaboration with Piedmont Geosciences, Inc., Adams was responsible for compiling current data for over 200 Quaternary fault zones occurring on five 1x2 degree sheets (1:250,000-scale) in western Nevada (Reno, Walker Lake, Lovelock, Winnemucca, and McDermitt). Each of these compilations represents a separate citation, but all are grouped above into a single reference to save space.*

### **Presentations and Guidebook Articles**

- Adams, K.D., 2000, Historic rates of shoreline change at Lake Tahoe from 1939 to 1998; implications for water clarity: *Geological Society of America Abstracts with Programs*, v. 32, no. 7, p. 332.
- Adams, K.D., 2001, Estimating paleowind conditions from late Pleistocene beach deposits in the western Great Basin: *Geological Society of America Abstracts with Programs*, v. 33, no. 6, p. 21.
- Adams, K.D., 2002a, Paleowind estimates from beach clasts on pluvial lake shorelines, *in* Caskey, S.J., ed., Historical faulting, chronostratigraphy, and paleoseismicity of the central

- Nevada seismic belt, 2002 Friends of the Pleistocene Pacific Cell Field Trip Guidebook, Appendix 1-1C, p. 43-51.
- Adams, K.D., 2002b, Late Holocene lakes in the Carson Sink: age and paleoclimatic significance, in Caskey, S.J., ed., Historical faulting, chronostratigraphy, and paleoseismicity of the central Nevada seismic belt, 2002 Friends of the Pleistocene Pacific Cell Field Trip Guidebook, Appendix 1-2, p. 52-62.
- Adams, K.D., 2003c, Lake-level responses to late Holocene changes in effective wetness in the western Great Basin: 3<sup>rd</sup> International Limnogeology Congress Abstracts, Tucson, AZ, p. 3.
- Adams, K.D., 2003d, Lake levels and sedimentary environments during deposition of the Wono and Trego Hot Springs tephras in the Lake Lahontan basin, Nevada and California, USA: XVI INQUA Congress Programs with Abstracts, Desert Research Institute, Reno, NV, p. 182.
- Adams, K.D., 2004b, Late Holocene Changes in Lakes and Rivers of the Western Great Basin: Oral presentation at the Great Basin Anthropological Conference, Reno, October 2004.
- Adams, K.D., 2004c, Late Holocene diversion history of the Walker River: The tale of a river with a split personality: Geological Society of America Abstracts with Programs, v. 36, no. 5, p. 499.
- Adams, K.D., 2005, Sedimentary record of late Holocene lake-level fluctuations at Walker Lake, Nevada, USA: Geological Society of America Abstracts with Programs, v. 37, no. 7, p. 225.
- \*Adams, K.D., 2007b, The Great Basin during the last Glaciation, presented at conference on Past and Future Drylands Hydrology at Columbia's Lamont Doherty Earth Observatory, July 19, 2007.
- \*Adams, K.D., 2007c, Pluvial Lake Transect through the Great Basin, presented at Abrupt Climate Change Conference at the Comer Family Farm in Wisconsin (Comer Science and Education Foundation), September 12-14, 2007.
- \*Adams, K.D., 2008a, Long term meander migration rates and sediment budget for the lower Truckee River: Floodplain Management Association annual meeting in San Diego, CA, September 4, 2008.
- Adams, K.D., 2008b, Refining lake-level curves by integrating geomorphology, sedimentology, stratigraphy, and archaeology: Examples from the Lahontan basin, presented at Abrupt Climate Change Conference at the Comer Family Farm in Wisconsin (Comer Science and Education Foundation), September 15, 2008.
- Adams, K.D., 2008c, Lake-level fluctuations in the western Great Basin during the Medieval Climate Anomaly: Episodes of both drier and wetter periods than modern: Geological Society of America abstracts with Programs, v. 40, no. 6, p. 227-228.
- Adams, K.D., 2009a, Fluvial responses to base-level lowering: Examples from the Truckee and Walker river, western Nevada, USA: Geological Society of America Abstracts with Programs, v. 41, no. 7, p. 135.
- Adams, K.D., 2009b, Response of the lower Walker River to base-level lowering and minimizing erosion under increased flows: International Symposium on Terminus Lakes, Reno, NV October 26-29, 2009.
- Adams, K.D., 2009c, Recent channel changes on the lower Truckee River from Vista to Pyramid Lake: Truckee River Symposium, November 3, 2009.
- \*Adams, K.D., 2010b, Estimating paleowind strength and direction from beach deposits, California State University, Fullerton.
- \*Adams, K.D., 2010c, Lake-level fluctuations in the western Great Basin during the medieval

- climate anomaly: Episodes of both drier and wetter periods than modern, presented at Abrupt Climate Change Conference at the Comer Family Farm in Wisconsin (Comer Science and Education Foundation).
- Adams, K.D., 2010d, Stream terrace profiles are steeper than their formative channel profiles: results from a historic suite of terraces along the lower Truckee River, NV: Geological Society of America Abstracts with Programs, v. 42, no. 5, p. 154-155.
- \*Adams, K.D., 2011a, Hydrologic fluctuations at Pyramid Lake, Walker Lake, and the Carson Sink, Nevada during the Medieval Climate Anomaly: Pacific Climate Workshop, March 6-9, 2011, Pacific Grove, CA, p. 1.
- \*Adams, K.D., 2011b, The history of Lake Lahontan viewed through the prism of its research history: Geological Society of America Abstracts with Programs, v. 43, no. 5, p. 179.
- \*Adams, K.D., 2012b, Late Holocene paleohydrology of the western Great Basin: Program and Abstracts, American Quaternary Association Conference, v. 22, p. 8-9.
- \*Adams, K.D., 2013a, Israel C. Russell and the dawn of Quaternary geology and geomorphology: Geological Society of America Abstracts with Programs, v. 45, no. 7, p. 247.
- Adams, K.D., 2013b, Quantifying magnitudes and rates of climate-induced hydrologic change: Geological Society of America Abstracts with Programs, v. 45, no. 57, p. 711.
- Adams, K.D., and Locke, W.W., 1989, An analysis of post-Pinedale fluvial terraces near West Yellowstone, MT using obsidian hydration dating techniques: Geological Society of America Abstracts with Programs, v. 21, no. 5, p. 49.
- Adams, K.D., and Wesnousky, S.G., 1994, Isostatic rebound of the Lake Lahontan basin, Nevada and California: Progress report: EOS Transactions, AGU, v. 75, no. 44, p. 581.
- Adams, K.D., and Wesnousky, S.G., 1995, The age and synchronicity of the highest Lake Lahontan shoreline features, northwestern Nevada and northeastern California: Geological Society of America Abstracts with Programs, v. 27, no. 4, p. 1.
- Adams, K.D., and Wesnousky, S.G., 1996, Age relationships and soil development of beach barrier features in the Jessup embayment of the Lake Lahontan basin, NV and CA: Geological Society of America Abstracts with Programs, v. 28, no. 5, p. 41.
- Adams, K.D., and Fontaine, S.A., eds., 1996, Quaternary history, isostatic rebound and active faulting in the Lake Lahontan basin Nevada and California: Pacific Cell Friends of the Pleistocene Field Trip Guidebook, Reno, Nevada, 197 p.
- Adams, K.D., Wesnousky, S.G., and Bills, B.G., 1997, Potential geomorphic effects of isostatic rebound in the Lake Lahontan basin, Nevada and California: Geological Society of America Abstracts with Programs, v. 29, no. 6, p. 438.
- \*Adams, K. D., Goebel, T., and Graf, K. E., 2006, Lake-level fluctuations at the end of the Pleistocene in the Lahontan basin, Nevada, as a control on the distribution of Paleoindian sites: Geological Society of America Abstracts with Programs, v. 38, no. 7, p. 314.
- \*Adams, K.D., and Goebel, T., 2006, Late Pleistocene and Holocene geomorphic history of the Lead Mine Hills, Nevada and Utah: Presentation at the Great basin Anthropological Conference, Las Vegas, October 20.
- Adams, K. D., and Redwine, J. L., 2007, Pleistocene overflow, basin integration, and an explanation for the distribution of OIS 6 and OIS 2 highstands in the Great Basin: Geological Society of America Abstracts with Programs, v. 39, no. 6, p. 270.

- Adams, K.D., Bacon, S.N., Lancaster, N., Rhodes, E., and Negrini, R.M., 2014, How wet can it get? Defining future climate extremes based on late Holocene lake-level records: Geological Society of America Abstracts with Programs, v. 46, no. 6, p. 745.
- Bacon, S.N., Adams, K.D., Bullard, T.F., Keen-Zebert, A., and Decker, D.L., 2014, Sill failure and catastrophic outburst floods from Owens Lake, California: Implications for latest Pleistocene and Holocene paleohydrology of the Owens River drainage basin: : Geological Society of America Abstracts with Programs, v. 46, no. 6, p. 746.
- Bills, B.G., Adams, K.D., and Wesnousky, S.G., 1995, Estimates of upper mantle viscosity in the western Great Basin from Lake Lahontan shoreline elevation patterns: EOS Transactions, AGU, v. 76, no. 46, p. 608.
- Goebel, T., Adams, K.D., Graf, K., Bruce, P., and Winter, Z., 2004, Jakes Depression: A new Clovis site in the Great Basin: Paper presented at the Annual Meeting of the Society for American Archaeology, Montreal, Quebec, Canada.
- Goebel, T., Adams, K.D., and Graf, K., 2004, Clovis sites at Lake Jake, east-central Nevada: Oral presentation at the Great Basin Anthropological Conference, Reno, October 2004.
- Quade, J., Placzek, C.J., Cartwright, A., Kaplan, M.R., Adams, K.D., Stine, S., 2013, Response of South American paleolakes 19-49 to climate change during the late Quaternary: Geological Society of America Abstracts with Programs, v. 45, no. 7, p. 411.
- Ramelli, A.R., Adams, K.D., and Yount, J.C., 1999, Probable short-lived middle Pleistocene spillover from pluvial Lake Beckwourth (Feather River/Pacific drainage system) into the Lake Lahontan basin: implications for biogeography: GSA Abstracts with Programs, v. 31, no. 7, p. 496.
- Ramelli, A., and Adams, K.D., 2001, Spillover point of pluvial Lake Beckwourth into the Lahontan Basin, railroad tunnel portal on east side of Beckwourth Pass: Friends of the Pleistocene Pacific Cell Field Trip Guidebook, p. 18-22.
- Redwine, J.L., and Adams, K.D., 2009, Quaternary evolution of Mohawk Valley, northern California: Preliminary results from geologic mapping and stratigraphic interpretations of Quaternary deposits: Geological Society of America Abstracts with Programs, v. 41, no. 7, p. 639-640.
- Redwine, J.L., and Adams, K.D., 2010, Mohawk Lake or Mohawk Meadow? (revisited) Stratigraphy, geomorphology, and soils support two imperfect hypotheses to explain the Quaternary history of a northeastern California intermontane basin: Geological Society of America Abstracts with Programs, v. 42, no. 5, p. 468.
- Redwine, J.L., and Adams, K.D., 2013, Evidence for at least five glacial advances from middle to late Pleistocene in the northern sierra Nevada Mountains: Mohawk Valley, northeastern California: Geological Society of America Abstracts with Programs, v. 45, no. 7, p. 414.
- Sawyer, T.L., and Adams, K.D., 1999, Temporal and spatial patterns of Quaternary fault activity in northwestern Nevada, *in* Narwold, C., ed., Quaternary geology of the northern Quinn River and Alvord valleys, southeastern Oregon: Pacific Cell Friends of the Pleistocene Field Trip Guidebook, Arcata, California, p. A7-1 – A7-3.

\*Indicates invited presentation.

## **Educational Activities**

### Courses taught at UNR

1997            Geology field camp  
1999- 2004    Field School in Great Basin Prehistory and Paleoecology  
2004, 2006    Advanced Geomorphology  
1999-present  Fluvial Geomorphology (taught every other spring semester).

### Graduate student advisor

- Joanna Redwine, Ph.D., UNR DGSE, 2013
- Steven Bacon, Ph.D., UNR GPHS, in progress

### Graduate student committees

- Christine Kirick, M.S., UNR Hydrology, 2002
- Geoff Smith, M.A., UNR Anthropology, 2006
- Linsie Lafayette, M.A., UNR Anthropology, 2006
- Lisbeth Louderback, M.A., UNR Anthropology, 2007
- Kelly Graf, Ph.D., UNR Anthropology, 2008
- David Page, M.A., UNR Anthropology, 2008
- June Queen, M.S., UNR DGSE, 2008
- Garrett Vice, M.S., UNR DGSE, 2008
- Ronna Bowers, M.S., Humboldt State University Geology, 2009
- Jayne Bormann, Ph.D., UNR DGSE, 2013
- Traevis Field, M.A., UNR Anthropology, in progress

## **Professional Organizations**

Geological Society of America  
American Geophysical Union  
American Quaternary Association

## **Recent Collaborators**

Robert Negrini, California State University, Bakersfield; Jack Oviatt, Kansas State University; Wally Broecker, LDEO at Columbia University; Jay Quade , University of Arizona; Larry Edwards, University of Minnesota; Scott Stine, California State University, East Bay; Ed Rhodes, University of Sheffield; Bruce Bills, Jet Propulsion Laboratory; Steve Wesnousky, UNR; Steve Bacon, DRI; Tom Bullard, DRI; Amanda Keen-Zebert, DRI; Nicholas Lancaster, DRI; Tim Minor, DRI; David Rhode, DRI; Don Sada, DRI; Ted Goebel, Texas A&M; Kelly Graf, UNR; Alan Ramelli, Nevada Bureau of Mines and Geology (NBMG); Kyle House, NBMG; Marith Reheis, U.S. Geological Survey.

## **Graduate Advisors**

Ph.D. Advisor:        Dr. Steven Wesnousky, Center for Neotectonic Studies, UNR  
M.S. Advisor:        Dr. William Locke, Department of Earth Sciences, MSU