

Dr. Stefani A. Crabtree, Ph.D.

CONTACT INFORMATION

Penn State Anthropology
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RESEARCH INTERESTS

Computational social science; food webs; coupled human-natural systems; human dimensions of climate change; complex adaptive systems; network science (methods, theories, applications); agent-based modeling; the archaeology of the American Southwest, southern France and Mongolia; ethnoarchaeology aboriginal Australia.

APPOINTMENTS

current

- Post-doctoral scholar, The Pennsylvania State University (January 2017-present)
- Research Associate, Crow Canyon Archaeological Center (March 2018-present)
- Fellow, Centre Recherches Interdisciplinaires (January 2018-present)
- Co-director, NOMAD Science Mongolia (June 2012-present)

past

- Researcher, Laboratory for Social Minds, Indiana University (2016)
- Research Fellow, Department of Anthropology, Washington State University (2009-2015)
- Teaching Fellow, Department of Anthropology, Washington State University (2012-2016)
- Archaeologist, Cultural Resource Consultants (2010)
- Archaeologist and Crew Chief, SWCA Environmental Consultants (2008-2009)
- Archaeologist and Crew Chief, Cultural Resource Analysts, Inc. (2007-2008)
- Assistant to the Executive Director, Urgent Action Fund (2006-2007)

EDUCATION

- Ph.D. Archéologie, Territoires, Environnement Université Bourgogne 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

PUBLICATIONS Citations: 145; H-index: 6; i10-index: 4

Articles Under Review or in Advance Preparation

- In review **Crabtree, Stefani A.**, Benjamin Davies, Iza Romanowska, Kathryn Harris. “Using Agent-based models in archaeological outreach: Why model? How to model? When to use a model? A step-by-step guide (Part III of III).” Submitted to *Advances in Archaeological Practice*.
- In review **Crabtree, Stefani A.** Douglas W. Bird, Rebecca Bliege Bird. “Subsistence Transitions and the Simplification of Ecological Networks in Western Australia.” Submitted to *Human Ecology*.
- In review **Crabtree, Stefani A.**, and Lewis Borck. Social Network Analysis in Archaeology. *Encyclopedia of Global Archaeology*. C. Smith (Ed.) Springer, NY 2018 Edition.
- In review 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*. Submitted to *PNAS*.
- In review Romanowska, Iza, **Stefani A. Crabtree**, Benjamin Davies, Kathryn Harris. “Agent-based Modeling for Archaeologists. Why model? How to model? When to use a model? A step-by-step guide (Part I of III).” Submitted to *Advances in Archaeological Practice*.
- In review Benjamin Davies, Romanowska, Iza, **Stefani A. Crabtree**, Kathryn Harris “Combining Geographic Information Systems and Agent-Based Models in Archaeology: Part II in: Why model? How to model? When to use a model? A step-by-step guide (Part II of III).” Submitted to *Advances in Archaeological Practice*.
- In review Vella, Anthea, Ian Moffat, Julia K. Clark, J., Jamsranjav Bayarsaikhan, David Putnam, Bayaana Chinbold, **Stefani A. Crabtree**, and Camilla Sturm. “Geophysical Investigation of the Soyo Archaeological Site, Northern Mongolia.” Submitted to *Archaeological Prospection*.

Peer-reviewed journal articles

- 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 Book chapters

- 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.). 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.

Other publications and works

- 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.

MAJOR FELLOWSHIPS AND GRANTS (PI or co-PI)

- 2018-2021 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. (Jade d'Alpoim Guedes, Senior PI). Adapting Subsistence Regimes to the Roof of the World: A case study from the Jiuzhaigou National Park. \$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.

TEACHING EXPERIENCE, INSTRUCTOR OF RECORD

- Spring 2019: Complexity and the Evolution of Societies, The Santa Fe Institute and Arizona State University, Core Course for the Masters in Complexity Science.
- Summer 2018: Modeling Past Human Societies, The Santa Fe Institute Complex Systems Summer School
- 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
- Spring 2016: Anthropology 330: The Origins of Civilization, Washington State University
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

UNDERGRADUATE AND GRADUATE STUDENT MENTORING

- 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.

AWARDS, HONORS AND SMALL RESEARCH GRANTS

- 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 Internationalles 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 Paolo 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.*

INVITED SYMPOSIA & PLENARY

- 2018 The Great Basin Anthropological Conference, Salt Lake City, U.K. November 8.
- 2018 The Computational Approaches in Archaeology Conference, Edinburgh, U.K. October 26.
- 2018 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 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 Université de Franche-Comté, Besançon. “Introduction à la modélisation multi-agent dans Netlogo.” May 29.

CONFERENCE ACTIVITY

Podium and Poster

- 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 Emergencies 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

- 2018 Beyond Centrality: Bridging Network Approaches through Archaeological Narratives. Society for American Archaeology. 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.

SELECT MEDIA COVERAGE

- 2018 Conservatism Took Hold Here 1000 years ago, until the people fled. <https://www.washingtonpost.com/news/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

SERVICE TO PROFESSION

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

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

University Service

- 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 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: 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

PROFESSIONAL REFERENCES

Timothy A. Kohler, Regents Professor
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