

## NICHOLAS LANCASTER

*Research Professor - Division of Earth and Ecosystem Sciences  
Desert Research Institute  
2215 Raggio Parkway  
Reno, NV 89512  
775-673-7304  
Nick.Lancaster@dri.edu*

### Education

B.A.	1971	Geography, University of Cambridge (College Exhibitioner and Scholar)
M.A.	1975	Geography, University of Cambridge
Ph.D.	1977	Geography, University of Cambridge

### Positions held

2005-2008	Senior Director, Center for Arid Lands Environmental Management, Desert Research Institute
2003-2005	Program Coordinator, Earth Surface Dynamics Program, U.S. Geological Survey, Reston, Virginia
2002-present	Distinguished Research Associate, School of Geography, University of Oxford
2000	Acting Deputy Director, Division of Earth and Ecosystem Sciences, Desert Research Institute
1999-2009	Adjunct Professor, Department of Geography, University of Guelph, Ontario, Canada
1994-present	Research Professor, Quaternary Sciences Center (now Division of Earth and Ecosystem Sciences), Desert Research Institute
1991-1994	Associate Research Professor, Quaternary Sciences Center, Desert Research Institute
1989-1990	Visiting Assistant Professor, Department of Geology, Arizona State University
1986-1988	Faculty Research Associate, Department of Geology, Arizona State University
1984-1985	Visiting Faculty Research Associate, Planetary Geology Group, Department of Geology, Arizona State University
1984-1997	Visiting Lecturer, Department of Geological Sciences, University of Texas, November 1984
1983-1985	Lecturer and Senior Research Officer, Department of Environmental and Geographical Science, University of Cape Town, South Africa
1980-1982	Research Officer, Desert Ecological Research Unit, Gobabeb, Namibia
1978-1979	Assistant Lecturer, Department of Geography, University of the Witwatersrand, South Africa
1973-1978	Lecturer in Soil Science/Hydrology, Chancellor College, University of Malawi
1971-1973	NERC Research Studentship, Department of Geography, University of Cambridge

### Honors and Awards

- 2007: Regents Researcher Award, NSHE
- 2002: Nominated for Researcher of the Year, UCCSN
- 2002: Distinguished visiting researcher, School of Geography, University of Oxford
- 2001: El-Baz Award for Desert Research, Quaternary Geology and Geomorphology Division, Geological Society of America
- 2000: Outstanding Faculty Member, University and Community College System of Nevada.
- 2000: Hart Fellowship, University of Sheffield
- 1997: Distinguished Career Award, Association of American Geographers, Geomorphology Specialty Group
- 1995: Nominated for Researcher of the Year, UCCSN
- 1994: Dandini Medal of Science, Desert Research Institute
- 1993: Gladys W. Cole Research Award for Geomorphology, Geological Society of America
- 1992: Outstanding Faculty Member, University of Nevada System

### **Membership in Professional Societies**

- Fellow: Royal Geographical Society, Geological Society of America
- Member: Association of American Geographers, International Association of Sedimentologists, British Geomorphological Research Group, American Quaternary Association, Sigma Xi, American Association for the Advancement of Science, International Society for Aeolian Research

### **Professional Service**

#### ***Editorial Positions***

- 2011 Guest Editor (with Xiaoping Yang and David Thomas) *Special Issue of Quaternary Science Reviews – Spatial and temporal complexity in Quaternary desert datasets: implications for interpreting past dryland dynamics and understanding potential future changes*
- 2010-present Guest Editor (with Joh Henschel) *Special Issue of Journal of Arid Environments – Namib Desert*
- 2009-present Co-Editor (with Andreas Baas and Doug Sherman), *Treatise on Geomorphology, Volume 11, Aeolian Geomorphology*, Elsevier.
- 1992-present Editorial Board member, *Geomorphology*
- 1998-present Editorial Board member, *Earth Surface Processes and Landforms*
- 1999-present Editorial Board member, *Sedimentology*
- 2001-present Editorial Board member, *Quaternary Research*
- 2006-2007 Guest Editor, *Journal of Geophysical Research, Earth Surface*, Special section on aeolian processes
- 1996, 2004, 2006-2008 Guest Editor, *Geomorphology*, Special Volumes on Aeolian Processes from ICAR conferences
- 2000 Guest Editor, *Quaternary International*, Special volume from IGCP 413 Workshop: Linkages between fluvial, lacustrine and aeolian systems, Desert Studies Center, Zzyzx, California
- 1996 Guest Editor, *Earth Surface Processes and Landforms*, Special Issue on Aeolian Processes

1991 Guest Editor (with K. Pye) *Aeolian Sediments Ancient and Modern*:  
International Association of Sedimentologists, Special Paper 16.

### ***Review Panels and Working Groups***

2011 Scientific Advisory Panel Member California Desert Renewable Energy  
Conservation Plan

2011 AAAS Research Competitiveness Program Review Panel for King Abdulaziz  
City for Science and Technology.

2011 Member Mars Science Laboratory Participating Scientist review panel

2007-present Leader, INQUA Project 0704, Sand seas and dune fields of the world: a digital  
Quaternary atlas

2006-2009 International Association of Geomorphologists Working Group on the  
Geomorphic Implications of Global Environmental Change

2006 DRI representative to International Arid Lands Consortium (IALC) Research and  
Demonstration Awards Committee (RADAC)

2005-present Member, Academic Committee, Key Laboratory of Desert and Desertification,  
Cold and Arid Regions Research Institute, Chinese Academy of Sciences

2005-2008 National Park Service Working Group on monitoring of geologic resources in  
national parks

2004 Panel Member, Earth System History Program, National Science Foundation

2004-2011 Member and sometime Vice-Chair, National Academy of Sciences, U.S. National  
Committee for International Union for Quaternary Research (INQUA)

2003 Secretary General, INQUA Commission for Terrestrial Processes, Environments  
and Deposits

1998 Member – Advisory Board, International Conference on Aeolian Research

2002-2008 International Union of Geological Sciences (IGCP) — member, Project 500:  
Dryland Changes, Past, Present, and Future

1999-2002 IGCP Project 413 — member, Understanding Future Dryland Changes from Past  
Dynamics

1993-1998 IGCP Project 349 — Member and sometime U.S. Coordinator, Desert Margins  
and Paleomonsoons

1986-1992 IGCP Project 252 — Member, Past and Future Evolution of Deserts

1983-1985 IGCP Project 184 — Member, Palaeohydrology of the Low Latitude Deserts

### ***Conferences and Workshops Organized***

2010 2nd Planetary Dunes Workshop, Alamosa, CO, co-organizer

2009 Titan Dunes workshop, DRI, SNSC

2009 Dunes Atlas Workshop, School of Geography, Oxford University

2007 1<sup>st</sup> Planetary Dunes Workshop, Alamogordo, NM, co-organizer

2001-2003 XVI INQUA Conference, Reno.

2000 IGCP 413, Linkages between Fluvial, Lacustrine and Aeolian systems, Workshop  
at Desert Studies Center, Zzyzx, California, October 2000

1994 Workshop on the Response of Eolian Processes to Global Change, Desert Studies  
Center, Zzyzx, California, March 1994 (ICAR III)

### ***Session Chairs***

- 2010 Co-organizer: Symposium - Dust in the Earth System, AAAS Annual Meeting, San Diego
- 2009 Co-chair: Geomorphology session at GSA, Portland
- 2009 Co-organizer: Symposium - Origin and Evolution of Deserts, AAAS Annual Meeting, Chicago
- 2007 Convenor, Symposium on Quaternary climate change in deserts, INQUA, Cairns, Australia.
- 2002 Convenor, Topical Session T105, Response of Dryland Geomorphic Systems to Climate Change and Variability, Geological Society of America
- 1997 Convenor, Theme Session, Arid Lands Geomorphology, Geological Society of America
- 1993 Chair, Geological Society of America, Cordilleran and Rocky Mountain Sections Meeting, Reno
- 1991 Co-Advocate and Session Chair (with D.F. Ritter), Theme Session 5: Global Warming and Geologic Evidence of Aridification during Late Quaternary Time, Geological Society of America Annual Meeting
- 1990 Co-Convenor (with K. Pye), Symposium on Aeolian Sediments and Processes, International Sedimentological Congress, Nottingham, U.K.

### ***Positions in Professional Societies***

- 2005-2010 Founding President, International Society for Aeolian Research (ISAR)
- 1992-1993 Chair, SEPM Aeolian Sediments and Processes Research Group
- 1985 Secretary, Southern African Society for Quaternary Research
- 1982-1985 Executive Committee Member, Southern African Society for Quaternary Research

### ***Invited Participation in Meetings and Working Groups***

- 2010 Invited presentation (with Stephen Scheidt), AGU Fall Meeting Session
- 2010 Invited keynote speaker, Global Sand Seas: past, present, future, Royal Geographical Society, London, UK.
- 2010 Presidential Address, ICAR VII, Argentina
- 2002 Invited speaker, GSA Annual Meeting, Pardee Symposium, *There and Back Again: Terrestrial Approaches to Extraterrestrial Problems*
- 1997 Invited observer, *Management Scale Ecosystem Research Workshop*, DoD/DOE/EPA Strategic Environmental Research and Development Program, Warrenton, Virginia
- 1996 Invited keynote speaker, International Conference on Desert Development on the Arab Gulf Countries, Kuwait, *Understanding the dynamics of aeolian sand transport systems - an overview of recent progress*
- 1991 Invited speaker, Los Angeles County Museum of Natural History Symposium, *Southern California Climate, Trends and extremes of the past 2000 years*
- 1991 Invited speaker, GSA Annual Meeting, Quaternary Geology and Geomorphology Division Symposium: *Quaternary climatic change in arid and semiarid western North America: evidence from the Great Basin, Desert Southwest, and Great Plains*

- 1990 Invited speaker, NATO Advanced Research Workshop, *Sand, Dust and Soil in their Relation to Aeolian and Littoral Processes*, Sandbjerg, Denmark
- 1989 Invited speaker, 28th International Geological Congress, Washington D.C., Symposium on Aeolian Sediments
- 1989 Invited speaker and symposium participant, American Association for the Advancement of Science, Annual Meeting, NASA Ames Research Center, Aeolian Consortium, 1986-1991
- 1987 Invited speaker, GSA Annual Meeting, History of Geology Division Symposium: *History of Studies of Arid Lands, Ancient and Modern*
- 1987 Panel member, SEPM Bedforms and Bedding Structures Research Symposium, S.E.P.M. Mid Year Meeting, Austin, Texas
- 1986 Invited Speaker and Panel Member, 17<sup>th</sup> Binghamton Symposium in Geomorphology, *Aeolian Geomorphology*
- 1985 Invited speaker, Geological Society of America Penrose Conference, Geomorphic and Stratigraphic Indicators of Climatic Change in Arid and Semiarid Environments, Lake Havasu City, Arizona

### ***Field Trips and Short Courses***

- 1999 Leader, Cenozoic Landforms and Deposits of the Western Kalahari and Central Namib Desert, Namibia, *XV INQUA Congress Field Excursion B9*
- 1996 Co-leader (with K. Adams and others), Friends of the Pleistocene Pacific Cell, Fall field trip to Lake Lahontan Basin
- 1994 Co-leader (with S.G. Wells and others), G.S.A. Cordilleran Section field trip, Quaternary Stratigraphy and Dating Methods: Understanding Geologic Processes and Landscape Evolution in Southern California
- 1990 Co-leader (with O.K. Davis and others), G.S.A. Cordilleran Section field trip, Quaternary and Environmental Geology of the Northeastern Gulf of California
- 1988: Convenor (with R. Greeley), Dynamics of aeolian processes, Graduate College Faculty Research Conference, Arizona State University
- 1988 Contributor, Short Course on Aeolian Processes for Kuwait Institute of Scientific Research, Arizona State University
- 1983 Co-Leader, International Symposium on Late Cenozoic Palaeoclimates of the Southern Hemisphere, Swaziland; Post symposium field excursion to Kalahari and Namib Deserts, September 1983
- 1983 Co-organizer (with J.C. Vogel and J. Deacon), Workshop on the Evidence for Late Quaternary Climatic change in Southern Africa, Johannesburg

### ***Guest Lectures and Seminars***

- 2008 Texas A&M University, Department of Geography
- 2004 Rutgers University, Department of Geological Sciences, Quaternary Studies Program
- 2004 University of Oxford, Department of Geography
- 2003 University of Pittsburgh, Department of Geological Sciences
- 2000, 2004 University of Sheffield, Department of Geography
- 1999 University of California, Santa Barbara, Department of Geography
- 1999 University of Nebraska, Lincoln, Department of Geosciences
- 1998 Trent University, Ontario, Canada, Department of Geography

1993, 1996,  
1998 University of Guelph, Ontario, Canada, Department of Geography  
1993 University of Nevada, Las Vegas, Department of Geology  
1991 University of Nevada, Reno, Department of Geography  
1989 University of California, Los Angeles, Department of Geography  
1989 University of Southern California, Department of Geography  
1989, 1993 Arizona State University, Department of Geography  
1988 Northern Arizona University, Department of Geology  
1987, 1990 University of Arizona, Department of Geosciences  
1985 University of California, Berkeley, Department of Geography  
1984, 1988 University of Texas at Austin, Department of Geological Sciences

### ***Organizing Committees***

2007, 2010 Planetary Dunes Workshops  
2003 Secretary General INQUA Congress, Reno  
2000 Hot Topics Chair, Geological Society of America, Annual Meeting, Reno  
1998 DRI/Army Research Office: New Research Directions in Desert Surficial Processes and Landscape Dynamics on Military Lands, Desert Studies Center, Zzyzx, California  
1997 International Symposium: Changing Water Regimes in Drylands, Desert Research Institute  
1990 IGCP Project 252 Past and Future Evolution of Deserts Annual Meeting, Tucson, Arizona  
1983 International Symposium on Late Cenozoic Palaeoclimates of the Southern Hemisphere, Swaziland

### ***Manuscript Reviews***

Science, Sedimentology, Journal of the Geological Society of London, Journal of Sedimentary Research, Journal of Geology, Geology, Geological Society of America Bulletin, Journal of Geophysical Research, Earth Surface Processes and Landforms, Geomorphology, Geography, Catena, South African Geographical Journal, Palaeoecology of Africa, Association of American Geographers Annals, University of Arizona Press, Canadian Journal of Earth Sciences, Quaternary Research, Remote Sensing of Environment (and many others)

### ***Grant Reviews***

Council for Scientific and Industrial Research (Foundation for Research Development, South Africa)  
National Geographic Society  
United States Geological Survey  
National Science Foundation  
NASA  
Natural Environment Research Council (UK)  
Australian Research Council  
Norwegian Research Council  
Israel-USA Bi-National Science Foundation

### ***Desert Research Institute Committees***

2008 -2010 Institute Promotions Committee (chair 2009)  
2006 Reallocation Committee (Facilities Working Group)  
2006 DEES Promotions Committee (chair)  
2005-2007 Research Affairs Committee  
2002 Search Committee, CIASTA Director  
1999-2000 Co-chair, Search Committee for Division of Earth and Ecosystem Sciences  
Director  
1999 Division of Earth and Ecosystems Science Council  
1999-2001 Institute Promotions Committee  
1998 Organizing Committee, New Research Directions in Desert Surface Processes in  
and Landscape Dynamics on Military Lands, Desert Studies Center, Zzyzx, April  
1998  
1998-2001 Chair, Organizing Committee, Symposium on Changing Water Regimes in  
Drylands  
1997, 2000,  
2005-present J.O. Davis Scholarship Selection Committee  
1996-1997 Chair, Search committee for fluvial geomorphologist, QSC  
1996-1997 Promotions Committees, DRI and QSC  
1995 Search Committee for EEEEC Center Director  
1995-1998 Status of Women Committee  
1995-1996 Strategic Planning Group  
1995- 2000 Dandini Medal Committee (chair, 1999)  
1995 Computer Committee  
1994-1996 Northern Nevada Science Center Steering Committee  
1994 -1998 Chair, Colin Warden Memorial Endowment Committee

### ***NSHE Committees***

2002 Member, Nevada Space Grant Consortium  
1999 UCCSN Teaching Award Committee  
1993-1996 Nevada Consortium on Geology, Geophysics and Geochronology  
1996-1998 Nevada EPSCoR Proposal Development Panel Member.

### ***UNR Committees***

1999-2003 Curriculum Committee, Department of Geological Sciences

## Grants and Contracts

### Current

- 2011-present Co-I NASA MFRP – Dune trends and atmospheric modeling
- 2009-present Co-PI, GBUAPCD – Keeler Dunes history and dynamics
- 2007-present PI, INQUA Project 0704, Sand seas and dune fields of the world: a digital Quaternary atlas

### Past

- 2008-2013 Co-PI Nevada NSF EPSCoR – Nevada Infrastructure for Climate Change Science, Education, and Outreach -National Science Foundation Cooperative Agreement EPS-0814372
- 2013 Co-PI: Aspen Environmental – Palen Solar Project
- 2010-2011 Co-PI SLOAPCD – Oceano Dunes dust emissions
- 2010-2011 PI - British Petroleum – Pipelines and dune mobility
- 2009-2010 PI- Otis Bay – Ash Meadows restoration
- 2007-2011 Co-PI NASA ESPCoR Planetary Surfaces
- 2008-2010 Co-I, Israel Bi-national Science Foundation – Negev Dunes (with Haim Tsoar and Dan Muhs)
- 2006-2010 Principal Investigator, Visualization of sand dune and sand sea development, DOD/STTC.
- 2006-2008 Principal Investigator, Fringe toed lizard habitat study, Coachella Valley, CA, USGS Denver
- 2003-2008 Co-Principal Investigator (with Michael Ramsey, University of Pittsburgh) Eolian processes in arid regions, NASA Earth Sciences Division.
- 2003-2006 Co-PI, (with Dave Loope and Clint Rowe), Collaborative Research: Paleometeorological records from sand dunes and eolian sandstones, National Science Foundation
- 2003-2006 Co-Principal Investigator, Airflow and Sediment Transport in Complex Terrains on Mars: A Shear Stress Partitioning Approach, NASA Mars Fundamental Research Program
- 2002-2006 Principal Investigator, ACS/PRF: Internal Sedimentary structure of desert dunes
- 2002-2003 Principal Investigator, Nevada Space Grant, Sand transport pathways
- 2001-2003 Co-Principal Investigator, National Science Foundation, Aeolian Processes in the McMurdo Dry Valleys, Antarctica
- 2001-2002 Principal Investigator, US Geological Survey, Sand transport at Owens Lake,
- 2001 Co-PI (with R. Webb, USGS), Long-term sand supply to Coachella Valley fringe-toed lizard (*uma inornata*) habitat in the northern Coachella Valley, California
- 2000-2001 Principal Investigator, Bureau of Land Management, Dune dynamics in the Christmas Valley, Oregon
- 2000-2002 Co-PI (with Jack Gillies): USDA, Influence of dryland vegetation on sediment transport by wind
- 1999-2000 Principal Investigator, USGS, Mojave Desert wind erosion study,
- 1999 Principal Investigator, NOAA, Climate change research - Analysis of data from Geomet stations

1999-2002 Co-PI (with Jack Gillies), National Science Foundation, Fundamental studies of the dust emission process

1999-2000 PI: Twentynine Palms IT/LP Science Advisory Team, Tierra Data Systems

1998-2001 Principal Investigator, National Science Foundation, Relations between sand transport rates and natural desert vegetation cover

1998-2001 Principal Investigator, Great Basin Unified Air Pollution Control District, Studies of managed vegetation as a control for dust emissions from Owens Lake, California (includes 4 separate contracts)

1997-1998 Principal Investigator, USGS, Wind erosion studies

1996-1997 Principal Investigator, NASA, Orbital radar studies of the McMurdo Dry Valleys, Antarctica

1995-1997 Principal Investigator, Great Basin Unified Air Pollution Control District, Studies of effect of natural vegetation on sand transport

1993-1996 Principal Investigator, Department of Energy, Great Basin Paleoenvironmental Studies, Geomorphology

1993-1996 Principal Investigator, Desert Research Institute, Internal Project Assignment, SIR-C Radar Data Analysis

1993 Principal Investigator, Nature Conservancy, Coachella Valley Preserves Project

1993-1994 Luminescence Dating Laboratory Equipment Grant, E.L. Cord Foundation

1993-1994 Aeolian Processes at Owens Lake, CA., Great Basin Unified Air Pollution Control District

1992-1999 Principal Investigator, Soil Remediation studies and wind erosion potential, Nevada Test Site, Department of Energy (multiple contracts)

1992-1996 Principal Investigator, E.L. Cord Foundation, Quaternary Geochronology Laboratory equipment

1992-1994 Principal Investigator, National Science Foundation, Earth Sciences Division, Global Change Program, Response of eolian geomorphic systems to climatic change

1992-1994 Principal Investigator, Evolution of the Namib Sand Sea, National Geographic Society

1992-1993 Co-Principal Investigator, Bioanthropology Foundation, Remote Sensing Studies In Egypt

1992-1993 Principal Investigator, Desert Research Institute, Internal Project Assignment, Stratigraphic studies of Lake Lahontan shoreline deposits

1991-1992 Principal Investigator, American Water Development: Potential effects of groundwater abstraction on Great Sand Dunes National Monument

1991 National Research Council, Travel Grant for INQUA Meeting, Beijing, China, August 1991

1990-1994 Project Coordinator, NATO Cooperative Research Program: Thermoluminescence dating of aeolian deposits in the Mojave Desert (with Ann Wintle and Helen Rendell, U.K.)

1990-1992 Principal Investigator, Development of Kelso Dunes, Mojave Desert, California, National Geographic Society

1989-1991 Principal Investigator, Formation of super bounding surfaces in modern sand seas, National Science Foundation, Earth Sciences Division

1989-1998 Associate, Earth Observing System Radar Facility Instrument Team (with G.G. Schaber and others)

1989-1990 Principal Investigator, Investigator Incentive Award, Arizona State University

- 1988-1989 Principal Investigator, Research Incentive Award, Arizona State University
- 1988-1997 Co-Investigator (with R. Greeley and others) NASA Shuttle Imaging Radar (SIR-C) Experiment
- 1987-1991 Co-Investigator (with R. Greeley), Martian Aeolian Processes, NASA Planetary Geology Program
- 1987 Co-Investigator, (with G. Kocurek) Reservoir characterization of aeolian deposits Unocal
- 1984-1985 Principal Investigator, Aeolian and dune processes in the Namib Sand Sea. C.S.I.R. Foundation for Research Development and University of Cape Town Research Committee
- 1984-1985 Principal Investigator, Dynamics of deflation hollows at Elands Bay. University of Cape Town Research Committee
- 1983 Principal Investigator, Dune systems in the southwestern Kalahari: Harry Openheimer Institute for African Studies, University of Cape Town
- 1983-1986 Principal Investigator, Late Quaternary Environments in southern Africa. C.S.I.R. Atmosphere and Climate Programme
- 1979 Principal Investigator, Fixed Dune Systems in the Kalahari. Senate Research Grant, University of the Witwatersrand
- 1974-1978 Principal Investigator, Lake Chilwa Quaternary History: University of Malawi Research and Publications Committee
- 1972-1973 Ph.D. fieldwork in Botswana: Royal Geographical Society, Royal Society, University of Cambridge (Smuts Memorial Fund, Philip Lake Fund)

## **Graduate Student Advising**

### *Current Advisees*

- Pepe, Nate, “*Quaternary dunes in northern Nevada*”, Department of Geological Sciences, University of Nevada, Reno (MS).
- Cupp, K., “*Leeside deposits of aeolian dunes- an experimental approach*”, Department of Geological Sciences, University of Nevada, Reno (PhD).

### *Past Advisees (MS)*

- Cupp, K., “*Stratigraphy of Lake Lahontan Deposits*”, Department of Geological Sciences, University of Nevada, Reno, 1993-1997.
- Jacobson, S., “*Geomorphic effects of forest fires*”, Department of Geological Sciences, University of Nevada, Reno, 1996-1997.

### *Current Ph.D. committees (UNR)*

- Okamoto, Sohei, “*Advanced software frameworks for climate change research*”, Department of Computer Science.
- Wriston, Teresa, “*Geoarchaeology in western Zimbabwe*”, Department of Anthropology.
- Hutson, Jared, “*Paleoenvironmental reconstruction of Middle Stone Age sites using faunal assemblages*”, Department of Anthropology.

### *Past Ph.D. committees (UNR)*

- Butt, A., " *Stream channel morphology in the Lake Tahoe Basin*" Hydrological Sciences Program, University of Nevada, Reno, 2000
- Adams, K., " *Tectonics and Lake Lahontan Shorelines*", Department of Geological Sciences, University of Nevada, Reno, 1993-1997.
- Stirling, M., " *Seismic hazards in southern California*", Department of Geological Sciences, University of Nevada, Reno, 1993-1998.
- De Polo, C. " *Estimation of slip rates in the Great Basin using geomorphic criteria*", Department of Geological Sciences, University of Nevada, Reno, 1993-1998.

*Ph.D. committees (other institutions)*

- Scheidt, S., " *Remote sensing in arid regions*", Department of Geological Sciences, University of Pittsburgh, 2000-2009.
- Sweezy, C., " *Response of eolian depositional systems to climate and tectonics, Tunisia*", Department of Geological Sciences, University of Texas at Austin, 1992-1997.
- Bach, A.J., " *Climatology of dust in southern California*", Department of Geography, Arizona State University. 1992-1996.
- Frank, A., " *Airflow patterns over eolian dunes: implications for dune behavior and distribution*", Department of Geological Sciences, University of Texas at Austin. 1991-1994.
- Lee, J. , " *The effect of desert shrubs on shear stress from the wind*", Department of Geography, Arizona State University. 1986-90
- Sweet, M. " *Eolian dune airflow dynamics: implications for dune migration, deposits and spacing*", Department of Geological Sciences, University of Texas at Austin. 1986-1989
- Blount, G., " *Regional aeolian dynamics from remote sensing. Origin of the Gran Desierto, Sonora, Mexico*", Department of Geology, Arizona State University. 1986-1988.

*Past M.S. Committees (UNR):*

- Sgambatti, Matt, “*Immersive Visualization and Analysis of Ground Penetrating Radar Data*”, Department of Computer Sciences
- Thompson, S., “*Aspects of martian geology*”, Department of Geological Sciences, University of Nevada, Reno, 2006-2010
- Willoughby, C. “*Neotectonics in the Ruby Mountains, Nevada*”, Department of Geological Sciences, University of Nevada, Reno, 1996-1997.
- Sloan, J., “*Response of the Eel River to catastrophic floods in 1954, 1964, and 1997*”, Hydrological Sciences Program, University of Nevada, Reno, 1995-1997.
- Epps, T. Department of Biology, University of Nevada, Reno, 1996.

*M.S. Committees (other institutions):*

- Beveridge, C.A. , “*The Origin and Evolution of the Gran Desierto Sand Sea, Sonora, Mexico*”, Department of Geological Sciences, University of Texas at Austin, 2004-2004
- Crawley, D.M., “*A wind tunnel investigation of drag partition*”, Department of Geography, University of Guelph, 2000
- Edgett, K. “*Sand on Mars: the properties of dark intercrater deposits*”, Department of Geology, Arizona State University, 1988-1990.
- Jones, Lawrence S. “*Relationships between coastal eolian and shallow marine deposition in the Middle Jurassic Page Sandstone and Carmel Formation, south central Utah*”, Department of Geology, Northern Arizona University, 1989-1990
- Paisley, E.C.I. “*Discrimination of active and inactive sand from remote sensing: Kelso Dunes, Mojave Desert, California*”, Department of Geology, Arizona State University, 1988-1990
- Skypeck, A. “*Comparison of a Mars circulation model with aeolian features and deposits*”, Arizona State University, 1987-1989.

*External examiner:*

- D.Phil. thesis “*Late Quaternary paleoenvironmental reconstruction of the Arabian Peninsula*”, Helen Bray, Department of Geography, University of Oxford, 2004
- Ph.D. thesis “*Remobilization of southern African desert dune systems by twenty-first century global warming*”, Melanie Knight, Department of Geography, University of Sheffield, UK, 2004
- Ph.D. thesis “*The spatial and temporal geomorphology and surficial sedimentology of the Gurra Gurra crescentic dunes, Strzelecki Desert, Australia*”, Mark Anthony Bishop , University of Adelaide, 1997.
- M.Sc. thesis “*Wind erosion potential in the Cape Province*” Jennifer Hallward, University of Cape Town. 1988.
- MA thesis “*The sedimentology and palaeoenvironmental significance of vlei sediments on the Winterberg, South Africa*”. Felicity Dewey, Rhodes University, Grahamstown. 1988.
- Ph.D. thesis “*Genesis and ordering of longitudinal dunes*”, George Tseo, University of Adelaide. 1986.
- M.A. thesis “*The effects of land use on sediment input to Swartvlei*”, Janet Barker, University of Cape Town. 1985.

## **Undergraduate and Graduate Teaching**

### *University of Nevada, Reno*

Fall 2006	Advanced Geomorphology (GEOL 441-641), with T. Bullard and K.Adams
Fall 2002	Earth Surface Processes and Sediments (GEOL 202), with J. Trexler
Fall 2002	Advanced Geomorphology (GEOL 441-641), with T. Bullard
Fall 2001	Earth Surface Processes and Sediments (GEOL 202), with J. Trexler
Fall 2000	Earth Surface Processes and Sediments (GEOL 202)), with J. Trexler
Spring 2001	Advanced Geomorphology (GEOL 441-641), with T. Bullard
Spring 1998, 1999,2000	Geomorphology (GEOL 341)
Fall 1996	Desert Geomorphology (GEOL 740)
Spring 1995	Paleolakes of the Great Basin (GEOL 702j)
Fall 1994	Regional Geomorphology of the Western United States (GEOL 701j)
Fall 1993	Geology of the Ice Ages (GEOL 745)
Spring 1993	Desert Geomorphology (GEOL 740)

### *Arizona State University*

Fall 1990:	Introduction to Physical Geology (GLG 101C) Physical Geology Laboratory (GLG 103) Faculty Research Seminar (GLG 503)
Spring 1990:	Physical Geology Laboratory (GLG 103) Aeolian Geology (GLG 490/598)
Fall 1989:	Introduction to Physical Geology (GLG 101C) Faculty Research Seminar (GLG 503)
Fall 1988:	Introduction to Physical Geology (GLG 101C)

### *University of Cape Town*

1985:	Introductory geomorphology course Upper division course in Geomorphic Processes Graduate course in desert geomorphology
1984-1985:	Graduate courses in geomorphology, arid lands surface processes

### *University of the Witwatersrand, Johannesburg*

1978-1979:	Introductory geomorphology course, Upper division course on arid lands geomorphology
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### *Chancellor College, University of Malawi*

1973-1978:	Introductory courses in biogeography, field methods and surveying Upper division courses in soils, geomorphic processes, Quaternary environments
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## **Outreach and creative activities**

### *Film and television appearances*

2003: KNPB Channel 5 Reno “Wild Nevada Series #203: Southern Sand Dunes”

<http://www.knpb.org/WildNevada/Trip303.asp>

1999: *Burning Sands: Raging Sands* ■ Brando Quilici Productions/Discovery/RAI/Teleimages ■

Producers: Brando Quilici/Executive: Steven Manuel ■ Writer: Robert Goldberg

[http://www.brandequilici.com/detail\\_01.asp](http://www.brandequilici.com/detail_01.asp)

This film won the award for Best Writing at the Jackson Hole Wildlife Film Festival 2001

<http://www.jhfestival.org/competition/winners.php#2001>