



## RESUME

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### EDUCATION

- 1985 Ph.D. Anthropology, Washington State University, Pullman, Washington; Diamond Pond, Harney County, Oregon: Man and marsh in the Eastern Oregon Desert (Vegetation and marsh history reconstructed from pollen, macrofossil and sediment data recovered from a small maar located on the sagebrush-shadscale ecotone).
- 1978 M.A. Anthropology, Washington State University, Pullman, Washington; The Neolithic and Bronze Age Levels of Cariguela de Piñar, Granada Province, Spain (Analysis of the culture and its environment)
- 1970 B.A. Anthropology, University of Washington, Seattle, Washington

### EXPERIENCE

- 2014 – present Affiliate, Division of Earth and Ecological Sciences, Desert Research Institute, Reno, Nevada.
- 2014 – present Consulting with the Geological Survey of Iran on research projects at Lake Urmia NW Iran, and with the Iranian Center for Archaeological Research at Lake Parshan in southwestern Iran.
- 2012 - present Paleoenvironmental Consultant, San Felice Archaeological Project, Puglia Province, Italy.
- 2003 - present Graduate Faculty, California State University, Bakersfield
- 2003 - present Research Associate, Department of Geology, California State University, Bakersfield.
- 2002 - present Research Associate, Nevada State Museum, Carson City, Nevada.
- 2001 - present Graduate Faculty, University of Nevada, Reno
- 2001 - present Adjunct Faculty, Department of Geology, California State University, Bakersfield
- 2001 - present Adjunct Faculty, Department of Geography, University of Nevada, Reno.
- 2000 - present Principal Investigator, Great Basin and Mojave Paleoenvironmental Consulting.
- 1990 - 2000 Graduate Faculty, University of Nevada, Reno
- 2000 - 2002 Adjunct Faculty, Department of Physics and Geology, California State University, Bakersfield.
- 1999 - 2000 Senior Fulbright Scholar to UNESCO Chair for Desert Studies, Yarmouk University, Irbid, Jordan.
- 1990 - 1999 Associate Research Professor, Desert Research Institute; Reno, Nevada; Paleoecology/paleobotany.
- 1987 - 1990 Assistant Research Professor, Desert Research Institute; Reno, Nevada; Paleoecology/paleobotany.
- 1986 - 1987 Paleoenvironmental consultant for Center for Northwest Anthropology, Washington State University; Pullman, Washington; Silvies Valley Project; ethnobotany, palynology, geoarchaeology and stratigraphy.
- 1986 Palynological consultant for Central Washington Archaeological Survey, Central Washington State University; Ellensburg, Washington; fossil pollen analysis of archaeological sediments from the Multipurpose Range Complex survey and testing on the Yakima Firing Range.
- 1986 Palynological consultant for the Chevron Pipeline Project, subcontract from Nickens and Associates, Inc.; Montrose, Colorado; fossil pollen analysis of archaeological and other sediments.
- 1986 Palynological consultant for the Agency for Conservation Archaeology, Eastern New Mexico University; Portales, New Mexico; palynological analysis of dune sediments in southeastern New Mexico: LA 494065.
- 1985 - 1986 Palynological consultant for Desert Research Institute, Reno, Nevada; palynological analysis of Pleistocene sediments from the Chewaucan Marsh.
- 1985 - 1986 Research Associate, Washington State University, Department of Anthropology; paleobotany, palynology and sediment analyses.
- 1982 - 1985 Research Assistant, Washington State University, Radiocarbon Dating Laboratory; sample processing, equipment construction and maintenance, and research.
- 1981 Research Assistant, El Fayum (Birket Qarun), Egypt Project; coring, core description and sampling, and collection of pollen reference material.
- 1979 - 1981 Research Assistant, Hidden Cave, Nevada Project; sediment analyses, pollen extraction and analysis.
- 1979 - 1981 Teaching Assistant, Archaeology of the Desert West, Washington State University, Department of Anthropology.
- 1979 - 1982 Teaching Assistant, Palynology and Holocene Climates, Washington State University, Department of Anthropology.
- 1979 - 1981 Research Assistant, Steens Mountain Prehistory Project; lake coring; pollen, macrofossil and sediment analyses; mapping of archaeological site stratigraphy.
- 1981 Research Assistant, Western Desert, Egypt (Wadi Natron, Bahariya Oasis & Nile Delta); archaeological site survey and test excavations.

- 1976 - 1977 Research Assistant, Missoula Flood sediments and Palouse Hills stratigraphy; survey, mapping and collection of exposures and laboratory analysis of samples.
- 1976 - 1977 Teaching Assistant, Geoarchaeology, Washington State University, Department of Anthropology.

#### REFEREED PUBLICATIONS (39)

- Wigand, P. E., A. Taylor, M. McCallum, B. Balmaki, and M. Asgharianrostami. (accepted). Middle to late Holocene Landscape and Human Dynamics in the Apulian-Lucanian Border Area of the Southern Italian Interior. INQUA Special Publication.
- Wigand, P. E. 2014. Appendix F. Estuarine Evolution, Chaparral History, and Changing Plant-Resource Availability. *In*: Volume 1: Paleoenvironment and Culture History. *People In a Changing Land: The Archaeology and History of the Ballona in Los Angeles, California*. J. A. Homburg, J. G. Douglass, S. N. Reddy (eds). Statistical Research Inc., 72 pp.
- Strachan, S., F. Biondi, S.G. Lindström, R. McQueen, P.E. Wigand. 2013. Application of dendrochronology to historic charcoal production sites in the Great Basin, USA. *Historical Archaeology* 47(4): 103–119.
- Wigand P. E. 2013. Southwestern North America. In: Elias S.A. (ed.) *The Encyclopedia of Quaternary Science*, vol. 4, pp. 142-155. Amsterdam: Elsevier.
- Wigand, P. E. 2009. Identification of Artifact Wood from Gypsum Cave, Nevada. Appendix C. Pp. C1 – C37. *In* Gilreath, A. (ed.), Volume II: Appendices. *Gypsum Cave Revisited*. Nevada Cultural Resources Report # CR5-2462-4(p).
- Wigand, P. E. 2007. Pp. 37-48. Chapter 4: Pleistocene and Pre-European Grassland Ecosystems - Late Quaternary Paleocology of Grasslands and other Grassy Habitats. *In* Stromberg, M, J. Corbin, and C D'Antonio (eds.). *Ecology and Management of California Grasslands*. University of California Press, Berkeley, California. 390 pp.
- Nicholas E. Graham, Malcolm K. Hughes, Caspar M. Ammann, Kim M. Cobb, Martin P. Hoerling, Douglas J. Kennett, James P. Kennett, Bert Rein, Lowell Stott, Peter E. Wigand, and Taiyi Xu. 2007. Tropical Pacific-Mid-latitude Teleconnections in Medieval Times. *Climatic Change* 83(1-2):241-285.
- Wigand, P. E. 2007. Postglacial pollen Records of Southwestern North American Pp. 2773- 2783. In Elias, S. A. (ed.) *Encyclopedia of Quaternary Science*, volumes 1-4. Elsevier, London, UK.
- Negrini, R.M., P.E. Wigand, S. Draucker, K. Gobalet, J.K. Gardner, M.Q. Sutton, R.M. Yohe, II., 2006. The Rambla highstand shoreline and the Holocene lake-level history of Tulare Lake, California, USA, *Quaternary Science Reviews*, v. 25, p. 1599-1618.
- Gardner, J.K., Negrini, R.M., Sutton, M.Q., Wigand, P.E., Yohe II, R., 2005. A Middle Holocene radiocarbon date and the geologic context of human occupation in the Tulare Lake Basin of California, *Journal of California and Great Basin Anthropology* 25:80-88.
- Banks, W. E. and P. E. Wigand. 2005. Reassessment of Radiocarbon Age Determinations for the Munkers Creek Phase. *Plains Anthropologist* 50(194):173-183.
- Wigand, P. E. and D. Rhode. 2002. Great Basin Vegetation History and Aquatic Systems: The Last 150,000 years. Pp. 309-367. In Hershler, R., D. B. Madsen and D. R. Currey (eds.), *Great Basin Aquatic Systems History*. *Smithsonian Contributions to Earth Sciences* 33. Smithsonian Institution Press, Washington, D.C.
- Mladen Zic, Robert M. Negrini, Peter E. Wigand. 2002. Evidence of synchronous climate change across the northern hemisphere between the north Atlantic and the northwestern Great Basin, USA. *Geology* 30(7):635-638.
- Jahren, A. H., R. Amundson, C. Kendall and P. E. Wigand. 2001. Paleoclimatic reconstruction using the Correlation in  $\delta^{18}O$  of hackberry carbonate and environmental water, North America. *Quaternary Research* 56(2):252-263.
- Hallett, J. C. and P. E. Wigand. 2001. The role of dietary fiber in dung size of bushy-tailed woodrat, *Neotoma cinerea*: its potential application to paleoclimatic interpretation. *Western North American Naturalist* 61(1):57-63.
- Negrini, R. M., D. B. Erbes, K. Faber, A. M. Herrera, A. P. Roberts, A. S. Cohen, P. E. Wigand, and Franklin F. Foit, Jr. 2000. A paleoclimate record for the past 250,000 years from Summer Lake, Oregon, U.S.A.: I. Chronology and magnetic proxies for lake level. *Journal of Paleolimnology* 24 (2):125-149.
- Cohen, A. S., M. Palacios, R. M. Negrini, P. E. Wigand, and D. B. Erbes. 2000. A paleoclimate record for the past 250,000 years from Summer Lake, Oregon, U.S.A.: II. Sedimentology, paleontology, and geochemistry. *Journal of Paleolimnology* 24 (2):151-182.
- Wigand, P. E. 1999. Stable isotopes in biotic materials and regional climatic reconstruction. Pp. 119-138. *In* Rose, M. R. and P. E. Wigand (eds.) *Proceedings of the Southern California Climate Symposium, 25 October 1991: Trends and Extremes of the Past 2000 Years*. Technical Reports #11. Natural History Museum of Los Angeles County. 269 pp.
- Rose, M. R. and P. E. Wigand. 1999. Southern California climate change: the past 2,000 years. Pp. 1-5. *In* Rose, M. R. and P. E. Wigand (eds.) *Proceedings of the Southern California Climate Symposium, 25 October 1991: Trends and Extremes of the Past 2000 Years*. Technical Reports #11. Natural History Museum of Los Angeles County. 269 pp.
- Harvey, A. M., P. E. Wigand and S. G. Wells. 1999. Response of alluvial fan systems to the late Pleistocene to Holocene climatic transition: contrasts between the margins of pluvial Lakes Lahontan and Mojave, Nevada and California, U.S.A. *Catena* 36:255-281.

- Wigand, P. E. and A. Simmons. 1999. Chapter 8: The Dating of Akrotiri Aetokremenos. Pp. 193-215. In Simmons, A. (ed.), *Faunal Extinction in an Island Society: Pygmy Hippopotamus Hunters of Cyprus*. Kluwer Academic/Plenum Publishers, New York.
- Wigand, P. E. 1997. Native American diet and environmental contexts of the Holocene revealed in the pollen of human fecal material. *Nevada Historical Society Quarterly* 40(1):105-116.
- Plummer, M. A., F. M. Phillips, J. Fabryka-Martin, H. J. Turin, P. E. Wigand, P. Sharma. 1997. Chlorine-36 in fossil rat urine: an archive of cosmogenic nuclide deposition over the past 40,000 years. *Science* 277(5325):538-541.
- Wigand, P. E. 1997. A late-Holocene pollen record from Lower Pahranaag Lake, southern Nevada, USA: High resolution paleoclimatic records and analysis of environmental responses to climate change. Pp. 63-77. In Isaacs, C. M. and V. L. Tharp (eds.), *Proceedings of the Thirteenth Annual Pacific Climate (PACCLIM) Workshop, April 15-18, 1996*. Interagency Ecological Program. Technical Report 53. California Department of Water Resources.
- Forester, R. G., J. P. Bradbury, C. Carter, A. B. Elvidge, M. L. Hemphill, S. C. Lundstrom, S. A. Mahan, B. D. Marshall, L. A. Neymark, J. B. Paces, S. E. Sharpe, J. F. Whelan and P. E. Wigand. 1996. Synthesis of Quaternary response of the Yucca Mountain unsaturated and saturated zone hydrology to climate change. 1996 Milestone Report 3GCA102M. U.S. Geological Survey - Yucca Mountain Project Branch. 110 pp.
- Miller, R. F. and P. E. Wigand. 1994. Holocene Changes in Semiarid Woodlands: Response to climate, fire and human activities in the US Great Basin. *Bioscience* 44(7):465-474.
- Simmons, A. and P. E. Wigand, 1994. Assessing the Radiocarbon Determinations from Akrotiri *Aetokremnos*, Cyprus. Pp. 247-264. In Bar-Yosef, O. and R. S. Kraa, (eds.), *Late Quaternary Chronology and Paleoclimates of the Eastern Mediterranean*. Radiocarbon, Tucson, AZ.
- Nowak, C. L., R. S. Nowak, R. J. Tausch and P. E. Wigand, 1994. A 30,000 year record of vegetation dynamics at a semi-arid locale in the Great Basin. *Journal of Vegetation Science* 5(4):579-590.
- Nowak, C. L., R. S. Nowak, R. J. Tausch and P. E. Wigand, 1994. Tree and shrub dynamics in northwestern Great Basin woodland and shrub steppe during the Late-Pleistocene and Holocene. *American Journal of Botany* 81(3):265-277.
- Tausch, R. J., P. E. Wigand and J. W. Burkhardt. 1993. Viewpoint: Plant community thresholds, multiple steady states, and multiple successional pathways: legacy of the Quaternary? *Journal of Range Management* 46(5):439-447.
- Tausch, R. J., W. Burkhardt, C. L. Nowak and P. E. Wigand, 1993. Viewpoint: Lessons from the past for managing tomorrow's range ecosystems. *Rangelands* 15(5):196-199.
- Wigand, P.E. and C.L. Nowak. 1992. Section 3: Dynamics of northwest Nevada plant communities during the last 30,000 years. Pp. 40-62. In Hall, C., V. Doyle-Jones and B. Widawski (eds.), *Volume IV: The History of Water: Eastern Sierra Nevada, Owens Valley, White-Inyo Mountains*.
- Wharton, R.A., P.E. Wigand, M.R. Rose, R.L. Reinhardt, D.A. Mouat, H.E. Klieforth, N.L. Ingraham, J.O. Davis, C.A. Fox, J.T. Ball. 1990. Chapter 9: The North American Great Basin: A Sensitive Indicator of Climatic Change. In C.B. Osmond (ed.), *Plant Biology of the Basin and Range, Ecological Studies Series* 80. Springer-Verlag.
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- Wigand, P.E. 1987. Diamond Pond, Harney County, Oregon: Vegetation history and water table in the eastern Oregon desert. *Great Basin Naturalist* 47 (3):427-458.
- Sheppard, J.C., P.E. Wigand, C.E. Gustafson and M. Rubin. 1987. A Reevaluation of the Marmes Rockshelter radiocarbon chronology. *American Antiquity* 52(1):118-125.
- Mehring, P.J., Jr. and P.E. Wigand. 1986. Holocene history of Skull Creek Dunes, Catlow Valley, Oregon, U.S.A. *Journal of Arid Environments* 11:117-138.
- Wigand, P.E., and P.J. Mehring, Jr. 1985. Pollen and seed analyses, Chapter 9. In "The Archaeology of Hidden Cave, Nevada." D.H. Thomas (ed.), *Anthropological Papers of the American Museum of Natural History* 61(1):108-124.
- Sheppard, J.C., P.E. Wigand, and M. Rubin. 1984. The Marmes Site revisited: dating and stratigraphy twenty years after. *Tebiwa: the Journal of the Idaho Museum of Natural History* 21:45-49.

#### TECHNICAL PUBLICATIONS (22)

- Negrini, R., D. Baron, R. Horton, J. Gillespie, P. Wigand, M. Palacios-Fest, L. Boockoff, M. Casterline, E. Powers, R. Nunneley, K. O'Sullivan, 2006, Final Project Report for Hydrogeology of the Kern Fan Element and Implications on Local Groundwater Management of the Kern Water Bank: CSUB Contributions, submitted to California Department of Water Resources, AB303 Program. 39 p., 7 tables, 13 figures, 1 plate.
- Wegener, R. M., P. E. Wigand, and A. H. Keller. 2004. 2: Natural and Archaeological Setting. Pp. 7-46. In Wegener, R. M., J. H. Altschul, A. H. Keller and A. Q. Stoll (eds.). *Distant Shores: Cultural resources survey at Honey Lake, Lassen County, California*. Prepared for the Army Corps of Engineers. DACW09-03-D-0005 CQ01.
- Palacios-Fest, M. R. and P. E. Wigand. 2004. 6: Honey Lake Paleoenvironmental Feasibility Study. Pp. 113-150. In Wegener, R. M., J. H. Altschul, A. H. Keller and A. Q. Stoll (eds.). *Distant Shores: Cultural resources survey at Honey Lake, Lassen County, California*. Prepared for the Army Corps of Engineers. DACW09-03-D-0005 CQ01.

- Wigand, P. E. and B. A. Hicks. 2004. Chapter 3: Environmental Overview. Pp 43-64. *In* Hicks, B. A. (ed.). Marmes Rockshelter: A Final Report on 11,000 Years of Cultural Use. Washington State University Press.
- Wigand, P. E. 2003. Middle to late Holocene climate and vegetation dynamics. Pp. 231-250. *In* Rosenthal, J. S. and J. Eerkens (eds.), Chapter 11: Research Issues Revisited. The Archaeology of Coso Basin: Test Excavations at 28 Sites Located in the North Ranges Complex, NAWS, China Lake.
- Wigand, P. E. 2003. Chapter 7: Pollen and macrobotanical studies. Pp 69-75. *In* Becker, K. M. (ed.) Extended Phase I and Phase II Excavations at the Wilson Site (CA-MER-383, P-24-001686). Technical Report 03-36, Statistical Research, Inc., Redlands, California.
- Negrini, R. M. and P. E. Wigand. 2003. Appendix I: Geologic Investigations of Ancient Shorelines Along the Western Margin of Tulare Lake. Pp. I-1 - I-33. *In* Gardner, J. K. (ed.) Archaeological Assessment of the Arroyo Pasajero Westside Detention Basin with Tulare Lakebed Flood Storage Project, Kings County, California. Center for Archaeological Research, California State University, Bakersfield, California.
- Wigand, P. E. 2002. Appendix I: Packrat Midden Analysis. *In* Eerkens, J. W. and J. H. King (eds.) Phase II Archaeological Investigations for the Sherwin Summit Rehabilitation Project, U.S. Highway 395, Inyo and Mono Counties, California, Vol. II: Appendices. Far Western Anthropological Research Group, Inc., Davis, California
- Wigand, P. E. 2001. Chapter 9: Faunal and Botanical Remains: The Pollen. Pp. 252-254. *In* Kelly, R. L. Prehistory of the Carson Desert and Stillwater Mountains: Environment, Mobility, and Subsistence in a Great Basin Wetland. *University of Utah Anthropological Papers* 123.
- Gough, S., P. E. Wigand and D. F. Stradling. 2001. The environmental setting of the Sequim Site: 45CA426. *Archeology in Washington* (Association for Washington Archaeology) VIII:44-68.
- Lindstrom, S. (with contributions from P. Rucks and P. E. Wigand). 2000. Chapter 2: A contextual overview of human land use and environmental conditions. Pp 23-127. *In* Murphy, D. D. and C. M. Knopp (eds.). Lake Tahoe Watershed Assessment: Volume 1. Pacific Southwest Research Station General Technical Report 175. Pacific Southwest Research Station, USDA Forest Service, Tahoe Regional Planning Agency, University of California, Davis, University of Nevada, Reno and the Desert Research Institute, Reno.
- Wigand, P. E. 1999. Appendix F. Pollen Analysis. Pp. F.1-F.25. *In* Morgan, V. E. (ed.), Volume 2, Appendices, The SR-101 Sequim Bypass Archaeological Project: Mid- to Late-Holocene Occupations on the Northern Olympic Peninsula, Clallam County, Washington.
- Wigand, P. E. 1997. Woodrat middens and pollen analysis. Pp. 72-80. *In* Buck, P. E. (ed.), Prehistory and paleoenvironment at Pintwater Cave, Nevada: Results of field work during the 1996 season. Project number OS-005071. Prepared for the Department of the Air Force, Headquarters USAF Air Warfare Center, Nellis Air Force Base, Nevada.
- Wigand, P. E. 1995. Stable isotopic analyses in paleoclimatic reconstruction. Pp. 27-38. *In* Waugh, W. J. (ed.). *Proceedings of the Workshop-Climatic Change in the Four Corners and Adjacent Regions: Implications for Environmental Restoration and Land-Use Planning*. CONF-9409325, U.S. Department of Energy, Grand Junction, Colorado.
- Hemphill, M. L. and P. E. Wigand. 1995. A detailed 2,000-year Late Holocene pollen record from Lower Pahrnatag Lake, southern Nevada, USA. Pp. 41-49. *In* Waugh, W. J. (ed.). *Proceedings of the Workshop-Climatic Change in the Four Corners and Adjacent Regions: Implications for Environmental Restoration and Land-Use Planning*. CONF-9409325, U.S. Department of Energy, Grand Junction, Colorado.
- Wigand, P. E., M. L. Hemphill, S. E. Sharpe, and S. Patra. 1995. Great Basin woodland dynamics during the Holocene. Pp. 51-69. *In* Waugh, W. J. (ed.). *Proceedings of the Workshop-Climatic Change in the Four Corners and Adjacent Regions: Implications for Environmental Restoration and Land-Use Planning*. CONF-9409325, U.S. Department of Energy, Grand Junction, Colorado.
- Wigand, P. E., M. L. Hemphill and S. (Manna) Patra. 1994. Late Holocene climate derived from vegetation history and plant cellulose stable isotope records from the Great Basin of western North America. Pp 2574-2583. *Proceedings of the Fifth Annual International High-Level Radioactive Waste Management Conference and Exposition, May 22-26, 1994*. Sponsored by the American Society of Civil Engineers and American Nuclear Society. American Nuclear Society, LaGrange Park, Illinois.
- Wigand, P. E. 1990. Task IV: The Study of Links between Climate and Human Activities in the Lahontan Basin. Pp. 64-94. *In* Studies of Climatic Variations and their Impact on the Great Basin, Final report on contract #NA878A-D-CP114, delivered to the National Climatic Program Office, NOAA, Rockville, Maryland.
- Wigand, P.E. and M.R. Rose. 1990. Calibration of High Frequency Pollen Sequences and Tree-Ring Records. Pp. . *Proceedings of the First International Highlevel Radioactive Waste Management Conference & Exposition, April 8-12, 1990*. Sponsored by the American Society of Civil Engineers and American Nuclear Society. American Nuclear Society, LaGrange Park, Illinois.
- Reid, K.C., J.A. Draper, and P.E. Wigand. 1989. *Prehistory and Paleoenvironments of the Silvies Plateau, Harney Basin, Southeastern Oregon*. Center for Northwest Anthropology, Project Report Number 8.
- Mehring, P.J., Jr. and P.E. Wigand. 1987. Western juniper in the Holocene. *In* proceedings of the Pinyon-Juniper Conference, Reno, Nevada, Jan. 13-16, 1986. *General Technical Report INT-215*, pp. 109-119.

- Wigand, P. E. 1986. Appendix A: Pollen analysis of archaeological sediments along the route of the Chevron CO<sub>2</sub>/PO<sub>4</sub> pipeline. Pp 323-342. *In* Tucker, G. C. (Project Director), Volume 2: Results of Archaeological Investigations Along the Chevron CO<sub>2</sub>/PO<sub>4</sub> Pipelines In Notheastern Utah and Northwestern Colorado.
- Mehring, P.J., Jr. and P.E. Wigand. 1985. Prehistoric distribution of western juniper. *In* Proceedings of the Western Juniper Management Short Course, Bend, Oregon, Oct. 15-16, 1984. Oregon State University Extension Service and the Department of Rangeland Resources, Oregon State University, Corvallis, pp. 1-9.

#### **SELECTED PROJECT REPORTS (17)**

- Wigand, P. E. 2013 (March). Hycroft Mine Pollen Sample Analysis. Report to Ed Stoner, WCRM, Reno. 22 pp.
- Wigand, P. E. 2012 (December). Cima Volcanics Pollen Sample Extractions. Report to Marith Reheis, U.S. Geological Survey, Denver, CO. 9 pp.
- Wigand, P. E. 2012 (December). Lake Minchumina Pollen Sample Extractions. Report to Charles Holmes. Holmes Cultural Resource Consulting, Fairbanks, AL. 9 pp.
- Wigand, P. E. & M. Palacios-Fest. 2008. The SR133 Realignment Project (Laguna Canyon, Southern California): Pollen and Other Macrobotanical Analyses. Caltrans Laguna Canyon Project. Statistical Research, Inc.
- Wigand, P. E. 2006. (April). Appendix X. Paleoenvironmental Overview. *In* Stoner, E. J., M. C. Ringhoff, R. R. Peterson, and J. Sigler (preparers). The Archaeology of "The Biggest Little City in the World" The Retrac Project, Reno, Washoe County, Nevada: Prehistoric Resources. Volume 1 Report. WCRM Report No. 04-R-034.
- Wigand, P. E. and E. J. Stoner. 2006. (April). Chapter 15: Paleoenvironment of site 26Wa7522. *In* Stoner, E. J., M. C. Ringhoff, R. R. Peterson, and J. Sigler (preparers). The Archaeology of "The Biggest Little City in the World" The Retrac Project, Reno, Washoe County, Nevada: Prehistoric Resources. Volume 1 Report. WCRM Report No. 04-R-034.
- Wigand, P. E. 2005 (February). Sites CAL-LAN-63, CAL-LAN-64, CAL-LAN-206 (Del Rey Bluffs, Southern California): Pollen and Macrobotanical Analysis. Report submitted to Statistical Research, Inc. 39 pp. 15 figs. 12 tables.
- Wigand, P. E. 2004 (October). Modern Ecology and Paleoecology of the Sierra Valley of Northeastern California. Final report submitted to Far Western Anthropological Group, Inc. 63 pp. 32 figs. 5 tables.
- Wigand, P. E. 2004 (November). Estuarine Evolution, Chaparral History, and Changing Plant Resource Availability. Report on the paleoecology of the Los Angeles Basin submitted to Statistical Research, Inc. 57 pages. 34 figs. 8 tables.
- Wigand, P. E. 2004 (July). Local Marsh and Regional Vegetation and Fire History and Its Environmental Context as Reconstructed from Sediment Cores at Summit Lake, Nevada. Report submitted to the Bureau of Land Management, Winnemucca Office. 42 pp. 16 figs. 7 Tables.
- Wigand, P. E. 2004 (July). Site #SBR - 8091H. (Prado Basin, Southern California). Report submitted to Statistical Research, Inc. 23 pp. 10 figs. 5 tables.
- Palacios-Fest, M. R. and P. E. Wigand. 2003 (September). Honey Lake, California: Assessment of Sediment Samples for Pollen Analysis Potential. Report submitted to Statistical Research, Inc. 33 pp. 11 figs. 11 tables. Appendix 6 pp.
- Wigand, P. E. 2003 (November). Southeastern Idaho: Sensitive Climatic Transition Region in the Northern Rockies. Report on Grays Lake pollen analysis submitted to Richard Holmer, Department of Anthropology, Idaho State University. 81 pp. 68 figs. 10 tables.
- Wigand, P. E. 2002 (September). Middle to late Holocene Climate and Vegetation Dynamics in the Northwestern Mohave Desert as Revealed in Pollen and Macrofossils from Ancient Woodrat Middens 58 pp. 29 figs. 5 tables.
- Wigand, P. E. 2002 (February). Prehistoric Dynamics of Piñon Woodland in the Northern Owens Valley Region and Beyond as Revealed in Macrofossils from Ancient Woodrat Middens. Report to Far Western Anthropological Group, Inc. 43 pp. 14 figs. 5 tables.
- Wigand, P. E. 2001 (October). Late Quaternary Climates and Environments of the Plateau of Eastern Washington. Report to the Confederated Tribes of the Colville Reservation. 57 pp. 13 figs. 1 table.
- Wigand, P. E. 1999 (April). The Horse Creek Drainage Basin, Churchill County, Nevada: Middle to late Holocene vegetation history, extrapolated climate record, and geomorphic responses for the northern Great Basin. Final report U.S. Navy Contract N62474-97-M2227. 45 pp. 21 figs. 1 table.

#### **PAPERS PRESENTED (51)**

- Wigand, P. E., A. Taylor, B. Balmaki, and M. Asgharianrostami. 2013. Holocene Soils of Southern Italy: Human and/or Climate Interaction. *At* Workshop of INQUA project RAISIN: Rates of Soil Forming Processes in Mediterranean Climate, September 24-28 in Calabria and Basilicata (South Italy), University of Calabria, Cosenza, Italy.
- Miller, T., R. Negrini, P. E. Wigand, and D. Rhodes. 2009. Microcharcoal concentrations analyses to reconstruct wildfire history. Pacific Climate Workshop: Marine-Terrestrial Connections -- Seasonal Variability to Millennial Records. April 19-22, 2009; Asilomar State Conference Grounds, Pacific Grove, CA.
- Negrini, R., T. Miller, R. Stephenson, R. Ramirez, J. Leiran, P. E. Wigand, D. Rhodes, and T. Algeo. 2009. A 200,000-year record of lake-level change from the Carrizo Plain, central coastal California. Pacific Climate Workshop: Marine-Terrestrial Connections -- Seasonal Variability to Millennial Records. April 19-22, 2009; Asilomar State Conference Grounds, Pacific Grove, CA.

- Negrini, R., D. Rhodes, R. Stephenson, G. Noriega, L. Grant, Dirk Baron, P. E. Wigand, and F. J. Rich. 2007. Evidence for a long-lived Pleistocene lake, Carrizo Plain, California. The Geological Society of America, Annual Meeting (October 28-31 2007), Denver.
- Wigand, P. E. 2006. Discussant. Northern Mojave Paleoenvironments. China Lake Paleoecology Session. 40th Society for California Archaeology Annual Meeting, Ventura Beach Marriott, March 29-April 1, 2006.
- Negrini, R. M., P. E. Wigand, S. Draucker, K. Gobalet, J. Gardner, M. Sutton, and R. Yohe. 2005. The Holocene lake level history of Tulare Lake, California. The Geological Society of America, Annual Meeting (October 16–19, 2005), Salt Lake City
- Wigand, P. E. 2004. Environmental Change in the Late Pleistocene/Early Holocene Transition in the Northwestern Great Basin: The Woodrat Midden and Pollen Evidence. Program and Abstracts: 57<sup>th</sup> Annual Northwest Anthropological Conference, March 25-27, 2004, Eugene, Oregon. University of Oregon Museum of Natural History, and Bureau of Land Management.
- Wigand, P.E. 2002. Paleovegetation and Climate Reconstruction Steens Mountain Region of South-central Oregon I: Collection and analysis of pollen and woodrat midden data. 28th Great Basin Anthropological Conference, October 9 - 12, 2002, Elko Convention and Visitors Authority. Elko, Nevada
- Wigand, P. E. 2001. A northern hemisphere 1<sup>st</sup> millennium AD episode of summer rainfall. Proceedings of the Arizona-Nevada Academy of Science, Forty Fifth Annual Meeting, April 14, 2001. University of Nevada, Las Vegas. Las Vegas, Nevada.
- Wigand, P. E. 2001. Evidence in the biotic record of late Quaternary millennial cycles of climate. Cordilleran Section, GSA (97th Annual Meeting), and Pacific Section, American Association of Petroleum Geologists, April 9—11, 2001, Sheraton Universal Hotel, Universal City, California.
- Wigand, P. E. 1998. Learning from the Past: Second International Conference Global Paleoclimatic Changes. UNESCO Chair for Desert Studies and Desertification, Faculty of Science, Yarmouk University, Irbid, Jordan, and the Quaternary Sciences Center, Desert Research Institute, Reno, Nevada. 18-21 May, 1998, Irbid, Jordan.
- House, P. K., E. V. McDonald, S. E. Sharpe and P. E. Wigand. 1997. Using geological evidence to establish the long-term context of the January 1997 Truckee River Flood, Western Nevada. Fall Meeting of the American Geophysical Union, December 8-12, 1997, San Francisco, California.
- Wigand, P. E. 1997. Long and short term climatic variations, paleohydrology and paleobotanical proxy data. Encontro das Aguas (The Water Meeting), Inter-American Conference on Water Resources Management. Ministry of Environment, Water Resources and legal Amazon, Water Resources Secretariat, and the Inter-American Institute for Cooperation on Agriculture, Brazil. 10-14 November 1997, Fortaleza, Ceara Province, Brazil.
- Wigand, P. E. 1997. Late Quaternary environmental history: Insights gleaned from the sediments of archaeological caves in the northern Great Basin. 1997 Geological Society of America Annual Meeting, 20-23 October, 1997. Salt Lake City, Utah.
- Wigand, P. E. and D. E. Rhode. 1997. Late Quaternary Climates and Great Basin Vegetation and Aquatic History. Great Basin Symposium on Glacial and Postglacial Drainage: Fifty Years of Geologic, Biologic, and Hydroclimatic Progress in Late Cenozoic Aquatic System History, 17-20 September, 1997. Salt Lake City, Utah.
- Wigand, P. E. 1997. Holocene ecosystem change: a paleoecological perspective. Ecological Society of America 82nd Annual Meeting, 10-14 August, 1997. Albuquerque, New Mexico.
- Wigand, P. E., M. L. Hemphill, S. Sharpe and S. (Manna) Patra. Great Basin woodland and grassland dynamics during the late Holocene. Twenty-fifth Biennial Great Basin Anthropological Conference, 10-12 October 1996, Kings Beach, California.
- Wigand, P. E. and P. J. Mehringer, Jr. Western Great Basin Native American Diet and Environmental Contexts of the Holocene revealed in the pollen and macrofossil contents of human coprolites. Twenty-fifth Biennial Great Basin Anthropological Conference, 10-12 October 1996, Kings Beach, California.
- Buck, P., B. Hockett, F. Nials and P. E. Wigand. Archaeological and Paleoenvironmental Research at Pintwater Cave in 1996. Twenty-fifth Biennial Great Basin Anthropological Conference, 10-12 October 1996, Kings Beach, California.
- Wigand, P. E., M. L. Hemphill and S. (Manna) Patra. A detailed 2,000-year late Holocene pollen record from Lower Pahranaagat Lake, southern Nevada, USA. Thirteenth Annual PACLIM Workshop, 2-5 May 1995, Asilomar Conference Center, Pacific Grove, California.
- Wigand, P. E. Dynamics of Late Quaternary Plant communities in the northern part of the semi-arid Great Basin, western United States of America. XIV International INQUA Congress, 3-10 August 1995, Freie Universität Berlin, Berlin, Germany.
- Wigand, P. E., M. L. Hemphill and S. E. Sharpe. Pleistocene/Holocene transition as revealed by paleoclimatic proxy data from northern Nevada woodrat middens. Geological Society of America 1994 Annual Meeting, 24-27 October 1994, Seattle, Washington.
- Wigand, P. E. Dynamics of Great Basin plant communities during the last 12,000 years as a context for native peoples. Twenty-fourth Great Basin Anthropological Conference, 6-8 October 1994, Elko, Nevada.

- Wigand, P. E. Stable isotopic analyses in paleoclimatic reconstruction. Workshop on "Climate Change in the Four Corners and Adjacent Regions: Implications for Environmental Restoration and Land-Use Planning," 12-14 September 1994, Mesa State College, Grand Junction, Colorado. Sponsored by DOE, DRI, BLM and Mesa State College.
- Wigand, P. E. and M. L. Hemphill. Great Basin woodland dynamics during the Holocene. Workshop on "Climate Change in the Four Corners and Adjacent Regions: Implications for Environmental Restoration and Land-Use Planning," 12-14 September 1994, Mesa State College, Grand Junction, Colorado. Sponsored by DOE, DRI, BLM and Mesa State College.
- Hemphill, M. L. and P. E. Wigand. A detailed 4000 year late Holocene pollen record from Lower Pahranaagat Lake, southern Nevada, USA. Workshop on "Climate Change in the Four Corners and Adjacent Regions: Implications for Environmental Restoration and Land-Use Planning." 12-14 September 1994, Mesa State College, Grand Junction, Colorado. Sponsored by DOE, DRI, BLM and Mesa State College.
- Wigand, P. E., M. L. Hemphill and S. (Manna) Patra. Late Holocene climate derived from vegetation history and plant cellulose stable isotope records from the Great Basin of western North America. Fifth Annual International High-Level Radioactive Waste Management Conference and Exposition, 22-26 May 1994, Las Vegas, Nevada.
- Negrini, R., D. Erbes, P. E. Wigand and M. L. Hemphill. Paleomagnetic secular variation records as correlation tools for Quaternary climate records from lacustrine sediments. Fall meeting of the American Geophysical Union, 6-10 December 1993, San Francisco, California.
- Wigand, P. E. Late Quaternary climate derived from vegetation history and plant cellulose stable isotope records from the Great Basin of western North America. Fall meeting of the American Geophysical Union, 6-10 December 1993, San Francisco, California.
- Wigand, P. E. 1993. Late Quaternary Vegetation and Stable-Isotope Record From the Lahontan Basin. P. 109. // Proceedings of the Workshop "Ongoing Paleoclimatic Studies in the Northern Great Basin," 16-19 May 1993, Reno, Nevada. Benson, L. V. (ed.) Co-sponsored by the U.S. Geological Survey, the Desert Research Institute and the University of Nevada, Reno. U.S. Geological Survey Circular 1119. U.S. Government Printing Office.
- Wigand, P. E. Paleobotany of the Skyrocket Site. Society for California Archaeology, Twenty-seventh Annual Meeting, 7-11 April 1993, Asilomar Conference Center, Pacific Grove California.
- Wigand, P. E. Dynamics of Great Basin Plant Communities During the Last 12,000 Years as a Proxy for the Holocene Climate of California. Society for California Archaeology, Twenty-seventh Annual Meeting, 7-11 April 1993, Asilomar Conference Center, Pacific Grove California.
- Wigand, P. E. Dynamics of Northern Nevada Plant Communities During the Last 12,000 Years and Its Impact on Human Populations, Twenty-Third Great Basin Anthropological Conference, 8-10 October 1992, Boise, Idaho.
- Wigand, P. E. Dynamics of the Holocene Environmental Context of Native Culture in Southern Nevada, Twenty-Third Great Basin Anthropological Conference, 8-10 October 1992, Boise, Idaho.
- Sharma, P., F. M. Phillips and P. E. Wigand. Deciphering Variations in Cosmic Radiation Using Cosmogenic <sup>36</sup>Cl in Ancient Rat Urine. Annual Meeting of the American Geophysical Union, 9-13 December 1991, San Francisco, California.
- Wigand, P. E. Late Quaternary Climates of Northwestern Nevada as Reflected in Fossil Woodrat Middens of the Last 30,000 years. Geological Society of America Annual Meeting, 20 October 1991, San Diego, California.
- Wigand, P. E. and C. L. Nowak. Dynamics of Northwestern Nevada Plant Communities During the Last 30,000 Years. White Mountain Research Station Symposium IV, 19-22 September 1991, Bishop, California.
- Wigand, P. E. and M. K. Rose. Calibration of high frequency pollen records and tree ring sequences to reconstruct past climate in the southern Great Basin. Twenty-third Annual Meeting of American Association of Stratigraphic Palynologists Annual Meeting, 10-13 October 1990, Banff, Alberta, Canada.
- Wigand, P. E., M. K. Rose and M. L. Hemphill. Calibration of High-Frequency Pollen Records and Tree-Ring Sequences to Reconstruct Past Climate in the Southern Great Basin. Twenty-third Annual Meeting of American Assoc. of Stratigraphic Palynologists, 10-13 October 1990, Banff, Alberta, Canada.
- Wigand, P. E. Precipitation Seasonality and Fluctuation in the Northwestern Great Basin During the Last 6,000 Years. Twenty-Second Great Basin Anthropological Conference, 1990, Reno, Nevada.
- Reid, K. C., J. A. Draper and P. E. Wigand. Late Holocene Prehistory and Paleoenvironments on the Silvies Plateau, Northern Harney Basin. Twenty-Second Great Basin Anthropological Conference, 1990, Reno, Nevada.
- Wigand, P. E. and M. L. Hemphill. Late Pleistocene and Holocene Climate Change in Southern Nevada. Society for American Archaeology Fifty-fifth Annual Meeting, 1990. Las Vegas, Nevada.
- Reid, K. C., J. A. Draper and P. E. Wigand. Prehistoric and Paleoenvironments of the Silvies Plateau, Harney Basin, Southeastern Oregon. Society for American Archaeology Fifty-fifth Annual Meeting, 1990, Las Vegas, Nevada.
- Wigand, P. E. Establishing past vegetation and climate in southern Nevada. Great Basin Anthropological Conference, 1988, Park City, Utah.
- Wigand, P. E. Ponds, rats and tree-rings: vegetation history and water table in the eastern Oregon desert. Society for California Archaeology meetings, 1988, Redding, California.
- Wigand, P. E. Diamond Pond, Harney County, Oregon: Long- and short-term climatic change and man in the eastern Oregon desert. Northwest Anthropological Meetings, 1986, Moscow, Idaho.

- Wigand, P. E., J. C. Sheppard, C. F. Gustafson and M. Rubin. Marmes Rockshelter: a problem in dating. Great Basin Anthropological Conference, 1984, Boise, Idaho.
- Wigand, P. E., J. C. Sheppard and M. Rubin. The Marmes Site revisited: dating and stratigraphy twenty years after. Society for American Archaeology 49th Annual Meeting, 1984, Portland, Oregon.
- Wigand, P. E. and J. C. Sheppard. Problems in radiocarbon dating. Northwest Anthropological Meetings, 1983, Boise, Idaho.
- Wigand, P. E. and P. J. Mehringer, Jr. Vegetation history on the sagebrush-shadscale desert ecotone: the last 6000 years. Great Basin Anthropological Conference, symposium on Steens Mountain Archaeology and Ecology, 1982, Reno, Nevada.
- Mehringer, P. J., Jr., P. E. Wigand and K. L. Petersen. Holocene vegetation change in northern Great Basin steppe. Great Basin Anthropological Conference, symposium on Steens Mountain Archaeology and Ecology, 1982, Reno, Nevada.

#### **ABSTRACTS PUBLISHED (8)**

- Wigand, P. E. A. Taylor, B. Balmaki, and M. Asgharianrostami. 2013. Holocene Soils of Southern Italy: Human and/or Climate Interaction. Pp. 14-15. *In* Program and Abstracts: Workshop: Rates of Soil Forming Processes in Mediterranean Climate. September 24-28 in Calabria and Basilicata (South Italy). Workshop of INQUA project RAISIN: Rates of soil forming processes obtained from soils and paleosols in well-defined settings. Scarciglia, F. and D. Sauer (organizers). International Union for Quaternary Research (INQUA) and Division 1 of International Union of Soil Sciences (IUSS).
- Miller, T., R. Negrini, P. E. Wigand, and D. Rhodes. 2009. Microcharcoal concentrations analyses to reconstruct wildfire history. Pp. 20-21. *In* Abstracts: Pacific Climate Workshop: Marine-Terrestrial Connections -- Seasonal Variability to Millennial Records. April 19-22, 2009; Asilomar State Conference Grounds, Pacific Grove, CA.
- Negrini, R., T. Miller, R. Stephenson, R. Ramirez, J. Leiran, P. E. Wigand, D. Rhodes, and T. Algeo. 2009. A 200,000-year record of lake-level change from the Carrizo Plain, central coastal California. Pp. 22. *In* Abstracts: Pacific Climate Workshop: Marine-Terrestrial Connections -- Seasonal Variability to Millennial Records. April 19-22, 2009; Asilomar State Conference Grounds, Pacific Grove, CA.
- Powers, E., R. Negrini, P. E. Wigand, M. Palacios-Fest, and F. Foit. 2008. The Corcoran Clay at Great Depths in the Southern San Joaquin Valley, CA. Abstracts of AAPG Pacific Section Meetings, March 31-April 2, 2008, Bakersfield, California.
- Negrini, Rob, Rhodes, Dallas D., Stephenson, Randall, Noriega, Gabriela, Grant Ludwig, Lisa, Baron, Dirk, Wigand, Peter, E., and Rich, Fredrick. 2007. "Evidence for a long-lived Pleistocene Lake, Carrizo Plain, California." 2007 GSA Denver Annual Meeting (28-31 October 2007) Paper No. 98-13
- Wigand, Peter E. Late Quaternary Vegetation and Stable-Isotope Record from the Lahontan Basin. Pp. 109. *In* Benson, L. V. (ed.), Proceedings of the Workshop "Ongoing Paleoclimatic Studies in the Northern Great Basin," Reno, Nevada, May 1993. *U.S. Geological Survey Circular* 1119.
- Sharpe, S, R. Reinhardt, J. Lancaster, P. Buck, W. Hartwell, T. Wade G. McCurdy, P. Wigand, S. Livingston and K. P. House. 1997. The Grand Staircase-Escalante National Monument: An Ideal Site to Monitor Climate Variability and Change. Pp. 505-508. *In* Hill, L. M. (ed.), Learning from the Land Science Symposium. Poster Sessions. Grand Staircase-Escalante National Monument Science Symposium Proceedings. Southern Utah University. November 4-5, 1997.
- Wigand, P. E. 1993. Late Quaternary Vegetation and Stable-Isotope Record From the Lahontan Basin. P. 109. *In* Proceedings of the Workshop "Ongoing Paleoclimatic Studies in the Northern Great Basin," 16-19 May 1993, Reno, Nevada. Benson, L. V. (ed.) Co-sponsored by the U.S. Geological Survey, the Desert Research Institute and the University of Nevada, Reno. *U.S. Geological Survey Circular* 1119. U.S. Government Printing Office.

#### **INVITED PAPERS (10)**

- Wigand, Peter E. The Late Quaternary Palaeoecology of Southern California: Vegetation Change and Climate Dynamics. School of Natural Science & Mathematics Public Lecture Series. Presented at California State University, Bakersfield. 11 March 2009.
- Wigand, Peter E. The Impact of Global Warming in the Eastern Mediterranean: Desertification and Water Crises? Presented at Yarmouk University, 31 May 2000.
- Wigand, Peter E. Impact of Projected Climate Change and Grazing Upon Recurrent Potential Slope Failure and Massive Debris Flows. Presented at a workshop, "Impacts of Climate Change and Grazing upon Desertification," sponsored by the UNESCO Chair for Desert Studies and Desertification Control, and held at Yarmouk University 29-30 May, 2000.
- Wigand, Peter E. Evidence of Landscape Change in Arid and Semi-Arid Regions: The use of repeat photography to document the changing landscape during the last 150 years. Presented at a workshop, "Impacts of Climate Change and Grazing upon Desertification," sponsored by the UNESCO Chair for Desert Studies and Desertification Control, and held at Yarmouk University 29-30 May, 2000.
- Wigand, Peter E. "The Lean Years" Past cycles of drought in the eastern Mediterranean: The paleoclimatic record from the Eastern Mediterranean. Presented at a workshop, "Impacts of Climate Change and Grazing upon Desertification,"

sponsored by the UNESCO Chair for Desert Studies and Desertification Control, and held at Yarmouk University 29-30 May, 2000.

- Wigand, Peter E. "Fat Years and Lean Years" Cycles of Drought in the Eastern Mediterranean: Paleoclimatic Comparisons between Western North America and the Eastern Mediterranean. Presented at the National Center for Agricultural Research and Technology Transfer, Amman, Jordan, 17 May, 2000.
- Wigand, Peter E. Yucca Mountain High-level Nuclear Waste-Storage Facility Site Characterization: An Application of Paleobotany to Climate Projections for the next 10,000 years. Presented in the Department of Botany, Jordan University of Science and Technology, Ramtha, Jordan, 16 May, 2000.
- Wigand, Peter E. The Fat Years and the Lean Years: Cycles of Drought in Jordan. Presented by the Binational Fulbright Commission in Jordan, in Amman, Jordan, 3 May, 2000.
- Wigand, Peter E. Applied Paleoclimatology: Understandings of Past Climate Cycles and their use in Assessing Future Water Availability," paper given at the American Cultural Center in Damascus, Syria, 2 December 1999.
- Wigand, Peter E. Global Climate Change: The Wild Card in Assessing Future Water Needs," paper given at Ba'ath University, Homs, Syria, 5 December 1999 and again at Damascus University, Damascus, Syria, 6 December 1999.

#### POSTER SESSIONS (12)

- Wigand, P. E., M. McCallum, A. Taylor, B. Balmaki, and M. Asgharianrostami. 2014. Middle to late Holocene climate and human impact upon surficial processes and soil chronosequences in the Apulian-Lucanian border area of the southern Italian interior. Session: Earth and Planetary Surface Processes General Contributions. American Geophysical Union Fall Meeting. December 15-19 2014. San Francisco.
- Medina, L., P. E. Wigand, B. Balmaki, and R. Negrini. 2014. Pollen, geochemistry, and paleoclimatic implications of Tulare Lake sediments, San Joaquin Valley, CA over the past 19 ka. P63. Session: Research in Water Resources and CO2 EOR/Sequestration at the Cal State Bakersfield NSF (CREST) Center of Research Excellence in Science and Technology. 2014 PSAAPG – PSSEPM – PCSSEG Joint Annual Meeting: A Century of Innovation – From Exploration to EOR. April 27 – 30, 2014. Bakersfield, California.
- Balmaki, B., and P. E. Wigand. 2013. New Perspectives on the Late Pleistocene to Early Holocene Vegetation Transition in the Northern Mojave Desert. Session No. 126. #44. Paleocology and Taphonomy (Posters): Poster Technical Sessions. October 29, 2013. Geological Society of America Annual Meeting & Exposition 27 -30 October 2013, Denver, Colorado, U.S.A.
- Asgharianrostami, M., B. Balmaki, P. E. Wigand. 2013. Foraminiferal Biostratigraphy and Paleocology of the Maastrichtian through Danian Sediments of the Ziarat-Kola Section, Central Alborz Mountains, Iran. Session No. #38. Paleontological Discoveries and Biostratigraphy (Posters): Poster Technical Sessions. October 29, 2013. Geological Society of America Annual Meeting & Exposition 27 -30 October 2013, Denver, Colorado, U.S.A.
- Student Participants: Luis Arias, John Carroll, Zuriel Fajardo, Laura Hanel, Diana Iñiguez, Jasmeen Kaur, Angel Lara, Maleni Perez, Otilia Perez, Ryan Waski; Teachers: Katy Beecher and Adam Herrera; Research Assistants: Brynn Galindo and Robert Kelty; Professional Advisor: Dr. Peter Wigand, California State University, Bakersfield & University of Nevada, Reno. Mt. Piños Tree-Ring Cores: A Reconstruction of Recent Climate and Subalpine Woodland Dynamics - Correspondence to Regional Climate Models and Relative Salt Content of Soda Lake. 3rd International Conference of Asian Dendrochronology Association Climate Change and Tree Rings. 11-14 April 2013. Tehran, Iran.
- Palacios-Fest, M. R., Homburg, J. A., Davis, O. K., Brevik, E. C., and Wigand, P. E. 2005. Mid- to Late-Holocene paleoclimate change in Ballona Lagoon, southern California and its effects on human adaptation. The Geological Society of America, Annual Meeting (October 16–19, 2005), Salt Lake City
- Wigand, P. E. Paleovegetation and climate reconstruction in the Steens Mountain Region of south-central Oregon: an application of GIS methods to ancient pollen and woodrat midden data - a first approximation. 67th Annual Meeting of the Society of American Archaeology, 20-24 March 2002, Denver, Colorado.
- Sharpe, S, R. Reinhardt, J. Lancaster, P. Buck, W. Hartwell, T. Wade G. McCurdy, P. Wigand, S. Livingston and K. P. House. 1997. The Grand Staircase-Escalante National Monument: An Ideal Site to Monitor Climate Variability and Change. Learning from the Land Science Symposium. Poster Sessions. Grand Staircase-Escalante National Monument Science Symposium Proceedings. Southern Utah University. November 4-5, 1997.
- Wigand, P. E. A high frequency Paleoclimate record for the Lake Holocene from southern Nevada derived from aquatic and terrestrial pollen. Twelfth Annual PACLIM Workshop. Asilomar Conference Center, Pacific Grove California, 2-5 May 1995.
- Wigand, P. E., M. L. Hemphill, S. E. Sharpe and S. (Manna) Patra. Late Quaternary precipitation increases in the Great Basin as revealed by paleoclimatic proxy data. AMQUA Meetings in Minneapolis, Minnesota, 20-22 June 1994.
- Wigand, P.E., C. L. Nowak and R. J. Tausch. Temporal variation in vegetation assemblages at a northern Great Basin locale during the last 30,000 years. Seventy-first Annual Meeting of Ecological Society of America presented, August 1991.
- Nowak, C.L. and P.E. Wigand. Utah juniper (*Juniperus osteosperma*) dominated the plant communities of northwestern Nevada during the last 30,000 years. Seventieth Annual Meeting of the Ecological Society of America, 29 July -2 August 1990, Snowbird, Utah.

**WORKSHOPS AND CONFERENCE SESSIONS CHAIRED:**

- 1) Co-organizer with Ibrahim Dwairi, "Impacts of Climate Change and Grazing upon Desertification," sponsored by the UNESCO Chair for Desert Studies and Desertification Control, and held at Yarmouk University 29-30 May, 2000.
- 2) Participant, Sierra Nevada Ecosystems Project Paleoenvironmental Workshop. November 1-2, Placerville, California.
- 3) Chair, Paleoclimate Studies, Pleistocene, Workshop on "Climate Change in the Four Corners and Adjacent Regions: Implications for Environmental Restoration and Land-Use Planning." 12-14 September 1994, Mesa State College, Grand Junction, Colorado. Sponsored by DOE, DRI, BLM and Mesa State College.
- 4) Co-chair with Joe Wheland, Paleoclimate Studies, Yucca Mountain, Fifth Annual International High-Level Radioactive Waste Management Conference and Exposition, May 22-26, 1994.
- 5) Co-organizer with M. Rose of a NPS sponsored Interagency Global Change workshop, at Great Basin National Park, June 1991.
- 6) Co-chair with Wayne Wendland, Paleoclimate Studies, Yucca Mountain, International Highlevel Radioactive Waste Management Conference & Exposition, April 8-12, 1990.

**MEMBERSHIPS:**

American Geophysical Union; American Quaternary Association.

**CURRENT RESEARCH:**

My current research emphasis is focused on the reconstruction of past vegetation communities and the climates that affected them. Using palynological and plant macrofossil expertises, I am directing my attention toward short-term Pleistocene/Holocene climatic change in the Great Basin and its effect on plant community dynamics. My current research includes:

- 1) Reconstruction of past rainfall patterns in southern Nevada as determined from past plant community distributions; Using plant macrofossils retrieved from woodrat middens, collected from transects running the length of the Great Basin and from the Sierra to the Wasatch, and analyses of the stable isotopes contained in these plant remains Pleistocene and Holocene vegetation history is being reconstructed and magnitudes of past climatic parameters are being derived. This project was funded by DOE at FROM \$800,000 to \$100,000 per year for five years. This is coupled with study of a high-resolution pollen record from southern Nevada covering the last 5,600 years.
- 2) Recording the Pleistocene/Holocene forest history of western Nevada as documented in fossil woodrat middens. A woodrat midden record that now stretches back to 30,000 years B.P. in the Reno area is being used to trace the changing composition of local forests and the climatic changes that they reflect. This research is unfunded.
- 3) I am currently in collaboration with Dr. R. Negrini from California State, Bakersfield on a paleo- magnetic/environmental research project in south-central Oregon funded by NSF. Results currently indicate that we have at least a 250,000-year record of pollen, ostracodes and paleomagnetic secular variation.
- 4) I am conducting paleoenvironmental research with Dr. R Negrini, and Dr. M. Palacios-Fest in the Tulare Lake Basin in the southern Central Valley, California.
- 5) I am currently conducting pollen and sediment analysis of cores and alluvial samples from the western edge of Puglia Province in southern Italy.
- 6) I am beginning research on the paleoecology of Lake Urmia as part of a project to restore the lake, and in southern Iran to investigate early Holocene northward penetration of the Indian Ocean Monsoon and its relationship to the evolution of the early Neolithic in the region. These will be tied into earlier research that I conducted in northeast Africa related to the early Holocene northward migration of the Intertropical Convergence Zone into Saharan Africa, and its impact upon playa lakes in northern Sudan, and human cultural developments there.
- 7) Ongoing research on the pollen record between 30,000 and 35,000 when there were two major excursions of the earth's magnetic field to note if there are any reflections in the climate/vegetation record of the period.

**TEACHING**

Graduate Faculty, University of Nevada, Reno, and Graduate Faculty, California State University, Bakersfield

Courses taught, University of Nevada, Reno:

Geology 701M -	Climatic and Human Impact upon Geomorphology and Surficial Processes
	Fall 2014
Anthropology/Geology 720 -	Principles of Palynology - Fall 1991, Spring 1996
Anthropology/Geology 722 -	Principles of Plant Macrofossil Analysis - Spring 1997
Anthropology/Geology 708/750 -	Great Basin Paleoenvironments – Spring of 1992, and 1994
Anthropology 499/699 -	Modern and Past Environments of the Great Basin - Spring 1999
Geology 702x -	Paleohydrology - Spring 1997
Geography 437/637:	Geography of Past Environments - Fall 2008
Geography 440/640 -	Mountain Geography - Fall of 2002, 2006, and 2011

Geography 472/672 - Arid Lands Geograpy - Spring 2004  
 Geography 314 - Geography Field Methods - Fall 2007, Spring 2010  
 Geography 431/633 – Geography Landscapes/Geomorphology – Spring 2011  
 Courses taught, Yarmouk University, Irbid, Jordan:  
 Environmental Sciences 653 - Applied Paleoecology - Fall 1999  
 Biology 623 - Quaternary Palynology - Spring 2000  
 Courses taught, California State University, Bakersfield :  
 Geology 477 - Quaternary Paleoecology: theory and method - Winter quarter 2001.  
 Geology 577 - Paleoclimatology - Fall quarter 2005.  
 STEM Program CSUBAK- Research Experience Vitalizing Science - University Program (REVS-UP)  
<http://www.csu.edu/stem/> - Summer 2007, 2008, 2009

*Committees Chaired: (3)*

Cheryl Nowak - M.S. (Range, Wildlife & Forestry/Environmental & Resource Sciences)(Completed Spring 1991)  
 Jennifer Hallet - M.S. (Range, Wildlife & Forestry/Environmental & Resource Sciences)Completed Spring 1994)  
 Behnaz Balmaki, - Ph.D. (Geology) (University of Nevada, Reno)

*Membership on Other Committees (32):*

Cliff Krieger - M.A.-Anthopology (University of Nevada, Reno) (Completed Spring 1990)  
 Ulla Yandell - M.S. Biology (University of Nevada, Reno) (Completed Fall 1992)  
 Brian Hockett - Ph.D. Anthropology (University of Nevada, Reno) (Completed Spring 1993)  
 Sue Ann Monteleone - M.A. Anthropology (University of Nevada, Reno) (Completed Summer 1994)  
 Ron King - Ph.D. Anthropology (University of Nevada, Reno) (deceased)  
 Travis Mickelson - M.S. Biology (University of Nevada, Reno) (Completed Spring 1995)  
 Peggy McGuckian - M.A. Anthropology (University of Nevada, Reno) (Completed Fall 1995)  
 Diana Pritchard - M.A. Anthropology (University of Nevada, Reno) (Completed Spring 1996)  
 Dan Erbes - M.S. Geology (Cal. State, Bakersfield) (Completed Summer 1996)  
 Linda Reynolds - Ph.D. Anthropology (University of Nevada, Reno) (Completed Summer 1996)  
 C. C. Hoffman - M.A. Anthropology (University of Nevada, Reno) (Completed Summer 1996)  
 Julie Tipps - M.A. Anthropology (University of Nevada, Reno) (Completed Summer 1997)  
 Kurt Cupp - M.S. Geology (University of Nevada, Reno) (Completed Fall 1997)  
 Saxon Sharpe - Ph.D. Geology (University of Nevada, Reno) (Completed Spring 1998)  
 Kirk Halford - M.A. Anthropology (University of Nevada, Reno) (Completed Spring 1998)  
 Amy Patrick - M.A. English (Environmental Writing) (University of Nevada, Reno) (Completed Spring 2001)  
 Marie Allen - M.A. Geography (University of Nevada, Reno) (Completed Winter 2002)  
 Barbi Malinky - M.A. Anthropology (University of Nevada, Reno) (Completed Spring 2005)  
 Cari Meyer - M.S. Geology (Cal. State, Bakersfield)(Completed Spring 2005)  
 Kelly Burkle - M.A. Geography (University of Nevada, Reno) (Completed Spring 2007)  
 David Walker - M.S. Geography (University of Nevada, Reno) (Completed Summer 2007)  
 Scotty Strachen – M.S. Geography (University of Nevada, Reno)(Completed Summer 2011)  
 Anthony Taylor – M.A. Anthropology (University of Nevada, Reno)(Completed Spring 2012)  
 Tara Hamilton – M.A. Anthropology (University of Nevada, Reno)(Completed Spring 2012)  
 Anna Yoder - M.S. Anthropology (University of Nevada, Reno) (dropped out)  
 Verla Jackson - M.A. Anthropology (University of Nevada, Reno)(Completed Fall 2012)  
 Randall Stephenson - M.S. Geology (Cal. State, Bakersfield)(Completed Fall 2013)  
 Nathaniel Pepe – M.S. Geology (University of Nevada, Reno)(Completed Spring 2014)  
 Elizabeth Powers – M.S. Geology (Cal. State, Bakersfield)  
 Tracie Miller – M.S. Geology (Cal State, Bakersfield)  
 Ian Springer – M.A. Anthropology (University of Nevada, Reno)  
 Kilpatrick Mackenzie – Ph.D. Geography (University of Nevada, Reno)

**DRI/QSC & UNR/DEPT. OF ANTHROPOLOGY ADMINISTRATIVE WORK:**

1996-1999 Member University of Nevada Press Editorial Advisory Board  
 1996-1996 Chairman QSC Pedologist Search Committee  
 1994-1995 Chairman QSC Executive Director Search Committee  
 1989-1996 Member Department of Anthropology, Graduate Program Committee  
 1992-1993 Chairman DRI Individual Project Assignment Committee  
 1992-1993 Chairman DRI Sabbatical Leave Committee  
 1991-1993 Member DRI Individual Project Assignment Committee  
 1990-1993 Member DRI Sabbatical Leave Committee

1991	Member DRI Development Officer Search Committee
1989-1991	Member Faculty Senate
1989-1990	Secretary of Faculty Senate
1990-1993	Member QSC Standards and Awards Committee
1988-1989	Chairman QSC Executive Director Search Committee
1989	Member QSC Technical/Hourly Staff Status Review Committee
1988-1994	Chairman DRI Library Committee
1989-1994	Member Graduate Admissions Committee, Department of Anthropology, UNR

#### **PUBLIC SERVICE:**

- 1) Odyssey of the Mind Judge, State Competition-1988, 1989, 1991, 1995
- 2) Orientation of Minority High School Freshmen in the Sciences 1990
- 3) Participant Panel Discussion on Global Climate Change, 1990
- 4) Presentation at Saturday forums at Barnes & Noble Bookstore, The Prehistory of the Great Basin, for Earth Day, 22 April 1995
- 5) Nevada Science Project: three days (10-12 June, 1998) of northwestern Nevada field trips for the generation of virtual tours covering modern vegetation, past vegetation and climate history, and the place of human cultures in the environment of the Great Basin on the Nevada Science Project website.
- 6) Invited lecture on Great Basin Environmental History at the Great Basin National Park Science Teacher's Workshop, 15 June, 1998.
- 7) Invited lecture on Use of Paleobotanical Data for Investigation of Neotectonic Activity and Paleoclimatic Characterization of Yucca Mountain High-Level Nuclear Waste Repository.
- 8) Great Basin National Park Foundation: Member of the Visitor and Science Center Building Committee, 1998-present.
- 9) Organized and led guided tour of the Wadi Feynan archaeological area of southern Jordan, 12 May 2000.

#### **PUBLIC EDUCATION:**

##### *Invited Lectures*

- 1) Reno Amateur Archaeologists; Churchill County Amateur Archaeologists- 1988
- 2) Reno branch of the American Meteorological Society- 1990
- 3) South Tahoe Rotary Club- 1992
- 4) South Tahoe Retired Officers Club- 1992
- 5) Great Basin National Park Guest Lecturer Series- 1992
- 6) North Tahoe Lions Club- 1993
- 7) Reno Exchange Club- January 1993
- 8) Reno Amateur Archaeologists- August 1993
- 9) Cedar City, Utah High School AP Earth Sciences and Biology classes- November 1993
- 10) Cedar City, Utah, Exchange Club- November 1993
- 11) 32nd Annual Northern California-Western Nevada Junior Science & Humanities Symposium-14-16th April 1994, Reno, NV.
- 12) Gifted children's class, grades 1-3 Department of Education, University of Nevada- April 1994
- 13) Sierra Vista Elementary School, two sixth grade classes- April 1994
- 14) Friends of the San Diego County Museum, San Diego, CA.- May 1994
- 15) Annual Meeting of V.A. Surgeons, Sparks, NV.- May 1994
- 16) Roy Gomm Elementary School, sixth grade class lecture-September 1994
- 17) Elder College presentation at The Hyatt Classic Residence-Climate Change, 25 February 1995
- 18) 4-H presentation at the Washoe County Extension Office-Pollination Ecology, 18 March 1995
- 19) Monday Women's Study Group luncheon presentation-Packrats Middens and Understanding the Impacts of Climate Change, 27 March 1995
- 20) Barnes and Noble Bookstore Earthday 1995 invited presentation, *Prehistory of the Great Basin*, 22 April 1995.
- 21) Incline Elementary School, third and fourth grade class lecture-November 1995
- 22) Teacher's Water Workshop, 11 May 1996, lecture on past climate of the Great Basin, Nevada Wildlife Building, Reno, NV.
- 23) "Late Pleistocene Vegetation and Climate Record" and "Late Holocene Vegetation and Climate Record" Professional 24) Soil Scientist's Association of California (PSSAC), 1998 Annual Meeting, March 5 - 8, 1998, Furnace Creek, Death Valley, California.
- 25) "Nevada's 9,400-year old Man," Museum Luncheon Talk, Bohemian Club House, Post and Taylor, San Francisco, California, 12pm, 10 March 1998.
- 26) "The record of late Quaternary variability in hydrologic input in the Great Basin and northern Mojave Desert." Graduate Program of Hydrologic Sciences Fall 1998 Colloquium Series, University of Nevada, Reno, October 2, 1998.

- 27) "The paleoenvironmental research potential of Great Basin National Park." Great Basin National Park Foundation Meeting, Baker, Nevada, October 23, 1998.
- 28) "The environment and archaeology of the Steens Mountain region, south-central Oregon." Grades 1-8 at the Denio, Oregon Elementary/Middle School, June 4, 2001.
- 29) "Late Quaternary vegetation and climate history and archaeology." Grade 3. Sun Valley Elementary School. October 2001.
- 30) "Global climate links between the western USA and the Middle East." Association of Nevada Surveyors, February 12, 2003.
- 31) "Comparison of Middle Eastern and Southwestern Prehistoric Climates." Reno Meteorological Society, June 15, 2004.
- 32) "The Archaeology and Past Environments of the Hidden Cave, Carson Sink Area." Day Field Trip to Grimes Point, Hidden Cave and Fort Churchill, Saturday, October 20, 2007.
- 33) "Dramatic Climate Events of the last two Millennia Reflected in Human Cultures." Department of Anthropology, University of Nevada, Reno. Brown Bag Lunch Talk." April 15, 2008.
- 33) "Late Hellenistic, Byzantine, and early Islamic Mosaics in Jordan." Archaeological Institute of America, Reno Society. Archaeological Institute of America, Reno Society. Sunday, September 21, 2008.
- 34) "Ancient Games." Archaeological Institute of America, Reno Society. Archaeological Institute of America, Reno Society. Ancient Game Event. Sunday, November 9, 2008.
- 35) "Paleoenvironmental and Economic Evidence for Wetter Climate in the Levant during the First Millennium A.D. Am-Archs of Nevada. January 14, 2009.
- 36) "A Brief Personal View of Ancient Egypt 1977 and 1980." Sun Valley Elementary School 4<sup>th</sup> - 6<sup>th</sup> Grades. February 2009.

#### Television Spots

- 1) Press TV, Tehran, Iran. Interview for the 1<sup>st</sup> International Geosciences Conference held in Tehran, Iran. February 17, 2014. RE: American and Iranian collaboration.  
<http://www.presstv.com/detail/2014/02/17/351053/prominent-geologists-from-around-the-world-attend-conference-in-iran/>
- 2) "Life Long Learning" 1/2 hour interview on past climates of the Great Basin for KNTV, Channel 4, Reno, NV
- 3) BBC "Horizon" television series, broadcast in Europe during the spring of 1990 on the science of Yucca Mountain, "The 10,000 Year Test."
- 4) Evening news short report on fossil woodrat middens on KTVN, Channel 2, Reno, NV. 1990; Mike Alger report.
- 5) Sunday evening short report on drought in the Truckee Meadows, on KTVN, Channel 2, Reno, NV. 1991; Judith Matthews' report
- 6) "The Morning Show," KOLO, Channel 8, Reno, NV. 1994; Sam Shad Interview.
- 7) 2 evening news short reports on coring of Little Washoe Lake, Nevada one on KOLO, Channel 8 (Shelly Segal), and another on KRNK, Channel 4, Thursday, 29 May, 1997.
- 8) News TV Iran February 2014 <https://www.youtube.com/watch?v=2o4VicSSf-w>

#### Radio Spots

Two "Pulse of the Planet" reports, National Public Radio, 1993-1994  
KOH talk radio interview with Tim Anderson, Reno, Fall 1993

#### Newspaper and Magazine Spots

- 1) "Pack rats' liquid legacy," *Science*, January 10, 1992, p. 155
- 2) "Nature's time capsules," Leon Jaroff, *Time*, April 6, 1992, p. 61
- 3) "Climate history holds drought clues," Susan Voyles, *Reno Gazette-Journal*, May 4, 1992, p. 1A
- 4) "The cosmic secrets of pack rats," Ruth Flanagan, *Dallas Morning News*, May 18, 1992, p. 8D
- 5) "Blame El Nino, not the weatherman," Mary Manning, *Las Vegas Sun*, May 31, 1992, p. 4D
- 6) "Conservation Hotline: Telltale trash," Steven D. Mirsky, *Wildlife Conservation*, July/August 1992, p. 8
- 7) "News Notes: Cosmic rays and pack rats," *Sky and Telescope*, November 1992, p. 491
- 8) "Ancient desert rats leave clues to kaleidoscope of climate change," Malcolm W. Browne, *New York Times*, January 26, 1993, p. 8B

Story picked up by:

*The Plain Dealer*, Cleveland, Ohio, 01/31/93  
*St. Petersburg Times*, St. Petersburg, Florida, 02/02/93  
*The Courier-Journal*, Louisville, Kentucky, 02/08/93  
*St. Louis Post-Dispatch*, St. Louis, Missouri, 02/09/93  
*Star Tribune: Newspaper of the Twin Cities*, Minneapolis-St. Paul, 02/23/93  
*Manchester Guardian*, Manchester, Great Britain

- 9) "Look at the past helps today," Sandra Walters, *Camas-Washougal Post Record*, April 6 1993, p. 1B

- 10) "Today's Topic: Great Basin Climate: Ancient pack rat nests reveal secrets of the past," Mary Warejcka, *Reno Gazette-Journal*, May 17, 1993, p. 1A & 4A
- 11) "Klima: Rattenurin als thermometer," Martin Kunz and Silvia Sanides, *Focus* (German Newsweek), May 24, 1993, p.92-93
- 12) "Prehistoric past provides clues for the future," David Tippets, *Forestry Research West*, May 1993, pp. 1-6
- 13) "Experts collect ancient clues from pack rats," Christina Mitchell, *Arizona Daily Star*, February 21 1994
- 14) Series of articles generated by Sandra Chereb (Associated Press):
  - a) "Rat nests: Windows to the past: Scientists study rodents' outhouses for ancient tips," *Las Vegas Sun*, June 13, 1994, p. 6b
  - b) "Rat privy a new source of information: Remains of rodents now studied to learn environmental evolution," *Las Vegas Review Journal*, June 13, 1994, p. 5b
  - c) "Rats nests give clues to the past," *Tahoe Daily Tribune*, 15 July 1994
  - d) "Prehistoric rat aids modern study: The preserved nests of 38,000-year-old rodents have been found in Nevada. Scientists are using them for insight into environmental evolution," *The Los Angeles Times*, July 31 1994
  - e) "Digging into the pack-rat nests the ancient desert homes of a furry little creature offer insight into environmental evolution," *Orlando Sentinel*, 24 July 1994
  - f) "Scientists study rat nests for clues," *Nevada Appeal*, 24 July 1994
  - g) "Rodent research: Scientists study rat nests for clues into ecological past, future," *Moscow/Pullman Daily News*, July 2-3, 1994
  - h) "This pack rat's habits give scientists a break: ancient rodents' intact nests provide insights into ecology," *Peoria Journal Star*, August 15, 1994
  - i) "Nests of ancient pack rats contain clues to ecological past and future," *Buffalo Evening News*, July 1994
- 15) "What packrats can tell us about climate," Leo Poppoff, *Tahoe World*, January 26, 1995
- 16) "When packrats abandoned the desert," Leo Poppoff, *Sierra Heritage*, July/August 1995
- 17) "Catching up on environmental news," Basin Watch, Leo Poppoff, *North Lake Tahoe Bonanza*, January 10, 1996
- 18) "Dung happens: Ancient pack rat nests prove to be historical treasures for researcher studying Nevada's climate," Keith Rogers, *Las Vegas Review-Journal*, July 2, 1997
- 19) "UNR researchers helping to discover Tahoe's secrets," Leo Poppoff, *Tahoe World*, July 24, 1997
- 20) "Scientists get insight in pack rat urine," Keith Rogers, *Las Vegas Review-Journal*, July 26, 1997
- 21) "Drought indicates climate is readying for change," Khalid Dalal, *Jordan Times*, May 5-6, 2000

#### RELEVANT FUNDING

- 1985-Woodward-Clyde-Chevron CO2/PO4 Pipe-line Pollen Investigations (\$5,525).
- 1986-1988-U.S. Forest Service-Silvies Valley Prehistory and Paleoenvironments (\$8,000). Co Pis with K. Reid and J. Drapper
- 1987-1990-State of Nevada-Yucca Mountain Paleoenvironmental Studies (\$478,825). PI-P. Wigand.
- 1990-1993-Southern California Edison-Conference on climate history of the last 2,000 years in southern California (\$100,000). Co-PI with M. Rose.
- 1991-1992-U. S. Park Service-Preparation of Global Change Plan for Great Basin National Park (\$18,000). Co-PI with M. Rose.
- 1992-NSF-High-Resolution Paleoclimate and Paleomagnetic Records from the Middle to Late Pleistocene, Nonmarine Sediments in South-Central Oregon (\$228,708 Total over two years). Co-PIs R. Negrini, California State University, Bakersfield and A. Cohen, University of Arizona.
- 1993-DOE-Great Basin Paleoenvironmental Studies Project, Yucca Mountain Highlevel Nuclear Waste Storage Program Site Characterization (\$799,647). PI-P. Wigand.
- 1994-DOE-Great Basin Paleoenvironmental Studies Project, Yucca Mountain Highlevel Nuclear Waste Storage Program Site Characterization (\$950,113). PI-P. Wigand.
- 1995-DOE/TRW- Great Basin Paleoenvironmental Studies Project, Yucca Mountain Highlevel Nuclear Waste Storage Program Site Characterization (\$331,796). PI-P. Wigand.
- 1996-DOE/TRW- Great Basin Paleoenvironmental Studies Project, Yucca Mountain Highlevel Nuclear Waste Storage Program Site Characterization (\$108,000). PI-P. Wigand
- 1996-1998-U.S. Fish and Wildlife Service-Grays Lake N.W.R., Idaho: Climate and fire history in a marsh setting (\$15,000). PI-P. Wigand
- 1996-Archaeological and Historical Survey of Eastern Washington University-Pollen of the Sequim By-Pass Project (\$4,000). PI-P. Wigand.
- 1997-NSF-Flood history of Little Washoe Lake, west-central Nevada (\$12,000). Co-Pis with S. Sharpe and K. House.
- 1997-1998-Department of Defense, U.S. Navy, Fallon Naval Airbase-Alluvial, vegetation and fire history of Horse Creek, Clan Alpine Mountains (\$14,000). Co-PI with F. Nials.
- 1998-U.S. Forest Service-Cave Rock, east shore of Lake Tahoe, Nevada: Vegetation history of the Late Holocene (\$3,400). PI-P. Wigand.

- 2000 Summit Envirosolutions, Corridor Highway 50 EIS, paleoenvironmental chapter (\$2,000). PI-P. Wigand.
- 2000-2001 Marmes Rockshelter, Pollen analysis and paleoenvironmental chapter (\$5,200). PI-P. Wigand.
- 2001 Sundance Project, Paleoenvironmental reconstruction of Alvord Valley (\$1,000). PI-P. Wigand.
- 2001-2002 Eastern Snake River Plain, Paleoenvironmental data base assembly and analysis of two pollen localities (\$30,000). PI-P. Wigand.
- 1987-2001-Multiple contracts for pollen analysis and other analyses and paleoenvironmental related work from archaeological contract firms each averaging in size (~ \$2,500).
- 2001-2002 Sherwin Summit Highway 395 modification, Reconstruction of single-needle pine expansion for the White Mountain Region based upon woodrat midden analysis. Caltrans/Far West Anthropological Group, Inc. subcontract (\$2,500).
- 2002 Paleoenvironmental Chapter for the Statistical Research Inc. assessment of the Ballona Creek estuary Venice, CA. Contract for the Playa del Rey Project Group (\$4,200).
- 2001-2002 Tulare Lake Basin Early Man Project, locating early Holocene aboriginal sites and trenching, and mapping them. With the Department of Physics and Geology, and Anthropology, California State University, Bakersfield. (\$14,000).
- 2002 Kern River Water Bank Project pollen analysis of fluvial sediments to aid in reconstruction of past flow regimes of the Kern River. With the Department of Physics and Geology, California State University, Bakersfield (\$6,000).
- 2002 Highway 60 Apache Junction to Superior, Arizona Project. With Statistical Research Inc. (\$1,000)
- 2002 Airport Playa, China Lake Basin Project woodrat midden analysis. With Far West Anthropological Group, Inc. (\$4,000).
- 2002-2003 Sierra Valley, The Buttes Project. Sardine Valley pollen analysis. With Far West Anthropological Group, Inc. (\$10,000)
- 2003-2005 Central Nevada, Falcon Project. North, Muchacho and Pinto Creek springs pollen analyses. With Summit Envirosolutions. (\$9,000)
- 2005 Buena Vista Lake Project. Pollen analysis of ~1,000,000-year record. With the Department of Physics and Geology, California State University, Bakersfield (\$5,100).
- 2006. Anthropology Department, University of California, Riverside. Extraction of 86 reference pollen samples, and 84 pollen samples from lagoonal and cenote contexts. Analysis conducted by Ph.D. student at Riverside.
- 2006-2007-2008 Playa Vista Project. Pollen analysis of 340 samples from miscellaneous archaeological contexts. With Statistical Research Inc. (\$30,130)
- 2007 - 2008. Analysis of composition of organic artifacts from Gypsum Cave, Nevada. With Far Western Anthropological Group. (\$6,500).
- 2007 - 2009 Ruth Mine Project. Pollen analysis of 5,000 record and aboriginal milling stones. With WCRM, Inc. (\$2,200).
- 2007 - Northern Yucatan Archaeological and Paleoenvironmental. Private. (\$1,540).
- 2007 - NSF Summer Teaching. At California State University, Bakersfield. (\$14,998).
- 2007 - 2009. Ash Meadows NWR Vegetation Restoration Project. With Otis Bay. (\$5,845).
- 2008 - Laguna Canyon - Caltrans Project. Early Holocene marsh history. With Statistical Research, Inc. (\$6,040).
- 2008 - Misc. pollen localities central California. With Paleoconsultants. (\$1,215).
- 2008 - USGS - Pluvial Lake Manix Fire History. With California State University, Bakersfield. (\$5,130)
- 2008 - 2009 - Research Experience Vitalizing Science - University Program (REVS-UP). With California State University, Bakersfield. (\$20,000).
- 2010 - SJV Rocks - Kern County School District middle and high school geosciences curriculum development. With California State University, Bakersfield. (\$6,200).
- 2009-2010 - Ash Meadows NWR Vegetation Restoration Project. With Otis Bay. (\$12,000).
- 2011-2012 - Lake Mojave core samples. USGS. (\$8,000).
- 2012 Lake Michumina, Alaska pollen samples. (\$1,400).
- 2012 Fire Creek Archaeological District, central Nevada, WCRM. (\$1,400).
- 2012 Cima Volcanics. U.S.G.S. (\$1,120).
- 2012-2013 Lake Mojave and Lake Manix pollen analysis. U.S.G.S. (\$10,300).
- 2013-2014 Hycroft Mine Project, Nevada. Pollen analysis for archaeological site impact mitigation. (\$4,000)
- 2013-2015 Tulare Lake, California. Paleoecology project with Department of Geology, California State University, Bakersfield (\$80,000).

#### **EDITORIAL BOARDS:**

Frontiers in Ecology and Evolution online  
 Sage Open - ScholarOne online  
 Journal of Earth Science online

#### **AWARDS**

1999-2000

Senior Fulbright Scholar at Yarmouk University, Irbid, Jordan.

[http://www.cies.org/us\\_scholars/1999-2000/usdir99.pdf](http://www.cies.org/us_scholars/1999-2000/usdir99.pdf)

2011 (April 26-29)

NSF Team Seminar Paleoenvironmental Member – Short Seminar on Fiber Perishable Chronologies in the Great Basin of Western North America, School for Advanced Research, Santa Fe, New Mexico.

[http://sarweb.org/?research\\_team\\_short\\_seminar\\_fiber\\_perishable\\_chronologies-p:2011\\_seminars](http://sarweb.org/?research_team_short_seminar_fiber_perishable_chronologies-p:2011_seminars)

#### **OTHER WEBSITES**

<http://www.unr.edu/geography/faculty/pwigand.html>

<http://guide.agiweb.org/ggd/listing.html?ID=58>

<http://www.geo.arizona.edu/palynology/conslnst.html>

[http://4d.proclim.ch/4dcgi/pages/en/Detail\\_Person?wigandp.reno](http://4d.proclim.ch/4dcgi/pages/en/Detail_Person?wigandp.reno)

[http://www.researchgate.net/profile/Peter\\_Wigand/](http://www.researchgate.net/profile/Peter_Wigand/)

<http://www.linkedin.com/pub/peter-wigand/35/90/764>

<https://nevada-reno.academia.edu/PeterWigand>

<http://www.worldcat.org/identities/lccn-no99090280/>