





# Kenneth Blake Vernon

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*CV last updated on 2024-05-27*

## Appointments

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| <b>Post-Doctoral Associate</b><br>Center for Collaborative Synthesis in<br>Archaeology, CU Boulder | 2022-present |
| <b>Assistant Director</b><br>University of Utah Archaeological Center                              | 2018-2022    |

## Education

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|---|----------------------------|
| <b>University of Central Arkansas</b><br>BA in History and Philosophy | Conway, AR<br>2006         |
| <b>Northern Illinois University</b><br>MA in Philosophy               | DeKalb, IL<br>2009         |
| <b>University of Utah</b><br>PhD in Anthropology                      | Salt Lake City, UT<br>2022 |

## Publications

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### *Peer-reviewed journal articles*

- 2024    Kenneth B. Vernon, Brian F. Coddling, Simon C. Brewer, Shane J. Macfarlan (2024).  
**Trade-off between market and ecosystem services drives settlement decisions  
among smallholder ranchers in Baja California Sur, Mexico.** *Sustainability  
Science*. DOI: 10.1007/s11625-024-01491-9

Peter M. Yaworsky, Kenneth B. Vernon, Weston C. McCool, Isaac A. Hart, Jerry Spangler, Brian F. Coddling (2024). **The Goldilocks Zone for maize agriculture and the settlement and abandonment of the West Tavaputs Plateau.** *Quaternary International* 689-690: 30-42. DOI: 10.1016/j.quaint.2023.12.003

Brian F. Coddling, Heidi Roberts, William Eckerle, Simon C. Brewer, Ishmael D. Medina, Kenneth B. Vernon, Jerry S. Spangler (2024). **Can we reliably detect adaptive responses of hunter-gatherers to past climate change? Examining the impact of Mid-Holocene drought on Archaic settlement in the Basin-Plateau Region of North America.** *Quaternary International* 689-690: 5-15. DOI: 10.1016/j.quaint.2023.06.014

2022 Weston C. McCool, Kurt M. Wilson, Kenneth B. Vernon (2022). **Ecological Constraints on Violence Avoidance Tactics in the Prehispanic Central Andes.** *Environmental Archaeology*: 1-14. DOI: 10.1080/14614103.2022.2137652

Brian F. Coddling, Joan Brenner Coltrain, Lisbeth Louderback, Kenneth Blake Vernon, Kate E. Magargal, Peter M. Yaworsky, Erick Robinson, Simon C. Brewer, Jerry D. Spangler (2022). **Socioecological dynamics structuring the spread of farming in the North American basin-plateau region.** *Environmental Archaeology* 27 (4): 434-446. DOI: 10.1080/14614103.2021.1927480

Kenneth B. Vernon, Peter M. Yaworsky, Jerry Spangler, Simon Brewer, Brian F. Coddling (2022). **Decomposing habitat suitability across the forager to farmer transition.** *Environmental Archaeology* 27 (4): 420-433. DOI: 10.1080/14614103.2020.1746880

Weston C. McCool, Kenneth B. Vernon, Peter M. Yaworsky, Brian F. Coddling (2022). **Subsistence strategy mediates ecological drivers of human violence.** *PLOS ONE* 17 (5): e0268257. DOI: 10.1371/journal.pone.0268257

Weston C. McCool, Brian F. Coddling, Kenneth B. Vernon, Kurt M. Wilson, Peter M. Yaworsky, Norbert Marwan, Douglas J. Kennett (2022). **Climate change-induced population pressure drives high rates of lethal violence in the Prehispanic central Andes.** *Proceedings of the National Academy of Sciences* 119 (17): e2117556119. DOI: 10.1073/pnas.2117556119

2021 Bruce M. Pavlik, Lisbeth A. Louderback, Kenneth B. Vernon, Peter M. Yaworsky, Cynthia Wilson, Arnold Clifford, Brian F. Coddling (2021). **Plant species richness at archaeological sites suggests ecological legacy of Indigenous subsistence on the Colorado Plateau.** *Proceedings of the National Academy of Sciences* 118 (21): e2025047118. DOI: 10.1073/pnas.2025047118

- 2020 Shane J. Macfarlan, Ryan Schacht, Caroline Foley, Sydney Cahoon, Grace Osusky, Kenneth B. Vernon, Evan Tayler, Celeste Henrickson, Eric Schniter (2020). **Marriage dynamics in old Lower California: Ecological constraints and reproductive value in an arid peninsular frontier**. *Biodemography and Social Biology* 65 (2): 156-171. DOI: 10.1080/19485565.2020.1728685
- Peter M. Yaworsky, Kenneth B. Vernon, Jerry D. Spangler, Simon C. Brewer, Brian F. Coddling (2020). **Advancing predictive modeling in archaeology: An evaluation of regression and machine learning methods on the Grand Staircase-Escalante National Monument**. *PLOS ONE* 15 (10): e0239424. DOI: 10.1371/journal.pone.0239424
- 2017 Kate E. Magargal, Ashley K. Parker, Kenneth B. Vernon, Will Rath, Brian F. Coddling (2017). **The ecology of population dispersal: Modeling alternative basin-plateau foraging strategies to explain the Numic expansion**. *American Journal of Human Biology* 29 (4): e23000-n/a. DOI: 10.1002/ajhb.23000

### *Manuscripts*

- 2024 Kenneth B. Vernon, Scott G. Ortman (under review). **A method for defining dispersed community territories**. *Journal of Archaeological Science*.
- Kenneth B. Vernon, Weston C. McCool, Peter M. Yaworsky, Jerry D. Spangler, Simon C. Brewer, Brian F. Coddling (accepted). **The Fremont Frontier: Living at the Margins of Maize Farming**. *American Antiquity*.

### *Book reviews*

- 2020 Kenneth B. Vernon, Brian F. Coddling (2020). **Review of Oshara Revisited: The Archaic Period in Northern New Mexico by Nicholas Chapin**. *Journal of Anthropological Research* 76 (1): 138-140. DOI: 10.1086/706946

### *Technical reports*

- 2022 Ishmael Medina, Kenneth B. Vernon, Kate E. Magargal, Weston C. McCool, Jerry D. Spangler, Brian F. Coddling (2022). **Archaeological Survey of Cottonwood Wash, San Rafael Desert, Emery County, Utah**. Report submitted to the Bureau of Land Management, Price Field Office, Price, Utah; and State of Utah School and Institutional Trust Lands Administration, Salt Lake City, Utah. Prepared by the University of Utah Archaeological Center and the Colorado Plateau Archaeological Alliance. BLM Cooperative Agreement L20AC00267. United States Department of Interior Permit No. 21UT85115. State of Utah Antiquities Project No. U22UA031. University of Utah Archaeological Center Project No. UUAC22052.

- 2021 Jerry D. Spangler, Matthew Zweifel, Heidi Roberts, Kenneth B. Vernon, Isaac Hart, Brian F. Coddling, Anne Lawlor (2021). **Limited Test Excavations at Red Reef Shelter (42WS519), Red Cliffs National Conservation Area, Washington County, Utah**. Report submitted to the Bureau of Land Management, St. George, Utah.
- 2019 Jerry D. Spangler, Peter M. Yaworsky, Kenneth B. Vernon, Brian F. Coddling (2019). **Hisatsinom of the high plateaus: a Class I overview of prehistoric cultural resources in Grand Staircase-Escalante National Monument**. Report submitted to the Bureau of Land Management, Salt Lake City, Utah.
- 2018 Brian F. Coddling, Kate E. Magargal, Kenneth B. Vernon, Paul E. Allgaier, Jess Valdez, Ron Goode (2018). **Preliminary Archaeological Investigations at the Jack Kirk Site, Mariposa Creek, California**. Report submitted to the North Fork Mono Tribe, Mariposa Creek, California.
- Kenneth B. Vernon, Peter M. Yaworsky, Jerry D. Spangler (2018). **The Archaeology of Molen Reef, Emery County, Utah**. Report submitted to the Southern Utah Wilderness Alliance, Salt Lake City, Utah.

## Grants, Fellowships, and Awards

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- 2022 Cooperative Agreement, Bureau of Land Management. **Archaeological Survey of Cottonwood Wash, San Rafael Desert, Emery County, Utah**. PI: Brian F. Coddling, Jerry D. Spangler.
- 2020 David C. Williams Memorial Graduate Fellowship, University of Utah College of Social and Behavioral Sciences. **Advancing Stewardship with Theory and Models**. PI: Kenneth B. Vernon.
- Cross-College Training Grant, University of Utah College of Social and Behavioral Sciences. **Developing a Modular Online Introduction to the R Environment**. PI: Simon Brewer, Brian F. Coddling, Kenneth B. Vernon.
- 2019 David C. Williams Memorial Graduate Fellowship, University of Utah College of Social and Behavioral Sciences. **Advancing Stewardship with Theory and Models**. PI: Kenneth B. Vernon.
- Earl and Elies Skidmore Endowed Graduate Fellowship, University of Utah College of Social and Behavioral Sciences. **Graduate Research**. PI: Kenneth B. Vernon.
- 2018 David C. Williams Memorial Graduate Fellowship, University of Utah College of Social and Behavioral Sciences. **Advancing Stewardship with Theory and Models**. PI: Kenneth B. Vernon.

Interdisciplinary Faculty Research Seed Grant, University of Utah Global Change and Sustainability Center. **Why Were Prehistoric Agricultural Societies in Utah Unable to Adapt to the Medieval Megadroughts?**. PI: Brian F. Coddington, Simon Brewer.

- 2017 Grand Staircase-Escalante National Monument Cooperative Agreement, Bureau of Land Management. **Archaeological Sites as Endangered Species: Using Next Generation Models to Predict and Protect Cultural Properties on the Grand Staircase-Escalante National Monument**. PI: Brian F. Coddington.

Research Grant, University of Utah Global Change and Sustainability Center. **Human Plant Use in Red Butte Canyon**. PI: Kenneth B. Vernon.

Research Grant, Friends of Red Butte. **Human Plant Use in Red Butte Canyon**. PI: Kenneth B. Vernon.

## Presentations

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- 2024 Kenneth B. Vernon, Simon C. Brewer, Brian F. Coddington, Scott G. Ortman (2024). **The network ecology of settlement persistence**. Talk at the workshop 'Advances in modelling past human ecosystems', Cologne, Germany.

Kenneth B. Vernon, Scott G. Ortman (2024). **The socio-ecology of community centers**. Talk at the 89th Annual Meeting of the Society for American Archaeology, New Orleans, LA.

- 2023 Kenneth B. Vernon (2023). **How do I work this? this R project**. Talk at the Spatial Utah Data Science (SUDS) Meeting, Salt Lake City, UT.

Kenneth B. Vernon, Weston C. McCool, Simon C. Brewer, Brian F. Coddington, Scott G. Ortman (2023). **The Ecology of Agglomeration and the Rise of Chaco Great Houses**. Talk at the 88th Annual Meeting of the Society for American Archaeology, Portland, OR.

Kenneth B. Vernon, Scott G. Ortman (2023). **A core-periphery approach to defining community boundaries**. Talk at the 29th Annual Meeting of the European Archaeological Association, Belfast, Northern Ireland.

Sarah Oas, Kenneth B. Vernon, Matthew A. Peeples, Barbara J. Mills, Joshua Watts, Jeffery J. Clark, Steven Shackley, Scott G. Ortman (2023). **Exploring the Dynamics of Late Precontact Obsidian Procurement and Exchange Networks Across the US Southwest and Northwest Mexico using cyberSW**. Talk at the The Southwest Symposium Archaeological Conference, Santa Fe, NM.

- 2022 Kenneth B. Vernon, Jerry D. Spangler, Weston C. McCool, Peter M. Yaworsky, Simon C. Brewer, Brian F. Coddling (2022). **The Fremont Frontier: Living at the Margins of Maize Farming**. Talk at the 87th Annual Meeting of the Society for American Archaeology, Chicago, IL.
- 2021 Kenneth B. Vernon, David Zeanah, D. Craig Young, Robert G. Elston, Brian F. Coddling (2021). **Explaining Paleoindian Settlement in the Intermountain West: A Regression Adjustment Approach**. Talk at the 86th Annual Meeting of the Society for American Archaeology, San Francisco, CA.
- 2019 Kenneth B. Vernon, Peter M. Yaworsky, Brian F. Coddling (2019). **Decomposing habitat suitability with theory-driven machine-learning**. Talk at the 84th Annual Meeting of the Society for American Archaeology, Albuquerque, NM.
- 2018 Kenneth B. Vernon, Peter M. Yaworsky, Kate E. Magargal, D. Craig Young, David Zeanah, Brian F. Coddling (2018). **Prearchaic Land Use in Grass Valley, Nevada: This time with Bayes**. Poster at the Bi-annual Great Basin Anthropological Conference, Salt Lake City, UT.
- Kenneth B. Vernon, Peter M. Yaworsky, Kate E. Magargal, D. Craig Young, David Zeanah, Brian F. Coddling (2018). **Prearchaic land use in Grass Valley, Nevada: A novel statistical implementation of optimal distribution modeling**. Poster at the 83th Annual Meeting of the Society for American Archaeology, Washington D.C..
- 2015 Kenneth B. Vernon, Kate E. Magargal, Ashley K. Parker, Will Rath, Brian F. Coddling (2015). **Numic fires: modeling the effects of anthropogenic fire on foraging decisions in the Great Basin**. Poster at the 80th Annual Meeting of the Society for American Archaeology, San Francisco, CA.

## Teaching

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**Teaching interests.** Behavioral Ecology, Human Ecology, Human Prehistory, Hunter-Gatherers, Conservation & Sustainability, Ethnoarchaeology, GIS/Spatial Analysis, Quantitative Data Analysis, Archaeological Method & Theory, North American Prehistory

University of Utah, Department of Anthropology

- 2018 Spring **Teaching Assistant**. ANTH 1030: Introduction to World Prehistory
- 2018 Fall **Instructor**. ANTH 1030: Introduction to World Prehistory
- 2019 Spring **Teaching Assistant**. ANTH 1030: Introduction to World Prehistory
- 2019 Summer **Instructor**. ANTH 1010: Culture and the Human Experience
- 2019 Fall **Instructor**. ANTH 1030: Introduction to World Prehistory
- 2021 Spring **Instructor**. ANTH 5850: Quantitative Analysis of Archaeological Data
- 2022 Spring **Instructor**. ANTH 5850: Quantitative Analysis of Archaeological Data
- 2023 Spring **Instructor**. ANTH 5850: Quantitative Analysis of Archaeological Data

## Professional Affiliations

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Great Basin Anthropological Association	2016-present
Society for American Archaeology	2014-present
Coalition for Archaeological Synthesis	2022-present
European Association of Archaeologists	2023-present

## Service, Outreach, and Other Activities

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### *University of Colorado, Boulder*

2023    **Mentor. Studio Lab.** Supporting undergraduate research opportunities. Status: **active.**

### *University of Utah*

2018    **Mentor. Undergraduate Research Opportunities Program.** Supporting undergraduate research opportunities. Status: **complete.**

**Organizer.** The Archaeological Center's End-of-Semester Social. An attempt to entice volunteers to help clean up the lab by offering them free food. Status: **complete.**

**Organizer.** Journal Club. Problems in Evolutionary Anthropology. Status: **complete.**

2017    **Mentor.** High School Internship. University of Utah Archaeological Center science outreach program. Status: **complete.**

### *Outreach*

2018    **Contributor.** Brief Amici Curiae of Archaeological Organizations In Support of Plaintiffs. **Hopi Tribe v Donald J. Trump, Utah Diné Bikéyah v Donald J. Trump, Natural Resources Defense Council v Donald J. Trump.** Status: **complete.**

**Presenter.** Yaworsky, Peter M., Kenneth Blake Vernon, and Brian F. Coddling. **Archaeological Potential of the Grand Staircase-Escalante National Monument.** Public poster presented at Utah Archaeology Day, Natural History Museum of Utah. Status: **complete.**

**Volunteer.** Utah Archaeology Day. A Natural History Museum of Utah and Utah Division of State History event. Status: **complete.**

## References

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*Available upon request.*