Alex Elvis Badillo, Ph.D.

www.alexelvisbadillo.weebly.com

EDUCATION

alex.badillo@indstate.edu

2019 Ph.D. Anthropology. Indiana University, Bloomington, IN Concentration: Archaeology in the Social Context Minors: Sociocultural Anthropology, Latin American and Caribbean Studies Certificate: Digital Arts and Humanities
2013 M.A. Anthropology. Indiana University, Bloomington, IN
2005 B.A. Anthropology and Spanish. Radford University, Radford, VA
ACADEMIC POSITIONS Indiana State University (Terre Haute, IN)

2018 – present
2017 – 2018
2011 – 2017
2006 – 2010

LABORATORIES

2019 **Co-Founder and Co-Director, Sycamore Collaborative Visualization Classroom and** Makerspace

January 2019 - Present

Description: In early 2019, a colleague and I were awarded an internal grant from ISU to renovate a classroom in room 158 of the Science Building on ISU's campus. we worked to convert the classroom into a state-of-the-art visualization classroom and makerspace that had equipment to facilitate experiential learning for students interested in pursuing a career in the geospatial sciences, data science, digital humanities, archaeology, and other related disciplines and industries. The room can hold classes of up to 24 students and contains equipment such as a large format high-definition video wall, virtual reality headsets, high-performance computers for 3D modeling, data processing, VR/AR development, 3D printing, laser cutting, high-precision UAV (drone) mapping, and other GPS and 3D scanning technologies including LiDAR.

2018 Founder and Director, Geospatial and Virtual Archaeology Laboratory and Studio (GVALS)

October 2018 - Present

Description: In October 2018, I established a new lab in the Department of Earth and Environmental Systems at Indiana State University. This lab is focused on teaching and research pertaining to the creation and analysis of geospatial data and 3D digital reconstructions of objects at various scales such as artifacts, architecture, and landscapes for preservation and scientific use.

(https://alexelvisbadillo.weebly.com/gvals.html, https://sketchfab.com/GVALS).

ACTIVE RESEARCH PROJECTS

Director, Quiechapa Archaeological Project, Oaxaca, Mexico

Indiana State University

January 2016 – Present.

Responsibilities include: Logistical planning, working with Mexican national and municipal authorities; managing personnel; collecting, organizing, and synthesizing field notes on observations during survey; leading survey teams on regional archaeological survey; directing excavations; building, organizing, and curating a geospatial database containing archaeological data from excavation and survey; ceramic analysis; lithic analysis; working with the local/descendant community.

Project Facebook page: <u>https://www.facebook.com/PAQuiechapa</u>

Co-Director, Monte Albán Digital Archaeology Project, Oaxaca, Mexico

Indiana State University

January 2018 – Present.

Responsibilities include: Developing educational modules for virtual reality (VR) environments; designing VR environments that are useful to archaeologists for generating and testing hypothesis; rendering and optimizing 3D digital models of Monte Albán's main plaza and surrounding architecture for use in Unity; testing VR builds, implementing trials and gathering user feedback; running GIS analyses using 3D surface of Monte Albán's main plaza and surrounding architecture; modeling sound propagation, visibility, and calculating volume.

Website: https://montealban.oucreate.com/.

Director, Ocoña Valley Digitization Project, Arequipa, Peru

Indiana State University

August 2019 – Present.

Responsibilities include: Designing a digitization workflow to digitize UAV (drone) survey imagery collected in the field during Summer 2019 as part of the larger Corral Redondo Archaeological Project; training graduate and undergraduate students to use GIS software through the digitization of Prehispanic settlement data from UAV generated orthomosaics; reviewing digitization products from students prior to merging new data into a master geodatabase; making GIS data available and accessible to collaborators through a web app.

Co-Head of Digital Initiatives, Pompeii Insula 14 Project, Pompeii, Italy

Indiana State University

June 2022 – 2025.

Responsibilities include: Designing and overseeing a paperless digital workflow for all archaeological work on site; designing structure from motion (SfM) photogrammetry data collection routines and protocols for documenting the excavation efforts; rendering and georeferencing 3D models of the excavation site, stratigraphic units, and artifacts; integrating 3D models and digital forms in an online GIS platform.

Website: https://sites.google.com/view/tulaneatpompeii/

DISSERTATION

Badillo, Alex Elvis. 2019. *Doctoral Dissertation: Ancient Settlement Patterns and Land-use Dynamics in Rural Quiechapa, Oaxaca, Mexico*, defense January 18th 2019, completed March 2019.

PEER-REVIEWED PUBLICATIONS

- Badillo, Alex Elvis, Matthew R. Brennan, Aaron M. Estes, Stephen P. Aldrich, Allison L.C.
 Emmerson. A paperless and 3D workflow for documenting excavations at Insula I.14,
 Pompeii, Italy. Advances in Archaeological Practice. Submitted for review.
- Zborover, Danny, Alex Elvis Badillo, Maria Cecilia Lozada, and Erika Simborth Lozada. Petroglyphs In Context: Another look at the Chillihuay archaeological complex in southern Peru. Andean Past 14. In press.
- Badillo, Alex Elvis. 2022. Ballcourt representations of Quiechapa, Oaxaca, Mexico: Ritual offering, fertility, and life. Ancient Mesoamerica, First View pp. 1-18. DOI: https://doi.org/10.1017/S0956536121000523.
- Levine, Marc N., Scott W. Hammerstadt, Amanda Regnier, and Alex Elvis Badillo. 2021. *Monte Alban's Hidden Past: Buried Building and Sociopolitical Transformation*. Latin American Antiquity 32(1):76-98. http://dx.doi.org/10.1017/laq.2020.75.
- Badillo, Alex Elvis, Josh Myers, and Ryan Peterson. 2020. *SfM Photogrammetric Field Methods for Historic Burial Excavations: The Case of Bethel Cemetery*. Advances in Archaeological Practice 8(2):151-161. https://doi.org/10.1017/aap.2020.16.
- Badillo, Alex Elvis. 2017. *Narraciones de Quiechapa: Considerando la Evidencia Material del Recorrido Sistemático.* Cuadernos del Sur 22(42):35-54.
- King, Stacie M., Elizabeth Konwest, Andrew Workinger, Alex Elvis Badillo and Juan Jarquín Enríquez. 2014. *Más que conquista: un cuento de dos fortalezas en la región de Nejapa*. Cuadernos del Sur 19(36):21-41.

NON- REFEREED PUBLICATIONS

- Badillo, Alex Elvis and Stephen P. Aldrich. 2023. Geospatial Technology Forms Basis of Digital Twin of Pompeii. ArcNews Winter 2023. https://www.esri.com/about/newsroom/arcnews/geospatial-technology-forms-basisof-digital-twin-of-pompeii/
- Levine, Marc N. and Alex Elvis Badillo. 2021. *Why Digital Archaeology? A Case Study from Monte Albán, Oaxaca.* The SAA Archaeological Record 21(4):21-29. https://mydigitalpublication.com/publication/?m=16146&i=722989&p=1&fbclid=IwAR1 gO489bjimbeBFzvgVDV7ZdnjQRC2kJbNVfZk-M7Z2VkwfjMqQHICnKpw&ver=html5.

PUBLICATIONS IN PROCESS

- Badillo, Alex Elvis. Arqueología Pública en Quiechapa, Oaxaca, México: Estrategias de Comunicación y Vinculación de Investigaciones Arqueológicas con Comunidades Descendientes. Manuscript completed.
- Badillo, Alex Elvis. *Quiechapa: A Window into the settlement history of the Sierra Sur*. Latin American Antiquity. **Draft written**.
- Badillo, Alex Elvis and Aaron M. Estes. Evaluating SfM Photogrammetric Methods for Documenting Historic Burials: An analysis of 3D data from the Bethel Cemetery Project.
 Data collection completed and analysis in progress.
- Badillo, Alex Elvis, Abraham Seare, Maria Cecilia Lozaga, Danny Zborover, and Vanessa Muros. *Rethinking methods of regional archaeological survey: UAV mapping and pedestrian survey of the Ocoña and Chorunga river valleys, Arequipa, Peru.* **Draft written**.
- Estes, Aaron M. and Alex Elvis Badillo. *Archaeological Site Monitoring techniques: Computer-Assisted Comparison of 3D Data collect using SfM and LiDAR*. Journal of Archaeological Science. **Draft written**.
- Levine, Marc N. and Alex Elvis Badillo. *Plazas, Perception, and Processions at Monte Alban, Oaxaca, Mexico.* **Draft written**.

ARCHAEOLOGICAL FIELD REPORTS

- 2022 Emmerson, Allison L.C., Alex Elvis Badillo, Aaron M. Estes, Mary-Evelyn Farrior, Jordan Rogers. Excavations at Pompeii I.14, Season One (2022): A Brief Report." In *Rivista di Studi Pompeiani* 2022. Forthcoming.
- 2021 Peterson, Ryan J., Brooke L. Drew and, Alex Elvis Badillo. Appendix C: Oaklawn Cemetery Original 18 Summary of Work by Cardno. In *Archaeological and Forensic Research in Support of the 1921 Tulsa Race Massacre Graves Investigation: The 2020-2021 Field Seasons at Oaklawn Cemetery*, Compiled by Kary L. Stackelbeck and Phoebe R.

Stubblefield. Final report submitted to the City of Tulsa by the Oklahoma Archaeological Survey. Pp.89.

- Badillo, Alex Elvis, Aaron M. Estes, and Ryan Peterson. Chapter 4: SfM Photogrammetry and 3D documentation. In You Who Were Young Twice and Twice Received A Tomb: The Bethel Cemetery Relocation Project, edited by Drew, Brooke L. and Ryan J. Peterson. Final Report for the Bethel Cemetery Relocation Project. Submitted to Indianapolis Airport Authority, Project No. J175304800. Copies available from Indiana Department of National Resources, Division of Historic Preservation & Archaeology, Indianapolis.
- 2019 Marc N. Levine, contributions by Alex Elvis Badillo, Scott Hammerstedt, Amanda Regnier. Informe Técnico Final: El Proyecto Geofísico de Monte Albán, Temporada 2017. University of Oklahoma. Final report submitted to the Instituto Nacional de Antropología e Historia. Pp. 118.
- 2017 Badillo, Alex Elvis and Aaron M. Estes. *Informe Final: El Proyecto Arqueológico de Quiechapa, Temporada 2016.* Indiana University. Final report submitted to the Instituto Nacional de Antropología e Historia. Pp. 362.
- Badillo, Alex Elvis and Aaron M. Estes. Los registros de los sitios del Proyecto Arqueológico de Quiechapa. Final report submitted to the Consejo de Arqueología, Registro Público de Monumentos y Zonas Arqueológicas, y el Centro INAH Oaxaca del Instituto Nacional de Antropología e Historia; 2016. Pp. 554.
- 2014 King, Stacie M., Alex Elvis Badillo, Elizabeth R. Konwest, and Juan Jarquín Enríquez. Informe Final Vol. I: Proyecto Arqueológico Nejapa/Tavela, Temporada III, 2013. Indiana University. Pp. 179.
- 2014 King, Stacie M., Alex Elvis Badillo, and Elizabeth R. Konwest. Los registros de los sitios del Proyecto Arqueológico Nejapa/Tavela, Temporada III, 2013. Final report submitted to the Consejo de Arqueología, Registro Público de Monumentos y Zonas Arqueológicas, y el Centro INAH Oaxaca del Instituto Nacional de Antropología e Historia. Pp. 368.
- 2012 King, Stacie M., Elizabeth R. Konwest and Alex Elvis Badillo. *Informe Final: Proyecto Arqueológico Nejapa/Tavela, Temporada II, 2011.* Indiana University. Pp. 365.
- 2012 Stacie M. King, Alex Elvis Badillo, and Elizabeth R. Konwest. Los registros de los sitios del Proyecto Arqueológico Nejapa/Tavela, Temporada II, 2011. Final report submitted to the Consejo de Arqueología, Registro Público de Monumentos y Zonas Arqueológicas, y el Centro INAH Oaxaca del Instituto Nacional de Antropología e Historia. Pp. 436.

FUNDING, AWARDS, AND HONORS

- 2022 Archaeological and Ethnographic Field Research Grant, The National Endowment for the Humanities, Submitting 10/2022 for research summers 2023, 2024, 2025. Submitted and not funded.
- 2021 Indiana State University-University Research Committee (URC) Grant: \$10,000.
- 2021 Professing Excellence and Inspiring Instruction Recognition, Nomination.
- 2021 Preservation Technology and Training Grants, National Park Service, Submitted and not funded.
- 2020 Edify's Virtual Lab development competition, awarded.
- 2020 National Geographic Society: Environmental Archaeology Enduring Impacts Grant, Submitted and not funded.
- 2020 Preservation Technology and Training Grants, National Park Service, Submitted and not funded.
- 2020 Digital Humanities Advancement grant, National Endowment for the Humanities, Submitted and not funded.
- 2019 Indiana State University's "Think Big" facilities and equipment grant: \$99,468.
- 2019 IndianaView Grant Program 2019: \$1,500.
- 2018 Indiana State University's Experiential Learning and Community Engagement Grant: \$2,995.
- 2018 Pre-Doctoral Fellow, Department of Earth and Environmental Systems at Indiana State University.
- 2018 Honorable mention for Ford Foundation Dissertation Fellowship.
- 2017 Future Faculty Teaching Fellowship, Indiana University-Purdue University, Indianapolis.
- 2017 Honorable mention for Ford Foundation Dissertation Fellowship.
- 2016 President's Diversity Dissertation Fellowship, Indiana University.
- 2016 College of Arts and Sciences Dissertation Fellowship, Indiana University, Declined.
- 2015 Doctoral Dissertation Research Improvement Grant, National Science Foundation: \$21,788.
- 2014 Associate Instructor of the Year Award, Outstanding Faculty-led Course Instructor: \$500.
- 2014 Graduate Sustainability Research Development Grant, Office of sustainability, Indiana University: \$2,500.
- 2014 College of Arts and Humanities Institute research award, Indiana University: \$1000.
- 2014 Latin American Fellowship, Office of the Vice President of International Affairs, Indiana University: \$1,500.
- 2012 Skomp Summer Research Feasibility Award, Department of Anthropology, Indiana University: \$2,500.
- 2012 Tinker Field Research Grant through the Center for Latin American and Caribbean Studies, Indiana University: \$700.
- 2012 Honorable mention for NSF Graduate Research Fellowship Program.
- 2012 Honorable mention for Ford Foundation Pre-Doctoral Fellowship.
- 2011 Honorable mention for Ford Foundation Pre-Doctoral Fellowship.
- 2005 Dean's Scholar Award, Department of Foreign Languages and Literatures.

OTHER RESEARCH AND FIELD EXPERIENCE

2021 Director of 3D Imaging and GIS, Oaklawn Cemetery Project, Tulsa, Oklahoma

Cardno Inc., Manager: Ryan Peterson June 2021

Responsibilities included: Designing and overseeing the structure from motion (SfM) photogrammetry data collection routines and protocols for documenting the excavation early 20th century graves. Mapping, documenting, and rendering 3D models of the ground surface, grave markers, and burials that are to scale and integrated in a geodatabase. Completing all postprocessing of photogrammetry and mapping data collected in the field. Working closely with major stakeholders such as: the local oversight committee, descendants of the Tulsa Race Massacre, the Oklahoma Archaeological Survey, the University of Florida, and the City of Tulsa.

2020 Contractor, UAV Mapping and 3D Modeling of Old Union Cemetery, Marion County, Indiana

Indiana State University

March 2020

Responsibilities included: Precision mapping and documentation of the 19th – 20th century cemetery known as the Old Union Cemetery, capturing imagery using a UAV (drone), processing imagery to produce deliverables such as a digital surface model, orthomosaic, and contour lines for our client Cardno Inc.

2018 **Principal Investigator, Photogrammetry and GIS Specialist, Bethel Cemetery Project** Cardno Inc., Manager: Ryan Peterson

March 2018 – November 2020

Responsibilities included: Designing and overseeing the structure from motion (SfM) photogrammetry data collection routines and protocols for documenting the excavation of over 300 graves. Mapping, documenting, and rendering 3D models of the ground surface, grave markers, and burials that are to scale and integrated in a GIS. In charge of all postprocessing of mapping and photogrammetry data collected in the field.

2017 Project Member, UAV and Photogrammetry Specialist, Geophysical Project of Monte Albán, Oaxaca, Mexico

University of Oklahoma, Director: Marc N. Levine June 2017

Responsibilities included: Mapping using an unmanned aerial vehicle (UAV), digital cameras, and a survey grade global positioning system (GPS), piloting missions, postprocessing and reconstructing data, training other archaeologists in photogrammetric methods, working with other specialists in archaeology as a collaborative team.

2014 Director, Quiechapa Anthropological Project, Oaxaca, Mexico

Indiana University May - July 2014 Responsibilities included: Logistical planning, working with town authorities, interviewing and recording town residents, collecting and transcribing local archival sources, managing personnel, collecting, organizing, and synthesizing field notes on observations of agricultural and religious practices.

2013 Project Member, Survey Team Supervisor, Nejapa-Tavela Archaeological Project, Oaxaca, Mexico

Indiana University, Director: Stacie M. King January - July 2013. Responsibilities included: Leading and logistical planning of archaeological survey, personnel management, ceramic analysis, GIS data processing and analysis.

2013 Director, Quiechapa Anthropological Project (Feasibility study), Oaxaca, Mexico Indiana University

June 2013

Responsibilities included: Logistical planning, working with town authorities, interviewing and recording local informants, collecting and transcribing archival sources.

2012 Director, Guichina Anthropological Project (Feasibility study), Oaxaca, Mexico Indiana University

June 2012

Responsibilities included: Finding and photographing relevant archival manuscripts in state and national archives, working with local archivists with materials from the 17th century, indexing and transcribing manuscripts.

2011 Project member, Nejapa-Tavela Archaeological Project, Oaxaca, Mexico

Indiana University, Director: Stacie M. King March 2011 - July 2011 Responsibilities included: Archaeological survey, ceramic analysis, GIS data processing and analysis.

2010 Volunteer Field Staff, Ste. Genevieve, MO

Indiana University July 2010 Responsibilities included: Excavation at a Mississippian period site (23SG100).

2006 Contract Archaeology (survey and mapping), Christiansburg, VA

Radford University April 2006 Responsibilities included: Survey of the Christiansburg Institute historic site; creating a map and database for the site; overlaying proposed construction plan on the data points collected.

2006 Intern/Research Assistant, Radford, VA National Park Service, August 2005 – Summer 2006. Responsibilities included: Battlefield survey using GPS equipment; analyzing and processing data collected from Saltville using ArcGIS software; writing quarterly reports on GPS/GIS survey; assisting in field school where we conducted test excavations archaeology; working with Saltville's town government and NPS to develop a preservation plan.

2005 Volunteer Field Staff, University of Kentucky

Kentucky Archaeological Survey September, 2005 Responsibilities included: Archaeological excavations at Fort Vause (44MY59), a French & Indian War fortification in Shawsville, VA.

2005 Field School, Blacksburg, VA

Radford University June - July 2005 Responsibilities included: Test excavations at Smithfield Plantation (44MY97) in Blacksburg, VA; mapping and surveying Civil War earthen features using GPS and remote sensing equipment in Saltville, VA; excavation with the Forest Service at a late Woodland period site (44PA1) in Luray, VA.

PRESENTATIONS (NATIONAL AND INTERNATIONAL)

- 2023 An Analysis of 3D Mapping Methods of Historic Burials at Bethel Cemetery, poster will be presented in the 88th Annual Society for American Archaeology Conference, Portland, OR, March 29 – April 2, 2023; presented by Alex Elvis Badillo, Aaron M. Estes, Zachary Brown, and Hannah Redlin.
- 2023 What happened on Monte Alban's Main Plaza? Insights from a Socio-Spatial-Sensory Analysis, paper will be presented in the 88th Annual Society for American Archaeology Conference, Portland, OR, March 29 – April 2, 2023; presented by Marc N. Levine and Alex Elvis Badillo.
- 2023 Documenting and Interpreting the Petroglyphs of Chillihuay, Southern Peru, paper will be presented in the 88th Annual Society for American Archaeology Conference, Portland, OR, March 29 – April 2, 2023; presented by Danny Zbrorover and Alex Elvis Badillo.
- 2023 Long-term digital 3D data curation and accessibility: The Case of Old Union Cemetery, Indiana, paper will be presented at the Archaeological Institute of America's Annual Meeting, New Orleans, LA, January 5 – 8, 2023; paper presented by Alex Elvis Badillo, Stephen Aldrich, Brooke L. Drew, Angela LoCoco.
- 2023 A paperless and 3D workflow for documenting excavations at Insula 14, Pompeii, Italy, paper will be presented at the Archaeological Institute of America's Annual Meeting, New Orleans, LA, January 5 8, 2023; paper presented by Matthew R. Brennan, Alex Elvis Badillo, Aaron M. Estes, Stephen Aldrich, and Allison L. C. Emmerson.

- 2022 Ritual Offering, Fertility, and Life: Ballcourt Representations in Quiechapa, Oaxaca, Mexico, paper presented in the symposium entitled Reimagining/Rethinking Space, Place, and Landscape in Oaxaca, Mexico in the 87th Annual Society for American Archaeology Conference, Chicago, IL, March 30 – April 3, 2022; presented by Alex Elvis Badillo.
- 2020 Integrating UAV mapping and SfM photogrammetry into a regional pedestrian survey of the Ocoña and Chorunga river valleys in southern Peru, paper presented an online symposium entitled In the Footsteps of Toribio Mejia Xesspe: The Corral Redondo Archaeological Project, Peru, May 30, 2020; presented by Alex Elvis Badillo and Abraham Seare.
- 2020 The Archaeological Survey and Settlement Patterns of the Ocoña and Chorunga Valleys, paper presented an online symposium entitled In the Footsteps of Toribio Mejia Xesspe: The Corral Redondo Archaeological Project, Peru, May 30, 2020; presented by Erika Simborth, Alex Elvis Badillo, and Hans Barnard.
- 2020 The Petroglyphs of Chillihuay: Context and Meaning, paper presented an online symposium entitled In the Footsteps of Toribio Mejia Xesspe: The Corral Redondo Archaeological Project, Peru, May 30, 2020; presented by Danny Zborover, Alex Elvis Badillo, and Willy Huashuayo Chávez.
- 2019 Quiechapa: A Window into the History of the Sierra Sur, paper presented in the symposium entitled Approaches to Cultural and Biological Complexity in Mexico at the Time of Spanish Conquest in the 84th Annual Society for American Archaeology Conference, Albuquerque, NM, April 10 – 14, 2019; presented by Alex Elvis Badillo and Pedro Guillermo Ramón Celis.
- 2019 Zapotec Funerary Tradition: A Perspective between Bioarchaeology and Landscape Archaeology, paper presented in the symposium entitled Living and Dying in Mountain and Highland Landscapes in the 84th Annual Society for American Archaeology Conference, Albuquerque, NM, April 10 – 14, 2019; presented by Ricardo Higelin Ponce de León, Pedro Guillermo Ramón Celis, and Alex Elvis Badillo.
- 2019 Bethel Cemetery: Photogrammetric Field Methods in Burial Excavation, paper submitted in the electronic symposium entitled Towards a Standardization of Photogrammetric Methods in Archaeology: A Conversation about 'Best Practices' in an Emerging Methodology in the 84th Annual Society for American Archaeology Conference, Albuquerque, NM, April 10 – 14, 2019; presented by Joshua Myers and Alex Elvis Badillo.
- 2019 The Bethel Cemetery Relocation Project: Academic Collaboration, Archaeological Science, and CRM, paper presented in the symposium entitled Archaeological Science Outside the Ivory Tower: Perspectives from CRM in the 84th Annual Society for American

Archaeology Conference, Albuquerque, NM, April 10 – 14, 2019; presented by Ryan Peterson, Alex Badillo, Joshua Myers, and Jeremy Wilson.

- 2018 Digitizing the Past: Ancient settlement patterns, public archaeology, and virtual heritage in Oaxaca, Mexico, lecturer for the 2nd annual Barbara D. Jackson Lecture in Anthropology, November 1, 2018; presented by Alex Elvis Badillo.
- 2018 Arqueología publica y el patrimonio cultural en San Pedro Mártir Quiechapa, Oaxaca, presenter at the inaugural workshop of the Indiana University Mexico Gateway entitled Voces del Pueblo: Lenguas Indigenas, Literatura, y Culturas Vivas, Mexico City, Mexico, May 28 29, 2018; presented by Alex Elvis Badillo.
- 2018 Mapping from the Heavens: UAV(Drone) Data Collection at Monte Alban, Oaxaca, Mexico, paper presented in the symposium entitled Looking Down on Mesoamerica: Applying Geophysical Prospection, UAV Mapping, and LiDAR to the Archaeological Record in the 83rd Annual Society for American Archaeology Conference, Washington D.C., April 11 – 15, 2018; presented by Alex Elvis Badillo and Marc Levine.
- 2018 Monte Alban's Main Plaza: New Perspectives Gained through Geophysical Prospection and Digital Mapping, paper presented in the symposium entitled Looking Down on Mesoamerica: Applying Geophysical Prospection, UAV Mapping, and LiDAR to the Archaeological Record in the 83rd Annual Society for American Archaeology Conference, Washington D.C., April 11 – 15, 2018; presented by Marc Levine, Alex Elvis Badillo, Scott Hammerstedt, Amanda Regnier, and Marcus Winter.
- 2017 Narratives of Quiechapa in light of material evidence from regional survey, paper presented at the 82th Annual Society for American Archaeology Conference, Vancouver, Canada, March 29 – April 2, 2017; presented by Alex Elvis Badillo.
- 2017 The Sierra Sur in 3D: Benefits of Photogrammetry and 3D Printing for Archaeological Research in Remote Regions, paper presented at the 82th Annual Society for American Archaeology Conference, Vancouver, Canada, March 29 – April 2, 2017; presented by Lindsey Kitchell and Alex Elvis Badillo
- 2017 Settlement Survey of the Rural Mountainous Region of Quiechapa in Southern Mexico, paper presented at the 82th Annual Society for American Archaeology Conference, Vancouver, Canada, March 29 – April 2, 2017; presented by Aaron Estes and Alex Elvis Badillo.
- 2016 Comunicación y vinculación del patrimonio cultural en el municipio de Quiechapa,
 Oaxaca, paper presented at the 1^{er} Encuentro Internacional sobre Patrimonio Cultural de Oaxaca, Oaxaca, Mexico, December 6 10, 2016; presented by Alex Elvis Badillo.

- 2016 Archaeological Prospecting using Remote Sensing Techniques in Quiechapa, Oaxaca, Mexico, poster presented at the 81st Annual Society for American Archaeology conference, Orlando, Florida, 2016; presented by David P. Massey and Alex Elvis Badillo.
- 2016 Omichicahuaztli: production, use, and transformation over space and time in Mesoamerica. poster presented at the 81st Annual Society for American Archaeology conference, at Orlando, FL. April 6-10, 2016; presented by Valeria Bellomina, Ricardo Higelin Ponce de León, and Alex Badillo.
- 2015 Full coverage survey techniques in the mountains of the Sierra Sur, Oaxaca, Mexico, poster presented at the 80th Annual Society for American Archaeology Conference, San Francisco, CA, April 16, 2015; poster by Alex Elvis Badillo.
- 2014 Systematic Mountain Survey of the Nejapa Valley Region, Oaxaca, Mexico, presented at the 79th Annual Society for American Archaeology Conference, Austin, TX, April 26, 2014; presented by Alex Elvis Badillo.
- 2012 Recent archaeological investigations in the Nejapa Region of Oaxaca, Mexico, presented at the 77th Annual Society for American Archaeology Conference, Memphis, TN, April 21, 2012; presented by Elizabeth Konwest, Alex Elvis Badillo, and Stacie M. King.
- 2011 Recorridos Arqueológicos en la Región de Nejapa, Oaxaca, presented at the Noveno Simposio Internacional de Estudios Oaxaqueños, Oaxaca, México, July 8, 2011; presented by Elizabeth Konwest and Alex Elvis Badillo.

PRESENTATIONS (REGIONAL)

- 2023 *The Enigmatic Ballcourt Representations of Quiechapa*, invited lecture presented as part of a seminar series hosted by the Department of Earth and Environmental Sciences at Murray State University, March 24, 2023; presented by Alex Elvis Badillo.
- 2021 *Mapping Burials using SfM photogrammetry at the Bethel Cemetery*, poster presented at the Midwest Archaeological Conference, October 9, 2021; poster by Aaron M. Estes and Alex Elvis Badillo.
- 2021 *Structure from Motion: 3D documentation in Indiana and beyond,* invited virtual lecture presented as part of the Preserving Historic Places, Indiana's Annual Statewide Preservation Conference, via Zoom, April 23, 2021; presented by Alex Elvis Badillo. <u>Recorded lecture here</u>.
- 2015 Archaeological pre-survey techniques in the mountains of the Sierra Sur, Oaxaca, Mexico, poster presented at the 2015 Indiana GIS conference poster contest, Indianapolis, IN, May 12 and 13, 2015; poster by Alex Elvis Badillo.

- 2015 Ritual landscapes of Quiechapa, Oaxaca, Mexico, paper presented at the 2015 AGSA symposium, Digital Communication, Collaboration, and Preservation, Indiana University, Bloomington, IN, February 21, 2015; presented by Alex Elvis Badillo.
- 2014 Ancient roads through southern Mexico: Least Cost Path analysis applied in Archaeology, poster presented at the 2014 Indiana GIS conference "Mapping a Difference" poster contest, Indianapolis, IN, May 7 and 8; second place winner; poster by Alex Elvis Badillo.
- 2014 Proyecto Arqueológico de Guichina (PAGUI), or so I thought..., presented at the 2014 AGSA symposium, Breaking Down Barriers, Bloomington, IN, Febuary 22, 2014; presented by Alex Elvis Badillo.
- 2012 Archaeological Survey in the Nejapa Region, Oaxaca, Mexico, presented at the 2012
 AGSA symposium, Branching Out: Anthropology and Interdisciplinary Approaches,
 Bloomington, IN, March 25, 2012; presented by Alex Elvis Badillo and Elizabeth Konwest.

PRESENTATIONS (LOCAL)

- 2022 La Excavación de Las Mesillas: Encuentros Preliminares, public presentation given in coordination with the town authorities of San Pedro Mártir Quiechapa, Quiechapa, Mexico, June 12, 2022; presented by Alex Elvis Badillo, Juan Jarquín Enríquez, and Cesar Dante Garcia Ríos.
- 2017 Drone-aided Mapping and Photogrammetry of Monte Alban's Main Plaza, Oaxaca, Mexico, guest speaker for University of Oklahoma's Anthropology Brown bag series, Norman, OK, November 17, 2017; presented by Alex Elvis Badillo and Marc Levine.
- 2017 Feeling overwhelmed: Navigating the politics of a narrative, guest lecture for S412 Spanish America: the Cultural Context, Indiana University, Bloomington, IN, October 17, 2017; presented by Alex Elvis Badillo.
- 2017 Proyecto Geofísica de Monte Albán (PGMA): Resultados Preliminarios, invited presentation at the Zona Arqueológica de Monte Albán, Oaxaca, Mexico, July 2017; presented by Marc N. Levine, Scott Hammerstedt, Amanda Regnier, and Alex Elvis Badillo.
- 2016 Arqueología Pública y la vinculación del patrimonio cultural en la Sierra Sur, guest lecture for the Coloquio Interno de Antropología Física de la Universidad Autónoma "Benito Juárez" de Oaxaca, Oaxaca, Mexico, December 12, 2016, presented by Alex Elvis Badillo.
- 2015 Unique landscapes of Quiechapa, Oaxaca, Mexico, poster presented at the 2015 Sustainability Internship Symposium, Bloomington, IN, April 10, 2015; poster by Alex Elvis Badillo.

- 2015 Fieldwork experiences in Nejapa, Mexico, guest lecture for ANTH 254 Introduction to Archaeology, Ivy Tech Community College, Bloomington, IN, March 10, 2015; presented by Alex Elvis Badillo.
- 2014 From the field...to the lab: Regional survey and site mapping, guest lecture for P399 GIS in Archaeology, Indiana University, Bloomington, IN, December 4, 2014; with Alex Elvis Badillo.
- 2006 RU Field School 2005: Mapping History, Article for the Saltville Newsletter, written by Alex Elvis Badillo, August 2006.
- 2005 The Future of the Saltville Battlefields: A Report on the American Battlefield Protection Program Mapping Project, presented at the Saltville Symposium 2005, Saltville, VA, October 1, 2005; presented by Dr. Robert C. Whisonant, Dr. C. Clifford Boyd, Jr., Alex Elvis Badillo (RU student), Angela M. Dautartas (RU student), Kristen L. Stevens (National Park Service).

OTHER MEDIA

- 2022 <u>Ancient ritual bloodletting may have been performed at carvings found in Mexico</u>, online article, LiveScience, published May 3, 2022, credit Alex Elvis Badillo as researcher.
- 2021 <u>The Invisibility Uncloak: Remote Sensing, Detection, LIDAR, and Archaeology</u>, podcast episode, The Davinci Pursuit, aired on April 15, 2021, credit Alex Elvis Badillo as guest.
- 2020 <u>Using Archaeology Tools to Fight COVID-19 with Dr. Alex Badillo</u>, podcast episode, The Forest and the Trees - For Indiana State University Alumni and Friends, aired October 1, 2020, credit Alex Elvis Badillo as guest.
- 2020 <u>Virtual archaeology: An interview with Alex Elvis Badillo</u>, podcast episode, Archaeocafé, aired April 15, 2020, credit Alex Elvis Badillo as guest.
- 2018 <u>First Civilizations: War (Episode 1)</u>, PBS special, aired April 24, 2018, credit Alex Elvis Badillo as presenter (26:55 30:31).
- 2012 Las raíces del bellísimo pueblo de Santa Ana Tavela. Film created for the Museo Comunitario de Santa Ana Tavela; written by Stacie M. King, produced and edited by Alex Elvis Badillo and Stacie M. King.
- 2012 Excavaciones en Los Picachos. Film created for the Museo Comunitario de Santa Ana Tavela; written by Stacie M. King, produced and edited by Alex Elvis Badillo and Stacie M. King.

- 2012 Recorrido arqueológico en Santa Ana Tavela, Mexico. Film created for the Museo Comunitario de Santa Ana Tavela; written by Stacie M. King, produced and edited by Alex Elvis Badillo and Stacie M. King.
- 2006 Blue Ridge Excursions, documentary segment on mapping Civil War earthworks in Saltville,VA, Local PBS, July 2006.
- 2005 Vital Words and Vital Actions: Partnerships to Build a Healthy Place: Appalachian Studies Association Conference 2005. Documentary film, Radford University, Radford, VA, Spring 2005.

TEACHING EXPERIENCE

INDIANA STATE UNIVERSITY, TERRE HAUTE, INDIANA

- 2022 January May
 ENVI 110 Introduction to Environmental Science, 56 students.
 ENVI 345 Archaeological Methods, 10 students.
 ENVI 333 Research Design and Proposal Writing, 5 students.
- 2021 August December

ENVI 110 Introduction to Environmental Science, 75 students. ENVI 272 Introduction to Geospatial Technologies, 15 students. ENVI 451 Current Issues in Anthropology: Digital Heritage, 10 students.

- 2021 January May
 ENVI 110 Introduction to Environmental Science, 60 students.
 ENVI 303 Cultures of Mexico, 15 students.
 ENVI 310 Introduction to Native Americans, 25 students.
- 2020 August December

ENVI 472/572 Topics in Geospatial Technologies, 9 students. ENVI 346 Mesoamerican Archaeology, 23 students. ENVI 451 Current Issues in Anthropology: Digital Heritage, 9 students.

- 2020 Instructor, ENVI 345 Archaeological Methods: 3D Documentation for Science January – May, 16 students Responsibilities included: Developing a new syllabus for a class that focuses on using 3D methods of documentation for scientific use, designing practical exercises and assessments that teach valuable skills in structure from motion photogrammetry, developing workflows, and research design.
- 2020 Instructor, ENVI 333 Research Design and Proposal Writing January May, 16 students

Responsibilities included: Developing a new syllabus to teach research design and proposal writing skills to undergraduate students, reviewing and giving feedback to students on their written work, leading discussions about research design and writing strategies, teaching students to search for and use scholarly references, facilitating writing feedback groups, assessing final proposals.

2019 Instructor, ENVI 451 Current Issues in Anthropology: Digital Heritage

August – December, 10 students

Responsibilities included: Developing a new syllabus for a brand new class which includes teaching methods and skills for students to create and work with digital 3D data using structure from motion photogrammetric techniques, developing practical laboratory modules, grading labs, assigning reading and leading discussion on the topic of digital heritage, designing experiential learning opportunities, working with the Children's Museum in Indianapolis to plan an authentic experience virtualizing artifacts in the museum's collections.

2019 Instructor, ENVI 272 Introduction to Geospatial Technologies

August – December, 16 students

Responsibilities included: Teaching a course of my own design, developing curriculum that trains students in the use and implementation of geospatial technology and ArcGIS Pro software. Designing hands-on activities and projects for students to obtain practical skills through experiential learning.

2019 Instructor, ENVI 310 Introduction to Native Americans

January – May, 30 students

Responsibilities included: Developing activities and lectures that contextualize the course readings, leading discussions and creating classroom exercises to engage the students with the topics of the course and reinforce concepts learned in the readings, guiding students as they develop their group and individual research projects.

2019 Instructor, ENVI 303 Cultures of Mexico

January – May, 16 students

Responsibilities included: Teaching a course of my own design, developing lectures that contextualize the course readings, leading discussions and creating classroom exercises to engage the students with the topics of the course and reinforce concepts learned in the readings, guiding students as they develop their group and individual research projects. Organizing guest lectures from nearby institutions, providing a study abroad opportunity for students interested in traveling to Oaxaca, Mexico.

2018 Instructor, ENVI 346 Mesoamerican Archaeology

August – December, 16 students

Responsibilities included: Teaching a course of my own design, developing lectures that contextualize the course readings, leading discussions and creating classroom exercises to engage the students with the topics of the course and reinforce concepts learned in

the readings, guiding students as they develop their group and individual research projects.

2018 Co-Instructor, ENVI 472/572 Topics in Geospatial Technology

August – December, 6 students

Responsibilities included: Developing a new syllabus for a brand new class which includes teaching methods and skills for students to use work with geospatial data in ESRI's ArcGIS 10.5 and create 3D digital models using structure from motion photogrammetric techniques, developing practical laboratory modules, grading labs, taking student on experiential learning opportunities. Working with the Children's Museum in Indianapolis to plan an authentic 3D scanning experience of museum collections, writing a grant to purchase equipment used by the students to learn photogrammetry.

INDIANA UNIVERSITY AND PURDUE UNIVERSITY, INDIANAPOLIS, INDIANA

2018 Instructor, E335 Ancient Civilizations of Mesoamerica

January – May, 25 students

Responsibilities included: Teaching a course of my own design, developing lectures that contextualize the course readings, leading discussions and creating classroom exercises to engage the students with the topics of the course and reinforce concepts learned in the readings, guiding students as they develop their group and individual research projects.

2018 Instructor, A103 Human Origins and Prehistory

January – May, 25 students

Responsibilities included: Developing lectures that enhance the material in the course textbook, creating classroom exercises to engage the students with the topics of the course, making and grading exams and other course projects.

2017 Instructor, A103 Human Origins and Prehistory

August – December, 60 students, 2 sections Responsibilities included: Developing lectures that enhance the material in the course textbook, creating classroom exercises to engage the students with the topics of the course, making and grading exams and other course projects.

INDIANA UNIVERISITY, BLOOMINGTON, INDIANA

2015 Consultant/Proposal Developer, Indiana University GradGrants Center

June – December

Responsibilities included: Giving presentations to other graduate students that teach the fundamentals of searching for and writing grant proposals. One-on-one consultations with graduate students from a variety of disciplines. Reading and developing grant proposals which includes giving constructive feedback while teaching writing strategies that help secure funding for research. 2015 Associate Instructor, E320: Indians of North America, Lead Instructor: Dr. Douglas Parks January– May

Responsibilities included: Assisting lead instructor in grading assignments and assessments; Designing assessments; helping students throughout the semester as they write their final term paper.

2014 Associate Instructor, P200: Introduction to Archaeology, Lead Instructor: Dr. Stacie M. King

August – December

Responsibilities included: Leading discussion sections; Guiding engaging activities and exercises that reinforce and explore concepts learned in lecture; giving lectures in the instructor's absence; grading assignments and exams.

2014 Associate Instructor and Grader, CJUS P300: Prosecution, Lead Instructor: Judge Mary Ellen Diekhoff

January – May Responsibilities included: Administering and grading examinations.

2013 Associate Instructor, P200: Introduction to Archaeology, Lead Instructor: Dr. Stacie M. King

August– December

Responsibilities included: Leading discussion sections; Guiding engaging activities and exercises that reinforce and explore concepts learned in lecture; giving lectures in the instructor's absence; grading assignments and exams.

- 2012 Associate Instructor, E321: Peoples of Mexico, Lead Instructor: Dr. Anya Peterson Royce
 - August December

Responsibilities included: Assisting lead instructor in grading assignments and assessments; leading classroom activities in the instructor's absence.

2012 Associate Instructor, A200: Bizarre Foods, Lead Instructor: Dr. Sonya Atalay January – May

Responsibilities included: Assisting lead instructor in grading assignments and assessments; leading classroom activities in the instructor's absence.

2011 Associate Instructor, P200: Introduction to Archaeology, Lead Instructor: Dr. Stacie M. King

August – December

Responsibilities included: Leading discussion sections; Guiding engaging activities and exercises that reinforce and explore concepts learned in lecture; giving lectures in the instructor's absence; grading assignments and exams.

CHRISTCHURCH HIGH SCHOOL, CHRISTCHURCH, VIRGINIA

2006 Spanish Teacher

-2010 Responsibilities included: Creating curriculum for and teaching high school Spanish levels I, II, III, IV, and honors; Overseeing 30 boarding students and coordinating faculty members as hall leader; coaching varsity and junior varsity soccer; directing music in Spring musical production and chapel choir; other duties as assigned; Creating and codirecting a language immersion study abroad program.

STUDY ABROAD/FIELD SCHOOLS

2019 Faculty, Corral Redondo Field School, Iquipi, Peru Institute for Field Research

July – August, 10 students

Responsibilities included: Teaching the fundamentals of archaeology to students while in a field setting. Developing presentations and exercises that teach the various concepts involved in settlement pattern survey methodologies. Giving a formal lecture on 3D documentation in archaeology using structure from motion photogrammetry. Teaching students about other facets of field research such as working with the local community, logistics and planning, travel, and research design. Programming educational exercises that enrich the students' daily field experiences. Designing and administering a formal exam.

This program is dedicated to teaching through research and is designed to include both. As such, students were engaged in a true research project. Beyond my pedagogical duties, additional responsibilities included: Designing and carrying out a regional archaeological pedestrian survey method that incorporates the use of UAV(drone) and differential GPS. Piloting a UAV to map archaeological sites and other larger features such as architecture and/or carved stone slabs. Working with local guides and informants, organizing and managing project data collected in the field, and writing field reports.

2019 Director and Faculty, ENVI 303/496 Cultural Diversity and the Politics of Heritage of Oaxaca, Mexico, Faculty-Led study abroad, Anthropological field program Indiana State University

May – June, 10 students

Responsibilities included: Organizing a study abroad trip to Oaxaca, Mexico where students would engage with the culture and history of Oaxaca, planning activities and curriculum that would enhances students' understanding of cultural diversity and the political nature of heritage within the context of Mexico, coordinating visits to active research sites and authentic cultural settings to give students' the opportunity to experience first-hand what it is like to do anthropological research, guiding students as they developed their own small research projects over the course of three weeks.

This course was a Faculty-Led study abroad undergraduate experience that was taught as an optional part of my course ENVI 303. Students also had the option of taking the course for advanced research credits (ENVI 496).

2017 Director and Instructor, 1499: Heritage and Cultural Diversity in Oaxaca, Mexico Indiana University

May – June, 9 students

Responsibilities included: Planning and facilitating all program activities such as cultural experiences, travel in Oaxaca, archaeological site visits, museum visits, etc.; creating a budget and keeping track of expenses; teaching in a place-based learning environment; organizing guest lectures; providing meals and housing for students; keeping students safe.

2012 Associate Instructor, I499: Heritage and Cultural Diversity in Oaxaca, Mexico

Lead Instructor: Dr. Stacie M. King

May – June, 9 students

Responsibilities included: Assisting lead instructors in facilitating all program activities; planning cultural experiences; keeping track of expenses; teaching in a place-based learning environment; providing meals for students while keeping track of dietary needs.

WORKSHOPS (DESIGNED AND LED)

- UAV mapping and 3D documentation for excavation, in-field workshop given in for personnel of Wood, Inc., Gallatin, TN, July 13, 2021; led by Alex Elvis Badillo.
- *Photogrammetry Workshop*, workshop at Indiana State University, Terre Haute, IN, October 26, 2019; led by Alex Elvis Badillo.
- *SfM Photogrammetry: Postprocessing (day 3 of 3),* workshop at the Children's Museum of Indianapolis, Indianapolis, IN, August 29, 2018; led by Alex Elvis Badillo.
- *SfM Photogrammetry: Hands-on Training (day 2 of 3),* workshop at the Children's Museum of Indianapolis, Indianapolis, IN, June 20, 2018; led by Alex Elvis Badillo.
- *SfM Photogrammetry: Priciples, Techniques, and Workflow (day 1 of 3)*, workshop at the Children's Museum of Indianapolis, Indianapolis, IN, May 15, 2018; led by Alex Elvis Badillo.
- *The Joys of Photogrammetry: Principles, Techniques, and Workflow,* workshop at University of Oklahoma's Sam Noble Museum, Norman, OK, April 28, 2017; led by Alex Elvis Badillo.

PROFESSIONAL SERVICE

MEMBERSHIPS

Society for American Archaeology Indiana Archaeology Council Midwest Archaeological Society Archaeological Institute of America

POSITIONS

- 2020 **Panelist**, Sin Gafetes: Encuentro International de Estudios Críticos Sobre Patrimonio, México 2020, Online discussion panel via Zoom, June 24, 2020.
- 2019 **Organizer**, *Photogrammetry Workshop*, beginner's workshop on SfM photogrammetric methods for archaeology open to members of the Indiana Archaeology Council, October 26.
- 2019 Panelist, Building Foundations for Sustained Community Archaeology, discussion panel at the 84th Annual Society for American Archaeology Conference, Albuquerque, NM, April 10 – 14, 2019.
- 2018 **Presenter**, Archaeology and Technology, recurring presentation given at The Children's Museum of Indianapolis during Archaeology Day to introduce visiting families to the new technologies available to archaeologists of the 21st century, October 20, 2018; presented by Alex Elvis Badillo.
- 2018 **Organizer**, Archaeology Day at The Children's Museum of Indianapolis, volunteer service work with students from Indiana State University to teach children about archaeology through an engaging game, 5 undergraduate students participated, October 20.
- 2017 Organizer and Chair, Mountain towns and crossroads: Archaeology of the Sierra Sur of Oaxaca, Mexico, at the 82th Annual Society for American Archaeology Conference, Vancouver, Canada, 12 papers presented, March 29 – April 2, 2017.
- 2016 **Organizer**, Archaeology Day at The Children's Museum of Indianapolis, volunteer service work with graduate students from Indiana University to teach children about archaeology through an engaging game, 3 graduate students participated, October 15.

MANUSCRIPT REVIEWER

Advances in Archaeological Practice. PLOS One. Ancient Mesoamerica.

UNIVERSITY SERVICE

COLLEGE LEVEL

Program Representative, Multidisciplinary Studies Program, Multidisciplinary Studies Department (Spring 2022 – present). **Member**, Faculty Council, Departmental Representative from EES (Fall 2019).

DEPARTMENT LEVEL

Organizer, Fourth Annual Wittman Lecture, Allison L.C. Emmerson (AY 2022-2023).

Member, Student Affairs Committee, (AY 2022-2023)
Organizer, Fourth Annual Wittman Lecture, Canceled due to pandemic (AY 2021-2022).
Member, Student Affairs Committee, (AY 2021-2022).
Member, Faculty Affairs Committee (AY 2020-2021).
Member, Faculty Affairs Committee (AY 2020-2021).
Member, Faculty Affairs Committee (AY 2019-2020).
Chair, EES Department Speaker Series (AY 2019-2020).
Organizer, Fourth Annual Wittman Lecture, Canceled due to pandemic (AY 2019-2020).
Member, EES Department Chair Search Committee (Spring 2019).

STUDENT ADVISING

Graduate Students

Ongoing, Shanta Banstola, Ph.D. Committee Member Ongoing, Nilasree Dutta, Ph.D. Committee Member 2023, Disha Sinha, M.A. Committee Member 2022, Aaron Estes, M.A. Advisor 2022, Ashley Baysinger, M.A. Advisor 2020, Ziaul Hoque, M.A. Thesis Committee Member

Undergraduate Students

Ongoing, Elizabeth Sinders, advisor for independent research project.
Ongoing, Hannah Redlin, advisor for independent research project.
2022 - Zachary Brown, advisor for independent research project.
2022, Hannah Ketchum, advisor for independent research project.
2021, 2022, Robert Williams, advisor for independent research project.
2021, 2022, Angela LoCoco, advisor for independent research project.
2021, 2022, Seaonna Michaels, advisor for independent research project.
2021, 2022, Alexis Grider, advisor for independent research project.
2021, 2022, Alexis Grider, advisor for independent research project.
2020, 2021, Louisa Lara, advisor for independent research project.
2020, Caleb Moore, advisor for independent research project.
2020, Alexis Fortman, advisor for independent research project.
2019, 2020, 2021, Jadelyn Watson, advisor for independent research project.
2019, 2020, 2021, Kortnee Bell, advisor for independent research project.
2019, 2020, Ashley Baysinger, advisor for independent research project.

OTHER SERVICE ACTIVITIES

2021 This year was the first full year during which the new Sycamore Collaborative Visualization Classroom and Makerspace was in use. I spent much time with my colleague, Stephen Aldrich, running the day to day work of maintaining the technologies that makes this classroom and innovative learning space for students. In addition to maintaining the space, Stephen and I began the process of forming our own geospatial consulting service through the university system. Our plan was to bring in funds through contracts that would help sustain the new visualization classroom and provide paid positions for students. We were successful in bringing in nearly \$35,000 in funds to date that have supported student learning and have helped to maintain the visualization classroom and the equipment that we use for hands-on learning.

This year, I have spent time mentoring 4 undergraduate students as they carried out independent research projects through my lab, GVALS. When working with these students I instilled the values of leadership, attention to detail, and self-sufficiently. I met with them periodically and made resources available to them in order to complete their projects. Each of these students were able to complete a project that taught them important skills that can be used inside and outside of academia. One

In September this year, I noticed that the computers in our GIS lab were too slow to run the basic skills lab in our Introduction to Geospatial Tech course. I raised this issue in a departmental meeting and expressed my interest in updating the computers in that classroom. I am currently working with my department and ISU's Office of Information Technology to find a workable solution to provide our students with the technologies to support their learning.

2020 Throughout the year, I have been engaged in working with students in my lab, working to set up a new visualization classroom and makerspace, and creating educational content for YouTube. Much of my time not engaged in formal instruction and research was spent on these service activities during the 2019-2020 academic year.

In my lab, GVALS, I worked with students on class projects and labs, and to design their own projects that will develop their skillsets to contribute to career readiness. Both graduate and undergraduate students are making use of the space and equipment in GVALS. Additionally, I trained a new lab manager and lab assistant.

This year, Stephen Aldrich and I began the process of designing, planning, and executing the renovation of room 158 of the Science Building at ISU to establish the new Sycamore Collaborative Visualization Classroom and Makerspace (SCVCM). As of August 14, the renovations were finished and the classroom was ready for a soft open during the Fall 2020 semester. Much time was spent in the planning of the room and the selecting and purchasing of equipment. While the room is currently open to scheduled classes, we will spend the 2020-2021 academic year finalizing equipment setup and establishing an organizational infrastructure so that the room will be open for University-wide use in Fall 2021.

As much of the skills that I teach in my classes are computer software skills, I decided to make YouTube tutorials for ISU students and faculty to use for class labs and training. These videos are made public and are accessible to a broader global audience. I consider this a service to my professional community.

2019 Since August, I have been active getting my lab, GVALS, up and running again for the 2019-2020 academic year. With the help of my new lab manager, we have been able to restart our volunteer program and training services. I spend time in GVALS not only doing research, but also training students on how to make scientific 3D models and about the various applications and uses these 3D models have in research and the industry.

In June, I returned to Quiechapa, Oaxaca, Mexico, to give an hour-long public presentation in coordination with town authorities about the results of the archaeological survey that I conducted in their municipality. Over 120 people attended the presentation. ISU Students who were a part of the Faculty-Led Study Abroad in Oaxaca this year also attended this presentation so that they can see a side of archaeological research that many students don't get to see.

In addition to giving a public presentation in Quiechapa, I worked with Quiechapa's town authorities and the staff at the Biblioteca Burgoa in Oaxaca City to coordinate the restoration and long-term conservation of a *lienzo*, a rare historic document consisting of painted cloth with Mesoamerican pictorial writing that refers to Quiechapa territorial history. Together with town authorities, we drove to Oaxaca City with the document and turned it in with the conservator and restoration specialist. Within the year, I expect to return to Quiechapa to be present for the unveiling event of this important piece of Quiechapa's history.

2018 Beginning in October, I established a new lab at ISU called, the Geospatial and Virtual Archaeology Laboratory and Studio (GVALS). In this lab, students come to learn how to create measurable 3D digital models and use other 3D or geospatial technologies. While it is not a formal classroom, students are learn by doing. By May, ten students received training in this lab, six of the ten students became regular volunteers.

Also in October, I volunteered at TCM on Archaeology day. I brought five students from Indiana State University with me to facilitate an activity meant to engage kids with archaeological survey and settlement pattern studies.

2017 In October, an Indiana University graduate student in the Department of Spanish and Portuguese who studies colonial literature began to work on a detailed analysis of a *lienzo* (painted cloth with Mesoamerican pictorial writing) from Quiechapa. This is a collaborative project and we hope to publish on our findings. The student plans to write a Master's thesis on the lienzo. Town authorities from Quiechapa have given us the permission to begin this study and we hope to collaborate with them in plans to protect and conserve the painting/document for posterity.

Since August, a member of the Quiechapa community expressed interest in writing a synthesis of some of Quiechapa's history based on the content of Quiechapa's local archives. He has been working with me to transcribe the archival data I collected in

2014. He has transcribed and coded over one hundred manuscript pages of the 400+ pages I photographed. He plans to continue his work and write a synthesis for his town in the years to come.

From January to May, I continued to mentor a student who previously worked on my field project and involved him in the writing stages of the research process. He helped digitize artifact drawings and make maps. He also used the GIS data from my project to enhance learning in his GIS courses completing a semester long research project. Later, we co-wrote a paper to present at Society for American Archaeology conference in Vancouver, Canada.

2016 On Archaeology day, I volunteered at the Indiana Children's Museum in Indianapolis to design and facilitate an activity meant to engage kids with archaeological survey and settlement pattern studies. The overall outcome was meant to teach basic principles of archaeology.

In coordination with the town authorities of San Pedro Mártir Quiechapa, I organized two events during which formal presentations were given about the archaeological research of the region followed by an exhibition of artifacts recovered during the archeological survey, videos and photos of the research, and field equipment used during survey. The entire town was invited to come and visit our field house and attend the presentations. Approximately 80 people showed interest and enjoy seeing what the research was about first-hand.

Beginning this year, I mentored an undergraduate student and trained him how to conduct regional pedestrian survey and directed a readings course where he learned about the archaeology of southern Mexico. He joined me in the field for my dissertation project where he had infield experiences doing survey, mapping sites, analyzing ceramics, and making 3D models of artifacts. From August to December he continued to work with me learning how to use GIS software, digitize artifact drawing, and develop his own small research project.

2015 During the Spring and Fall semesters, I volunteered my time mentoring a student with her undergraduate research project. As part of the Indiana University Science, Technology, and Research Scholars (STARS) program, the student was planning her senior thesis during her Junior year. Her faculty mentor and I worked together with her to help her develop a research project using linguistic data from my field site in Quiechapa, Oaxaca, Mexico. Throughout the year, we held weekly meetings to discuss the research and to provide the student with academic support. During this time, I taught her about the research process including: how to develop and address research questions, choosing a methodology, learning about the limitations of the research, interpreting the data, and how to write up the results. She has since finished her Senior thesis and graduated from Indiana University. In the Spring of 2017, she will be presenting at an invited session at the Society for American Archaeology conference. Using her research, she also plans to publish two academic articles, both self-authored and co-authored.

- 2014 During this year I began a book project. The book will document local history, customs, and folklore of the town of San Pedro Mártir Quiechapa. The book is intended for the town authorities and local schools. The project is a collaboration between PAQuie project members and local people.
- 2012 I served on the editorial staff for the World Archaeological Congress (WAC) as they organized the 2013 WAC conference in Jordan. I volunteered time editing paper abstracts and titles.

I volunteered to create to three vignettes for the community museum in Santa Ana Tavela located in Oaxaca, Mexico. These films showcase local archaeological sites and history. I spent time in the field working with the local museum committee developing and shooting the films. Two of the films were adapted and translated into English to aid in teaching archaeological excavation and survey in introductory level archaeology courses.

2011 I assisted in organizing and overseeing a three-day exhibition in Santa Ana Tavela of work we had been doing since 2009. Over 300 people toured the exhibition to learn from the site maps and artifacts we had on display. This educated local people about what we do as archaeologists, what their town has to offer in terms of cultural heritage and pride, and about our plans and goals for working with them in years to come.

I volunteered for Science Night at a local elementary school through our department graduate student association. At the event, I spend time engaging students and teaching about what archaeologists do and how they use the scientific method to interpret archaeological remains.

TECHNOLOGICAL SKILLS

Proficient in Mac OS, Windows OS, Microsoft Office Suite, ArcGIS Desktop, ArcGIS Pro, ArcGIS Survey123, ArcGIS Field Maps, ArcGIS Online, ArcGIS Dashboards, Adobe Illustrator, Adobe Photoshop, Adobe Premiere, Windows Mobile, Agisoft Metashape Professional, Autodesk Recap Pro and Photo, Autodesk Tinkercad, Autodesk Maya, Meshmixer, Meshlab, Meshroom, CloudCompare, Cura, Simplify, LycheeSlicer, Unity.

Extensive knowledge of and experience with ArcGIS Desktop, ArcGIS Pro, ArcGIS Survey123, ArcGIS Online, ArcGIS Dashboards, and Agisoft Metashape Professional.

Practical knowledge of various global positioning systems (GPS) including equipment made by Emlid, Magellan, Garmin, and Trimble; unmanned aerial vehicles (UAV) including DJI Phantom and Mavic series drones; total station survey equipment including Topcon and Leica. Alex Elvis Badillo, Ph.D., CV

LANGUAGES

Fluent in English and Spanish Elementary knowledge of Isthmus Zapotec

COLLABORATORS

Allison L.C. Emmerson, Associate Professor, Department of Classical Studies, Tulane University, New Orleans, LA.

Christy O'Grady, Exhibition Conservation Manager, The Children's Museum of Indianapolis.

- Danny Zborover, Academic Director of Archaeology, Institute of Field Research, Los Angeles, CA.
- Marc Levine, Assistant Curator of Archaeology & Associate Professor of Anthropology, Sam Noble Oklahoma Museum of Natural History, University of Oklahoma.
- Marc Wampler, Associate Archaeologist, Cultural Resources Group Lead, Wood Environment & Infrastructure.

Maria Cecilia Lozada, Research Associate, Department of Anthropology, University of Chicago.

Mark Sicoli, Assistant Professor, Department of Anthropology, University of Virginia.

Matthew Davidson, District Archaeologist, Forest Service, Daniel Boone National Forest, Cumberland District.

Ryan Peterson, Senior Principal-Archaeology, Cardno, Inc., Indianapolis, IN.

- Stacie M. King, Director of Graduate Studies, Department of Anthropology, Associate Professor, Department of Anthropology, Indiana University-Bloomington.
- Stephen P. Aldrich, Associate Professor, Department of Earth and Environmental Systems, Indiana State University.