

Daniel Alexander Contreras, Ph.D

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Positions

- 2023 - Associate Professor, Department of Anthropology, University of Florida
Affiliate Faculty, Center for Latin American Studies, University of Florida
Affiliate Faculty, School of Natural Resources and the Environment, University of Florida
- 2019 - 2023 Assistant Professor, Department of Anthropology, University of Florida
Affiliate Faculty, Center for Latin American Studies, University of Florida
- 2018 - 2019 Assistant Professor, Department of Anthropology, University of Maryland
- 2017 - 2018 Cultural Resources Principal Investigator, SWCA Environmental Consultants, Salt Lake City, UT
- 2017 - 2018 Adjunct Assistant Professor, Department of Anthropology, University of Utah
- 2014 - 2016 OT-Med Postdoctoral Research Fellow, AMENOPHYS – Adaptation of Mediterranean Economies of the Past to Hydroclimatic Changes, Institut Méditerranéen de Biodiversité et d'Ecologie marine et continentale (IMBE) / Groupement de recherche en économie quantitative d'Aix-Marseille (GREQAM), Aix-Marseille Université
- 2011 - 2013 Humboldt Postdoctoral Fellow, Institute for Ecosystem Research, Christian-Albrechts-Universität zu Kiel
- 2009 - 2011 Postdoctoral Teaching Fellow, Introduction to the Humanities Program, Stanford University
- 2007 - 2009 Lecturer, Department of Anthropology, Stanford University

Education

- 2007 Ph.D, Department of Anthropological Sciences, Stanford University
Dissertation title: *Sociopolitical and Geomorphologic Dynamics at Chavín de Huántar, Peru*
- 2004 M.S., Anthropological Sciences, Stanford University
- 1998 M.A., Latin American Studies, Stanford University
- 1996 B.A., Religion (*Magna cum laude*), Amherst College
Certificate, Five College Program in Latin American Studies

Professional Interests

THEORY AND METHODS

geoarchaeology; human-environment interactions; digital methods and archaeology; GIS; R; socioecological modeling; geomorphology; environmental archaeology; prehistoric ecology; obsidian; origins and development of social inequality; looting and cultural heritage

REGIONS

Central Andes, Mediterranean

Selected Publications (* indicates peer-reviewed)

Journal Articles

* Submitted. **Contreras, Daniel A.** "Archaeological ¹⁴C assemblages and the Chavín Phenomenon in the Central Andes" *Quaternary International* special issue "Archaeological Radiocarbon in the Central Andes", Oct 2023

*2023. **Contreras, Daniel A.** and Brian F. Coddling. Landscape Taphonomy Predictably Complicates Demographic Reconstruction. *Journal of Archaeological Method and Theory*.

- * 2023. **Contreras, Daniel A.** 'Seeking Synchronicity: Re-examining the Peruvian Early Horizon through Bayesian Modeling of ¹⁴C Dates.' In Seki, Yuji, ed., 'New Perspectives on the Early Formation of the Andean Civilization: Chronology, Interaction, and Social Organization'. Osaka: National Museum of Ethnology. *Senri Ethnological Studies* 112:127-151.
- * 2022 Vining, Benjamin R, Aubrey Hillman, **Daniel A Contreras**, and Ernesto Tejedor. Expanded Agroecological Niches and Redistributed Risks in Northern Peru's Chicama Valley during Late-Holocene ENSO Climate Changes. *The Holocene* 32(12).
- * 2022 **Contreras, Daniel A.** Stages, Periods, and Radiocarbon: ¹⁴C Dating in the Archaeology of the Central Andes. *Ñanpa Pacha: Journal of Andean Archaeology*.
- * 2022 Wilson, Kurt M, Weston C McCool, Simon C Brewer, Nicole Zamora-Wilson, Percy J Schryver, Roxanne Lois F Lamson, Ashlyn M Huggard, Joan Brenner Coltrain, **Daniel A Contreras**, and Brian F Coddling. Climate and demography drive 7000 years of dietary change in the Central Andes. *Scientific Reports* 12(1):2026
- * 2022 Vining, Benjamin, Aubrey Hillman, and **Daniel A. Contreras**. El Niño Southern Oscillation and enhanced arid land vegetation productivity in NW South America. *Journal of Arid Environments* 198.
- * 2021 **Contreras, Daniel A.**, Zachary Batist, Ciara Zogheib, and Tristan Carter. Matching Pragmatic Lithic Analysis and Proper Data Architecture: The QuARI R Shiny Database Interface. *Advances in Archaeological Practice*. 9(4), 299-311. doi:10.1017/aap.2021.11
- * 2019 Carter, Tristan, **Daniel A. Contreras**, Justin Holcomb, Danica D. Mihailovic, Panagiotis Karkanias, Guillaume Guérin, Ninon Taffin, Dimitris Athanasoulis, and Christelle Lahaye. Earliest occupation of the Central Aegean (Naxos), Greece: Implications for hominin and Homo sapiens' behavior and dispersals. *Science Advances* 5(10):eaax0997.
- * 2019 Grillo, Katherine M. and **Daniel A. Contreras**. 'Public archaeology's mammoth in the room: engaging Wikipedia as a tool for teaching and outreach.' *Advances in Archaeological Practice* 7(4):435-442.
- * 2018 **Contreras, Daniel A.**, Eneko Hiriart, Alberte Bondeau, Alan Kirman, Joël Guiot, Loup Bernard, Romain Suarez, and Sander Van Der Leeuw. 'Regional Paleoclimates and Local Consequences: Integrating GIS Analysis of Diachronic Settlement Patterns and Process-Based Agroecosystem Modeling of Potential Agricultural Productivity in Provence (France).' *PLOS One* 13(12): e0207622.
- * 2018 **Contreras, Daniel A.**, Joël Guiot, Romain Suarez, and Alan Kirman. 'Reaching the Human Scale: A Spatial and Temporal Downscaling Approach to the Archaeological Implications of Paleoclimate Data.' *Journal of Archaeological Science* 93:54-67.
- * 2015 **Contreras, Daniel A.**, 'Landscape Setting as Medium of Communication at Chavín de Huántar, Peru.' *Cambridge Archaeological Journal* 25(2):1-17.
- * 2014 **Contreras, Daniel A.** and John Meadows. 'Summed Radiocarbon Calibrations as a Population Proxy: A Critical Evaluation Using a Realistic Simulation Approach.' *Journal of Archaeological Science* 52:591-608.
- * 2014 **Contreras, Daniel A.**, Vincent Robin, Regina Gonda, Rachel Hodara, Marta Dal Corso, and Cheryl Makarewicz. '(Before and) After the Flood: A Multiproxy Approach to Past Floodplain Usage in the Middle Wadi Al-Hasa, Jordan.' *Journal of Arid Environments* 110:30-43.
- * 2011 **Contreras, Daniel A.** 'How Far to Conchucos? A GIS Approach to Assessing the Implications of Exotic Materials at Chavín de Huántar.' *World Archaeology* 43(3):380-397.
- * 2011 Tripcevich, Nicholas and **Daniel A. Contreras**. 'Quarrying Evidence at the Quispisisa Obsidian Source, Ayacucho, Peru.' *Latin American Antiquity* 22(1):121-136.
- 2011 Rick, John W., Christian Mesia, **Daniel A. Contreras**, Silvia R. Kembel, Rosa M. Rick, Matt Sayre, and John Wolf. 'La cronología de Chavín de Huántar y sus implicancias para el Periodo Formativo.' *Boletín de Arqueología PUCP* 13:87-132.
- * 2010 **Contreras, Daniel A.**, 'Huaqueros and Remote Sensing Imagery: Assessing Looting Damage in the Virú Valley, Peru.' *Antiquity* 84(324):544-555.

- * 2010 **Contreras, Daniel A.** and Neil Brodie ‘The Utility of Publicly-Available Satellite Imagery for Investigating Looting of Archaeological Sites in Jordan.’ *Journal of Field Archaeology* 35(1):101-114.
- * 2010 **Contreras, Daniel A.** ‘A Mito-Style Structure at Chavín de Huántar: Dating and Implications.’ *Latin American Antiquity* 21(1):1-19.
- * 2010 **Contreras, Daniel A.** ‘Landscape and Environment: Insights from the Prehispanic Central Andes.’ *Journal of Archaeological Research* 18(3):241-288.
- * 2009 **Contreras, Daniel A.** ‘Reconstructing Landscape at Chavín de Huántar, Perú: A GIS-based Approach.’ *Journal of Archaeological Science* 36(4): 1006-1017.

Books

- * 2017 **Contreras, Daniel A.**, ed. *The Archaeology of Human-Environment Interactions: Strategies for Investigating Anthropogenic Landscapes, Dynamic Environments, and Climate Change in the Human Past*. Routledge Studies in Archaeology.

Book Chapters

In press. **Contreras, Daniel A.** ‘The Chavín Phenomenon and Its Regional Manifestation.’ In Aldenderfer, Mark, Marcela Sepúlveda, and Eduardo Neves (eds.), *The Oxford Handbook of South American Archaeology*. Oxford University Press.

- * In press. **Contreras, Daniel A.** and Nicholas Tripcevich. ‘Retrospect and Prospect for Obsidian Sourcing Studies in the Central Andes.’ In *Sourcing Obsidian* F.-X. Le Bourdonnec, M. S. Shackley & M. Orange (Eds.). Springer.

2018 **Contreras, Daniel A.** ‘Hacia una geoarqueología del paisaje andina: paisaje, medioambiente, y acción humana en Chavín de Huántar.’ In Flores Blanco, Luis Ángel, ed. *Lugares, Monumentos, Ancestros. Arqueologías del Paisajes Andinos y Lejanos*, Avqi Ediciones. pp159-178.

- * 2017 **Contreras, Daniel A.**, ‘Not Just a Pyramid Scheme? Diversity in Ritual Architecture at Chavín de Huántar.’ In Rosenfeld, Silvana and Stefanie Bautista, eds. *Rituals in Andean Archaeology: Prehispanic and Colonial Case Studies*. University Press of Colorado, pp51-77.

- * 2017 **Contreras, Daniel A.** ‘Correlation is Not Enough – Building Better Arguments in the Archaeology of Human-Environment Interactions.’ In Contreras, D.A., ed. *The Archaeology of Human-Environment Interactions: Strategies for Investigating Anthropogenic Landscapes, Dynamic Environments, and Climate Change in the Human Past*. New York: Routledge, pp3-22.

- * 2010 **Contreras, Daniel A.** ‘Reconstructing an Engineered Environment in the Central Andes: Landscape Geoarchaeology at Chavín de Huántar, Peru.’ In *The Archaeology of Anthropogenic Environments*, edited by Rebecca M. Dean. Center for Archaeological Investigations, Occasional Paper No. 37. Carbondale: Southern Illinois University, pp225-249.

Grants and Fellowships (last 5 years)

- 2024 In review. *Scaling the Central Andes: Exploring Long-Term Climate Vulnerability in a Diverse and Dynamic Environment* (PI with co-PIs Nick Gauthier, John Krigbaum, and Kurt Wilson), \$400,000, submitted Jan 2024 to the National Science Foundation Human-Environment and Geographical Sciences Program (HEGS)
- 2022 National Science Foundation Archaeology Program Doctoral Dissertation Improvement Grant (with co-PI Rocío López) *Doctoral Dissertation Improvement Award: Human Adaptation to a Variable Environment* (Award 2227230, \$28313)
- 2022 UF Humanities Scholarship Enhancement Fund research award, *Dates as Metadata: How Disciplinary History Shapes Central Andean Archaeology* (\$11791)
- 2019 National Science Foundation Archaeology Program Grant (PI with Brian Coddig, co-PI) *Collaborative Research: Improved Taphonomic Correction of Past Population Dynamics* (Award 1921013, \$79465)
- 2019 National Science Foundation Archaeology Program Grant (co-PI with Ben Vining [PI] and Aubrey Hillman [co-PI]) *Collaborative Research: Coupling and Cohesion as Factors Affecting Vulnerability to Abrupt Climate Change* (Award 1847131, \$26155)

Awards

- 2022 Dunlevie Honors Term Professor, Fall 2022
2007 Joseph H. Greenberg Award for Academic Excellence in Anthropological Sciences, Department of Anthropological Sciences, Stanford University

Archaeological Field Research (last 5 years)

- 2019 - present Chicama Archaeology and Paleoclimate Project (co-PI with Benjamin Vining, U Arkansas and Aubrey Hillman, SUNY Albany)
2019 Project Geospatial Specialist and Geoarchaeologist – Later Prehistory of West Turkana Project, Jarigole, Kenya (P.I.s Elisabeth Hildebrand, Stony Brook University, Elizabeth Sawchuk, Stony Brook University, and Kate Grillo, U Florida)
2013 – 2019 Field Director, Stélida Naxos Archaeological Project, Naxos, Greece (P.I. Tristan Carter, McMaster University)
2010 – 2018 Project Geoarchaeologist, The el-Hemmeh Excavation Project, Wadi al-Hasa, Jordan (P.I. Cheryl Makarewicz, CAU Kiel)
2016 – 2018 Project Geoarchaeologist, Sharara Excavation Project, Wadi al-Hasa, Jordan (P.I.s Cheryl Makarewicz, CAU Kiel and Bill Finlayson, CBRL)
2015 – 2018 Project Geospatial Specialist and Geoarchaeologist – Northern Tanzania Archaeological Project, Luxmanda, Tanzania (P.I.s Kate Grillo, U Florida and Mary Prendergast, St. Louis University – Madrid)

Teaching Experience (last 5 years)

- 2019 - 2023 *Digital Methods in Archaeology; Past Human Environments; R for Archaeological Data Analysis and Visualization; Foundations for a Career in Anthropology; Archaeological Perspectives on the Anthropocene; Environmental Archaeology; Geoarchaeology; GIS for Archaeological Research; Global Prehistory: Postglacial Environments and the Origins of Food Production; 1491: The World Columbus Found and How We Know It*, Anthropology, University of Florida
2018 *Introduction to Archaeology; Quantification and Statistics in Applied Anthropology*, Anthropology, University of Maryland

Professional Service (last 4 years)

- 2023 - Graduate Financial Aid Committee, Anthropology Department, University of Florida
2023 co-editor, "Archaeological Radiocarbon in the Central Andes", Special Issue of *Quaternary International*
2022 - present Review Editor for *Frontiers in Environmental Archaeology*, Landscape and Geological Processes section
2022 – present Invited member, Consejo Editorial Internacional, Boletín de Arqueología PUCP [International Editorial Council, Archaeological Bulletin of the Pontificia Universidad Católica del Perú]
2022-24 Research Misconduct Committee, University of Florida
2007 – 2023 Peer review for *Advances in Archaeological Practice; Ancient Mesoamerica; Andean Past, Antiquity, Arqueología y Sociedad, Arqueología, Boletín de Arqueología PUCP, Cambridge Archaeological Journal, Chungara: Revista de Antropología Chilena, Current Anthropology, Environmental Archaeology, Geosciences, The Holocene, International Journal of Cultural Property, Journal of Anthropological Archaeology; Journal of Archaeological Research, Journal of Archaeological Science, Journal of Archaeological Science: Reports, Journal of Cultural Heritage, Journal of Field Archaeology, Journal of Island and Coastal Archaeology, Journal of World Prehistory, Landscape Research, Latin American Antiquity, Nature Communications, Nampa Pacha: Journal of Andean Archaeology, PNAS, Quaternary, Radiocarbon, Remote Sensing, Sustainability, Water*
2022 Co-chair, *Leveraging Radiocarbon in the Central Andes: From Chronologies to Research Agendas*, Symposium for the 86th Annual Society for American Archaeology Meeting, Chicago, IL
2022 Fieldwork Festival Committee, Latin American Studies, University of Florida

- 2021 - present Invited member, *Comité Consultivo de Investigación Arqueológica del Complejo Arqueológico El Brujo* [Consulting Committee on Archaeological Research, El Brujo Archaeological Complex]
- 2021 Review Committee for Institute of Andean Studies 62nd Annual Meeting
- 2021 - present Development Committee, Anthropology Department, University of Florida
- 2020-22 Faculty Council, College of Liberal Arts and Sciences, University of Florida
- 2020 - 2023 Graduate Education Committee, Anthropology Department, University of Florida
- 2020 Member, Society for American Archaeology Program Committee
- 2019 Co-chair, *An Archaeological Example: Celebrating John Rick's Research and Teaching Career*, Symposium at the 84th Annual Society for American Archaeology Meeting, Albuquerque, NM

Papers Presented (last 2 years)

- 2023 **Daniel A. Contreras**. Examining Peru's Early Horizon through Bayesian Modeling of the Radiocarbon Evidence. Presentation at CLARa2 (Second Latin American Radiocarbon Conference), Mexico City, 7 Sept 2023.
- 2023 **Daniel A. Contreras** and Brian Coddling. Density Dependent Models Rely on Accurate Population Estimates. 88th Annual Society for American Archaeology Meetings, Portland, OR, March 2023.
- 2023 Benjamin Vining, **Daniel A. Contreras** and Augusto Bazán. Beyond Coarse Correlations: Climate, Chronology, and Culture in Chicama, Peru. 88th Annual Society for American Archaeology Meetings, Portland, OR, March 2023.
- 2022 **Daniel A. Contreras** El Carbono 14 y modelamiento bayesiano en la arqueología andina. Invited talk for the VIII Coloquio Internacional de Arqueología de la Fundación Wiese. Lima, Peru. 11 August 2022 (presented virtually).
- 2022 **Daniel A. Contreras** Balances y perspectivas sobre cronologías de la Costa Norte del Perú. Invited talk for the VIII Coloquio Internacional de Arqueología de la Fundación Wiese. Lima, Peru. 12 August 2022 (presented virtually).
- 2022 **Daniel A. Contreras**. Clearing the View of the Early Horizon. In Symposium - Leveraging Radiocarbon in the Central Andes: From Chronologies to Research Agendas. 87th Annual Society for American Archaeology Meeting, Chicago, IL, April 2022
- 2022 **Daniel A. Contreras**. "Do Archaeologists Know Sustainability When They See It?" Discussant for Symposium - Lessons from The Past: Archaeological Insights on Environmental, Economic, And Social Sustainability. 87th Annual Society for American Archaeology Meeting, Chicago, IL, April 2022
- 2022 Kurt Wilson, Brian Coddling, Weston McCool, **Daniel A. Contreras** and Joan Brenner Coltrain. Climate Change Drives 7,000 Years of Dietary Variation in the Central Andes. In Symposium - Climatic Influences on Diet, Demography, And Conflict. 87th Annual Society for American Archaeology Meeting Chicago, IL, April 2022
- 2022 Benjamin Vining, **Daniel A. Contreras** and Aubrey Hillman. Archaeological and Ecological Evidence for El Niño-Driven Expansion of Agroecological Niches on Peru's North Coast. In Hybrid Symposium - El Niño and The Archaeology of Resilience on The Peruvian Coast. 87th Annual Society for American Archaeology Meeting Chicago, IL, April 2022

Languages

Native speaker of English. Written and oral fluency in Spanish. Competence in French and basic competence in German.

Professional Memberships

Society for American Archaeology

Institute of Andean Studies

International Association of Obsidian Studies

Register of Professional Archaeologists