### Rachael Budowle

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# Education

Doctor of Philosophy, Anthropology, 2019

University of Wyoming, Laramie, WY

<u>Dissertation:</u> Growing Social-Ecological Community Resilience: Culturally Specific Mechanisms in Two Wyoming Participatory Food Systems Projects

Master of Science, Animals & Public Policy, 2007

Tufts University, Department of Environment and Population Health, North Grafton, MA

Bachelor of Science, Psychology in Honors, 2005

Virginia Tech, Blacksburg, VA Minors: Philosophy, Biology

Magna Cum Laude

# Academic and Professional Appointments

**Assistant Professor,** Haub School of Environment and Natural Resources, University of Wyoming, Fall 2019 – present

**Assistant Lecturer,** Haub School of Environment and Natural Resources, University of Wyoming, Fall 2017 – Summer 2019

**Instructor,** Haub School of Environment and Natural Resources, University of Wyoming, Spring 2013; Fall 2014 – Spring 2017

#### **Research Assistant**, University of Wyoming

- Qualitative research and health data collection assistance on the NIH-funded community-based participatory research project, *Growing Resilience*, in the Wind River Indian Reservation. Division of Kinesiology and Health, Summer 2016 – Present.
- Qualitative research and project coordination for the INBRE-funded community-based participatory research project, *Gardens for Health & Healing*, in Albany County, WY. Division of Kinesiology and Health, Summer 2016 Spring 2018. (Included graduate internship with the community-based research partner, Feeding Laramie Valley, Fall 2016 Summer 2017).
- Graduate Assistantship for ethnographic fieldwork and analysis in two forest-based communities on bioenergy, beetle-kill, and forests with the *Bioenergy Alliance Network of the Rockies* (BANR) Socioeconomic and Policy team. Anthropology Department, Spring 2015 Summer 2016.

#### Teaching Assistant, University of Wyoming

- Graduate Assistantship, Anthropology Department, Spring 2015 Spring 2017
- Graduate Assistantship, Marketing and Sustainable Business Practices, Fall 2013 Spring 2014

**Sustainability Projects Coordinator**, Massachusetts Institute of Technology (MIT), Cambridge, MA, July 2011 – June 2012

Sustainability Coordinator, Virginia Tech Dining Services, Blacksburg, VA, July 2009 – January 2011

**Adjunct Faculty**, Virginia Tech, Department of Interdisciplinary Studies/Religion and Culture, 2007 – 2010

**Research Scientist** in community environmental behavior, Center for Applied Behavior Systems, Department of Psychology, Virginia Tech, November 2007 – December 2009

**Community Programs Coordinator,** Town of Blacksburg Office of Waste Reduction & Recycling, Blacksburg, VA, August 2007 – July 2009

**Director of Operations and Teacher/Naturalist,** PUDDLESTOMPERS Nature Exploration, Newton, MA, September 2006 – July 2007

Curriculum Development Consultant and Instructor, Natick Community Organic Farm, Natick, MA, December 2005 – January 2007

**Agricultural Education Internship,** Massachusetts Audubon Society Drumlin Farm Wildlife Sanctuary, Lincoln, MA, January 2006 – July 2006

**Undergraduate Research Assistant and Project Leader,** Center for Applied Behavior Systems, Department of Psychology, Virginia Tech, January 2001 – May 2005

### **Research Activities**

### **Peer Reviewed Publications**

**Budowle, R.**, Arthur, M. L., & Porter, C.M. Growing intergenerational resilience for Indigenous food sovereignty through home gardening. Special joint issue of *Journal of Agriculture, Food Systems, and Community Development* and *Journal of American Indian Education*. (Accepted; forthcoming 2019)

Jensen-Ryan, D., **Budowle, R.,** Strauss, S., Durbin, T.J., Beeton, T.A., & Galvin, K.A. A cultural consensus of fire and futility: Harvesting beetle-kill for wood-based bioenergy in Wyoming and Colorado. *Energy Research and Social Science.* (Accepted, forthcoming 2019)

Span, K., Serrano, E., Cox, H., **Budowle, R.**, & Dulys-Nusbaum, E. (2016). Benefits, barriers, and challenges to university-level food waste tracking. *Journal of Hunger and Environmental Nutrition*, 11(3), 428-438.

#### Other Publications

Arthur, M.L., & **Budowle, R.** (2018, August). Sovereign storytelling methods. *Growing Resilience: The Inside Scoop. A newsletter by and for project stakeholders about "Growing Resilience in Wind River Indian Reservation: an RCT on Gardens for Health,"* 2.

**Budowle, R.** (2017, March 28). Doing more with less: How energy efficiency and conservation can decrease UW's utility bills. *Western Confluence Magazine, 6.* Invited, edited article.

**Budowle, R**. (2013, August). Academic programs in food systems. *Food Dignity Practice Brief.* Retrieved from: <a href="https://www.fooddignity.org/sfs-minors">https://www.fooddignity.org/sfs-minors</a>

**Budowle, R.** (2012, June 1). MIT community takes the Earth Day Challenge. MIT News. Retrieved from: <a href="http://news.mit.edu/2012/mit-community-takes-the-earth-day-challenge">http://news.mit.edu/2012/mit-community-takes-the-earth-day-challenge</a>

Fournier, A.K., & **Budowle, R.** (2003). The last chance project: Pairing troubled teens and shelter dogs in the community. *Newsletter of the American Association of Human-Animal Bond Veterinarians, 9*(1).

## Grants and Research Funding

**Budowle, R.** & Arthur, M.L. Assessing community resilience in a Wind River Indian Reservation home gardening project with participatory social-ecological network analyses. A University of Wyoming Social Justice Research Center award (\$2258, with \$500 matching from Growing Resilience; total \$2758; 3/2019 – 3/2020)

Porter, C.M. [PI], including **Budowle, R.** [co-I]. Choosing paths to resilience: A feasibility pilot testing health guides and minigrants as family vs. multi-family investments in Wind River Indian Reservation. An NIH R21 proposal in preparation for resubmission. (For \$275,000, excluding indirect costs; 11/2019-10/2021)

Keith, J., Porter, C.M., & Spoonhunter, T. [co-PIs], including **Budowle, R.** [evaluator]. *Healthy nations dream makers*. An NIH R25 proposal in preparation for resubmission to the Science Education Partnership Award (SEPA) program. (For \$1,339,980; including \$90,245 indirect costs; 4/2019-3/2024).

Porter, C.M. [PI], including **Budowle, R.** [co-I]. (8/15-3/20). *Growing Resilience: an RCT on the health impact of gardens with Wind River Indian Reservation*. NHLBI with NIGMS at the National Institutes of Health grant no. R01 HL126666-01. (\$3,190,320; including \$570,856 indirect costs).

Porter, C.M. [PI], including **Budowle, R.** [co-I]. (7/15-4/18). *Growing Resilience Phase II: Albany County redesign and Wind River expansions*. UW INBRE award supported by grants from the National Center for Research Resources (5P20RR016474-12) and the National Institute of General Medical Sciences (8 P20 GM103432-12) from the National Institutes of Health. (\$224,687 direct).

**Budowle, R.**, Baker, S.M., & Mittelstaedt, J.D. (2013). Sustainable food systems: impacts of disasters & relief efforts on resilience. Sustainable Business Practices Funding, University of Wyoming College of Business. Co-Investigator. (\$2000).

**Budowle, R.** (2009). Food waste recovery workshop. Grant from Institute for Local Self Reliance, Mid-Atlantic Consortium of Recycling Economic Development Officials, and EPA Region III to the Town of Blacksburg, VA. (\$5000).

Did not receive funding: Strauss, S. and **Budowle, R.** (2016). *Doctoral dissertation research: An ethnographic study of emergent landscapes and labor in Rocky Mountain Forests.* National Science Foundation Cultural Anthropology Doctoral Dissertation Research Improvement Grant. (\$19370).

# **Conference Papers and Presentations**

Porter, C.M., Bowers, R. Harris, P., Harris, C., Weed, I, White, P. Lone Fight, K., Wechsler, A., Arthur, M.L., & **Budowle, R**. (September, 2019). *Reclaiming sovereignty in the Growing Resilience action-research collaboration*. Invited plenary presentation at Native American Nutrition Conference session on Best Practices in Collaborations Between Native Communities and Academic Researchers. Prior Lake, MN.

- Boglioli, M., Strauss, S., Hoard, S., Mueller, D., **Budowle, R**., Beeton, T., Jensen-Ryan, D. (2019). *Searching for culture in "cultural capital": The case for a mixed methods approach to production facility siting.* Paper presented at Biochar & Bioenergy 2019, Fort Collins, CO.
- **Budowle, R**. (2015). *Multiple use: Historical discourse, practice, and labor in Rocky Mountain forests*. Competitive paper accepted for the 2015 Anthropology and Environment Society Dissertation Workshop at the American Anthropological Association (AAA) Annual Meeting, Denver, CO.
- **Budowle, R.** & Innes, P.J. (2015). The ideology of multiple use: A critical discourse analysis of historical U.S. Forest Service texts. Paper presented at the October 2015 CLASP IV Conference (Program in Culture, Language, and Social Practice at the University of Colorado Boulder), Boulder, Colorado.
- **Budowle, R.** & Strauss, S. (2015). *Bioenergy Alliance Network of the Rockies (BANR): Socioeconomic and policy analysis research agenda.* Presentation given at the Front Range Conference on Environmental Governance Research, Fort Collins, CO.
- **Budowle, R.**, Rittenburg, T.L., Mittelstaedt, J.D., & Mittelstaedt, R.A. (2014). Sustainability innovations: shifting from the dominant social paradigm. Developmental paper presented at the annual Macromarketing Conference, London, UK.
- **Budowle, R.** & Drummond, K. (2014). *The new domestic: fluid gender performance in online spaces.* Developmental paper presented at the 12<sup>th</sup> Conference on Gender, Marketing and Consumer Behavior, Helsinki, Finland.
- **Budowle, R**. & Drummond, K. (2014). *The declination of marketplace liberation: re-visiting a critical CCT construct.* Competitive paper presented at the annual Consumer Culture Theory Conference, Helsinki, Finland.
- **Budowle, R.**, Mittlestaedt, J.D., & Geiger, M.E. (2014). *Green revolving funds: adaptations for campus sustainability innovations in local market systems.* Poster presented at the annual, Sustainability, Ethics, Entrepreneurship Conference, Denver, CO.
- Span, K., Serrano, E.L., Cox, H.K., & **Budowle, R.** (2012). Examining food waste practices at a large university. Paper presented to the Sustainable Agriculture Education Association, Corvallis, Oregon.
- Niewolny, K., **Budowle, R.**, Byker, C., Clark, S., Dulys-Nusbaum, E. (2010). *Boundary crossing, experiential learning, and sustainable agriculture at Virginia Tech.* Paper presented to the Association for the Advancement of Sustainability in Higher Education, Denver, CO.
- Earnest, M.R. III., **Budowle, R**., Drake, E.A., & Geller, E.S. (2008). A voluntary reusable bag community: Using a public pledge event to increase environmentally sustainable behavior. Paper presented to the 34<sup>th</sup> Annual Conference of the Association for Behavior Analysis, Chicago, IL.
- Lyons, M., **Budowle, R.**, & Drake, E.A. (2008). A needs assessment and intervention to increase fluorescent lamp recycling behaviors within commercial properties. Poster presented to the 34<sup>th</sup> Annual Conference of the Association for Behavior Analysis, Chicago, IL.
- Lyons, M., **Budowle, R.**, & Drake, E.A. (2007). A community assessment of fluorescent lamp use and misuse. Poster presented to the 10<sup>th</sup> Annual Conference of the Maryland Association for Behavior Analysis, Baltimore, MD.

National and regional conference (e.g., Association for Behavior Analysis) presentations for undergraduate research in clinical psychology and applied behavior analysis focused on pet-facilitated therapy and alcohol use among college students in community settings from 2001 – 2005:

- 3 papers as first author; 5 posters as first author
- 6 papers as co-author; 2 posters as co-author

## **Community Presentations**

**Budowle, R.** (2017). *Gardens for Health and Healing*. Invited presentation and panel organizer/moderator at the Higher Ground Fair, Laramie, WY

**Budowle, R.** (2016). Partners between worlds: Community-university research. Invited presentation at the Higher Ground Fair, Laramie, WY.

**Budowle, R.** (2009). *Downtown recycling: consensus-building and behavior change.* Presentation to the Virginia Recycling Association, Lynchburg, VA.

**Budowle, R.** (2009). Applying environmental behavior principles to community programs. Presentation to Environment Virginia, Zero Waste Workshop, Lexington, VA.

**Budowle, R.**, Garrison, S., & Rordam, R. (Mayor of Blacksburg). (2007). *Apartment recycling*. Workshop conducted with property managers and stakeholders for Blacksburg's Sustainability Week. Main presenter.

Ford, J., Barnett, S., **Budowle, R.**, & Rordam, R. (Mayor of Blacksburg). (2007). Fluorescent lamp recycling in commercial properties. Workshop conducted with property owners/managers and stakeholders for Blacksburg's Sustainability Week. Moderator.

Geller, E.S. & **Budowle, R**. (2007). *Leading environmental sustainability: From behavioral research to community intervention*. Keynote presented for Blacksburg's Sustainability Week. Moderator.

# Teaching, Advising, and Curriculum Development

# **Courses Taught**

**Foundations of Sustainability, ENR 1300,** Haub School of Environment and Natural Resources, University of Wyoming, Fall 2014, Fall 2015, Fall 2017, Fall 2018, Fall 2019 (instructor of record)

• Core course, introduction to Sustainability minor

Campus Sustainability, ENR 4600/5600, Haub School of Environment and Natural Resources, University of Wyoming, Spring 2013, Spring 2015, Spring 2016, Spring 2017, Spring 2018, Spring 2019 (instructor of record)

- Campus and community-engaged, team project-based course
- Core course, capstone for Sustainability minor

Environmental Solutions in Jackson Hole, ENR 4900/5900 and ENR 4890/5890, Haub School of Environment and Natural Resources, University of Wyoming, Spring/Summer 2018 (co-taught); Spring/Summer 2019 (co-taught; instructor of record)

- Place-based, community-engaged, and team project-based residential field course
- Core course, serves as ENR undergraduate and graduate capstone beginning in 2019

Field Studies in Food Sovereignty, ENR 4960, Haub School of Environment and Natural Resources, University of Wyoming, Fall 2019 (instructor of record)

• Independent undergraduate field research

**Independent Study, ENR 4970**, Haub School of Environment and Natural Resources, University of Wyoming, Fall 2017

 Co-supervised undergraduate independent study on student food insecurity for Sustainability minor capstone

**Introduction to Cultural Anthropology, ANTH 1200,** Department of Anthropology, University of Wyoming, Spring 2017 (instructor of record)

• Large format course introducing the anthropological study of human cultural diversity and social organization, fulfilling University Studies Program Human Cultures (H) requirement

**Earth Sustainability, UCCS 2984**, University Core Course Series, Virginia Tech, Fall 2008, Spring 2009, Fall 2009, Spring 2010 (instructor of record for 1 section each semester)

- Five-credit/semester, four semester learning community: Worldviews & Water; Energy & Shelter; Food & Agriculture; and Waste, Health, & Pathways to Sustainability.
- Collaborative, interdisciplinary teaching model; contributed expertise in the social and behavioral dimensions of environment and sustainability

The Creative Process, HUM 2204, Humanities, Department of Interdisciplinary Studies, Virginia Tech, Blacksburg, VA. Fall 2007, Spring 2008, Summer I 2008, Summer II 2008 (instructor of record)

- Distance learning course exploring the theory and experience of creativity
- Fulfilled Ideas, Cultural Traditions, and Values area for curriculum for liberal education

# Curriculum and Program Development

ENR 4890, Environmental Solutions in Jackson Hole, University of Wyoming, Spring/Summer 2017

Consulted on methodology lesson and Community Solar project

Sustainability Minor, food systems track, Food Dignity, University of Wyoming, 2013 – 2015

• Developed practice brief and served as member of community-university task force

Civic Agriculture and Food Systems minor, College of Agriculture and Life Sciences, Virginia Tech, 2009 – 2010

• Collaborated with faculty from multiple disciplines and community partners to develop and implement a new minor examining the environmental, economic, and social components of sustainable agriculture and community food systems including experiential learning opportunities

Sustainability Living-Learning Community, Division of Student Affairs, Virginia Tech, 2010

 Co-chaired a committee with Residence Life staff and faculty to develop an engaged, residential community focused on environmental sustainability, civic engagement, and experiential learning

## **Student Advising**

**Faculty Advisor**, Sustainability Freshman Interest Group, Fall 2017, Fall 2018 **Faculty Advisor**, Sustainability Club/Coalition, University of Wyoming, AY 2016-17; 2017-18; 2018-19

## Thesis Committee Membership

Pre-Consumer Food Waste at Three Dining Facilities at a Large University, Span, K., Master of Science in Human Nutrition, Health, & Exercise, Virginia Tech. Successfully defended in 2012.

## **Project Mentorship**

Sustainable Food Systems and Place Identity in the San Juan Islands and Rural South Dakota, Haub School of Environment and Natural Resources Research and Creative Activities Undergraduate Project, Vanessa Chavariagga, Spring/Summer 2019

University of Wyoming Compost Scenarios Feasibility Analysis, DSCI 4270, Logistics, College of Business, Management & Marketing Department, University of Wyoming, Spring 2018

#### **Guest Lectures in Courses**

Delivered 15 guest lectures to University of Wyoming students: 6 to MIT and Virginia Tech students:

- Methodology and Interview Techniques, Environmental Assessment, ENR 4900, University of Wyoming, Spring 2019
- UW Sustainability, Campus Sustainability, MKT 4600, University of Wyoming, Spring 2018; Spring 2019
- Sustainability, Campus Food Waste, and Community Resilience Research, Food, Health, and Justice, HLED 4020/5020, University of Wyoming, Fall 2018
- Defining Sustainability, Envisioning the Future, Environment, ENR 1200, University of Wyoming, Fall 2017; Fall 2018
- Waste, Recycling, & Beyond, Foundations of Sustainability, ENR 1300, University of Wyoming, Fall 2016
- Envisioning the Future: The Role of Technology in Sustainability, Introduction to Cultural Anthropology, ANTH 1200, University of Wyoming, Spring 2015; Spring 2016
- The UW Conservation & Efficiency Revolving Fund, Marketing & Sustainable Consumption, MBAM 5508, University of Wyoming, Spring 2016
- Sustainability in the Food System: Food Waste and Campus Solutions, Public Health Seminar: Perspectives on the Food System, HLSC 4990/5990, University of Wyoming, Spring 2016
- The UW Conservation & Efficiency Revolving Fund (CERF): The Business Case for Campus Sustainability, Campus Sustainability, MKT 4600, University of Wyoming, Spring 2015
- The UW Conservation & Efficiency Revolving Fund (CERF), Campus Sustainability, MKT/ENR 4600/5600, University of Wyoming, Spring 2014.
- Sustainable Food & Campus Dining, Campus Sustainability, MKT/ENR 4600/5600, University of Wyoming, Spring 2014.
- Campus Sustainability: A Framework, Campus Sustainability, MKT/ENR 4600/5600, University of Wyoming, Spring 2014.
- Campus Sustainability, Foundations of Sustainability, ENR 1300, University of Wyoming, Fall 2013
- Practical Guidelines for Campus Sustainability, Re-Energizing MIT, 11.S195, MIT, Spring 2012
- Sustainability in Campus Dining Services, Foodservice and Meal Management, HNFE 3114, Virginia Tech, Fall 2010
- Campus Sustainability Projects, Sustainable Human Communities, PSCI 4984, Virginia Tech, Spring 2010
- Waste, Recycling, & Sustainability, Resource Geology, GEOS 1124, Virginia Tech, Spring 2010
- Solid Waste Management, Seminar in Environmental Policy & Planning, UAP 4364, Virginia Tech, Spring 2009
- Environmental Behavior Change, Earth Sustainability, UCCS 2984, Virginia Tech, Spring 2008

### Honors and Awards

- University of Wyoming Shepard Symposium on Social Justice, Commitment to Service and Excellence Award, 2018
- University of Wyoming Student Affairs RSO Teamwork Award for Sustainability Club (faculty advisor), 2018
- Ph.D. Augmentation Award, Anthropology Department, University of Wyoming, Summer 2017
- Mortar Board "Top Prof" Award, University of Wyoming, 2016
- Virginia Tech Exemplary Program Award for Earth Sustainability (co-instructor), 2009

## Service and Activities

## **University Service**

- Campus Sustainability Committee, University of Wyoming, member, Spring 2013 present
  - o Co-chair, Spring 2016 present
  - o Co-supervise CSC outreach & communications undergraduate intern and STARS intern team
  - o Conservation & Efficiency Revolving Fund (CERF) coordination, Fall 2013 present
- Shepard Symposium for Social Justice planning committee, AY 2017-18; 2018-19
  - o Sustainability subcommittee chair
- Haub School zero waste team, University of Wyoming, Spring 2017 present
- Sustainability minor, food systems track community-university task force, member, Fall 2013 Spring 2015
- Haub School of Environment and Natural Resources, Plummer Scholarship review committee, Spring 2015
- MIT Green/Working Group Recycling committee, member, 2011 2012
- Virginia Tech Division of Student Affairs Green Team, chair, Summer 2009 Fall 2010
- New River Valley Food Diversion Task Force, co-chair, 2008 2010
- Virginia Tech Ytoss?, committee member and event volunteer, 2008 2010

# Presentations for University Activities

- AASHE STARS: Advancing Sustainability at UW, delivered on behalf of the UW Campus Sustainability Committee to Executive Council, Staff Senate, Faculty Senate, and Board of Trustees with co-chair, Nicole Korfanta, Fall 2018.
- *UW Waste Audit,* Associated Students of the University of Wyoming Senate Meeting with Japheth Frauendienst, University of Wyoming, Fall 2018
- Sustainability and Campus Sustainability, Haub School Career Series with Nicole Korfanta, March 2017
- Engagement in the Sustainability Curriculum, Haub School Tea Time Seminar, December 2016
- Conservation & Efficiency Revolving Fund (CERF), Invited presentation to the University of Wyoming Chapter of Engineers Without Borders, Spring 2016.
- Student engagement with the University of Wyoming Conservation & Efficiency Revolving Fund (CERF). Invited remote presentation to The Sustainable Endowment Institute's Billion Dollar Green Challenge Roundtable Call Series, Spring 2015.

- Conservation & Efficiency Revolving Fund (CERF): Investing in our built environment. Invited presentation to the Sustainable Business Forum hosted by the University of Wyoming American Marketing Association Student Chapter, with Milton Geiger, Spring 2013
- Conservation & Efficiency Revolving Fund (CERF), delivered on behalf of the UW Campus Sustainability Committee to School of Energy Resources, College of Business, Haub School of Environment and Natural Resources, Deans & Directors, and Executive Council, 2013.

### Other Service and Activities

- Peer reviewer, Journal of Hunger and Environmental Nutrition, Fall 2019
- Gardens for Health & Healing Community Advisory Board member, Feeding Laramie Valley, June 2016
  April 2018
- Reviewer, *Choices for Sustainable Living*, Northwest Earth Institute discussion course book (2<sup>nd</sup> ed.), main text in ENR 1300, Foundations of Sustainability, Fall 2017
- Wyoming Institute for Humanities Research, linguistic indexicality reading group, Spring 2016
- North American Colleges & Teachers of Agriculture Conference, abstract reviewer, 2013
- Organizer and moderator, Food waste recovery workshop, 2009
- Sustainable Blacksburg, member, 2007 2010