R. Kyle Bocinsky, PhD, RPA

Contact Information

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University of Montana
Missoula, MT 59812

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Research Interests

human dimensions of climate change • *computational social science* • *paleo-environments*
complex systems • *plant and animal domestication* • *Indigenous ecologies* • *reproducibility*

Education

Washington State University, Pullman, Washington
PhD, Anthropology, December 2014
Dissertation title: *Landscape-based Null Models for Archaeological Inference*
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*
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

University of Montana, Missoula, Montana

Jul 2022–Present	Assistant Research Professor, Department of Society and Conservation, W.A. Franke College of Forestry and Conservation
Jan 2021–Present	Director of Climate Extension, Montana Climate Office
Aug 2020–Dec 2020	Research Affiliate, Montana Climate Office
Jan 2018–Jul 2020	Research Associate, Montana Climate Office

Crow Canyon Archaeological Center, Cortez, Colorado

Jan 2021–Present	Research Associate
Aug 2018–Dec 2020	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

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–Dec 2020	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

Grants

2023–2026 **PI, Enhancing Climate-smart Disaster Relief in FSA Programs: Non-stationarity at the Intersection of Normal Grazing Periods and US Drought Assessment**
Program: United States Department of Agriculture, Agricultural Research Service, *Research, Education, and Economics*
Award: 58-3070-3-016
Amount: $225,000 awarded to UM

2023–2025 **Co-I, Upper Missouri River Basin Project: Plains Snow and Soil Moisture Monitoring Network — Operations and Maintenance**
Program: National Oceanic & Atmospheric Administration, National Mesonet Program
Award: 1305M223PNWWG0302
Amount: $1,696,229 awarded to UM
PI: Kelsey Jencso, University of Montana

2023–2024 **Co-PI (UM PI), Collaborative Research: HNDS-R: Human Networks, Sustainable Development, and Lived Experience in a Nonindustrial Society**
Program: National Science Foundation, Division of Behavioral and Cognitive Sciences, Directorate for Social, Behavioral & Economic Sciences, *Human Networks & Data Science — Research*
Award: 2212725
Amount: $498,706 total, $25,393 awarded to UM
PI: Scott Ortman, University of Colorado, Boulder

2023–2024 **PI, Native Drought Resilience: CSKT Actions for Climate-Drought Adaptation**
Program: National Oceanic & Atmospheric Administration, National Integrated Drought Information System, *Coping with Drought — Building Tribal Drought Resilience*
Award: NA22OAR4310232
Amount: $498,194 awarded to UM, including sub-awards to the Confederated Salish and Kootenai Tribes of the Flathead Reservation and Salish Kootenai College

2022–2023 **PD, Disaster Resilience Planning Assistance and Hazard Mitigation Planning Fort Peck Assiniboine and Sioux Tribes**
Program: Environmental Protection Agency, *Pre Disaster Mitigation Grant Program; American Rescue Plan*
Award:
Amount: $40,000 awarded to UM through MOU with Spackman Massop Michaels

2022–2027 **Co-PD (UM PD), Native Climate: Strengthening the role of Climate Hubs in Indian Country**
Program: United States Department of Agriculture, National Institute of Food and Agriculture, *Extension, Education & USDA Climate Hubs Partnership*
Award: 2022-68015-36357
Amount: $1,500,000 total, $291,981 awarded to UM
PD: Maureen McCarthy, Desert Research Institute

2022–2023 **Co-I, Developing the NIDIS Drought Early Warning System for the Upper Missouri River Basin**
Program: National Oceanic & Atmospheric Administration, National Integrated Drought Information System, *Climate and Atmospheric Research*
Award: NA21OAR4310473
Amount: $344,568 awarded to UM
PI: Kelsey Jencso, University of Montana

2021–2023 Co-PD (UM PD), TCU Missouri River Watershed Consortium
Program: United States Department of Agriculture, National Institute of Food and Agriculture, *Tribal Colleges Research Grants Program*
Award: 2021-38424-34953
Amount: $220,000 total, $64,508 awarded to UM
PD: Ruth Plenty Sweetgrass-She Kills, Nueta Hidatsa Sahnish College

2021–2023 Co-PD (UM PD), All Climate is Local: 'Multiple ways of knowing' to enhance resilience of tribal agroecosystems to droughts, floods, and rising temperatures
Program: United States Department of Agriculture, National Institute of Food and Agriculture
Award: 2021-67019-33420
Amount: $49,998 awarded to DRI
PD: Maureen McCarthy, Desert Research Institute

2020–2023 Co-PD, COVID-19 Rapid Response Toolkit for Tribal Extension Agents
Program: United States Department of Agriculture, National Institute of Food and Agriculture
Award: 2020-68008-32762
Amount: $300,000 awarded to DRI/CCAC
PD: Maureen McCarthy, Desert Research Institute

2020–2022 Co-PD, Teaching Native Waters: Place-based Community of Practice for STEM Teachers Serving Native American Students
Program: United States Department of Agriculture, National Institute of Food and Agriculture, *Women and Minorities in Science, Technology, Engineering, and Mathematics* (WAMS) program
Award: 2020-38503-31952
Amount: $99,998 awarded to DRI
PD: Meghan Collins, Desert Research Institute

2019–2022 Project Manager, The Maize Database Project
Program: History Colorado — State Historical Fund
Award: 2019-M2-001
Amount: $34,912 awarded to CCAC
PI: Mark Varien, Crow Canyon Archaeological Center

2018–2022 Co-PD, Improving the Efficacy of Climate Information for Water Use Decisions: Developing, Testing, and Institutionalizing New Tools for Producers
Program: 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*
Award: 2017-67027-26313
Amount: $462,539 awarded to UM
PD: Laurie Yung, University of Montana

2016–2022 Co-PI, Developing and Deploying SKOPE—A resource for Synthesizing Knowledge of Past Environments
Program: National Science Foundation special competition, *Resource Implementations for Data Intensive Research in the Social Behavioral and Economic Sciences*
Award: 1637171
Amount: $1,339,658 total, $254,189 awarded to WSU/CCAC
PI: Tim Kohler, Washington State University

2015–2022 **Co-PD, Native Waters on Arid Lands: Enhancing Climate Resiliency & Agriculture on American Indian Land**
Program: United States Department of Agriculture, National Institute of Food and Agriculture, Agriculture and Food Research Initiative program area special competition, *Water for Agriculture*
Award: 2015-69007-23190
Amount: $2,516,844 awarded to the University of Nevada, Reno
PD: Maureen McCarthy, University of Nevada, Reno

2010–2015 **Fellow, NSF Graduate Research Fellowship Program**
Program: National Science Foundation
Award: 1347973
Amount: $92,000 stipend and $32,000 cost-of-education allowance over three years
PI: Tim Kohler, Washington State University

2009–2011 **Trainee, IGERT Program in Evolutionary Modeling**
Program: National Science Foundation
Award: 0549425
Amount: $60,000 stipend and $20,000 cost-of-education allowance over two years
PI: Tim Kohler, Washington State University

Awards & Scholarships

2022 **Presidential Recognition Award**, Society for American Archaeology
Awarded to members of the SAA Bylaws Committee (on which Bocinsky served) for their thorough and thoughtful work updating the SAA Bylaws, the foundation of the Society's governing documents

2015 **Cordell Prize**, Pecos Conference, Mancos, Colorado
Awarded for the best extemporaneous talk presented by an archaeologist 35 years of age or younger

2014 **Graduate Achievement Award in the Social Sciences at the Doctoral Level**, 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

2013 **R.E. Taylor Student Poster Award**, Society for Archaeological Science
Awarded 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

2011 **Elaine Burgess Graduate Fellowship in Anthropology**, Department of Anthropology, Washington State University
Awarded to a graduate student of outstanding professional promise in anthropology without consideration of subfield

2009 **Nicholas Michael Scoales Scholarship in Archaeology**, Department of Anthropology, Washington State University
Awarded to provide research support for an outstanding graduate student in archaeology specializing in analysis of lithic artifacts or in western North American prehistory

2008 **The Rev. Raymond W. Murray, C.S.C. Award in Anthropology**, Department of Anthropology, University of Notre Dame
Awarded to the top graduating senior for exemplary work in anthropology

Peer-reviewed Articles

open access

Gillreath-Brown, Andrew D., **R. Kyle Bocinsky**, and Timothy A. Kohler
2024 A low-frequency summer temperature reconstruction for the United States Southwest, 3000 BC–AD 2000. *The Holocene*, online first.
DOI: https://doi.org/10.1177/09596836231219482
Code: https://github.com/Archaeo-Programmer/paleoMAT

Kohler, Timothy A., Darcy Bird, **R. Kyle Bocinsky**, Kelsey Reese and Andrew D. Gillreath-Brown
2023 Wealth inequality in the prehispanic northern US Southwest: from Malthus to Tyche. *Philosophical Transactions of the Royal Society B* 378: 1883.
DOI: https://doi.org/10.1098/rstb.2022.0298
Code: https://github.com/village-ecodynamics/kohler_et_al_2023_ptrsb

Hoylman, Zachary Harwood, **R. Kyle Bocinsky**, and Kelsey G. Jencso
2022 Drought assessment has been outpaced by climate change: Empirical arguments for a paradigm shift. *Nature Communications* 13: 2715.
DOI: https://doi.org/10.1038/s41467-022-30316-5
Code: https://github.com/zhoylman/drought-year-sensitivity

Bird, Darcy, Lux Miranda, Marc Vander Linden, Erick Robinson, **R. Kyle Bocinsky**, Christopher Nicholson, José Capriles, Judson Finley, Eugenia Gayo, Adolfo Gil, Jade d'Alpoim Guedes, Julie Hoggarth, Andrea Kay, Emma Loftus, Umberto Lombardo, Madeline Mackie, Dr Alessio Palmisano, Dr Steinar Solheim, Robert Kelly, and Jacob Freeman
2022 p3k14c, a synthetic global database of archaeological radiocarbon dates. *Scientific Data* 9: 27.
DOI: https://doi.org/10.1038/s41597-022-01118-7
Code: https://github.com/people3k/p3k14c

Price, Michael Holton, José M. Capriles, Julie A. Hoggarth, **R. Kyle Bocinsky**, Claire E. Ebert, and James Holland Jones
2021 End-to-end Bayesian analysis for summarizing sets of radiocarbon dates. *Journal of Archaeological Science* 135: 105473.
DOI: https://doi.org/10.1016/j.jas.2021.105473
Code: https://github.com/eehh-stanford/price2020

Alam, Ornob, Rafal M. Gutaker, Cheng-chieh Wu, Karen A. Hicks, **R. Kyle Bocinsky**, Cristina Cobo Castillo, Stephen Acabado, Dorian Fuller, Jade A. d'Alpoim Guedes, Yue-ie Hsing, and Michael D. Purugganan
2021 Genome analysis traces regional dispersal of rice in Taiwan and Southeast Asia. *Molecular Biology and Evolution*: msab209.
DOI: https://doi.org/10.1093/molbev/msab209

Scheffer, Marten, Egbert H. van Nes, Darcy Bird, **R. Kyle Bocinsky**, and Timothy A. Kohler
2021 Loss of resilience preceded transformations of pre-Hispanic Pueblo societies. *Proceedings of the National Academy of Sciences* 118(18): e2024397118.
DOI: https://doi.org/10.1073/pnas.2024397118

Smith, Ada P., Laurie Yung, Adam Snitker, **R. Kyle Bocinsky**, Elizabeth Covelli Metcalf, and Kelsey Jencso
2021 Scalar mismatches and underlying factors for underutilization of climate information: Perspectives from farmers and ranchers. *Frontiers in Climate* 3: 29 pages.
DOI: https://doi.org/10.3389/fclim.2021.663071

Robinson, Erick, **R. Kyle Bocinsky**, Darcy Bird, Jacob Freeman, and Robert L. Kelly
2021 Dendrochronological dates confirm a Late Prehistoric population decline in the American Southwest derived from radiocarbon dates. *Philosophical Transactions of the Royal Society B* 376: 20190718.
DOI: https://doi.org/10.1098/rstb.2019.0718
Code: https://github.com/people3k/robinson2020

Strawhacker, Colleen, Grant Snitker, Matthew A. Peeples, Ann P. Kinzig, Keith W. Kintigh, **R. Kyle Bocinsky**, Brad Butterfield, Jacob Freeman, Sarah Oas, Margaret C. Nelson, Jonathan A. Sandor, Katherine A. Spielmann
2020 A landscape perspective on climate-driven risks to food security: Exploring the relationship between climate and social transformations in the Prehispanic U.S. Southwest. *American Antiquity* 85(3): 427–451.
DOI: https://doi.org/10.1017/aaq.2020.35
Code: https://github.com/gsnitker/LTVTP

Gutaker, Rafal M., Simon C. Groen, Emily S. Bellis, Jae Y. Choi, Inês S. Pires, **R. Kyle Bocinsky**, Emma R. Slayton, Olivia Wilkins, Cristina C. Castillo, Sónia Negrão, M. Margarida Oliveira, Dorian Q. Fuller, Jade A. d'Alpoim Guedes, Jesse R. Lasky, and Michael D. Purugganan
2020 Genomic history and ecology of the geographic spread of rice. *Nature Plants* 6: 492–502.
DOI: https://doi.org/10.1038/s41477-020-0659-6
Code: https://github.com/bocinsky/gutaker2020

Grimstead, Deanna N., Matthew C. Pailes, and **R. Kyle Bocinsky**
2019 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* 26(1): 25–51.
DOI: https://doi.org/10.1007/s10816-017-9359-6

Kohler, Timothy A., Philip I. Buckland, Keith W. Kintigh, **R. Kyle Bocinsky**, Adam Brin, Andrew Gillreath-Brown, Bertram Ludäscher, Timothy M. McPhillips, Rachel Opitz, and Jeffrey Terstriep
2018 Paleodata for and from archaeology. *Past Global Changes Magazine* 26(2): 68–69.
DOI: https://doi.org/10.22498/pages.26.2.68

d'Alpoim Guedes, Jade, and **R. Kyle Bocinsky**
2018 Climate change stimulated agricultural innovation and exchange across Asia. *Science Advances* 4(10): eaar4491.
DOI: https://doi.org/10.1126/sciadv.aar4491
Code: https://github.com/bocinsky/guedesbocinsky2018

d'Alpoim Guedes, Jade and **R. Kyle Bocinsky**
2017 A reply to Bellezza. *Current Anthropology* 58(4): 539–539.
DOI: https://doi.org/10.1086/692996

Bocinsky, R. Kyle and Mark D. Varien
2017 Calibrating Maize Paleoproduction Models using Experimental Data. *Ethnobiology* 37(2): 282–307.
DOI: https://doi.org/10.2993/0278-0771-37.2.282
Code: https://github.com/bocinsky/Bocinsky_Varien_2017

Gillreath-Brown, Andrew and **R. Kyle Bocinsky**
2017 A Dialogue Between Empirical and Model-Based Agricultural Studies in Archaeology. *Ethnobiology* 37(2): 167–171.
DOI: https://doi.org/10.2993/0278-0771-37.2.167

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.
DOI: https://doi.org/10.1017/aaq.2016.18

d'Alpoim Guedes, Jade, Stefani A. Crabtree, **R. Kyle Bocinsky**, and Timothy A. Kohler
2016 21st century approaches to ancient problems: Climate and society. *Proceedings of the National Academy of Sciences* 113(51): 14483–14491.
DOI: https://doi.org/10.1073/pnas.1616188113

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.
DOI: https://doi.org/10.1086/687255

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.
DOI: https://doi.org/10.7183/0002-7316.81.2.205
Code: https://github.com/bocinsky/VanDyke_et_al_2016

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.
DOI: https://doi.org/10.1126/sciadv.1501532
Code: https://github.com/bocinsky/Bocinsky_et_al_2016

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.
DOI: https://doi.org/10.7183/0002-7316.81.1.74

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.
DOI: https://doi.org/10.7183/0002-7316.81.1.97

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: https://doi.org/10.1371/journal.pone.0130430

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.
DOI: https://doi.org/10.1126/science.aaa4819

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: https://doi.org/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: https://doi.org/10.1038/ncomms6618.

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.
DOI: https://doi.org/10.1016/j.jaa.2014.05.003
Code: https://github.com/bocinsky/Bocinsky_2014

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.
DOI: https://doi.org/10.18564/jasss.2308

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.
DOI: https://doi.org/10.1016/j.ecolmodel.2012.01.002

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.
DOI: https://doi.org/10.1142/S0219525911003256.

Book Contributions

* peer-reviewed

* Ermigiotti, Paul, Mark D. Varien, Grant D. Coffey, **R. Kyle Bocinsky**, Leigh Kuwanwisiwma, and Stewart B. Koyiyumptewa
2023 The Pueblo Farming Project: Research, Education, and Native American Collaboration. In *Research, Education and American Indian Partnerships at the Crow Canyon Archaeological Center*, edited by Susan C. Ryan, Chapter 4, pp. 53–71. Routledge, New York.
DOI: https://doi.org/10.5876/9781646424597

* Potter, James M., Mark D. Varien, Grant D. Coffey, and **R. Kyle Bocinsky**
2023 Community Organization on the Edge of the Mesa Verde Region: Recent Investigations at Cowboy Wash Pueblo, Moqui Springs Pueblo, and Yucca House. In *Research, Education and American Indian Partnerships at the Crow Canyon Archaeological Center*, edited by Susan C. Ryan, Chapter 13, pp. 204–221. Routledge, New York.
DOI: https://doi.org/10.5876/9781646424597

* Kohler, Timothy A., **R. Kyle Bocinsky**, and Darcy Bird
2023 *Fluctuat nec mergitur*: Seven Centuries of Pueblo Crisis and Resilience. In *How Worlds Collapse: What History, Systems, and Complexity Can Teach Us About Our Modern World and Fragile Future*, edited by Miguel A. Centeno, Peter W. Callahan, Paul Larcey, and Thayer Patterson, Chapter 4, pp. 146–166. Routledge, New York.
DOI: https://doi.org/10.4324/9781003331384-11

* Schachner, Gregson, Joel Nicholas, R. J. Sinensky, and **R. Kyle Bocinsky**
2021 The sustainability of Hopi agriculture. In *Becoming Hopi: A History*, edited by Wesley Bernardini, Stewart Koyiyumptewa, Gregson Schachner, and Leigh Kuwanwisiwma, pp. 113–132. University of Arizona Press, Tucson.
HTML: https://uapress.arizona.edu/book/becoming-hopi
Winner of the 2022 Society for American Archaeology Scholarly Book Award.

* Van Dyke, Ruth M., Timothy De Smet, and **R. Kyle Bocinsky**
2021 Viewscapes and Soundscapes. In *The Greater Chaco Landscape: Ancestors, Scholarship, and Advocacy*, edited by Ruth Van Dyke and Carrie Heitman, Chapter 11. University Press of Colorado, Boulder.
DOI: https://doi.org/10.5876/9781646421701
Winner of the 2022 Society for American Archaeology Popular Book Award.

* Kohler, Timothy A., Laura J. Ellyson and **R. Kyle Bocinsky**
2020 Beyond One-Shot Hypotheses: Explaining Three Increasingly Large Collapses in the Northern Pueblo Southwest. In *Going forward by Looking Back: Archaeological Perspectives on Socio-Ecological Crisis, Response and Collapse*, edited by Felix Reide and Payson Sheets, pp. 304–332. Berghahn Books, New York.
DOI: https://doi.org/10.3167/9781789208641

Ermigiotti, Paul, Mark Varien, Erin Bohm, **Kyle Bocinsky**, the Hopi Cultural Preservation Office, and the Hopi Cultural Resources Advisory Task Team
2018 *The Pueblo Farming Project: A collaboration between Hopi farmers and the Crow Canyon Archaeological Center*. Crow Canyon Archaeological Center, Cortez, Colorado.
HTML: https://pfp.crowcanyon.org

* Kohler, Timothy A., Stefani A. Crabtree, **R. Kyle Bocinsky**, and Paul L. Hooper
2018 Sociopolitical Evolution in Midrange Societies: The Prehispanic Pueblo Case. In *The Emergence of Premodern States: New Perspectives on the Development of Complex Societies*, edited by Jeremy A. Sabloff and Paula L.W. Sabloff, pp. 133–186. SFI Press, Santa Fe, New Mexico.
HTML: https://www.sfipress.org/books/emergence-of-premodern-states

* 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.
HTML: https://pul.uclouvain.be/book/?GCOI=29303100293170

* **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.
HTML: https://uscpress.com/Viewing-the-Future-in-the-Past

* **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.
HTML: https://www.ucpress.edu/ebook/9780520951990/

* Kohler, Timothy A., **R. Kyle Bocinsky**, Stefani A. Crabtree and Ben Ford
2012 Supply, Demand, Return Rates, and Resource Depression: Hunting in the Village Ecodynamics 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.
HTML: https://www.ucpress.edu/ebook/9780520951990/

* 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.
HTML: https://www.ucpress.edu/ebook/9780520951990/

Technical Reports

Hrozencik, Aaron, Gabriela Perez-Quesada, and **Kyle Bocinsky**
2024 *The Stocking Impact and Financial-Climate Risk of the Livestock Forage Disaster Program.* Report No. ERR-329. U.S. Department of Agriculture, Economic Research Service.
HTML: https://www.ers.usda.gov/publications/pub-details/?pubid=108371

Bocinsky, R. Kyle
2023 Calculating normal grazing periods using historical nClimGrid-daily data. Montana Climate Office, Missoula, Montana.
HTML: https://mt-climate-office.github.io/nclimgrid-normal-grazing-period/
Code: https://github.com/mt-climate-office/nclimgrid-normal-grazing-period

Fort Peck Assiniboine and Sioux Tribes, Spackman Mossop Michaels, and the **Montana Climate**

Office

2023 Hazard Mitigation Plan for the Fort Peck Reservation, Montana. Fort Peck Assiniboine and Sioux Tribes. August 2023 revision.

Bocinsky, R. Kyle

2020 Defining Accurate Floating Coordinate Reference Systems for Legacy Crow Canyon Projects. Crow Canyon Archaeological Center, Cortez, Colorado.
HTML: https://crowcanyon.github.io/localgrid/articles/floating-grid-trigonometry.html

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.

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.

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

2020 Review of *The Archaic Southwest: Foragers in an Arid Land*, edited by Bradley J. Vierra. *Journal of California and Great Basin Anthropology* 40(2): 244–245.
http://malkimuseum.org/wp-content/uploads/2017/02/jcgba_40-2_toc.pdf

Bocinsky, R. Kyle

2018 Climate at the Center Place. *Archaeology Southwest* 32(2–3): 32–33.
https://www.archaeologysouthwest.org/product/asw32-3/

Bocinsky, R. Kyle

2018 Skipping stones off improbable histories. *The SAA Archaeological Record* 18(2): 17–19.
http://onlinedigeditions.com/publication/?m=16146&i=486133&p=19

Marwick, B., et al.

2018 Open science in archaeology. *The SAA Archaeological Record* 17(4): 8–14.
http://onlinedigeditions.com/publication/?m=16146&i=440506&p=10.

Bocinsky, R. Kyle

2014 Drain your dammed DEMs! Here's how. *Society for Archaeological Sciences Bulletin* 37(1): 1–5.
https://socarchsci.org/bulletin/SAS3701.pdf

Software

* peer-reviewed
c on CRAN

*c Bocinsky, R. Kyle

2023 *FedData: Functions to Automate Downloading Geospatial Data Available from Several Federated Data Sources*. R package version 4.0.0
https://github.com/bocinsky/FedData.

*[c] Bevan, Andrew, Enrico Crema, **R. Kyle Bocinsky**, Martin Hinz, Philip Riris, and Fabio Silva
2023 *rcarbon: Calibration and Analysis of Radiocarbon Dates*. R package version 1.5.1
https://github.com/ahb108/rcarbon.

Bocinsky, R. Kyle
2020 *thredds: Access to THREDDS Servers*. R package version 0.0.1
https://github.com/bocinsky/thredds.

Bocinsky, R. Kyle
2022 *mcor: The core Montana Climate Office R package*. R package version 0.2.0
https://github.com/mt-climate-office/mcor.

* Price, Michael Holton and **R. Kyle Bocinsky**
2021 *baydem: Bayesian Tools for Reconstructing Past and Present Demography*. R package version 1.0.0
https://github.com/eehh-stanford/baydem.

Bocinsky, R. Kyle
2019 *demdrainer: Drain Your Dammed DEMs*. R package version 0.1.0
https://github.com/bocinsky/demdrainer.

Bocinsky, R. Kyle
2019 *tdar: R Bindings to the Digital Archaeological Record (tDAR) API*. R package version 0.1.0
https://github.com/bocinsky/tdar.

Bocinsky, R. Kyle
2019 *treecats: Tree-like Factors in R*. R package version 0.1.0
https://github.com/bocinsky/treecats.

* **Bocinsky, R. Kyle**
2021 *paleocar: Paleoclimate Reconstruction from Tree Rings using Correlation Adjusted corRelation*. R package version 3.0.0.
https://github.com/bocinsky/paleocar

Conference Presentations

Bocinsky, R. Kyle, Maureen I. McCarthy, Meghan Collins, Staci Emm, Kelsey Fitzgerald, Vicki E. Hebb, Kelsey Jencso, Ileah Kirchoff, and Trent Teegerstrom
2023 Strengthening the Role of Climate Hubs in Indian Country: Introducing the Native Climate Project. In symposium, *Translating Climate Science into Action with the USDA Climate Hubs*. 103rd American Meteorological Society Annual Meeting, Denver, Colorado. January 10, 2023.

Jencso, Kelsey, Zachary H. Hoylman, **R. Kyle Bocinsky**, Kevin Hyde, Joel Martin, and Colin Brust
2023 Navigating the Waters Ahead: The Development of a Climate Monitoring and Drought Assessment Framework for Montana. In symposium, *Advancements in Analysis and Prediction of Drought II*. 103rd American Meteorological Society Annual Meeting, Denver, Colorado. January 12, 2023.

Plenty Sweetgrass-She Kills, Ruth, Jennifer Harrington, Kyle Bocinsky, Amber Finley, Judy Dudley, John Phillips, Marea DeVille, Gerri Pearson, Selena Finley , and Paige Johnson
2022 TCU Missouri River Basin Consortium. 2022 First American Land Grants Consortium (FALCON) Annual Conference, Albuquerque, New Mexico. October 20, 2022.

Bocinsky, R. Kyle
2022 Who Owns Tribal Climate Data? A micro-workshop on Climate Data Sovereignty. Second National Tribal & Indigenous Climate Conference, St. Paul, Minnesota. August 29, 2022.

Bird, Darcy, Andrew Gillreath-Brown, **R. Kyle Bocinsky**, and Tim Kohler
2022 Climate, Maize, and Demography: A Case Study from the Southwestern United States. In symposium, *Climatic Influences on Diet, Demography, and Conflict*. Society for American

Archaeology, 87th Annual Meeting, Chicago, Illinois.

Kohler, Tim, Andrew Gillreath-Brown, **R. Kyle Bocinsky**, and Darcy Bird
2022 From Unconstrained to Density-dependent Growth: 900 years of Pueblo pre/history. In symposium, *Demography in Archaeology beyond Boom and Bust? Critical Examination of Phases of Under- and Overpopulation.* European Association of Archaeologists, 27th Annual Meeting, Kiel, Germany.

Bird, Darcy, **R. Kyle Bocinsky**, and Tim Kohler
2021 Maize, Construction, and Population Changes: One Way to Identify Sunk Cost Behaviors in Central Mesa Verde. In symposium, *People, Climate, and Proxies in Holocene Western North America.* Society for American Archaeology, 86th Annual Meeting, online.

Erick Robinson, Jacob Freeman, Robert L. Kelly, and **R. Kyle Bocinsky**
2019 The Role of Edge Effects in Late Holocene Archaeological Radiocarbon Time Series. In symposium, *Global Perspectives on Climate-Human Population Dynamics During the Late Holocene.* Society for American Archaeology, 84th Annual Meeting, Albuquerque, New Mexico.

Gillreath-Brown, Andrew, **R. Kyle Bocinsky**, and Tim Kohler
2019 The Impact of Temperature on the Transition to Maize Agriculture in the Northern Upland United States Southwest. In symposium, *Global Perspectives on Climate-Human Population Dynamics During the Late Holocene.* Society for American Archaeology, 84th Annual Meeting, Albuquerque, New Mexico.

Glowacki, Donna, Mark Varien, Grant Coffey and **R. Kyle Bocinsky**
2019 Mesa Verde Centers and Regional Analyses: Good Stuff!. In symposium, *Attention to Detail: A Pragmatic Career of Research, Mentoring, and Service, Papers in Honor of Keith Kintigh.* Society for American Archaeology, 84th Annual Meeting, Albuquerque, New Mexico.

Coffey, Grant, Mark Varien and **R. Kyle Bocinsky**
2019 Basketmaker III in the Central Mesa Verde Region: Transitions, Social Dynamics, and Population Growth. In symposium, *Adopting the Pueblo Fettle: The Breadth and Depth of the Basketmaker III Cultural Horizon.* Society for American Archaeology, 84th Annual Meeting, Albuquerque, New Mexico.

Bocinsky, R. Kyle, Andrew Gillreath-Brown and Tim Kohler
2019 The Climates of Pueblo Emergence. In symposium, *Adopting the Pueblo Fettle: The Breadth and Depth of the Basketmaker III Cultural Horizon.* Society for American Archaeology, 84th Annual Meeting, Albuquerque, New Mexico.

Bocinsky, R. Kyle
2018 Directing the arrow by chasing its tail: Climate, adaptation, and future (agri)cultural systems in the West. In plenary symposium, *Arrow of Time: Anthropological Disciplines of the Future.* 36th Great Basin Anthropological Conference, Salt Lake City, Utah.

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, 83rd 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, 83rd Annual Meeting, Washington, DC.

d'Alpoim Guedes, Jade, and **R. Kyle Bocinsky**
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, 82nd 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, 82nd 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, 82nd Annual Meeting, Vancouver, British Columbia, Canada.

Stodden, Victoria, Bertram Ludaescher, **Kyle Bocinsky**, Keith Kintigh, Tim Kohler, Timothy McPhillips, and Johnathan Rush
2016 Querying Provenance Information: Basic Notions and an Example from Paleoclimate Reconstruction. American Geophysical Union, Fall Meeting 2016, San Francisco, California.

Varien, 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, 39th 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, 81st 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, 81st 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, 81st 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.* 15th Biennial Southwest Symposium, Tucson, Arizona.

Schwindt, Dylan M., **R. Kyle Bocinsky**, Scott G. Ortman, Donna M. Glowacki, Mark D. Varien, 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.* 15th 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, 80th 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, 80th 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, 80th 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, 80th 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. 10th 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. Anscheutz, 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, 79th 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, 79th 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, 79th 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, 79th 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, 78th 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, 78th 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.* 66th 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, 77th 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, 77th 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, 77th 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, 77th 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, 76th 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, 76th 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, 76th 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.* 177th 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, 75th 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, 75th 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, 75th 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, 74th 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, 73rd Annual Meeting, Vancouver, British Columbia, Canada.

Forums, Workshops, & Symposia

2023 Planning team & working group facilitator, *Workshop for Building Drought Resilience in a Changing Climate with Upper Columbia and Missouri Basin Tribes*. Workshop Co-hosted by NOAA NIDIS and the Confederated Salish and Kootenai Tribes, Polson, MT. September 26–28, 2023.

2022 Co-Organizer, *Maize Database Project All-hands Meeting with Hopi Cultural Preservation Office*. Workshop, Flagstaff, AZ. September 7–10, 2022.

2022 Co-Organizer, *All Climate Is Local: A resilience workshop for TCU extension, faculty, and students*. Workshop, 2022 First American Land Grants Consortium Annual Conference, Albuquerque, NM.

2019 Participant, *Healthy Forests, Healthy Watersheds*, Workshop, Laboratory of Tree Ring Research, University of Arizona, Tucson, AZ. November 13–15, 2019.

2019 Organizer, *Plenary Workshop — Native Waters on Arid Lands: Using wisdom from the past to guide the future of traditional practices, farming, ranching, forestry, and natural resource management*. Workshop, Fifth Annual Native Waters on Arid Lands Tribal Summit, Reno, Nevada.

2018 Organizer, *Building Research Capacity at Tribal Colleges and Universities and in Tribal Communities*. Forum, Fourth Annual Native Waters on Arid Lands Tribal Summit, Reno, Nevada.

2018 Discussant, *SKOPE: How we are making paleoenvironmental data useful and accessible*. Forum, Society for American Archaeology, 83rd Annual Meeting, Washington, DC.

2018 Participant, *Conceptualizing a Geospatial Software Institute (GSI)*. Workshop 2: Geospatial Use Cases and Core Technical Capabilities, CyberGIS Center for Advanced Digital and Spatial Studies, Chicago, Illinois.

2017 Guest editor, *First Farmers, First Farms: Landscape Ecology of the Early Neolithic*. Edited Section, Journal of Ethnobiology.

2017 Organizer, *Traditional Knowledge & Ecology—Building Agri-Cultural Resilience through Traditional Values*. Forum, Third Annual Native Waters on Arid Lands Tribal Summit, Reno, Nevada.

2017 Co-organizer, *Connecting Mesa Verde and the Rio Grande through the Study of Pueblo Foodways*. Forum, New Mexico History Museum, Santa Fe, New Mexico. 22 April 2017.

2017 Discussant, *Aztec at the Crossroads and in the Crosshairs: 101 Years of Research in One Convenient Symposium*. Forum, Society for American Archaeology, 82nd Annual Meeting, Vancouver, British Columbia, Canada.

2017 Discussant, *How to do Archaeological Science using R*. Forum, Society for American Archaeology, 82nd Annual Meeting, Vancouver, British Columbia, Canada.

2017 Participant, *Whole Tale: Computing environments for reproducibility*. Prov-a-Thon and architecture workshop, Santa Ana Pueblo, New Mexico.

2016 Discussant, *Traditional Knowledge & Ecology*. Forum, Second Annual Native Waters on Arid Lands Tribal Summit, Las Vegas, Nevada.

2016 Organizer, *Archaeologies of Inclusion: Towards a Politics of Engagement*. Forum, Society for American Archaeology, 81st Annual Meeting, Orlando, Florida.

2015 Organizer, *Out in the Field: Queer Experiences and Challenges in Archaeology*. Forum, Society for American Archaeology, 80th Annual Meeting, San Francisco, California.

2014 Discussant, *Error, Sensitivity Analysis, and Uncertainty in Archaeological Computational Modeling*. Forum, Moderated by Marieka Brouwer Burg. Society for American Archaeology, 79th Annual Meeting, Austin, Texas.

2012 Chair, *What Role did Changing Temperatures Play in the Success of North American Farming Societies in the Last Prehispanic Millennium?* Symposium, Society for American Archaeology, 77th Annual Meeting, Memphis, Tennessee.

2011 Participant, *Graduate Workshop in Computational Social Science*. Directed by John Miller and Scott Page. Santa Fe Institute, Santa Fe, New Mexico.

2010 Co-organizer, *The Village Ecodynamics Project II*. Symposium, Society for American Archaeology, 75th Annual Meeting, St. Louis, Missouri.

Academic Service

Peer-review

American Antiquity — 2019, 2016
Frontiers in Earth Science — 2021
Journal of Anthropological Archaeology — 2019
Journal of Archaeological Method and Theory — 2022, 2018, 2016, 2015
Journal of Archaeological Science — 2020, 2017, 2016
Journal of Archaeological Science: Reports — 2021, 2020, 2015
Journal of Ethnobiology — 2015
KIVA: Journal of Southwestern Anthropology and History — 2022, 2020
PLoS ONE — 2018
Proceedings of the National Academy of Sciences — 2019

Proposal review

Graduate Women in Science — 2020
National Science Foundation — 2022, 2019

Society for American Archaeology

2023–present Chair, Committee on Awards and Scholarships
2019–present Member, Bylaws Committee
2019–2022 Chair, Investment Committee
2020, 2021 Member, Program Committee
2010 Organizer, *Exploratory Meeting for the Creation of an LGBT Archaeologists Interest Group*, 75th Annual Meeting, St. Louis, Missouri

University of Montana
2023 Member, Scholarship Committee

Department of Society and Conservation, University of Montana
2023–present Department Representative, University Faculty Assocoation
2023–present Committee chair, Masters — Paige Johnson (Environmental Studies)
2023–present Committee member, Masters — Sophie Morris
2019–2022 Committee member, Doctoral — Ada Smith (Degree granted December 2022)

Montana Climate Office, University of Montana
2018 Mentor, Baccalaureate — Carly Kuske, Montana Drought & Climate project intern
2018 Mentor, Baccalaureate — Colin Brust, Montana Space Grant Consortium intern

Crow Canyon Archaeological Center, Cortez, Colorado
2019–2020 Mentor, Post-doctoral — Michelle Turner

Department of Anthropology, University of Colorado, Boulder
2019–2022 Mentor, Doctoral — Kaitlyn Davis

Department of Anthropology, Washington State University
2020–present Committee member, Doctoral — Darcy Bird
2018–2023 Mentor, Doctoral — Andrew Gillreath-Brown
2013 Co-organizer, Interdisciplinary Research in Anthropology and the Sciences Conference
2011 Chair, Banquet Committee, Anthropology Graduate Organization
2009 Chair, Lipe Scholar Committee, Anthropology Graduate Organization
2008–2009 President, Anthropology Graduate Organization

Whole Tale: Computing environments for reproducibility
2017 Mentor, Whole Tale Summer Internship, Chicago, Illinois — Pratik Shrivastava

National Science Foundation IGERT.org Trainee Advisory Board
2011–2012 Board member, The National Science Foundation and TERC

Outreach, Press, & Broader Impacts

Enhancing Climate-smart Disaster Relief in FSA Programs

Public data

- 2023 *Annual County Eligibility Data from the Livestock Forage Disaster Program, 2012–2022*. An archive of the annual county-level eligibility data for the Livestock Forage Disaster Program, acquired via Freedom of Information Act (FOIA) request 2023-FSA-00937-F made to the US Department of Agriculture (USDA) Farm Production and Conservation Business Center (FPAC-BC). The request was submitted on December 5, 2022, and was fulfilled on January 6, 2023.
  HTML: https://github.com/mt-climate-office/fsa-lfp-eligibility

Native Drought Resilience: CSKT Actions for Climate-Drought Adaptation

Public lecture

- 2022-12-13 *Interweaving Traditional Knowledge and mainstream science to address long-term drought resilience priorities of the Confederated Salish and Kootenai Tribes*, The Wilderness Society.

Press coverage

- 2023-06-12 New Mesonet Station Records & Delivers Climate Data at the Confederated Salish and Kootenai Tribes Bison Range. *Drought.gov*. 12 June 2023. [html]
- 2023-05-30 New Mesonet station records and shares weather data at CSKT Bison Range. *KPAX (CBS)*. [html]
- 2023-05-25 New Mesonet station will bring up to date weather information to the CSKT Bison Range. *Charkoosta News*. [html]
- 2023-05-25 New Meteorological Station Delivers Real-time Climate Data to CSKT Bison Range. *Flathead Beacon*. [html]
- 2023-05-22 Weather tower to go in on CSKT Bison Range. *NBC Montana*. [html]

- 2023-05-17 New Montana Mesonet Station Installed on the CSKT Bison Range. *Native Climate*. [html]

Native Climate: Strengthening the role of Climate Hubs in Indian Country

Public data

- 2022 *Native Climate Tribal College CMIP6 Agricultural Climate Projections*. Downscaled projections for 35 Tribal colleges and universities across the contiguous US. A product of the Native Climate Project. [html]

Guest lecture (classroom)

- 2023-07-25 *Strengthening the Role of the Climate Hubs in Indian Country*, invited lecture, Environmental Biology (BIO 105, Prof. Mark Clytus).
- 2023-07-13 *Wildfile Smoke Resilience Workshop*, TRIO Upward Bound, University of Montana.
- 2023-04-26 *Strengthening the Role of the Climate Hubs in Indian Country*, invited lecture, Environmental Biology (BIO 105, Prof. Mark Clytus).
- 2023-03-27 *Climate Data in R*, invited lecture, GEOG 701, University of Nevada, Reno (Prof. Christine Albano).

Public lecture

- 2023-09-26 *Drought in a Changing World: The Past, Present, and Future of Drought Adaptation and Resilience in the Columbia and Missouri River Basins*, Workshop for Building Drought Resilience in a Changing Climate with Upper Columbia and Missouri Basin Tribes.
- 2023-09-19 *Western Drought Update*, Native Climate Working Group webinar.
- 2023-08-23 *Western Drought Update*, Native Climate Working Group webinar.
- 2023-06-20 *Western Drought Update*, Native Climate Working Group webinar.
- 2023-03-17 *Western Drought Update*, Native Climate Working Group webinar.
- 2023-03-14 *Observed Trends and Climate Outlook: A review of Montana's past, present, and future*, AgroClimate Workshop for Agricultural & Forestry Professionals and Partners, Billings, MT.
- 2023-02-06 *Observed Trends and Climate Outlook: A review of Montana's past, present, and future*, Mountain Rain or Snow Workshop, Missoula, MT.
- 2022-09-20 *Western Drought Update*, Native Climate Working Group webinar.
- 2022-06-23 *AZ Drought Update and FRTEP Drought Monitoring Program*, AZ Federally Recognized Tribes Extension Program monthly call.
- 2022-05-13 *Western Drought Update*, Native Climate Working Group webinar.

Mentorship

- 2023 *All Climate is Local*. Mentored 20 students through their ACL projects; recorded and edited their final presentations. [html]

Drought Assessment has been Outpaced by Climate Change: Empirical Arguments for a Paradigm Shift

Public lecture

- 2023-04-04 *The Futures and Fortunes of Drought Relief under Climate Change*, University of Montana WA Franke College of Forestry and Conservation, Conservation Social Science Seminar.
- 2022-10-06 NOAA National Integrated Drought Information System Executive Committee meeting, Washington, DC.
- 2022-09-13 Webinar and discussion, Drought Monitoring in a Changing Climate.

Sustainable Agricultural Systems in the Past, Present, and Future

2023-02-03 *Reconstructing Climates of the Past*. Radio/Podcast interview. Science Moab. [html]

Guest lecture (classroom)

- 2022-11-07 *Visions of Desert Futures in Arid Pasts*, University of Montana WA Franke College of Forestry and Conservation, Climate & Society.
- 2022-11-03 *Visions of Desert Futures in Arid Pasts*, Harvard University Graduate School of Design, Desert Futures.

Public lecture

- 2020-01-24 Crow Canyon Webinar Series.
- 2019-08-12 Four Corners Lecture Series, Cortez, Colorado. Invited by the Hisatsinom Chapter of the Colorado Archaeological Society.
- 2016-05-21 In Smithsonian Associates Weekend Program: *Vanished! Behind the Mystery of Mesa Verde*, S. Dillon Ripley Center, Washington, DC.

Experimental Farming: The Pueblo Farming Project and Beyond

Public lecture

- 2017-04-22 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.

Origins: The Journey of Humankind

2017-04-17 Featured expert, The National Geographic Channel. Featured in Season 1, Episode 6: *Building the Future*. Aired April 17, 2017. [html].

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

Popular article

- 2016-04-06 Do prehistoric Pueblo populist revolutions presage American politics today? Kyle Bocinsky and Tim Kohler, *The Conversation*. [html]

Press coverage

- 2016-04-08 Climate and the Collapse of Ancient Civilizations. Interview on NPR's *Science Friday*. [html]
- 2016-03-31 From drought, seeds of discontent. Staci Matlock, *Santa Fe New Mexican*. [html]
- 2016-04-01 Social collapse in ancient Pueblo civilization linked to climate change. Hannah Osborne, *International Business Times*.[html]
- 2016-04-10 Researchers: Four Corners pueblo culture sensitive to climate. Emery Cowan, *Arizona Daily Sun*, Flagstaff, Arizona. [html]

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

Public lecture

- 2016-07-25 Southwest Seminar, Santa Fe, New Mexico.
- 2016-01-18 Arizona Archaeological and Historical Society, Tucson, Arizona.
- 2015-08-04 Four Corners Lecture Series, Cortez, Colorado. Invited by the Hisatsinom Chapter of the Colorado Archaeological Society.

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

Blog coverage

- 2016-03-15 Using the new R package, FedData, to access federal open datasets (including interactive graphics). *ZevRoss*.[html]

Travel, Outreach, & Training Grants

The Crow Canyon Ochre Project: Building Online Communities for Heritage Research and Education

2020 Outreach grant, Colorado Humanities CH-CARES program, $5,250 awarded to CCAC

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.

Courses Taught

University of Montana, Missoula, Montana

Fall 2024 Instructor, *FORS 350 / GPHY 488: (Forestry) Applications of GIS*, 3 credits, 48 students

An advanced GIS course in thematic mapping, offered as part of the Certificate in GIS

Spring 2023 Co-facilitator (with Jennifer Thomsen), *NRSM 594: Conservation Social Science Seminar*, 1 credit, graduate

Presentations by student, faculty, and associates on issues and topics in their field

Washington State University, Pullman, Washington

Fall 2015 Co-instructor (with Edward Hagen), *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

Professional Affiliations

Register of Professional Archaeologists, Registrant ID 46729296
Society for American Archaeology
American Association for the Advancement of Science