

Timothy M. Murtha, PhD

Department of Landscape Architecture
Center for Latin American Studies
University of Florida
Gainesville, FL
tmurtha@ufl.edu

RESEARCH INTERESTS

Settlement Ecology, Urbanism, Landscape, and Coupled Natural and Human Systems Dynamics; Landscape Anthropology and Archaeology; GIS, Remote Sensing and Landscape Simulation and Modeling; Mexico, Belize and Central America

CURRENT APPOINTMENT

UNIVERSITY OF FLORIDA (2017 to present):

Associate Professor, Landscape Architecture (2017 to present)
Associate Professor, Center for Latin American Studies (2017 to present)
Faculty Associate, Florida Institute of Built Environment Resilience (2017 to present)

PREVIOUS APPOINTMENTS

PENN STATE (2004 to 2017):

Director, Hamer Center for Community Design (January, 2014 to 2017)
Associate Professor, Landscape Architecture (2010 to 2017)
Assistant Professor, Landscape Architecture (2004 to 2010)

SUNY WESTCHESTER (2002 to 2004):

Assistant Professor, Department of Social and Behavioral Sciences

I. EDUCATION

Penn State - Ph.D., Anthropology

Land and Labor: Classic Maya Terraced Agriculture at Caracol, Belize

(Chair: David Webster; Committee: William Sanders, Ken Hirth, George Milner, Arlen Chase and Barry Scheetz)

Penn State - M.A., Anthropology

University of Central Florida - B.A., Anthropology

II. RECENT PUBLICATIONS

MONOGRAPHS:

Cyphers, Ann, Timothy Murtha, Judith Noguera, Gerardo Jimenez, Elvia Guevara, Anna Di Castro, Brizio Gracia, Virginia Baizabal, Roberto Lunagomez, Joshua Borstein, Stacey Simonds, Mario Ortiz and Jose Figueroa. 2014. Atlas Digital de la Zona Arqueologica de San Lorenzo, Vera Cruz. Universidad Nacional Autonoma de Mexico. Ciudad Universitaria, Mexico DF. 56 pages and 1 DVD (4.7GB). ISBN: 978-6070263262.

Murtha, Timothy. 2009. Land and Labor: Classic Maya Agriculture at Caracol, Belize. VDM Verlag Dr. Müller, Berlin. 428 pages. ISBN: 978-3639047721.

Webster, David, Jay Silverstein, Timothy Murtha, Horacio Martinez and Kirk Straight. 2005. *The Tikal Earthworks Revisited*, Occasional Papers in Anthropology No. 28, Department of Anthropology, University Park, PA. 132 pages. ISBN: 978-1881968092.

ARTICLES, PARTS OF BOOKS & PROCEEDINGS:

Murtha, Timothy. (Under Revision: expected early 2018). *Landscape and City in the Ancient Maya Lowlands: Regionalism, Settlement, and Ecology*. In *Landscapes of Pre-Industrial Cities*. Ed by G. Farhat and J. Beardsley. *Dumbarton Oaks Colloquium on the History of Landscape Architecture* 38. Dumbarton Oaks, Washington, D.C. 34 pages.

Murtha, Timothy and Barry Sheetz. (Under Revision: expected late 2017/early 2018). *Sourcing the Source: Bald Eagle Jasper Quarries and the Houserville Habitation Complex*. In *Pennsylvania Quarries: Recent Research in Pennsylvania Archaeology Series*. ed by K. Carr and P. Raber. Penn State University Press, University Park, PA. 24 pages.

Murtha, Timothy. (in press: 2017). *Tikal's Agrarian Landscape: the view from above*. In *Archaeological Methods and Applications in Multispectral Image Processing*. ed by L. Santini, W. VanEssendelft and B. Davenport. Oxbow Press. 26 pages.

Murtha, T. 2017 (in press). *Rethinking urban density: archaeology, low density urbanism and sustainability: Lowland Maya Landscape Regionalism*. *Proceedings of the Architecture, Archaeology and Contemporary City Planning: Issues of Scale*. Hosted by the Museum of London Archaeology. London, UK (15 pages).

Marken, D. and T. Murtha. 2017 (in press). *Maya Cities, People and Place: Comparative Perspectives from El Peru and Tikal*. In *Research Reports in Belizean Archaeology* V14: 16 pages.

Charles Golden, Timothy Murtha, Bruce Cook, Derek S. Shaffer, Whittaker Schroder, Elijah J. Hermitt, Omar Alcover Firpi, Andrew K. Scherer. 2016. *Reanalyzing environmental lidar data for archaeology: Mesoamerican applications and implications*, *Journal of Archaeological Science: Reports*, Volume 9, October 2016, Pages 293-308, ISSN 2352-409X, <http://dx.doi.org/10.1016/j.jasrep.2016.07.029>.

Murtha, T., D. Webster, K. French, C. Duffy, R. Terry, A. Parker and C. Balzotti. 2016. *Tikal's Landscape: Four Decades of Soil, Settlement and the Earthworks*. *Research Reports in Belizean Archaeology*. V13: 891 – 896.

Murtha, Timothy. 2015. *Negotiated Landscapes: Comparative Settlement Ecology of Tikal and Caracol*. In *Ancient Maya Polities*. ed by D. Marken and J. Fitzpatrick. University of Colorado Press. Pp 75 – 98.

Orland, Brian and Timothy Murtha. 2015. *Show Me: Engaging Citizens in Planning for Shale Gas Development*. *Environmental Practice*. Volume 17, Issue 4. Pp 245-255.

Murtha, Timothy, Richard Hammond, Brian Orland and Lacey Goldberg. 2015. *Probabilistic Modelling and Complex Energy Landscape Design and Planning: an experimental approach*. *Peer Reviewed Proceedings of Digital Landscape Architecture Conference 2015 at Bernburg*. Ed by, Erich Buhmann. Anhalt University of Applied Sciences. Wichmann/VDE Publisher Berlin and Offenbach and Berlin. Pp 238 – 246.

Webster, David and Timothy Murtha. 2015. *Fractious Farmers at Tikal*. In *Tikal and Maya Paleoecology* ed by David Lentz. Cambridge University Press. Pp 212 – 238.

Cyphers, Ann and Timothy Murtha. 2014. Early Olmec Spaces at San Lorenzo, Vera Cruz. In *Mesoamerican Plazas: Arenas of Community Building and Power Negotiation*. ed by Kenichiro Tsukamoto and Takeshi Inomata. University of Arizona Press. Pp 71 – 89.

Murtha, Timothy and Brian Orland. 2014. "Local lessons for a global landscape challenge: Design and planning responses to unconventional shale gas development." In *Peer Reviewed Proceedings of Digital Landscape Architecture Conference 2014 at ETH Zurich*. Ed by, Wissen Hayek, Fricker and Buhmann. Wichmann-verlag, Berlin. Pp. 95-105.

Balzotti, Chris, David L. Webster, Tim M. Murtha, Steven L. Petersen, Richard L. Burnett, Richard E. Terry. 2013. Modelling the ancient maize agriculture potential of landforms in Tikal National Park, Guatemala. *International Journal of Remote Sensing*. Vol. 34, Iss. 16: 5868 – 5891.

Orland, Brian and Timothy Murtha. 2013. Here Comes the Boom: Shale gas, landscapes and an ecological planning imperative. In Fábos, J.G., Lindhult, M., Ryan, R.L., & Jacknin, M. (Eds). 2013. *Proceedings of Fábos Conference on Landscape and Greenway Planning 2013: Pathways to Sustainability*. University of Massachusetts, Amherst, April 12-13, 2013. Full papers. Amherst, MA: Department of Landscape Architecture and Regional Planning, University of Massachusetts, Amherst. Pp 91 – 99.

Burnett, R.L., Terry, R.E., Sweetwood, R.V., Murtha, T., Webster, D., Silverstein, J. 2012. Upland and lowland soil resources of the ancient Maya at Tikal, Guatemala, *Soil Science Society of America Journal* Vol. 76 No. 6, p. 2083-2096.

Burnett, R.L., Terry, R.E., Alvarez, M., Balzotti, C., Murtha, T., Webster, D., Silverstein, J. 2012. The ancient agricultural landscape of the satellite settlement of Ramonal near Tikal, Guatemala, *Quaternary International* 265, 101-115.

Cyphers, Ann, Timothy Murtha, Joshua Borstein, Judith Zurita-Noguera, Roberto Lunagómez, Stacey Symonds, Gerardo Jiménez, Mario Arturo Ortiz y José Manuel Figueroa. 2010. *Arqueología digital en la primera capital olmeca, San Lorenzo. Thule del Centro Studi Americanistici* 22-5: 121-144.

Murtha, Timothy. 2009. Beneath the Canopy: Deciphering the Narrative of the Ancient Maya Landscape. *Proceedings of the 2008/9 CELA Conference*. Tucson, Az, pp. 241-247.

Webster, David, Timothy Murtha, Jay Silverstein, and Kirk Straight. 2008. Political Ecology of the Tikal Earthworks: A Maya Altepétl Boundary in Urbanism in Mesoamerica Vol. II, ed by A. Masta, R. Cobean, Garcia Cook and K. Hirth. *Instituto Nacional de Antropología e Historia, Mexico City, Mexico*, pp. 349-376.

Webster, David, Timothy Murtha, Kirk Straight, Jay Silverstein, and Richard Terry. 2007. The Great Tikal Earthworks Revisited, *Journal of Field Archaeology*, Vol. 32: 1 -19.

III. RECENT RESEARCH FUNDING

EXTERNAL:

2015 – 2018: **Appalachian Landscape Conservation Cooperative – Cultural Resource Preservation Priorities at a Landscape Scale**. *Multiple awards*: Wildlife Management Institute (Contract # APPLCC2016-1). **PI**. The National Park Service (Cooperative Agreement 135414 P11AC30805). **PI**. National Center for Preservation Education (1212). **coPI**, with D. Odess (PI). Wildlife Management Institute (Contract # APPLCC2015-1). **PI**. The National Park Service (Cooperative Agreement 135414 P11AC30805). **PI**.

2012 – 2016: **CNH-Ex: Land, Water and Territory: A 3,000 Year Study of Settlement Patterns and Niche Inheritance at the Tikal, Guatemala.** NSF (CNH#1211809). PI, with C. Duffy, K. French, D. Webster and R. Terry.

2011 – 2016: **Full Scale Development Project: Marcellus Matters, Engaging Adults in Science and Energy.** NSF (EASE DRL 1114670). **col 2011-16**, with M. Arthur (PI), coPIs: B. Orland, D. Miller, E. Prins and K. Brasier.

2005 – 2010: **HSD: Spatiotemporal Dimensions of Population Change in the Northern Orkney Islands from About 1735 to 2000.** NSF (HSD 0527539). **coPI**, with J. Wood (PI), P. Johnson, and S. Matthews.

2004 – 2007: **Re-evaluation of the Earthworks at Tikal, Guatemala, Phase 2.** NSF (BCS-0443820). **coPI** with D. Webster (PI).

2004 – 2007: **REU Site: The North Orkney, Scotland, Population History Project.** NSF (REU-0353527). **coPI** with P. Johnson (PI) and J. Wood.

FELLOWSHIPS AND AWARDS

2011: Dumbarton Oaks Research Library, Pre-Columbian Fellow, Washington, DC.

2008: Institute of the Arts and Humanities, Resident Scholar, Penn State, University Park, PA.

IV. RECENT PROFESSIONAL PRESENTATIONS

2017:

Murtha, T. *Landscape and City in the Ancient Maya Lowlands: Regionalism, Settlement and Ecology.* Landscapes of Pre-Industrial Cities. Garden and Landscape Studies Symposium. Dumbarton Oaks. Georgetown, DC (upcoming May 2017). <http://doaks.org/research/garden-landscape/scholarly-activities/landscapes-of-pre-industrial-cities>

Alcover Firpi, Omar A., C. Golden, A. Scherer, T. Murtha, B. Cook, and W. Schroeder. *Reconsidering "sites," "features," and "landscapes" in the Maya Lowlands with remote sensing and ground-based survey.* Society for American Archaeology Meetings. Vancouver, CA (April 2017)

Murtha, T. *Landscape Conservation Design and Planning with Communities and Cultural Resources.* Workshop at the National Park Service's Center for Urban Ecology. Washington, DC (March 27, 2017).

Hermitt, E., E. Maxon, K. French, D. Marken and D. Shaffer. *Hydrologic design in three Maya cities: Using regional topographic data, hydrologic analysis in GIS and archaeology for a comparative analysis of Palenque, Tikal, and El Peru.* Computer Applications and Quantitative Analysis in Archaeology. Atlanta, GA (April 2017).

Shaffer, D., T. Murtha, C. Golden, B. Cook and E. Hermitt. *Sites, Landscapes, and LiDAR in the Maya Lowlands: Leveraging high resolution regional LiDAR for improved predictive models.* Computer Applications and Quantitative Analysis in Archaeology. Atlanta, GA (April 2017).

Murtha, T. *Cultural Resources and Landscape Conservation Design.* Webinar delivered to the Appalachian Landscape Conservation Cooperative Board (February 2017).

2016:

Murtha, T. *Rethinking urban density: archaeology, low density urbanism and sustainability.* Architecture, Archaeology and Contemporary City Planning: Issues of Scale. Hosted by the Museum of London Archaeology. London, UK (September).

Marken, D. and T. Murtha. *Maya Cities, People and Place: Comparative Perspectives from El Peru and Tikal.* Belize Archaeology and Anthropology Symposium. San Ignacio, Belize (July).*

Murtha, T. *Landscape Regionalism, Households and the Settlement Ecology of the Maya*. Architecture, Archaeology and City Planning 3rd Workshop. Asentamiento y Urbanismo, Arquitectura y Arqueologica en America y Europa. Cancun, Mexico (May).*

Murtha, T., A. Cyphers and G. Jimenez. The San Lorenzo Geospatial Project: Mapping the Olmec City and Landscape. Society of American Archaeology. Orlando, FL (April).*

2015:

Murtha, T., O. Schroth, L. Goldberg, B. Orland. 2015. A Tale of Two Regions: Landscape Ecological Planning for Shale Gas Energy Futures. AGU Annual Meeting. San Francisco, CA (December).*

Goldberg, L. and T. Murtha. 2015. Experiential and Visual Impacts of Energy on the Pennsylvania Landscape. European Conference of the Landscape Research Group. Energy Landscapes: Perception, Planning, Participation and Power. Dresden, Germany (September).*

Murtha, T., O. Schroth, L. Goldberg, B. Orland. 2015. Fracking Futures: Emerging comparative perspectives on new energy landscapes. RGS-IBG Annual International Conference 2015. Exeter, UK (September).*

Murtha, T., R. Hammond, B. Orland and L. Goldberg. 2015. Probabilistic Modelling and Complex Energy Landscape Design and Planning: an experimental approach. Digital Landscape Architecture Conference 2015 at Bernburg, Germany (June).*

Murtha, T., D. Webster, K. French, C. Duffy, R. Terry, A. Parker and C. Balzotti. 2015. Tikal's Landscape: Four Decades of Soil, Settlement and the Earthworks. Belize Archaeology and Anthropology Symposium. San Ignacio, Belize (July).*

Murtha, T. and B. Orland. 2015. Communities and Gas: Landscape Design and Planning in an Energy Landscape. Invited presentation at the North Carolina American Society of Landscape Architects annual meeting, North Carolina (May).*

V. ADVISING

POST-DOC:

Wu Hong, PhD (2015 – 2016)

GRADUATE (ADVISER):

PHD: Nastaran Tebyanian – PhD, Stuckeman School (current); Lacey Goldberg - PhD, Stuckeman School (ABD).

MASTERS: Blanjie Jie – MsinLA, Department of Landscape Architecture (current); Claudia Rodriguez – MLA, Department of Landscape Architecture (2017); Nicholas Decker – MsinLA, Department of Landscape Architecture (2017); Abhinandan Bera – MLA, Department of Landscape Architecture (2016); Tobi Baugh – MGIS, College of Earth and Environmental Science (2015); Erik Johanssen – MGIS, College of Earth and Environmental Science (2015); Jason Torres – MGIS, College of Earth and Environmental Science (2013); Stephen Mainzer – MSinLA, Department of Landscape Architecture (2011); Travis Flohr – MSinLA, Department of Landscape Architecture (2011); Steven Preston – MLA, Department of Landscape Architecture (2009); Michelle Lazar – MGIS, College of Earth and Environmental Sciences (2009); Bill Dickinson – MGIS, College of Earth and Environmental Sciences (2008)