

Stefani A. Crabtree, Ph.D.

CONTACT INFORMATION

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RESEARCH INTERESTS

Computational social science; archaeoecology; food webs; coupled human-natural systems; human dimensions of climate change; complex adaptive systems; network science (methods, theories, applications); agent-based modeling.

APPOINTMENTS

Current

- Assistant Professor in Social-Environmental Modeling, Department of Environment and Society, College of Natural Resources, Utah State University

Professional and International Positions

- External Professor, The Santa Fe Institute
- Ecology Center, Professor and Research Associate, Utah State University
- Research Associate, Crow Canyon Archaeological Center
- Research Associate, Australian Research Council Centre of Excellence for Australian Biodiversity and Heritage
- Visiting Research Scholar, the Levin Lab at Princeton University Ecology & Evolutionary Biology
- Board of Directors, the Coalition for Archaeological Synthesis
- Board of Directors, NOMAD Science Mongolia

Past

- ASU-SFI Biosocial Complex Systems Fellow, The Santa Fe Institute (June 2019-Aug 2023)
- Fellow, Centre de Recherches Interdisciplinaires, Paris France (January 2019-July 2019)
- Post-doctoral scholar, The Pennsylvania State University (Jan 2017-December 2018)
- Researcher, Laboratory for Social Minds, Indiana University (2016)
- Research Fellow, Department of Anthropology, Washington State University (2009-2016)
- Teaching Fellow, Department of Anthropology, Washington State University (2012-2016)

EDUCATION

- Ph.D. Archéologie, Territoires, Environnement, Université de Franche-Comté, Besançon, Franche-Comté, France. February, 2017
- Ph.D. Department of Anthropology, Washington State University, Pullman, WA. December, 2016
- M.A. Department of Anthropology, Washington State University, Pullman WA. 2012
- B.A. Department of Anthropology, Scripps College, Claremont, CA. *Minor: French.* 2004

MAJOR FELLOWSHIPS AND GRANTS (PI or co-PI)

Grants Received

2023	Investigating How Rapid Climate Change Impacts Pastoralist Food Webs in Northern Mongolia. The Lou Schuyler Memorial Grant. PI. \$10,000.
2022-2029	ARC Centre of Excellence for Indigenous and Environmental Histories. Australian Research Council. Co-PI. \$35 million AUD.
2022-2027	From the Desert to the Sea: Managing Rock Art, Country and Culture, Australian Research Council. Co-PI. \$4.6 million AUD. Grant ID # LP200300886.
2023-2033	Ecological Dynamics in a Novel Biosphere: <i>ECONOVO</i> . Senior Personnel. Danish National Research Foundation. €8 million.
2021-2023	Complexity Science for the Study of the Human Past Research Collaboration Network. University of Aarhus, Denmark. Co-PI. 288,000 DKK.
2020-2022	John Templeton Foundation. Progress in Complexity Science: Three Research Syntheses from the Santa Fe Institute. Grant ID # 61988. Co-PI. \$173,304.
2020-2023	The National Geographic. Preserved in the Permafrost: Lives of the Mongol Elite. Senior Personnel. \$30,000.
2020-2025	Netwerk voor Agent-gebaseerd modelleren van Sociaal-ecologische systemen in Archeologie (NASA). Scientific Research Networks, Flanders Research Foundation. Co-PI. €100,000.
2018-2023	Coalition for Archaeological Synthesis. The ArchaeoEcology Project. PI. \$50,000.
2017	Rust Family Foundation Grant. The Northern Mongolia Archaeology Project. PI. \$5000.
2015-2019	National Science Foundation. Adapting Subsistence Regimes to the Roof of the World: A case study from the Jiuzhaigou National Park. Project Personnel. \$195,536.
2010-2015	National Science Foundation Graduate Research Fellowship. PI. \$129,000.
2013-2014	Chateaubriand Fellowship Program, Humanities and Social Science. PI. €7500.
2013-2014	National Science Foundation Graduate Research Opportunities Worldwide. PI. \$5000.
2004-2005	Thomas J. Watson Fellowship. PI. \$22,000.

Grants Currently in Review or Preparation

In Review CAREER: The human place in archaeological ecosystems: Leveraging quantitative social-science methods and archaeological fieldwork in the Ancestral Pueblo Southwest. (PI) \$498,674.

In Prep The Dynamic Impacts of Environmental Change on Rangeland Ecosystems and Traditional Livelihoods in Transitional Zones. National Science Foundation Arctic Research Opportunities. (PI). \$500,000.

PUBLICATIONS Citations: 767; H-index: 14; i10-index: 20

Peer-reviewed journal articles

- 2023 **Crabtree, Stefani A.**, Jennifer G. Kahn, Rowan Jackson, Jacob Earnshaw, Iain McKechnie, Philip Verhagen, Spencer A. Wood, Patrick V. Kirch, Jennifer A. Dunne, Andrew Dugmore.
“Why are sustainable practices often elusive? The role of information flow in the management of networked human-environment interactions.” *Global Environmental Change* 78:102597. <https://doi.org/10.1016/j.gloenvcha.2022.102597>
- 2023 Paul L. Hooper, Adam Z. Reynolds, Julia K. Clark, Bayaraa Jamsranjav, **Stefani A. Crabtree**. Inheritance and Inequality among Nomads of South Siberia. *Philosophical Transactions of the Royal Society B*. <https://doi.org/10.1098/rstb.2022.0297>
- 2023 Ross, Cody, Monique Borgerhoff Mulder, Jennifer Smith, Eric Alden Smith, Sergey Gavrilets, Kim Hill, Anne Pusey, Susan Perry, Claire El Mouden, Daniel Nettle, **Stefani A. Crabtree**, et al. Reproductive inequality in humans and other mammals. *Proceedings of the National Academy of Sciences* 120(22):e2220124120. <https://doi.org/10.1073/pnas.2220124120>
- 2023 Corey A. Bradshaw, **Stefani A. Crabtree**, Devin A. White, Sean Ulm, Michael I. Bird, Alan N. William, Frederik Saltré. Directionally supervised cellular automaton for the initial peopling of Sahul. *Quaternary Science Reports*. 303:107971. <https://doi.org/10.1016/j.quascirev.2023.107971>
- 2022 **Stefani A. Crabtree**, Jennifer A. Dunne. “Toward a Science of Archaeoecology” *Trends in Ecology and Evolution* 37(11):976-984. <https://doi.org/10.1016/j.tree.2022.07.010>
- 2022 Fabio Silva, Fiona Coward, Kimberley Davies, Sarah Elliott, Emma Jenkins, Adrian C. Newton, Philip Riris, Marc Vander Linden, Jennifer Bates, Elena Cantarello, Dan Contreras, **Stefani A. Crabtree**, Enrico Crema, Mary Edwards, Tatiana Filatova, Ben Fitzhugh, Hannah Fluck, Jacob Freeman, Kees Klein Goldewijk, Marta Krzyzanska, Dan Lawrence, Helen Mackay, Marco Madella, S. Yoshi Maezumi, Robert Marchant, Sophie Monsarrat, Kathleen D. Morrison, Ryan J. Rabett, Patrick Roberts, Mehdi Saqalli, Rick Stafford, Jens-Christian Svenning, Nicki J. Whitehouse, Alice Williams.
“Developing transdisciplinary approaches to sustainability challenges: the need to model socio-environmental systems in the longue durée.” *Sustainability* 14(16):10234. <https://doi.org/10.3390/su141610234>.
- 2022 Zirou Qiua, Baltazar Espinoza, Vitor V. Vasconcelos, Chen Chen, Sara M. Constantino, **Stefani A. Crabtree**, Luojun Yang, Anil Vullikantia, Jiangzhuo Chen, Jörgen Weibull, Kaushik Basu, Avinash Dixit, Simon Levin, and Madhav Marathe.

- “Understanding the co-evolution of mask-wearing and epidemics : a network perspective.” *Proceedings of the National Academy of Sciences*. 119 (26) e2123355119. <https://doi.org/10.1073/pnas.2123355119>
- 2022 Jennifer G. Kahn, Abbigail Buffington, Claudia Escue, and **Stefani A. Crabtree**. “Social and Ecological Factors Effect Long-Term Resilience of Voyaging Canoes in Pre-Contact Eastern Polynesia: a Multiproxy Approach from the ArchaeoEcology Project.” *Frontiers in Ecology and Evolution*. 9:942. <https://doi.org/10.3389/fevo.2021.750351>
- 2021 **Crabtree, Stefani A.**, Devin A. White, Corey J. A. Bradshaw, Frédéric Saltré, Alan N. Williams, Robin J. Beaman, Michael I. Bird, Sean Ulm. “Landscape rules predict optimal super-highways for the first peopling of Sahul.” *Nature: Human Behaviour*. 5: 1303-1313. <https://dx.doi.org/10.1038/s41562-021-01106-8>
- 2021 **Stefani A. Crabtree**, Sarah C. Klain. “Weaving Frames of Knowledge.” *Australian Archaeology*. 87:3, 307-308, DOI: [10.1080/03122417.2021.1991399](https://doi.org/10.1080/03122417.2021.1991399)
- 2021 **Crabtree, Stefani A.**, Jennifer A. Dunne, Spencer Wood. “Ecological Networks and Archaeology.” *Antiquity*. 95 (381): 812-825.
- 2021 Bird, Michael I., **Stefani A. Crabtree**, Jordahna Haig, Sean Ulm, Christopher Wurster.
“A Global Carbon and Nitrogen Isotope Perspective on Modern and Ancient Human Diet.” *Proceedings of the National Academy of Sciences*. 118(19).
- 2021 Verhagen, J. W. H. Philip, **Stefani A. Crabtree**, Hans Peeters, Daan Raemaekers. “Reconstructing human centered interaction networks of the Swifterbant culture in the northwestern Netherlands: An example from the ArchaeoEcology Project.” *Applied Sciences*. 11(11):4860.
- 2021 Bradshaw, Corey J., Justin M. Chalker, **Stefani A. Crabtree**, Bart A. Eijkelkamp, John A. Long, Justine R. Smith, Kate Trinajstic, Vera Weisbecker. “A fairer way to compare researchers at any career stage and in any discipline using open-access citation data.” *PLoS One*. 16(9): e0257141. <https://doi.org/10.1371/journal.pone.0257141>
- 2021 Zachary D. Miller, Wayne Freimund, **Stefani A. Crabtree** and Ethan P. Ryan. “No Limits of Acceptable Change: A Proposed Research Framework for Informing Visitor Use Management in the Context of Cultural Resources.” *Sustainability*, 13(1):377. <https://doi.org/10.3390/su13010377>
- 2020 **Crabtree, Stefani A.**, and Lewis Borck. Social Networks for Archaeological Research. *Encyclopedia of Global Archaeology*. C. Smith (Ed.) Springer, NY 2019 Edition. 2019. doi:10.1007/978-3-319-51726-1_2631-2

- 2019 **Crabtree, Stefani A.**, Benjamin Davies, Iza Romanowska, Kathryn Harris. "Outreach in Archaeology with Agent-based Modeling." *Advances in Archaeological Practice*, 7(2): 194-202. doi:10.1017/aap.2019.4
- 2019 **Crabtree, Stefani A.**, Douglas W. Bird, Rebecca Bliege Bird. "Subsistence Transitions and the Simplification of Ecological Networks in Western Australia." *Human Ecology*. 2019. <https://doi.org/10.1007/s1074>
- 2019 Romanowska, Iza, **Stefani A. Crabtree**, Benjamin Davies, Kathryn Harris. Agent-based Modeling for Archaeologists. Part 1 of 3. *Advances in Archaeological Practice*, 7(2), pp. 178-184. doi:10.1017/aap.2019.6
- 2019 Benjamin Davies, Iza Romanowska, Kathryn Harris, **Stefani A. Crabtree**. Combining Geographic Information Systems and Agent-Based Models in Archaeology: Part 2 of 3. *Advances in Archaeological Practice*, 7(2), pp. 185-193. doi:10.1017/aap.2019.5
- 2018 Moritz, Mark, Roy Behnke, Christine Beitzl, Rebecca Bliege Bird, Rafael Chiaravalloti, Julia K. Clark, **Stefani A. Crabtree**, Sean Downey, Ian M. Hamilton, Sui Chian Phang, Paul Scholte, James Wilson. "Emergent Sustainability in Open Property Regimes." *Proceedings of the National Academy of Sciences*, 115(51)12859-12867.
- 2017 **Crabtree, Stefani A.**, Lydia J. S. Vaughn, Nathan T. Crabtree "Reconstructing Ancestral Pueblo food webs in the southwestern United States." *Journal of Archaeological Science*, 81:116-127.
- 2017 **Crabtree, Stefani A.**, R. Kyle Bocinsky, Paul L. Hooper, Susan C. Ryan, and Timothy A. Kohler. "How to Make a Polity (in the Central Mesa Verde Region)." *American Antiquity*, 82(1), 71-95.
- 2016 D'alpoim Guedes, Jade, **Stefani A. Crabtree**, R. Kyle Bocinsky, Timothy A. Kohler "21st Century Approaches to Ancient Problems: Climate and Society." *Proceedings of the National Academy of Sciences*, 113(51), 14483-14491; doi: 10.1073/pnas.1616188113.
- 2016 **Crabtree, Stefani A.**, and Benjamin A. Bellorado "Using Cross-Media Approaches to Understand Invisible Industry: How Cotton Production Influenced Pottery Designs and Kiva Murals in Cedar Mesa." *Kiva*, 82(2), 174-200.
- 2016 **Crabtree, Stefani A.** "Simulating Littoral Trade: Modeling the trade of wine in the Bronze to Iron Age transition in Southern France." *Land* **2016**, 5(1), 5; doi:10.3390/land5010005.
- 2015 Clark, Julia K., **Stefani A. Crabtree** "Examining Social Adaptations in a Volatile Landscape in Northern Mongolia Via the Agent-Based Model Ger Grouper." *Land* **2015**, 4(1), 157-181; doi:10.3390/land4010157.

- 2015 **Crabtree, Stefani A.** “Inferring Ancestral Pueblo Social Networks from Simulation in the Central Mesa Verde” *Journal of Archaeological Method and Theory*: Volume 22, Issue 1 (2015), Page 144-181. DOI 10.1007/s10816-014-9233-8
- 2013 Cockburn, Denton, **Stefani A. Crabtree**, Timothy A. Kohler, R. Kyle Bocinsky “Simulating Social and Economic Specialization in Small-scale Agricultural Societies.” *Journal of Artificial Societies and Social Simulation*. Vol 16(5).
- 2013 **Crabtree, Stefani A.** and Ludovic Malécot “The Solitary Goddess: Evidence of Roman and Gaulish syncretism in the *Déesse de l'Abondance* of Rom, France.” *The European Archaeologist*. Vol 39, p. 7-14.
- 2012 **Crabtree, Stefani A.** and Timothy A. Kohler “Modeling Across Millennia: Interdisciplinary Paths to Ancient Socio-natural Systems” in special issue Modeling Across Millennia: Interdisciplinary Paths to Ancient Socio-natural Systems. *Ecological Modelling*. Vol 241, p. 2-4.
- 2012 Timothy A. Kohler* R. Kyle Bocinsky, Denton Cockburn, **Stefani A. Crabtree**, Mark Varien, Ken Kolm, Schaun Smith, Scott Ortman, and Ziad Kobti “Modelling Prehispanic Societies in their Ecosystems” in special issue Modeling Across Millennia: Interdisciplinary Paths to Ancient Socio-natural Systems. *Ecological Modelling*. Vol 241, p. 30-41.

Peer Reviewed Articles in Review

- In Review* **Crabtree, Stefani A.**, Colin Wren, Avinash Dixit, Simon A. Levin. “Influential Individuals Can Promote Prosocial Practices in Heterogeneous Societies: A Mathematical and Agent-Based Model.” *Submitted To: PNAS Nexus*.
- In Review* Stan Rhodes, **Stefani A. Crabtree**, Jacob Freeman. “An agent-based model of hierarchical information-sharing organizations in asynchronous environments” *Submitted To: Journal of Artificial Society and Social Simulation*.
- In Review* Corey A. Bradshaw, Alan N. William, Sean Ulm, Haidee Cadd, Michael I. Bird, **Stefani A. Crabtree**, Devin A. White, Peter Veth, Frederik Saltré. Stochastic population projections in Sahul refine the human-refugia hypothesis for early Last Glacial Maximum. Submitted to *Nature Communications*.
- In Review* Wolpert, David H., Michael H. Price, **Stefani A. Crabtree**, Timothy A. Kohler, Jürgen Jost, James Evans, Peter F. Stadler, Hajime Shima, Manfred D. Laubichler. “The Past as a Stochastic Process.” Submitted to *Journal of Computational Approaches in Archaeology*.

Books (peer reviewed)

- 2021 Romanowska, Iza, Colin D. Wren and **Stefani A. Crabtree**. Agent-based modeling for archaeology: simulating the complexity of societies. *SFI Press*. Santa Fe, NM.

ISBN-13: 978-1947864252. <https://www.sifipress.org/books/agent-based-modeling-archaeology>

In Preparation **Crabtree, Stefani A.** Thinking Through Archaeological Complexity. *Routledge Press. Forthcoming 2024.*

Peer reviewed Book chapters

In Press Timothy Newfield, Markus Stoffel, Christophe Corona, Dominik Fleitmann, Inga Labuhn, **Stefani A. Crabtree.** “Paleoclimatology and the early Middle Ages: convergences and divergences.” in B. Effros ed., *Archaeology for Historians: Why Material Evidence is Changing How We Understand the Early Middle Ages* (University of California Press, 2023 expected).

In Press **Crabtree, Stefani A.** “Understanding Humanity Past and Present via Agent-Based Modeling.” UMMMAA at 100: Conference proceedings [working title]. Publication expected 2024. Anthropological Papers, No. 101. Ann Arbor: University of Michigan Museum of Anthropological Archaeology Press.

In Press **Crabtree, Stefani A.** and Jennifer A. Dunne. “Food Webs.” The Oxford Handbook of Archaeological Networks. Matthew A. Peeples, Jessica Munson, Barbara Mills and Tom Brughmans, Editors. Oxford University Press, Oxford, UK.

2021 **Crabtree, Stefani A.** “What History Can Teach Us about Resilience?” The Complex Alternative: Complexity Scientists on the COVID-19 Pandemic. Geoffrey West and David Krakauer, editors. The Santa Fe Institute Press, Santa Fe, NM.

2021 **Crabtree, Stefani A.** The simulation of trading in the first Iron Age: a highly stylised model. Settling the World. Lena Sanders and Laure Nuninger, Editors. Presses Universitaires François Rabelais ; Paris, France.

2020 Dugmore, Andrew, Rowan Jackson, David Cooper, **Stefani Crabtree**, George Hambrecht, Megan Hicks, Viðar Hreinsson, Árni Daníel Júlíusson, Anthony Newton, Richard Streeter and Tom McGovern. “Continuity in the face of a slowly unfolding catastrophe: the persistence of Icelandic settlement despite large-scale soil erosion.” In Going Forward by Looking Back: Archaeological Perspectives on Socio-ecological Crisis, Response, and Collapse. Felix Reide and Payson Sheets, Editors. Berghan Books, New York NY.

2018 **Stefani A. Crabtree.** La simulation des échanges au premier Age du Fer : un modèle très stylisé. pp. 229-234. Peupler la Terre: De la préhistoire à l'ère des métropoles. Presses Universitaires François Rabelais ; Paris, France.

2018 Kohler, Timothy A., **Stefani A. Crabtree**, R. Kyle Bocinsky and Paul Hooper “Sociopolitical Evolution in Midrange Societies: The Prehispanic Pueblo Case.” In The Emergence of Premodern States: New Perspectives on the Development of Complex Societies. Sabloff, JA and Sabloff, PLW, Editors. SFI Press, Santa Fe, NM.

- 2018 Laure Nuninger, Pierre Garmy, Thérèse Libourel, **Stefani A. Crabtree**, Jean-Luc Fiches, Jacques Ferber. Modéliser les mutations territoriales de l'Âge du Fer dans le midi de la Gaule (VIe-Ve siècles av. J.-C.). pp. 213-228. Peupler la Terre: De la préhistoire à l'ère des métropoles. Presses Universitaires François Rabelais ; Paris, France.
- 2018 Timothy A. Kohler, **Stefani A. Crabtree**. « Village and Polity Formation in Pueblo Societies: How Population Growth Channels Social Processes in Neolithic Societies ». Peupler la Terre: De la préhistoire à l'ère des métropoles. Presses Universitaires François Rabelais ; Paris, France.
- 2018 Nuninger, Laure, Lena Sanders, Timothy A. Kohler, **Stefani A. Crabtree** et al. Un cadre conceptuel générique pour décrire des transitions dans les systèmes de peuplement - Application à un corpus de douze transitions entre 70000 BP et 2050. Peupler la Terre: De la préhistoire à l'ère des métropoles. Presses Universitaires François Rabelais ; Paris, France.
- 2012 Kohler, Timothy A., R. Kyle Bocinsky, **Stefani A. Crabtree** and Ben Ford. *Exercising the Model: Settlement Efficiency and Changes in Locational Practice*, in Emergence and Collapse of Early Villages: Models of Central Mesa Verde Archaeology. Cal Press. p. 153-164.

Book Reviews, Other publications and works

- 2023 **Crabtree, Stefani A.** Archaeoecology: Using archaeological data to study ecosystems of the human past. Past Global Changes Magazine. <https://pastglobalchanges.org/publications/pages-magazines/pages-magazine>
- 2021 **Crabtree, Stefani A.**, Al Williams, Corey Bradshaw, Devin White, Fred Saltré, Sean Ulm. We mapped the 'super-highways' the First Australians used to cross the ancient land. The Conversation. <https://theconversation.com/we-mapped-the-super-highways-the-first-australians-used-to-cross-the-ancient-land-154263>
- 2020 **Crabtree, Stefani A.**, Laurent Hébert-Dufresne. « Face aux changements, la transdisciplinarité : le cas des cryonoses. » *Magazine ACFAS*, 22 septembre 2020.
- 2020 **Crabtree, Stefani A.** Understanding the Deep Socioecological System of Beringia via Bathsheba Demuth's Floating Coast. *Current Anthropology* 61(5) October 2020.
- 2020 **Crabtree, Stefani A.**, and Evan A. Holt. Studying the Human Place in Food Webs. *Traditional Ecological Knowledge: National Parks Service*. <https://www.nps.gov/subjects/tek/stefani-a-crabtree-phd-with-evan-a-holt-ph-d-student-both-of-utah-state-university.htm>
- 2019 **Crabtree, Stefani A.**, An Encyclopedia of complex systems. *Physics Today* 72(11). doi: <https://10.1063/PT.3.4344>

- 2018 **Crabtree, Stefani A.** *American Antiquity*. Review of: Connected Communities: Networks, Identity, and Social Change in the Ancient Cibola World. MATTHEW A. PEEPLES. 2018. The University of Arizona Press, Tucson. vii + 276 pp. (hardback).
- 2017 **Crabtree, Stefani A.** *Journal of Artificial Societies and Social Simulation*. Review of: Simulating Prehistoric and Ancient Worlds (Computational Social Sciences), Barceló, Juan A. and Castillo, Florencia Del (eds.). Springer-Verlag: Berlin. Vol 20(20):2017. <http://jasss.soc.surrey.ac.uk/20/2/reviews/2.html>
- 2012 **Crabtree, Stefani A** and Timothy A. Kohler *editors* Modeling Across Millennia: Interdisciplinary Paths to Ancient Socio-natural Systems. *Ecological Modelling*. August, 2012. Vol 241.
- 2009 **Crabtree, Stefani** *Healing Secrets of the South Pacific: An anthropologist discovers Samoan tinctures you can sample right at home*. March, "Natural Health Magazine", pp.89-90.
- 2008 SWCA Environmental Associates. *A Class III Cultural Resource Inventory for the Ryan Gulch 3-D Geophysical Exploration Project, Rio Blanco County, Colorado*. November, 2008.
- 2005 **Crabtree, Stefani** *Medicinal Matriarchs: Women and Traditional Medicine in Oceania and Asia*. Thomas J. Watson Foundation Final Report.

TEACHING EXPERIENCE, INSTRUCTOR OF RECORD

- Spring 2023: ENVS 4020: The Fundamentals of Environmental Thought, Utah State University
- Fall 2022: ENVS 6901: Introduction to Methodologies in Social Science, Utah State University
- Spring 2022: ENVS 6100/4100: Agent-based Modeling of Human Environment Systems, Utah State University
- Spring 2022: ENVS 4020: The Fundamentals of Environmental Thought, Utah State University
- Fall 2021: ENVS 6901: Introduction to Methodologies in Social Science, Utah State University
- Spring 2021: ENVS 6100/4100: Agent-based Modeling of Human Environment Systems, Utah State University
- Fall 2020: ENVS 6901: Introduction to Methodologies in Social Science, Utah State University
- Spring 2020: ENVS1350: Introduction to Environmental Science, Utah State University.
- Summer 2019: Complexity and the Evolution of Societies, The Santa Fe Institute Complex Systems Summer School
- Summer 2018: Modeling Past Human Societies, The Santa Fe Institute Complex Systems Summer School
- Summer 2018: Agent-based Modeling and Computational Social Science, The Barcelona Super Computing Summer School. Barcelona, Spain.
- Spring 2018: Introduction to Agent-Based Modeling, The Pennsylvania State University

- Spring 2017: Agent-based modeling, an introduction. A 2-day workshop at the Computer Approaches in Archaeology Conference. Atlanta, GA.
- Fall 2016: Anthropology 130: Great Discoveries in Archaeology, Washington State University
 Anthropology 330: The Origins of Civilization, Washington State University
- Spring 2016: Anthropology 201: Art and Society, Washington State University
- Spring 2016: Agent-based modeling, an introduction. A 2-day workshop at the Computer Approaches in Archaeology Conference. Oslo.
- Fall 2015: Anthropology 201: Art and Society, Washington State University
- Summer 2015 Anthropology 201: Art and Society, Washington State University
- Spring 2015 Anthropology 130: Great Discoveries in Archaeology, Washington State University
- Summer 2013: Simulation multi-agents. A 3-day workshop at the Université de Franche-Comté, France.
- Spring 2013 Anthropology 101: General Anthropology (A Four Fields Approach), Washington State University
- Fall 2012 Anthropology 101: General Anthropology (A Four Fields Approach), Washington State University

CURRENT GRADUATE STUDENT ADVISEES

- 2023-present Hilary McDonald, Ph.D. student. Utah State University.
- 2023-present Devin Christensen, MNR student. Utah State University.
- 2020-present Evan Holt, Ph.D. student. Utah State University.

PAST GRADUTE STUDENT ADVISEES

- 2019-2023 Stan Rhodes, Ph.D. Utah State University. PhD conferred 2023.
- 2020-2022 Mariella Black, M.S. Utah State University. MS conferred 2022.

PHD COMMITTEE MEMBERSHIP

- 2021-2023 Sandra Atwood, Ph.D. student. Committee Member. Utah State University.
- 2021-present Patrick Kelly, Ph.D. student. Committee Member. Utah State University.

GRADUATE AND UNDERGRADUATE RESEARCH PROJECT SUPERVISION

- 2017-2020 Richard Bankoff, Ph.D. student. The Pennsylvania State University. Ecological Dynamics of Madagascar.

- 2017-2018 Kevin Rosenfeld, Ph.D. student. The Pennsylvania State University. An agent-based model of the evolution of fertility signals in primates.
- 2017-2018 Sydney Bird, B.A. student. The Pennsylvania State University. Compiling food web data for Martu.
- 2016 Morgan Dock, B.A. student. Washington State University. Evidence for Blood in Paleolithic Cave Paintings.
- 2015 Colin Christiansen, M.A. student. Washington State University. Processes of Depopulation in Lattes, France: A study using ArcGIS.
- 2014 Carolyn Wason, B.A. student. Eastern University. Changing Pastoral Economies in Northern Mongolia: An ethnographic study from the Targan Nuur Archaeology Project.

INVITED SYMPOSIA & PLENARY

- 2023 Korean Archaeological Society, Seoul National University, South Korea. “Agent-Based Modeling in Archaeological Research.” November 4.
- 2023 University of Utah, Department of Anthropology Seminar Series. “Understanding Humanity Past and Present Via Agent-Based Modeling and Network Analysis.” September 7.
- 2023 CABAH Seminar Series. “Modeling the Deep Past.” June 28.
- 2023 Knowledge of the Desert | German Young Academy. “Combining archaeology, ecology and complex systems science.” May 5.
- 2022 Princeton University Theoretical Ecology Seminar. “Why Are Sustainable Practices Often Elusive?” October 26.
- 2022 University of Michigan Museum at 100: Dual Inheritance and Quantitative Modeling, Cultural Evolution Evolves. “Understanding Humanity Past and Present Via Agent-Based Modeling.” September 30.
- 2022 BIOCHANGE Symposium: New perspectives on biodiversity dynamics and stewardship under future global change. Aarhus University, Denmark. “Understanding the Human Place in Ecosystems from the Archaeological Record.” September 14.
- 2022 ICTP and UNESCO International Year of Basic Sciences for Sustainable Development. Quantifying Human Ecology: Untangling the Determinants of Sustainability. “Understanding the Human Place in Ecosystems from the Archaeological Record.” July 26.

- 2022 Ecological Networks Working Group, Université de Montréal. “The Human Place in Networks”. May 10.
- 2022 The University of Edinburgh School of History, Classics, and Archaeology. “How Environmental Interactions Shape Social Dynamics Worldwide: Lessons from the Archaeoecology Project.” April 20.
- 2022 Washington University in St. Louis Department of Anthropology Friday Archaeology. “What Happened Next? Relatively few superhighways directed the initial peopling of Sahul.” March 25.
- 2022 High Performance Computing User Forum Annual Meeting Plenary. “Landscape rules predict optimal superhighways for the first peopling of Sahul.” March 18.
- 2022 NASA Earth Exchange Invited Lecture. “Native Title and Fires in Australia.” February 28.
- 2022 The University of Vermont Complex Systems Center. “Archaeoecology: Using the archaeological past to understand our present and future.” February 10.
- 2021 BIOCHANGE Seminar, Aarhus University Center for Biodiversity Dynamics in a Changing World. December 8.
- 2021 The Center for the Dynamics of Social Complexity & NIMBioS Autumn Seminar and Webinar Series: Celebrating the 150th anniversary of The Descent of Man. “Modern Lessons of applying Socio-Environmental Modeling to the Archaeological Record.” November 16.
- 2021 SITE Santa Fe Public Lecture Series. “Human Migrations in Deep Time.” October 18.
- 2021 Humboldt Days: Human Biogeography and Understanding the Spatial Distribution of People, Cultures, and Languages. Netherlands. September 16.
- 2021 The Complexity of Sustainability: The Built Environment. April 8.
- 2021 Leibniz Institute for Resilience Research Mainz, Theorizing Resilience & Vulnerability in Ancient Studies. January 19.
- 2020 The College of William & Mary Colloquium Series. “Placing Humans in Past Ecosystems.” October 21.
- 2020 IMSET Workshop: Knowledge Gaps in Long-Term Human Ecodynamics, “Toward a Science of Archaeoecology.” September 13.
- 2020 The Stockholm School of Economics Corona Economic Research Network, “Mask Donations in the time of COVID.” September 3.

- 2020 The Princeton Theoretical Ecology Lab, “Using Archaeological Data to Reconstruct Ecosystems of the Past.” July 8.
- 2020 The Australian Research Council Centre of Excellence for Australian Biodiversity and Heritage, “What Happened Next? Relatively Few ‘Super-Highways’ Directed the Initial Peopling of Sahul.” May 20.
- 2020 The Women in Network Science Seminar Series, “Using the Deep-Time of Archaeology to Understand Human-Environment Interactions.” May 13.
- 2020 The Santa Fe Institute Wednesday Online Lecture Series, “Examining Complex Socio-Ecological Systems in Australia.” March 18.
- 2020 Brigham Young University Visiting Scientist Seminar Series, “Using the Deep-Time of Archaeology to Understand Human-Environment Interactions.” March 14.
- 2020 Yale University, Center for the Study of American Politics, Computational Social Science Workshop. February 17.
- 2020 Takeda Studio, “Climate Change and Human Health.” February 10.
- 2019 Cambridge Centre for Computer and Digital Archaeology. “Using the Deep-Time of Archaeology to Understand Human-Environment Interactions.” Cambridge University, United Kingdom, May 14.
- 2019 Keynote. Socio-Environmental Dynamics over the Last 15,000 Years: The Creation of Landscapes. Kiel University, Germany, March 10.
- 2019 National Socio Environmental Synthesis Center. Annapolis, MD, February 11.
- 2018 Plenary. The Great Basin Anthropological Conference, Salt Lake City, U.K. November 8.
- 2018 Plenary. The Computational Approaches in Archaeology Conference, Edinburgh, U.K. October 26.
- 2018 Plenary. InterPlanetary Festival, Santa Fe Institute. July 7. Santa Fe, NM.
- 2018 Harvard University Center for the Environment, Cambridge MA. “Reconstructing Food Webs from Archaeological Sites.” July 30.
- 2018 Center on Social Dynamics and Policy, Brookings Institution, Washington DC. “Agent-based modeling to understand the past and future.” April 10.
- 2018 Colorado State University, Fort Collins, CO. “How Environmental Interactions Shaped Ancestral Pueblo Social Dynamics.” February 23.

- 2018 Michigan State University, East Lansing, MI. “How Environmental Interactions Shape Social Dynamics in Archaeological Systems.” February 15.
- 2017 The University of Maryland, College Park, MD. “Examining Human Impacts on Complex Networks.” December 13.
- 2017 The Santa Fe Institute, Santa Fe, NM. “How Complex Adaptive Systems Approaches shed light on the depopulation of Mesa Verde.” October 25.
- 2017 The Pennsylvania State University, University Park, PA. “Reconstructing Ancestral Pueblo food webs in the southwestern United States.” January 20.
- 2015 San Diego State University, San Diego, CA. “Cascading Effects and Social Consequences: Food webs in the Ancestral Pueblo Southwest.” November 15.
- 2015 Washington University in St. Louis, MO. “Examining Ancestral Pueblo Trophic Networks.” August 28.
- 2014 The Santa Fe Institute, Santa Fe, NM. “The Principles of Complexity: Life, Scale and Civilization III.” Invited discussant and speaker; Jeremy Sabloff, David Krakauer Organizers. August 30.
- 2014 The Santa Fe Institute, Santa Fe, NM. “Global Human Ecodynamics Alliance Modeling.” Invited discussant and speaker; Tim Kohler, Margaret Nelson Organizers. May 31.
- 2014 Pitzer College, Claremont, CA. “Ethnography, Archaeology and Adventure in Mongolia.” May 2.
- 2014 University of Southampton, Southampton, U.K. “A Tale of Two Villages, or, How Food Exchange Led to Aggregation in the American Southwest.” January 21.
- 2014 University of Cambridge, Cambridge, U.K. “Aggregation and Simulation in the American Southwest.” January 17.
- 2013 The Santa Fe Institute, Santa Fe, NM. “The Principles of Complexity: Life, Scale and Civilization II.” Invited discussant and speaker; Jeremy Sabloff, David Krakauer Organizers. August 1.
- 2013 Université de Franche-Comté, Besançon. “Introduction à la modélisation multi-agent dans Netlogo.” May 29.

SELECT MEDIA COVERAGE

- 2023 The civilisation myth: How new discoveries are rewriting human history. New Scientist. <https://www.newscientist.com/article/mg25834450-800-the-civilisation-myth-how-new-discoveries-are-rewriting-human-history/>
- 2023 The societies proving that inequality and patriarchy aren't inevitable. New Scientist. <https://www.newscientist.com/article/0-the-societies-proving-that-inequality-and-patriarchy-arent-inevitable/>
- 2023 Utopia: The ancient discoveries that point to the ideal human society. New Scientist. <https://www.newscientist.com/article/0-utopia-the-ancient-discoveries-that-point-to-the-ideal-human-society/>
- 2023 Humans are unique but not exceptional species of mammal. Science Daily. <https://www.sciencedaily.com/releases/2023/05/230523123756.htm>
- 2023 Remapping the superhighways traveled by the first Australians reveals a 10,000-year journey through the continent. Science Daily. <https://phys.org/news/2023-02-remapping-superhighways-australians-reveals-year.html>
- 2023 Virtual Reality Tracks 75,000-Year-Old Footsteps of Sahul Explorers. Ancient Origins. <https://www.ancient-origins.net/news-evolution-human-origins/sahul-migration-0017907>
- 2023 Des scientifiques révèlent comment les humains ont d'abord peuplé l'ancien mégacontinent de Sahul. Nouvelles du Monde. <https://www.nouvelles-du-monde.com/des-scientifiques-revelent-comment-les-humains-ont-dabord-peuple-lancien-megacontinent-de-sahul-sciencealert/>
- 2023 Scientists Reveal How Humans First Populated The Ancient Megacontinent of Sahul. Science Alert. <https://www.sciencealert.com/scientists-reveal-how-humans-first-populated-the-ancient-megacontinent-of-sahul>
- 2022 Hyperion Research Announces Winners of HPC Innovation Excellence Awards. HPC Wire. <https://www.hpcwire.com/off-the-wire/hyperion-research-announces-winners-of-hpc-innovation-excellence-awards/>
- 2022 COVID's Catch-22: The paradox of masking and disease. Science Daily. <https://www.sciencedaily.com/releases/2022/06/220623153701.htm>
- 2022 Archaeology and ecology combined sketch a fuller picture of past human-nature relationships. Eurekalert. <https://www.eurekalert.org/news-releases/963325>
- 2021 Ancient Australian 'superhighways' suggested by massive supercomputing study. Science Magazine. <https://www.science.org/content/article/ancient-australian-superhighways-suggested-massive-supercomputing-study>

- 2021 New research reveals long-term changes in human nutrition. Utah Public Radio. <https://www.upr.org/post/new-research-reveals-long-term-changes-human-nutrition#stream/0>
- 2021 Agent-based modeling for archaeology can simulate the complexity of societies. Phys.org <https://phys.org/news/2021-08-agent-based-archaeology-simulate-complexity-societies.html>
- 2020 How Aboriginal Hunting and ‘Cool Burns’ Prevent Australian Wildfires. Atlas Obscura. <https://www.atlasobscura.com/articles/how-to-stop-australian-wildfires>
- 2019 Aboriginal Hunters’ Fires Help Restore an Australian Desert. New York Times. <https://www.nytimes.com/2019/02/08/science/australia-aboriginal-fires-martu.html>
- 2018 Conservatism Took Hold Here 1000 years ago, until the people fled. <https://www.washingtonpost.com/news/speaking-of-science/wp/2018/06/01/conservatism-took-hold-here-1000-years-ago-until-the-people-fled>
- 2018 How a Medieval Society Withstood Nearly 60 Years of Drought. <https://www.theatlantic.com/science/archive/2018/05/how-a-medieval-society-survived-nearly-60-years-of-drought/559616/>
- 2017 Just One New Thing Can Jostle the Food Web. <http://www.futurity.org/food-webs-1402532-2/> 4/15/2017
- 2017 Food webs entangle humans in complex relationships with animals, crops and the environment. <https://phys.org/news/2017-04-food-webs-entangle-humans-complex.html> 4/10/2017
- 2017 Climate Change: Learning from the Past. <https://www.pastemagazine.com/articles/2016/12/computers-tracking-climate-change.html> 1/5/2017
- 2016 Computer Models Find Ancient Solutions to Modern Problems. <https://news.wsu.edu/2016/12/20/computer-models-find-ancient-solutions-modern-problems/> 12/20/2016

CONFERENCE ACTIVITY

Podium and Poster

- 2023 **Crabtree, Stefani.** How can archaeology help in the study of critical transitions? Invited paper in workshop: Critical Transitions Workshop III, Princeton, NJ. March 23.
- 2022 Holt, Evan, **Stefani Crabtree.** Archaeological Lessons for Modern Ecology and Sustainability. Invited paper in symposium: Climatic Influences on Diet, Demography, and Conflict. The Society for American Archaeology, 86th Annual Meeting, Chicago, IL.
- 2021 Wren, C. D., **Stefani Crabtree,** & Romanowska, I. (2021, June 16). Teaching archaeological agent-based modelling through replication [Presentation]. 49th Annual Computer Applications & Quantitative Methods in Archaeology Conference (CAA2021), Cyprus.
- 2021 R. Kyle Bocinsky, **Stefani Crabtree,** and Sarah Oas. Biodiversity and Food Risk in Arid Uplands. Invited paper in symposium: Risky Business: Comparative Approaches to Risk and Resilience in Dryland Environments. The Society for American Archaeology, 85th Annual Meeting, Austin, Texas.
- 2019 **Crabtree, Stefani A.** The Deep-Time of Archaeology for Understanding the Interface of Human and Ecosystem Health. Paper in symposium at 47th annual Computation Approaches and Quantitative Methods in Archaeology International Conference. Krakow, Poland.
- 2019 **Crabtree, Stefani A.** Examining Resilience and Vulnerability Among Ancestral Pueblo Food Webs. Paper in symposium: Human Interactions, Biodiversity, and Socio-ecological Dynamics in Deep Time. American Association for the Advancement of Science. Washington, DC.
- 2018 **Crabtree, Stefani A.,** Rebecca Bliege Bird. Examining Environmental Resilience Through Coupled Human-Natural Systems: A Case from Western Australia. Paper in symposium at 117th annual meeting of the American Anthropological Association. San Jose, CA.
- 2018 Rosenfield, Kevin A., **Stefani A. Crabtree,** Mary K. Shenk, Mark Shriver, Julie White, James P. Higham, Nina Jablonski, David A. Puts. The evolution of fertility signals in primates: An agent-based modeling approach. Paper in symposium at 8th annual meeting of the European Society for the study of Human Evolution. Faro, Portugal. September 14.
- 2018 **Crabtree, Stefani A.,** Rebecca Bliege Bird. Using Food Web Models to Examine Desert Networks in the American Southwest and Western Australia. Paper in symposium at 84th Annual Society for American Archaeology Meetings. Washington, DC. April 12.
- 2017 Bliege Bird, Rebecca, **Stefani A. Crabtree.** We make Country, and Country makes us: Australian Aboriginal women as architects of social and ecological networks. Paper in symposium at 116th annual meeting of the American Anthropological Association. Washington, DC. December 1.

- 2017 **Crabtree, Stefani A.**, Timothy A. Kohler. Modeling Polity Growth among Ancestral Pueblo People in Mesa Verde. Paper in symposium at 83rd Annual Society for American Archaeology Meetings. Vancouver, BC. March 30.
- 2017 **Crabtree, Stefani A.** Agent-based models of Hierarchy. Paper in symposium at 45th Annual Computation Approaches and Quantitative Methods in Archaeology International Conference. Atlanta, GA. March 14.
- 2017 **Crabtree, Stefani A.** Analyzing Trophic Networks Among the Ancestral Pueblo. Paper in symposium at 45th Annual Computation Approaches and Quantitative Methods in Archaeology International Conference. Atlanta, GA. March 15.
- 2016 **Crabtree, Stefani A.** Agent-based modeling and complexity science: the next steps in Archaeological Theory? Paper in symposium at 44th Annual Computation Approaches and Quantitative Methods in Archaeology International Conference. Oslo, Norway, March 30.
- 2015 **Crabtree, Stefani A.** Assessing Network Connectance with the Assistance of Ethnography, Archaeology and Agent-Based Modeling. Paper in symposium at 114th Annual Society for the American Anthropological Association Meetings. Denver, CO., November 16.
- 2015 **Crabtree, Stefani A.** Understanding Vulnerability and Resilience Through Archaeological Foodwebs. Paper in symposium at Conference on Complex Systems '15. Phoenix, AZ., September 28.
- 2015 **Crabtree, Stefani A.**, Simon DeDeo. How Human Perception of the Environment Influences the Abandonment Process. Paper in Ignite at Conference on Complex Systems '15. Phoenix, AZ., September 28.
- 2015 **Crabtree, Stefani A.**, R. Kyle Bocinsky, Timothy A. Kohler. Hierarchy and Tribute Flow in the American Southwest. Paper in symposium at 80th Annual Society for American Archaeology Meetings. San Francisco, CA, April 16.
- 2015 Kohler, Timothy A., R. Kyle Bocinsky, **Stefani A. Crabtree.** The Effects of Temporal Coarse Graining on Inferred Patterns of Human Movement. Paper in symposium at 80th Annual Society for American Archaeology Meetings. San Francisco, CA, April 18.
- 2014 **Crabtree, Stefani A.**, R. Kyle Bocinsky, Timothy A. Kohler. Modeling Emergence of Complex Groups on Realistic Landscapes. Principles of Complexity: Life, Scales, and Civilization III, August 2014. Santa Fe Institute, Santa Fe, NM, August 25.
- 2014 **Crabtree, Stefani A.**, Nathan T. Crabtree and Lydia Smith. Food Webs in the Ancestral Pueblo Southwest. Global Human Ecodynamics Alliance Modeling. Working Group, Santa Fe Institute, Santa Fe, NM, May 30.
- 2014 Kohler, Timothy A., **Stefani A. Crabtree**, R. Kyle Bocinsky. Emergence of Leadership in Pueblo Societies: Evolutionary Public Goods Games and Corporate Group Conflict

- in Agent-Based Models. Global Human Ecodynamics Alliance Modeling. Working Group, Santa Fe Institute, Santa Fe, NM, May 31.
- 2014 **Crabtree, Stefani A.**, Timothy A. Kohler and R. Kyle Bocinsky. The Development of Social Groups, Leadership and Inequality in the Central Mesa Verde. Paper in symposium at 79th Annual Society for American Archaeology Meetings. Austin, TX, April 26.
- 2014 Harris, Kathryn, **Stefani A. Crabtree** and William Andrefsky. The Multifunctional Lives of Points and Flakes. 79th Annual Society for American Archaeology Meetings. Austin, TX, April 25.
- 2014 Timothy A. Kohler, Kelsey Reese, **Stefani A. Crabtree**, and R. Kyle Bocinsky. Prolegomenon: VEP II, Almost in Retrospect. Paper in symposium at 79th Annual Society for American Archaeology Meetings. Austin, TX, April 26.
- 2014 **Crabtree, Stefani**. Modélisation multi-agent d'un réseau d'échanges. TransMonDyn. Lyon, France, January 19.
- 2013 Kohler, Tim A., R. Kyle Bocinsky, **Stefani A. Crabtree**, Andrew Hlynka, Lokesh Patil, Paul Lovell Hooper, Ziad Kobti. Leadership, Territoriality and Conflict in an Agentized Pueblo World in Complex-Systems Approaches to Long-Term Change. Paper in symposium at 112th Annual American Anthropological Association. Chicago, IL, November 21.
- 2013 **Crabtree, Stefani**. Interactions des spheres culturelles étrusques, grecques et gauloises entre l'âge du bronze et l'âge du fer dans le sud de la France: modélisation multi-agent d'un réseau d'échanges. Journée des doctorants en archéologie de l'Université de Franche-Comté. Besançon, France, November 10.
- 2013 **Crabtree, Stefani**, Julia K. Clark. Ger Grouper: Examining Social Interactions to a Volatile Environment in Northern Mongolia, Paper in symposium at Complex Systems in Prehistoric Research Satellite Workshop. European Conference on Complex Systems, ECCS'13. Barcelona, Spain, September 19.
- 2013 **Crabtree, Stefani**. Exchange, Alliances and Aggregation in the Village Ecodynamics Project. Presented at the 2013 Village Ecodynamics Project Presentation and Discussion of Preliminary Results. Crow Canyon, Cortez, CO, July 29.
- 2013 Kohler, Tim, **Stefani Crabtree**, Michael Berry. The Secrets of the Southwest Solved by Walkative Tree Rings. Paper in symposium at 78th Annual Society for American Archaeology Meetings. Honolulu, HI, April 4.
- 2013 **Crabtree, Stefani**. Constructing Communities: Examining Household Aggregation in the American Southwest. 78th Annual Society for American Archaeology Meetings. Honolulu, HI, April 6.

- 2013 Harris, Kathryn, **Stefani Crabtree**. A Neutral Model of Stone Raw Material Procurement.. 78th Annual Society for American Archaeology Meetings. Honolulu, HI, April 5.
- 2012 **Crabtree, Stefani** *Invited Presenter*. Studying Archaeological Foodwebs in Ancestral Puebloan Society. Paper in symposium at CUNY Human Ecodynamics Research Center 2012 Open Workshop in Sustainability Science and Education. New York, NY, October 15.
- 2012 **Crabtree, Stefani**. Exchange, Alliances and Aggregation on the Colorado Plateau. 77th Annual Society for American Archaeology Meetings. Memphis, TN, April 22.
- 2012 Reese, Kelsey M., R. Kyle Bocinsky, Kay E. Barnett, **Stefani A. Crabtree**, Elise E. Alonzi, Andrew R. Steier, Donna M. Glowacki, Timothy A. Kohler. Large, Aggregated Villages in Little Soda Canyon. 77th Annual Society for American Archaeology Meetings. Memphis, TN, April 21.
- 2012 **Crabtree, Stefani**, Lydia Smith, Timothy A. Kohler. “Trophic Interconnectedness in Southwestern Colorado: Studying Archaeological Food Webs in Ancestral Puebloan Society.” 64th annual American Association for the Advancement of Science. Vancouver, BC. February 18. *See also awards*.
- 2011 Donna Glowacki, Timothy Kohler, Kay Barnett, R. Kyle Bocinsky, **Stefani Crabtree**, Kelsey Reese, Elise Alonzi, and Andrew Steier. Large Villages in Upper Soda Canyon: an update on VEP field work.” 2011 Pecos Conference, Arizona. August 7.
- 2011 **Crabtree, Stefani**, Denton Cockburn, Ziad Kobti, Timothy A. Kohler. Archaeology Time Machine: Witnessing Social Interactions on the Pueblo Landscape through Agent-based Simulation. Paper in symposium at 76th Annual Meeting Society for American Archaeology. Sacramento, CA. April 3.
- 2011 **Crabtree, Stefani**. “There is No Such Thing as a Free Lunch: Costly Exchange in the Village Ecodynamics Project: A Network Analysis.” 64th annual Northwest Anthropological Conference. Moscow, ID. April 22.
- 2011 Kohler, Timothy A., R. Kyle Bocinsky, **Stefani Crabtree**, and Denton Cockburn. The Village Ecodynamics Project: Modeling the Deep Pueblo Past. Paper in Symposium Modeling Across Millennia: Interdisciplinary Paths to Ancient Socionatural Systems. Paper in symposium at 177th AAAS Annual Meeting, Washington, D.C. February 20.
- 2010 **Crabtree, Stefani**, Timothy Kohler. Alliance Formation and Breakdown: Networks in the Village Ecodynamics Project. 109th Annual Meeting of the American Anthropological Association. New Orleans, LA. November 19.
- 2010 **Crabtree, Stefani**, Timothy Kohler, R. Kyle Bocinsky, Ben Ford. Modeling or Simulation? Assessing settlement patterns—real and modeled—in the VEP World. Paper in symposium at 75th Annual Meeting Society for American Archaeology, St. Louis, MO. April 15.

Symposia Organized

- 2019 How human interactions with biodiversity shape socio-ecological dynamics and sustainability. American Association for the Advancement of Science. Washington D.C., February.
- 2018 Beyond Centrality: Bridging Network Approaches through Archaeological Narratives. 83rd Annual Society for American Archaeology Meetings. Washington, D.C., April.
- 2017 Data, Theory, Methods, and Models. Approaching Anthropology and Archaeology through Computational Modeling. Computer Approaches and Quantitative Applications in Archaeology. Atlanta, GA, March 15.
- 2016 Complex systems simulations in archaeology. Can You Model That? Applications of Complex Systems Simulation to Explore the Past. Computer Approaches and Quantitative Applications in Archaeology. Oslo, Norway, March 30.
- 2015 Social networks, disasters, and human resilience: perspectives from the four fields of anthropology. 114th Annual Society for the American Anthropological Association Meetings. Denver, CO., November 16.
- 2015 Simulating Social Complexity to Understand the Archaeological Past. 80th Annual Society for American Archaeology Meetings. San Francisco, CA. April 16.
- 2012 Socionatural Systems in the Northern U.S. Southwest: A Village Ecodynamics Project II Progress Report. 77th Annual Society for American Archaeology Meetings. Memphis, TN, April 21.
- 2011 Modeling Across Millennia: Interdisciplinary Paths to Ancient Socio-natural Systems. AAAS Annual Meetings. Washington, DC. February 20.

Discussant

- 2018 Anthropology's contributions to interdisciplinary graduate training, research, and education. 117th annual meeting of the American Anthropological Association. San Jose, CA.
- 2018 The nuts and bolts of agent-based modelling for archaeological science. 84th Annual Society for American Archaeology Meetings, Washington, D.C. April.
- 2017 Modeling Agro-Pastoralism in Eurasia. 83rd Annual Society for American Archaeology Meetings, Vancouver, BC. April 1.

AWARDS, HONORS AND SMALL RESEARCH GRANTS

- 2023 Environment and Society at Utah State Publication of the Year Award.
- 2022 Hyperion Research High Performance Computing Innovation Award.
- 2019 Latin American Conference on Complex Networks, Best Paper Award.
- 2017 Penn State Postdoctoral Association Award, \$250
- 2017 Arizona Archaeological and Historical Society Award, \$500
- 2017 Computer Approaches and Quantitative Methods in Archaeology Award, \$185
- 2016 Computer Approaches and Quantitative Methods in Archaeology Award, €500
- 2016 Graduate and Professional Student Association Travel Award, \$180
- 2015 3MT: Three Minute Thesis Competition, Social Sciences Division, Washington State University, \$1000
- 2015 The Wiley Research Exposition Student Poster Award, Social Sciences, First Place, \$400
- 2014 Graduate and Professional Student Association Travel Award, \$350
- 2014 Elaine Burgess Graduate Fellowship in Anthropology. Washington State University, \$500
- 2014 Arizona Archaeological and Historical Society Travel Award, \$350
- 2014 Bourse de Mobilité Internationales des Doctorantes, Université de Franche-Comté, €1300
- 2013 NeDiMAH Workgroup “Space and Time” Grant, €600
- 2013 Washington State University Office of Research and Graduate School *Cotutelle* Grant, \$1000
- 2013 Janet L. Friedman Memorial Fellowship in Archaeology. Washington State University, \$1000
- 2013 Washington State University Office of Research and Graduate School Summer Research Grant, \$1000
- 2013 Arizona Archaeological and Historical Society Travel Award, \$350
- 2012 Don Crabtree Scholarship in Lithic Technology, \$1000
- 2012 Nicholas Michael Scoales Scholarship in Archaeology, Washington State University, \$1000
- 2012 Washington State University Association for Faculty of Women Founder’s Award, \$200
- 2012 American Association for the Advancement of Science, First Place, student poster competition, Social Sciences division, \$200
- 2011 São Paulo Advanced Science School on Ecological Networks Grant, \$2000
- 2011 Santa Fe Institute Complex Systems Summer School Scholarship, \$2000

- 2011 National Science Foundation Graduate Research Fellow International Travel Grant, \$1000
- 2010 Washington State University Graduate School Travel Grant. \$450
- 2010 NSF IGERT Program in Evolutionary Modeling. *Honorable Mention.*

SERVICE TO PROFESSION

Board Member: The Coalition for Archaeological Synthesis (2021-Present)
NOMAD Science (2020-Present)

Membership Secretary: Computer Application and Quantitative Methods in Archaeology Society.

External Reviewer: American Antiquity, Antiquity, Journal of Archaeological Science, Advances in Archaeological Practice, PLoS One, Nature Human Behaviour, People and Nature, Current Anthropology, Science Advances, Proceedings of the National Academy of Sciences, PLoS One

Workshop Organizer: Santa Fe Institute, School for Advanced Research, Crow Canyon Archaeological Center

University Service

- 2020-present Ecology Center Advisory Board, Committee Member, Utah State University.
- 2020-2021 Strategic Planning Committee, Department of Environment and Society, Utah State University.
- 2020 Undergraduate Scholarship Committee, Utah State University.
- 2020 Hiring Committee, Department of Anthropology, Utah State University.
- 2020 Hiring Committee, Department of Environment and Society, Utah State University.
- 2020 Hiring Committee, Santa Fe Institute.
- 2015 Organizer: Anthropology departmental colloquia, Washington State University.
- 2014 Organizer: TranMonDyn visit of twelve French researchers to WSU.
- 2013 Organizer: Washington State University “Common Table: Black History Month” with Thomas Norman De Wolf and Sharon Leslie Morgan, authors of Gather at the Table.
- 2012 Anthropology Graduate Organization Scholar committee chair, 2012-2013.
- 2010 Archaeology Student Representative to Faculty, 2010-2011.

ARCHAEOLOGICAL AND ETHNOGRAPHIC FIELD EXPERIENCE

United States: Southwest (Mesa Verde National Park), Rocky Mountain West (Colorado, Wyoming), Great Plains (North Dakota, South Dakota, Eastern Montana, Wyoming), Great Basin (Eastern Oregon, Eastern Washington)

Foreign: Mongolia, France, New Zealand, Samoa, India, Vietnam, Australia

FORMAL INTERNATIONAL EDUCATION AND SCIENTIFIC SCHOOLS

2012-2016 Université de Franche-Comté, Besançon, France.
2011 Santa Fe Institute Complex Systems Summer School. Santa Fe, NM.
2011 São Paulo Advanced Science School on Ecological Networks. São Paulo and
 São Pedro, Brazil
2005 Hanoi Language School, Vietnam.
2002-2003 Université Paris IV, Sorbonne, Paris, France.

LANGUAGES

English: Native

French: Fluent (speaking, reading and writing)

Spanish, Italian, Vietnamese, Mongolian: Speaking and reading knowledge

COMPUTER SKILLS

Languages: Java, R, NetLogo

Applications: ArcGIS, QGIS, Adobe Illustrator, Photoshop

Statistical Packages: R, Stata

Modeling Frameworks: RePAST (Java), NetLogo

Operating Systems: Mac OS X, Windows

PROFESSIONAL AFFILIATIONS

Society for American Archaeology

American Association for the Advancement of Science

American Anthropological Association

Arizona Archaeological and Historical Society

Complex Systems Society