Dr. Laura E. Webb

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EDUCATION

PhD in Geological and Environmental Sciences, Stanford University, Stanford, California, 1999. Doctoral Dissertation: "Exhumation of high and ultrahigh-pressure rocks in the Qinling–Dabie Orogen, eastern China and the Yagan–Onch Hayrhan metamorphic core complex, southern Mongolia." M.O. McWilliams, advisor. W.G. Ernst, S.A. Graham, and B.R. Hacker (UCSB), committee members.

BS in Geology, University of California, Los Angeles, *cum laude*, 1994.

APPOINTMENTS

Associate Professor, Department of Geology, University of Vermont, Burlington, Vermont, Fall 2014–present.

Assistant Professor, Department of Geology, University of Vermont, Burlington, Vermont, 2008–2014.

Graduate Faculty, University of Vermont, Burlington, Vermont, 2009–present.

PREVIOUS RESEARCH AND WORK EXPERIENCE

Research Assistant Professor, Department of Earth Sciences, Syracuse University, Syracuse, NY, 2004–2012.

Syracuse University Noble Gas Isotopic Research Laboratory Manager, Department of Earth Sciences, Syracuse University, Syracuse, NY, 2000–2008.

$^{40}Ar/^{39}Ar$ Laboratory Manager, University of Geneva, Switzerland, 1999–2000.

Staff Geologist, American Geotechnical, Anaheim, California, 1994.

AWARDED GRANTS AND CONTRACTS

2022–2025, EAR 2147463, National Science Foundation Geophysics Program, with Tectonics Program as co-sponsor, $228,331, Collaborative Research: How have orogenesis, rifting, and recent mantle dynamics shaped the lithosphere beneath the New England Appalachians? **PI.** Collaborative with M. Long, Yale University (lead); V. Levin, Rutgers University; P. Karabinos, Williams College.

2019–2023, EAR 1917640, National Science Foundation Tectonics Program, $288,511: “Collaborative Research: Suturing the Heart of Asia: Tectonics of the Mongol-Okhotsk Ocean Closure”. **PI**. Collaborative with C. Johnson (lead) and P. Lippert, University of Utah.

2018–2021, DMR 1828371, National Science Foundation Major Research Instrumentation, $480,000: “MRI: Acquisition of a Variable-Pressure, Field-Emission Scanning Electron Microscope for Materials Research and Education” **Co-PI**. Collaborative with M. White (PI), C. Landry, R. Headrick, and F. Sansoz.

2016–2017, University of Vermont, College of Arts and Sciences, Seed Grant, $9843, Subduction–Exhumation History of the Tillotson Peak Complex, Vermont." **PI.**

2010–2015, EAR 1028991, NSF Instrumentation and Facilities, $507,978: "Acquisition of a noble gas mass spectrometer and development of a multi-user facility for $^{40}Ar/^{39}Ar$ geochronology at the University of Vermont." **PI**.

2010–2014, EAR 0948529, NSF Petrology and Geochemistry and co-sponsored by Tectonics, $194,493: "Collaborative Research: Constraining P-T-t-D paths of metamorphic tectonites with the TitaniQ thermobarometer." **PI (lead)**. Collaborative research with F. Spear and J. Thomas, Rensselaer Polytechnic Institute.

2007–2014, EAR 0709054, NSF Continental Dynamics, $1,282,742: "Collaborative Research: How Is Rifting Exhuming the Youngest HP/UHP Rocks on Earth?" **Co-PI**. Collaborative with S. Baldwin (lead PI) and P. Fitzgerald, Syracuse University; G. Abers, T. Plank, W.R. Buck and J. Gaherty, Columbia University; B. Hacker, UCSB; and P. Mann & B. Horton, UT Austin.

2009–2013, DUE 0941255, NSF Course Curriculum and Laboratory Improvement Program, $103,410: "Collaborative Research: Field-based Projects Exploring Geophysical Methods, with Applications to the State of Vermont." **PI**. K. Klepeis, Co-PI. Collaborative research with D. Westerman and G. Springston, Norwich University and the Vermont Geological Survey.

2006–2011, EAR 0537165 & EAR-0929902, NSF Tectonics, $267,223: "Collaborative Research: Strike-Slip History of the East Gobi Fault Zone, Mongolia: Modes of Intraplate Deformation, Sedimentary Basin Evolution, and Regional Fault Linkages". **PI.** Collaborative research with C. Johnson, University of Utah (lead).

2004–2007, EAR 0345822, NSF Instrumentation and Facilities, $77,340: "Acquisition of an excimer laser system for Syracuse University Noble Gas Isotope Research Laboratory (SUNGIRL)". **Co-PI** with S. Baldwin (lead PI).

TECHNICAL EXPERTISE

Noble gas mass spectrometry, scanning electron microscopy, cathodoluminescence imaging, secondary ionization mass spectrometry, laser-ablation inductively-coupled mass spectrometry. Design, construction, and maintenance of ultra-high vacuum extraction lines. Management of radioactive materials and isotopic inventories.

CONSULTING EXPERIENCE

2017–present: Formation of talc deposits mined for cosmetic and industrial applications and assessing potential for the presence of asbestos. Petrology of chrysotile asbestos deposits. Properties of asbestiform and non-asbestiform amphiboles and implications for biodurability and bioreactivity. Includes expert witness work, for example, in federal multi-district litigation suit involving Johnson & Johnson talcum powders.

COURSES TAUGHT AT UVM

*Denotes courses at UVM that were first developed by Webb

GEOL 095 Medical Geology* This course fulfills the Writing and Information Literacy General Education requirement.

GEOL 161 Field Methods in Geophysics*. This service-learning course fulfilled the University-wide Sustainability General Education requirement.

GEOL 195 Human Health and Geology*

GEOL 231 Petrology (with lab); GEOL 295 Petrology (no lab)

GEOL 240 Tectonics

GEOL 263/GEOL371 Geochronology*

GEOL 266/GEOL371 Microstructures*

GEOL 302 Introduction to Graduate Studies

INTERNATIONAL GEOLOGIC FIELD CAMPAIGNS

2022: Mongol-Okhotsk Suture Zone, Mongolia.

2011: Coastal batholith, Central Chile.

2010: Islands of the Woodlark Rise, southeastern Papua New Guinea.

2009, 2004, 2006, 2007: East Gobi Fault Zone, southern Mongolia.

2009: Louisiade Archipelago, southeastern Papua New Guinea.

2008: D'Entrecasteaux Islands, southeastern Papua New Guinea.

2002: Sulu ultrahigh-pressure terrane, China.

1997, 1998: Southern Mongolia.

1994, 1995, 1996: Qinling–Dabie orogen, China.

HONORS, AWARDS AND PROFESSIONAL AFFILIATIONS

Member of: Geological Society of America, Mineralogical Society of America, American Geophysical Union, Vermont Geological Society, National Association of Geoscience Teachers, and American Association for the Advancement of Science.

Nominated for the 2018 Kroepsch-Maurice Excellence in Teaching Award at the associate professor level, University of Vermont.

2018 Awardee of "Outstanding New Service-Learning Faculty", Community-University Partnerships & Service-Learning (CUPS). Nominated for GEOL161 Field Methods in Geophysics course. Community partnerships with Vermont Geological Survey and University of Vermont Consulting Archaeology Program.

UVM Faculty Fellow for Service Learning, AY2014–2015. Participant in service learning workshops and working towards UVM designation of GEOL161 Field Methods in Geophysics as a service-learning course.

Featured in an article on NSF-funded research on titanium-in-quartz thermobarometry in *International Innovation*. "Under Pressure", *International Innovation*, North America, August 2012, Issue 3, pp. 120–122.

UVM Sustainability Faculty Fellow, 2012. Participant in program designed to foster integration of interdisciplinary approaches to sustainability into the UVM curriculum; enhance the understanding of sustainability concepts among those not trained in environmental fields;

and to explore curriculum design strategies that will engage students in thinking about sustainability from a multidisciplinary perspective.

Nominated for the 2011 Kroepsch-Maurice Excellence in Teaching Award at the assistant professor level, University of Vermont.

PROFESSIONAL DEVELOPMENT AND WORKSHOPS

Participant (nominated and selected) in the Research Leadership Academy led by Hanover Grants. Spring semester, 2022. Sponsored by the UVM Office of the Vice President for Research.

Participant in workshop "Increasing Student Motivation: Strategies that Work" hosted by UVM Center for Teaching and Learning. March 1, 2022.

Participant in NSF-sponsored Convergence Accelerator workshop "Sustainable Systems Enabling Food Security in Extreme Environments and Food Deserts employing a Convergence of Food, Energy, Water and Systems". Online workshop, May 19–21, 2021. Member of Materials for Energy and Sustainable Systems breakout group.

Member of UVM Pod, Unlearning Racism in the Geosciences, spring semester 2021. National Science Foundation supported program.

Pivotal Pedagogy: Participant in Course Design Fundamentals workshop (UDL alumni presenter) *and* co-facilitator for Experiential-Based Pathway workshop. May, 2020.

Teaching with Microsoft Teams. Participant in Center for Teaching and Learning workshop. December, 2019.

Participant in Scholarship of Teaching and Learning initiative (AY2017–2018). Development of Action Research project related to revision of GEOL 240 Tectonics course employing scaffolding approaches to facilitate student achievement of writing and information learning outcomes for Geology.

Designing for Learning Spring 2017 Cohort, University of Vermont. Participated in semester-long program for faculty to help identify and reduce student barriers to learning.

Co-convener of EarthScope synthesis workshop, *Synthesizing EarthScope Results: Develop a New Model for the 4-D Evolution of North America*, James Madison University, Harrisonburg, Virginia, November 2016.

Participant and breakout group synthesizer in the NSF-sponsored *Future of Tectonics Workshop*, University of Wisconsin, Madison, Wisconsin, May 2016.

Campuses for Environmental Stewardship, Faculty Development Institute and Training. November 5-6, 2015, Portland, Maine. Part of UVM team for development of sustainability service learning courses (participant in UVM subgrant from Maine Campus Compact project funded by the Davis Educational Foundation).

Participant in UVM Honors College Faculty Seminar, August 11–13, 2014: *'Big Data': Engaging and Critiquing the Production of Knowledge in the Digital Age*.

Outcomes of the Future of Geoscience Undergraduate Education Summit webinar participant, March, 2013.

EarthCube domain end-user workshop: Bringing Geochronology into the EarthCube framework. October, 2013, University of Wisconsin – Madison. Invited participant. The overall goal of the workshop was to: 1) identify the scientific challenges and opportunities facing the geochronology domain for next 5-15 years; 2) specify the data and cyber-infrastructure

obstacles to meeting those challenges; 3) compile a list of known community data and modeling resources; 4) describe the data and cyber-capabilities required to meet challenges, by matching obstacles (2) with resources (3) and identifying/imagining unmet needs that may develop; and 5) develop ideas for at least two "proof-of-concept" projects or test cases for scientifically transformative activities that would become feasible if EarthCube is successful.

Systems, Society, Sustainability and the Geosciences Workshop. July 2012, Carleton College. This workshop is part of the InTeGrate project, a five-year, NSF-funded STEP Center grant geared towards increasing undergraduate geoscience literacy and "increase the number of majors in the geosciences and associated fields who are able to work with other scientists, social scientists, business people, and policy makers to develop viable solutions to current and future environmental and resource challenges."

Early Career Geoscience Faculty Workshop: Teaching, Research, and Managing Your Career. National Science Foundation-supported "On the Cutting Edge" workshop series, College of William and Mary, 2008.

Participant in the NSF-funded *U.S.–Russia Workshop on the Plate Tectonic Evolution of Northeast Russia*. Stanford University, 2004.

Fourth International Symposium on Andean Geodynamics. University of Göttingen, Germany, 1999.

Exhumation Processes: Normal Faulting, Ductile Flow, and Erosion. Penrose Conference, Greece, 1996.

Ultrahigh-Pressure Metamorphism and Tectonics workshops. Stanford University, 1994 and 1999.

UNIVERSITY AND PROFESSIONAL SERVICE

National Science Foundation proposal ad hoc reviews (2–5 per year typical). Programs include Tectonics, Instrumentation and Facilities, Integrated Earth Systems, Petrology and Geochemistry, EarthScope, Major Research and Instrumentation, and Geomorphology and Land-use Dynamics.

Reviewer of journal manuscripts (5–10 per year typical). Journals include *Geology, Tectonics, Journal of Metamorphic Geology, Terra Nova, GSA Bulletin, Journal of Structural Geology, Journal of Geology, Lithos, Geosphere, Journal of Geophysical Research–Solid Earth, Journal of Geodynamics, Geophysical Journal International, Gondwana Research, Tectonophysics, Geoscience Frontiers, Journal of Asian Earth Sciences, Earth Science Reviews,* and *European Journal of Mineralogy*.

Member of Faculty Senate ad hoc Diversity, Equity, and Inclusion Committee. Fall 2021 to present. Participated in activities such as review of the existing DEI related policy development structures at UVM; review of the Campus Climate Survey (just prior to launch); and policy review and development.

Academic Planning and Budget Committee, College of Arts and Sciences, beginning Fall 2022 for three-year term (elected representative, Natural Sciences).

Academic Planning and Budget Committee, College of Arts and Sciences, AY2021–2022 (sabbatical replacement, Natural Sciences). Major activities making recommendations regarding service equity, and proposal review and recommendations for developing two-year academic plan.

University of Vermont Faculty Senator, Department of Geology. 2018–2022; 2009–2010.

Member of Selection Panel for the Simon Scholarship at UVM. Spring 2022. Reviewed candidate applications and conducted candidate interviews.

National Science Foundation Geoinformatics Program review panel member, December, 2021.

Acting Director of Graduate Studies, Department of Geology, Fall 2021. Liaison between Geology Department and Graduate College; contact person for student inquiries into program.

AGeS2 Program—Awards for Geochronology Student Research2—Review Panel member, 2020 and 2021. Funding program supported by National Science Foundation. Reviewed student applications and participated in committee work ranking proposals for funding.

Co-chair of the UVM General Education Sustainability Assessment Committee, 2017–2020. Committee member in 2016.

Integration and Application of Knowledge in the Major (Capstone) ad hoc General Education committee member. Spring 2020.

Participant in the SU Rating Day (May, 2019). Participated in full day of direct assessment of student work (plus norming, discussion, and debrief) related to the Sustainability (SU) General Education Learning Outcome (SLO) 3.

National Science Foundation Tectonics Program review panel member. October 2019.

Co-leader of New England Intercollegiate Field Conference field trip, "New Insights on the Ordovician - Neogene Tectonic History of the Champlain Valley Belt from Drone Surveys, Photogrammetry, and Geochronology, West-Central Vermont". October 2019.

Session organizer and convener, "New Perspectives on Integrating Fault Zone Behavior through the Full Thickness of the Continental Lithosphere." 2019 Geological Society of America Annual Meeting.

National Science Foundation EarthScope Steering Committee, member. Fall 2015–spring 2019.

Member of the Standard Four: Academic Program Committee for UVM's 10-year reaccreditation review from the New England Commission on Higher Education (NECHE) in 2019, AY2017–2018.

Session organizer and convener, "Orogenic Sutures—Recognition, Characterization, and Tectonic Implications". Geological Society of America Northeastern Section Annual Meeting, Burlington, Vermont, March 2018.

Appointee to three-year term on the College of Arts and Sciences Deans Academic Planning and Budget Committee. Fall 2014–spring 2017.

Co-convener of NSF EarthScope synthesis workshop: Synthesizing EarthScope Results to Develop a New Community Model for the 4-D Evolution of North America. November 18–20, 2016, at James Madison University, Harrisonburg, Virginia.

Participant and breakout group synthesizer/scribe in the NSF-sponsored Future of Tectonics Workshop. May, 2016. University of Wisconsin, Madison, Wisconsin. I applied to and was accepted as a supported participant in this 2.5-day workshop to examine the key themes to be included in a white paper to guide the tectonics community and the NSF Tectonics Program in the near future with regard to research priorities.

Department of Geology liaison for the Writing and Information Literacy in the Disciplines (WILD) General Education initiative, Spring 2014–fall 2016.

Rock Point Funding and Staffing Committee, Land Use Implementation Plan, Spring 2015–2016.

Session organizer and convener, “Bridging Two Continents: Comparative Studies of Accretionary Orogenesis in the Central Asian Orogenic Belt, North American Cordillera, and Other Orogenic Belts”. Joint meeting of the Geological Society of America (GSA) and the Geological Society of China (GSC), 2015 GSA Annual Meeting, Baltimore, Maryland, November 2015.

NSF EarthScope 2015 National Meeting organizing committee member. Stowe, Vermont, June 2015.

NSF EarthScope 2015 National Meeting organizer and co-leader of conference field trip. Stowe, Vermont, June 2015.

Department of Geology Graduate Student Coordinator, 2010–2013.

Organizer of Geology Seminar Series, Department of Geology, University of Vermont, 2009–2013.

Session organizer and convener, “Innovations in Geochronology: Present Developments and a Vision for 2020.” 2013 Goldschmidt conference, Florence, Italy.

Member of the sustainability general education requirement committee charged with developing a suite of learning outcomes and methods of assessment for a university-wide sustainability general education requirement. 2013–2014.

UVM College of Arts and Sciences Academic Standing Committee, Fall 2010–spring 2013.

Search committee member for Department of Geology tenure-track position in geochemistry, Spring 2013.

Earth Sciences proposal review panel member, National Science Foundation, Tectonics Program, served two single-term appointments in 2011 and 2012.

UVM College of Arts and Sciences summer orientation registration advising, 2009–2013.

Session organizer and convener, “The Wilson Cycle Revisited: From Microplates and Mobile Terranes to Supercontinent Dispersals.” 2010 American Geophysical Union Fall Meeting.

Search Committee member for Department of Geology Chairperson. Spring 2010.

Advisor to Geology Club and the Eta Kappa Chapter of the Sigma Gamma Epsilon National Honor Society for Earth Sciences, University of Vermont. 2009–2010.

Session organizer and convener, “Intraplate Deformation and Sedimentary Basins: A Record of Plate Margin Processes?” 2009 American Geophysical Union Fall Meeting.

UVM coordinator for the Vermont Geological Society Spring Meeting, April 2009.

Organizer of Geoscience Career Workshop, Department of Geology, University of Vermont. April 2009.

Session organizer and convener, “Microplate Geodynamics.” 2008 American Geophysical Union Fall Meeting.

INVITED LECTURES

November 2020, Williams College, “New insights into old problems in the Green Mountains from integrated $^{40}Ar/^{39}Ar$ geochronology and microstructural analyses.”

November 2018, Johns Hopkins University, “Insights into polyphase deformation and fault reactivation from $^{40}Ar/^{39}Ar$ geochronology.”

April 2018, University of Miami Ohio, “Punctuated melt-enhanced deformation and tectonic reactivation above a long-lived subduction zone, Coastal Andes, Central Chile.”

October 2016, University of Iowa, **“**Structural and isotopic constraints on the development of a major Phanerozoic intraplate fault zone**”.**

February 2016, University of Wisconsin, Madison**,** "Slippery when wet: Confessions of an intraplate fault zone."

March 2015, University of Massachusetts, Amherst, "How to look older than your age: Phanerozoic life in the fastlane of the East Gobi Fault Zone."

October 2014, invited lecture on $^{40}Ar/^{39}Ar$ geochronology, Geological Society of America short course "EarthScope: Geochronology and the Earth Sciences", 2014 GSA Annual Meeting, Vancouver, Canada.

March 2012, McGill University GEOTOP Seminar, "The Epic Saga of Tavan Har: Phanerozoic Continental Growth, Collisional Orogenesis, and Intraplate Deformation in Southeastern Mongolia."

March 2012, University of New Hampshire Randolph W. Chapman Colloquium, "The Epic Saga of Tavan Har: Phanerozoic Continental Growth, Collisional Orogenesis, and Intraplate Deformation in Southeastern Mongolia."

September 2009, Department of Geology, Colby College, "P-T-t-D Paths of Metamorphic Tectonites and Making the Leap from Micron to Plate Scale."

October 2008, Department of Geology, Middlebury College, "Can subduction be undone? Examining the role of microplate rotation in the exhumation of high and ultrahigh-pressure rocks in Papua New Guinea."

April 2008, Syracuse University College of Arts and Sciences Frontiers of Science Lecture Series, "How do plate boundaries evolve on Earth?"

February 2008, Department of Geology, University of Vermont, "What's under the rug? Unraveling the tectonic history of southeastern Mongolia."

November 2006, Department of Geology & Geography, West Virginia University, "Unraveling complex intraplate deformation in southeastern Mongolia."

PUBLICATIONS IN PEER-REVIEWED JOURNALS

Student authors indicated in italics. # denotes papers presenting data from UVM Argon Geochronology Laboratory.

#Braza, M., McQuarrie, N., Robinson, D.M., and **Webb, L.E.**, under review. Temperature, deformation, and mass transfer in a hot orogen: Insights from thermokinematic forward models for far western Nepal. Submitted to Tectonics.

#Tam, E., **Webb, L.E.**, *Aiken, C.*, Kim, J., and Klepeis, K., *accepted manuscript*. Formation of the Green Mountain Anticlinorium in northern Vermont at ca. 420 Ma. Memoir—Geological Society of America: *Laurentia: An Evolving Continent.*

#Brombin, V.*, Pettitt, E. A.*, Fahnestock, M. F., Casalini, M., **Webb, L. E.**, Bryce, J. G., and Bianchini, G., 2021. New geochemical and geochronological data on the Cenozoic Veneto Volcanic Province: Geodynamic inferences. Lithos, doi.org/10.1016/j.lithos.2021.106507.

#Caswell, B., Gilotti, J.A., **Webb, L.E.**, McClelland, W.C., Kośmińska, K., Piepjohn, K., and von Gosen, W., 2021. $^{40}Ar/^{39}Ar$ Dating of Paleoproterozoic shear zones in the Ellesmere-Devon Crystalline Terrane, Nunavut, Canadian Arctic, Canadian Journal of Earth Sciences, v. 58, no. 10, p. 1073-1084. DOI 10.1139/cjes-2020-0197.

#Boemmels, J.R., Crespi, J.M., **Webb, L.E.**, and Fosdick, J.C., 2021. $^{40}Ar/^{39}Ar$ and LA-ICP-MS U-Pb geochronology for the New England portion of the Early Cretaceous New England-Quebec

igneous province: Implications of the postrift evolution of the eastern North American margin. American Journal of Science, v. 321, p. 365-391. DOI 10.2475/03.2021.03.

#Locmelis, M., Moroni, M., Denyszyn, S., **Webb, L.**, Fiorentini, M., Sessa, G., Caruso, S., Mathur, R., Nanzad, B., 2020. On the formation of magmatic sulfide systems in the lower crust by long-lived mass transfer through the lithosphere: Insights from the Valmaggia pipe, Ivrea Verbano Zone, Italy. Terra Nova. DOI: 10.1111/ter.12499.

Schaen, A.J., Jicha, B.R., Hodges, K.V., Vermeesch, P., Stelten, M.E., Mercer, C.M., Phillips, D., Rivera, T.A., Jourdan, F., Matchan, E.L., Hemming, S.R., Morgan, L.E., Kelley, S.P., Cassata, W.S., Heizler, M.T., Vasconcelos, P.M., Benowitz, J.A., Koppers, A.P., Mark, D.F., Niespolo, E.M., Sprain, C.J., Hames, W.E., Kuiper, K.F., Turrin, B.D., Renne, P.R., Ross, J., Nomade, S., Guillou, H., **Webb, L.E.**, Cohen, B.A., Calvert, A.T., Joyce, N., Ganerød, M., Wijbrans, J., Ishizuka, O., He, H., Ramirez, A., Pfänder, J.A., Lopez-Martínez, M., Qiu, H., and Singer, B.S., 2020. Interpreting and reporting $^{40}Ar/^{39}Ar$ geochronologic data. GSA Bulletin. doi.org/10.1130/B35560.1.

#Klepeis, K.A., **Webb, L.E.**, *Blatchford, H.J.*, Jongens, R., Turnbull, R., and Schwartz, J.J., 2019, The age and origin of Miocene–Pliocene fault reactivations in the upper plate of an incipient subduction zone, Puysegur Margin, New Zealand. Tectonics, v. 38, doi.org/10.1029/2019TC005674.

#Klepeis, K.A., **Webb, L.E.**, *Blatchford, H.*, Schwartz, J., Jongens, R., Turnbull, R., and Stowell, H., 2019, Deep slab collision during Miocene subduction causes uplift along crustal-scale reverse faults in Fiordland, New Zealand. GSA Today, v. 29. doi.org/10.1130/GSATG399A.1.

#Brombin, V., Bonadiman, C., Jourdan, F., Roghi, G., Coltori, M., **Webb, L.E.**, Callegaro, S., Bellieni, G., De Vecchi, G., Sedea, R., Marzoli, A., 2019, Intraplate magmatism at a convergent plate boundary: the case of the Cenozoic northern Adria magmatism. Earth-Science Reviews, v. 162, p. 355-378.

#Webb, L.E., and Klepeis, K.A., 2019, $^{40}Ar/^{39}Ar$ constraints on the Tectonic evolution of the Late Paleozoic and Early Mesozoic accretionary complex of coastal Central Chile. Book chapter *in* Horton, B., and Folguera, A. eds. Andean Tectonics; Elsevier.

#Cordova, J.L., Mulcahy, S.R., Schermer, E.R., and **Webb, L.E.**, 2018, Subduction initiation and early evolution of the Easton Metamorphic Suite, Northwest Cascades, Washington. Lithosphere, v. 11, no. 1, p. 44-58, doi.org/10.1130/L1009.1.

Heumann, M.J., Johnson, C.L., **Webb, L.E.**, 2017, Plate interior polyphase fault systems and sedimentary basin evolution: Case study of the East Gobi Basin and East Gobi Fault Zone, southeastern Mongolia, Journal of Asian Earth Sciences, v. 151, p. 343–358, doi: 10.1016/j.jseaes.2017.05.017.

Webber, J.R., Klepeis, K.A., **Webb, L.E.**, Cembrano, J., Morata, D., Mora-Klepeis, G., and Arancibia, G., 2015, Deformation and magma transport in a crystallizing plutonic complex, Coastal Batholith, central Chile, Geosphere, v. 11, no. 5., p. 1401-1426.

Webb, L.E., Baldwin, S.L. and Fitzgerald, P.G., 2014, The Early–Middle Miocene subduction complex of the Louisiade Archipelago, southern margin of the Woodlark Rift. Geochemistry, Geophysics, Geosystems, doi: 10.1002/2014GC005500.

Heumann, M.J., Johnson, C.L., **Webb, L.E.**, *Taylor, J.P.*, Jalbaa, U., and Minjin, C., 2014, Total and incremental left-lateral displacement across the East Gobi Fault Zone, southern Mongolia:

implications for timing and modes of polyphase intracontinental deformation, Earth and Planetary Science Letters, v. 392, p. 1-15, doi: 10.1016/j.epsl.2014.01.016.

Note: Below are those prior to tenure and promotion to Associate Professor:

Ashley, K.T., **Webb, L.E.**, Spear, F.S., and Thomas, J.B., 2013, P-T-D histories from quartz: A case study of the application of the TitaniQ thermobarometer to progressive fabric development in metapelites, Geochemistry, Geophysics, Geosystems, v. 14, doi: 10.1002/ggge.20237.

Taylor, J., **Webb, L.**, Johnson, C., and *Heumann, M.*, 2013, The lost South Gobi Microcontinent: protolith studies of metamorphic tectonites and implications for the evolution of continental crust in southeastern Mongolia, Geosciences, special issue: Continental Accretion and Evolution, doi:10.3390/geosciences3030543.

Leech, M.L., and **Webb, L.E.**, 2013, Is the HP-UHP Hong'an-Dabie-Sulu orogen a piercing point for offset on the Tan-Lu fault? Journal of Asian Earth Sciences, v. 62, p. 112–129, DOI: 10.1016/j.jseaes.2012.08.005.

Spear, F., *Ashley, K.T.*, **Webb, L.E.**, and Thomas, J., 2012, Ti diffusion in quartz inclusions: implications for metamorphic time scales, Contributions to Mineralogy and Petrology, DOI: 10.1007/s00410-012-0783-z.

Baldwin, S.L., Fitzgerald, P.G., and **Webb, L.E.**, 2012, Tectonics of the New Guinea region, Annual Review of Earth and Planetary Sciences, v. 40, p. 495-520, doi: 10.1146/annurev-earth-040809-15254, ***INVITED***.

Heumann, M.J., Johnson, C.L., **Webb, L.E.**, *Taylor, J.P.*, Jalbaa, U., and Minjin, C., 2012, Paleogeographic reconstruction of a late Paleozoic arc collision zone, southern Mongolia, Geological Society of America Bulletin, doi:10.1130/B30510.1.

Webb, L.E., Johnson, C.L., and Minjin, C., 2010, Late Triassic sinistral shear in the East Gobi Fault Zone, Mongolia, Tectonophysics, v. 495, p. 246-255, doi: 10.1016/j.tecto.2010.09.033.

Webb, L.E., Baldwin, S.L., Little, T.A., and Fitzgerald, P.G., 2008, Can microplate rotation drive subduction inversion? Geology, v. 36, p. 823–826.

Baldwin, S.L., **Webb, L.E.**, and Monteleone, B.D., 2008, Late Miocene coesite-eclogite exhumed in the Woodlark Rift, Geology, v. 36, p. 735–738.

Monteleone, B.D., Baldwin, S.L., **Webb, L.E.**, Fitzgerald, P.G., Grove, M., and Schmidt, A.K., 2007, Late Miocene–Pliocene eclogite-facies metamorphism, D'Entrecasteaux Islands, SE Papua New Guinea, Journal of Metamorphic Geology, v. 25, p. 245–265.

Webb, L.E., and Johnson, C.L., 2006, Tertiary strike-slip faulting in southeastern Mongolia and implications for Asian tectonics, Earth and Planetary Science Letters, v. 241, p. 323–335.

Webb, L.E., Leech, M.L., and Yang, T., 2006, $^{40}Ar/^{39}Ar$ thermochronology of the Sulu terrane: Late Triassic exhumation of high and ultrahigh-pressure rocks and implications for Mesozoic tectonics in East Asia, *in* Geological Society of America Special Paper *Ultrahigh-Pressure Metamorphism: Deep Continental Subduction,* edited by B.R. Hacker, B. McClelland, and J.G. Liou, p. 77–92.

Leech, M.L., **Webb, L.E.**, and Yang, T., 2006, Diachronous histories for the Dabie-Sulu orogen from high-temperature geochronology, *in* Geological Society of America Special Paper *Ultrahigh-Pressure Metamorphism: Deep Continental Subduction,* edited by B.R. Hacker, B. McClelland, and J.G. Liou, p. 1–22.

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Guinea, (Tectonic Crossroads: Evolving Orogens of Eurasia-Africa-Arabia, Ankara, Turkey, Paper No. 32-3), ***INVITED***.

Webb, L.E., Baldwin, S.L., *Zirakparvar, N.A.*, Fitzgerald, P.G, and *Catalano, J.P.*, 2010, From microstructures to microplates: Integrating across scales to constrain the plate boundary evolution in eastern Papua New Guinea (AGU Western Pacific Meeting, V44A-02). ***INVITED***.

Webb, L.E., Baldwin, S.L., Fitzgerald, P.G., *Castellan, L.*, and *Zirakparvar, N.A.*, 2009, Structural Analysis of the Louisiade Archipelago, Southeastern Papua New Guinea (EOS, Transactions, American Geophysical Union).

Taylor, J.P., **Webb, L.E.**, Johnson, C.L., *Heumann, M.J., Hagen-Peter, G.A.*, and Gehrels, G.E., 2009, Testing the Existence of the South Gobi Microcontinent: U-Pb Zircon Dating of Tectonites within the East Gobi Fault Zone, Southeastern Mongolia (EOS, Transactions, American Geophysical Union).

Stypula, M., **Webb, L.E.**, and *Hagen-Peter, G.A.*, 2009, Evidence for partial melting at northern Tavan Har and relationship to Late Triassic sinistral shear in the East Gobi Fault Zone, southeastern Mongolia (EOS, Transactions, American Geophysical Union).

Hagen-Peter, G.A., **Webb, L.E.**, and *Stypula, M.*, 2009, Large-scale folding in the Tavan Har basement block, southeastern Mongolia and its relevance to Phanerozoic intracontinental deformation (EOS, Transactions, American Geophysical Union).

Heumann, M.J., Johnson, C.L., **Webb, L.E.**, *Taylor, J.P.*, 2009, Mesozoic–Cenozoic Reconstruction of the East Gobi Fault Zone, Southern Mongolia (EOS, Transactions, American Geophysical Union).

Taylor, J.P., **Webb, L.E.**, Johnson, C.L., *Heumann, M.J.*, 2009, Strike-slip and exhumation history of the East Gobi Fault Zone, southeastern Mongolia, with emphasis on the Cenozoic era (Geological Society of America *Abstracts with Programs*, Geological Society of America Abstracts with Programs).

Taylor, J.P., **Webb, L.E.**, Fitzgerald, P.G., Johnson, C.L., *Heumann, M.J.*, 2008, Constraints on the Low Temperature Thermal History of the Tsagan Subarga and Tavan Har Basement Blocks of the East Gobi Fault Zone, Southeastern Mongolia, and Tectonic Implications (EOS, Transactions, American Geophysical Union).

Heumann, M.J., Johnson, C.L., **Webb, L.E.**, *Taylor, J.P.*, 2008, Detrital zircon and sandstone provenance analysis from Permian and Lower Cretaceous sedimentary units to constrain total and incremental left-lateral offset along the East Gobi Fault Zone, southeastern Mongolia (EOS, Transactions, American Geophysical Union).

Baldwin, S.L., Little, T.A., **Webb, L.E.**, Fitzgerald, P.G., *Zirakparvar, A.* and *Peters, K.*, 2008, Metamorphic Core Complex Formation on Misima Island during Miocene-Pliocene Rifting and Seafloor Spreading in the Woodlark Basin, Papua New Guinea, SE Papua New Guinea (EOS, Transactions, American Geophysical Union).

Waggoner, A.G., Baldwin, S.L., **Webb, L.E.**, Little, T.A., and Fitzgerald, P.G., 2008, Temporal Constraints on Continental Rifting and the Exhumation of Pliocene Eclogites, SE Papua New Guinea (EOS, Transactions, American Geophysical Union).

Fitzgerald, P.G., Baldwin, S.L., Miller, S.R., *Perry, S.E.*, **Webb, L.E.**, and Little, T.A., 2008, Low-Temperature Constraints on the Evolution of Metamorphic Core Complexes of the Woodlark Rift System, Southeastern Papua New Guinea (EOS, Transactions, American Geophysical Union).

Webb, L.E., Baldwin, S.L., Little, T.A., and Fitzgerald, P.G., 2008, Is Microplate Rotation Driving HP–UHP Exhumation in Eastern Papua New Guinea? (Geological Society of America *Abstracts with Programs*, Geological Society of America Abstracts with Programs, v. 40, n. 6, p. 551). ***INVITED***.

Webb, L.E., Johnson, C.L., Minjin, C., 2007, Thermochronology of early Mesozoic shear in the East Gobi Fault Zone, Mongolia (EOS, Transactions, American Geophysical Union).

Taylor, J.P., **Webb, L.E.**, Johnson, C.L., *Heumann, M.J.*, 2007, Constraints on Mesozoic and Tertiary Brittle Faulting in the Southern East Gobi Fault Zone, Southeastern Mongolia (EOS, Transactions, American Geophysical Union).

Semple, I.L., **Webb, L.E.**, *Taylor, J.P., Heumann, M.J.*, Johnson, C.L., Minjin, C., 2007, Early Mesozoic overprinting of Paleozoic protoliths during shear zone formation in the southeast Gobi, Mongolia (EOS, Transactions, American Geophysical Union).

Heumann, M.J., Johnson, C.L., **Webb, L.E.**, *Taylor, J.P.*, 2007, Implications for Mesozoic to Modern Tectonic Deformation in Sub-Basins Along the East Gobi Fault Zone, Southern Mongolia (EOS, Transactions, American Geophysical Union).

Baldwin, S.L., **Webb, L.E.,** *Monteleone, B.D.*, 2007, Late Miocene coesite-eclogite exhumed in the Woodlark Rift, Papua New Guinea (EOS, Transactions, American Geophysical Union).

Beamud, E., Fitzgerald, P., Muñoz, J., Garces, M., Baldwin, S., Webb, L., *Schwabe, E.*, and Cabrera, L., 2007 Palaeogene Exhumation of the Pyrenean Orogen: Magnetostratigraphic and Thermochronological Constraints from the South-Central Pyrenees (EOS, Transactions, American Geophysical Union).

Webb, L.E., and Johnson, C.L., 2006, Intraplate Deformation Phase I of the East Gobi Fault Zone, Mongolia: Early Mesozoic Sinistral Shear (Geological Society of America *Abstracts with Programs*, Geological Society of America Abstracts with Programs, v. 38, n. 7, p. 418).

Baldwin, S.L., *Monteleone, B.D.*, Little, T.A., **Webb, L.E.**, and Fitzgerald, P.G., 2006, Subduction to rifting evolution of the Australian–Woodlark plate boundary zone of eastern Papua New Guinea: insights into the 4-D nature of continental subduction and exhumation processes (Geological Society of America *Abstracts with Programs*, v. 38, n. 7, p. 274).

Webb, L.E., Johnson, C.L., G. Badarch, Ch. Minjin, G. Sersmaa, 2006, Evidence for an early Mesozoic mylonitic sinistral shear zone in southeastern Mongolia, IGCP 480 (International Geological Congress), Structural and Tectonic Correlation across the Central Asia Orogenic Collage, Ulaanbaatar, Mongolia, July 2006, Extended Abstracts Volume, p. 43-45.

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Baldwin, S.L., **Webb, L.E.**, and Monteleone, B., Little, T.A., Fitzgerald, P.G., and Chappell, J.L., 2005, Metamorphism and exhumation of the youngest known HP/UHP terrane on Earth, eastern Papua New Guinea, (EOS, Transactions, American Geophysical Union; v. 86 (52)).

Leech, M.L., **Webb, L.E.**, and Yang, T., 2005, Diachronous histories for the Dabie-Sulu orogen from high-temperature geochronology (Geological Society of America *Abstracts with Programs*, v. 37, n. 7, p. 57)

Affolter, M.D., Johnson, C.L., and **Webb, L.E.**, 2005, Tectonic History of the East Gobi Basin (Geological Society of America *Abstracts with Programs*, v. 37, n. 7, p. 442).

Fitzgerald, P., Baldwin, S., Muñoz, J.-A., **Webb, L.**, and *Schwabe, E.*, 2005, Exhumation of the Pyrean intracontinental collisional orogen: New thermochronologic constraints from the central Pyrenees (Geological Society of America *Abstracts with Programs*, v. 37, n. 7, p. 346)

Webb, L.E., Baldwin, S.L., Little, T.A., and Fitzgerald, P.G., 2005, A pivoting microplate model for subduction eversion and exhumation of UHP terranes (7th International Eclogite Conference, Austria, Mitt.Österr.Miner.Ges. 150, p. 164).

Baldwin, S.L., **Webb, L.E.**, and *Monteleone, B.*, 2005, Late Miocene–Pliocene eclogites of eastern Papua New Guinea: the youngest known HP/UHP terrane on Earth (7th International Eclogite Conference, Austria, Mitt.Österr.Miner.Ges. 150, p.16).

Monteleone, B., Baldwin, S., **Webb, L.** & Fitzgerald, P., 2005, Constraints on Eclogite Facies Metamorphism in Southeastern Papua New Guinea from in situ Ion Microprobe U-Pb and REE Analyses (15th Annual Goldschmidt Conference, Abstract Volume, A60).

Johnson, C.L., and **Webb, L.E.**, 2005, Cenozoic Reactivation of the East Gobi Fault Zone, 20th Symposium, Himalaya-Karakorum-Tibet Workshop (HKT20), Aussois, France, (Geologie Alpine, Memoire H.S., n. 44, p.94-95).

Webb, L.E., Johnson, C.L., Minjin, Ch., Sersmaa, G., Affolter, M., and Manchuk, N, 2004, Mesozoic and Cenozoic Intracontinental Deformation in Southeastern Mongolia, (EOS, Transactions, American Geophysical Union, v. 85 (47), F1698).

Johnson, C.L., **Webb, L.E.**, Minjin, Ch., Sersmaa, G., *Affolter, M.*, and *Manchuk, N*., 2004, Sedimentary Basin Evolution in the Context of Polyphase Intracontinental Deformation: New Insights from Southeastern Mongolia, (EOS, Transactions, American Geophysical Union; v. 85 (47), F1699).

Baldwin, S.L., Finn, C.A., **Webb, L.E.**, Fitzgerald, P.G., Little, T., and Anderson, E., 2004, Microplate rotation leads to rapid exhumation of a subduction complex in eastern Papua New Guinea (EOS, Transactions, American Geophysical Union; v. 85 (47), F1738).

Monteleone, B., Baldwin, S.L., Little, T., Fitzgerald, P.G., and **Webb, L.E.**, 2004, Thermochronologic and Geochemical Investigations of High Pressure Metamorphism and Pliocene Exhumation of the D'Entrecasteaux Islands, Southeastern Papua New Guinea (EOS, Transactions, American Geophysical Union; v. 85 (47), F1737).

Baldwin, S.L. **Webb, L.E.**, and Fitzgerald, P.G., 2004, Rifting of a subduction complex in eastern Papua New Guinea leads to exhumation of Pliocene HP rocks at plate tectonic rates (32nd International Geologic Congress, Florence, Italy, August 2004).

Leech, M.L., **Webb, L.E.**, Yang, T., Xu, Z., 2003, Microstructural analysis of the ultrahigh-pressure Sulu Terrane, eastern China (EOS, Transactions, American Geophysical Union; v. 84, F1391).

Baldwin, S.L. P.G. Fitzgerald, T.A. Little, **L.E. Webb** and *B.D. Monteleone*, 2003, Exhumation of the youngest HP rocks, at plate tectonic rates, during Plio-Pleistocene continental extension in SE Papua New Guinea (Geological Society of America *Abstracts with Programs*, v. 35, no. 6, p. 556).

Webb, L.E., Leech, M.L., Yang, T., Xu, Z., 2002, Kinematics of structures of the ultrahigh-pressure Sulu Terrane, eastern China (EOS, Transactions, American Geophysical Union; v. 83, F1245).

Fitzgerald, P., Baldwin, S., Farley, K., Hedges, L., O'Sullivan, P. and **Webb., L.,** 2002, Constraining landscape evolution of the West Antarctic rift flank of southern Victoria Land (Abstracts of the 12th annual V. M. Goldschmidt conference, Geochimica et Cosmochimica Acta v. 66, no. 15A, p. 235).

Fitzgerald, P.G., Baldwin, S.L., Farley, K.A., Hedges, L., O'Sullivan, P.B., and **Webb, L.E**., 2001, Exhumation of apatite helium partial retention zones: An example from the Transantarctic Mountains and implications for (U/Th)/He dating of apatites (Geological Society of America *Abstracts with Programs*, v. 33).

Ritts, B.D., Graham, S.A., **Webb, L.E.**, Chang, E., Hanson, A., Johnson, C.L., 2000, Late Mesozoic Extrusion Tectonics of the North China Block (EOS, Transactions, American Geophysical Union; v. 81).

Anderson, K.S., and others, 1998, The Wagon Rock Project; an interdisciplinary characterization of sand-rich, high-density turbidity current deposits of the "Merle Formation", northern Santa Lucia Range, California (American Association of Petroleum Geologists annual meeting, Salt Lake City, Utah).

Hendrix, M.S., Beck, M. A., Lenegan, R., Graham, S. A., Johnson, C. J., **Webb, L**., and Sjostrom, D. J., 1998, Early Mesozoic development of a regional lake system in southern Mongolia: American Association of Petroleum Geologists National Meeting, Salt Lake City, Utah.

Hendrix, M.S., Beck, M.A., Graham, S. A., Johnson, C. J., and **Webb, L.**, 1998, Early Mesozoic development of a regional lake system in southern Mongolia - sedimentary signature of a collisional foreland style basin? Yinshan-Yanshan major thrust and nappe structures field conference, May 8-11, Hohhot, Nei Mongol, China.

Greene, T.J., Ritts, B.D., **Webb, L.E.**, Graham, S.A.; Johnson, C.L., Hourigan, J.L., 1997. Progress report on Mesozoic Asian studies conducted by Stanford University (Geological Society of America *Abstracts with Programs*, v. 29).

Hacker, B.R., Ratschbacher, L., **Webb, L.E.**, Ireland, T., Walker, D., Calvert, A., Dong, S., 1997. New Constraints on Exhumation of Ultrahigh-Pressure Rocks, Dabie–Hong'an–Tongbai Shan, China (Geological Society of America *Abstracts with Programs*, v. 29).

Johnson, C.L., Graham, S.A., **Webb, L.E.**, Badarch, G., Hendrix, M., Sjostrom, D., Beck, M., and Lenegan, R., 1997. Sedimentary response to late Mesozoic extension in southern Mongolia (EOS, Transactions, American Geophysical Union; v. 78). *INVITED.*

Webb, L.E., Graham, S.A., Johnson, C.L., Badarch, G., Hendrix, M., Sjostrom, D., Beck, M., and Lenegan, R., 1997. Characteristics and implications of the Onch Hayrhan metamorphic core complex of southern Mongolia (EOS, Transactions, American Geophysical Union; v. 78). ***INVITED***.

Webb, L.E., Hacker, B.R., Ratschbacher, L., Leech, M. Dong, S., and Lianhong, P., 1997. Mesozoic tectonism in the Qinling–Dabie collisional orogen: New constraints on the multistage exhumation of ultrahigh-pressure rocks (Geological Society of America *Abstracts with Programs*, v. 29). ***INVITED.***

Webb, L.E., Hacker, B.R., Ratschbacher, L., and Dong S., 1996. Structures, and kinematics of exhumation; ultrahigh-pressure rocks in the Hong'an Block of Qinling–Dabie Orogen, China (Geological Society of America *Abstracts with Programs*, v. 28).

Webb, L.E., Hacker, B.R., Ratschbacher, L., and Dong S., 1996. Structural and geochronological constraints on the exhumation of high- and ultrahigh-pressure rocks in the Qinling–Dabie Orogen, China. (Penrose Conference: Exhumation Processes: Normal Faulting, Ductile Flow, and Erosion. Penrose Conference, Greece.)

Hacker, Bradley R., Ratschbacher, L., **Webb, L.E.**, and Dong S., 1995, What brought them up? Exhumation of ultrahigh-pressure rocks in the Dabie Mountains of eastern China. (EOS, Transactions, American Geophysical Union; v. 76).

Webb, L.E., Hacker, B.R., Ratschbacher, L., and Dong S., 1995, Structures and kinematics of exhumation from 40 km; the Dabie Shan ultrahigh-pressure rocks, E. China (Geological Society of America *Abstracts with Programs*, v. 27).

GRADUATE ADVISING

Jarret Pidgeon (BS SUNY Plattsburgh), University of Vermont, MS in Geology, expected 2023. Thesis title TBD; Mongol-Okhotsk suture zone, Mongolia.

Gavin Pirrie (BS Montana State University), University of Vermont, MS in Geology, 2022. Examining the Relationship Between the Ereendavaa Metamorphic Core Complex and Duch Gol Basin in Northeast Mongolia in the Context of The Mongol-Okhotsk Suture.

Kristin Schnalzer (BS SUNY Plattsburgh), University of Vermont, MS in Geology, 2020. Evidence for polyphase deformation in the shear zones bounding the Chester and Athens Domes, southeastern Vermont, from $^{40}Ar/^{39}Ar$ geochronology.

Cheyne Aiken (BS SUNY Potsdam), University of Vermont, MS in Geology, October 2018. Geochronologic Constraints on the Timing of Metamorphism and Exhumation of the Tillotson Peak Complex in Northern Vermont.

Evan Tam (BS University of Connecticut), University of Vermont, MS in Geology, October 2018. Geochronological Constraints on the Timing of Deformation: An Examination of the Prospect Rock Fault Footwall in North-Central Vermont.

Samuel Lagor (BS St. Lawrence University), University of Vermont, MS in Geology, May 2016. The relationship between magmatism, deformation, and metamorphism during the Acadian orogeny: A case study from the Knox Mountain pluton, Green Mountains, Vermont.

Patrick Dyess (BS Montana State University), University of Vermont, MS in Geology, October 2013. Interpreting Quartz Textures through TitaniQ Thermobarometry of Low Grade Metapelites, Northfield Mountains, Vermont. Went on to work with NTL Engineering and Geoscience, Inc.

Christine Downs (BS Salem State University), University of Vermont, MS in Geology, October 2012. The Characterization of Ductile Deformation in the Upper and Lower Plates of the Hinesburg Thrust Fault Through Detailed Geometric Analysis of Selected Outcrops. Currently a PhD student at University of Southern Florida.

Merril Stypula (BA Colorado College), University of Vermont, MS in Geology, May 2012. U-Pb Zircon Dating of Metamorphic Tectonites from Tavan Har, Southeast Mongolia: Implications for the Role of Tectonic Inheritance in Intraplate Shear Zones. Currently employed by EQT Corporation.

Kyle Ashley (BS SUNY Potsdam), University of Vermont, MS in Geology, October 2011. TitaniQ Thermobarometry of Fabric Development in the Strafford Dome, Vermont: Linking

Microstructures to Orogenic Processes. Went on to a PhD program at Virginia Tech, post-doc at UT Austin, and now a visiting professor at University of Pittsburgh.

Joshua Taylor, (BS St. Lawrence University, MS Syracuse University), Syracuse University, PhD in Earth Sciences (co-advisor with P.G. Fitzgerald), May 2011. Tectonic History of the East Gobi Fault Zone, Southeastern Mongolia: An Integrated Study Using Structural Geology, Geochronology, and Thermochronology. Currently employed at ExxonMobil Exploration Company.

GRADUATE STUDENT THESIS COMMITTEES

Siga Juozelskis, University of Vermont, Department of Geology, MS expected in 2023, Addressing Vermont's Intensifying Landslide and Mass-wasting Problem with the Cotton Brook Landslide in Waterbury, Vermont. Advisor: Keith Klepeis.

John Mark Brigham, Syracuse University, Department of Earth Sciences. PhD Candidate. Petrology and geochemistry of ultramafic rocks in the New England Appalachians, Quebec, and Newfoundland (title TBD). Advisor: Suzanne Baldwin.

K.C. Bijay, University of Vermont, Civil and Environmental Engineering, PhD, 2022. Investigation of Production Enhancement in Deep Geothermal Systems. Advisor: Ehsan Ghazanfari. Committee chairperson.

Tara Nenninger, University of Vermont, Mechanical Engineering, MS, 2022. Atomic-scale analysis of solute segregation energy into grain boundaries in bicrystals and polycrystals. Advisor: Frederic Sansoz. Committee chairperson.

Emily Lincoln, University of Vermont, Department of Geology, MS, 2021. Distinguishing different styles of transpressional deformation at an obliquely convergent plate margin, Fiordland, New Zealand. Advisor: Keith Klepeis.

Peter Lindquist, University of Vermont, Department of Geology, MS, 2020. The Role of Lithologic Heterogeneity in Along-Strike Variations in Strain Localization in Cretaceous Lower-Crustal Shear Zones, Fiordland, New Zealand. Advisor: Keith Klepeis.

John Mark Brigham, Syracuse University, Department of Earth Sciences. MS, 2020. Mineralogy of the Partially Serpentinized Meta-Dunite in East Dover, Vermont. Advisor: Suzanne Baldwin.

Griffin Moyers, University of Vermont, Department of Geology, MS, 2019. Strain Accommodation, Metamorphic Evolution, and 3D Kinematics of Transpressional Flow within the Lower Crust of a Cretaceous Magmatic Arc in Fiordland, New Zealand. Advisor: Keith Klepeis.

Joseph Gonzales, Syracuse University, Department of Earth Sciences. PhD, 2019. Applications of Elastic Modeling, Thermobarometry, and Thermal History Modeling to (Ultra)high-Pressure Metamorphic Rocks. Advisor: Suzanne Baldwin.

Caswell, Brandon, University of Idaho, MS, 2018. $^{40}Ar/^{39}Ar$ Geochronology of Biotite from Ductile Shear Zones of the Ellesmere-Devon Crystalline Terrane, Nunavut, Canadian Arctic. Advisor: Jane Gilotti.

Matthew Merson, University of Vermont, Department of Geology, MS, 2018. The Spatial and Temporal Development of the Champlain Thrust Fault Zone Exposed in Northwest Vermont. Advisor: Keith Klepeis.

Maquire IV, Henry, MS, 2018. Application of Geostatistical and Geochronological Methods to Stratigraphic Problems in the Lower Cambrian Monkton Formation. Advisor: Charlotte Mehrtens.

Julia Runcie, University of Vermont, Ecological Planning Program, Rubenstein School of Environment and Natural Resources. MS, 2017. Environmental assessment guiding recreation at Travertine Hot Springs ACEC. Advisor: Dean Wang

Gina Accorsi, University of Vermont, Department of Geology, MS, 2017. Geochemical and XRD fingerprinting of conflict minerals, Advisor: John M. Hughes.

Mike Ingram, University of Vermont, Department of Geology, MS, 2016. The Effects of Heterogeneity in the Lower Crust on Strain Partitioning and Fabric Development During Extension Doubtful Sound, New Zealand. Advisor: Keith Klepeis.

John Gilbert, University of Vermont, Department of Geology, MS, 2016 expected. Crustal deformation during arc-flare up magmatism: Field and microstructural analysis of a mid-crustal, melt-enhanced shear zone. Advisor: Keith Klepeis.

Hannah Blatchford, University of Vermont, Department of Geology, MS, 2016. Fiordland, New Zealand. The Structural Evolution of a Portion of the Median Batholith and Its Host Rock in Central Fiordland, New Zealand: Examples of Partitioned Transpression and Structural Reactivation. Advisor: Keith Klepeis.

Benjamin Melosh, McGill University, Department of Earth and Planetary Sciences, PhD, 2015. Earthquake cycling in the brittle-plastic transition of a transform boundary: The Pofadder Shear Zone, Namibia and South Africa. Advisor: Christie Rowe.

Myagmarjav Lkhagvasuren, University of Vermont, Wildlife and Fisheries Biology Program Rubenstein School of Environment and Natural Resources, MS, 2015. Effects of Landscape Characteristics on Carnivore Diversity in Mongolia. Advisor: James Murdoch. Committee chairperson.

Ryan Brink, University of Vermont, Department of Geology, MS, 2014. Sedimentologic Comparison of the Late/Lower Early Middle Cambrian Altona Formation and the Lower Cambrian Monkton Formation. Advisor: Char Mehrtens.

Kathryn Dianiska, University of Vermont, Department of Geology, MS, 2014. The Interplay Between Deformation and Metamorphism During Strain Localization in the Lower Crust: Insights from Fiordland, New Zealand. Advisor: Keith Klepeis.

Alice Newman, University of Vermont, Department of Geology, MS, 2014. Strain Localizaton and Exhumation of the Lower Crust: A Study of the Three-Dimensional Structure and Flow Kinematics of Central Fiordland, New Zealand. Advisor: Keith Klepeis.

Jacob Menken, University of Vermont, Department of Geology, MS, 2014. Effect of Thermal Treatment on the Cation Exchange and Disordering in Tourmaline. Advisor: John Hughes.

Stephanie Perry, Syracuse University, Department of Earth Sciences, PhD, 2014. Thermotectonic Evolution of the Alaska Range: Low-temperature Thermochronologic Constraints. Advisor: Paul Fitzgerald.

Jeffrey Webber, University of Vermont, Department of Geology, MS, 2012. Advances in Rock Fabric Quantification and the Reconstruction of Progressive Dike Emplacement in the Coastal Batholith of Central Chile. Advisor: Keith Klepeis.

Jessica Terrien, Syracuse University, Department of Earth Sciences, PhD, 2012. Thermochronology and Geophysical Modeling of the Santa Catalina Metamorphic Core Complex, Arizona. Advisor: Suzanne Baldwin.

Charles Trodick, University of Vermont, Department of Geology, MS, 2011. Sediment Generation Rates in the Potomac River Basin. Advisor: Paul Bierman.

Eric Portenga, University of Vermont, Department of Geology, MS, 2010. Using ^{10}Be to constrain erosion rates of bedrock outcrops globally and in the central Appalachian Mountains. Advisor: Paul Bierman.

Janelle McAtamney, University of Vermont, Department of Geology, MS, 2010. Synthesizing the tectonic evolution of the Magallanes foreland basin during the Late Cretaceous backarc basin inversion using structural and stratigraphic evidence from Bahia Brookes, southern Patagonia, Chile. Advisor: Keith Klepeis.

Matthew Heumann, University of Utah, Department of Geology and Geophysics, PhD, 2010. Tectonic history and subsequent basin development along the East Gobi Fault Zone in southeastern Mongolia. Advisor: Cari Johnson.

Brian Monteleone, Syracuse University, Department of Earth Sciences, PhD, 2006. Timing and conditions of formation of the D'Entrecasteaux Islands, Southeastern Papua New Guinea. Advisor: Suzanne Baldwin.

ADVISING OF UNDERGRADUATE RESEARCH

Ryan Mistur, Geology BA, 2022. FESEM study of a potential meteorite found in Vermont.

Brenda Waters, Continuing Education, 2021–2022. Microstructural analyses and ^{40}Ar/^{39}Ar geochronology of the Dry Hill Thrust in the Berkshire Massif.

Zach Dreiker, Geology BS, 2020. Paleozoic deformation in the Berkshire Massif.

Kyle McCarthy, Geology BS, 2020. Microstructural analyses and ^{40}Ar/^{39}Ar geochronology of shear zones along the NE margin of the Chester Dome, Vermont.

Eryka Collins and John Sawyer Shaw, Geology BS, 2019. Microstructural analyses and ^{40}Ar/^{39}Ar geochronology of the Rattlesnake Thrust, southern Vermont.

Samantha Portnoy, Geology BS, 2018. Relationship between rapid exhumation and fault patterns in Fiordland, New Zealand. Co-advising with Keith Klepeis.

Patrick Sullivan, University of Vermont, Geology BS, 2017. Structural analysis and geochronology of pseudotachylyte in the Taconic Arrowhead Mountain thrust fault zone.

Elizabeth Pidgeon, University of Vermont, Geology BS, 2017. Subduction–exhumation-related deformation of high-pressure rocks, Tillotson Peak, Vermont.

Mariah Schneider, University of Vermont, Geology, BS, 2016. Geo-archaeological investigation of the UVM Green using ground penetrating radar, electromagnetic induction, and seismic refraction profiling.

Edward Bonner, University of Vermont, Geology, BS, 2016. Geo-archaeological investigation of the UVM Green using ground penetrating radar, electromagnetic induction, and seismic refraction profiling.

Carson Mitchell, University of Vermont, Geology, Geology BS, 2016. Field investigation of the Arrowhead Mountain Thrust Fault in the Lamoille River region.

Andrew Goff, University of Vermont, Geology, BS, 2015. Acadian Deformation in the Connecticut Valley Trough: Investigating Penetrative S_2 Foliation Development in the Waits River Formation.

Jacob Vincent, University of Vermont, Geology, BS, 2014. Structural analysis of Acadian deformation the Dog River Fault Zone, Montpelier, Vermont.

Stefan Christie, University of Vermont, Geology, BS, 2014. Geophysical investigation of the Kent Island Formation within the Blackwater National Wildlife Refuge and the potential influence of glacioisostatic adjustment on the Mid-Atlantic. This project is in collaboration with Ben DeJong, UVM PhD student.

Karina Heffernan, University of Vermont, Geology, BS, 2014. Geological and geophysical investigations of possible karst structures in the Dunham Dolomite, Starksboro, Vermont. This project is in collaboration with the Vermont Geological Survey.

Parker Richmond, University of Vermont, Geology, BS, 2013. Ground-penetrating radar investigation of fractures at Shelburne Point and Mount Philo, Vermont. Field studies advised in Summer and Fall 2012, Spring 2013.

James Christiansen, University of Vermont, Geology, BS, 2012. Metamorphism of arc and forearc lithologies at Tavan Har, SE Mongolia. Spring 2012.

Nick Archer, University of Vermont, Environmental Sciences, BS, 2012. Electromagnetic induction profiling of the Waits River Formation in Calais and East Montpelier, Vermont. Fall 2011. This project is in collaboration with the Vermont Geological Survey.

Ted Crook, University of Vermont, Department of Geology, BS, 2011. Groundwater investigation in Craftsbury, Vermont, using integrated geophysical technologies. Fall 2010–Spring 2011. This project was in collaboration with the Vermont Geological Survey.

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