

GREGORY D. HOKE

Instituto Argentino de Nivología Glaciología y Ciencias Ambientales
CRICyT
Rúiz Leal s/n; Parque Gral. San Martín
C.C. 330, 5500 Mendoza
Argentina
v: 54.9261.666.6442
e: gdhoke@earth.rochester.edu

EDUCATION

PhD. in Geological Sciences, Cornell University, Ithaca, NY. 1/2006
Thesis title: *Influence of climate and tectonics on the geomorphology of the western Andean Mountain front, Chile and Peru*
Thesis Committee: T. E. Jordan (chair) (stratigraphy), B. L. Isacks (geomorphology), L. A. Derry (geochemistry) and S. J. Riha (soil science)
B.S. in Geology and Geological Oceanography, University of Rhode Island, Kingston, RI. 5/1998
Indiana University, Bloomington, IN, Field Geology in the Rocky Mountains, 7/1997
Secondary School Diploma, George Stevens Academy, Blue Hill, ME, June 6/1994

RESEARCH STATEMENT

I seek to enhance our understanding of how the earth system behaves through the lens of sedimentology, stratigraphy and surface processes.

AWARDS AND GRANTS

Professional Career

NSF International Research Fellowship, \$122,662, beginning 11/2006
Alexander von Humboldt Fellowship, ~\$90,000, beginning 11/2007

Graduate Career

NASA Earth System Science Graduate Fellowship (\$72,000 total) 2002-2005
Cornell Geological Sciences Meyer Bender class of 1929 Memorial Scholarship 2002-2003
Cornell Geological Sciences Estwing Award for most outstanding graduate student 2002-2003
Geological Society of America Graduate Research Grant 2002
AAPG Foundation Grant in Aid of Research 2002
Sigma Xi (The Scientific Society) Grant-in-Aid of Research 2001

PROFESSIONAL ORGANIZATION MEMBERSHIP

National Postdoctoral Association (since 2006)
Geological Society of America (since 1998)
American Geophysical Union (since 2000)
American Association of Petroleum Geologists (since 2000)

LANGUAGE

English (native speaker)
Spanish (fluent)

EXPERIENCE

NSF International Research Fellow 11/2006- Present
Instituto Argentino de Nivología Glaciología y Ciencias Ambientales, CRITYT, Mendoza Argentina
Advisors: Laura B. Giambiagi and Carmala N. Garziane

Research Associate (unpaid) 11/2006- Present

Department of Earth and Environmental Sciences, University of Rochester, Rochester, NY

Supervisor: C. N. Garzione

Post-Doctoral Research Associate 11/2005-10/2006

Department of Earth and Environmental Sciences, University of Rochester, Rochester, NY

Supervisor: C. N. Garzione

Research Assistant 9/2001- 11/2005

Department of Earth and Atmospheric Sciences, Cornell University, Ithaca, NY

Supervisor: T. E. Jordan

Teaching Assistant 7/2001 and 7/2002

Department of Earth and Atmospheric Sciences, Cornell University, Ithaca, NY

EAS 417 Field Mapping in Argentina

Supervisors: S. M. Kay and V. A. Ramos (Universidad de Buenos Aires)

Teaching Assistant, John S. Knight Writing in the Majors Program 1/2001 - 5/2001

Astronomy and Space Sciences, Cornell University, Ithaca, NY

ASTRO 202 Our Home in the Solar System

Supervisors: J. Veverka and P. Gierasch

Teaching Assistant 8/2000 - 12/2000

Department of Earth and Atmospheric Sciences, Cornell University, Ithaca, NY

EAS 111 To Know Earth

Supervisor: J. M. Bird

Technical Assistant 9/1998 - 8/2000

Department of Earth Atmospheric and Planetary Sciences, Massachusetts Institute of Technology, Cambridge, MA

Task: Preparation of rock samples for geochemical analysis and laboratory maintenance

Supervisor: S. A. Bowring

Field Geologist 6/1998 - 8/1998

Department of Geosciences University of Rhode Island, Kingston, RI

Task: Stratigraphic section measurement and correlation in the Petrified Forest National Park, AZ.

Supervisor: D. E. Fastovsky

Carpenter-Handyman summers, 1994-1997

Dean Hoke Builders, Orland Maine & R. L. Quinn, Eagle Island, Maine

Tasks: New home construction and renovation, small engine maintenance and repair, propane tank delivery, boat launching, dock maintenance, winterization of houses.

Supervisors: Dean Hoke and R. L. Quinn

COLLOQUIUM PRESENTATIONS

Michigan State University 2006

University of Rochester 2006

University of Hannover (Germany) 2005

SKILLS

Computer Platforms

-Macintosh, Windows and UNIX

Field Geology

- Geological and geomorphic feature mapping

- Measurement and regional correlation of stratigraphic sections

GIS and Remote Sensing

- ERMapper image processing software
- ENVI image processing software
- ArcGIS

Teaching

- Lectures for and introductory course in Earth Science
- Direction of students in field based exercises and regional synthesis
- Laboratory exercise design and preparation
- Grading of written assignments (1000-2000 word papers)

Writing

- Substantial team and individual grant writing experience
- Preparation of manuscripts for scientific journals

PEER REVIEW

Journals: *Geology*, *International Journal of Earth Sciences*, *Journal of Geophysical Research*, *Journal of South American Earth Sciences*, *Tectonophysics*, *German SFB 267 volume*

Research Proposals: *FONDCyT (NSF like funding agency in Argentina)*

PUBLICATIONS

Hoke G. D., Isacks, B. L., Jordan, T.E. and Koons, L. J., Long-Term erosion rates derived from reconstruction of a 10 Ma depositional surface, northern Chile: (in preparation for re-submission to *JGR Earth Surface*)

Hoke, G. D., Isacks, B. L., Jordan T.E. and Blanco Pavez, N., Geomorphic evidence for post-10 Ma uplift of the western flank of the central Andes 18°30'-22°S (in revision after positive review for *Tectonics*)

Hoke, G. D., Isacks, B. L. and Jordan, T. E., Observed relationship between slope distributions and long term climatic patterns, west central Andes. (in preparation for submission to *JGR Earth Surface*)

Loveless, J. P., **Hoke, G. D.**, Allmendinger, R. W. and Isacks, B.L., 2005, Pervasive cracking of the northern Chilean Coastal Cordillera: new evidence for forearc extension: *Geology* **33**

Allmendinger, R. W., Gonzalez, G, Yu, J, **Hoke, G.** and Isacks, B., 2005, Trench Parallel Shortening in the Northern Chilean Forearc: Tectonic and Climatic Implications: *Geological Society of America Bulletin* **116**(1-2).

Hoke, G. D., Isacks B. L., Jordan T. E. and Yu, J. S., 2004, A groundwater origin for the giant quebradas of northern Chile: *Geology* **32** (7), p. 605-608. doi: 10.1130/G20601.1

Hoke, G. D. and Turcotte D. L., 2004, Weathering of Stones due to dissolution: *Environmental Geology* **46**(3-4), p. 305-310. doi: 10.1007/s00254-004-1033-0

Hoke, G. D. and Turcotte D. L., 2002, Weathering and Damage: *Journal of Geophysical Research* **107**(B10) p. 2210 doi:1029/2001JB001573

Therrien, F., Jones, M. M., Fastovsky, D. E., Herrick, A. S., and **Hoke, G. D.**, 1999. , The Oldest Triassic Strata Exposed in Petrified Forest National Park Revisited: *National Park Service Paleontological Research* **4**

Herrick, A. S., Fastovsky, D. E., and **Hoke, G. D.**, 1999. , "Occurrences of *Zamites powelli* in Oldest Norian Strata in Petrified Forest National Park, Arizona: *National Park Service Paleontological Research* **4**

(Abstracts)

Hoke, G. D. and Garzione C. N., 2006, (invited presentation), Near synchronous Plateau-Wide Surface Uplift in the Central Andes Deduced From Paleoaltimetry and Geomorphology: Implications for Processes at Depth, *EOS Trans AGU*, 87, Abstract H13G-02

Hoke, G. D., Isacks, B. L. and Jordan T. E., 2006, Long-term erosion rates derived from reconstruction of a 10 Ma depositional surface, northern Chile, 2006 Geological Society of America Annual Meeting Philadelphia, PA

Hoke, G. D. and Garzione, C. N., 2006, Late Miocene plateau wide surface uplift in the Central Andes: an integration of stable isotope paleoaltimetry and geomorphology (oral presentation), *Backbone of the Americas* (Geological Society of America), Mendoza Argentina (April 2006)

- Nester, P. L., Jordan, T. E., Tomlinson, A. J. and **Hoke, G. D.**, 2006, Evidence for late Miocene uplift by long-wavelength rotation of the western flank of the central Andes 20°30' – 21°30' S, Chile (poster presentation), *Backbone of the Americas* (Geological Society of America), Mendoza Argentina (April 2006)
- Jordan T. E., Mpodozis, C., Blanco, N., **Hoke, G. D.** and Nester, P., 2006, Surface uplift of the western slope of the Puna segment of the central Andean plateau (oral presentation), *Backbone of the Americas* (Geological Society of America), Mendoza Argentina (April 2006)
- Hoke, G.D.**, Isacks, B. L., Jordan T. E. and Blanco Pavez, N., 2005, Geomorphic evidence for post-10 Ma uplift of the western flank of the central Andes 18°30'-22°S (oral presentation), 2005 Geological Society of America Annual meeting, Salt Lake City, UT.
- Hoke, G.D.**, Nester, P. L., Jordan, T. E. and Koons, L. J., 2005, Climate, tectonics, erosion and mass balances in an arid forearc: the western Andean mountain front and Pampa del Tamarugal Basin, Northern Chile (poster presentation), GSA penrose conference "Lessons in Tectonics, Climate and Eustasy from the Stratigraphic Record in Arc Collision Zones," Price, UT.
- Hoke, G. D.**, Isacks, B. L. and Jordan T. E., 2005, Equilibrium Landscapes of the western Andean mountain front (10-33°S): long term responses to along strike changes in climate (oral Presentation), 6th International Symposium on Andean Geodynamics, Barcelona, Spain.
- Hoke, G. D.**, Isacks, B. L. and Jordan T. E., 2003, Landscape evolution changes along the western Andean mountain front of Peru and Northern Chile (poster presentation), *EOS Trans, AGU* **84**(47) Fall meeting supplement, Abstract T31C-0858
- Digert, F., **Hoke G. D.**, Jordan T. E. and Isacks, B. L., 2003, Subsurface stratigraphy of the Neogene Pampa del Tamarugal Basin, northern Chile, (oral presentation) *X Congreso Geológico Chileno*, Concepcion, Chile (extended abstract)
- Hoke, G. D.**, Isacks, B. L. and Jordan T. E., 2002, Contrasting styles of erosion along the western slope of the Central Andean Plateau (poster presentation). *EOS Transactions, AGU* **83**(47) Fall meeting supplement, Abstract H61B-776.
- Hoke, G. D.**, Jordan T. E. and Isacks, B. L., 2002, A Groundwater genesis for the giant quebradas of the Atacama Desert, Northern Chile (oral presentation): *5th annual International Symposium on Andean Geodynamics*, Toulouse, France.
- Hoke, G. D.** and Turcotte D. L., 2001, Rock Weathering and Damage (poster presentation), *Eos Trans. AGU*, **82**(47), Fall Meet. Suppl., Abstract NG51A-0454.
- Yu, J. S., Isacks B. L. and **Hoke, G. D.**, 2001, Fault Scarp Degradation in the North Chilean Forearc (poster presentation), *Eos Trans. AGU*, **82**(47), Fall Meet. Suppl., Abstract H42D-0387, 2001
- D'Hondt, S., Zachos, J. C., Bowring, S.A., **Hoke, G.**, Martin, M.W., Erwin, D., Jin, Y., Wang, W., Cao, C. and Wang, Y. 2000, Permo/Triassic Events and the Carbon Isotope Record of Meishan, China. *Programs with Abstracts, Geological Society of America Annual Meeting*.
- Therrien, F., **Hoke, G.**, and Fastovsky, D.E., 1999. , Reconstruction of theropod paleoenvironments in the Chinle Formation of Petrified Forest National Park, Arizona: Abstracts of papers; *Fifty-ninth annual meeting, Society of Vertebrate Paleontology*, Journal of Vertebrate Paleontology vol. **19**(3).

REFERENCES

- Carmala N. Garzzone, University of Rochester, Rochester, NY, garzzone@earth.rochester.edu, 585.273.4572
- Teresa E. Jordan, Cornell University, Ithaca, NY. tej1@cornell.edu, 607.255.3596
- Bryan L. Isacks, Cornell University, Ithaca, NY. bli1@cornell.edu, 607.255.2307
- Richard W. Allmendinger, Cornell University, Ithaca, NY. rwa1@cornell.edu, 607.255.3376