

SUMMER J. BROWN

Curriculum Vitae

University of Kentucky
Department of Earth and Environmental
Sciences
101 Slone Research Building
Lexington, KY 40506-0053
(540) 599-5696
summer.brown@uky.edu

EDUCATION

M.S. Geosciences 2010 – Virginia Tech
B.S. Geosciences 2006 – Virginia Tech

EMPLOYMENT

University of Kentucky, Instructor/Lecturer, August 2015 – present

Teaching undergraduate geoscience courses, developing new course material, updating coursework to incorporate modern digital methods, improving department online presence

SeisWare, Geoscience Consultant, October 2013 – June 2015

Technical SeisWare and Recon software demonstrations, new data acquisition and interpretation, provide instruction on seismic interpretation, new hire geology and geophysics training, teaching geoscientists to create and give technical presentations, sales and marketing, and software development steering

SeisWare, Geoscience Support & Services, October 2010 – October 2013

SeisWare software support, instructor for beginner and advanced SeisWare classes, technical SeisWare demonstrations, and seismic interpretation workflow consulting

Oregon Department of Transportation, Contract Field Geologist, June 2007 – December 2007

Landslide and rockfall surveying, outcrop characterization, hazard analysis, mapping, and database management

TEACHING AREAS OF INTEREST

Environmental Geoscience
Physical and Field Geology
GIS and Digital Methods
Scientific Communication

TEACHING EXPERIENCE

Our Endangered Planet (EES 110) as Dual Credit for NextGen, University of Kentucky and partner high schools, 2020-2021

A Climate for Change (EES 190), University of Kentucky, 2021

Geoscience Fundamentals I (EES 230), University of Kentucky, 2017-2021

Geoscience Fundamentals II (EES 235), University of Kentucky, 2018-2021

Earthquakes & Volcanoes (EES 150), University of Kentucky, 2016-2020

Our Endangered Planet (EES 110), University of Kentucky, 2015-2021
Foundations for Geophysicists Part 1 & 2, SeisWare, 2011-2013
Foundations for Technologists, SeisWare, 2011-2013
Data Loading and Management, SeisWare, 2011- 2013
Graduate Teaching Assistant, Field Observations, Virginia Tech, 2009-2010
Graduate Teaching Assistant, Structural Geology, Virginia Tech, 2008-2009
Graduate Teaching Assistant, Resources Geology, Virginia Tech, 2008

MENTORING

UK Graduate School Practicum in College Teaching Mentor (2021)
Field Camp Boot Camp (2019)
AAPG Imperial Barrel Award Eastern Section Competition Team (2016 – 2nd place,
2017 – 3rd place)
UK Expanding Your Horizons Team (STEM conference for middle school girls;
2017)

UNIVERSITY AND DEPARTMENTAL SERVICE

Recruiting, Alumni Development, Diversity, Equity, and Inclusion (RADDEI)
Committee Member (2020-2021)
EES Social Media & Web Updates (2020-2021)

SELECTED ACADEMIC ACHIEVEMENTS

UK EES Professor of the Year (2019)
Invited Seminar Speaker, College of William and Mary Department of Geology
(2010)
D.R. Wones Research Award (2009) Sigma Xi Grant-in-Aid of Research (2009)
Robinson-Holden Graduate Research Award (2008)
Geological Society of America Graduate Student Research Grant (2008)
Sigma Gamma Epsilon W.A. Tarr Award (2006)
Geosciences Outstanding Service Recognition Award (2006)

FIELD EXPERIENCE

Grand Teton National Park, 1 week (2021)
Grand Teton National Park, 1 week (2019)
Northwest Scotland, 2 weeks (2018)
Corsica, 1 week (2018)
Nepal Himalayas, 4 weeks (2017)
Northwest Scotland, 3 weeks (2016)
Northwest Scotland, 3 weeks (2009)
Grand Teton National Park, 3 weeks (2008)
Northwest Scotland, 4 weeks (2006)
Sardinia, Italy, 5 weeks (2006)
Adirondacks, New York, 1 week (2005)

SELECTED PROFESSIONAL DEVELOPMENT SEMINARS/COURSES

QPR Suicide Prevention Training, University of Kentucky (2021)
Creating Inclusive Fieldwork, The Geological Society of London (2021)
'Talk to me': Managing Study, Stress, and Mental Health at University (EdX Course, 2020)
e-Learning Ecologies: Innovative Approaches to Teaching and Learning for the Digital Age (University of Illinois at Urbana-Champaign through Coursera, 2020)
Discussing Science and Evolution in the Classroom (UK Lunch Series, 2019)
An Introduction to Evidence-Based Undergraduate STEM Teaching (EdX Course, 2019)
Teaching and Assessing Qualitative Reasoning in STEM Courses (2019)
STEM Successes: Sharing Teaching Successes (2018)
Harvard EdX Climate-Energy Challenge (2018)
University of Kentucky Faculty Fellows Semester I (2017)
Reservoir Geomechanics, Stanford Online (2015)
Seismic Interpretation Short Course, Bob Parker (2013)
Structural and Stratigraphic Concepts Applied to Basin Exploration, Geological Society of America Course (2013)
WrightWay Presentation Training (2013)
Crucial Conversations (2012)
Train the Trainer (2011)

ADDITIONAL SKILLS AND INTERESTS

Diverse software knowledge (SeisWare, Petra, Microsoft Office, ArcMap, Global Mapper, Adobe Illustrator, Adobe Photoshop, Audacity)
Creative and multimedia skills (Freelance event photography, web design, graphic design, e-commerce management, social media management, email campaign design and coordination)

SELECTED INDUSTRY PRESENTATIONS

Advanced Workflows to Estimate Reservoir Thickness in the Permian Basin: Attributes, 2D Modeling, and the new SeisWare volume depth conversion: Society of Exploration Geophysicists Annual Meeting, Exhibition Hall (2014)

Advanced interpretation workflows in SeisWare: Predicting carbonate thickness in the Permian Basin: Canadian Society of Exploration Geophysicists GeoConvention, Exhibition Hall (2014)

Beyond Conventional: Exploring unconventional targets in the Cooper Basin, Southern Australia: Society of Exploration Geophysicists Annual Meeting, Exhibition Hall (2013)

2D and 3D Workflows in SeisWare: Finding new ventures in a mature field: Society of Exploration Geophysicists Annual Meeting, Exhibition Hall (2012)

What's New in SeisWare 8.0: Rock Solid Attributes: Rocky Mountain Association of Geologists Technofest (2012)

RESEARCH PRESENTATIONS AND PUBLICATIONS

(ACCEPTED) THIGPEN, J.R., **BROWN, S.J.**, HELFRICH, A.L., HOAR, R.M. MCGLUE, M.M., WOOLERY, E.W., GEUNTHNER, W.R., SWALLOM, M., DIXON, S., & GALLEN, S.F. Removal of the northern paleo-Teton Range along the Yellowstone hotspot track: *Lithosphere*.

JOHNSON, H., MCGLUE, M., THIGPEN, J.R., WOOLERY, E.W., YEAGER, K. & **BROWN, S.J.** 2021. High-Resolution Chirp Seismic Reflection Profiling of Jackson Lake (Grand Teton National Park, Wyoming): *Geological Society of America Abstracts with Programs*.

BROWN, S.J., 2020. A digital escape room approach to undergraduate field experiences: *Geological Society of America Abstracts with Programs*.

THIGPEN, J.R., **BROWN, S.J.**, MCGLUE, M.M., WOOLERY, E.W., HOAR, R.M., GUENTHNER, W.R., GALLEN, S.F., & SWALLOM, M.L., in review. Cataclysmic collapse of mountain topography: *Geology*.

THIGPEN, J.R., **BROWN, S.J.**, MCGLUE, M.M., WOOLERY, E.W., HOAR, R.M., GUENTHNER, W.R., GALLEN, S.F., & SWALLOM, M.L. 2019. Cataclysmic collapse of mountain topography along the Yellowstone hotspot track: *Geological Society of America Abstracts with Programs*.

MCGLUE, M.M., THIGPEN, J.R., WOOLERY, E.W., & **BROWN, S.J.**, 2019. A first look at new CHIRP seismic reflection profiles from Jackson Lake (Grand Teton National Park): *Geological Society of America Abstracts with Programs*.

HELFRICH., A.L., SWALLOM, M.L., JOHNSON, S., THIGPEN, J.R., WOOLERY, E.W., **BROWN, S.J.**, & MCQUARRIE, N. 2019. Utilizing apatite (U-Th)/He analyses, landscape and kinematic modeling to examine the relative efficacy of climatic and tectonic forcing in an active tectonic system: Teton Range, WY. *Geological Society of America Abstracts with Programs*.

THIGPEN, J.R., **BROWN, S.J.**, MCGLUE, M.M., WOOLERY, E.W., HOAR, R.M., GUENTHNER, W.R., GALLEN, S.F., & SWALLOM, M.L. 2019. Cataclysmic collapse of mountain topography along the Yellowstone hotspot track: *Geological Society of America Abstracts with Programs*.

SPENCER, B., STREIB, L.C., SWALLOM, M.L., LO, E., THIGPEN, J.R., MCGLUE, M.M., WOOLERY, E., & **BROWN, S.J.** 2018. Understanding sediment accumulation and distribution in Jackson Lake, Wyoming using CHIRP seismic surveying: *Geological Society of America Abstracts with Programs*.

SWALLOM, M.L., THIGPEN, J.R., HOAR, R.M., **BROWN, S.J.**, MCGLUE, M.M., WOOLERY, E., & GUENTHNER, W.R. 2018. Constraining spatial and temporal landscape response rates to Teton fault activity through apatite helium thermochronology and limnogeology: *Geological Society of America Abstracts with Programs*.

PARKS, R.D., HOAR, R.M., THIGPEN, J.R., GUENTHER, W.R., **BROWN, S.J.** & SWALLOM, M.L. 2018. Refining the timing of Teton fault motion and uplift of the Teton Range using low-T thermochronology: *Geological Society of America Abstracts with Programs*

BROWN, S.J., SPOTILA, J.A., TRANEL, L.M., KRUGH, AND W.C., ORME, D. 2017, Apatite fission track and (U-Th)/He thermochronologic evidence for a Basin and Range origin of the Teton fault, Wyoming, *Tectonics*.

BROWN, S.J., THIGPEN, J.R., AND HOAR, R.M. 2017, Teton Fault Evolution Part 1: Onset timing and slip history: *Geological Society of America Abstracts with Programs*.

HOAR, R.M., THIGPEN, J.R., AND **BROWN, S.J.** 2017, Teton Fault Evolution Part 2: Fault growth models and length-displacement scaling relationships: *Geological Society of America Abstracts with Programs*.

THIGPEN, J.R., MERSCHAT, A.J. AND **BROWN, S.J.** 2014, *Linkages and feedbacks in orogenic systems: A Geological Society of America Penrose Conference honoring the career of Robert D. Hatcher, Jr, Conference Field Guide and Technical Program*: Geological Society of America, Boulder.

THIGPEN, J.R., LAW, R.D. LOEHN, C.L., STRACHAN, R., TRACY, R.J., LLOYD, G.E., ROTH, B.L., AND **BROWN, S.J.** 2013, Thermal structure and tectonic evolution of the Scandian orogenic wedge, Scottish Caledonides: Integrating geothermometry, deformation temperatures, and conceptual thermal-kinematic models. *Journal of Metamorphic Geology*, 31, 813-842.

BROWN, S.J., SPOTILA, J.A., TRANEL, L.M., KRUGH, W.C., ORME, CARRAPA, B., AND THIGPEN, J.R. 2009, Combining apatite (U-Th)/He and fission-track dating: Implications for differential uplift of the Teton Range and initiation of the Teton fault, Wyoming, *Geological Society of America Abstracts with Programs*.

THIGPEN, J.R., LAW, R.D., LLOYD, G.E., **BROWN, S.J.** AND COOK, B. 2010, Deformation temperatures, vorticity of flow, and strain symmetry in the Loch Eriboll region, NW Scotland: Implications for the kinematic and structural evolution of the northernmost Moine thrust zone. *In*: Law, R.D., Butler, R.W.H., Holdsworth, R., Krabbendam, M. & Strachan, R. (eds) *Continental Tectonics and Mountain Building – The Legacy of Peach and Horne*: Geological Society Special Publications 335, 623-662, London.

THIGPEN, J.R. LAW, R.D., LLOYD, G.E., AND **BROWN, S.J.** 2010, Deformation temperatures, vorticity of flow, and strain in the Moine thrust zone: Reassessing the tectonic evolution of the Scandian foreland- hinterland transition zone. *Journal of Structural Geology*, 32, 920-940.

ROTH, B.L., LAW, R.D., THIGPEN, J.R. AND **BROWN, S.J.** 2010, Integrated strain, petrofabric and vorticity analysis of Moine thrust footwall mylonites in the northern part of the Assynt window, NW Scotland. *Geological Society of America Abstracts with Programs*.

THIGPEN, J.R., LAW, R.D., TRACY, R.J., STRACHAN, R., LLOYD, G.E., LOEHN, C.W., AND **BROWN, S.J.** 2009, Understanding the preservation of an inverted metamorphic progression, Scottish Caledonides: Integrating quantitative structural, kinematic, and metamorphic data, *Geological Society of America Abstracts with Programs*.

BROWN, S.J., SPOTILA, J.A., THIGPEN, J.R., AND TRANEL, L.M. 2008, Refining the temporal and spatial evolution of the Teton Range, Wyoming, from integrated apatite (U-Th)/He and structural analyses: Geological Society of America, *Abstracts with Programs*.

THIGPEN, J.R. LAW, R.D., AND **BROWN, S.J.**, 2007, 3-D strain symmetry and vorticity of flow along the Moine thrust, Northwest Scotland: Implications for thrust sheet evolution at mid-crustal levels: Geological Society of America, *Abstracts with Programs*.

BROWN, S.J., LOEHN, C.W., TRACY, R.J., AND HUDSON, M.R. 2006, U-Th-Pb Geochronology of Monazite in a quartz-sillimanite nodular leucogranite from the Carthage-Colton Mylonite Zone (CCMZ), Northwestern Adirondack Highlands, New York: Geological Society of America, *Abstracts with Programs*.