

# R. Kyle Bocinsky, PhD, RPA

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## Contact Information

111 High Park Way  
Missoula, MT 59803

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web <http://www.bocinsky.io/>

## Research Interests

*Computational social science; human dimensions of climate change; paleo-environments; complex systems; plant and animal domestication; southwestern US prehistory; reproducibility*

## Education

**Washington State University**, Pullman, Washington

PhD, Anthropology, December 2014

Dissertation title: *Landscape-based Null Models for Archaeological Inference* [pdf]

Committee: Timothy Kohler (chair), Jade d'Alpoim Guedes, Andrew Duff, and Colin Grier

MA, Anthropology, May 2011

Thesis title: *Is a Bird in Hand Really Worth Two in the Bush? Models of Domestication on the Colorado Plateau* [pdf]

Committee: Timothy Kohler (chair), Andrew Duff, Donna Glowacki, and Brian Kemp

**University of Notre Dame**, Notre Dame, Indiana

Glynn Family Honors Program, 2004–2008

BA, Anthropology, May 2008

Thesis title: *Rodent Stable Carbon-isotope Ratios as a Measure of Maize Production*

Advisor: Mark Schurr

## Appointments

**Crow Canyon Archaeological Center**, Cortez, Colorado

Aug 2018–Present Director of the Research Institute  
William D. Lipe Chair in Research

Jan 2017–July 2018 Research Associate

Jan 2016–Dec 2016 Director of Sponsored Projects

**University of Montana**, Missoula, Montana

Jan 2018–Present Research Associate, Montana Climate Office,  
W.A. Franke College of Forestry and Conservation

**Desert Research Institute**, Reno, Nevada

June 2017–Present Hourly Assistant Research Professor,  
Division of Earth and Ecosystem Sciences

**Washington State University**, Pullman, Washington

Jan 2016–Present Adjunct Research Faculty, Department of Anthropology

Jan 2015–Dec 2015 Post-doctoral Researcher, Department of Anthropology

Aug 2014–Dec 2014 Teaching Assistant, Department of Anthropology

Aug 2009–Jul 2014 Research Fellow, Department of Anthropology

Aug 2008–Jul 2009 Research Assistant, Department of Anthropology

## Honors, Awards, & Research Grants

**Co-PD, Improving the Efficacy of Climate Information for Water Use Decisions: Developing, Testing, and Institutionalizing New Tools for Producers**

2018–2021 United States Department of Agriculture, National Institute of Food and Agriculture, Agriculture and Food Research Initiative program area special competition, *Water for Agriculture: Understanding Decisions and Behaviors Connected with Agriculture and Post-harvest Processing Industry Water Use* (2017-67027-26313).

\$462,539 awarded to UM

**Co-PD, Native Waters on Arid Lands: Enhancing Climate Resiliency & Agriculture on American Indian Land**

2015–2020 United States Department of Agriculture, National Institute of Food and Agriculture, Agriculture and Food Research Initiative program area special competition, *Water for Agriculture* (2015-69007-23190).

\$2,516,844 awarded to the University of Nevada, Reno

**Co-PI, Developing and Deploying SKOPE—**

**A resource for Synthesizing Knowledge of Past Environments**

2016–2020 National Science Foundation special competition, *Resource Implementations for Data Intensive Research in the Social Behavioral and Economic Sciences* (SMA-1347973).

Part of a collaborative research grant between Washington State University, Arizona State University, and the University of Illinois at Urbana-Champaign

\$254,189 awarded to WSU/CCAC, \$1,339,658 total

**Cordell Prize**

2015 Pecos Conference

Awarded for the best extemporaneous talk presented by an archaeologist 35 years of age or younger

**NSF Graduate Research Fellowship**

2010–2015 National Science Foundation (DGE-1347973)

\$92,000 stipend and \$32,000 cost-of-education allowance over three years

**Graduate Achievement Award in the Social Sciences at the Doctoral Level**

2014 College of Arts and Sciences, Washington State University

Awarded to a doctoral student for outstanding academic performance, achievements in research, scholarly, and/or creative activity, and contributions or service to the social sciences, the college and the institution during their advanced degree studies at Washington State University

**R.E. Taylor Student Poster Award**

2013 Society for Archaeological Science

Award for the best student research poster presented at the Society for American Archaeology meetings displaying innovative contributions to archaeological research through the use of scientific methods

**IGERT Program in Evolutionary Modeling Traineeship**

2009–2011 National Science Foundation (DGE-0549425)

\$60,000 stipend and \$20,000 cost-of-education allowance over two years

**Elaine Burgess Graduate Fellowship in Anthropology**

2011 Department of Anthropology, Washington State University, \$1,000

**Nicholas Michael Scoales Scholarship in Archaeology**

2009 Department of Anthropology, Washington State University, \$1,000

**The Rev. Raymond W. Murray, C.S.C. Award in Anthropology**

2008 Department of Anthropology, University of Notre Dame

Awarded to the top graduating senior for exemplary work in anthropology

**Peer-reviewed Articles**

Kohler, Timothy A., Stefani A. Crabtree, **R. Kyle Bocinsky**, and Paul L. Hooper  
**In press.** Modeling Sociopolitical Evolution in Prehispanic Pueblo Societies. In *Complexity and Society: An Introduction to Complex Adaptive Systems and Human Society*, edited by Jeremy A. Sabloff et al. SFI Press, Santa Fe, New Mexico. [pdf]

- Grimstead, Deanna N., Matthew C. Pailes, and **R. Kyle Bocinsky**  
2017 Refining potential source regions via combined maize niche modeling and isotopes: A case study from Chaco Canyon, NM, USA. *Journal of Archaeological Method and Theory*. On-line first, 27 pages. DOI: 10.1007/s10816-017-9359-6. [html]
- d'Alpoim Guedes, Jade and **R. Kyle Bocinsky**  
2017 A reply to Bellezza. *Current Anthropology* 58(4):539–539. [html]
- Bocinsky, R. Kyle** and Mark D. Varien  
2017 Calibrating Maize Paleoproduction Models using Experimental Data. *Ethnobiology* 37(2):282–307.
- Gillreath-Brown, Andrew and **R. Kyle Bocinsky**  
2017 A Dialogue Between Empirical and Model-Based Agricultural Studies in Archaeology. *Ethnobiology* 37(2):167–171.
- Crabtree, Stefani A., **R. Kyle Bocinsky**, Paul L. Hooper, Susan C. Ryan, and Timothy A. Kohler  
2017 How to make a polity (in the central Mesa Verde region). *American Antiquity* 82(1):71–95.
- d'Alpoim Guedes, Jade, Stefani A. Crabtree, **R. Kyle Bocinsky**, and Timothy A. Kohler  
2016 21<sup>st</sup> century approaches to ancient problems: Climate and society. *Proceedings of the National Academy of Sciences* 113(51):14483–14491. [html]
- d'Alpoim Guedes, Jade, Sturt Manning, and **R. Kyle Bocinsky**  
2016 A 5,500-year model of changing crop niches on the Tibetan Plateau. *Current Anthropology* 57(4):6 pages. [pdf]
- Van Dyke, Ruth M., **R. Kyle Bocinsky**, Tucker Robinson, and Thomas C. Windes  
2016 Great houses, shrines, and high places: Intervisibility in the Chacoan World. *American Antiquity* 81(2):205–230. [pdf]
- Bocinsky, R. Kyle**, Johnathan Rush, Keith W. Kintigh, and Timothy A. Kohler  
2016 Exploration and exploitation in the macrohistory of the pre-Hispanic Pueblo Southwest. *Science Advances* 2(4):e1501532. [html]
- Schwindt, Dylan M., **R. Kyle Bocinsky**, Scott G. Ortman, Donna M. Glowacki, Mark D. Varien, and Timothy A. Kohler  
2016 The social consequences of climate change in the Central Mesa Verde region. *American Antiquity* 81(1):74–96. [pdf]
- Lipe, William D., **R. Kyle Bocinsky**, Brian S. Chisholm, Robin Lyle, David M. Dove, RG Matson, Elizabeth Jarvis, Kathleen Judd, and Brian M. Kemp  
2016 Cultural and genetic contexts for early turkey domestication in the northern Southwest. *American Antiquity* 81(1):97–113. [pdf]
- d'Alpoim Guedes, Jade, Guiyun Jin, and **R. Kyle Bocinsky**  
2015 The impact of climate on the spread of rice to North-eastern China: A new look at the data from Shandong Province. *PLoS ONE*. 30 June 2015. DOI: 10.1371/journal.pone.0130430. [html]
- d'Alpoim Guedes, Jade, **R. Kyle Bocinsky**, and Ethan E. Butler  
2015 Comment on "Agriculture facilitated permanent occupation of the Tibetan Plateau after 3600 B.P." *Science* 348:872. [pdf]
- McPhillips, Timothy, Tianhong Song, Tyler Kolisni, Steve Aulenbach, Khalid Belhajjame, **R. Kyle Bocinsky**, et al.  
2015 YesWorkflow: A User-Oriented, Language-Independent Tool for Recovering Workflow Information from Scripts. *International Journal of Digital Curation* 10(1):298–313. doi:10.2218/ijdc.v10i1.370.

**Bocinsky, R. Kyle** and Timothy A. Kohler  
2014 A 2,000-year reconstruction of the rain-fed maize agricultural niche in the US Southwest. *Nature Communications* 5:5618. DOI: 10.1038/ncomms6618. [pdf]

**Bocinsky, R. Kyle**  
2014 Extrinsic site defensibility and landscape-based archaeological inference: An example from the Northwest Coast. *Journal of Anthropological Archaeology* 35:164–176. [pdf]

Cockburn, Denton, Stefani A. Crabtree, Ziad Kobti, Timothy A. Kohler, and **R. Kyle Bocinsky**  
2013 Simulating Social and Economic Specialization in Small-scale Agricultural Societies. *Journal of Artificial Societies and Social Simulation* 16(4):4. [html]

Kohler, Timothy A., **R. Kyle Bocinsky**, Denton Cockburn, Mark D. Varien, Stefani A. Crabtree, Kenneth E. Kolm, Schaun M. Smith, and Scott G. Ortman  
2012 Modelling Prehispanic Pueblo Societies in their Ecosystems. *Ecological Modelling* 241:30–41. [pdf]

Kohler, Timothy A., Denton Cockburn, Paul L. Hooper, **R. Kyle Bocinsky** and Ziad Kobti  
2012 The coevolution of group size and leadership: An agent-based public goods model for Prehispanic Pueblo societies. *Advances in Complex Systems* 15(1–2):29 pages. [pdf]

## Book Contributions \*peer-reviewed

Kohler, Timothy A. and **R. Kyle Bocinsky**  
2017 Crises as opportunities for culture change. In *Crisis to Collapse: The Archaeology of Social Breakdown*, edited by Tim Cunningham and Jan Driessen, pp. 263–273. Presses Universitaires de Louvain, Louvain, France.

\***Bocinsky, R. Kyle** and Timothy A. Kohler  
2016 Complexity, rigidity, and resilience in the Ancient Puebloan Southwest. In *Viewing the Future in the Past: Historical Ecology Applications to Environmental Issues*, edited by H. Thomas Foster, II, Lisa Paciulli, and David Goldstein. pp. 86–105. University of South Carolina Press, Columbia, South Carolina.

\***Bocinsky, R. Kyle**, Jason A. Cowan, Timothy A. Kohler and C. David Johnson  
2012 Hunting results: How hunting changes the VEP world, and how the VEP world changes hunting. In *Emergence and Collapse of Early Villages: Models of Central Mesa Verde Archaeology*, edited by T.A. Kohler, and M.D. Varien, pp. 145–152. University of California Press, Berkeley. [pdf]

\*Kohler, Timothy A., **R. Kyle Bocinsky**, Stefani A. Crabtree and Ben Ford  
2012 Supply, Demand, Return Rates, and Resource Depression: Hunting in the Village Eco-dynamics World. In *Emergence and Collapse of Early Villages: Models of Central Mesa Verde Archaeology*, edited by T.A. Kohler, and M.D. Varien, pp. 129–144. University of California Press, Berkeley. [pdf]

\*Cowan, Jason A., Timothy A. Kohler, C. David Johnson, Kevin Cooper and **R. Kyle Bocinsky**  
2012 Exercising the Model: Settlement Efficiency and Changes in Locational Practice. In *Emergence and Collapse of Early Villages: Models of Central Mesa Verde Archaeology*, edited by T.A. Kohler, and M.D. Varien, pp. 153–164. University of California Press, Berkeley. [pdf]

## Technical Reports

Glowacki, Donna M., **R. Kyle Bocinsky**, Kelsey M. Reese, and Katherine A. Portman  
2017 The Mesa Verde Community Center Survey: Summer 2017. Manuscript submitted to Mesa Verde National Park, on file with Crow Canyon Archaeological Center and the University of Notre Dame.

Glowacki, Donna M., with contributions by Elise Alonzi, **R. Kyle Bocinsky**, and Kelsey Reese  
2012 The Mesa Verde Community Center Survey: Final Report. Manuscript submitted to the National Science Foundation and Mesa Verde National Park, on file with Crow Canyon Archaeological Center and Washington State University in compliance with deliverable for NSF Grant DEB-0816400. [pdf]

Glowacki, Donna M. and **R. Kyle Bocinsky**  
2011 The Mesa Verde Community Center Survey: 2011 Progress Report. Manuscript submitted to the National Science Foundation and Mesa Verde National Park, on file with Crow Canyon Archaeological Center and Washington State University in compliance with deliverable for NSF Grant DEB-0816400. [pdf]

Reed, Charles A., **R. Kyle Bocinsky** and Donna M. Glowacki  
2009 Mesa Verde National Park Community Center Survey: Report and Synthesis. Manuscript submitted to the National Science Foundation and Mesa Verde National Park, on file with Crow Canyon Archaeological Center and Washington State University in compliance with deliverable for NSF Grant DEB-0816400.

## Other Publications

**Bocinsky, R. Kyle**  
2018 Skipping stones of improbable histories *SAA Archaeological Record* 18(2):17–19. [pdf]

**Bocinsky, R. Kyle**  
2014 Drain your dammed DEMs! Here's how. *Society for Archaeological Sciences Bulletin* 37(1):1–5. [pdf]

## Working Papers

d'Alpoim Guedes, Jade, and **R. Kyle Bocinsky**  
**In review.** Climate change stimulated agricultural innovation and exchange across Asia. *Science Advances*.

**Bocinsky, R. Kyle** and Timothy A. Kohler  
2012 A preliminary reconstruction of seasonal growing degree days for North America, AD 1–1979. [pdf]

## Software

**Bocinsky, R. Kyle**  
2018 *FedData: Functions to Automate Downloading Geospatial Data Available from Several Federated Data Sources*. R package version 2.5.4. [http].

**Bocinsky, R. Kyle**  
2017 *paleocar: Paleoclimate Reconstruction from Tree Rings using Correlation Adjusted correlation*. R package version 3.3.0. [http]

## Research & Field Experience

**Crow Canyon Archaeological Center**, Cortez, Colorado  
2016–Present Researcher, The Pueblo Farming Project  
Data analysis of eight years of experimental maize gardening with Hopi farmers; funded by Colorado SHF grant 15-02-025

Summer 2012 Field Intern, Basketmaker Communities Project  
Helped with excavation and education at the Dillard Site, a Basketmaker III community  
*Directed by:* Shanna Diederichs  
*Location:* Montezuma County, Colorado  
*Excavation days:* 45

Summer 2011 Visiting Researcher  
Developed a heuristic model of hunting (*heuristic foraging theory*) and began generating revised paleoproduction estimates for the VEPII study areas

**Washington State University**, Pullman, Washington  
 2015–Present Post-doctoral Researcher, then Co-PI, *Synthesizing Knowledge of Past Environments*  
 Cyber-infrastructure design and development, and paleoenvironmental modeling; funded by NSF grants BCC-1439603 and SMA-1347973

Summer 2014 Field Technician, The Largo Gap Archaeological Project  
 Survey of the community around Largo Gap great house, New Mexico  
*Directed by:* Kristin Safi  
*Location:* Catron County, New Mexico  
*Survey days:* 20

2008–2009 Research Assistant, Timothy A. Kohler  
 Agent based modeling with the Village Ecodynamics Project; documented and debugged code, developed domestication module, and expanded study areas

**Santa Fe Institute**, Santa Fe, New Mexico  
 Summer 2013 Visiting Researcher  
 Developed a new module for the VEP II simulation linking the coevolution of leadership and group size with a model of group conflict under resource pressure; Sponsored by the John Templeton Foundation grant *The Principles of Complexity*

Summer 2011 Trainee, Graduate Workshop in Computational Social Science  
 SFI workshop on computational and statistical techniques for modeling social processes  
*Directed by:* John H. Miller and Scott E. Page

**Mesa Verde National Park**, Mesa Verde, Colorado  
 Summers 2009, 2011, 2012 & 2017 Field Technician, The Mesa Verde Community Center Survey  
 Visited and documented large aggregated villages in MVNP and surrounding area  
*Directed by:* Donna M. Glowacki  
*Location:* Montezuma County, Colorado  
*Monitoring days:* 100 (estimated)

**Field Museum of Natural History**, Chicago, Illinois  
 Summer 2008 Collections Intern  
 Facilitated access to collections for visiting researchers, analyzed ceramics, and constructed protective housing for ceramics  
*Directed by:* Scott Demel and Helen Robbins

**University of Notre Dame**, Notre Dame, Indiana  
 2007–2008 Research Assistant, Mark A. Schurr  
 Stable carbon- and nitrogen-isotope analysis of faunal and human remains

## Podium & Poster

Glowacki, Donna and **R. Kyle Bocinsky**  
 2018 The Great Houses of the Mesa Verde Cuesta. In symposium, *Mesa Verde Ancestral Pueblo Villages: Recent Research*. Society for American Archaeology, 83<sup>rd</sup> Annual Meeting, Washington, DC.

Gillreath-Brown, Andrew, **R. Kyle Bocinsky**, Simon Goring and Tim A. Kohler  
 2018 Paleotemperature Reconstructions of the Upland United States Southwest for the Last 2,000 Years. In general session, *Environmental Archaeology*. Society for American Archaeology, 83<sup>rd</sup> Annual Meeting, Washington, DC.

**Bocinsky, R. Kyle**  
 2017 Climate Change, Agricultural Innovation and Exchange across Asia. American Geophysical Union, Fall Meeting 2017, New Orleans, Louisiana.

**Bocinsky, R. Kyle**

2017 "Constraint and Freedom" in the Era of Big Data. In Frison Institute Symposium, *The Future of "Big Data" in Archaeology*. Society for American Archaeology, 82<sup>nd</sup> Annual Meeting, Vancouver, British Columbia, Canada.

Lipe, William, Laura Ellyson, **R. Kyle Bocinsky**, Robin Lyle and R.G. Matson

2017 Costly Gobbling: Raising Turkeys in the Central Mesa Verde Area. In general session, *The Archaeology of Foodways*. Society for American Archaeology, 82<sup>nd</sup> Annual Meeting, Vancouver, British Columbia, Canada.

d'Alpoim Guedes and **R. Kyle Bocinsky**

2017 Modeling the Spread of Crops across Eurasia. In Fryxell Award Symposium, *Papers in Honor of Naomi F. Miller*. Society for American Archaeology, 82<sup>nd</sup> Annual Meeting, Vancouver, British Columbia, Canada.

Varién, Mark. D and **R. Kyle Bocinsky**

2016 The Pueblo Farming Project: Investigating the Agrarian Ecology of the Mesa Verde Region. In symposium, *First Farmers, First Farms: Landscape Ecology of the Early Neolithic*. Society of Ethnobiology, 39<sup>th</sup> Annual Conference, Tucson, Arizona.

**Bocinsky, R. Kyle** and Adam Brin

2016 SKOPE: Bringing Continent-scale, Local Paleoenvironmental Data to Researchers and the Public. In symposium, *What Do We Mean by "Digital Curation?"* Society for American Archaeology, 81<sup>st</sup> Annual Meeting, Orlando, Florida.

d'Alpoim Guedes, Jade, Sturt Manning, and **R. Kyle Bocinsky**

2016 5500 Years of Changing Crop Niches on the Tibetan Plateau. In symposium, *Guava Cat Archaeology: Papers in Memory of Prof. Pochan Chen*. Society for American Archaeology, 81<sup>st</sup> Annual Meeting, Orlando, Florida.

Ellyson, Laura, Timothy Kohler, and **R. Kyle Bocinsky**

2016 Evaluation of the Village Ecodynamics Hunting and Domestication Models. In general session, *Southwestern Archaeology*. Society for American Archaeology, 81<sup>st</sup> Annual Meeting, Orlando, Florida.

Van Dyke, Ruth M., **R. Kyle Bocinsky**, Tucker Robinson, and Thomas C. Windes

2016 Great houses, shrines, and high places: Intervisibility across the Chacoan World. 2016 Navajo Nation Archaeology Meeting, Shiprock, New Mexico. 4 March 2016.

**Bocinsky, R. Kyle**, Jade d'Alpoim Guedes, Karen Adams, Rob Quinlan, Mark Caudell, and Timothy A. Kohler

2016 Can Pueblo Corn Save Ethiopian Farms? Deploying 1,400 Years of Agricultural Knowledge in Service of the Future. In symposium, *Engaged Archaeology through Transnational, Interdisciplinary, and Indigenous Collaborations*. 15<sup>th</sup> Biennial Southwest Symposium, Tucson, Arizona.

Schwindt, Dylan M., **R. Kyle Bocinsky**, Scott G. Ortman, Donna M. Glowacki, Mark D. Varién, and Timothy A. Kohler

2016 Interactions among society, climate, production, and population: A case study from the central Mesa Verde region with contemporary implications. In symposium, *Engaged Archaeology through Transnational, Interdisciplinary, and Indigenous Collaborations*. 15<sup>th</sup> Biennial Southwest Symposium, Tucson, Arizona.

**Bocinsky, R. Kyle**

2015 What is the Pecos System, Anyway? 2015 Pecos Conference, Mancos, Colorado. Winner of the 2015 Cordell Prize.

- Bocinsky, R. Kyle**, Keith Kintigh, Timothy Kohler, Bertram Ludäscher, Ann Kinzig, Carla Van West, Margaret Nelson, Adam Brin, Sarah Oas, Johnathan Rush, Timothy McPhillips, and Yang Cao  
2015 Toward Effective Cyber-Infrastructure Support of Socio-Environmental Research. In symposium, *The Robustness and Vulnerability of Food Production and Social Change: An Evaluation of Interdisciplinary Concepts Using Archaeological Data, Models, and Ethnographic Observations*. Society for American Archaeology, 80<sup>th</sup> Annual Meeting, San Francisco, California.
- Van Dyke, Ruth, **R. Kyle Bocinsky**, and Tucker Robinson  
2015 Friends in High Places: Windes, Shrines, and Lines of Sight. In symposium, *It's About Time: Contributions in Honor of Thomas C. Windes*. Society for American Archaeology, 80<sup>th</sup> Annual Meeting, San Francisco, California.
- Kohler, Timothy A., Stefani A. Crabtree, and **R. Kyle Bocinsky**  
2015 The Effects of Temporal Coarse-Graining on Inferred Networks of Human Movement. In symposium, *The Short and Long of It: Combining Timescales*. Society for American Archaeology, 80<sup>th</sup> Annual Meeting, San Francisco, California.
- Crabtree, Stefani A., **R. Kyle Bocinsky**, and Timothy A. Kohler  
2015 Alliances, Coalitions, Hierarchies and Conflict in the Ancestral Pueblo World. In symposium, *Simulating Social Complexity to Understand the Archaeological Past*. Society for American Archaeology, 80<sup>th</sup> Annual Meeting, San Francisco, California.
- McPhillips, Timothy, Tianhong Song, Tyler Kolisnik, Steve Aulenbach, Khalid Belhajjame, **R. Kyle Bocinsky**, Yang Cao, Fernando Chiriga, Saumen Dey, Juliana Freire, Deborah Huntzinger, Christopher Jones, David Koop, Paolo Missier, Mark Schildhauer, Christopher Schwalm, Yaxing Wei, James Cheney, Mark Bieda, and Bertram Ludäscher  
2015 YesWorkflow: A User-Oriented, Language-Independent Tool for Recovering Workflow Information from Scripts. 10<sup>th</sup> International Digital Curation Conference, London.
- Crabtree, Stefani A., **R. Kyle Bocinsky**, and Timothy A. Kohler  
2014 Modeling Emergence of Complex Groups on Realistic Landscapes. In symposium, *Principles of Complexity: Life, Scale, and Civilization III*. Santa Fe Institute, Santa Fe, New Mexico. August.
- Bocinsky, R. Kyle**, Kurt F. Anschultz, Jesse Clark, and Timothy A. Kohler  
2014 A General Spatial Reconstruction of Potential Maize Paleoproductivity, AD 600–2000. In symposium, *Coupled Regions, Coupled Systems: Dynamics of Prehispanic Farming Societies in the Northern San Juan and the Northern Rio Grande*. Society for American Archaeology, 79<sup>th</sup> Annual Meeting, Austin, Texas.
- Kohler, Timothy A., Kelsey M. Reese, Stefani A. Crabtree, **R. Kyle Bocinsky**, and Brian M. Kemp  
2014 Prolegomenon: VEP II, Almost in Retrospect. In symposium, *Coupled Regions, Coupled Systems: Dynamics of Prehispanic Farming Societies in the Northern San Juan and the Northern Rio Grande*. Society for American Archaeology, 79<sup>th</sup> Annual Meeting, Austin, Texas.
- Crabtree, Stefani A., Timothy A. Kohler and **R. Kyle Bocinsky**  
2014 The Development of Social Groups, Leadership and Inequality in the Central Mesa Verde. In symposium, *Coupled Regions, Coupled Systems: Dynamics of Prehispanic Farming Societies in the Northern San Juan and the Northern Rio Grande*. Society for American Archaeology, 79<sup>th</sup> Annual Meeting, Austin, Texas.
- Conway, Meagan and **R. Kyle Bocinsky**  
2014 Household and Community Scales of Post-Famine Demographic Change in Western Ireland. In symposium, *The Archaeology of the Irish Famine: Exploring Lasting Effects on Local, Regional, and Transatlantic Scales*. Society for American Archaeology, 79<sup>th</sup> Annual Meeting, Austin, Texas.



**Bocinsky, R. Kyle**

2013 Pueblo II and the Turkey Taboo: Changing Attitudes Towards Domesticated Turkeys in the Puebloan Southwest. In symposium, *Food: It's What's for Dinner*. American Anthropological Association, 2013 Annual Meeting, Chicago, Illinois.

Kohler, Timothy A., **R. Kyle Bocinsky**, Stefani A. Crabtree, Andrew Hlynka, Lokesh Patil, Paul Lovell Hooper and Ziad Kobti

2013 Leadership, Territoriality and Conflict in an Agentized Pueblo World. In symposium, *Complex-systems Approaches to Long-term Change*. American Anthropological Association, 2013 Annual Meeting, Chicago, Illinois.

**Bocinsky, R. Kyle**

2013 "Free nights and weekends" in the AD 1000s? Prehistoric visual communication systems and the influence of infrastructure on modern social network formation. In lecture series, *Reckless Ideas*. Santa Fe Institute, Santa Fe, New Mexico. August 23, 2013.

**Bocinsky, R. Kyle**

2013 The Data Are the Context: A Student's Perspective on the Colorado Contexts, Old and New. In symposium, *Updating the 1999 Colorado Prehistoric Contexts: How a Digital Research Context for Southwestern Colorado Could Be Organized and Assembled*. Colorado Council of Professional Archaeologists, 35th Annual Conference, Denver, Colorado.

**Bocinsky, R. Kyle**

2013 The Defensive Coast. In general session, *Landscapes and Spatial Analysis: Global Case Studies*. Society for American Archaeology, 78<sup>th</sup> Annual Meeting, Honolulu, Hawaii. Winner of the 2013 R.E. Taylor Student Poster Award from the Society for Archaeological Sciences.

Reese, Kelsey M., **R. Kyle Bocinsky**, Donna M. Glowacki, Scott G. Ortman and Timothy A. Kohler

2013 What Are Communities, Really? In symposium, *New Directions in Modeling Dynamics for Coupled Social-Natural Systems*. Society for American Archaeology, 78<sup>th</sup> Annual Meeting, Honolulu, Hawaii.

**Bocinsky, R. Kyle**

2013 Why Landscapes Matter: Inferring Defensiveness around the Salish Sea. In symposium, *Why Salish Sea Archaeology Matters: Current Perspectives from Washington State University*. 66<sup>th</sup> Annual Northwest Anthropological Conference, Portland, Oregon.

**Bocinsky, R. Kyle**

2012 Simulating Archaeological Landscapes using the RePAST Agent Based Modeling Framework. In invited colloquium, Institute of Archaeology and Museology, Faculty of Arts, Masaryk University, Brno, Czech Republic.

**Bocinsky, R. Kyle** and Timothy A. Kohler

2012 Suboptimal Foraging Theory (It's the Best). In symposium, *Socionatural Systems in the Northern U.S. Southwest: A Village Ecodynamics Project II Progress Report*. Society for American Archaeology, 77<sup>th</sup> Annual Meeting, Memphis, Tennessee.

Kohler, Timothy A. and **R. Kyle Bocinsky**

2012 Highly Variable Temperatures in the Northern Hemisphere over the Last Two Millennia: Reconstructions and Possible Effects on Native American Agricultural Systems. In symposium, *What Role did Changing Temperatures Play in the Success of North American Farming Societies in the Last Prehispanic Millennium?* Society for American Archaeology, 77<sup>th</sup> Annual Meeting, Memphis, Tennessee.

Newbold, Bradley, **R. Kyle Bocinsky**, William D. Lipe, Phil R. Geib and Brian M. Kemp

2012 Revising Early Turkey Domestication in the Southwest. In general session, *Archaeology of the Ancestral Puebloans and Paquime*. Society for American Archaeology, 77<sup>th</sup> Annual Meeting, Memphis, Tennessee.

- Reese, Kelsey M., **R. Kyle Bocinsky**, Kay E. Barnett, Stefani A. Crabtree and Elise Alonzi  
2012 Large, Aggregated Villages in Little Soda Canyon. In general session, *Southwest*. Society for American Archaeology, 77<sup>th</sup> Annual Meeting, Memphis, Tennessee.
- Bocinsky, R. Kyle** and Timothy A. Kohler  
2011 Toward [Re]Constructing An Archaeological Legacy of Hunting On the Colorado Plateau. In Evolutionary Anthropology Society invited symposium, *Lasting Legacies and Changing Tides in Human Behavioral Ecology*. American Anthropological Association, 2011 Annual Meeting, Montreal, Quebec, Canada.
- Bocinsky, R. Kyle**, Brian Chisholm and Brian M. Kemp  
2011 Basketmaker III Turkey Use: Multiple Lines of Evidence. In symposium, *The Cedar Mesa Project Turns 40: New Results from a Long-Lived Study in SE Utah*. Society for American Archaeology, 76<sup>th</sup> Annual Meeting, Sacramento, California.
- Newbold, Bradley, **R. Kyle Bocinsky**, Brian M. Kemp and Phil R. Geib  
2011 Ancient Domestic Turkeys at Atlatl Rock Cave. In general session, *Animal Domesticates in the Americas*. Society for American Archaeology, 76<sup>th</sup> Annual Meeting, Sacramento, California.
- Crabtree, Stefani A., Ziad Kobti, Timothy A. Kohler and **R. Kyle Bocinsky**  
2011 Archaeology Time Machine: Witnessing Social Interactions on the Pueblo Landscape through Agent-based Simulation. In symposium, *Mapping and Technological Experiments in Archaeology*. Society for American Archaeology, 76<sup>th</sup> Annual Meeting, Sacramento, California.
- Kohler, Timothy A., **R. Kyle Bocinsky**, Stefani A. Crabtree and Denton Cockburn  
2011 The Village Ecodynamics Project: Modeling the Deep Pueblo Past. In symposium, *Modeling Across Millennia: Interdisciplinary Paths to Ancient Socionatural Systems*. 177<sup>th</sup> AAAS Annual Meeting, Washington, D.C.
- Barron, Doug, **R. Kyle Bocinsky**, Dan Grunspan, Bradley Newbold, Darryl Trumbo and Bryan Roosien  
2011 Mapping the Memetics Meme: Toward a better understanding of the transmission and evolution of scientific concepts. In IGERT Program in Evolutionary Modeling seminar, Washington State University, Pullman, Washington.
- Barron, Doug, **R. Kyle Bocinsky**, Dan Grunspan, Bradley Newbold, Darryl Trumbo and Bryan Roosien  
2010 GroupAge: An agent-based framework for exploring the interaction of social learning, mate choice, and group dynamics. In IGERT Program in Evolutionary Modeling seminar, Washington State University, Pullman, Washington.
- Bocinsky, R. Kyle**, Breanne M. Nott and Brian M. Kemp  
2010 Plop! Jump-starting the brown revolution in archaeology. In symposium, *The Village Ecodynamics Project II*. Society for American Archaeology, 75<sup>th</sup> Annual Meeting, St. Louis, Missouri.
- Glowacki, Donna M., Charles A. Reed, **R. Kyle Bocinsky**, Shanna Diederichs and Julie Bell  
2010 Making sense of the actual: Settlement trends in the southwestern Colorado VEP study areas. In symposium, *The Village Ecodynamics Project II*. Society for American Archaeology, 75<sup>th</sup> Annual Meeting, St. Louis, Missouri.
- Reed, Charles A., Ryan Lash and **R. Kyle Bocinsky**  
2010 An Ancestral Puebloan Community in Morefield Canyon, Mesa Verde National Park. In general session, *What's New in Southwestern Archaeology?* Society for American Archaeology, 75<sup>th</sup> Annual Meeting, St. Louis, Missouri.

**Bocinsky, R. Kyle**

2009 In the land of plenty: Agent-based approaches to modeling subsistence in the Puebloan Southwest. In South Carolina Institute of Archaeology and Anthropology seminar, *From Field to Table: Historical Ecology of Regional Subsistence Strategies*. University of South Carolina, Columbia, South Carolina.

**Bocinsky, R. Kyle**

2009 Village Evolving: New directions in VEP research. In NSF Office of Polar Programs: Arctic Social Sciences sponsored conference, *Global Long Term Human Ecodynamics*. Eagle Hill, Maine.

**Bocinsky, R. Kyle**

2009 Understanding and modeling turkey use in the American Southwest: A preliminary simulation module for RePAST. In general session, *General New World and Methods*. Society for American Archaeology, 74<sup>th</sup> Annual Meeting, Atlanta, Georgia.

**Bocinsky, R. Kyle, Terrence Martin and Mark A. Schurr**

2008 Rodent Stable Carbon-isotope Ratios as a Measure of Maize Production. In general session, *Methods and Advances in Zooarchaeology*. Society for American Archaeology, 73<sup>rd</sup> Annual Meeting, Vancouver, British Columbia, Canada.

**Forum &  
Discussion**

Discussant, *SKOPE: How we are making paleoenvironmental data useful and accessible*

2018 Society for American Archaeology, 83<sup>rd</sup> Annual Meeting, Washington, DC.

Discussant, *Aztec at the Crossroads and in the Crosshairs: 101 Years of Research in One Convenient Symposium*

2017 Society for American Archaeology, 82<sup>nd</sup> Annual Meeting, Vancouver, British Columbia, Canada.

Discussant, *How to do Archaeological Science using R*

2017 Society for American Archaeology, 82<sup>nd</sup> Annual Meeting, Vancouver, British Columbia, Canada.

Discussant, *Error, Sensitivity Analysis, and Uncertainty in Archaeological Computational Modeling*

2014 Moderated by Marieka Brouwer Burg. Society for American Archaeology, 79<sup>th</sup> Annual Meeting, Austin, Texas.

**Workshops &  
Academic  
Service**

*Montana Climate Office*

2018 Mentor, Carly Kuske, Montana Drought & Climate project intern

2018 Mentor, Colin Brust, Montana Space Grant Consortium intern

*Conceptualizing a Geospatial Software Institute (GSI)*

2018 Participant, Workshop 2: Geospatial Use Cases and Core Technical Capabilities, Cyber-GIS Center for Advanced Digital and Spatial Studies, Chicago, Illinois

Forum, *Traditional Knowledge & Ecology—Building Agri-Cultural Resilience through Traditional Values*

2017 Organizer, Third Annual Native Waters on Arid Lands Tribal Summit, Reno, Nevada

*Whole Tale: Computing environments for reproducibility*

2017 Participant, Prov-a-Thon and architecture workshop, Santa Ana Pueblo, New Mexico

2017 Mentor for Pratik Shrivastava, Whole Tale Summer Internship, Chicago, Illinois

Crow Canyon Research Seminar, *Connecting Mesa Verde and the Rio Grande through the Study of Pueblo Foodways*

2017 Co-organizer, New Mexico History Museum, Santa Fe, New Mexico. 22 April 2017.

Edited Section, *First Farmers, First Farms: Landscape Ecology of the Early Neolithic*

2017 Guest editor, *Journal of Ethnobiology*

Forum, *Traditional Knowledge & Ecology*

2016 Discussant, Second Annual Native Waters on Arid Lands Tribal Summit, Las Vegas, Nevada

Forum, *Archaeologies of Inclusion: Towards a Politics of Engagement*

2016 Organizer, Society for American Archaeology, 81<sup>st</sup> Annual Meeting, Orlando, Florida

Forum, *Out in the Field: Queer Experiences and Challenges in Archaeology*

2015 Organizer, Society for American Archaeology, 80<sup>th</sup> Annual Meeting, San Francisco, California

Symposium, *What Role did Changing Temperatures Play in the Success of North American Farming Societies in the Last Prehispanic Millennium?*

2012 Chair, Society for American Archaeology, 77<sup>th</sup> Annual Meeting, Memphis, Tennessee

National Science Foundation IGERT.org Trainee Advisory Board

2011–2012 Board member, The National Science Foundation and TERC

Exploratory Meeting for the Creation of an LGBT Archaeologists Interest Group

2010 Organizer, Society for American Archaeology, 75<sup>th</sup> Annual Meeting, St. Louis, Missouri

Symposium, *The Village Ecodynamics Project II*

2010 Co-organizer, Society for American Archaeology, 75<sup>th</sup> Annual Meeting, St. Louis, Missouri

Anthropology Graduate Organization, Department of Anthropology, Washington State University

2013 Co-organizer, Interdisciplinary Research in Anthropology and the Sciences Conference

2011 Chair, Banquet Committee

2009 Chair, Lipe Scholar Committee

2008–2009 President

## Outreach & Press

*Experimental Farming: The Pueblo Farming Project and Beyond*

**Public lecture.** In Crow Canyon Research Seminar: *Connecting Mesa Verde and the Rio Grande through the Study of Pueblo Foodways*, New Mexico History Museum, Santa Fe, NM. 22 April 2017.

*Origins: The Journey of Humankind*

**Featured expert.** The National Geographic Channel. Featured in Season 1, Episode 6: *Building the Future*. Aired April 17, 2017. [html].

*Farming Corn in the Past, Present, and Future*

**Public lecture.** In Smithsonian Associates Weekend Program: *Vanished! Behind the Mystery of Mesa Verde*, S. Dillon Ripley Center, Washington, DC. 21 May 2016.

*Exploration and exploitation in the macrohistory of the pre-Hispanic Pueblo Southwest*

### Popular article

- Do prehistoric Pueblo populist revolutions presage American politics today? Kyle Bocinsky and Tim Kohler, *The Conversation*. 6 April 2016. [html]

### Press coverage

- Climate and the Collapse of Ancient Civilizations. Interview on NPR's *Science Friday*. 8 April 2016. [html]
- From drought, seeds of discontent. Staci Matlock, *Santa Fe New Mexican*. 31 March 2016. [html]
- Social collapse in ancient Pueblo civilization linked to climate change. Hannah Osborne, *International Business Times*. 1 April 2016. [html]
- Researchers: Four Corners pueblo culture sensitive to climate. Emery Cowan, *Arizona Daily*

Sun, Flagstaff, Arizona. 10 April 2016. [html]

*Can Pueblo Corn Save Ethiopian Farms? Employing 1,400 Years of Agricultural Knowledge in Service of the Future*

**Public lecture**

- Southwest Seminar, Santa Fe, New Mexico. 25 July 2016.
- Arizona Archaeological and Historical Society, Tucson, Arizona. 18 January 2016.
- Four Corners Lecture Series, Cortez, Colorado. Invited by the Hisatsinom Chapter of the Colorado Archaeological Society. 4 August 2015.

*FedData: Functions to Automate Downloading Geospatial Data Available from Several Federated Data Sources*

**Blog coverage**

- Using the new R package, FedData, to access federal open datasets (including interactive graphics). ZevRoss. 15 March 2016. [html]

**Travel &  
Training Grants**

*Toward Cultural Models of the Development of Ancestral Maize Landraces*

2014 Travel grant, Graduate & Professional Student Association, Washington State University, \$375

*Understanding and modeling turkey use in the American Southwest: A preliminary model for RePAST*

2009 Travel grant, Graduate & Professional Student Association, Washington State University, \$390

*Archaeological Field School with Brooklyn College, City University of New York*

2007 Travel grant, Undergraduate Research Opportunity Program, University of Notre Dame, \$1,000

2007 Travel grant, Glynn Family Honors Program, University of Notre Dame, \$1,500

2007 Learning Beyond the Classroom Grant, University of Notre Dame, \$711

*The similarity of treatment needs between the chemically addicted and HIV+ populations: Emphasizing relationships*

2007 Travel grant, Undergraduate Research Opportunity Program, University of Notre Dame, \$1,000

2006 Americorps Service Grant, \$1,000

**Additional  
Training**

*Beyond Archaeology—Realities of Cultural Resource Management*

2013 Participant in seminar presented by the Confederated Tribes of the Colville Reservation History/Archaeology Program. October 4–5, 2013, Pullman, Washington.

**Teaching**

**Washington State University**, Pullman, Washington

Fall 2015 Co-instructor, *ANTH 600: Exploratory Data Analysis in R*, 3 credits, graduate

Using graphical and numeric computational methods to explore different types of data, including survey, experimental, textual, spatial, and network data

Fall 2014 Instructor, *ANTH 101: General Anthropology*, 3 credits, 90 students

An introduction to the four fields of anthropology

Spring 2013 Instructor, *ANTH 490: Themes in Anthropology*, 3 credits, 15 students

The capstone seminar in the anthropology major at WSU; a review of important themes in anthropological thought and several controversial issues in anthropology

Spring 2012 Instructor, *ANTH 331: The Americas Before Columbus*, 3 credits, 40 students

A review course covering North and South American prehistory, and emphasizing model-based approaches in archaeology

<b>Computer Experience</b>	<p><i>Statistical Packages:</i> R, SAS, Stata  <i>Languages:</i> R, Java, Python, Bash, C++, Objective C  <i>Applications:</i> ArcGIS, GRASS GIS, QGIS, MS Office, Adobe Illustrator, Final Cut Pro, L<sup>A</sup>T<sub>E</sub>X  <i>Web Frameworks:</i> Bootstrap, Jekyll, Liquid, Shiny, GH-Pages  <i>Agent Based Modeling Frameworks:</i> RePAST (J, S), Swarm  <i>Version Control:</i> Git, Subversion  <i>Operating Systems:</i> macOS, Windows, Ubuntu Linux</p>
<b>Professional Affiliations</b>	<p><i>Register of Professional Archaeologists</i>  <i>Society for American Archaeology</i>  <i>American Anthropological Association</i>  <i>American Association for the Advancement of Science</i></p>
<b>References</b>	<p><b>Timothy A. Kohler</b>  Department of Anthropology  Washington State University  Pullman, WA 99164-4910  <b>phone</b> 509.335.2698  <b>email</b> tako@wsu.edu</p> <p><b>Maureen McCarthy</b>  Tahoe and Great Basin Research Director  University of Nevada, Reno  1664 N. Virginia Street  Reno, NV 89557  <b>phone</b> 775.784.8023  <b>email</b> mimccarthy@unr.edu</p> <p><b>Mark D. Varien</b>  Crow Canyon Archaeological Center  23390 County Road K  Cortez, CO 81321  <b>phone</b> 970.565.8975  <b>email</b> mvarien@crowcanyon.org</p> <p><b>Jade d'Alpoim Guedes</b>  Department of Anthropology &amp;  Scripps Institute of Oceanography  University of California, San Diego  La Jolla, CA 92093  <b>phone</b> 858.534.4145  <b>email</b> jguedes@ucsd.edu</p> <p><b>William D. Lipe</b>  Department of Anthropology  Washington State University  Pullman, WA 99164-4910  <b>phone</b> 509.335.2100  <b>email</b> lipe@wsu.edu</p> <p><b>Keith W. Kintigh</b>  School of Human Evolution and Social Change  Arizona State University  Tempe, AZ 85287-2402  <b>phone</b> 480.965.6909  <b>email</b> kintigh@asu.edu</p> <p><b>Stefani A. Crabtree</b>  Department of Anthropology  Pennsylvania State University  University Park, PA 16802  <b>web</b> <a href="https://stefanicrabtree.com/">https://stefanicrabtree.com/</a>  <b>phone</b> 541.350.0994  <b>email</b> stefanicrabtree@gmail.com</p>