

**Michael R. Coughlan, Ph.D.**  
Curriculum Vitae

250 Baldwin Hall, University of Georgia, Athens, GA 30602-1619.  
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**Education**

Ph.D. 2013, Anthropology, University of Georgia, Georgia.

M.A. 2003, Anthropology with distinction, Northern Arizona University, Arizona.

B.A. 1996, Anthropology, honors, Middlebury College, Vermont.

**Ph.D. Dissertation:** Fire Use, Landscape Transition, and the Socioecological Strategies of Households in the French Western Pyrenees. Major Professor: Ted L. Gragson.

**Research Interest & Expertise:** Historical ecology of Europe & North America (temperate forests), human fire ecology, sustainability studies, socioecological systems, agropastoral land use change, geospatial analysis, landscape archaeology, paleoecology, interdisciplinary environmental science.

**Academic Positions**

Post-doctoral Research Associate, 2015-Current, Calhoun Critical Zone Observatory (CZO), University of Georgia. Human-Critical Zone interactions.

Instructor, Spr. 2015, Department of Anthropology, University of West Georgia, Carrollton, Georgia.

Post-doctoral Research Associate, 2013-2014, Coweeta Long Term Ecological Research Project (LTER), University of Georgia. Historical ecology of long term occupation and use of Western Pyrenees.

Instructor, Spr. 2014, Department of Anthropology, University of Georgia, Athens, Georgia.

Research Assistant, 2012-2013, Coweeta LTER, University of Georgia.

Research Assistant, 2010, Department of Anthropology, University of Georgia.

Teaching Assistant, 2007-2010, Department of Anthropology, University of Georgia.

**Peer Reviewed Publications**

Roos, C., A. Scott, C. Belcher, W. Chaloner, J. Ayles, **M. Coughlan**, B. Johnson, F. Johnston, J. McMorrow, T. Steelman, R. Bliege Bird.

2016. Living on a flammable planet: interdisciplinary, cross-scalar, and cross-cultural lessons, prospects, and challenges. *Philosophical Transactions of the Royal Society B*. 371: 20150469.

doi:10.1098/rstb.2015.0469

Kehrwald, N., J. Aleman, **M. Coughlan**, C. Courtney Mustaphi, E. Githumbi, B. Magi, J. Marlon, M. Power. 2016. One thousand years of fires: Integrating proxy and model data. *Frontiers of Biogeography*.

8(1):155-159. <https://escholarship.org/uc/item/1d92610x>

Hantson, S., S. Kloster, **M. Coughlan**, A.-L. Daniau, B. Vanni re, T. Br ucher, N. Kehrwald, and B. I. Magi. 2016. Fire in the Earth System - bridging data and modelling research. *Bulletin of the American Meteorological Society*. doi:10.1175/BAMS-D-15-00319.1

**Coughlan, M.**, T. Gragson

2016. An Event History Analysis of Parcel Extensification and Household Abandonment in Pays Basque, French Pyrenees, 1830-1958 AD. *Human Ecology*. 44(1): 65-80. doi:10.1007/s10745-016-9808-y

**Coughlan, M.**

2016. Wildland arson as clandestine resource management: A space-time permutation analysis and classification of informal fire management regimes in Georgia, USA. *Environmental Management*. 57(5): 1077-1087. doi:10.1007/s00267-016-0669-3.

Gragson T., D. Leigh, **M. Coughlan**

2015. Basque Cultural Landscapes of the Western French Pyrenees. *Il Capitale Culturale, Studies on the Value of Cultural Heritage*. 12: 565-596. doi:10.13138/2039-2362/1153

Leigh, D, T. Gragson, **M. Coughlan**

2015. Colluvial legacies of millennial landscape change on individual hillsides, place-based investigation in the western Pyrenees Mountains. *Quaternary International*. 402(26): 61-71. doi:10.1016/j.quaint.2015.08.031

**Coughlan, M.**

2015. Traditional fire use, landscape transition, and the legacies of social theory past: An overview of theoretical propositions and research priorities in the study of historical fire ecology. *Ambio*. 44(8): 705-717. doi: 10.1007/s13280-015-0643-y

Leigh, D, T. Gragson, **M. Coughlan**

2015. Chronology and pedogenic effects of mid- to late-Holocene conversion of forests to pastures in the French western Pyrenees. *Zeitschrift f r Geomorphologie*. 59(2): 225-245. doi:10.1127/zfg\_suppl/2015/S-59212

**Coughlan, M.**

2014. Farmers, flames, and forests: historical ecology of pastoral fire use and landscape change in the French Western Pyrenees. *Forest Ecology and Management*. 312: 55-66. doi:10.1016/j.foreco.2013.10.021

**Coughlan, M.**

2013. Unauthorized firesetting as socioecological disturbance: a spatiotemporal analysis of "incendiary wildfires" in Georgia, USA, 1987-2010. *Fire Ecology* 9(3). doi:10.4996/fireecology.0903045

**Coughlan, M.**

2013. *Errakina*: Pastoral fire use and landscape memory in the Basque region of the French Western Pyrenees. *Journal of Ethnobiology* 33(1): 86-104. doi:10.2993/0278-0771-33.1.86

**Coughlan, M.** and A. Petty.

2013. Fire as a dimension of historical ecology: A response to Bowman et al.'s The human dimensions of fire regimes on Earth. *Journal of Biogeography* 40(5): 1010-1012. doi:10.1111/j.1365-2699.2012.02767.x

**Coughlan, M.** and A. Petty.

2012. Linking humans and fire: a proposal for a transdisciplinary fire ecology. *International Journal of Wildland Fire* 21:477-487. doi: 10.1071/WF11048

Magi, B., **M. Coughlan**, A. Ewards, M. Hurteau, A. Petty, F. Seijo, C. Wiedimyer.

2008. Meeting Report from AIMES (Analysis, Integration and Modeling of the Earth System) Young Scholar's Network Workshop on Cultural Uses and Impacts of Fire: Past, Present, and Future. *Eos* 89 (40):380.

**Coughlan, M.**

2004. Large Diameter Trees and the Political Culture of 'Restoration': a Case Study of the Grand Canyon Forest Partnership, Flagstaff, Arizona. *Arizona Anthropologist* 15:48-72.

**Book Reviews****Coughlan, M.**

2014. Cynthia Fowler. Ignition Stories: Indigenous Fire Ecology in the Indo-Australian Monsoon Zone. *Ritual Studies Monograph Series*. Carolina Academic Press, Durham, NC, 2013. *Journal of Ecological Anthropology*. 17(1):37-39. doi: 10.5038/2162-4593.17.1.2

**Coughlan, M.**

2011. Fundamentals of Tree-Ring Research by James H. Speer. *Ecological and Environmental Anthropology*, 6(1):56.

**Coughlan, M.**

2009. Bear Country: Predation, Politics, and the Changing Face of Pyrenean Pastoralism by Bryan Cummins. *Ecological and Environmental Anthropology*, 5(1).

**Coughlan, M.**

2008. Struggle Over Utah's San Rafael Swell by Jeffrey Durrant. *Ecological and Environmental Anthropology*, 4(1): 55.

**Coughlan, M.**

2001. The Wild in Wilderness. *Adirondac* (67:1), Adirondack Mountain Club, Lake George, NY.

**Technical Reports****Coughlan, M.**, A. Simonneau

2014. Multipart investigation of human-climate disturbance interaction in a high altitude catchment using coupled bio-geological archives (MUDCUP). OHM Pyrénées- Haut Vicdessos. Rapport d'activites (2010-2014).

Champagne, A., T. Contamine, **M. Coughlan**, T. Gragson, B.S. Haley, M. LeCouedic.

2014. Rapport de prospection et sondages Larrau, Pyrénées-Atlantiques. Campagne 2014.

**Coughlan, M.**

2012. Dendrochronological Investigation of Agro-Pastoral Fire in the French Pyrenees. Research Report, *Les Observatoires Hommes-Milieus Pyrenees* (OHM).

Lindly, J., and **M. Coughlan.**

2007. A Class III Cultural Resources Survey of the Verde Central Mine near Jerome , Arizona. Cultural Resources Report 2007-16, WestLand Resources, Inc., Tucson, Arizona.

Lindly, J., and **M. Coughlan.**

2007. A Class III Cultural Resources Survey of the Iron King Mine, South of Cottonwood , Arizona. Cultural Resources Report 2007-01, WestLand Resources, Inc., Tucson, Arizona.

**Coughlan, M.**

2007. A Class III Cultural Resources Survey of 15.96 Acres of ADOT Right-of-way near Canoa Ranch, Pima County, Arizona. Cultural Resources Report 2007-07, WestLand Resources, Inc., Tucson, Arizona.

Dolan, S. M., and **M. Coughlan.**

2006. Archaeological Monitoring Report for the Property at I-19 and Irvington. Cultural Resources Report 2006-50, WestLand Resources, Inc., Tucson, Arizona.

**Coughlan, M.**

2004. A Cultural Resources Inventory for the Continental Divide National Scenic Trail, Divide Peak Realignment, Medicine Bow National Forest. Brush Creek-Hayden Ranger District Cultural Resources Report, Saratoga, Wyoming.

Hass, W. R. Jr. and **M. Coughlan.**

2003. A Cultural Resources Inventory for Northern Arizona University College of Engineering and Technology Near Wild Bill Hill, Coconino County, Arizona. Northern Arizona University Archaeological Report 1233, NAU Contract Archaeology, Flagstaff, Az.

**Coughlan, M.**

2002. Invisible Pastoralists: Historic Use, Occupation, and Loss of Glen Canyon Watershed by Contemporary Native Americans. Research Report. Glen Canyon Institute, Flagstaff, Az.

**Professional Presentations and Posters****Coughlan, M.,** T. Gragson, D. Leigh

2016. Reinterpreting high altitude forest to pasture conversion in the Holocene. Paper presented at the 4th International Landscape Archaeology Conference, Uppsala, Sweden.

Leigh, D., T. Gragson, **M. Coughlan**

2016. Multi-proxy record of land use change derived from colluvial soils of the western Pyrenees Mountains, France. Paper presented at the European Geosciences Union, Vienna, Austria

**Coughlan, M.,** D. Nelson, T. Gragson

2015. Transitioning from livelihood fire to fire suppression in the US Southeast: Causes and consequences of fire regime transition in two forested landscapes. Paper presented at the 6<sup>th</sup> International Fire Ecology and Management Congress, San Antonio, Texas.

Leigh, D., T. Gragson, **M. Coughlan**.

2015. Positive effects of millennial grazing on soils in the western French Pyrenees. Poster presented at the European Geosciences Union, Vienna, Austria.

**Coughlan, M.**, T. Gragson, D. Leigh

2015. Place-based investigation of the role of agropastoral fire use in forest-grassland transition in the Northwest Pyrenees using archaeological and biogeological archives. Paper presented at the Association of American Geographers annual meeting, Chicago, Illinois.

**Coughlan, M.**, A. M. Petty, L. J. Shaffer, K. Derr

2014. The Global Human-Fire-Landscape Database: A resource for cross-cultural comparison of fire use practices by small-scale societies. Poster presented at the small-scale societies and environmental transformations: co-evolutionary dynamics, International Conference. Barcelona, Spain.

Gragson, T., D. Leigh, **M. Coughlan**

2014. Co-Evolutionary Dynamics of Mid- to Late-Holocene Landscape Transformation in the Western French Pyrenees. Paper presented at the small-scale societies and environmental transformations: co-evolutionary dynamics, International Conference. Barcelona, Spain.

Leigh, D., T. Gragson, **M. Coughlan**.

2014. Colluvial Stratigraphic Sections as Proxies for Place-Based Analysis of Agropastoralism in the Western French Pyrenees Mountains. Poster presented at the small-scale societies and environmental transformations: co-evolutionary dynamics, International Conference. Barcelona, Spain.

Leigh, D., T. Gragson, **M. Coughlan**.

2014. Place-based detection of the transition to agropastoralism from colluvial sediments of the French Western Pyrenees Mountains. Paper presented at the XVII International Congress on Archaeology and Paleoanthropology, Burgos, Spain.

**M. Coughlan**, T.Gragson, D. Leigh

2014. Coevolution of agropastoral landscapes: investigating human-landscape dynamics in forest-grassland ecotones of the French Western Pyrenees. Presented at the Sustainability Science Symposium and Workshop, University of Georgia, Athens, Ga.

**Coughlan, M.**

2013. Fire use, human institutions, and landscape. Geography and Earth Sciences Department Speaker Series, University of North Carolina, Charlotte, NC.

Leigh, D., T. Gragson, **M. Coughlan**.

2013. Pedogenic Effects of Mid- to Late-Holocene Conversion of Forest to Pasture in the Western French Pyrenees. Paper presented at the 8<sup>th</sup> International Association of Geomorphologists Conference on Geomorphology, Session 13 – Human Impacts on Landscapes, Paris, France, August 27-31, 2013.

**Coughlan, M.**

2013. Fire use and socioecological vulnerability in the French Western Pyrenees and Georgia USA. Paper presented at the Annual Meeting of the Society for Applied Anthropology, Denver, Colorado.

**Coughlan, M.**

2012. Historical human-fire-landscape dynamics in the French Western Pyrenees: A Bayesian weights of evidence approach. Paper presented at the 5<sup>th</sup> International Fire Ecology and Management Congress, Portland, Oregon.

**Coughlan, M.**

2012. Long term, cross-site comparison of socioecological preferences and constraints on unauthorized fire setting behavior using spatiotemporal variability of wildfires in and around the Coweeta and Georgia Coastal Ecosystems LTER sites, 1987-2010. Poster presented at the LTER Network All Scientists Meeting, Estes Park, Colorado.

**Coughlan, M.**

2012. *Concernant l'incineration de Vegetaux sur Pied: A History of Pastoral Fire and its Regulation in the French Western Pyrenees*. Paper presented at the American Association for Environmental History Annual Conference, Madison, Wisconsin.

Galop, D., T. Houet, F. Mazier, G. Lenoux, D. Ruis, **M. Coughlan**.

2011. Learning from the Past: Grazing and biodiversity in the Pyrenees. Poster presented at the Environment & Pyrenees International Conference, Pamplona, Spain.

**Coughlan, M.**

2011. Shifting Household Production Strategies and Long Term Fire Ecology in the French Western Pyrenees. Poster presented at the EPA STAR Graduate Fellowship Conference, Washington, D.C.

**Coughlan, M.**

2011. Shifting Household Economic Strategies and Pastoral Fire: Long Term Human Fire Ecology in the French Western Pyrenees. Poster presented at the Frontiers in Historical Ecology International Conference, Swiss Federal Research Institute WSL Birmensdorf, Switzerland.

Gragson, T., D. Leigh, F. Hautefeuille, P. Bolstad, P. Palu, A. Champagne, and **Coughlan, M.**

2011. Comparative historical ecology of trans-Atlantic mountain landscapes. Presentation at the Frontiers in Historical Ecology International Conference, Swiss Federal Research Institute WSL, Birmensdorf, Switzerland.

**Coughlan, M.**

2009. Socio-ecological Variability of 'Woods Arson' in the US Southeast. Paper presented at the 4<sup>th</sup> International Fire Ecology Congress, Savannah, Ga.

**Coughlan, M.**

2009. Socio-Ecological Dynamics of Agro-Pastoral Fire in the Western Pyrenees: A Pre-dissertation Pilot Project. Poster presented at the Quaternary Ecosystem Science Training International Group, Workshop on Paleofire, Arc-et-Senans, France.

**Coughlan, M.**

2009. Optimal Burning Theory: Anthropogenic Fire, Ecological Productivity, and Population. Paper presented at the Annual Meeting of the Society for American Archaeology, Atlanta, Georgia.

**Coughlan, M.**

2009. Who's Pulling Smokey Bear's Strings: History and Social Relations of Fire in the US Southeast. Paper presented at the Annual Meeting of the Society for Applied Anthropology, Santa Fe, New Mexico.

Edwards, A., **M. Coughlan**, A. Grant, A., and A. Petty

2008. Cultural Uses and Impacts of Landscape Fires: Past, Present and Future. Paper presented at the AIMEs Young Scholar's Network Interdisciplinary Workshop (July 14-18, 2008), NCAR, Boulder, Colorado.

**Coughlan, M.**

2003. Developing an Environmental Justice Framework for Glen Canyon Institute: Implications and Applications for Applied Environmental Anthropology. Paper presented at the Society for Applied Anthropology Annual Meeting, Portland, Oregon.

**Coughlan, M.**

2002. An Internship with Glen Canyon Institute: Applied Environmental Anthropology. Paper presented at the High Plains Society for Applied Anthropology Annual Retreat, Ghost Ranch, New Mexico.

**Coughlan, M.**

2002. Linking Cultural Ecology, Socioeconomic Development, and Agricultural Revitalization at Sipaulovi Village, Hopi Indian Reservation, Arizona. Paper presented at the Southwest Anthropological Association Meeting, Flagstaff, Arizona.

**Research Grants & Fellowships**

2010-2013, **(EPA) Star Fellowship**. Socio-Ecological Dynamics of Pastoral Fire in the French Pyrenees. USA Environmental Protection Agency, Awarded \$110,000.

2010-2011 Dendrochronological Investigation of Agropastoral Fire in the French Pyrenees. Research Grant, *Les Observatoires Hommes-Milieus Pyrenees* (OHM), 2600€.

2014 Multiproxy investigation of human-climate disturbance interaction in a high altitude catchment using coupled bio-geological archives. *Les Observatoires Hommes-Milieus Pyrenees* (OHM), Co-Principal Investigator, 3000€.

2014 Train2Move, Research Mobility Fellowship, Università degli Studi di Torino. SAFire: Spatiotemporal Analysis of historical **Fire** spread and disturbance severity in the southern Alps using dendroecological and cadastral archives. Reserve List.

2016-2018 Prevent and prepare society for extreme fire events: the challenge of seeing the forest and not just the trees (FIREXT). Portuguese Science Foundation (FCT). Partner Investigator. Project total: 199,955€.

**Awards & Scholarships**

2016 Travel Assistance, International. Office of the Vice President for Research, University of Georgia. Awarded \$1600 for Landscape Archaeology conference in Uppsala, Sweden.

2015 Travel Assistance. Paleofire working group. Workshop on Paleofire: Data-Model Comparisons for the Past Millennium. Harvard Forest, Massachusetts.

2015 Travel Assistance, International. The Royal Society. The interaction of fire and mankind. Chicheley Hall, Buckinghamshire, UK.

2014 Travel Assistance, International. Office of the Vice President for Research, University of Georgia. Awarded \$1500 for conference in Barcelona, Spain.

2012-2013 Tuition & Stipend. University of Georgia, Graduate School Dissertation Completion Award.

2012 Travel Assistance. Travel, Research, and Educational Experience (TREE) grant, The Association for Fire Ecology, \$800.

2007-2010 Tuition & Stipend. Graduate Assistantship, Department of Anthropology, UGA.

2009 Travel Assistance. Quaternary Ecosystem Science Training International Group, Workshop on Paleofire, August 2009, Arc-et-Senans, France.

2008 Travel Assistance. AIMES Young Scholar's Network Interdisciplinary Workshop, "Cultural Uses and Impacts of Landscape Fires: Past, Present and Future," July 2008, NCAR, Boulder, Co.

### **Non-academic Professional Experience**

Archaeologist, Cartographer/Spatial Analyst, Westland Resources, Tucson, Az. Developed archaeological mapping protocol for relational geo-database (Access, AutoCAD Map, ArcGIS). Excavation/data recovery, pedestrian survey, site recordation, field mapping with total station and GPS, report writing. 2006-2007.

Surveyor's Assistant: Hollister Associates Mapping, Old Forge, NY. Geo-location of parcel property boundaries, map with total station. 2005.

Archaeologist, USDA Forest Service, Medicine Bow-Routt National Forest, Wy. Crew supervisor, trained and led archaeological crew in pedestrian survey and site recordation, developed protocol recording historic aspen carvings, report writing. Fireline archaeological survey. 2003-2004.

Archaeologist, National Park Service, Tuzigoot National Monument, Az. Developed archaeological protocols and training materials and for documenting prehistoric ruins stabilization efforts, report writing. 2003.

Archaeologist, Northern Arizona University Contract Archaeology, Flagstaff, Az. Conducted pedestrian survey, site recordation, report writing. 2002-2003.

Cultural Resources Specialist, Glen Canyon Institute, Flagstaff, Az. Website development, report writing, facilitation and coordination of environmental justice materials. 2002.

Anthropological Consultant, Center for Sustainable Environments, Flagstaff, Az. GIS and report writing for agricultural revitalization and environmental justice. 2001-2003.

Archaeological Technician USDA Forest Service, Kaibab National Forest, Az. Crew leader, trained and lead crew in pedestrian survey and site recordation. Report writing, GIS, fireline archaeological survey, fire suppression activities. 2000-2001.



AmeriCorps Member (Coconino Rural Environment Corps), Flagstaff, Az. Assistant crew leader in ecological restoration activities (forest thinning, exotic/invasive vegetation removal), trail building, preventative search and rescue (Grand Canyon NP). 2000.

## **Instructional Experience**

### *Instructor*

Introduction to Cultural Anthropology, University of West Georgia, Spring 2015.  
Introduction to Anthropology, Honors, ANTH 2120, University of Georgia, Spring 2014.

### *Teaching Assistant, University of Georgia, Department of Anthropology*

Millennial Landscapes of Southwestern France, ANTH 4630. Summers 2010 and 2011  
Introduction to Cultural Anthropology, ANTH 3265. Spring 2010  
Anthropology and Development, ANTH 4560. Fall 2009  
Cultural Ecology, ANTH 4070. Spring 2009  
Peoples of the World, ANTH 3100. Fall 2008  
Introduction to Anthropology, ANTH 1120. Fall 2007, Spring 2008

### *Guest Lectures, University of Georgia*

Cultural Ecology, ANTH 4070: Cultural Ecology of Fire  
Anthropology and Development, ANTH 4560: Political Ecology of Fire Suppression  
The Anthropology of Consumption and Globalization, ANTH 3200: Peak Oil

## **Other Professional Activities and Affiliations**

Advisory board member, Global Paleofire Working Group, <http://www.gpwg.paleofire.org/>, 2016.

Participant, 2014 Navajo Nation Scientific Monitoring River Trip, Glen Canyon Adaptive Management Program, US Bureau of Reclamation.

Postdoctoral Affiliate, Center for Integrative Conservation Research (CICR), University of Georgia.

Founding member and organizer of the Fire Ecology and Livelihoods Forum (FireELF) and Human Fire Landscape Database (HFLD), an on-going collaborative initiative to catalogue ethnographic evidence of fire use in small-scale societies.

English language editor for selected publications, Géographie de l'Environnement (GEODE), Université de Toulouse, Le Mirail, 2010-2011.

Organizer and chair of the special session on "Integrative Approaches to Human-Fire Relations," 4th International Fire Ecology Congress, November 2009, Savannah, Ga.

Co-managing editor for Ecological and Environmental Anthropology (EEA) for the years 2008-2009. EEA is an electronic, peer reviewed, academic journal hosted by University of Georgia, Department of Anthropology.

**Peer Reviewer**

National Science Foundation, Dynamics of Coupled Natural and Human Systems Program (NSF-CNH)

US Fish and Wildlife Service, Directorate Assistant Fellows Program

Philosophical Transactions of the Royal Society B

Bioscience

Land Use Policy

Ecology and Society

Anthropocene

Society and Natural Resources

Fire Ecology

**Professional Organizations**

Historical Landscape Ecology Working Group : International Association for Landscape Ecology.

Association for Fire Ecology

Society for Applied Anthropology

Society for American Archaeology

American Anthropological Association