

Gustavo A. Ovando-Montejo

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APPOINTMENTS

2020-Present **Assistant Professor**, Department of Environment & Society, Quinney College of Natural Resources, Utah State University

2019-2020 **Postdoctoral Teaching & Research Fellow**, Department of Environment & Society, Quinney College of Natural Resources, Utah State University

EDUCATION

Oklahoma State University **Ph.D. Geography, 2019**
Stillwater, Oklahoma

Oklahoma State University **M.S. Geography, 2015**
Stillwater, Oklahoma

Brigham Young University **B.S. Geographic Information Systems, 2013**
Provo, Utah

CERTIFICATION

OSU Department of Geography **Geographic Information Systems Certificate, 2015**

RESEARCH & TEACHING INTERESTS

- Environmental and natural resource management
- Human-environmental interactions and their relation to land cover change
- Landscape ecology, linking configuration and ecosystem services
- Segregation of indigenous peoples
- Geographic Information Science (GIScience)

TEACHING EXPERIENCE

Department of Environment & Society, Utah State University

GEOG 1300 – World Regional Geography, online
GEOG 1800 – Introduction to Geographic Information Sciences, online
ENVS 3500 – Quantitative Assessment of Environmental & Natural Resource Problems, online
GEOG 4870/NR 6950 – Geospatial Analysis, in-person & online

Department of Geography, Oklahoma State University

GEOG 1114 – Introduction to Physical Geography (Lecturer)
GEOG 1713 – World Regional Geography (T.A)
GEOG 4203 – Fundamentals of GIS (Lab)
GEOG 4323 – Computer Cartography (Lab)
GEOG 4343 – GIS: Resource Management Applications (Lab)
GEOG 4353 – GIS: Socioeconomic Applications (Lab)

Department of Geography, Brigham Young University

GEOG 255 – Geography of Middle and South America (TA)

GEOG 312 – Cartographic Design (T.A)

PEER-REVIEWED PUBLICATIONS

- **Ovando-Montejo, G. A.**, & Frazier, A. E. (2020) Geographic assessment of urban quality of life in Mexico City using socio-economic and environmental factors. *International Journal of Applied Geospatial Research*, 11(3).
- Kedron, P. J., Frazier, A. E., **Ovando-Montejo, G. A.**, & Wang, J. (2018) Surface metrics for landscape ecology: a comparison of landscape models across ecoregions and scales. *Landscape Ecology*, 33(9), 1489-1504.
- Zhao, Y., **Ovando-Montejo, G. A.**, Frazier, A. E., Mathews, A. J., Flynn, K. C., & Ellis, E. A. (2017). Estimating work and home population using lidar-derived building volumes. *International Journal of Remote Sensing*, 38(4), 1180-1196.
- Walker, C. M., Flynn, K. C., **Ovando-Montejo, G. A.**, Ellis, E. A., & Frazier, A. E. (2017). Does demolition improve biodiversity? Linking urban green space and socioeconomic characteristics to avian richness in a shrinking city. *Urban Ecosystems*, 20(6), 1191-1202.

MANUSCRIPTS UNDER REVIEW

- Frazier, A. E., Kedron, P., **Ovando-Montejo, G. A.**, & Zhao, Y. (under revision) Scale and scaling of categorical maps: how composition and configuration impact downscaling accuracy.
- **Ovando-Montejo, G. A.**, Kedron, P., & Frazier, A. E. (under revision) Scaling relationships between urban configuration and city size: Evidence from a hierarchical system in Mexico.

MANUSCRIPTS IN PREPARATION

- **Ovando-Montejo, G. A.** Exploring the segregation of indigenous peoples across Mexico City using a GWR approach.
- **Ovando-Montejo, G. A.**, & Kedron, P. Comparison of spatial patterns of urban sprawl and urban configuration across U.S. and Mexican cities using spatial metrics.
- **Ovando-Montejo, G. A.**, Frazier, A. E., & Comer, J.C. Spatiotemporal analysis of urban expansion: An approach using spatial metrics.
- **Ovando-Montejo, G. A.** A multi-scale geographic characterization of sprawl across the Mexican urban system.
- **Ovando-Montejo, G. A.** Comparison of spatial configuration characteristics along border urban areas between the United States and Mexico.

FELLOWSHIPS & GRANTS

- 2018 **Graduate College Dissertation Writing Grant**– offered to qualified doctoral students to facilitate and accelerate dissertation completion.
- 2015-2019 **National Council of Science and Technology Mexico (CONACYT) Dissertation Grant** – Urban growth in the XXI century: Detection and projections for a growing country through the geospatial lenses.
- 2015 **Graduate College Top Tier Fellowship**- doctoral fellowship granted by the OSU Graduate College to recruit outstanding graduate students.

HONORS & AWARDS

- 2019 **Third place map competition.** *South Central Arc User Group (SCAUG) Annual Conference.*
- 2018 **Conference Travel Award**– award offered to qualified graduate students members of the Graduate and Professional Student Government Association.
- 2015 **Steven W. Tweedie Travel Scholarship**- award offered to OSU geography majors engaging in significant travel experience in order to enhance education and research.
- 2012 **Dale Steven Scholarship** - tuition award offered by the Department of Geography at Brigham Young University to geography majors with financial needs.
- 2012 **Member: Gama Theta Upsilon** – Geographic Honor Society (GTU)
- 2011 **Student Auxiliary Service Grant (SAS)** - tuition award offered by Auxiliary Services and Residential Life at BYU to outstanding students with financial needs living on-campus.

PROFESSIONAL CONFERENCE PRESENTATIONS

- **Ovando-Montejo, G. A.,** Frazier, A. E., & Kedron, P. Comparison of spatial patterns of urban sprawl and urban configuration across Mexican & U.S. cities using spatial metrics. *Utah Geographic Information Council (UGIC) Annual Conference*, May 06, 2019, Midway, UT.
- **Ovando-Montejo, G. A.,** Frazier, A. E., & Kedron, P. Spatiotemporal and morphological analysis of urban expansion: An approach using spatial metrics. Map presentation. *South Central Arc User Group (SCAUG) Annual Conference*, April 23, 2019, Tulsa, OK.
- **Ovando-Montejo, G. A.,** Frazier, A. E., & Kedron, P. Comparison of spatial patterns of urban sprawl across Mexican & U.S. cities using spatial metrics. Poster presentation. *Association of American Geographers (AAG) Annual Meeting*, April 11, 2018, New Orleans, LA.
- Craig, T., Brasher, J. P., & **Ovando-Montejo, G. A.** Between Racism and a Sacred Space: Using TripAdvisor to Explore Brazilians' Perceptions of the Confederados, the Cemitério do Campo, and the Festa Confederada. *Association of American Geographers (AAG) Annual Meeting*, April 10, 2018, New Orleans, LA.
- **Ovando-Montejo, G. A.,** Frazier, A. E., & Kedron, P. Does city size affect spatial configuration? Evidence from urban areas in Mexico. *International Association of Landscape Ecologists U.S. Chapter (US-LALE) Annual Meeting*, April 10, 2018, Chicago, IL.
- **Ovando-Montejo, G. A.** Exploring segregation of indigenous people in Mexico City using a GWR approach. Poster presentation. *Association of American Geographers (AAG) Annual Meeting*, April 06, 2017, Boston, MA.

CV

- **Ovando-Montejo, G. A.**, Zhao, Y., & Frazier, A. E. Estimation of work and home population from lidar-derived building volumes. *Southwest Division of the Association of American Geographers (SWAAG) Regional Meeting*, October 21, 2016, Denton, TX.
- **Ovando-Montejo, G. A.** Geographic Assessment of Urban Quality of Life Using Socio-economic and Environmental Variables in Mexico City. *Association of American Geographers (AAG) Annual Meeting*, April 23, 2015, Chicago, IL.
- **Ovando-Montejo, G. A.** & Bekker, M.F. Effectively Communicating the Complex Water Delivery System of the Wasatch Front. Poster presentation. *Great Plains-Rocky Mountain Division of the Association of American Geographers (GPRMAAG) Regional Meeting*, October 12, 2012, Park City, UT.

INVITED LECTURES & PRESENTATIONS

- **Ovando-Montejo, G. A.** Urban configuration: components and measurements using spatial metrics. Research seminar given at the department of Geography at the University of Nevada Reno, February 19, 2020.
- **Ovando-Montejo, G. A.** Efficient land management and natural resource stewardship through the use of the geospatial technologies. Teaching seminar given at the department of Geography at the University of Nevada Reno, February 18, 2020.
- **Ovando-Montejo, G. A.** GIS for environmental and climate assessment and adaptation. Lecture for a climate adaptation seminar course at Utah State University, February 12, 2020.
- **Ovando-Montejo, G. A.** Efficient land management and natural resource stewardship through the use of the geospatial technologies. Seminar given at Utah State University Blanding campus, February 03, 2020.
- **Ovando-Montejo, G. A.** Online teaching: perks, challenges, and strategies for a better virtual experience. Seminar given at the ENVS department at Utah State University, January 31, 2020.
- **Ovando-Montejo, G. A.** Mexico's historically ambiguous racial identity (recurrent online presentation). Division of Liberal Arts, Mayville State University, December 06, 2019.
- **Ovando-Montejo, G. A.** Application of unmanned aerial systems (UAS) in current research. Class presentation for the class Research Approaches in the ENVS department at Utah State University, November 04, 2019.
- **Ovando-Montejo, G. A.** Mexico's historically ambiguous racial identity. Division of Liberal Arts, Mayville State University, April 25, 2018
- **Ovando-Montejo, G. A.** Maintaining graduate student life: Tips and tricks for a successful graduate school experience. Presentation given to new graduate students in the Geography department at Oklahoma State University, October 22, 2018
- **Ovando-Montejo, G. A.** Variabilidad espacial & segregación de la población indígena en la Ciudad de México. Presentation given to the non-profit organization Indigenas DF. Mexico City, Mexico, September 24, 2018
- **Ovando-Montejo, G. A.** Floods and other water-related hazards. Lecture given to undergraduate students in Physical Geography at Oklahoma State University, November 6, 2014.

ADDITIONAL RELEVANT EXPERIENCE

RESEARCH

CV

- 2016-2018 **Research Assistant - NSF Spatial Scaling Project** (Oklahoma State University)
Processed and managed spatial data through multiple software in order to create a framework for the prediction and accuracy assessment of spatial scaling phenomena. Founding source: National Science Foundation (NSF). Supervisor: Dr. Amy E. Frazier & Dr. Peter Kedron.
- 2016 Summer **Research Assistant - NASA Urban Change Project** (Oklahoma State University)
Processed and analyzed lidar and radar data in order to identify and quantify urban change through state-of-the-art remote sensing methods. Founding source: National Aeronautics and Space Administration, Jet Propulsion Laboratory (NASA JPL). Supervisor: Dr. Adam Mathews & Dr. Amy E. Frazier.

TEACHING

- 2018- 2019 **GIS Laboratory Assistant** (Oklahoma State University) *Various Geospatial Courses*
Taught various sections of hand-on laboratory sessions of introductory and advanced geospatial classes including sections for graduate students. Courses included, Introductory GIS, GIS for Socioeconomic Applications, GIS for Natural Resource Management, and Cartography.
- 2016 Spring **Lecturer** (Oklahoma State University) *Introduction to Physical Geography*
Full responsibility of the course including: setup and management, lecture preparation, and grading.
- 2014-2016 **Laboratory Assistant** (Oklahoma State University) *Introduction to Physical Geography*
Taught four lab sections per semester, each with 17 – 23 students. Lectured using Microsoft PowerPoint and Excel, Google Earth, and GPS while demonstrating experiments in physical geography.
- 2014 **Graduate Teaching Assistant** (Oklahoma State University) *World Regional Geography*
Assisted lecturer in grading term papers and other school work.
- 2013 **Undergraduate Teaching Assistant** (Brigham Young University) *Cartographic Design*
In charge of teaching the lab section of the class two hours a week. Helped students understand concepts in one-on-one settings. Organized the management and grading of assignments.
- 2012 **Undergraduate Teaching Assistant** (Brigham Young University) *Middle and South America*
In charge of test reviews instruction. Assisted professor preparing and grading tests and other school work.

INSTITUTIONAL SERVICE

- 2018-2019 **President.** Forum of Geography Graduate Students. Oklahoma State University.
- 2017-2018 **Vice president.** Forum of Geography Graduate Students. Oklahoma State University.
- 2017 **Instructional representative.** STEM fair at Will Rogers Elementary, Stillwater, Oklahoma. Taught children mapping concepts including scale through map puzzles of multiple resolutions. February 2017.
- 2013-2014 **Faculty Liaison.** Forum of Geography Graduate Students. Oklahoma State University.

PROFESSIONAL MEMBERSHIPS

- 2014-Present Association of American Geographers (AAG)
- 2018-Present International Association of Landscape Ecologists – North America - (IALENA-L)

TECHNICAL SKILLS

- Desktop GIS: ArcGIS, ArcGIS Pro, QGIS, SAGA GIS, GRASS GIS, ArcPy
- Remote sensing: ENVI, LP360, Orfeo ToolBox, Agisoft Metahsape, SNAP
- Web GIS: GeoServer
- Statistical software: SPSS, GeoDa,
- Programming: Python, R, .NET, JavaScript
- Databases: PostgreSQL/PostGIS, MySQL
- Graphics editing: Inkscape, Adobe Illustrator

LANGUAGE PROFICIENCIES

- Spanish: Native speaking, writing and reading ability
- Portuguese: Intermediate speaking, writing and reading ability