

Donald Lowe

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Max Steineke Professor in Earth Sciences



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Internet Links:

- [SPODDS](#)

Bio	Research & Scholarship	Teaching	Publications
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- 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 Predict NULL (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 Ausschungs 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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