

F. J. Mathien 1

**FRANCES JOAN MATHIEN**

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**Education:**

Ph.D. University of New Mexico, Albuquerque, 1981. Major: Anthropology  
M.A. University of New Mexico, Albuquerque, 1976. Major: Anthropology  
B.A. State University of New York at Buffalo, 1973, Summa cum laude. Major: Anthropology

**Current Affiliations:**

2002-present Member of Advisory Committee, Chaco Digital Initiative, University of Virginia, Charlottesville.  
2005-present Research Associate, Maxwell Center for Anthropological Research, University of New Mexico, Albuquerque.  
2005-present Research Associate, Office of Archaeological Studies, Museum of New Mexico, Santa Fe.  
2005-present Volunteer, Chaco Culture National Historical Park Museum Collections, University of New Mexico, Albuquerque.  
2007-present Adjunct, Department of Anthropology, University of New Mexico, Albuquerque.

**Professional Employment:**

1980–2005 Archeologist, Anthropology Program, National Park Service, Santa Fe and Albuquerque.  
1982-1990 Adjunct Assistant Professor, Department of Anthropology, University of New Mexico, Albuquerque.  
1978-1980 Archeologist, Remote Sensing Division, National Park Service, Albuquerque.  
1978 Research Assistant, Cochiti Dam Project, Office of Contract Archeology, University of New Mexico, Albuquerque.  
1977 Research Archaeologist, Picuris Project, Office of Contract Archeology, University of New Mexico, Albuquerque.  
1975 Research Assistant, Cochiti Dam Project, Office of Contract Archeology, University of New Mexico, Albuquerque.

**Memberships:**

Society for American Archaeology  
Archaeological Institute of America  
New Mexico Archeological Council:  
Secretary-Treasurer 1983  
Vice-President 1988  
Archaeological Society of New Mexico:  
Ex-officio Trustee/Advisor 1987-present  
Program Chair 1987, 2007, 2008 Annual Meetings  
Historian 1988-present

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Honoree Nominating Committee 1985-1989  
Scholarship Committee 1994-present  
Special Publications: Casamero Community  
Vidal

Albuquerque Archaeological Society:  
Vice President 1990, 2009, 2010-2011

**Grants Received:**

\$2950 from the Wenner-Gren Foundation for Anthropological Research to aid research on role and origin of turquoise in Chacoan trade networks through neutron activation analysis of artifacts, 1978.

With Mostafa Fayek, \$97,137 from the National Science Foundation No. 0312088, entitled "Sourcing Turquoise Using O and H Isotopes," 2003-2005

With Mostafa Fayek \$125,928 from the National Science Foundation No. 0609638, "Sourcing Turquoise Using H and Cu Isotopes," 2006-2008.

\$2,200 from the Wenner-Gren Foundation for Anthropological Research to "Aid Oral-History Interviews of Chaco Canyon Research Projects" 2006.

\$7,375 from Western National Parks Association for "Chetro Ketl and Talus Unit Data Collections," 2007.

**Other:**

Co-program chair for the Annual Meeting of the American Society for Ethnohistory, Albuquerque, November 3-6, 1983

With Thomas C. Windes, conducted Chaco field tours sponsored by the Maxwell Museum of Anthropology of the University of New Mexico, 1984-1989

For New Mexico State University, conducted Chaco field tours, 1991-1995

Coordinator for Southwest Archaeological Preservation brochure entitled "Our Fragile Legacy," 1995-1997

International Who's Who of Professional and Business Women, first edition, 1989, International Biographical Centre, Cambridge; Who's Who in the West, 20<sup>th</sup> and 21<sup>st</sup> editions, 1986 and 1987, Marquis Who's Who, Wilmette; Two Thousand Notable American Women, 1989, American Biographical Institute, Inc., Raleigh; National Directory of Latin Americanists, 4<sup>th</sup> edition, Taylor Publishing Co., Dallas, post 1991; 2000 Outstanding Scholars of the 21<sup>st</sup> Century, International Biographical Centre, Cambridge, England.

Member of Research Team for the National Endowment for the Humanities Regional Center, 2000.

Expert assistant for R. Gwinn Vivian and Florence C. Lister for the Crow Canyon Tour in Chaco Canyon and the surrounding area, September 9-11, 2000.

**Major Responsibilities for Chaco Project:**

General editor for two publications series that report on research carried out by the National Park Service Chaco Project (1985-present): Reports of the Chaco Center and Studies in Archeology 18.

This was an ongoing project that produced eight reports under the Studies in Anthropology 18,

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Chaco Canyon Studies, and 12 in the Reports of the Chaco Center series.

As a member of the NPS Chaco Project team, I attended all of the symposia scheduled as part of the Volume 2 of the Chaco Synthesis Project in collaboration to produce the final Chaco synthesis:

3/21-23/99	Organization of Production, organized by Catherine M. Cameron and H. Wolcott Toll. University of Colorado, Boulder.
5/3-7/99	Society and Polity, organized by W. James Judge and Linda S. Cordell. Fort Lewis College, Durango.
9/25-27/99	Chaco World, organized by Nancy M. Mahoney, John Kantner, and Keith Kintigh. Arizona State University, Tempe.
10/28-30/99	Environment and Subsistence, organized by R. Gwinn Vivian, Jeffrey S. Dean, and Carla Van West. Tucson.
2/24-26/00	Chaco, Mesa Verde, and Beyond, organized by Patricia Limerick. University of Colorado, Boulder.
10/30-11/3/00	Architecture Conference, organized by Stephen H. Lekson and Thomas C. Windes. University of New Mexico, Albuquerque, and Chaco Culture NHP.
10/15-19/02	Capstone Conference, organized by Lynne Sebastian. University of New Mexico, Albuquerque.

Member of the Chaco Digital Initiative, a team working toward placing information on Chaco research on the Internet. The first working conference was held in 2002, and follow-up have taken place. To date, my bibliography has been placed on the web (Chacoarchive.org).

Guest archaeologist for exhibit: “Chaco Uncovered: The Field Schools 1929 to Present” which opened at the Hibben Center, University of New Mexico, on February 9, 2011.

Consultant: Turquoise, Water, and Sky: The Stone and Its Meaning in Ancestral Pueblo World. Museum of Indian Arts and Culture exhibit, 2014.

### **Current Research and Other Projects**

The Chaco Field Schools. Preparing a history of the field schools conducted from 1929 through 1942 and again in 1947, initially sponsored by the University of New Mexico and the School of American Research; after 1935 sessions by the University of New Mexico alone.

To date, completed summary of the 1929 field season

Currently pulling together a site report on Talus Unit No. 1.

The ASNM field schools in Heaton Canyon. Located outside of Gallup, NM, is a community that includes settlements from Ancestral Pueblo through Historic periods. Members of both the Gallup Archaeological Society and the Archaeological Society of New Mexico cooperated on conduct of field schools that surveyed the canyon, excavated a number of small sites and the great kiva (known as the Vidal Site). Since 2008 I have gone through records of Richard Bice, former director who died that year, to complete the compilation of a report on this work, some of which was co-sponsored by UNM. A draft report has been handed in to the ASNM special publications editor for review. The artifacts and archival material currently held at the Maxwell Museum is being inventoried prior to transfer to the Museum of Indian Arts and Culture/Laboratory of Anthropology, the repository that holds ASNM materials.

Turquoise Research Results. Two papers written collaboration with younger scholars have been submitted to editors for inclusion in a volume on prehistoric quarries and one resulting from an SAA symposium comparing turquoise acquisition and use in the Old and New Worlds.

**Dissertation:**

- 1981 *Economic Exchange Systems in the San Juan Basin*. Department of Anthropology, University of New Mexico, Albuquerque.

**Publications:**

- 1978 With Rory P. Gauthier and Patricia A. Prince. *An Archeological Sample Survey of Proposed Timber Sale Areas on the Picuris Pueblo Reservation*. Office of Contract Archeology, University of New Mexico, UNM Proposal No. 185-11, submitted to the Bureau of Indian Affairs, Albuquerque.
- 1980 Lyons, Thomas R., and Frances Joan Mathien (eds.). *Cultural Resources Remote Sensing*. Cultural Resources Management Division, National Park Service, Washington, D.C.
- 1981 Neutron Activation of Turquoise Artifacts from Chaco Canyon, New Mexico. CA Research Conclusions, *Current Anthropology* 22(30):293-294.
- 1981 Chalmette National Historical Park. A Remote Sensing Project. *Historical Archaeology* 15(2):69-86.
- 1982 Book Review: Lister, Robert H., and Florence C. Lister. "Chaco Canyon: Archaeology and Archaeologists," University of New Mexico Press, Albuquerque, 1981. *Journal of Anthropological Research* 38(2):249-250.
- 1982 With W. James Judge and Andrew Drager. Development of a Data Base Management System for Archeological Resource Conservation. *New Mexico Archaeological Council Newsletter* 4(5&6):29-33.
- 1983 With W. James Judge. A Data Base Management System for Cultural Resources Managers. *The George Wright FORUM* Summer, pp. 1-17.
- 1983 The Mobile Trader and the Chacoan Anasazi. In *Proceedings of the Anasazi Symposium, 1981*, compiled and edited by Jack E. Smith, pp. 196-206. Mesa Verde Museum Association, Inc.
- 1984 Social and Economic Implications of Jewelry Items of the Chaco Anasazi. In *Recent Research on Chaco Prehistory*, edited by W. James Judge and John D. Schelberg, pp. 173-186. Reports of the Chaco Center No. 8, National Park Service, Division of Cultural Research, Albuquerque.
- 1984 Travertine versus Shell. A Problem in Identification of Materials Found in Archaeological Sites. In *Collected Papers in Honor of Harry J. Hadlock*, edited by Nancy L. Fox, pp. 93-112. Papers of the Archaeological Society of New Mexico: 9. Albuquerque.

- 1984 Archeological Application of Historic Structure Reports. *CRM Bulletin* 7(1):11, 19.
- 1985 With A. Helene Warren. Prehistoric and Historic Turquoise Mining in the Cerrillos District. In *Southwestern Culture History. Collected Papers in Honor of Albert H. Schroeder*, edited by Charles H. Lange, pp. 93-127. Papers of the Archaeological Society of New Mexico: 10. Albuquerque.
- 1985 (Ed.). *Environment and Subsistence of Chaco Canyon, New Mexico*. Studies in Archeology 18E, National Park Service, Albuquerque.
- 1985 Introduction. In *Environment and Subsistence of Chaco Canyon, New Mexico*, edited by Frances Joan Mathien, pp. 1-11. Studies in Archeology 18E, National Park Service, Albuquerque.
- 1985 Suggested Readings. In *Environment and Subsistence of Chaco Canyon, New Mexico*, edited by Frances Joan Mathien, pp. 477-487. Studies in Archeology 18E, National Park Service, Albuquerque.
- 1986 With Randall H. McGuire (Eds.). *Ripples in the Chichimec Sea: New Considerations of Southwestern-Mesoamerican Interaction*. Southern Illinois University Press, Carbondale.
- 1986 External Contacts and the Chaco Anasazi. In *Ripples in the Chichimec Sea: New Considerations of Southwestern-Mesoamerican Interaction*, edited by Frances Joan Mathien and Randall H. McGuire, pp. 220-242. Southern Illinois University Press, Carbondale.
- 1986 Book Review. Plog, Stephen, and Shirley Powell. "The Archaeology of Black Mesa, Arizona, Volume II." *American Antiquity* 51:880-881.
- 1987 With Thomas C. Windes (Eds.). *Investigations at the Pueblo Alto Complex, Chaco Canyon, New Mexico 1975-1979. Volume III. Artifactual and Biological Analyses*. Publications in Archeology 18F, Chaco Canyon Studies, National Park Service, Santa Fe.
- 1987 Ornaments and Minerals from Pueblo Alto. Chapter 6 in *Investigations at the Pueblo Alto Complex, Chaco Canyon, New Mexico 1975-1979. Volume III. Artifactual and Biological Analyses*, edited by Frances Joan Mathien and Thomas C. Windes, pp. 381-428. Publications in Archeology 18F, Chaco Canyon Studies, National Park Service, Santa Fe.
- 1988 Shabik'eshchee Village, Sites Bc 50 and 51. Entries in *Historical Dictionary of North American Archaeology*, edited by Edward B. Jelks, with Julie C. Jelks, Assistant Editor, pp. 446, 453. Greenwood Press, Westport.
- 1988 With Thomas C. Windes. *Historic Structure Report. Kin Nahasbas Ruin, Chaco Culture National Historical Park, New Mexico*. Branch of Cultural Research, National Park Service, Santa Fe.
- 1988 Artifacts from the 1935 Excavations at Kin Nahasbas. Appendix B in *Historic Structure Report. Kin Nahasbas Ruin, Chaco Culture National Historical Park, New Mexico*, by Frances Joan Mathien and Thomas C. Windes, pp. 191-208. Branch of Cultural Research, National Park

Service, Santa Fe.

- 1988 1935 Ceramics from Kin Nahasbas. Appendix C in *Historic Structure Report. Kin Nahasbas Ruin, Chaco Culture National Historical Park, New Mexico*, by Frances Joan Mathien and Thomas C. Windes, pp. 209-212. Branch of Cultural Research, National Park Service, Santa Fe.
- 1988 Analysis of Ornaments, Minerals and Cached Items. Appendix G in *Historic Structure Report. Kin Nahasbas Ruin, Chaco Culture National Historical Park, New Mexico*, edited by Frances Joan Mathien and Thomas C. Windes, pp. 249-259. Branch of Cultural Research, National Park Service, Santa Fe.
- 1989 With Thomas C. Windes. Greathouse Revisited: Kin Nahasbas, Chaco Culture National Historical Park. In *From Chaco to Chaco. Papers in Honor of Robert H. Lister and Florence C. Lister*, edited by Meliha S. Duran and David T. Kirkpatrick, pp. 11-34. Papers of the Archaeological Society of New Mexico: 15. Albuquerque.
- 1989 Book Note. Christenson, Andrew L. and William J. Parry (Editors). "Excavations on Black Mesa, 1983: A Descriptive Report." *American Antiquity* 52(2):447-448.
- 1989 With Thomas C. Windes. The Value of Photographic Documentation in Archeological Research: A Case Study. *CRM Bulletin* 12(5):1-5.
- 1990 Three Month's on the Jemez Plateau. An Account of Edgar Lee Hewett's 1905 Field Season. In *Clues to the Past. Papers in Honor of William M. Sundt*, edited by Meliha S. Duran and David T. Kirkpatrick, pp. 185-202. Papers of the Archaeological Society of New Mexico: 16. Albuquerque.
- 1991 Glimpses into the History of the 1908 Fieldwork at Yapashi, Bandelier National Monument. In *Puebloan Past and Present. Papers in Honor of Stewart Peckham*, edited by Meliha S. Duran and David T. Kirkpatrick, pp. 121-132. Papers of the Archaeological Society of New Mexico: 17. Albuquerque.
- 1991 Editor. *Excavations at 29SJ 633: The Eleventh Hour Site, Chaco Canyon, New Mexico*. Reports of the Chaco Center No. 10. Branch of Cultural Research, National Park Service, Santa Fe.
- 1991 Ornaments and Minerals from 29SJ 633. In *Excavations at 29SJ 633: The Eleventh Hour Site, Chaco Canyon, New Mexico*, edited by Frances Joan Mathien, pp. 221-241. Reports of the Chaco Center No. 10. Branch of Cultural Research, National Park Service, Santa Fe.
- 1991 Political, Economic, and Demographic Implications of the Chaco Road Network. In *Ancient Road Networks and Settlement Hierarchies in the New World*, edited by Charles D. Trombold, pp. 99-110. Cambridge University Press, Cambridge.
- 1992 Women of Chaco: Then and Now. In *Rediscovering Our Past: Essays on the History of American Archeology*, edited by Jonathan E. Reyman, pp. 103-130. Avebury Press, Glasgow.
- 1992 With Bart Olinger. An Experiment with X-ray Fluorescence to Determine Trace Element Variability in Turquoise Composition. In *Archaeology, Art, and Anthropology. Papers in Honor*

- of J. J. Brody, edited by Meliha S. Duran and David T. Kirkpatrick, pp. 123-134. Papers of the Archaeological Society of New Mexico: 18. Albuquerque.
- 1992 Introduction. In *Excavations at 29SJ 627, Chaco Canyon, New Mexico. Volume II. The Artifact Analyses*, edited by Frances Joan Mathien, pp. 1-35. Reports of the Chaco Center No. 11. Branch of Cultural Research, National Park Service, Santa Fe.
- 1992 Ornaments and Minerals from Site 29SJ 627. In *Excavations at 29SJ 627, Chaco Canyon, New Mexico. Volume II. The Artifact Analyses*, edited by Frances Joan Mathien, pp. 265-318. Reports of the Chaco Center No. 11. Branch of Cultural Research, National Park Service, Santa Fe.
- 1992 (Editor). *Excavations at 29SJ 627, Chaco Canyon, New Mexico. Volume II. The Artifact Analyses*. Reports of the Chaco Center No. 11. Branch of Cultural Research, National Park Service, Santa Fe.
- 1992 Exchange Systems and Social Stratification Among the Chaco Anasazi. In *The American Southwest and Mesoamerica: Systems of Prehistoric Exchange*, edited by Jonathan Ericson and Timothy G. Baugh, pp. 27-63. Plenum Press, New York.
- 1993 Book Review. Gabriel, Kathryn, Roads to Center Place. "A Cultural Atlas of Chaco Canyon and the Anasazi," Johnson Books, Boulder, 1991. In *Essays and Monographs in Colorado History*, pp. 61-64. Colorado Historical Society, Denver.
- 1993 Ornaments and Minerals from 29SJ 629. In *The Spadefoot Toad Site: Investigations at 29SJ 629, Chaco Canyon, New Mexico: Artifactual and Biological Analyses. Volume II*, edited by Thomas C. Windes, pp. 269-316. Reports of the Chaco Center No. 12. Branch of Cultural Research, National Park Service, Santa Fe.
- 1993 With Charlie R. Steen and Craig D. Allen. *The Pajarito Plateau: A Bibliography*. Southwest Cultural Resources Center Professional Paper No. 49. Branch of Cultural Research, National Park Service, Santa Fe.
- 1994 Argillite: A Locally Available Jewelry Material of the Prehistoric Inhabitants of Chaco Canyon, New Mexico. In *Artifacts, Shrines, and Pueblos. Papers in Honor of Gordon Page*, edited by Meliha S. Duran and David T. Kirkpatrick, pp. 147-158. Papers of the Archaeological Society of New Mexico: 20. Albuquerque.
- 1995 With Stewart Peckham. Albert Henry Schroeder, 1914-1993. *American Antiquity* 60(4):1-10.
- 1995 Review of "The Chimney Rock Archaeological Symposium: 1990 October 20-21, Durango, Colorado" by J. McKim Malville and Gary Matlock, editors. *American Antiquity* 60(1):180-181.
- 1995 Evidence of Prehistoric Turquoise Mining at Orogrande, Jarilla Mountains, New Mexico. In *Of Pots and Rocks. Papers in Honor of A. Helene Warren*, edited by Meliha S. Duran and David T. Kirkpatrick, pp. 77-91. Papers of the Archaeological Society of New Mexico: 21. Albuquerque.
- 1997 Editor. *Ceramics, Lithics, and Ornaments of Chaco Canyon. Analyses of Artifacts from the*

- Chaco Project, 1971-1978*. Publications in Archeology 18G, Chaco Canyon Studies. National Park Service, Santa Fe.
- 1997 Introduction to the Artifact Analyses. In *Ceramics, Lithics, and Ornaments of Chaco Canyon. Analyses of Artifacts from the Chaco Project, 1971-1978*, edited by Frances Joan Mathien, pp. 1-16. Publications in Archeology 18G, Chaco Canyon Studies. National Park Service, Santa Fe.
- 1997 Ornaments of the Chaco Anasazi. In *Ceramics, Lithics, and Ornaments of Chaco Canyon. Analyses of Artifacts from the Chaco Project, 1971-1978*, edited by Frances Joan Mathien, pp. 1119-1220. Publications in Archeology 18G, Chaco Canyon Studies. National Park Service, Santa Fe.
- 1997 Inferences from the Data. In *Ceramics, Lithics, and Ornaments of Chaco Canyon. Analyses of Artifacts from the Chaco Project, 1971-1978*, edited by Frances Joan Mathien, pp. 1221-1232. Publications in Archeology 18G, Chaco Canyon Studies. National Park Service, Santa Fe.
- 1998 Tri-Cultural Use of the Cerrillos Mines. *CRM Bulletin* 21(7):49-52.
- 1999 The Excavation of Mountain Sheep House, Bandelier National Monument. In *La Frontera. Papers in Honor of Patrick H. Beckett*, edited by Meliha S. Duran and David T. Kirkpatrick, pp. 127-142. Papers of the Archaeological Society of New Mexico: 25. Albuquerque.
- 2000 With David T. Kirkpatrick and Meliha S. Duran (Eds.). *The First 100 Years: Papers in Honor of the State and Local Archaeological Societies of New Mexico*. Papers of the Archaeological Society of New Mexico: 26. Albuquerque.
- 2000 The State and Local Archaeological Societies of New Mexico. In *The First 100 Years: Papers in Honor of the State and Local Archaeological Societies of New Mexico*, edited by Frances Joan Mathien, David T. Kirkpatrick, and Meliha S. Duran, pp. 1-21. Papers of the Archaeological Society of New Mexico: 26. Albuquerque.
- 2000 ASNM 1983-1999. In *The First 100 Years: Papers in Honor of the State and Local Archaeological Societies of New Mexico*, edited by Frances Joan Mathien, David T. Kirkpatrick, and Meliha S. Duran, pp. 55-69. Papers of the Archaeological Society of New Mexico: 26. Albuquerque.
- 2000 With Albert H. Schroeder and Kenneth Ewing. The Los Alamos Archaeological Society. In *The First 100 Years: Papers in Honor of the State and Local Archaeological Societies of New Mexico*, edited by Frances Joan Mathien, David T. Kirkpatrick, and Meliha S. Duran, pp. 231-233. Papers of the Archaeological Society of New Mexico: 26. Albuquerque.
- 2001 The Organization of Turquoise Production and Consumption by the Prehistoric Chacoans. *American Antiquity* 66(1):103-118.
- 2001 Anthropology and Archaeology in Chaco Canyon. The Hyde Exploring Expedition. In *Following Through. Papers in Honor of Phyllis S. Davis*, edited by Regge N. Wiseman, Thomas C. O'Laughlin, and Cordelia T. Snow, pp. 103-114. Papers of the Archaeological Society of New Mexico: 27. Albuquerque.



- 2001-2 Identifying Sources of Prehistoric Turquoise in North America: Problems and Implications for Interpreting Social Organization. In *Beads. Journal of the Society of Bead Researchers* 12-13:17-37.
- 2002 Mesa Tierra and the Hyde Exploring Expedition. In *Forward Into the Past. Papers in Honor of Teddy Lou & Francis Stickney*, edited by Regge N. Wiseman, Thomas C. O’Laughlin, and Cordelia T. Snow, pp. 47-57. Papers of the Archaeological Society of New Mexico: 28. Albuquerque.
- 2003 Artifacts from Pueblo Bonito: 100 Years of Interpretation. In *Pueblo Bonito: Center of the Chacoan World*, edited by Jill E. Neitzel, pp. 127-142. Smithsonian Books, Washington, D.C.
- 2003 Pueblo Wall Decorations: Examples from Chaco Canyon. In *Climbing the Rocks. Papers in Honor of Helen and Jay Crotty*, edited by Regge N. Wiseman, Thomas C. O’Laughlin, and Cordelia T. Snow, pp. 111-126. Papers of the Archaeological Society of New Mexico: 29. Albuquerque.
- 2003 Lucy L. W. Wilson, Ph.D.: An Eastern Educator and the Southwestern Pueblos. In *Philadelphia and the Development of Americanist Archaeology*, edited by Don D. Fowler and David A. Wilcox, pp. 134-155. University of Alabama Press, Tuscaloosa and London.
- 2004 History of Archaeological Investigations on the Pajarito Plateau. Chapter 3 in *Archaeology of Bandelier National Monument. Village Formation on the Pajarito Plateau, New Mexico*, edited by Timothy A. Kohler, pp. 69-116. University of New Mexico Press, Albuquerque.
- 2004 “A Cacique’s Sanctum” or Road Ramp? Site 29SJ1924 in Chaco Canyon, New Mexico. In *Ever Westward. Papers in Honor of Elizabeth Kelley*, edited by Regge N. Wiseman, Thomas C. O’Laughlin, and Cordelia T. Snow, pp. 85-100. Papers of the Archaeological Society of New Mexico: 30. Albuquerque.
- 2004 with Mathew Evans, Mostafa Fayek, Lee Riciputi, Lawrence M. Anovitz, Sharon Hull, and Homer Milford. LA-MC-ICPMS Determination of Copper Isotope Ratios in Turquoise from the Southwestern United States. *EOS Transactions*. American Geological Union 85(47), Abstract V51A-0514.
- 2005 *Culture and Ecology of Chaco Canyon and the San Juan Basin*. Publications in Archeology 18H, National Park Service, Santa Fe.
- 2006 Architectural Studies of Victor and Cosmos Mindeleff in Chaco Canyon, New Mexico. In *Southwestern Interludes. Papers in Honor of Theodore R. and Charlotte Frisbie*, edited by Regge N. Wiseman, Thomas C. O’Laughlin, and Cordelia T. Snow, pp. 103-114. Papers of the Archaeological Society of New Mexico: 31. Albuquerque.
- 2006 Ceramic Studies in Chaco Canyon. *Pottery Southwest* 25(3):4-13.
- 2008 with Sharon Hull, Mostfa Fayek, Phil Shelley, and Kathy Roler Durand. A New Approach to Determining the Geological Provenance of Turquoise Artifacts using Hydrogen and Copper Stable

- Isotopes. *Journal of Archaeological Science* 35:1355-1369.
- 2009 A Preliminary Analysis of the Ornaments and Other Unusual Objects from 42Sa22674, the Bluff Great House Site. Appendix 7 in *Chaco and After in the Northern San Juan Region: Excavations at the Bluff Great House*, edited by Catherine M. Cameron, Appendix 7, on CD. The University of Arizona Press, Tucson.
- 2011 with Joyce M. Raab. Entering and Exiting Chaco Canyon at Talus Unit No. 1. In *Words and Sherds. Papers in Honor of Meliha S. Duran and David T. Kirkpatrick*, edited by Emily J. Brown, Carol J. Condie, and Helen K. Crotty, pp. 171-181. Archaeological Society of New Mexico: 37.
- 2013 with Joyce M. Raab. Edgar Lee Hewett's 1902 Expedition to Chaco Canyon. In *From the Pueblos to the Southern Plains: Papers in Honor of Regge N. Wiseman*, edited by Emily J. Brown, Carol J. Condie, and Helen K. Crotty, pp. 101-108. Papers of the Archaeological Society of New Mexico: 39.
- 2014 with Joyce M. Raab. Through the Camera of Wesley Bradfield: Edgar L. Hewett's 1920 and 1921 Excavations at Chetro Ketl, Chaco Canyon. In *Enduring Curiosity, Generous Service. Papers in Honor of Sheila K. Brewer*, edited by Emily J. Brown, Carol J. Condie, and Helen K. Crotty, pp. 127-145. Archaeological Society of New Mexico: 40.
- 2014 With Sharon Hull, Mostafa Fayek, and Heidi Roberts. Turquoise Trade of the Ancestral Puebloan: Chaco and Beyond. *Journal of Archaeological Science* 45:187-195.
- 2014 Pueblo Jewelry Making in Chaco Canyon, New Mexico. *El Palacio* 119:52-59.
- 2015 With Joyce M. Raab. Anna O. Shepards Site in Chaco Canyon, New Mexico.. In *The Multifaceted Forester. Papers in Honor of John S. Hayden*, edited by Emily J. Brown, Carol J. Condie, and Helen K. Crotty, pp. 99-114. Papers of the Archaeological Society of New Mexico 41. Albuquerque.
- Hull, Sharon, Frances Joan Mathien, and Mostafa Fayek
- 2016 Turquoise Trade in the San Juan Basin, AD 900-1280. In *Exploring Cause and Explanation. Historical Ecology, Demography, and Movement in the America Southwest*, edited by Cynthia L. Herhahn and Ann F. Ramenofsky, pp. 213-229. University Press of Colorado, Boulder.
- 2017 With Joyce M. Raab. 1929 Ethnology and Linguistic Studies in Chaco Canyon, New Mexico: John Peabody Harrington and His Students. In *Parallel Passions--A Life Together in Archaeology. Paper s in Honor of Karl W. Laumach and Toni S. Laumbach*, edited by Emily J. Brown, Carol J. Condie, and Helen K. Crotty, pp.135-145. Papers of the Archaeological Society of New Mexico 43. Albuquerque.
- 2018 With Joyce M. Raab. The Birth of the Ruins Stabilization Unit in Chaco Canyon. In --- *Papers in Honor of Thomas C. Windes and Peter J. McKenna*, edited by Emily J. Brown, Carol J. Condie, and Marc Thompson, pp. 185-195. Papers of the Archaeological Society of New Mexico 44. Albuquerque.

**Reports and Papers:**

- 1977 Updated Report on Turquoise Analysis Project at Chaco Canyon. Ms. on file, Chaco Culture NHP Museum Archive, University of New Mexico, Albuquerque.
- 1977 Summary and Preliminary Report: Excavations in Room Block IV at Gallinas Springs, New Mexico, June 4 to July 31. Ms. on file with author.
- 1980 Analytical Studies of Turquoise Recovered from Archaeological Investigations in Chaco Canyon. Contract OM PX-7840-6-0208, pp. 46. Ms. on file, Chaco Culture NHP Museum Archive, University of New Mexico, Albuquerque.
- 1981 Intermittent Excavations at Pottery Mound, June 7, 1980 through January 3, 1981. Ms. on file, Maxwell Museum of Anthropology, University of New Mexico, Albuquerque.
- 1982 History of Rock Art Studies in Chaco Canyon as of June 1982. Ms. on file, Chaco Culture NHP Museum Archive, University of New Mexico, Albuquerque.
- 1983 Research Design: Kin Nahasbas Historic Structures Report. Ms. on file, Chaco Culture NHP Museum Archive, University of New Mexico, Albuquerque.
- 1984 With Thomas C. Windes. Historic Structures Report. Kin Nahasbas. Draft version. Ms. on file, Chaco Culture NHP Museum Archive, University of New Mexico, Albuquerque.
- 1985 Ornaments and Minerals from Chaco Canyon, National Park Service Project: 1971-1979. Final version. Ms. on file, Chaco Culture NHP Museum Archive, University of New Mexico, Albuquerque.
- 1986 Background Archeological Research, Bandelier Survey Project. Draft version. Ms. on file, Anthropology Program, National Park Service, Santa Fe.
- 1988 Lessons from Preservation Analysis and Stabilization at Kin Nahasbas, Chaco Canyon, New Mexico. Ms on file, Chaco Culture NHP Museum Archive, University of New Mexico, Albuquerque.
- 1990 Ornaments Report, Site 29SJ 597 (Bc 213). Draft version. Ms. on file, Chaco Culture NHP Museum Archive, University of New Mexico, Albuquerque.
- 1990 Ornaments Report, Site 29SJ 626. Draft version. Ms. on file, Chaco Culture NHP Museum Archive, University of New Mexico.
- 1991 Sylvanus G. Morley's 1908 Field Notes on Work at the Rito de los Frijoles. Ms. on file, Anthropology Program, National Park Service, Santa Fe.
- 1992 With Jerry L. Livingston. Guidelines for Publishing, Printing, and Production. Branch of Cultural Research, National Park Service, Santa Fe.

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- 1992 With Jerry L. Livingston and Kaisa Barthuli. An Analysis of Material Recovered from Room 225, Aztec West, Aztec National Monument, New Mexico. Branch of Cultural Research, National Park Service, Santa Fe.
- 1993 With contributions by Stanley J. Rhine and Ethne Barnes. Guidelines NAGPRA.
- 2003 A Preliminary Analysis of Ornaments and Other Unusual Objects from 42Sa22674, the Bluff Great House Site. Submitted to Catherine M. Cameron, University of Colorado at Boulder.
- 2005 An Analysis of Ornaments and Minerals from the Bluff Great House and the Comb Wash Community. Submitted to Catherine M. Cameron, University of Colorado at Boulder.
- 2017 Chaco Canyon Field Schools: Summary of Work for Summer 1929. Ms. on file, Chaco Culture NHP Museum Collection and Park.

**Presentations:**

- 1976 *Chalchihuitl and the Chichimec: The Role of Turquoise in Southwest-Mesoamerican Relationships*. Paper presented at the 49<sup>th</sup> Annual Pecos Conference, Kino Bay, Sonora, Mexico, August 13.
- 1980 *Interpretation of Remote Sensor Imagery for Historical Purposes: Chalmette, La.* Presentation in Remote Sensing in Historical Archaeology Workshop, 13<sup>th</sup> Annual Meeting of the Society for Historical Archaeology, Albuquerque, January 9.
- 1980 *The Highland Maya*. Presentation at the monthly meeting of the Albuquerque Archaeological Society, April 14.
- 1980 *The Chaco Phenomena: A Regional Perspective*. Presentation at the monthly meeting of the Houghton Chapter of the New York State Archaeological Society, Buffalo, October 13.
- 1981 *The Chaco Phenomena: Indigenous Growth or Mesoamerican Influence?* Presentation at the Annual Meeting of the Friends of the Indian Pueblo Cultural Center, Albuquerque, February 24.
- 1981 *Non-Utilitarian Items of the Chaco Anasazi: Social and Economic Implications*. Paper presented at the 46<sup>th</sup> Annual Meeting of the Society for American Archaeology, San Diego, April 30.
- 1981 *The Mobile Trader and the Chaco Anasazi*. Paper presented at the Anasazi Symposium, Mesa Verde National Park, October 3.
- 1982 With W. James Judge and Andrew Drager. *Development of a Data Base Management System for Archeological Resource Conservation*. Paper presented at the New Mexico Archeological Council Workshop 1: Archeological Research in the San Juan Basin, Chaco Culture National Historical Park, May 21.
- 1982 *The Secrets of Chacoan Turquoise*. Presentation at the monthly meeting of Friends of Raton Archaeology, Raton, November 22.

- 1982 *Political, Economic, and Demographic Implications of the Chaco Road Network*. Paper presented at the 81<sup>st</sup> Annual Meeting of the American Anthropological Association, Washington, D.C., December 4-7.
- 1983 *The Secrets of Chacoan Turquoise*. Presentation at the regular meeting of the Westerners of Santa Fe, January 20.
- 1983 *Stone Age Technology and the Chaco Anasazi*. Presentation at the regular meeting of the Las Vegas Branch, American Association of University Women and the Anthropology Club of Highlands University, Las Vegas, February 16.
- 1983 *External Contact and the Chaco Anasazi*. Paper presented at the 48<sup>th</sup> Annual Meeting of the Society for American Archaeology, Pittsburgh, April 27-30.
- 1983 With Thomas C. Windes. *Preliminary Report on the 1983 Excavations at Kin Nahasbas, Chaco Canyon*. Paper presented at the 56<sup>th</sup> Pecos Conference, Bluff, August 12.
- 1983 *Kin Nahasbas Revisited*. Presentation at the monthly meeting of the Albuquerque Archaeological Society, September 20.
- 1984 *The Chaco Project*. Poster Session on Archeological Project Management. Display and Demonstration of Techniques and Equipment, at the Second New World Conference on Rescue Archaeology, Dallas, November 15-17.
- 1986 With Thomas C. Windes. *Preservation of Research Value in Specimens*. Lecture for Curatorial Update Training Course sponsored by the National Park Service, Albuquerque, September 17.
- 1987 *Prehistoric and Historic Mines at Turquoise Hill, Los Cerrillos, New Mexico*. Paper presented at the 60<sup>th</sup> Pecos Conference, Pecos, August 15.
- 1987 *Prehistoric Chacoan Use of Turquoise*. Presentation at the Annual Meeting of the Midland Archaeological Society, October 1.
- 1988 *Turquoise Hill and the Cerrillos Mining District*. Video recording for "The Story of New Mexico" lecture series, University of New Mexico Continuing Education Department, February 10.
- 1988 *Exchange Systems of the Chaco Anasazi*. Paper presented in Symposium on Understanding Cultural Variability in the Chaco" at the 53<sup>rd</sup> Annual Meeting of the Society for American Archaeology, Phoenix, May 1.
- 1988 *Prehistoric Chacoan Trade*. Lecture for the Southwest Institute, University of New Mexico, June 15.
- 1989 *Women of Chaco: Then and Now*. Paper presented at the 54<sup>th</sup> Annual Meeting of the Society for American Archaeology, Atlanta, April 8.

- 1989 *The Chaco Phenomenon*. Presentation at the Annual Meeting of the Midland Archaeological Society, Midland, May 10.
- 1989 *Edgar Lee Hewett's 1905 Excavations on the Pajarito Plateau*. Paper presented at the 62<sup>nd</sup> Pecos Conference, Bandelier National Monument, August 19.
- 1990 *Anasazi Use of Turquoise*. Presentation at the Archaeological Preservation Week opening, sponsored by the Midland Archaeological Society, Midland, April 8.
- 1991 *Edgar Lee Hewett*. Presentation In Marc Thompson's Museology Course, New Mexico Highlands University, Las Vegas, April 4.
- 1991 *ASNM--The First 100 Years*. Paper presented at the Annual Meeting of the Archaeological Society of New Mexico, Deming, May 4.
- 1991 *The Chaco Anasazi*. Presentation at the monthly meeting of the Mogollon Chapter of the Arizona Archaeological Society, Springerville, September 11.
- 1991 *The Chaco Anasazi*. Lecture for Maxwell Museum of Anthropology docent classes, University of New Mexico, Albuquerque, October 30.
- 1992 *Chaco Anasazi Beads: Material, Manufacture, Consumption, and Social Implications*. Presentation at "The Bead Trade in the Americas," Santa Fe, March 20-22.
- 1993 *The Chaco Anasazi*. Presentation for Arizona Archaeology Week, sponsored by the Casa Malpais Chapter of the Arizona Archaeological Society, Springerville, March 5.
- 1993 *Turquoise: Mined in Cerrillos? Crafted in Chaco?* Presentation at the Museum of Indian Arts and Culture, Museum of New Mexico, June 13.
- 1994 With S. M. M. Young and D. A. Phillips, Jr. *Lead Isotope Analysis of Turquoise Sources in the Southwestern U.S.A. and Mesoamerica*. Poster Session at the International Symposium on Archaeometry, Ankara, Turkey, May 9-14.
- 1996 *Identifying Sources of Prehistoric Turquoise in North America: Problems and Implications for Social Organization*. Paper presented at the Bead Expo '96, San Antonio, March 10.
- 1996 *Trials and Troubles with Turquoise Tests*. Symposium presentation at the Bead Expo '96, San Antonio, March 9.
- 1996 *Artifacts from Pueblo Bonito: 100 Years of Interpretation*. Paper presented at the 61<sup>st</sup> Annual Meeting of the Society for American Archaeology, New Orleans, April 11.
- 1997 With Suzanne Young and David Phillips, Jr. *The Isotopic and Trace Chemistry of Source-Tracing Turquoise in the Southwest USA and Mesoamerica*. Paper presented at the 62<sup>nd</sup> Annual Meeting of the Society for American Archaeology, Nashville, April 1-4.
- 1997 With Michael Montgomery and James N. Gundersen. *Meta-argillite: Raw Materials of the Chaco*

- Canyon Area*. Poster presented at the 70<sup>th</sup> Annual Pecos Conference, Chaco Culture NHP, August 14-16.
- 2000 *Lucy L. W. Wilson: An Eastern Educator and the Southwestern Pueblos*. Paper presented at the 65<sup>th</sup> Annual Meeting of the Society for American Archaeology, Philadelphia, April 6.
- 2000 *Turquoise Trade Routes In and Out of Chaco*. Presentation at the monthly meeting of the Taos Archaeological Society, April 11.
- 2000 *Anthropology and Archaeology in Chaco Canyon: The Hyde Exploring Expedition*. Paper presented at the Annual Meeting of the Archaeological Society of New Mexico, Santa Fe, May 6.
- 2001 *Lucy L. W. Wilson, Ph.D.: An Eastern Educator and the Southwestern Pueblos*. Presentation at the monthly meeting of the Albuquerque Archaeological Society, February 20.
- 2001 *Lucy L. W. Wilson, Ph.D.: An Eastern Educator and the Southwestern Pueblos*. Presentation at the monthly meeting of the Torrance County Archaeological Society, October 1.
- 2003 The Agricultural Basis for Chaco Society. Presentation at the Nov. 17 meeting of the Santa Fe Chapter of the Archaeological Institute of America.
- 2004 Interpretations of Chaco Canyon. Torrance County Archaeological Society, October 4.
- 2004 with Evans, Matthew, Mostafa Fayek, Lee Riciputi, Lawrence Anovitz, Sharon Hull, and Homer Milford. LA-MC-ICPMS Determination of Copper Isotope Ratios in Turquoise from the Southwestern United States. Paper presented at the American Geophysical Union Conference, Denver.
- 2004 with Phillips, C. Jamie, Mostafa Fayek, Lawrence M. Anovitz, F. Joan Mathien, Homer Milford, and Sharon Hull. The Genesis of Turquoise in the Southwestern United States. Paper presented at the Annual Meeting of the Geological Society of American, Denver.
- 2005 The Great Chaco Roads and Native American People in the Rio Grande Valley. Presentation at the Albuquerque Tricentennial Celebrations. May 28.
- 2005 Sourcing Turquoise. Implications for Economic, Social, and Political Interactions. Presentation at the Friends of Tijeras Pueblo. November 8.
- 2005 with Sharon Hull, Mostafa Fayek, Lawrence M. Anovits, and Phillip Shelley. The Effects of Alteration on Sourcing Archaeological Turquoise. Paper presented at the Geological Society of American 2005, Salt Lake City, Abstract 37-7.
- 2006 with Sharon Hull, Mostafa Fayek, Phil Shelley, and Kathy R. Durand. Using H and Cu Stable Isotopes to Source Prehistoric Turquoise. Paper presented at the 71<sup>st</sup> Society for American Archaeology, San Juan, Puerto Rico, April.
- 2006 with Sharon Hull and Mostafa Fayek. A New Understanding of Turquoise Sourcing in Southwestern Archaeology. Paper presented at the 79<sup>th</sup> Pecos Conference, Navajo Lake, NM.

- 2007 Turquoise: Gemstone of the American Southwest. Presented at the Southwest Seminars, Santa Fe, January 29.
- 2007 The Chaco Field Schools: 1929-1942, 1947. Presentation at Chaco Culture NHP, Aug. 18.
- 2007 Chaco Canyon, Turquoise Artifacts, and Pueblo II-III Social Organization. Presentation at Annual Meeting of the El Paso Archaeological Society, Sept. 22.
- 2007 with Joyce Raab. The 1931 UNM Field School. Grand Opening, Chaco Museum Collection, Hibben Center, Oct. 12.
- 2007 With Sharon Hull and Mostafa Fayek. Advances in Turquoise Sourcing. Paper presented at the Annual Meeting of the Geological Society of America, Denver. Oct.
- 2007 The Chaco Field Schools 1929-1942 and 1947. January meeting of the Albuquerque Archaeological Society.
- 2009 With Sharon Hull and Mostafa Fayek. Multiscalar Examination of Turquoise Procurement in Pueblo Bonito, Salmon, and Aztec Ruin. Paper presented at the 74<sup>th</sup> Annual Meeting of the Society for American Archaeology, Atlanta, April.
- 2009 With Joyce Raab, Craig Fredrickson, and Regina Fredrickson. Below the Stairs and Behind the Rooms: Photographic Documentation of Unusual Architecture at Talus Unit, Chaco Canyon. Poster presented at the Pecos Conference, Lake McPhee Campground, Dolores, CO. August.
- 2009 The Role of Turquoise in Chaco Society. Civitan, Albuquerque, Aug. 14.
- 2009 The Chaco Field School Excavations at Talus Unit No. 1. Talk at the Chaco Culture NHP Visitors Center, September 24.
- 2010 With Joyce Raab. Talus Unit No. 1, Chaco Canyon, NM. Presentation at the Annual Meeting of the Archaeological Society of New Mexico, Santa Fe.
- 2010 Understanding the Role of Turquoise in the Chaco World. Presentation to the Torrance County Archaeological Society, Estancia, May 3.
- 2011 With Sharon Hull and Mostafa Fayek. Poster. Presented at the 76<sup>th</sup> Annual Meeting of the Society for American Archaeology, Sacramento, April 1.
- 2011 With Sharon Hull and Mostafa Fayek. Poster. Investigating Turquoise Procurement and Exchange Patterns at Three Ancestral Great Houses. Presented at the Pecos Conference, Kaibab National Forest, August.
- 2011 The Role of Gems and Minerals in the Pueblo Worlds. 6<sup>th</sup> Annual Palace of the Governors Gem and Mineral Show, September 24.
- 2012 With Sharon Hull and Mostafa Fayek. Preliminary Results of a Multiscalar Analysis of Turquoise



- Procurement Patterns across the American Southwest. Paper presented at the 13<sup>th</sup> Southwest Symposium, University of New Mexico, Albuquerque.
- 2013 with Sharon Hull and Mostafa Fayek. Turquoise in the Chaco World. Presented at the 78th Annual Meeting of the Society for American Archaeology, Honolulu. April 6.
- 2013 The Mysteries of Chaco Canyon. Grace Church Group, Albuquerque, September 10.
- 2013 Turquoise in Pre-Columbian, New Mexico. Friends of the Sandia Mountains, Tijeras Ranger Station, June 4.
- 2014 Turquoise, Water, and Sky: The Stone and Its Meaning in Ancestral Pueblo World. Presentation at the Museum of Indian Arts and Culture/Laboratory of Anthropology, May 18.
- 2015 The Role of Gems and Minerals in the Chaco World. Doña Ana Archaeological Society, Las Cruces, January 13.
- 2017 With Joyce M. Raab. The Chaco Field School in the Summer of 1929. Chaco Culture NHP, January 10.
- 2017 With Joyce M. Raab. Aerial Photography and the Hewett Chaco Canyon Field Schools. Museum of Indian Arts and Culture. Santa Fe, March 5.
- 2017 With Emiliano R. Melgar Tisoc. The Manufacturing of the Turquoise Objects and the Lapidary Technology from Chaco Canyon: An Experimental Archaeology Approach. Paper presented at the 82<sup>nd</sup> Annual Meeting of the Society for American Archaeology. Vancouver, B.C. March 29.
- 2017 With Joyce M. Raab. The 1929 Excavations at Chetro Ketl, Chaco Canyon. Presentation at the Annual Meeting of the Archaeological Society of New Mexico. Moriarty, NM. May 6.
- 2018 Turquoise in the Chaco World. Los Altos Kiwanis Club of Albuquerque, February 8.