Curriculum Vitae, July 2024

# **Brandon J. Vogt**

Associate Professor Department of Geography and Environmental Studies University of Colorado Colorado Springs 1420 Austin Bluffs Parkway Colorado Springs, Colorado 80918

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#### EDUCATION

PhD, 2007, Arizona State University, School of Geographical Sciences MA, 2000, Arizona State University, School of Geographical Sciences BS, 1992, University of Missouri - Columbia, School of Natural Resources

#### AREAS OF SPECIALIZATION

Geomorphology, mountain meteorology, geomorphometry, and the scholarship of teaching and learning with foci on high-impact educational practices and undergraduate research

# ACADEMIC POSITIONS

Associate Professor, July 2016 - present. UCCS, Department of Geography and Environmental Studies Graduate Director, July 2019 - June 2023. UCCS, Department of Geography and Environmental Studies Assistant Professor, Aug. 2009 - June 2016. UCCS, Department of Geography and Environmental Studies Lecturer, Aug. 2007 - May 2009. UCCS, Department of Geography and Environmental Studies Visiting Assistant Professor, Aug. 2004 - May 2005. Texas State Univ. San Marcos, Department of Geography

## EARLIER PROFESSIONAL EXPERIENCE

Webmaster, 1999 - 2009. The Arizona Solar Center, Inc., Tempe, AZ Meteorological Technician, 1999. National Weather Service, Phoenix, AZ Physical Science Technician, 1997. US Geological Survey, Global Change/Climate History Team, Denver, CO Recycling / Facilities, 1992-1996. National Center for Atmospheric Research (NCAR), Boulder, CO Wilderness Ranger, 1992. US Forest Service, Rio Grande National Forest Peaks Ranger District, Creede, CO

# **REFEREED PUBLICATIONS**

Vogt, Brandon. 2020. "Colorado's Terrain-Tied Meteorology." In Denver and the Rocky Mountain West, Ed. Michael Keables.

Vogt, Brandon. "Mountain Meteorology." Oxford Bibliographies in "Geography." Ed. Barney Warf. New York: Oxford University Press, Nov. 26, 2019. Updated Nov. 17, 2023.

Hodanish, Steve, **Brandon Vogt**, and Paul Wolyn. 2019. <u>Colorado lightning climatology</u>. *Journal of Operational Meteorology* 7(4): 45-60.

Vogt, Brandon, Steve Lapham, and Rebecca Theobald. 2018. The Physical Geography of the San Luis Valley Region of South-Central Colorado. National Council for the Social Sciences. *Social Studies and the Young Learner* 30:3 (Jan./Feb.).

**Vogt, Brandon**, and Emily Skop. 2017. The Silverton Field Experience: A model geography course for achieving high impact educational practices (HEPs). *Journal of Geography in Higher Education* 41(4): 574-589.

Vogt, Brandon, and Steve Hodanish 2016. A geographical analysis of warm season lightning / landscape interactions across Colorado, USA. *Applied Geography* 75: 93-105.

Havlick, David, Tom Huber, Eric Billmeyer, and **Brandon Vogt**. 2016. Informal trail creation: Hiking, trail running, and mountain bicycling in shortgrass prairie. *Journal of Sustainable Tourism* 24(7): 1041-1058.

Hodza, P., Schaab, G. Coetzee, S. Van der Merwe, F. and **Brandon Vogt**. 2015. Comparing proportional compositions of geospatial technology related programs at three universities. *South African Journal of Geomatics* 4(3): 240-249.

**Vogt, Brandon**. 2014. Visualizing summertime lightning patterns on Colorado Fourteeners. *The Professional Geographer* (66)1: 41-57.

**Vogt, Brandon**, and Stephen Hodanish. 2014. A high-resolution lightning map of the state of Colorado. *Monthly Weather Review* 142(7): 2353-2360.

Vogt, Brandon, and Paddington Hodza. 2013. Using 'Digital Earth' to expose students to GIScience. *Journal of Geography* 12(5): 205-13.

Vogt, Brandon. 2013. "Colorado 14ers, Pixel by Pixel." In *Emerging Methods and Multidisciplinary Applications in Geospatial Research*, ed. Donald P. Albert and G. Rebecca Dobbs, 239-254. (reprint)

Cameron, Nairne, Edwin Butterworth, Dawna Cerney, William Gribb, Kingsley Haynes, Bill Hodge, Robert Honea and **Brandon Vogt**. 2013. "Applied Geography Education in Focus: Strategic Panel Session." In *Geographic Information Systems: Concepts, Methodologies, Tools, and Applications,* ed. Information Resources Management Association, USA, 1665-1674. (reprint)

**Vogt, Brandon**. 2013. "Colorado 14ers, Pixel by Pixel." In *Geographic Information Systems: Concepts, Methodologies, Tools, and Applications*, ed. Information Resources Management Association, USA, 1200-1215. (reprint)

**Vogt, Brandon**. 2012. Terrestrial 3d laser scanners as tools to enhance undergraduate geography curriculum. *Papers of the Applied Geography Conferences* 35(2012): 21-26.

Cameron, Nairne, E. Butterworth, D. Cerney, W. Gribb, K. Haynes, B. Hodge, R. Honea, and **Brandon Vogt**. 2012. Applied geography education in focus: strategic panel session. *International Journal of Applied Geospatial Research* 3(3): 97-107.

**Vogt, Brandon**. 2011. Exploring cloud-to-ground lightning earth highpoint attachment geography by peak current. *Earth Interactions* 15(8): 1-16.

Vogt, Brandon. 2011. Colorado 14ers, pixel by pixel. International Journal of Applied Geospatial Research 2(2): 17-33.

**Vogt, Brandon**, and Robert Edsall. 2010. Terrestrial laser scanning and exploratory spatial data analysis for the mapping of weathering forms on rock art panels. *Geocarto International* 25(5): 347-367.

Fonstad, Mark, William Pugatch, and Brandon Vogt. 2003. Kansas is flatter than a pancake. Annals of Improbable Research 9(3).

Wentz, Elizabeth, Michael Kuby, and **Brandon Vogt**. 2001. Extracting high points from statistical surfaces: A case study using digital elevation models. *Cartography and Geographic Information Science* 28(4): 259-271.

Kuby, Michael, Elizabeth Wentz, **Brandon Vogt**, and Randy Virden. 2001. Experiences in developing a tourism website for hiking Arizona's highest summits and deepest canyons. *Tourism Geographies* 3(4): 454-473.

## PUBLICATIONS SUBMITTED

**Vogt, Brandon,** and G. Whitehead. Sonic Landscapes: An Interdisciplinary Journey into Earth and Atmosphere through Sonic Improvisation. *Journal of College Science Teaching* (under review, June 2024).

Routt, Austin, Brandon Vogt, K. Hughson, et al. A Five-Year Kinematic Record of the Gilpin Peak Rock Glacier, Southwest Colorado. *Geophysical Research Letters* (not accepted, Jan. 2024; submitted to *Permafrost and Periglacial Processes* Sept. 2024).

**Vogt, Brandon,** Austin Routt, Layla Burney, Mae Faglier, Gina Galjour, Josh Herman, Rachel Middleton, Elena de La Rosa, Jesse Martin, Ashlyn Morrison, Drake Panzer, Aaron Riley, Brianna Santos, and Callista Yarian. Safety Recommendations for Conducting Fieldwork in Remote, High Elevation, Mountainous Terrain. *Journal of Geoscience Education* (under second revision, May 2024).

## NON-REFEREED PUBLICATIONS

Vogt, Brandon. 2017. Monthly and Hourly Lightning Maps: NOAA / NWS Lightning Page - 36 CG Flash Density Maps.

Vogt, Brandon. 2008. <u>Rock Weathering at Red Rock Canyon Open Space</u>, Colorado Springs, CO. An interpretive web-based field guide for visitors.

**Vogt, Brandon**. 2001. <u>Arizona's 20-20 Challenge</u> - A website for hikers created for the Arizona Office of Tourism (with Elizabeth Wentz, Michael Kuby, and Randy Virden).

**Vogt, Brandon**. 1997. US Geological Survey Global Change Research Program - Impacts of Climate Change and Land Use in the Southwestern United States. USGS publication: <u>The Arroyo Problem in the Southwestern United States</u>.

#### NON-REFEREED GALLERY INSTALLATION / COLLABORATION

**2010.** Coleman, Chris, and **Brandon Vogt**. <u>Points of Volatility</u>. A UCCS Gallery of Contemporary Art (GOCA) Hypothesis art installation: A conveyor belt of plastic transects of Colorado mountain ranges that get 'struck' (illuminate) by plastic spheres, mimicking the lightning attachment 'rolling sphere' process. Artist based at Univ. of Denver.

#### INVITED PRESENTATIONS

**2022.** Vogt, Brandon. Scales of Climate in the Aspen Grove. A "<u>Tree Talks: Populus tremuloides</u>" art project presentation. Event sponsored by Black Cube Nomadic Art Museum and Ben Kinsley (UCCS). Presented onsite at Kenosha Pass, CO.

2021. Vogt, Brandon. Applied Geography Conference, Roundtable / Panel Discussant: Meet Your Thesis Advisor. Online Conference.

**2021.** Stephen Hodanish and **Vogt, Brandon.** Lightning patterns and lightning risk in El Paso County, Colorado. Presented to El Paso County Search and Rescue team, Colorado Springs, CO.

**2019.** Vogt, Brandon, and Emily Skop. High-Impact Educational Practices through Experiential Learning. Classroom Methods Session, UCCS Mountain Lion Teaching and Learning Day / Teaching Transcends (presented by Brandon Vogt).

**2017. Vogt, Brandon**. Colorado's Colorful Lightningscape. Saturday Night in the Park Public Lecture, Rocky Mountain National Park, Kawuneeche Visitor Center, Grand Lake, CO.

**2017. Vogt, Brandon**. Exploring Lightning / Landscape Interactions. UpaDowna Adventure on Tap Lecture Series, Colorado Springs, CO.

**2017.** Stephen Hodanish, and **Brandon Vogt**. Using lightning data. NOAA Total Lightning Implementation Working Group, teleconference seminar, Pueblo, CO (joint presentation).

**2016.** Vogt, Brandon. Physical geography of Garden of the Gods Park. Field trip leader. Colorado Springs International Visitor's Program / Department of State, Colorado Springs, CO.

**2015.** Vogt, Brandon, and Stephen Hodanish. Colorado's Colorful Lightningscape. Colorado Geographic Alliance (COGA) Night with a Geographer lecture, Mountain Chalet, Colorado Springs, CO (joint presentation).

**2014.** Vogt, Brandon, and Stephen Hodanish. The Colorado Lightningscape. Colorado Geographic Alliance (COGA) Night with a Geographer lecture, Pueblo Steelworks Center, Pueblo, CO (joint presentation).

**2014.** Vogt, Brandon. Colorado's lightning climatology and things you don't want to know about the Region. Lecture. Café Scientifique, UCCS.

**2014.** Vogt, Brandon. ChitChat 2014: Lightning and Poutine Cuisine, talks on contemporary culture at the Gallery of Contemporary Art (GOCA), Downtown Gallery, Colorado Springs, CO.

**2014.** Vogt, Brandon. Rock weathering. Presentation and fieldtrip, Red Rock Canyon Open Space. Sponsored by Friends of Red Rock Canyon, Colorado Springs, CO.

**2013.** Vogt, Brandon. Expanding GIS through teaching tools. Presentation and panelist. 5th Annual GIS in Higher Education Summit, Colorado Springs, CO.

**2012.** Vogt, Brandon. The new geospatial technology - terrestrial lidar. Lecture. Colorado Science Education Network. Colorado Springs, CO.

**2012.** Vogt, Brandon. Rock art weathers: Field observations in Picket Wire Canyon. Speaker and field trip co-leader. Pikes Peak Chapter of the Colorado Archaeological Society, Colorado Springs, CO.

2011. Vogt, Brandon. AAG Annual Convention Panelist: Applied Geography and Education. Seattle, WA.

**2010.** Vogt, Brandon. Remote sensing for cultural resource preservation. Colloquium speaker. Department of Geography, University of Denver, Denver, CO.

2010. Vogt, Brandon with Chris Coleman, artist. Hypothesis: Process in Science and Art. Lecture, UCCS (joint presentation).

**2010.** Vogt, Brandon. Rock art weathers: Field observations in Picket Wire Canyon. Speaker and field trip co-leader. Pikes Peak Chapter of the Colorado Archaeological Society, Colorado Springs, CO.

2010. Vogt Brandon. Technology in Education. Panelist. Colorado Geographic Alliance (COGA), UCCS.

**2009.** Vogt, Brandon. Terrestrial lidar applications in rock weathering studies. Capstone Lecture. Department of Economics and Geosciences, US Air Force Academy, CO.

**2008.** Vogt, Brandon. Terrestrial lidar to advance the Rock Art Stability Index (RASI). Lecture. Department of Geology, Geography, and Environmental Studies, University of Colorado, Denver, Denver, CO.

**2008.** Vogt, Brandon. Rock weathering forms and processes. Lecture and field trip leader. Red Rock Canyon Open Space 'Friends of Red Rock Canyon' Fall Education Series, Colorado Springs, CO.

**2007.** Vogt, Brandon. Geovisualization in the context of rock art preservation, Lecture. Department of Geography and Environmental Studies, UCCS.

# **PROFESSIONAL PRESENTATIONS**

**2023.** Routt, Austin, Kynan Hughson, **Brandon Vogt**, Layla Burney, Gina Galjour, Joshua Herman, Rachel Middleton, Brianna Santos, Jesse Martin. Comparative Analysis of Rock Glacier Morphology Using Aerial Photogrammetry. American Geophysical Union (AGU) 2023 Conference (presented by Austin Routt).

**2022.** Routt, Austin, Layla Burney, Gina Galjour, Rachel Johnson, Brianna Santos, and **Brandon Vogt**. Rock glacier kinematic monitoring in the San Juan Mountains, Colorado. Session: Observation and Modeling of Cryospheric Changes AAG Annual Convention Paper. New York, NY (presented by Austin Routt and Rachel Johnson).

**2022.** Vogt, Brandon, Layla Burney, Gina Galjour, Rachel Johnson, Brianna Santos, Callista Yarian, and Austin Routt. High-Elevation, High-Risk Field Work: Lessons Learned. Session: Geologic Hazards. AAG Annual Convention Paper. New York, NY (presented by Brandon Vogt).

**2021. Vogt, Brandon.** Colorado's Terrain-Tied Meteorology. AAG Annual Convention Paper, Session: Weather and Climate Studies of the Rocky Mountain West: I (Virtual Paper Session I and II Organizer). Seattle, WA.

**2020.** Vogt, Brandon. Challenges in an Evolving Academic Job Market for Geographers (panelist). Applied Geography Conference. Online Conference.

**2020.** Vogt, Brandon and Jeff Derry. Teaching Wintertime Mountain Meteorology in The Mountains: An Experiential Learning Field Course in Colorado's San Juan Mountains. American Meteorological Society (AMS) 19th Conference on Mountain Meteorology, Session: Education, Outreach, Diversity, Inclusion, and Equity in Mountain Meteorology. Park City, UT (presented by Brandon Vogt).

**2020. Stephen Hodanish** and Brandon Vogt. Colorado's Thunderstorm Climatology. American Meteorological Society (AMS) 19th Conference on Mountain Meteorology. Session: Applications of Mountain Meteorology. Park City, UT.

**2020.** Vogt, Brandon. Colorado's Terrain-Tied Meteorology. AAG Annual Convention Paper, Session: Weather and Climate Studies of the Rocky Mountain West: II (Session I, II, and III Organizer). Denver, CO (sessions cancelled)

**2018**. **Vogt, Brandon**, and Emily Skop. The Silverton Field Experience: a model geography course for achieving high-impact educational practices (HEPs), AAG Annual Convention Paper, Session: Experiential Learning in Geographic Education. New Orleans, LA (presented by Brandon Vogt).

2015. Hodza, P., Schaab, G., Coetzee, S., van der Merwe, F., and Vogt, Brandon. Comparing proportional compositions of geospatial technology-related programs at three universities. Geomatics Indaba 2015, Ekurhuleni, South Africa. (presented by Paddington Hodza)

**2015**. Vogt, Brandon, Stephen Hodanish, and Jim Schindling. Lightning activity in Colorado's mountains: New discoveries. AAG Annual Convention Poster, Session: Regional Climatology. Chicago, IL.

**2015.** Hodanish, Stephen, and **Vogt, Brandon.** A high-resolution lightning map of the State of Colorado. 95th American Meteorological Society (AMS) Annual Meeting / 7th Conference of the Meteorological Applications of Lightning Data. Phoenix, AZ (presented by Stephen Hodanish).

**2014.** Vogt, Brandon. Field Studies, Silverton, Colorado: A model geography course. 37th Applied Geography Conference. Atlanta, GA.

**2014**. **Vogt, Brandon** (session organizer / session chair), and Stephen Hodanish. Linkages between lightning and topographic texture, AAG Annual Convention Paper, Session: Regional Climatology. Tampa, FL.

**2013.** Vogt, Brandon, and Stephen Hodanish. New insight into Colorado's lightning climatology: The influence of elevation and terrain features. 36th Applied Geography Conference. Annapolis, MD.

**2013.** Hodanish, Stephen, and **Vogt, Brandon.** A high-resolution lightning map of the State of Colorado. 38th National Weather Association (NWA) Annual Meeting, Charleston, SC (presented by Stephen Hodanish).

**2012.** Vogt, Brandon. Terrestrial 3D laser scanners as tools to enhance undergraduate geography curriculum, 35th Applied Geography Conference. Minneapolis, MN.

**2012.** Vogt, Brandon, Cerian Gibbes, Steve Jennings, and Matt Sidor. Geographical research applications of terrestrial laser scanning, Mountain Lion Research Day Poster Presentation, UCCS.

**2011. Vogt, Brandon.** Curriculum enhancements gained from the National Center for Atmospheric Research (NCAR) COMET faculty course: Integrating satellite data and products into geoscience courses. Boulder, CO.

**2011. Vogt, Brandon** (session chair). Summertime lightning risk on Colorado Fourteeners. Great Plains/Rocky Mountain Division AAG Paper. Session: Hazards and Disasters. Denver, CO.

**2011. Vogt, Brandon**, and Paddington Hodza. Using Digital Earth to excite students about GIScience. AAG Annual Convention Paper. Session: Emerging Ideas in GIS Instruction. Seattle, WA (presented by Brandon Vogt).

**2010**. Vogt, Brandon. Lightning and landscape, AAG Annual Convention Paper, Session: Physical and Social Dimensions of Extreme and Hazardous Weather. Washington, DC.

**2010**. Anderson, Sharolyn, Mark Fonstad and **Brandon Vogt**. Extending quantitative analysis of historical photographs, AAG Annual Convention Paper, Session: The Use of Photography and Repeat Photography in Geomorphological Research and Teaching - Session 2: Quantitative Approaches. Washington, DC (presented by Sharolyn Anderson).

2010. Vogt, Brandon. Lightning and landscape, Mountain Lion Research Day Poster Presentation, UCCS.

**2009**. **Vogt, Brandon** (session organizer) and Steve Jennings. Measuring the success of a new physical geography-based learning community, AAG Annual Convention Paper. Session: Learning Communities in Geography. Las Vegas, NV (presented by Brandon Vogt).

**2008**. Vogt, Brandon. Terrestrial lidar, GIS, and rock weathering, Air Force Academy GIS Day Poster Presentation, USAFA, Colorado Springs, CO.

**2007**. Stevens, Michelle, **Brandon Vogt**, Dennis Staley, and Thad Wasklewicz. 3D laser scanning, documentation, and condition assessment of rock art, Society for American Archaeology 72nd Annual Meeting Paper. Austin, TX (presented by Michelle Stevens).

**2007**. **Vogt, Brandon**. Geovisualization of laser scanned images as a systemic strategy to aid in stone conservation, AAG Annual Convention Paper. Session: Rock Weathering and Rock Art: Sustainability of Cultural Resources Etched in Stone. San Francisco, CA.

**2005**. **Vogt, Brandon**. Exploring mountain denudation process and rate utilizing contour line pattern analysis and space-for-time substitution, AAG Annual Convention Paper. Denver, CO.

**2003**. **Vogt, Brandon** and Emily Skop. Us vs. them - old-to-new Colorado license plates: A barometer for cultural geographers, AAG Annual Convention Paper, Session: International Year of Mountains I: Beyond 2002 - Mountain Geography Specialty Group Paper. New Orleans, LA (presented by Brandon Vogt).

**2002.** Vogt, Brandon and Emily Skop. The license plate wars, Annual Meeting of the Association of Pacific Coast Geographers Poster. San Bernardino, CA (joint presentation).

**2001**. **Vogt, Brandon**. A non-destructive field technique for measuring surface roughness at sub-millimeter resolution, AAG Annual Convention Paper. Session: Weathering Geomorphology. New York, NY.

**2000**. Cerveny, Niccole, Mark Fonstad, **Brandon Vogt**. Total-scale analysis of lava flow surface complexity for SP Crater, Northern Arizona, AAG Annual Convention Paper. Pittsburgh, PA (presented by Niccole Cerveny).

**2000**. Wentz, Elizabeth, **Brandon Vogt**, Michael Kuby. Use of GIS for extraction of summit and canyon locations in the State of Arizona, AAG Annual Convention. Poster. Pittsburgh, PA (presented by Elizabeth Wentz).

**2000.** Vogt, Brandon and Mark Fonstad. Complexity-scale relationships in montane snowpack depth: potential applications in snow process research and snow-water equivalent measurement, AAG Annual Convention Paper. Session: Cryosphere. Pittsburgh, PA (presented by Brandon Vogt).

**1999.** Vogt, Brandon. The confocal laser microscope as a tool to quantitatively measure stone surface roughness, AAG Annual Convention Paper. Session: Weathering Geomorphology. Honolulu, HI.

**1998**. Reynolds, Rich, Meredith Reheis, **Brandon Vogt**, and Jayne Belnap. Aeolian dust in surficial sediments on the Colorado Plateau, magnetic and geochemical evidence, 4th International Conference on Aeolian Research, Paper. Oxford, U.K. (presented by Rich Reynolds).

#### POPULAR MEDIA

2023. UCCS Communique, Sept. 20: Geography & Environmental Studies Students Are Elevating Research

2021. UCCS Communique, Oct. 21: Student Research Showcase: Brianna Santos

2021. Denver Gazette, Apr. 16. Here's when and where lightning strikes the most in Colorado

**2021.** Activism4Earth, National Public Radio (NPR), Radio West/KUER Salt Lake City panel participant. An attempt to bring the science and arts community together.

2020. UCCS Communique, Jan. 20: 12 UCCS students study snow hydrology in Silverton, Colorado

**2019.** Denver 7 ABC, Jul. 24: <u>Why lightning strikes this area more than anywhere else in Colorado</u>. (*reprinted <u>KOAA Chanell 5</u>*, <u>Colorado Springs</u>, Jul. 24).

2019. AccuWeather, Jul. 25: Hiker captures photos of possible tornado in Rocky Mountain National Park

2019. Denver Post, Jul. 25: Rare funnel cloud spotted near Rocky Mountain National Park.

**2003.** National Public Radio (NPR), All Things Considered. <u>The Flat Landscape of Kansas. NPR Interview with Robert Siegel, Aired</u> July 29, 2003, Heard on *All Things Considered*.

#### GRANTS

**2024.** UCCS Office of Sponsored Research Committee on Research and Creative Works (CRCW) Grant - Developing Faculty Scholarship and Training Future Geoscientists to Advance Climate Change Science at UCCS \$6,900 (unfunded)

**2023**. Geological Society of America (GSA) Graduate Student Research Grant 'Supporting Field Work of UCCS Undergraduate Students,' Faculty Sponsor (PI is PhD student Austin Routt), \$3,000 (unfunded).

**2022.** UCCS Office of Sponsored Research Committee on Research and Creative Works (CRCW) Collaborative Grant (with Glen Whitehead, UCCS), Sampling the Hydrologic Soundscapes of Colorado's San Luis Valley and Rio Grande River \$14,726 (unfunded)

**2021**. NSF Smart and Connected Communities (SCC) Planning Grant: Enhanced and Annotated Virtual Presence using Swarms of Collaborating Drones (Co-PI). PI Dr. Sudhanshu Semwal, UCCS College of Engineering and Applied Science., \$149,613 (unfunded).

2021. UCCS Office of the Provost Teaching Enhancement Grant, 'Submersible dataloggers' \$798 (awarded).

**2021**. Undergraduate Research Academy (URA) Scholarships for two students. San Juan Mountains Rock Glacier Monitoring, Faculty sponsor / mentor, Summer 2021, \$7,000 (awarded).

**2015**. Friedman Foundation for Educational Choice grant, 'An Examination of the Relationship between School Choice Programs and Private School Populations' PI Dr. Rebecca Theobald and Dr. Dick Carpenter, \$16,793 (funded).

**2014**. NSF Geomechanics and Geomaterials, 'Development of a Model for the Mechanism of Raveling Failure in Rock Slopes using LiDAR' PI Dr. Norbert Maerz, MO Univ. of Sci. and Tech., Co PIs Dr. Khalid Alshibli, Univ. of TN, Dr. Brandon Vogt, and Dr. Robert Parsons, Univ. of KS, NSF #1335463, \$210,339 (unfunded).

**2014**. AAG Mel Marcus Fund, 'Mt. Sopris Rock Glacier Research Project, Elk Mountains, CO' PI / Faculty Sponsor Dr. Brandon Vogt with MA student Frank Chimento, \$2,000 (unfunded).

**2013**. NSF Division of Earth Sciences, Geomorphology, and Land Use Dynamics, 'Rock Glacier Dynamics, San Juan Mountains, Colorado,' PI Dr. Brandon Vogt, Co-PIs Cr. Cerian Gibbes, Dr. Steve Jennings, NSF #1349411, \$210,339 (unfunded).

**2013.** Institute of Museum and Library Services (IMLS): 'Colorado Springs Pioneers Museum - The Story of Us,' PI John Harner, Dr. Brandon Vogt, contract staff, \$98,677 (unfunded).

**2012.** National Geographic (NG) Society Research and Exploration Grant, 'Trico Peak Rock Glacier Survey Project' PI Dr. Brandon Vogt, Co-PIs Dr. Cerian Gibbes, Dr. Steve Jennings, NG # 152141, \$6,824 (unfunded).

**2011.** National Center for Atmospheric Research (NCAR) COMET faculty course: Integrating Satellite Data and Products into Geoscience Courses, fellowship (funded).

**2009**. NSF Division of Earth Sciences, Instrumentation and Facilities Program Grant Proposal, 'Early Career Development Supported by the Acquisition of a Terrestrial 3D Laser Scanner,' PI Dr. Brandon Vogt, NSF #0929959, \$113,192 (unfunded).

2008. CU System, Cooperative Grant for Senior Assessment, PI Robert Larkin, \$2,500 (funded).

2006. Arizona State University, Graduate and Professional Student Association Travel Grant, \$300 (funded).

2003. Arizona Board of Regents, Learner-Centered Initiatives Grant (with Dr. Ron Dorn, John Douglass), \$15,448 (funded).

1999. State of Arizona Office of Tourism Grant, \$2,000 (funded).

1999 - 2001. Arizona State University, Graduate College Travel Grants, \$300 (funded).

#### COURSES TAUGHT AT UCCS

#### Taught each year in regular rotation, in-person

Environmental Systems: Landforms & Soils (GES 1010) (online version created & taught during Covid)

Sonic Landscapes (GES 3410, VAPA 3900, MUS 4960) co-taught with Glen Whitehead (online version created & taught during Covid)

Principles of Geomorphology (GES 4310/5310 & GEOL 4630/5630) (online version created & taught during Covid)

Snowpack Assessment, Silverton, CO (winterim) (GES 4460/5170)

#### Taught each year in regular rotation, both online and in-person

Practical Meteorology (GES 3200) (online version created during Covid)

## Taught one time, in-person

Mountain Weather & Microclimate (GES 4700) - Spring, 2022 (new course)

Periglacial Landscapes, Ouray, CO (GES 4460/5170) - Fall Pre-Term, 2024 (new course)

#### **Courses no longer taught**

Digital Earth (GES 2050) (codeveloped with Paddington Hodza)

Introduction to Geographic Information Systems (GES 4050/5050)

Introduction to Remote Sensing (GES 4060/5060)

Image Processing (GES 4090/5090)

Geography Summit (GES 4900)

UCCS Pre-Collegiate Development Program version of Environmental Systems: Landforms & Soils (GES 1010)

UCCS Freshman First Year Experience Program version of Environmental Systems: Landforms & Soils (GES 1010)

# COURSES TAUGHT EARLY IN CAREER AS INSTRUCTOR OF RECORD AT OTHER INSTITUTIONS

#### Texas State University - San Marcos, Department of Geography

Fundamentals of Geographic Information Science (GEO 2426)

# Arizona State University, School of Geographical Sciences

Introduction to Geographic Information Systems (GPH 373/598)

Silverton, CO Snow & Ice Field Research Experience (GPH 598)

#### STUDENT SUPERVISION

# MASTERS - PRIMARY ADVISOR

Aaron Riley, fall 2024 start. Satellite-Based Synthetic Aperture Radar for Analyzing Permafrost Seasonal Variability in the Colorado Alpine (tentative)

Sandra Shane-Trovato, fall 2024 start. Using Airborne Lidar to Estimate Groundwater-Related Subsidence from Groundwater Extraction (tentative)

Elena De La Rosa, current (expected graduation spring 2025), Rock Glacier Mapping in the San Juan Mountains, Colorado

Ashlyn Morrison, current (expected graduation fall 2024), Using Tree Lean Direction as a Proxy to Identify Landform Influence on Wind Direction During the 2020 East Troublesome Fire, Rocky Mountain National Park, Colorado

Austin Routt, MA 2022, Controlling Factors of Rock Glacier Velocity, San Juan Mountains, Colorado, USA

Tom Burkhart, MA 2021, An Interdisciplinary Approach for Introducing Cutthroat Trout to a Post-Wildfire Damaged Stream

Thaddeus Swan, MA 2019, Examination of the Owens Cache, Southeast Colorado, USA

Michael Madsen, MA 2017, On Landsurface Change Detection using Lidar Datasets of Different Spatial Resolutions: A Case Study Examining Colorado's Waldo Canyon Fire Burn Scar

Kari M. Pittman, MA 2013, Between Rock Art and Graffiti: Identifying Culture Change and Ethnic Interactions in the Borderlands of Southeastern Colorado using a Customized Geospatial Typology

**Geoffrey Muhlestein, MA 2012**, An Evaluation of a GIS Based Procedure for Estimating Probable Maximum Precipitation Over the Piru Creek Basin, California, USA

Ryan Hollamby, MA 2011, The Massenerhebung Effect: Exploring Treeline Elevation Differences between the Pikes Peak Massif and the Elk Mountain Range, Colorado, USA

#### **MASTERS – COMMITTEE MEMBER**

Bryce Cassiano, 2023, Joe Bucheit, 2021; Katharina Zito, 2021; Paul Crunkleton, 2020; Ivan Valles, 2017

# **UNDERGRADUATE - PRIMARY ADVISOR FOR INDIVIDUALIZED INSTRUCTION**

Frank Vazzano, Honors Thesis, 2023, Analyzing Winter Mesoscale Weather Processes in the Pikes Peak Region

May Faglier, Undergraduate Research Experience, 2023, Geomorphological Surveying Methods – Theory and Infield Practice

Drake Panzer, Undergraduate Research Experience, 2023, Geomorphological Surveying Methods – Theory and Infield Practice

**Kwami Cledoe, Independent Study, 2022,** Developing and Implementing a Class Exercise for Measuring and Analyzing Wind Speed and Wind Direction at Great Sand Dunes National Park and Preserve

Josh Herman, Undergraduate Research Experience, 2022, Geomorphological Surveying Methods – Theory and Infield Practice

Jesse Martin, Undergraduate Research Experience, 2022, Geomorphological Surveying Methods – Theory and Infield Practice

Preston Roberds, Senior Honors Thesis, 2021, Does the Palmer Divide Accelerate Cold Air Mass Movement?

Brianna Phillps, Undergraduate Research Academy (URA) Scholar, 2021, Rock Glacier Kinematics, Gilpin Peak Rock Glacier

Layla Burney, Undergraduate Research Academy (URA) Scholar, 2021, Rock Glacier Kinematics, Gilpin Peak Rock Glacier

Gina Galjour, Independent Study, 2021, Mapping Two Rock Glaciers: Yankee Boy Basin and Engineer Mountain

Rachel Middleton, Independent Study in Geology, 2021, Influence of Parent Lithology, Geomorphic Processes, and Climate on the Morphometry and Behavior of Yankee Boy Basin Rock Glacier: A Field Based Study

Callista Yarian, Independent Study in Geology, 2021, Monitoring Rock Glacier Kinematics: Terrestrial and Remote Sensing Methods

**Troy Moore, Independent Study, 2019,** Creating Educational Materials for Practical Meteorology (GES 3200) Based on Surviving the 2011 Joplin, MO EF5 Tornado

Austin Routt, Senior Honors Thesis, 2019, Glacier Retreat in Rocky Mountain National Park

Evan Olivier, Senior Honors Thesis, 2019, Lightning Flash Forensics: A Tool for Casualty-Associated Lightning Flash Identification

Evan Olivier, Independent Study, 2019, Creating a Cloud-to-Ground Lightning Ground Contact Spatial Database

**Camilla Haddock, Internship, 2018,** Working with Friends of Red Rock Canyon Open Space and the City of Colorado Springs to Develop a Geologic-Themed Interpretive Trail for Red Rock Canyon Open Space

Neal Lonsky, Internship, 2018, Working with Friends of Red Rock Canyon Open Space and the City of Colorado Springs to Develop a History-Themed Interpretive Trail for Red Rock Canyon Open Space

Austin Matheny, Independent Study, 2018, Making Thin Sections of Rock in the GES Geomorphology Lab and Creating a User Manual for Faculty and Students

**Kimberley Haskins, Kelly Matthews, and Dustin Salka, Supervised Teaching Activity, 2018.** Training Sessions (Feb. & Mar.) on 3D Laser Scanning (Terrestrial LiDAR) at Garden of the Gods Park: Scanner operations, data analysis, and data visualization

Megan Hedley, Independent Study, 2016, Climate Change Influencing Wildlife in Rocky Mountain National Park

Kevin Pflug, Internship, 2016, Fieldwork on Pikes Peak

Charles Dostal, Internship, 2012, Sustainability as a Matter of National Security

Matthew Sidor, Internship, 2012, Analysis of Solar Flux Impact of Campus Architecture using Terrestrial LiDAR and GIS

#### **DOCTORAL – COMMITTEE MEMBER**

Austin Routt, 2023 - present, Geosciences Program, University of Alaska (with Dr. Kynan Hughson, Dr. Paul McCarthy, and Dr. Daniel Mann)

## AWARDS

- 2023. Outstanding Teaching Award, UCCS, Campus-Wide.
- 2020. Teaching Online Program (TOP) Online Course Design, UCCS, Faculty Resource Center, Badge Holder.
- 2014. Outstanding Teacher Award, UCCS, LAS.
- 2010. AAG Applied Geography Specialty Group 2010 Class Exercise Award, \$500.
- 2009. National Geographic Funded Colorado Geographic Alliance (COGA) Outreach, \$1,000.
- 2008. CU System, President's Teaching and Learning Collaborative (PTLC) Faculty Investigator Award, \$800.
- **2000 2003**. Arizona State University, University Graduate Scholarship, \$6,000.
- 2000. NSF Integrative Graduate Education and Research Traineeship (IGERT) Associate, \$1,200.
- 1997. US Geological Survey, Global Change and Climate History Team On the Spot Award, \$250.
- 1987. Eagle Scout, National Capital Area Council.
- 1987. Kodak Nomination of Excellence in Photography, Corcoran Gallery, Washington, DC.

#### MANUSCRIPT REVIEWER

Transactions in GIS Geophysical Research Letters Applied Geography The Professional Geographer Progress in Physical Geography Geography Compass Journal of Geography in Higher Education Disasters Journal Environmental Management ISPRS International Journal of Geo-Information Papers of the Applied Geography Conferences Geographical Review International Journal of Digital Earth

# OUTREACH AND SERVICE

- 2024 present UCCS Meteorology Club Faculty Advisor (club launched Jan. 2023)
- 2024 Dr. Aaron Corcoran (Biology) P/T Review Primary Unit Committee (PUC) Member
- 2023 2025 AAG Mountain Geography Specialty Group President
- 2022 2024 UCCS Mentored Doctoral Fellow Scholarship Review Committee
- 2022 Dr. Diep Dao (GES) P/T Review Primary Unit Committee (PUC) member
- 2022 2024 Cool Science Day Presenter
- 2023 Worked with UCCS Web Services on LAS Website Refresh Project
- 2022 2023 AAG Mountain Geography Specialty Group Secretary and Treasurer
- 2021 Dr. Christine Biermann (GES) Tenure Review Primary Unit Committee (PUC) Member
- 2021 Dr. Dylan Harris (GES) First Year Review Primary Unit Committee (PUC) Member
- 2021 AAG Seattle (virtual) 'The Changing North American Continent' Theme Committee Member
- 2020 Dr. Colin Wren (Anthropology) P/T Review Primary Unit Committee (PUC) Member
- 2020 AAG Denver Field Trip Organizer, Local Arrangements Committee Member, and 'The Changing North American Continent' Theme Committee Member
- 2019 2023 Masters in Applied Geography Graduate Director / Graduate School Graduate Executive Committee Member
- 2019 2023 Jacquelin Beyer Scholarship Award Committee Member
- 2017 present Dane Vogel Scholarship Award Committee Member
- 2017 Special Projects Board Member Friends of Red Rock Canyon Open Space
- 2016 Great Plains / Rocky Mountains Division AAG President / Annual Conference Coordinator (Antlers Hotel, Colorado Springs)
- 2016 2020 Colorado Springs' Cafe Scientifique Lecture Series Organizer (two per semester, terminated with COVID)
- 2013 present Applied Geography Conferences (AGX) Board Member and Student Paper and Poster Competitions Co-Chair (with Dr. Clayton Whitesides)
- 2014 UCCS Program Prioritization Committee Member
- 2013 2016 GES Colloquium Series Organizer
- 2013 UCCS GE Explorer Sub-Team Member
- 2011 present UCCS Geomorphology Lab Manager
- 2008 present GES Website Maintainer (ges.uccs.edu)
- 2007 present Observer Volunteer for Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS)