# **CRAIG E. SKINNER**

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Ph.D. Candidate, University of Oregon, Anthropology, 1986 - 1991
M.S., University of Oregon, Anthropology, 1991
M.S., University of Oregon, Interdisciplinary Studies (Archaeology, Geology, Geography), 1983
Ed.M., Oregon State University, Education, 1974
B.S., Oregon State University, Anthropology, 1973

# **PROFESSIONAL EXPERIENCE**

1996–2016	Program Director and Owner, Northwest Research Obsidian Studies Laboratory, Corvallis, Oregon.
1994–1996	Program Director, Obsidian Studies Laboratory, BioSystems Analysis, Inc., Santa Cruz, California.
1991–1994	Assistant Laboratory Director, INFOTEC Research, Inc., Eugene, Oregon.
1990–1991	Co-principal Investigator, Willamette National Forest Tephra Project.

# PRIMARY RESEARCH INTERESTS

Provenance Studies and the Geochemical Characterization of Archaeological and Geological Materials Obsidian Characterization and Hydration Studies Prehistory of the Far Western United States Internet Applications in Archaeology, Geology, and Geography

# SELECTED PUBLICATIONS AND REPORTS

Moratto, Michael J., Alan P. Garfinkel, Jon M. Erlandson, Alexander K. Rogers, Michael F. Rondeau, Jeffrey Rosenthal, Craig Skinner, Tim Carpenter, and Robert M. Yohe

2018 Fluted and Basally Thinned Concave-Base Projectile Points of Obsidian in the Borden Collection from Inyo Country, California: Age and Significance. *California Archaeology* 10:27-60.

Dolan, Sean, M. Steven Shackley, Don G. Wyckoff, and Craig E. Skinner

2017 Long-Distance Conveyance of California Obsidian at the Hayhurst Lithic Cache Site (34ML168) in Oklahoma. *Plains Anthropologist Reports* 2017:1-19.

Skinner, Craig E. and Jennifer J. Thatcher

2016 Appendix C: X-Ray Fluorescence Analysis and Obsidian Hydration Rim Measurement of Obsidian and Fine-Grained Volcanic Artifacts from Sites Associated with the Ruby Pipeline Project, Lake and Klamath Counties, Oregon. In *Ruby Pipeline Project Archaeological Site Testing and Evaluation and Data Recovery - Oregon Segments: Lake and Klamath Counties*, by John L. Fagan et al., pp. 1-69, R.1-R.9, A.1-A.185, B.1-B.114, C.1-C.19. Archaeological Investigations Northwest, Inc., Portland, Oregon, Report No. 3446, prepared for Ruby Pipeline, LLC, and Kinder Morgan, Inc., Colorado Springs, Colorado.

Hopkins, Jerry N. Alan P. Garfinkel, Alexander K. Rogers, Tim R. Carpenter and Crag E. Skinner

2016 Further Studies of Ancient Black Glass: Obsidian Tracing and Hydration Dating Tulare Lake Widestem Points. In *Unique Tools and Widestem Points from the Tulare Lake Region*, edited by Jerry N. Hopkins and Alan P. Garfinkel, pp. 1-25. Contributions to Tulare Lake Archaeology VII, The Tulare Lake Archaeological Research Group, Coyote Press, Salinas, California.



Baxter, Paul W., Thomas J. Connolly, and Craig E. Skinner

2015 Obsidian Use in the Willamette Valley and Adjacent Western Cascades of Oregon. In *Toolstone Geography of the Pacific Northwest*, edited by Terry L. Ozbun and Ron L. Adams, pp. 218-233. Archaeology Press, Simon Fraser University, Burnaby, British Columbia.

Connolly, Thomas J., Craig E. Skinner, and Paul W. Baxter

2015 Ancient Trade Routes for Obsidian Cliffs and Newberry Volcano Toolstone in the Pacific Northwest. In *Toolstone Geography of the Pacific Northwest*, edited by Terry L. Ozbun and Ron L. Adams, pp. 180-192. Archaeology Press, Simon Fraser University, Burnaby, British Columbia.

Stueber, Daniel O. and Craig E. Skinner

- 2015 Glass Buttes, Oregon: 14,000 Years of Continuous Use. In *Toolstone Geography of the Pacific Northwest*, edited by Terry L. Ozbun and Ron L. Adams, pp. 193-207. Archaeology Press, Simon Fraser University, Burnaby, British Columbia.
- Erlandson, Jon M., Douglas J. Kennett, Brendan J. Culleton, Ted Goebel, Greg C. Nelson, and Craig Skinner
   2014 Eyed Bone Needles from a Younger Dryas Paleoindian Component at Tule Lake Rock Shelter, Northern California. *American Antiquity* 79:776-781.

Roberts, Theodore, Craig E. Skinner, and William D. Bryce

- 2014 Hunter-Gatherer Igneous Toolstone Procurement in Northern Arizona: A Geochemical Study of Projectile Points and Raw Material Sources. *Kiva* 80:193-212.
- Skinner, Craig E.
- 2014 IAOS Bibliography Hits Internet Hyperspace on the World Wide Web. In *Twenty-Five Years on the Cutting Edge of Obsidian Studies*, edited by Carolyn D. Dillian, pp. 7-10. International Association for Obsidian Studies.

Erlandson, J. M., T. C. Rick, T. J. Braje, B. Culleton, B. Fulfrost, T. Garcia, D. A. Guthrie, N. Jew, D. J. Kennett, M. L. Moss, L. Reeder, C. Skinner, J. Watts, and L. Willis

- 2011 Paleoindian Seafaring, Maritime Technologies, and Coastal Foraging on California's Channel Islands. *Science* 331:1181-1185.
- Boulanger, Matthew, Michael D. Glascock, M. Steven Shackley, Craig Skinner, and Jennifer J. Thatcher
- 2010 Likely Source Attribution for a Possible Paleoindian Obsidian Tool from Northwest Louisiana. *Louisiana* Archaeology 37:81-88.

Garfinkel, Alan P., Jerry N. Hopkins, and Craig E. Skinner

2008 Ancient Stones of Black Glass: Tracing and Dating Paleoindian Obsidian Artifacts from China and Tulare Lakes. In *Ice-Age Stone Tools from the San Joaquin Valley*, edited by Jerry N. Hopkins and Alan P. Garfinkel, pp. 59-97. Contributions to Tulare Lake Archaeology IV, Tulare Lake Archaeological Research Group.

Hammerstedt, Scott W., Michael D. Glascock, and Craig E. Skinner
 2008 Obsidian Artifacts from Moundville. *Journal of Alabama Archaeology* 54(1-2):54-59.

- O'Grady, Patrick, Chuck Morlan, Scott Thomas, Craig E. Skinner, and Jennifer J. Thatcher
   2008 Geochemical Sourcing of Five Crescents from the Alvord Desert of Southeastern Oregon. *Current* Archaeological Happenings in Oregon 33(3):8-9.
- Halford, Kirk, Gregory Haverstock, Alexander K. Rogers, Jeffrey S. Rosenthal, and Craig E. Skinner
   2008 The Coleville and Bodie Hills NRCS Soil Inventory, Walker and Bridgeport, California: A Reevaluation of the Bodie Hills Obsidian Source (CA-MNO-4527) and Its Spatial and Chronological Use. Cultural Resources Report CA-170-07-08 prepared by the Bureau of Land Management, Bishop Field Office, Bishop, California.

Eerkens, Jelmer, Jeffrey R. Ferguson, Michael D. Glascock, Craig E. Skinner, and Sharon Waechter

2007 Reduction Strategies and Geochemical Characterization of Lithic Assemblages: A Comparison of Three Case Studies from Western North America. *American Antiquity* 72:585-597

Boulanger, Matthew H., Thomas R. Jamison, Craig Skinner, and Michael D. Glascock

2007 Analysis of an Obsidian Biface Reportedly Found in the Connecticut River Valley of Vermont. Archaeology of Eastern North America 35:81-92.

Speakman, Robert J., Michael D. Glascock, Robert H. Tykot, Christophe Descantes, Jennifer J. Thatcher, Craig E. Skinner, and Kyra M. Lienhop

2007 Laser Ablation ICP-MS Characterization of Archaeological Materials for Provenance-Based Research. In *Archaeological Chemistry: Analytical Techniques and Archaeological Interpretation*, edited by Michael D. Glascock, Robert J. Speakman, and Rachel S. Popelka-Filcoff, pp. 275-296. American Chemical Society Symposium Series 968, Washington, D. C.

Garfinkel, Alan P., Jeanne Day Binning, Craig E. Skinner, Alexander K. Rogers, Russell Kaldenberg, and Thomas Chapman

2006 Obsidian Bifaces of the Eastern Sierra: The Portugese Bench and Cactus Flat Biface Cores. *Society for California Archaeology Newsletter* 40(2):30-34.

Ferguson, Jeffrey R. and Craig E. Skinner

- 2005 Bone Cave: A Severely Disturbed Cave Site in Central Oregon. *North American Archaeologist* 26:221-244.
- Haarklau, Lynn, L. Johnson, D. L. Wagner, R. E. Hughes, C. E. Skinner, J. J. Thatcher, and K. Myhrer
   2005 *Fingerprints in the Great Basin: The Nellis Air Force Base Regional Sourcing Study.* Report prepared for Nellis Air Force Base by Prewitt and Associates, Inc., Austin, Texas.

Skinner, Craig E., J. J. Thatcher, D. L. Jenkins, and A. C. Oetting

2004 X-Rays, Artifacts, and Procurement Ranges: A Mid-Project Snapshot of Prehistoric Obsidian Procurement Patterns in the Fort Rock Basin of Oregon. In *Early and Middle Holocene Archaeology of the Northern Great Basin*, edited by D. L. Jenkins, T. J. Connolly, and C. M. Aikens, pp. 221-232. University of Oregon Anthropological Papers 62, Eugene, Oregon.

Beck, Charlotte, G. T. Jones, D. L. Jenkins, C. E. Skinner, and J. J Thatcher

- 2004 Fluted or Basally-Thinned? Re-Examination of a Lanceolate Point from the Connley Caves in the Fort Rock Basin. In *Early and Middle Holocene Archaeology of the Northern Great Basin*, edited by D. L. Jenkins, T. J. Connolly, and C. M. Aikens, pp. 281-294. University of Oregon Anthropological Papers 62, Eugene, Oregon.
- Garfinkel, Alan P., J. D. Binning, E. Younkin, C. Skinner, T. Origer, R. Jackson, J. Lawson and T. Carpenter 2004 The Little Lake Biface Cache, Inyo County, California. In *Proceedings of the Society for California* Archaeology 17:87-101.

Ferguson, Jeffrey R. and C. E. Skinner

2003 Colorado Obsidian? Preliminary Results of a Statewide Database of Trace Element Analysis. *Southwestern Lore* 69(4):35-50.

Barker, Alex W., C. E. Skinner, M. S. Shackley, M. D. Glascock, and J. D. Rogers

- 2002 Mesoamerican Origin for an Obsidian Scraper from the Precolumbian Southeastern United States. *American Antiquity* 67:103-108.
- Buchner, C. Andrew and Craig E. Skinner
- 2002 An Obsidian Artifact from the La Plant I Site in the Cairo Lowland of Southeast Missouri. *Missouri* Archaeological Society Quarterly 19(4).

Ambroz, Jessica A., M. D. Glascock, and C. E. Skinner

2001 Chemical Differentiation of Obsidian Within the Glass Buttes Complex, Oregon. *Journal of Archaeological Science* 28:741-746.

Lyons, William H., S. P. Thomas, and C. E. Skinner

2001 Changing Obsidian Sources at the Lost Dune and McCoy Creek Sites, Blitzen Valley, Southeast Oregon. Journal of California and Great Basin Anthropology 23:273-296.

Rick, Torben C., C. E. Skinner, J. M. Erlandson, and R. L. Vellanoweth

2001 Obsidian Source Characterization and Human Exchange Systems on California's Channel Islands. *Pacific Coast Archaeological Society Quarterly* 37:27-44.

Johnson, Lynn, David L. Wagner, and Craig E. Skinner

1999 Geochemistry of Archaeological Obsidian Sources in the Saline Range, Death Valley National Park, California. In Proceedings of Conference on Status of Geologic Research and Mapping in Death Valley National Park, edited by Janet L. Slate, pp.118–120. U.S. Geological Survey Open-File Report 99-153. U.S. Geological Survey Open-File Report 99-153.

Thomas, Scott, Patrick O'Grady, Craig Skinner, and Jennifer Thatcher

2002 Return to a Jack Rabbit Roasting Site (35HA3055) in Southeastern Oregon: The Obsidian Sourcing and Hydration Evidence. Paper presented at the 2002 Northwest Anthropological Conference, Boise, Idaho.

Connolly, Thomas J., Richard E. Hughes, and Craig E. Skinner

- 1999 Geochemical Characterization of the Newberry Caldera Obsidian Flows. In *Newberry Crater: A Ten-Thousand-Year Record of Human Occupation and Environmental Change in the Basin-Plateau Borderlands*, by Thomas J. Connolly, pp. 151-156. University of Utah Anthropological Papers 121, Salt Lake City, Utah.
- Skinner, Craig E., Ann C. Bennett-Rogers, and Jennifer J. Thatcher
- 1999 Obsidian Studies of Two Possible Wealth Blade Fragments from the Umpqua/Eden Site (35-DO-83), Central Oregon Coast: Results of X-Ray Fluorescence and Obsidian Hydration Analysis. *Current Archaeological Happenings in Oregon* 24(2):17-23.

Lepper, Bradley T., C. E. Skinner, and C. M. Stevenson

- 1998 Analysis of an Obsidian Biface Fragment from a Hopewell Occupation Associated with the Fort Hill (33HI1) Hilltop Enclosure in Southern Ohio. *Archaeology of Eastern North America* 26:33-39.
- Skinner, Craig E. and Jennifer J. Thatcher
- 1998 X-Ray Fluorescence Analysis and Obsidian Hydration Rim Measurement of Artifact Obsidian from 34 Archaeological Sites Associated with the Proposed FTV Western Fiber Build Project, Deschutes, Lake, Harney, and Malheur Counties, Oregon. Report 1998-56 prepared for Northwest Archaeological Associates, Seattle, Washington, by Northwest Research Obsidian Studies Laboratory, Corvallis, Oregon.
- Skinner, Craig E. and Ann C. Bennett-Rogers
- 1997 The Geologic Source of an Obsidian Wealth Blade from the Whale Cove Site (35-LNC-60), Central Oregon Coast: Results of X-Ray Fluorescence Trace Element Analysis. *Current Archaeological Happenings in Oregon* 22(3):8-10.

Skinner, Craig E. and Paul W. Baxter

1997 Trace Element and Visual Characterization Studies of Obsidian from Sites 35-PO-15 and 35-PO-47, Willamette Valley, Western Oregon: An Archaeological Application of Atomic Absorption Spectrometry. In *Contributions to the Archaeology of Oregon: 1995-1996*, edited by Albert C. Oetting. Association of Oregon Archaeologists Occasional Papers No.6, Eugene, Oregon, pp. 19-30. Skinner, Craig E. and Jennifer J. Thatcher, and M. Kathleen Davis

1997 X-Ray Fluorescence Analysis and Obsidian Hydration Rim Measurement of Artifact Obsidian from 35-DS-193 and 35-DS-201, Surveyor Fire Rehabilitation Project, Deschutes National Forest, Oregon. Report 1996-33 prepared for the Deschutes National Forest, Bend, Oregon, by Northwest Research Obsidian Studies Laboratory, Corvallis, Oregon.

Petrassi, Lorenzo and Annalisa Zarattini (with Craig E. Skinner and Jennifer J. Thatcher)

- 1997) II Valore dell'ossidiana e le vie terrestri. Ipotesi dopo I primi risultati della fluorescenza ai raggi X. In *Casale del Dolce: Ambiente, economia e cultura di una comunita preistorica deel Valle del Sacco*, edited by Annalisa Zarattini and Lorenzo Petrassi, pp. 190-208. Rome, Italy.
- Ambroz, Jessica, Michael D. Glascock, and Craig Skinner
- 1996 Obsidian Sourcing and Hydration Studies at MURR. *Transactions of the American Nuclear Society* 74:126-127.
- Skinner, Craig E.
- 1995 Obsidian Characterization Studies. In Archaeological Investigations, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California, Volume V: Technical Studies, by Robert U. Bryson, Craig E. Skinner, and Richard M. Pettigrew, pp. 4.1-4.54. Report prepared for Pacific Gas Transmission Company, Portland, Oregon, by INFOTEC Research, Inc., Fresno, California, and Far Western Anthropological Research Group, Davis, California.
- Skinner, Craig E.
- 1995 Obsidian Hydration Studies. In Archaeological Investigations, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California, Volume V: Technical Studies, by Robert U. Bryson, Craig E. Skinner, and Richard M. Pettigrew, pp. 5.1-5.51. Report prepared for Pacific Gas Transmission Company, Portland, Oregon, by INFOTEC Research, Inc., Fresno, California, and Far Western Anthropological Research Group, Davis, California.

Skinner, Craig E. and Carol J. Winkler

1994 Trans-Cascade Prehistoric Procurement of Obsidian in Western Oregon: An Early Look at the Geochemical Evidence. In *Contributions to the Archaeology of Oregon: 1989-1994*, edited by Paul Baxter. Association for Oregon Archaeologists Occasional Papers No. 5, Eugene, Oregon, pp. 29-44.

Skinner, Craig E. and Stefan C. Radosevich

1994 The Geologic Source of the Mazama "Mimic" Mystery Tephra: A Geochemical Reassessment of Volcanic Tephra from Vine Rockshelter (35LA304), Central Western Cascades, Oregon. In *Contributions to the Archaeology of Oregon: 1989-1994*, edited by Paul Baxter. Association for Oregon Archaeologists Occasional Papers No. 5, Eugene, Oregon, pp. 16-27.

#### Skinner, Craig E.

1993 Obsidian Characterization Laboratory Survey Results. International Association for Obsidian Studies Bulletin 9:12-17.

#### Skinner, Craig E.

1993 Obsidian Research and the Pipeline Expansion Project: A 1991 View from the Trenches. *Current* Archaeological Happenings in Oregon 18(1):3-6.

#### Skinner, Craig E.

1993 Obsidian Domes and Rock Art Chronologies. International Association for Obsidian Studies Bulletin 10:2.

#### Skinner, Craig E. and Kim J. Tremaine

1993 *Interdisciplinary Obsidian Bibliography*. International Association for Obsidian Studies Occasional Paper No. 1, San Jose, California.

#### Skinner, Craig E.

1993 Open Vertical Conduits: A Preliminary Investigation of an Unusual Volcanic Cave Form With Examples from Newberry Volcano and the Central High Cascades of Oregon. In *Proceedings of the Third International Symposium on Vulcanospeleology*, pp. 7-17. International Speleological Foundation, Seattle, Washington.

## Skinner, Craig E.

1993 Obsidian Characterization Laboratory Survey Results. International Association for Obsidian Studies Bulletin 10:11-14.

#### Skinner, Craig E.

1993 Open Vertical Volcanic Conduits: A Preliminary Investigation of An Unusual Volcanic Cave Form With Examples from Newberry Volcano and the Central High Cascades of Oregon (A Special Session of the 39th Annual Convention of the National Speleological Society, Bend, Oregon, July 30-August 1, 1982). In Proceedings of the Third International Symposium on Vulcanospeleology, pp. 7-17. International Speleological Foundation, Seattle, Washington.

#### Skinner, Craig E.

1992 Digital Futures for Oregon Archaeologists: New Ways to Play With Your Data. *Current Archaeological Happenings in Oregon* 17(3):3-5.

#### Skinner, Craig E.

1991 Obsidian at Inman Creek: A Geochemical Evaluation of An Unexpected Geologic Source of Archaeological Obsidian in the Southwestern Willamette Valley, Oregon. Unpublished Master's Paper, Department of Anthropology, University of Oregon, Eugene, Oregon.

Skinner, Craig E. and Stefan C. Radosevich

- 1991 Holocene Volcanic Tephra in the Willamette National Forest, Western Oregon: Distribution, Geochemical Characterization, and Geoarchaeological Evaluation. Report prepared for the Willamette National Forest, Eugene, Oregon, by Northwest Research and Trans-World Geology, Eugene, Oregon.
- Skinner, Craig E. and Stefan C. Radosevich
- 1991 Holocene Volcanic Tephra in the Willamette National Forest: Results of a Geochemical and Geoarchaeological Investigation. *Current Archaeological Happenings in Oregon* 16(4):6-11.
- Skinner, Craig E. and Carol J. Winkler
- 1991 Trans-Cascade Prehistoric Procurement of Obsidian in Western Oregon: The Geochemical Evidence. *Current Archaeological Happenings in Oregon* 16(2):3-9.

## Jon Erlandson, Richard Hughes, Craig E. Skinner, Madonna Moss, and John Boughton

1991 Trace Element Composition of Obsidian Artifacts from the Beaverdam Creek Site (35-CR-20), Central Oregon. *Current Archaeological Happenings in Oregon* 16(2):9-11.

## Skinner, Craig E. and Stefan C. Radosevich

- 1991 Holocene Volcanic Tephra in the Willamette National Forest, Oregon: Distribution, Geochemical Characterization, and Geoarchaeological Evaluation. Report prepared for the Willamette National Forest, Eugene, Oregon, by Northwest Research, Corvallis, Oregon, and Trans-World Geology, Eugene, Oregon.
- Skinner, Craig E.
- 1986 *The Occurrence, Characterization, and Prehistoric Utilization of Geologic Sources of Obsidian in Central Western Oregon: Preliminary Research Results.* Unpublished report on file at the State Museum of Anthropology, University of Oregon, Eugene, Oregon.

#### Skinner, Craig E.

1983 Obsidian Studies in Oregon: An Introduction to Obsidian and An Investigation of Selected Methods of Obsidian Characterization Utilizing Obsidian Collected at Prehistoric Quarry Sites in Oregon. Unpublished Master's Terminal Project: ISIP, University of Oregon, Eugene, Oregon.

Additional PDF's and publications can be found at: www.deschutesmeridian.com/about publications.html.

# SELECTED PAPERS AND PRESENTATIONS

X-rays, Obsidian, and Lava Caves: Archaeological Investigations of Some Unusual Artifacts from Three Central Oregon Lava Tubes. PowerPoint Presentation prepared for the 2019 NCA Western Regional, August 31-September 2, 2019, Redmond, Oregon. Co-Author: Penni Borghi.

A Brief Overview of Obsidian Sources Documented in the Ceded Lands of the Confederated Tribes of the Grand Ronde. PowerPoint Presentation prepared for the Confederated Tribes of Grand Ronde by Northwest Research Obsidian Studies Laboratory and Willamette Analytics, Corvallis, Oregon. Co-Authors: Alex Nyers and Jennifer Thatcher.

Go Tell it on the Mountain: Relocating the Central Coast A Obsidian Source in Dzawada'enuxw Traditional Territory (2013). Paper presented at the 49th Annual conference of the Canadian Archeological Association, Whistler BC. Co-Authors: Jim Stafford and Mike Willie.

Obsidian Hydration, Cut Sample Selection, and Technological Aspects of Debitage (2009). Poster presented at the 74th Annual Society for American Archaeology Meetings, Atlanta, Georgia. Co-Authors: J.D. Binning, A.P. Garfinkel, Jennifer J. Thatcher, and Brian Wickstrom.

Obsidian Source Use at Danger Cave (2008). Poster presented at the 31st Biennial Great Basin Anthropological Conference, Portland, Oregon. Co-Author: D. Page.

Lithic Sourcing in the BC Interior (2008). Paper presented at the 59th Annual Northwest Anthropological Conference, Victoria, British Columbia. Co-Authors: B. Pegg, C. Robertson, and D. Pokotylo.

A View of Northern Great Basin Prehistory Through the Volcanic Glass Window (2008). Paper presented at the 57th Annual Northwest Anthropological Conference, Seattle, Washington. Co-Author: D. Jenkins.

INNA Examination of Flake Size Bias in XRF Studies (2005). Poster presented at the 70th Annual Meetings of the Society for American Archaeology, Salt Lake City, Utah. Co-authors: Ferguson, J. R., J. W. Eerkens, and M. D. Glascock.

Laser Ablation ICP-MS Characterization of Archaeological Materials for Provenance-Based Research (2004). Paper presented at The Inaugural Symposium of the Archaeological Sciences of America Meeting, Tucson, Arizona. Co-authors: Speakman, R. J., M. D. Glascock, C. H. Descantes, R. H. Tykot, J. J. Thatcher, K. M. Lienhop, and B. J. Higgins.

Establishing an Origin for Clay Features at the Tseriadun Site (35-CU-7), Southern Oregon Coast (2004). Paper presented at the 55th Annual Northwest Anthropological Conference, Eugene, Oregon. Co-authors: L. G. Davis, R. S. Byram, and F. C. Anderson.

The Social Dimension of Obsidian in the Portland Basin (2004). Paper presented at the 55th Annual Northwest Anthropological Conference, Eugene, Oregon. Co-author: D. Ellis.

Chemical Differentiation of Obsidian Within the Newberry Volcanic Complex by Laser Ablation ICP-MS,INAA, and XRF (2002). Paper presented at the Geological Society of America Annual Meeting, Denver, Colorado. Co-authors: R. J. Speakman and M. D. Glascock.

Bulldozing for Bifaces: Production, Procurement, and Provenance Analysis of an Obsidian Biface Cache from the Central Cascades of Oregon (2002). Paper presented at the Annual Meeting of the Society for American Archaeology Annual Meeting, Denver, Colorado. Co-authors: A. C. Bennett and J. J. Thatcher.

A Comparison of Obsidian Analyses by Multiple Techniques: Determining Meaningful Levels of Resolution for Central Mediterranean Provenance Studies (2000). Poster presented at the 32nd International Symposium on Archaeometry, Mexico City, Mexico. Co-authors: R. H. Tykot and M. D. Glascock

Obsidian Characterization and Hydration Results of the Fort Rock Basin Prehistory Project, Oregon (1999). Paper presented at the 52nd Northwest Anthropological Conference, Newport, Oregon. Co-authors: D. L. Jenkins, J. J. Thatcher, and K. Hoar.

Preliminary Report from the Malheur National Forest Obsidian Characterization Project: Insights on Prehistoric Use of Strawberry Mountain Obsidian (1998). Paper presented at the 16th Annual Great Basin Anthropological Conference, Bend, Oregon. Co-authors: Donald A. Rotell and Don Hann.

Geochemical Characterization and Correlation of Artifact and Source Obsidian, North Cascades National Park, Washington (1997). Paper presented at the 50th Northwest Anthropological Conference, Ellensburg, Washington. Co-author: Robert R. Mierendorf.

Obsidian Research in the Newberry Volcano Region of Central Oregon, Part 1: The Sources (1994). Paper presented at the Annual Meeting of the Association for Oregon Archaeologists, Bend, Oregon.

Spatial Patterns of Obsidian Use in Central Oregon: An Early View from the Trenches (1994). Paper presented at the 59th Annual Meeting of the Society for American Archaeology, Anaheim, California. Co-author: Richard E. Hughes.

Obsidian Hydration Studies in Central Oregon: The Results of the First Cut (1994). Paper presented at the 59th Annual Meeting of the Society for American Archaeology, Anaheim, California. Co-author: Richard M. Pettigrew.

Mazama 'Mimic' Mystery Solved: A Geochemical Reassessment of the Volcanic Tephra from Vine Rockshelter (1990). Paper presented at 43rd Annual Northwest Anthropological Conference, Eugene, Oregon. Co-author: Stefan C. Radosevich.

## **PROFESSIONAL MEMBERSHIPS**

Association of Oregon Archaeologists International Association for Obsidian Studies (President, 1992-1993; Webmaster, 1995-2021) Society for American Archaeology Society for Archaeological Science