

BRUCE OWEN

- Personal:** Email: brucedowen@gmail.com
Web page: <http://bruceowen.com>
- Education:** 1993: Ph.D. Anthropology, UCLA
1986: MA Anthropology, UCLA
1983: BA Anthropology, *summa cum laude*, distinction in the major, Yale University
- Theses:** Ph.D.: A model of multiethnicity: State collapse, competition, and social complexity from Tiwanaku to Chiribaya in the Osmore valley, Perú.
MA: The role of common metal objects in the Inka state.
BA: Excavations around the late-eighteenth century glebe house in Woodbury, Connecticut: 1981 and 1982 seasons.
- Research interests:** Development, expansion, and collapse of complex societies; status and power relations; multiethnicity and relations between social groups; population movements; settlement patterns; Andean South America, especially southern Peru; Tiwanaku; Wari; precolumbian metals; methods including drone photography, GIS, radiocarbon, and quantitative data analysis.
- Grants:** National Science Foundation Senior Research Grant, \$17,460, 2005.
National Science Foundation Senior Research Grant, \$9,600, 2000.
UCLA Chancellor's Dissertation Year Fellowship, \$12,500 and fees, 1992.
Wenner-Gren Foundation Predoctoral Grant-in-Aid, \$8,000, 1991.
National Science Foundation Dissertation Research Grant, \$10,000, 1989.
Fulbright-Hays Doctoral Dissertation Research Fellowship, \$5,180, 1988.
UCLA University Fellowship for Anthropology, \$5,000, 1984.
Twelve smaller grants totaling \$10,240, 1985-2010.
- Publications:**
- 2012 The Meanings of Metals: The Inca and Regional Contexts of Quotidian Metals from Machu Picchu. In **The 1912 Yale Peruvian Scientific Expedition Collections from Machu Picchu: Metal Artifacts**, edited by R.L. Burger and L.C. Salazar. Yale University Publications in Anthropology 91:73-189, 249-293.
- 2012 Archaeogenomic evidence of punctuated genome evolution in *Gossypium*. **Molecular Biology and Evolution** 29(8), 2031-2038. (S.A. Palmer, A.J. Clapham, P. Rose, F.O. Freitas, B.D. Owen, D. Beresford-Jones, J.D. Moore, J.L. Kitchen, and R.G. Allaby)
- 2011 Metallurgical Activity: Description, Technical Analysis, and Reconstruction. In **Chotuna and Chornancap: Excavating an Ancient Peruvian Legend**, by C. Donnan, pp. 167-184. Cotsen Institute of Archaeology Press.
- 2010 Wari in the Majes-Camaná valley: A different kind of horizon. In **Beyond Wari Walls, Regional Perspectives on Middle Horizon Peru**, edited by J. Jennings, pp. 57-77. University of New Mexico Press.
- 2009 La Expansión y el Colapso de Tiwanaku y el Papel de Arequipa (The Expansion and Collapse of Tiwanaku and the Role of Arequipa). In **Arqueología del Area Centro Sur Andina**, edited by M. Ziolkowski, J. Jennings, L. A. Belan Franco, and A. Drusini. Andes, Boletín del Centro de Estudios Precolombinos de la Universidad de Varsovia 7:431-462.
- 2009 Social Status in San Francisco and Oakland: Status Indices and Social Reality; Conclusions about Quantitative Methods; and Consumption and Status in Nineteenth-century San Francisco and Oakland: Statistical Analyses for the San Francisco West Approach Project. In **South of Market: Historical Archaeology of 3 San Francisco Neighborhoods. The San Francisco-Bay Bridge**

- West Approach Project.** Anthropological Studies Center, Sonoma State University, edited by M. Praetzellis and A. Praetzellis
- 2009 Early Agriculture in the Coastal Osmore Valley, Peru: Synchronous Events and Macroregional Processes in the Formation of Andean Civilization. In **Andean Civilization: A Tribute to Michael E. Moseley**, edited by J. Marcus and P. R. Williams, pp. 121-144. Monograph 63, Cotsen Institute of Archaeology, University of California, Los Angeles.
- 2007 Comment on Axel Nielsen, Significant arms: cultural plots, war and social change in the pre-hispanic Southern Andes. **Boletín del Museo Chileno de Arte Precolombino** 12(1):33-34.
- 2007 The Wari Heartland on the Arequipa Coast: Huamanga Ceramics from Beringa, Majes Valley, Peru. **Andean Past** 8:287-373.
- 2006 Violence and Rural Lifeways at Two Peripheral Wari Sites in the Majes Valley of Southern Peru. In **Andean Archaeology III: North and South**, edited by W. Isbell and H. Silverman, pp. 435-467. Kluwer/Plenum, New York. (T. Tung and B. Owen)
- 2005 Distant Colonies and Explosive Collapse: The Two Stages of the Tiwanaku Diaspora in the Osmore Drainage. **Latin American Antiquity** 16(1):45-80.
- 2004 Statistical Analysis of Summary Faunal Data; Statistical Analysis of Bottle Data (Appendices F and G). In **Putting the "There" there: Historical Archaeologies of West Oakland**, edited by M. Praetzellis and A. Praetzellis, pp. F1-F15, G1-G32. Anthropological Studies Center, Sonoma State University.
- 2004 Statistical Analyses (Appendix H). In **SF-80 Bayshore Viaduct Seismic Retrofit Projects Report on Construction Monitoring, Geoarchaeology, and Technical and Interpretive Studies for Historical Archaeology**, edited by M. Praetzellis, pp. H1-H198. Anthropological Studies Center, Sonoma State University.
- 2002 Marine Carbon Reservoir Age Estimates for the Far South Coast of Peru. **Radiocarbon** 44(3):701-708.
- 2002 Review of Parsons, et al. 2000, Prehistoric Settlement Patterns in the Upper Mantaro and Tarma Drainages, Junín, Peru. **Antiquity** 76(291):278-279.
- 2001 Tiwanaku en Moquegua: Interacciones Regionales y Colapso. **Boletín de Arqueología PUCP** 5:169-188, Pontificia Universidad Católica del Perú, Lima. (B. Owen and P. Goldstein)
- 2001 Tiwanaku en Moquegua: Las Colonias Altiplanicas. **Boletín de Arqueología PUCP** 5:139-168, Pontificia Universidad Católica del Perú, Lima. (P. Goldstein and B. Owen)
- 2001 The Economy of Metal and Shell Wealth Goods. In **Empire and Domestic Economy**, edited by T. D'Altroy and C. Hastorf, pp. 265-293. Plenum, New York.
- 2000 The Museo Contisuyo: A Successful Partnership across Multiple Boundaries. **Society for American Archaeology Bulletin** 18(4):27-30.
- 1998 Chiribaya y sus Antecedentes en el Valle de Ilo. In **Moquegua: Los Primeros Doce Mil Años**, edited by K. Wise, pp. 67-81. Museo Contisuyo y Municipalidad de Moquegua, Perú.
- 1997 La Prehistoria del Valle de Moquegua / The Prehistory of the Valley of Moquegua (bilingual). In **Contisuyo: Memoria de las Culturas del Sur**, pp. 30-55. Asociación Contisuyo, Perú.
- 1996 Abandoning arsenic? Technological and cultural changes in the Mantaro Valley, Perú. **Boletín del Museo del Oro** No. 41:119-129. (A. Bezur and B. Owen)
- 1992 Cobre Prehistórico en la Subregión de Moquegua (Prehistoric Copper in the Subregion of Moquegua). **Contisuyo: Suplemento Especial de Cobre**, No. 1. Southern Peru Copper Corp.

- 1989 The Impact of Inca Conquest on Local Technology in the Upper Mantaro Valley, Perú. In **What's New? A Closer Look at the Process of Innovation**, edited by S. E. van der Leeuw and R. Torrence, 107-139. Unwin Hyman, London. (C. Costin, T. Earle, B. Owen, and G. Russell)
- 1989 Hunting and Gathering in Tropical Rain Forest: Is it Possible? **American Anthropologist** 91(1):59-82. (R. Bailey, G. Head, M. Jenike, B. Owen, R. Rechtman, and E. Zechenter)
- 1988 Population Pressure as an Explanation for Cultural Change. **Anthropology UCLA** 15:1-33.
- 1987 Demographic Profiles and Burial Practices. In **Archaeological Field Research in the Upper Mantaro, Perú, 1982-1983: Investigations of Inka Expansion and Exchange**, edited by T.K. Earle, et al. Monograph XXVIII, pp. 107-123. Inst. of Archaeology, UCLA. (B. Owen and M. Norconk)
- 1987 Gold: Old World Riches, New World Symbols. **Terra** 25(5):15-18.

Reports to the Peruvian Instituto Nacional de Cultura (INC) (available on request, some in English):

- 2007 Complejos de Patios con Columnas de Camaná, Levantamiento, Sondeos, y Fechados para Definir su Filiación Cultural y Cronológica, Informe de Campo e Informe Final. (Columned Court Complexes of Camaná, Mapping, Test Pits, and Dates to Define Their Cultural and Chronological Affiliation, Field Report and Final Report; H. Tantalean and B. Owen.)
- 2002 Cerámica de Beringa. Part of the report of the Beringa Project, directed by Tiffany Tung.
- 1999 Proyecto "Vecinos de Cerro Baúl" 1997, Informe de Campo e Informe Final. (Excavations in the upper Osmore drainage).
- 1997 Informe de Excavaciones en los Sectores Mortuorios de Chen Chen; Parte del Proyecto Rescate de Chen Chen, temporada de 1995. (Cemetery salvage excavations at Chen Chen).
- 1996 Inventario Arqueológico del Drenaje Superior del Río Osmore, Informe de Campo e Informe Final. (Site survey in the upper Osmore drainage).
- 1994 Inventario Arqueológico del Valle Osmore Costero, Informe de Campo e Informe Final. (Site survey in the coastal Osmore drainage).
- 1992 Proyecto Colonias Costeras de Tiwanaku, 1989-90, Informe de Campo e Informe Final. (Excavations in the coastal Osmore drainage).
- 1991 Rescate Arqueológico en el sitio PCCT 128 / San Geronimo 2. Report submitted to the INC, Ilo office, on emergency salvage excavations conducted at its request.

Conference papers (some available at <http://bruceowen.com/research/researchperu.htm> or on request):

- 2019 A Contact-era Mortuary Ritual Space in the Central Highlands of Peru. Brownbag talk, Archaeological Research Facility, University of California, Berkeley.
- 2015 Post-Tiwanaku Settlement Patterns in the Peaceful Coastal Osmore Valley and the Tense Upper Valleys. 80th Annual Meeting of the Society for American Archaeology, San Francisco.
- 2012 Ceramic and Textile Evidence of Wari Interactions with Osmore Drainage Populations from the Sierra to the Coast -or- A Few Sherds and a Rag. 77th Annual Meeting of the Society for American Archaeology, Memphis.
- 2010 An Historical Archaeological Test of a Single Scale of Material Status. 109th Annual Meeting of American Anthropological Association, New Orleans.
- 2008 Fotografía Aérea por Cometa para Arqueología (Kite Aerial Photography for Archaeology). Congreso Contisuyo, Moquegua, Peru.

- 2008 Wari in the Majes-Camaná valley: A different kind of horizon. 73rd Annual Meeting of the Society for American Archaeology, Vancouver.
- 2007 The Columned Court Complexes of Camaná Were Not What They Appeared. 72nd Annual Meeting of the Society for American Archaeology, Austin.
- 2007 The Columned Court Complexes of Camaná. 47th Annual Meeting of the Institute of Andean Studies, Berkeley.
- 2005 La Expansión y el Colapso de Tiwanaku y el Papel de Arequipa. Simposio Internacional de Arqueología del Area Centro Sur Andina, Universidad Católica Santa María, Arequipa.
- 2003 The Development of Agriculture in the Coastal Osmore Valley. 68th Annual Meeting of the Society for American Archaeology, Milwaukee.
- 2001 From Sequence to Social Organization: Tiwanaku Multicomponent Society in Moquegua, Perú. 66th Annual Meeting of the Society for American Archaeology, New Orleans.
- 2000 Tiwanaku en Moquegua: Interacciones regionales y colapso. III Simposio Internacional de Arqueología, Pontificia Universidad Católica del Perú, Lima. (B. Owen, P. Goldstein).
- 2000 Tiwanaku en Moquegua: Las Colonias Altiplanicas. III Simposio Internacional de Arqueología, Pontificia Universidad Católica del Perú, Lima. (P. Goldstein, B. Owen).
- 1998 Bows and Spearthrowers in Southern Peru and Northern Chile: Evidence, Dating, and Why it Matters. 63rd Annual Meeting of the Society for American Archaeology, Seattle.
- 1998 A Tiwanaku IV Temple at Cerro Baúl: Evidence and Implications. 38th Annual Meeting of the Institute of Andean Studies, Berkeley.
- 1997 Multiethnicidad y Monoethnicidad Prehistórica en el Valle de Ilo. Seminario "Arqueología de Ilo", Lima, August 1997.
- 1996 Reality and Theory of Verticality in the Coastal Osmore Valley. In symposium "Was there prehistoric "verticality" in the Osmore drainage, Perú? Results of the Programa Contisuyo", organized by Bruce Owen. 61st Annual Meeting of the Society for American Archaeology, New Orleans.
- 1995 War and Engineering, Ostentation and Social Status in the Late Intermediate Period Osmore Drainage. 60th Annual Meeting of the Society for American Archaeology, Minneapolis.
- 1994 Were Wari and Tiwanaku in Conflict, Competition, or Complementary Coexistence? Survey Evidence from the Upper Osmore Drainage, Perú. 59th Annual Meeting of the Society for American Archaeology, Anaheim.
- 1993 A General Model of Proliferation and Competition of Social Groups. 92nd Annual Meeting of the American Anthropological Association, Washington D.C..
- 1993 Early Ceramic Settlement in the Coastal Osmore Valley, Perú: Preliminary Report. 33rd Annual Meeting of the Institute of Andean Studies, Berkeley.
- 1992 Multiethnicity in the Prehistoric Coastal Osmore Valley, Perú. 91st Annual Meeting of the American Anthropological Association, San Francisco.
- 1992 Coastal Colonies and the Collapse of Tiwanaku: The Coastal Osmore Valley, Perú. 57th Annual Meeting of the Society for American Archaeology, Pittsburgh.
- 1991 Colonization and Complexity in the Twilight of Tiwanaku: The Coastal Osmore Valley, Perú. 56th Annual Meeting of the Society for American Archaeology.

- 1990 Excavaciones en Loreto Viejo, Valle de Ilo: Informe Preliminar. Seminario Realidad y Perspectivas de la Arqueología Regional, July 11, 1990. Universidad Católica de Santa María, Arequipa, Perú.
- 1990 Tiwanaku Tardío en el Valle de Ilo: Apuntes sobre Trabajo en Proceso. Forum Región Historia y Cultura, January 12, 1990. Instituto Nacional de Cultura, Tacna, Perú.
- 1988 The Impact of Inka Policy on the Wanka Populace. 53rd Annual Meeting of the Society for American Archaeology, Phoenix. (Bruce Owen, Glenn Russell, Cathy Costin)
- 1985 The Changing Use of Metals in the Mantaro Valley: Late Intermediate Period and Late Horizon. 25th Annual Meeting of the Institute of Andean Studies, Berkeley. (Bruce Owen, Timothy Earle)

Archaeology: Upper Mantaro Archaeological Research Project data cleaning and analysis (Central highlands of Peru). Collaboration with Christine Hastorf (University of California, Berkeley) to prepare old data for archiving, with new GIS and quantitative midden analyses. 4/19-present.

Drone photomapping of Late Intermediate Period sites (Moquegua and Ilo, Peru). Collaboration with Nicola Sharratt (Georgia State University) to make high-resolution topographic maps of Tumilaca phase sites and others; collecting GPS ground control points for regional topographic mapping with old aerial photos; GIS analyses. 2/18-present.

Louse infestation in two prehistoric populations (Museo Contisuyo, Moquegua, Peru, and Centro Mallqui, Ilo, Peru). Collaboration with Karl Reinhard and Nicole Searcey (University of Nebraska, Lincoln). Comparison of prehistoric hair louse infestation rates in an immigrant population and its host population, southern Peru, ~1000 AD. 8/13-9/18.

Human hair and prehistoric slings project (Phoebe A. Hearst Museum, Berkeley; Museo Regional de Ica, Peru; Museo Contisuyo, Moquegua, Peru; California Institute of Peruvian Studies, Arequipa, Peru). Director. Digital microscopy of human hair, camelid wool, and prehistoric slings to assess antiquity of an ethnographically documented practice. 3/12-9/13.

Columned court complexes of Camaná project (Camaná, Peru). Director. Ceramic, lithic, faunal analyses 8/07, 8/08; excavation and mapping 6/06-8/06; kite aerial photomapping 8/05; reconnaissance 8/04, 8/00.

Statistical analyses of faunal, glass, ceramic, and obsidian data (Anthropological Studies Center, Sonoma State University). Data analyst. 6/03-11/10.

Beringa project (Majes & Arequipa, Perú). Consultant, excavator, ceramic analyst. 6/01-8/01.

Carumas reconnaissance (Southern highlands, Perú). Director. Site visits and assessment in a previously unstudied region. 8/00.

Marine carbon reservoir project (Moquegua, Perú). Director. Collected and exported samples from previously excavated burials and midden for study of effect of marine foods. 7/99-8/99, 1/00.

Neighbors of Cerro Baúl project (Moquegua, Perú). Director. Mapping, surface collection, excavations, ceramic analysis at five Tiwanaku and Late Intermediate Period sites, including a provincial Tiwanaku temple and a deeply stratified Tiwanaku village. 6/97-8/97, 7/98-8/98.

Chen Chen salvage project (Moquegua, Perú). Project coordinator and Director of mortuary excavations. Emergency mapping, surface collection, and excavation at a major Tiwanaku V settlement, with over 40 Peruvian and US archaeologists and student volunteers. 7/95-8/95.

Upper Osmore drainage archaeological survey (Moquegua, Perú). Director. Systematic site survey of about 100 km² occupied by Tiwanaku and Wari states. 10/93-8/94.

Proyecto Colonias Costeras de Tiwanaku (Ilo, Perú). Director. Dissertation research on the collapse of Tiwanaku; survey, excavation, and lab. 7/88-8/88, 4/89-9/90, 7/91-1/92 (25 months)

San Geronimo II cemetery salvage excavation (Ilo, Perú). Director. 12/91.

Cochas valley mining and settlement survey (Central highlands of Perú). Director. 8/86-9/86.

Technical and typological analysis of precolumbian metals and production debris (Objects Conservation Dep't, Metropolitan Museum of Art; Field Museum; Lowie Museum; American Museum of Natural History; Yale Peabody Museum). Director. MA research. 9/85-12/85.

Upper Mantaro Archaeological Research Project (Central highlands of Perú). Excavator and field lab analyst. 9/83-12/83, 7/86-8/86.

CRM site survey and testing (Boise National Forest, ID). Surveyor, excavator. 5/82-7/82.

Glebe house and silversmithy excavations and lab analysis (Woodbury, CT). Student excavator and historical artifact analyst. 9/81-12/81, 9/82-5/83.

Teaching: **Lecturer** (Sonoma State University). Teaching *Emergence of Civilizations, Andean Archaeology and Ethnohistory, World Prehistory, Introduction to Archaeology, Archaeological Methods* (a field course), *Introduction to Biological Anthropology, Introduction to Cultural Anthropology*, and *Living in our Globalized World* in the Anthropology department; *Foundations of World Civilization* in the History department. 9/96-5/17.

Student-Athlete Tutorial Unit and Private Tutoring (UCLA). Tutored undergraduates in geography, anthropology, and statistics. 10/90-3/91.

Teaching Assistant (UCLA). Taught undergrad discussion sections in population genetics, physical anthropology, human evolution, and archaeology. Eight quarters. 10/86-3/89.

Museums and administration: **Secretary & Treasurer, Institute of Andean Studies** (Berkeley). Handled business, financial, legal, membership, annual meeting, website updating and modification, and record-keeping matters. Redesigned main database, implemented online payment system, re-established nonprofit status. 6/10-1/22.

Director, Asociación Contisuyo (Moquegua, Perú). Supervised policies, budget, and operations of both the public outreach (Museo Contisuyo) and archaeological research (formerly Programa Contisuyo) branches of the Asociación Contisuyo. 8/95-2/04.

Director, Museo Contisuyo (Moquegua, Perú). Hired and directed a staff of six for a new archaeological museum. Designed and implemented storage facilities, computer cataloging system, collection and administration policies, startup and operating budgets. Inventoried and stored 11 tons of collections. Consulted on design and content of the permanent exhibition. Wrote bilingual label copy. 8/94-8/95.

Director of Operations, Programa Contisuyo (Moquegua, Perú). Managed research, institutional relations, and budget (\$100,000 annual) of Programa Contisuyo. 8/94-8/95.

Guest Research Curator (LA County Museum of Natural History). Designed and wrote the precolumbian section of the exhibition "Gold: Quest for New World Riches". 10/86-5/87.

Editorial: **Editor-archaeologist** (Anthropological Studies Center, Sonoma State University). Staff editor, revising content and style of reports on historical and prehistoric cultural resource management studies. 1/12-present.

Computer experience: **Web Author** (Institute of Andean Studies, Asociación Contisuyo, Sonoma State University). Created websites for the Museo Contisuyo, my research activities, and my SSU courses; updated and then designed and managed the replacement of the Institute of Andean Studies website with a modern Backdrop-based site and integrated online CiviCRM membership management system. 9/96-1/22.

Museum Inventory Programmer (Museo Contisuyo, Perú). Programmed an inventory control system for the archaeological collections of the Museo Contisuyo, in FoxPro. 8/94-8/95.

Data Analysis Consulting (UCLA & Sonoma State's Anthropological Studies Center). Analytical methods consultant and SAS programmer for one physical and two cultural anthropological studies at UCLA, 1/92-6/93, and several archaeological projects at SSU, 6/03-11/07.

Anthropology Microcomputer Lab (UCLA). PC consultant. 10/90-6/91, 1/92-6/92.

Social Sciences Computing Facility (UCLA). IBM 4381 consultant. 1/86-6/86.

DataVision (Palo Alto, CA). Technical consultant and writer. 9/85-2/86.

Tall Tree Systems (Palo Alto, CA). Technical writer. 4/84-8/84, 12/84-1/85, 6/85-9/85.

Publications in personal computing:

- 1986 The Battle for the Background. **PC World** 4(6):270-284.
- 1986 The RAM Revolution. **PC World** 4(1):206-217
- 1985 Breaking the Memory Barrier. **PC Magazine** 4(7):193-202.

Other: Conservation in Field Archaeology seminar, Getty Museum (3/87); Yale Scientific Magazine, Editor (1979-1983); Apprentice to Earl Shorthouse, cabinetmaker (1980-1983).

Languages: Good spoken and written Spanish. Limited reading knowledge of German.

Memberships: Society for American Archaeology; American Anthropological Association; Institute of Andean Studies; Registro Nacional de Arqueólogos, Perú, no. CO 88-16.