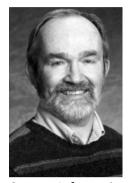
Stanford | SCHOOL OF EARTH, ENERGY & ENVIRONMENTAL SCIENCES

Donald Lowe

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Max Steineke Professor in Earth Sciences



Contact Information

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Internet Links:

SPODDS

Research & Scholarship

Teaching Publications

- Professor, Geological Sciences
- Member, Bio-X

Don Lowe was born and raised in Sacramento, California, and attended Stanford University for his undergraduate study. In his sophomore year, he chanced to take a class in physical geology from Ben Page, which set the course of his future professional career. He decided to go back "east" for his graduate study and enrolled in geology at the University of Illinois, where he received a PhD degree in 1967. He subsequently was awarded a post-doctoral associate position at the US Geological Survey (1968-70) and started his first academic position as an Assistant Professor at Louisiana State University in 1970. He returned to Stanford in 1988 as a Professor and has continued his education, teaching, and research there since then. His research falls into two broad areas: deep-water sedimentation and Archean sedimentary systems. In the former, he examines the processes of sediment transport and deposition in the deep-sea, resulting lithofacies and lithofacies associations, stacking and facies pattern as reflecting environments of deposition, and overall basin history. The Archean research focuses on rocks older than 3.0 billion-years-old and aims to use sedimentary principles to investigate early surface environments, the nature and role of early organisms, the role of giant meteorite impacts in early crustal development, and Archean basinal settings and tectonics.

Administrative Appointments

- Visiting Graduate Fellow, Sedimentary Research Laboratory University of Reading, Reading, England (1966 1967)
- Instructor in Geology, University of Illinois (1967 1968)
- Post-doctoral Research Associate, U.S. Geological Survey, Menlo Park, California (1968 1970)
- Assistant Professor, Department of Geology, Louisiana State University, Baton Rouge, Louisiana (1970 1973)
- Associate Professor, Department of Geology, Louisiana State University, Baton Rouge, Louisiana (1973 1978)
- Professor, Department of Geology, Louisiana State University, Baton Rouge, Louisiana (1978 1988)
- Visiting Professor, Department of Geology, University of Ottawa, Ottawa, Ontario, Canada (1980 1981)
- Visiting Lecturer, Department of Geology, Carleton University, Ottawa, Ontario, Canada (1981 1981)
- Acting Chairman, Department of Geology, Louisiana State University, Baton Rouge, Louisiana (1982 1983)
- Consulting Professor, Department of Earth and Space Sciences, University of California at Los Angeles (1988 1988)
- Professor of Geology, Stanford University (1988 1993)
- Professor of Geological & Environmental Sciences, Stanford University (1993 Present)

Honors and Awards

- Graduate Fellowship, National Science Foundation (1964-1967)
- Phi Beta Kappa, Sigma Xi (1964)
- Post-Doctoral Fellowship, U.S. Geological Survey (1968-1970)

- Research Fellowship, Japan Society for the Promotion of Science (1994)
- Max Steineke Professor, Stanford University (2012)
- Honorary Membership, Pacific Section, Society for Sedimentary Geology, SEPM (2012)
- Grover E. Murray Memorial Distinguished Educator Award, American Association of Petroleum Geologists (2014)

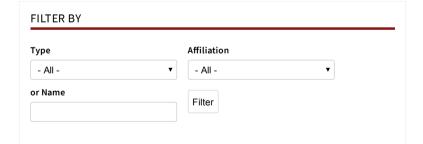
University Service and Professional Activities

- Member, Editorial Board, Precambrian Research (1990 Present)
- Co-Director, Stanford Project on Deep-Water Depositional Systems (SPODDS) (1993 Present)
- Member, Interschool Faculty Committee for the Goldman Environmental Honors Program, Stanford University (1993 1998)
- Member, GSA Committee on the Penrose Medal Award (1995 1997)
- Member, Grant Proposal Review Panel, NASA Exobiology Program (1995 1998)
- Invited Scientist, Kyushu University, Collaborative Studies of Japanese Siliceous Sinter (1997 1997)
- Invited Lecturer, BP Petroleum (Houston) and Texaco (UK) (1997 1997)
- Invited Participant, SEPM Debate at Annual AAPG-SEPM Meeting: Processes of Deep-water Clastic Sedimentation and Their Reservoir Implications: What Can We PredictNULL (1997 1997)
- Qualline Lecturer (a series of 3 lectures), Department of Geological Sciences, University of Texas at Austin (1997 1997)
- Member, Soil Scientist Search Committee, Stanford University (1997 1998)
- Member, Penn State Astrobiology Research Consortium (1998 2009)
- Member, GSA Committee on Honorary Fellows (1998 2000)
- Field Trip Leader, Unocal, Deep-water Systems in Western California (1998 1998)
- Invited Lecturer, San Joaquin Geological Society, Bakersfield, CA (1998 1998)
- Invited Participant and Speaker, Statoil Research Summit, Processes, Stratigraphy, and Lithology Distribution in Deep-water Clastic Systems-An Update, Trondheim and Stavanger, Norway (1998 1998)
- Invited Lecturer, University of Chicago, Chicago, Ill. (1998 1998)
- Leader, Science Definition Team, NASA Astrobiology Research Laboratory (1999 2000)
- Member, NASA Ames Space Science Review Panel (1999 1999)
- Member, advisory panel,, Calif. Acad. Sci., major new directions for CAS programs over the next 10-15 years (1999 1999)
- Member, advisory group, NASA/Ames Astrobiology Program, objectives and goals of new Astrobiology laboratory at NASA/Ames Research Center (1999 1999)
- Invited Lecturer, Conference on North Sea Petroleum province (1999 1999)
- Member, NRC/NSF/GSA panel to consider future research directions and initiatives in sedimentary geology (1999 1999)
- Earth Sciences representative on Walk Through Time committee, Stanford University (1999 1999)
- Stanford Office of Technology and Licensing Grants Committee, Stanford University (1999 2000)
- Member, Editorial Board, Astrobiology (2000 2005)
- Member, UCLA Center for Astrobiology (2000 2009)
- Invited Speaker, Barberton Geological Society, South Africa (2000 2000)
- Invited Speaker, Triton Energy, Dallas, Texas (2000 2000)
- Invited Speaker, Louisiana State University (2000 2000)
- Invited Speaker, UCLA (2000 2000)
- Invited Speaker, Petrobras Conference on Deep-water Sedimentation, Rio de Janeiro, Brazil (2000 2000)
- Member, SETI Advisory Committee on long-range planning for new program on Life in the Universe (2000 2002)
- Organizer and Leader, AAPG Hedberg Field Research Conference, Deep-water Sandstones, Submarine Canyon to Basin Plain, Western California, April 9-14
 (2000 2000)
- Chair, GES Long Range Planning Committee, Stanford University (2000 2004)
- Member, GES Admissions Committee, Stanford University (2000 2001)
- Invited Speaker, SEPM Diamond Jubilee Symposium, Denver, CO; Peninsula Geological Society; University of California, Davis, CA; US Geological Survey, Menlo Park, CA (2001 2001)
- Chair, GES Undergraduate Program Committee, Stanford University (2001 2002)
- Member, Impacts Focus Group, NASA Astrobiology Institute (2002 2006)
- Invited Speaker, UCLA Rubey Symposium, Impacts and the origin, Evolution, and Extinction of Life (2002 2002)
- Invited Speaker, Barberton Geological Society, South Africa; Rohol Aussuchungs Gesellschaft, Vienna, Austria; Osterreichische Geologische Gesellschaft (Austrian Geological Society), Vienna; UCLA Department of Earth and Planetary Sciences (2002 2002)
- GES Course designer (4 planetary science courses), NASA/Ames Research Center and USGS (2002 2004)
- Organizer and leader of 10-day field conference, Archean Surface Processes, in the Barberton Greenstone Belt, South Africa (29 international participants)
 (2003 2003)
- Member, GES Faculty Search Committee (Surface Processes), Stanford University (2003 2004)
- Member, School of Earth Sciences Subcommittee on Core disciplines, Stanford University (2003 2004)
- Chair, Promotion and Tenure Committee, Stanford University (2003 2003)
- Sabbatical leave, Stanford University (2004 2005)
- Invited Speaker, Barberton Geological Society; Goldschmidt Conference, Copenhagen, Denmark (2004 2004)

- Invited Lecturer, G. Derwood Baker Distinguished Lecture Series, Avenidas, Palo Alto, CA (2004 2004)
 - Member, NASA 2009 MSL mission team (2004 2005)
 - Organizer, GES website for planetary and early biological evolution, Stanford University (2004 2005)
 - Member, Editorial Board, Astrobiology (2005 Present)
- Invited Speaker, Barberton Geological Society, South Africa; UCLA Department of Earth & Planetary Sciences, Institute of Geophysics and Planetary Physics; Shirley A. Kliegal Lecture in Geology, California Institute of Technology (2005 2005)
- Co-Chair, Symposium on Deep-Water Sedimentation, Annual Meeting of GSA Cordilleran Section, San Jose, CA (2005 2005)
- Member, Subcommission on Subdivision and Calibration of the Precambrian Time Scale, International Commission on Stratigraphy (2005 2008)
- Co-Chair, GES Faculty Search Committee (Paleobiology), Stanford University (2005 2005)
- Co-Leader (w/Graham), AAPG Field Seminar: Deep-Water Siliciclastic Reservoirs (2006 2006)
- Invited Speaker, University of Southern California, Los Angeles, CA (2006 2006)
- Chair, Undergraduate Curriculum Committee in Geological Sciences, Stanford University (2006 2007)
- Invited Keynote Speaker, Biosignatures in Ancient Rocks Workshop, Sudbury, Ontario (2007 2007)
- Invited Speaker/Participant, Core Workshop: Deep-Water Reservoirs of California: AAPG (2007 2007)
- Chair, GES Long Range Planning Committee 2, Stanford University (2007 2009)
- Associate Chair, GES, Stanford University (2007 Present)
- Member, GES Graduate Admissions Committee, Stanford University (2007 2008)
- Invited Speaker, Deepwater Sediments, RAG (petroleum company, Vienna, Austria) and Reliance Industries (India) (2008 2008)
- Co-Leader, Pacific Section of AAPG Field Trip, Deepwater Sediments in Central California (2008 2008)
- Invited Speaker, Committee on the Origins and Evolution of Life (COEL) of the National Academies of Sciences, Washington, DC. (2008 2008)
- Invited Speaker, Geological Society of Vienna (2008 2008)
- Invited Speaker, CSU-Channel Islands, Symposium, "Early Life on the Ancient Earth and Mars" (2008 2008)
- Chair, GES Graduate Admissions Committee, Stanford University (2008 2012)
- Member, GES Space Committee, Stanford University (2008 2009)
- Member, University Committee on Health and Safety, Stanford University (2009 2011)
- Invited Speaker, Hess Forum on Thin-Bedded Sediments (2009 2009)
- Member, Promotion and Tenure Committee, Stanford University (2011 2011)
- Chair, Promotion and Tenure Committee, Stanford University (2011 2011)
- Leader and Organizer, Stanford-KFUPM Field Trip to Death Valley (2012 2012)
- Keynote Speaker, International Geological Congress, Brisbane, Symposium on Large Asteroid Impacts and Crustal Evolution (2012 2012)
- Leader and Organizer, Stanford-KFUPM Field Course to El Paso area and Guadalupe Mtns. (2014 2014)

Education

- Ph.D., University of Illinois, Geology (1967)
- B.S., Stanford University, Geology (1964)





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