

## **Scott Johnston**

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### **Professional Preparation:**

- Stanford University, Geological and Environmental Science, B.S., 1999
- Stanford University, Geological and Environmental Science, M.S., 2000
- University of California, Santa Barbara, Geology, Ph.D., 2006
- University of Arizona, Postdoctoral Researcher, November, 2006–July 2008

### **Appointments:**

- Assistant Professor of Geology, Cal Poly San Luis Obispo, (Fall 2008–present)

### **Research Experience:**

- California Polytechnic State University (September 2008–present)
  - Structural evolution and provenance of the Nacimiento Block, central California coast
  - Metamorphic petrology, structure, and tectonics of East Greenland
  - Provenance of the Precambrian–Cambrian miogeocline
- University of Arizona Post-doctoral Researcher (November 2006–June 2008)
  - Application of laser ablation ICP mass spectrometry to geochronology (small-volume zircon geochronology, titanite & apatite std calibration) and petrology (trace element thermometry)
  - Tectonic evolution of the East Greenland Caledonides
- PhD and MS Research Projects: structural geology (electron-backscatter diffraction, fault-slip analysis, geologic mapping), geochronology (laser ablation ICP mass spectrometry, ion microprobe, laser ablation  $^{40}\text{Ar}/^{39}\text{Ar}$  mass spectrometry), petrology (electron microprobe, scanning electron microscopy, THERMOCALC, Perple\_X),
  - PhD Advisor: Bradley Hacker; Western Norway: (July, 2002–November, 2006)
  - MS Advisor: Elizabeth Miller; Northern Snake Range, NV (August, 1999–September, 2000)
- Geologic Field Assistant (July–August, 1998; February, 2000)  
Northern Snake Range, NV; Sonora, Mexico
  - Detailed and reconnaissance geologic mapping, measuring and describing section.
- Field Assistant (July, 1997; July 2000; July, 2001)  
White Mountain Research Station, CA
  - Ground truthing of rock type and vegetation coverage for remote spectral data.

### **Grants:**

- ACS Petroleum Research Fund (January 2012–September 2014): *The paleogeographic origin of the Nacimiento Block, central California coast*
- National Science Foundation (January 2008–December 2010): *Collaborative Research: Testing Burial/Exhumation Models for the Evolution of a (U)HP Terrane in an Orogenic Upper Plate, Liverpool Land, East Greenland*

### Teaching Experience:

- Assistant Professor, Cal Poly San Luis Obispo (Fall 2008–present):
  - Classes taught: Introductory Geology (F08, 09, W09, 10, 11, S11), Physical Geology (F10, 11, W09), Physical Geology Lab (F10, W09, 10), Igneous and Metamorphic Petrology (W10), Structural Geology (F08, 09, 10, 11) Field Geology Methods (W11), Geologic Mapping (W09, 10)
  - Senior thesis advisees: *Miogeocline provenance* (Kaysea Perry, 2010; Michelle Reed, 2010), *Greenland tectonics* (Jacob Salimbene, 2010; Matt Eastlick, 2010, Kenjo Agustsson, current), *California Miocene volcanism* (Melissa Beck, 2011), *California Mesozoic forearc deformation* (Brittany Brookshire, 2011; Karen Decker, current; Marlon Oseguera, current; Jennifer Perlee, current)
- GSA workshop: Starting out in undergraduate research and education (October, 2007)
- Associate Instructor, University of Arizona, Physical Geology (Fall 2007)
- Associate Instructor, UC Santa Barbara, Structural Geology (Spring 2006)
- Teaching Assistant, UC Santa Barbara (Fall 2002–Spring 2006): Principles of Physical Geology, Structural Geology, Metamorphic Petrology, Optical Mineralogy, Isotope Tracers, Field Methods
- Outdoor Education Naturalist, San Mateo Outdoor Education, San Mateo, CA (AY 2001/02)
- High School Geology Teacher, Swiss Semester, Zermatt, Switzerland (Fall 2000)

### Awards:

- Outstanding Lecturer, Awarded by UCSB Geology undergraduates (June, 2006)
- Geological Society of America Structural Geology and Tectonics Division, Outstanding Student Research Award (October, 2005)
- Lloyd and Mary Edwards Field Studies Fellowship (June, 2005)
- Geological Society of America Outstanding Student Research Award (Spring 2004, 2005)
- Outstanding Teaching Assistant, Awarded by UCSB Geology undergraduates (June, 2004)
- George Tunell Endowed Fellowship, UCSB Department of Geological Sciences (June, 2003)
- Geological Society of America, Graduate Student Research Grant (Spring, 2003)

### Peer-Reviewed Publications:

- Chiarenzelli, J., Valentino, D., Lupulescu, M., Thern, E., and **Johnston, S.**, 2011, Differentiating Shawinigan and Ottawan orogenesis in the Central Adirondacks: *Geosphere*, v. 7, 2–22, doi: 10.1130/GES00583.1.
- **Johnston, S.M.**, Hartz, E., Brueckner, H. K., and Gehrels, G., 2010, U–Pb zircon geochronology and tectonostratigraphy of southern Liverpool Land, East Greenland: Implications for deformation in the overriding plates of continental collisions: *Earth and Planetary Science Letters*, v. 297, 512–524, doi: 10.1016/j.epsl.2010.07.003.
- Barth, N. C., Hacker, B. R., Seward, G., Walsh, E. O., Young, D., and **Johnston, S.**, 2010, Strain within the Ultrahigh-Pressure Western Gneiss Region of Norway recorded by Quartz CPOs: *Geological Society of London Special Publication*, v. 335, p. 661–678.
- Hacker, B. R., Andersen, T., **Johnston, S.**, Kylander-Clark, A., Peterman, E. M., Walsh, E. O., and Young, D., 2010, High-temperature deformation during continental-margin subduction & exhumation: The ultrahigh-pressure Western Gneiss Region of Norway: *Tectonophysics*, v. 480, p. 149–171.

- **Johnston, S. M.**, Gehrels, G. G., Valencia, V. A., Ruiz, J., 2009, Small-Volume U–Pb Zircon Geochronology by Laser Ablation–Multicollector–ICP–MS, *Chemical Geology*, v. 259, 218–229.
- **Johnston, S. M.**, Hacker, B. R., and Ducea, M., 2007, Exhumation of Ultrahigh-Pressure Rocks Beneath the Hornelen Segment of the Nordfjord-Sogn Detachment Zone, Western Norway: *Geological Society of America Bulletin*, v. 119, p. 1232–1248, doi: 10.1130/B26172.1.
- **Johnston, S. M.**, Hacker, B. R., and Andersen, T. B., 2007, Exhuming Norwegian ultrahigh-pressure rocks: overprinting extensional structures and the role of the Nordfjord-Sogn Detachment Zone: *Tectonics*, v. 26, p. TC5001, doi: 10.1029/2005TC001933.
- Hacker, B. R., Abers, G. A., Peacock, S. M., and **Johnston, S. M.**, 2004, Reply to comment by Romain Bousquet et al. on Subduction Factory 1. Theoretical mineralogy, densities, seismic wave speeds, and H<sub>2</sub>O contents: *Journal of Geophysical Research*, v. 110, doi: 10.1029/2004JB003490.

### **Manuscripts in progress:**

- **Johnston, S. M.**, Kylander-Clark, Discovery of an Eo–Meso–Neoproterozoic terrane in the East Greenland Caledonides and implications for Paleoproterozoic supercontinent paleogeography, final stages of internal review, to be submitted to *Geology*

### **Recent abstracts:**

Cal Poly, San Luis Obispo undergraduates in *italics*

- **Johnston, S. M.**, Kylander-Clark, A., and Brueckner, H. K., 2011, Multiple high-pressure events in an orogenic hangingwall, Liverpool Land, East Greenland: *Eos, Transactions American Geophysical Union*, no. 92, V23E-2604.
- *Agustsson, K.*, **Johnston, S. M.**, and Kylander-Clark, A., 2011, Timing and trace-element geochemistry of migmatitic host gneisses in the Liverpool Land Eclogite Terrane, NE Greenland Caledonides: *Geological Society of America Abstracts with Programs*, v. 43, no. 5, p. 495.
- **Johnston, S. M.**, Kylander-Clark, A., and Brueckner, H. K., 2011, Protracted high-pressure-granulite facies metamorphism prior to high-pressure exhumation in an orogenic hangingwall, Liverpool Land, East Greenland: *Geological Society of America Abstracts with Programs*, v. 43, no. 5, p. 495.
- *Eastlick, M.*, **Johnston, S. M.**, and Kylander-Clark, A., 2010, Discovery of Eoarchean rocks in Gaasland, northeast Greenland: *Eos, Transactions American Geophysical Union*, v. 91, V53A-2226.
- **Johnston, S. M.**, Kylander-Clark, A., and *Salimbene, J.*, 2010, Timing of metamorphism in the Niggli Spids thrust sheet, Gaasland, East Greenland Caledonides: *Eos, Transactions American Geophysical Union*, v. 91, T51A-2018.
- *Reed, M.*, *Perry, K.*, **Johnston, S. M.**, and Gehrels, G., 2010, Detrital zircon provenance of Precambrian–Cambrian miogeoclinal sedimentary rocks, Nevada–Utah border: *Geological Society of America Abstracts with Programs*, v. 42, no. 4, p. 66.

- **Johnston, S. M.**, Hartz, E., Stuewe, K., and Gehrels, G., 2009, Small-volume LA-MC-ICP-MS geochronology and evidence for Archean source terranes in Krummedal sequence pelites, Milne Land, East Greenland: Geological Society of America Abstracts with Programs, v. 41, no. 7, p. 663.
- **Johnston, S.**, Brueckner, H. K., Hartz, E., and Gehrels, G., 2008, Zircon Geochronology and Tectonostratigraphy of Liverpool Land, East Greenland: Evidence for a Caledonian Lower-Crustal Continental Suture: Geological Society of America Abstracts with Programs, v. 40, no. 6, p. 550.
- **Johnston, S. M.**, Brueckner, H. K., Gehrels, G., Manthei, C., Kylander-Clark, A., and Hartz, E., 2008, Evidence for a Mid-Crustal Continental Suture and Implications for Multistage (U)HP exhumation, Liverpool Land, East Greenland: Eos, Transactions American Geophysical Union, v. 89, 53, T41B-1964.

**Other publications:**

- **Johnston, S. M.**, 2006, Exhumation of Norwegian Ultrahigh-Pressure Rocks [Ph.D. thesis]: University of California, Santa Barbara, 132 p.
- **Johnston, S. M.**, 2000, Normal faulting in the upper plate of a metamorphic core complex, northern Snake Range, Nevada [MS thesis]: Stanford University, 60 p.