

## ANASTASIA STEFFEN

Valles Caldera National Preserve  
90 Villa Louis Martin, PO Box 359  
Jemez Springs, NM 87025

Department of Anthropology  
University of New Mexico  
Albuquerque, NM 87131

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### EDUCATION

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University of New Mexico	Ph.D. Anthropology, July 2005.
University of New Mexico	M. A. Anthropology, May 1992.
Washington University	B. A. Anthropology and Archaeology, May 1986. <i>Graduated with College Honors &amp; Phi Beta Kappa.</i>

#### Academic Appointment:

*Adjunct Assistant Professor, Department of Anthropology, University of New Mexico*  
January 2006 – present

#### Awards

*“Preserve America Steward” designation: Valles Caldera Aspen Dendroglyph Survey*  
Initiated and managed volunteer program that received White House recognition, August 2010.

### PROFESSIONAL EXPERIENCE

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*Interdisciplinary Scientist / Communicator, Valles Caldera National Preserve, Jemez Springs, NM,*  
Oct 2015 – present. –Facilitate integration of cultural and natural resources (CR/NR ) information and activities within the Preserve’s Resource Stewardship and Science program, including research, inventory, analyses, and monitoring; create and manage partnerships with professionals and volunteers; create materials and web content for public interpretation; coordinate with external federal entities to provide information and analysis for litigation and NEPA planning; develop CR/NR databases and GIS datasets; inventory and manage internal CR/NR collections and archives; synthesize cultural resources knowledge at a landscape scale; continue management and synthesis of CR projects: oral history interview and database program, obsidian sourcing and hydration, point-typology chronology, high-elevation agriculture, archaeological fire-effects and post-fire erosion. Acting GIS Coordinator.

*Cultural Resources Coordinator, Valles Caldera National Preserve, Jemez Springs, NM,*  
June 2013 – Sept 2015.–Coordinated cultural resources knowledge-building and research from within the VCNP Science Services Division: provide analysis and synthesis to integrate research and management goals for cultural resources inventory and analysis; create and manage partnerships with professionals and volunteers; create materials for public interpretation including two international presentations and participation in a congressional briefing; present research results at regional and national professional conferences; plan, develop, and implement field, database, and lab projects to integrate research and management objectives and to synthesize cultural resources at a landscape scale; coordinate programmatic approaches to preservation to realize integrated Section 106 and 110 NHPA goals; agency tribal liaison; developed project-level programmatic agreement for forest restoration. Research and monitoring program areas include: oral history interview and database program, obsidian sourcing and hydration, point-typology chronology, high-elevation agriculture, archaeological fire-effects and post-fire erosion (including co-PI for JFSP-funded research), obsidian quarry geoarchaeology citizen-science project (with Earthwatch Institute).  
August 2005 –June 2013. --Built and administered the VCNP cultural resources program to integrate research and management goals, created professional partnerships including three university archaeological fieldschools and an award-winning volunteer program, provided professional and public interpretation, supervised 2-5 CR team members and provided team members with creative opportunities for professional and academic growth, built new landscape-scale non-site GIS-enabled cultural resources databases for Preserve-wide artifacts, features, sites, and inventories; planned, developed, implemented, and supervised field and lab projects integrating research and management objectives; coordinated compliance needs across diverse Preserve programs to facilitate adaptive management and to achieve integrated Section 106 and 110 NHPA compliance. Compiled national obsidian sourcing database for Jemez obsidians. Assisted in BAER planning/implementation for Las Conchas Fire and Thompson Ridge Fire.

## ANASTASIA STEFFEN

### PROFESSIONAL EXPERIENCE *(continued)*

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*Archaeologist*, Valles Caldera National Preserve, Los Alamos, NM, (on assignment from Jemez District, Santa Fe National Forest, June 2003 – January 2005, then employed directly by VCNP January – August 2005) –Assistant to VCNP Cultural Resources Coordinator.

*Archaeologist*, Valles Caldera National Preserve (on assignment from Jemez District, Santa Fe National Forest), April 2001 - May 2003. –Developed and implemented the initial interim VCNP Archaeology program, including Section 106 compliance for Preserve projects in consultation with SFNF Forest Archaeologist and NM SHPO, planned and organized field projects and project reporting, hired and supervised field crews, created initial survey and site databases, tribal consultation.

*Archaeological Technician*, Jemez District, Santa Fe National Forest (SFNF), Jemez Springs NM, May 2000 – April 2001. Assistant to the Jemez-Cuba Zone archaeologist, including project organization, survey fieldwork, and report preparation in the southern Jemez Mountains, NM.

*Archaeological Technician*, Middle Fork District, Willamette National Forest (WNF), Lowell, Oregon, June 1997 - August 1999. –Assistant to the Zone archaeologist, including obsidian lithic analysis, report preparation, crew chief, survey and testing fieldwork in west-central Oregon.

*Archaeological Technician*, Jemez District, SFNF, Jemez Springs, NM, May - Sept 1996, Sept - Dec 1995 (GS0102-07), & June – Sept 1995, & July - Dec 1994 –Assistant to the Jemez-Cuba Zone archaeologist, including survey fieldwork and report preparation in the southern Jemez Mountains, NM. (Acting District Archaeologist, June - August 1995)

*Archaeology Lab Supervisor*, Department of Anthropology, University of New Mexico, Albuquerque September 1994 - May 1995, and September 1990 - May 1991

*Archaeological Technician*, Jemez District, SFNF, Jemez Springs, NM, June - August 1990

*Archaeological Assistant*, Batch-Kauffman Associates, Las Cruces, NM, April - May 1990 --labwork and fieldwork in El Paso/SE NM area

*Archaeological Field Assistant*, Office of Contract Archaeology, University of New Mexico, Albuquerque, January - March 1990, and Nov 1987- Jan 1988 --included Spanish colonial site excavation (Los Lunas, NM), and Pactex Pipeline survey (southern NM)

*Archaeological Technician*, Midwest Archaeological Center, National Park Service, Lincoln, Nebraska, June - August 1989, February - December 1988, May - October 1987, and May - August 1986 --included labwork and fieldwork (survey and excavation) in Midwest Region (Voyageurs NP, Minn; Cuyahoga NP, OH; Sleeping Bear Dunes, Mich.; Chimney Rock NP, Neb.; Buffalo River NSR, MO; Ice Age Trail, Wisc.), & Rocky Mountain Region (Glacier NP, MT; Bryce Canyon NP, UT; & Glen Canyon NP, AZ).

*Archaeological Lab/Field Assistant*, Cultural Resources Management Division, New Mexico State University, Las Cruces, September - April 1986-1987, and September - December 1985 --included labwork and fieldwork in El Paso/SE NM area, and on the All-American Pipeline Project (including survey and testing in NM, Texas, Ariz, and CA).

*Excavator*, FAI-270 Highway Project, University of Illinois, Collinsville, May - August 1985 --excavations at a Middle Woodland village site near Cahokia, IL.

*Archaeology Intern*, San Juan National Forest (SJNF), Durango, Colorado, May - September 1984 --survey and report prep in San Juan Mountains, SW Colorado

*Anatomy Lab Assistant*, Department of Human Anatomy, Washington University Medical School, August 1981 – May 1982, and August – Jan 1983 --lab assistant in Human Anatomy Dissecting lab; maintained human osteology collection and human cadaver cross-sections.

## PUBLICATIONS

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- Ramenofsky, Ann F., Anastasia Steffen, Jeffrey Ferguson, Philippe D. LeTourneau, and Adam Okun  
2017 Obsidian Sourcing, Technology, and Obsidian Hydration (Chapter 10). In *The Archaeology and History of Pueblo San Marcos: Change and Stability*, edited by A. F. Ramenofsky, and K. L. Schleher. University of New Mexico Press, Albuquerque.
- Steffen, Anastasia  
2017 The High-Elevation Archaeological Record of the Valles Caldera. *Archaeology Southwest*, Fall 2016:9-12.
- Steffen, Anastasia, and Jonathan Knighton-Wisor  
2016 A Fragile Union of Nature and Culture: Aspen Dendroglyphs in the Valles Caldera National Preserve, A Citizen-Science Success Story. *Crossroads in Science*, Centennial Issue, Fall 2016:77-83.
- Loehman, Rachel, Bret Butler, Jamie Civitello, Connie Constan, Jennifer Dyer, Zander Evans, Megan Friggens, Rebekah Kneifel, Jim Reardon, Madeline Scheintaub, and Anastasia Steffen  
2016 *Final Report: ArcBurn: Linking Field-Based and Experimental Methods to Quantify, Predict, and Manage Fire Effects on Cultural Resources*. Submitted to the Joint Fire Science Program, Nov. 2016 <http://www.forestguild.org/Arcburn>
- Parmenter, Robert R., Martina Suazo, Mark Peyton, Katherine Condon, Mark Ward, Anastasia Steffen, and Samantha Cordova  
2015 Valles Caldera National Preserve – Integrating Science with Resource Management. *Crossroads in Science*, Issue 3, Fall 2015.
- De Graauw, Kristen K., Towner, Ronald H., Grissino-Mayer, Henri D., Kessler, Nicholas V., Knighton-Wisor, Jonathan, Steffen, Anastasia, and Doerner, James P.  
2014 Historical dendroarchaeology of two log structures in the Valles Caldera National Preserve, New Mexico, USA. *Dendrochronologia* 32: 336-342.
- Steffen, Anastasia, Jeremy T. Decker, Philippe D. LeTourneau, and Richard E. Hughes  
2009 Old Points in a New Place: Paleoindian Projectile Points of the Valles Caldera, Jemez Mountains, New Mexico. *Current Research on the Pleistocene* 26:123-125.
- Steffen, Anastasia  
2007 Book Review: Obsidian: Geology and Archaeology in the North American Southwest, by M. Steven Shackley, 2005. *Geoarchaeology* 22:8 (939-942).
- Parmenter, Robert R., Anastasia Steffen, and Craig D. Allen  
2007 An Overview of the Valles Caldera National Preserve: The Natural and Cultural Resources. In, *NM Geological Society Guidebook, 58<sup>th</sup> Field Conference, Geology of the Jemez Mountains II*, edited by B. S. Kues, S. A. Kelley, and V. W. Lueth, pp. 147-154.
- LeTourneau, Philippe D., and Steffen, Anastasia  
2002 Field Investigations at a Likely Source for New Mexico Obsidian Folsom Artifacts. *Current Research on the Pleistocene* 19: 57-59.
- Steffen, Anastasia  
2002 The Dome Fire Pilot Project: Extreme Obsidian Fire Effects in the Jemez Mountains. In *The Effects of Fire/Heat on Obsidian*, edited by J. M. Loyd, T. M. Origer, and D. A. Fredrickson, pp. 159-201. US-DOI, BLM Cultural Resources Publication, Anthropology - Fire History. [http://members.peak.org/~obsidian/pdf/loyd\\_etal\\_2002.pdf](http://members.peak.org/~obsidian/pdf/loyd_etal_2002.pdf)
- Ramenofsky, Ann F., and Anastasia Steffen (editors)  
1998 *Unit Issues in Archaeology: Measuring Time, Space, and Material*. University of Utah Press.
- Ramenofsky, Ann F., and Anastasia Steffen  
1998 Units as Measurement Tools: An Introduction. In *Unit Issues in Archaeology: Measuring Time, Space, and Material*, edited by A. F. Ramenofsky and A. Steffen, pp. 3-17. University of Utah Press.
- Steffen, Anastasia, Elizabeth J. Skinner, and Peter W. Ainsworth  
1998 A View to the Core: Technological Units and Lithic Debitage Analysis. In *Unit Issues in Archaeology: Measuring Time, Space, and Material*, edited by A. F. Ramenofsky and A. Steffen, pp. 131-146. University of Utah Press, Salt Lake City.

## DISSERTATION

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Steffen, Anastasia

2005 *The Dome Fire Obsidian Study: Investigating the Interaction of Heat, Hydration, & Glass Geochemistry*. Ph.D. dissertation, Department of Anthropology, University of New Mexico, Albuquerque. July 2005. [http://members.peak.org/~obsidian/pdf/steffen\\_2005.pdf](http://members.peak.org/~obsidian/pdf/steffen_2005.pdf)

## PUBLIC PRESENTATIONS (only major events are listed here; dozens of public talks are not listed)

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### *Exploring the Archaic Landscapes of the Valles Caldera, New Mexico, USA.*

Royal Geographic Society, London, May 16, 2013, Earthwatch Public Lecture event: “Why Emotion Matters in Conservation Science”. <http://earthwatch.org/Events/Prior-Events/why-emotion-matters-in-conservation-science>

*Congressional Briefing on Climate Change and At-Risk National Landmarks*, organized by Union of Concerned Scientists. Panel presentation and discussion, Hart Senate Building, Washington, D.C., May 20, 2014. <http://www.eesi.org/briefings/view/052014landmarks>

## PROFESSIONAL / RESEARCH PRESENTATIONS:

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### ORAL PRESENTATIONS:

Steffen, Anastasia, and Rachel A. Loehman

2017 *Wildfires, Forests, and the Archaeological Record: Investigating Complex and Persistent Human-Landscape Legacies*. In symposium: “Burning Libraries: Environmental Impacts on Heritage and Science.” 82<sup>nd</sup> Annual Meeting of the Society for American Archaeology, Vancouver, April 2017.

Steffen, Anastasia, and Rebekah Kneifel

2016 *Managing Prehistoric Lithic Scatters for Fire: If the artifacts are made of stone, why treat them like glass?* 3<sup>rd</sup> Southwest Fire Ecology Conference, Tucson, December 2016.

Constan, Connie, Jennifer Dyer, Rachel Loehman, Jamie Civitello, Madeline Scheintaub, Anastasia Steffen

2016 *Management considerations and wildfire effects on archaeological materials in the Jemez Mountains*. 3<sup>rd</sup> Southwest Fire Ecology Conference, Tucson, December 2016.

Steffen, Anastasia, and Rachel A. Loehman

2016 *ArcBurn: Developing Tools to Query the Past, and Cope with the Future, of Landscape Fire*. In symposium: “Global Environmental Change Threats to Heritage and Long Term Observing Networks of the Past: The Arctic Case and Beyond”. World Conservation Congress, Honolulu, September 2016. [https://archive.org/details/IUCN\\_2016\\_-\\_4\\_Sep\\_-\\_Global\\_Environmental\\_Change\\_ID\\_-\\_WCC\\_9685](https://archive.org/details/IUCN_2016_-_4_Sep_-_Global_Environmental_Change_ID_-_WCC_9685)

Steffen, Anastasia, and Rachel A. Loehman

2015 *ArcBurn: Measuring and Managing Fire Vulnerability of Southwestern Cultural Landscapes*. In Special Session: “Bridging gaps between fire ecology & archaeology: A millennial perspective on managing cultural-ecological landscapes.” Assoc for Fire Ecology Congress, San Antonio, Nov 2015.

Steffen, Anastasia, and Rachel A. Loehman

2015 *ArcBurn: Quantifying Cultural Resources Fire Vulnerability in Southwestern Forests*. New Mexico Archeological Council Fall Conference, UNM Campus, Albuquerque, November 2015.

Steffen, Anastasia, and Rachel A. Loehman

2015 *ArcBurn: Measuring Fire Vulnerability in Southwestern Landscapes*. In symposium: “FHiRE: Fire and Humans in Resilient Ecosystems in the American Southwest”, 80<sup>th</sup> Annual Meeting of the Society for American Archaeology, San Francisco, April 2015.

Steffen Anastasia

2015 Panel presentation on SW wildland fire and climate change, in a Forum organized by the Union of Concerned Scientists: “Resilience, Archaeology and Global Warming: What We Can Learn from Past Human Responses to Climate Change That Can Help Us Today”, 80<sup>th</sup> Annual Meeting of the Society for American Archaeology, San Francisco, April 2015.

Worman, F. Scott, Anastasia Steffen, and Jeffrey W. Hall

2015 *Fires, Landslides, and All Manner of Varmints: site formation processes at high elevations in the VCNP*. 80<sup>th</sup> Annual Meeting of the Society for American Archaeology, San Francisco, April 2015.

**PROFESSIONAL / RESEARCH PRESENTATIONS:**

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**ORAL PRESENTATIONS (continued):**

Renteria, Rebecca, Ronald Towner, Anastasia Steffen, and Galen McCloskey

2015 *Dendroarchaeology of the Otero Cabin, Valles Caldera National Preserve, New Mexico.*

Presentation at 80th Annual Meeting of Society for American Archaeology, San Francisco, April 2015.

Steffen, Anastasia, and Rachel A. Loehman

2014 *Landscape Fire in the Western US: Threats to America's Past in a Time of Changing Futures.*

In organized session, "Fast and Furious: transforming cultural resource management and archaeology in a rapidly changing climate", sponsored by Union of Concerned Scientists, 2014 World Parks Congress, Sydney, Australia, November 15, 2014.

Rogers, Alexander K., and Anastasia Steffen

2011 *How in the World Does Obsidian Hydration Work?* In IAOS sponsored symposium: "The Cutting Edge: The State of Play in World Obsidian Studies", 76th Annual Meeting of the Society for American Archaeology, Sacramento, March 2011.

Steffen, Anastasia, and Philippe D. LeTourneau

2007 *Sources in the Middle: The Jemez Mountains Obsidian Database Project.* In symposium: "Xenophile: Allure of the Exotic", Carolyn Dillian & Carolyn White, Organizers, 71<sup>st</sup> Annual Meeting of the Society for American Archaeology, Austin, April 2007

Steffen, Anastasia, and Richard E. Hughes

2004 *New Studies of Chemical Variation Within and Among Valles Caldera Obsidians.* Paper presented at the 69<sup>th</sup> Annual Meeting of the Society for American Archaeology, Montreal, April 2004.

Steffen, Anastasia

2001 *Dome Fire Effects on Obsidian at Capulin Quarry, Santa Fe National Forest.* Paper presented at the *Conference on Wildfires and Cultural Resources*, organized by B. Vierra, Los Alamos National Lab, and J. M. Bremer, Santa Fe National Forest, Santa Fe, November 2001.

Steffen, Anastasia

1999 *The Dome Fire Study: Extreme Forest Fire Effects on Jemez Obsidian.* In IAOS sponsored symposium: *The Effects of Fire/Heat on Obsidian*; organized by Tom Origer and Dave Fredrickson, at the Society for California Archaeology Annual Meetings, Sacramento, May 1999.

Smith, Robin L., John L. Fagan, Terry L. Ozbun, and Anastasia Steffen

1999 *Lithic Technology at the Oak Grove and Vine Rockshelter Sites.* Paper presented at the 52<sup>nd</sup> Annual Northwest Anthropological Conference, Newport, Oregon.

Steffen, Anastasia, Elizabeth Skinner, and Peter Ainsworth

1996 *Lithic Debitage Analysis: Evaluating Current Techniques.* Paper presented at the 61<sup>st</sup> Annual Meeting of the Society for American Archaeology, New Orleans, April 1996.

Steffen, Anastasia, and Ann F. Ramenofsky

1995 *Unit Construction in Archaeology: An Introduction.* Opening paper for symposium: Unit Construction in Archaeology: Measuring Time, Space, & Material, Ramenofsky & Steffen, Chairs. 60<sup>th</sup> Annual Meeting of Society for American Archaeology, Minneapolis, May 1995.

Ramenofsky, Ann F., Shawn L. Penman, Anastasia Steffen, Steve Dominguez

1994 *Surface Archaeology in the Lower Chama Valley: The Low-Density Record.* Paper presented at the 67<sup>th</sup> Pecos Conference, Mesa Verde National Park, August 1994.

Ramenofsky, Ann F., Shawn L. Penman, Anastasia Steffen, Steve Dominguez

1994 *Surface Archaeology in the Lower Chama Valley: The High-Density Record.* Paper presented at the 67<sup>th</sup> Pecos Conference, Mesa Verde National Park, August 1994.

Steffen, Anastasia

1992 *Three Dimensions of a Mound: A Re-Examination of Culture History in the Lower Mississippi Valley.* Paper at Southeastern Archaeological Conference, Little Rock, Oct 1992.

Steffen, Anastasia, and Dennis Jones

1992 *Prehistoric Mound Form and Distribution in the Lower Mississippi Valley.* Paper presented at Louisiana Archaeological Society Annual Meeting, Baton Rouge, January 1992.

**PROFESSIONAL / RESEARCH PRESENTATIONS:**

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**POSTER PRESENTATIONS:**

Worman, F. Scott, and Anastasia Steffen

2017 *Watch Out for Landslides and Gopher Holes!: Using obsidian hydration to measure post-depositional site disturbance in the Valles Caldera National Preserve*. 82<sup>nd</sup> Annual Meeting of the Society for American Archaeology, Vancouver, April 2017.

Worman, F. Scott, Anastasia Steffen, and William Wedenoja

2016 *Field Schools as Public and Applied Archaeology*. 81<sup>st</sup> Annual Meeting of the Society for American Archaeology, Orlando, April 2016

Civitello, Jamie A., Anastasia Steffen, Chris Turnbow, F. Scott Worman

2015 *Earthwatch at the Valles Caldera National Preserve: Building a Successful Volunteer Research Partnership with Obsidian, Quarries, Soil, and More!* 80th Annual Meeting of the Society for American Archaeology, San Francisco, April 2015.

Kulisheck, Jeremy, Anastasia Steffen, and Connie Constan

2013 *Agricultural Intensification, Field Features, and Hypervisibility: A Case from the Jemez Mountains, New Mexico, USA*. 78th Annual Meetings of the Society for American Archaeology, Honolulu.

Loehman, Rachel A., and Anastasia Steffen

2012 *ArcBurn: Linking field-based and experimental methods to quantify, predict, and manage fire effects on cultural resources*. 5<sup>th</sup> International Fire Ecology and Management Congress, Portland, OR

Steffen, Anastasia

2012 *Shattered: Direct Effects of the Las Conchas Fire at Jemez Obsidian Quarries*. Poster presented in the IAOS-sponsored symposium (A. Steffen, organizer) "Obsidian Studies Across the Americas: Alaska to Argentina and Beyond" at 77th Annual Meetings of the Society for American Archaeology, Memphis.

Knighton-Wisor, Jonathan, and Anastasia Steffen

2012 *Carved Aspens in the Valles Caldera: Predictive Modeling and Research Implications*. Poster presented at the Anthropology Conference, UNM, Albuquerque.

Steffen, Anastasia

2010 *Sharp, Brittle, Transparent, & Revealing: Exploring the Potential for Obsidian Technology, Sourcing, and Chronometry Studies in the Valles Caldera National Preserve*. Poster presented in the symposium "On the Knowledge Frontier: The First Decade of Cultural Resources Discovery and Management at the Valles Caldera National Preserve", at 75th Annual Meetings of the Society for American Archaeology, St. Louis.

Steffen, Anastasia, and Colleen Olinger

2010 *A Fragile Union of Nature and Culture: Aspen Dendroglyphs in the Valles Caldera National Preserve*. Poster presented in the symposium "On the Knowledge Frontier: The First Decade of Cultural Resources Discovery and Management at the Valles Caldera National Preserve" at 75th Annual Meetings of the Society for American Archaeology, St. Louis.

Steffen, Anastasia

2009 *Obsidian Water, Obsidian Hydration: Investigating Variation in the Geochemistry of Jemez Rhyolitic Glasses*. Poster presented in the symposium: *From Magma to Artifact: Geological and Archaeological Perspectives* at the Annual Meetings of the Geological Society of American, October 2009, Portland.

**PROFESSIONAL / RESEARCH PRESENTATIONS:**

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***POSTER PRESENTATIONS (continued):***

Steffen, Anastasia, and Jeremy T. Decker

2008 *Current Obsidian Research on the Valles Caldera National Preserve*. Poster presented at the 73rd Annual Meetings of the Society for American Archaeology, Vancouver, BC.

Steffen, Anastasia and Philippe D. LeTourneau

2008 *The Jemez Mountains Obsidian Database Project: Compiling Obsidian Artifact Provenance Data to Inform on Prehistoric Movement, Trade, and Interaction*. Poster presented at the Southwest Symposium, Tempe, AZ.

Steffen, Anastasia

2006 *Archaeology in the High Lonesome: Current Research at the Valles Caldera National Preserve, New Mexico*. Poster session organized for the 71st Annual Meetings of the Society for American Archaeology, San Juan, Puerto Rico.

Steffen, Anastasia

2006 *Investigating Obsidian Water Content in Valles Caldera Volcanic Glasses*. Poster presented at the 71st Annual Meetings of the Society for American Archaeology, San Juan, Puerto Rico.

Soto, Ricci, Timothy J. Seaman, and Anastasia Steffen

2006 *Walking on Broken Glass: 2005 Survey on Cerro del Medio*. Poster presented in at the 71st Annual Meetings of the Society for American Archaeology, San Juan, Puerto Rico.

Steffen, Anastasia

2004 *The Secret Life of Obsidian: Exploring the Geochemistry of Jemez Rhyolite Glasses*. Poster presented at the Archaeological Sciences of the Americas Symposium, Tucson, AZ.

Steffen, Anastasia

2003 *A Glass Half Full?: Investigating Forest Fire Effects and the Role of Obsidian Water Content*. Poster presented at the Melos Obsidian Conference (*International Specialized Workshop: Recent Advances in Obsidian Dating and Characterization*), Greece, July 2003.

Steffen, Anastasia

2000 *When Bad Things Happen to Good Rocks: Identifying Fire Effects on Jemez Obsidian*. Poster presented at the Pecos Conference, Mesa Verde, September 2000.

Steffen, Anastasia

1999 *When Obsidian Goes Bad: Forest Fire Effects on Jemez Obsidian*. Poster presented at the 64<sup>th</sup> Annual Meetings of the Society for American Archaeology, Chicago.  
(Winner, 1999 Society for Archaeological Science Best Student Archaeometry Poster; & 1999 Broilo-Basehart Award, Department of Anthropology, University of New Mexico).

Steffen, Anastasia, Rita Moots-Skinner, and Ann F. Ramenofsky

1997 *Effects of the Dome Fire on Jemez Obsidian*. Poster presented at the 62<sup>nd</sup> Annual Meeting for the Society for American Archaeology, Nashville, 1997 (& 1998 by invitation)  
(Winner, 1997 Society for American Archaeology Outstanding Poster Award, Student Category)

Ramenofsky, Ann F., Shawn Penman, Anastasia Steffen, Steve Dominguez

1995 *The High-Low Density Record in the Lower Chama Valley*. Poster presented at the 60<sup>th</sup> Annual Meeting of the Society for American Archaeology, Minneapolis, May 1995.

## TEACHING EXPERIENCE

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*Fieldschool Instructor*; Western Oregon University Archaeological Fieldschool (Lab Manager)  
Dr. Robin Smith, Director, Willamette National Forest, Oakridge, Oregon. June-July 1997

*Teaching Assistant*, Graduate Archaeological Laboratory Methods Course (Anth 473)  
Dr. Ann Ramenofsky, Professor, University of New Mexico, Spring 1995 and Spring 1991

*Instructor*, Undergraduate Archaeological Lab and Field Methods Course (Anth 121L)  
University of New Mexico, Fall 1994

*Fieldschool Instructor*, UNM Archaeology Fieldschool, *Chama Archaeological Project*  
Dr. Ann Ramenofsky, Director, Ojo Caliente, New Mexico. June 1994

*Fieldschool Instructor*, UNM Archaeology Fieldschool, *Gallina Archaeological Project*  
Dr. Robert Leonard, Director, Cuba District, Santa Fe National Forest. May-June 1993

Occasional flintknapping demonstrations: for the Archaeology Introductory course and the Physical Anthropology Introductory course; University of New Mexico, during 1992-1993 semesters

Workshop Assistant: Lithic Analysis Training Workshop for USFS archaeologists, Inyo National Forest, Dr. John Fagan and Peter Ainsworth, Instructors. May 1991 (Two 1-week sessions)

## PROFESSIONAL ORGANIZATIONS

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Society for American Archaeology	Association for Fire Ecology
International Association for Obsidian Studies	New Mexico Archeological Council (NMAC)
East Jemez Resource Council, CR Subcommittee	

## PROFESSIONAL SERVICE

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Society for American Archaeology, *Committee on Climate Change Strategies and Archaeological Resources*, committee member (February 2016 – present)

Society for American Archaeology, *Climate Change Strategies Task Force* member (June 2015-January 2016)

Co-organizer: *Fire and Archeology in the Southwest, New Mexico Archeological Council Fall Conference*, University of New Mexico Campus, Albuquerque, with Amalia Kenward, November 13-14, 2015.

President, *International Association for Obsidian Studies* (2007-2010)

Co-Chair, *East Jemez Resource Council Archaeology Subcommittee* (2007-2009)

Co-organizer: *First Annual New Mexico Archaeological Council (NMAC) Field Conference: Jemez Region Part I—Valles Caldera and Jemez River Corridor*; with W. Doleman & T. Seaman; May 20-21, 2006.

Manuscript reviewer for the following scientific journals: *Journal of Archaeological Science* (3 articles), *Journal of California and Great Basin Anthropology*, *Quaternary International*.

## RESEARCH INTERESTS

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Interdisciplinary Landscape-scale Temporal Studies  
Integration of Research & Cultural Resources Management  
Climate Change, Cultural Landscapes, and Ecological Heritage  
High-Elevation Landscapes and Human Adaptation  
Obsidian Hydration Dating and Geochemical Analyses  
Lithic Technology and Lithic Analysis  
Forest Fire History and Prehistory  
North American Prehistory



## SUMMARY OF RESEARCH/ACADEMIC FUNDING

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**Joint Fire Sciences Program:** “Linking field-based and experimental methods to quantify, predict, and manage fire effects on cultural resources.” (aka *ArcBurn*) Funding to conduct 3-year experimental fire effects research on obsidian, ceramics and masonry to produce a variety of CR and fire management tools. (Principal Investigator: R. Loehman, RMRS; Co-PIs: A. Steffen & J. Civitello, VCNP; J. Dyer, SFNF; B. Butler & J. Reardon, RMRS; R. Gauthier, BNM; A. Evans, Forest Guild; V. Archer, USFS. May 2012, \$504,000.

**Earthwatch Institute Expeditions:** “Encountering the Prehistoric People of New Mexico”, Funding and volunteer participation in excavations at LA026919, an obsidian quarry in the Valles Caldera National Preserve; 3 year project. (Principal Investigator: A. Steffen, VCNP; Co-PIs: C. Turnbow, NM Gas Co.; F. S. Worman, UNM-OCA; J. Civitello, VCNP). 2012-2014, \$20,000/year (~\$60,000 total).

**Western National Parks Association:** Funding to Bandelier National Monument for Obsidian Sourcing at Ancestral Pueblo Sites in Bandelier National Monument and Santa Fe National Forest (Principal Investigator: R. Gauthier, BNM; Co-PIs: J. Civitello, BNM; A. Steffen, VCNP; J. Kulisheck, SFNF; M. Liebmann, Harvard University). January 2010, \$2,500

**Rocky Mountain Research Station, USFS:** Funding to VCNP (R. Parmenter, PI) for prescribed grassland fire condition assessment and experimental burn plots for obsidian hydration study as part of the *Valle Toledo Prescribed Burn Archaeological Fire Effects Project*. November 2005, \$2,500

**The Canon National Parks Science Scholars Program:** Dissertation Fellowship, included stipend and funding for doctoral research on Dome Fire effects in Santa Fe National Forest and Bandelier National Monument, September 2000 - August 2003, \$75,000

**New Mexico Archaeological Council:** Funding for electron microscopy (SEM & EPMA) at UNM Institute of Meteoritics, Dome Fire Effects Study (dissertation research): Spring 2000, \$525

**Sigma Xi Grants in Aid of Research:** Funding for upgrade of optical microscope equipment for use in obsidian analyses, Dome Fire Effects Study (dissertation research): Spring 1998, \$812

**Santa Fe National Forest, Heritage Research Program:** Funding for obsidian hydration and XRF chemical composition analyses of burned obsidian samples, Dome Fire Effects Pilot Project (pre-dissertation research): Fall 1996, \$4000

**UNM Student Research Allocations Committee:** Awards toward funding of independent research (1992), and for attending professional meetings to present a research poster and paper (1996, 1998): Combined total of \$550

**National Science Foundation:** Graduate fellowship, June 1991 - May 1994, \$36,000