CURRICULUM VITAE

Scott Madry, Ph.D. International Academy of Astronautics Corresponding Member



maurys@email.unc.euu

http://scottmadry.web.unc.edu

EDUCATION: Ph.D. 1986	University of North Carolina at Chapel Hill, Department of Anthropology. Dissertation Title: "Regional Spatial Modeling in Archaeology: A Test Case from The Upper Neuse River Basin, North Carolina." Advisor: Professor Carole Crumley
M.A. 1983	University of North Carolina at Chapel Hill, Department of Anthropology. Thesis Title: "A Multi-Scalar Application of Remote Sensing in a Temperate Regional Archaeological Survey." Advisor: Professor Carole Crumley
B.A. 1978	University of North Carolina at Chapel Hill, in Anthropology, Specialization in Photogrammetry and Computer Applications in Archaeology.
EMPLOYMENT	
HISTORY: 1999-Present	Research Associate Professor of Archaeology and Research Associate, Research Laboratories of Archaeology, University of North Carolina at Chapel Hill
Current:	Professor Emeritus, the International Space University and Founder and President, Informatics International, Inc., an international scientific services company providing geomatics training, services, analysis, and project management.
2011-present	Chercheur associé du Laboratoire Archéologie et Territoires de l'UMR 7324 CITERES, Université François-Rabelais/CNRS, Tours, France.
2012 – present	Annual Visiting Lecturer, SpaceLab, Department of Electrical Engineering, The University of Cape Town, Cape Town, South Africa
Previous:	
1987–2020	Professor, International Space University, Strasbourg, France. Promoted to professor emeritus in 2020. (three, three-year terms on the elected Academic

Council). Chair, Department of Satellite Applications, Program Director and Lead Faculty for four Southern Hemisphere Summer Space Programs in Adelaide, Australia Jan-Feb 2010-2014, Associate Program Director for Academic Affairs for multiple 10-week summer programs around the world. 2007-2009: Geospatial Data Scientist, The Renaissance Computing Institute, University of North Carolina at Chapel Hill. 2000–2006: Senior GIS Consultant, Environmental Resources, Inc., Jacksonville, Florida and Raleigh, NC. P.I. on major award from NCDOT to develop a GIS-based archaeological predictive model. Research Associate Professor, Department of Anthropology, University of North 1998-2007 Carolina at Chapel Hill. 1997-2000 Member of the Resident Faculty of the International Space University in Strasbourg, France, teaching in the graduate program in remote sensing, GIS, GPS and satellite applications. Dec. 1995-Senior Associate Director, Center for Remote Sensing and Spatial Analysis, Department of Natural Resources, Rutgers University. Sept. 1997 Dec. 1995-Full Member of the Graduate Faculty, Departments of Environmental Science and Natural Resources, Anthropology, and Geography, Rutgers University. Sept. 1997 Associate Director, Center for Remote Sensing and Spatial Analysis, August 1989– Dec. 1995 Department of Natural Resources, Rutgers University. August 1989– Associate Member of the Graduate Faculty, Departments of Environmental Dec. 1995 Science and Natural Resources, Anthropology, and Geography, Rutgers University. February-Consultant on retainer to the Concurrent Computer Corporation for GIS and August 1989 remote sensing, marketing and applications. Providing international marketing and strategic planning. August 1986-(in order) Research Associate, Acting Training Director, Training Director and February 1989 University Programs Coordinator, and Senior Project Manager, Institute for Technology Development, Space Remote Sensing Center, NASA Stennis Space Center, Mississippi. August 1987– Adjunct Assistant Professor of Geography, Southern Mississippi University (joint February 1989 research projects with Institute for Technology Development, Space Remote Sensing Center, NASA Stennis Space Center, Mississippi). **CURRENT RESEARCH INTERESTS:**

Free and Open Source GIS software development and applications; Applications of geomatics (remote sensing, GIS, GPS, photogrammetry, and related non-destructive technologies) for regional cultural and natural resource assessment; advanced technologies for disaster planning, mitigation, and response, site location and environmental analysis by use of computer-enhanced satellite and airborne digital

imagery analysis; regional environmental, wildlife and archaeological settlement and site location models using Geographic Information Systems; historical ecology, regional and global data creation and analysis; database management and analysis; international environmental training programs; advanced techniques of GIS, GPS, and remote sensing; visualization technologies with GIS; innovative applications of distance education for geomatics. Teaching skills and techniques of public presentation.

COMPUTER SKILLS:

QGIS 3.x, ArcGIS 9.x and 10.x, ArcView 3.x, GRASS (Geographic Resource Analysis Support System) GIS 6.x, and 7.x, ERDAS, IDRISI, ELAS (Earth Resources Laboratory Analysis System) and TAE /LAS (Transportable Applications Executive), MapPoint, Marplot, Cameo, Aloha, Trimble Global Positioning Systems operation and integration with GIS and remote sensing data, HTML WWW authoring, Quick Time Virtual Reality (QTVR) and IPIX authoring and applications. Microsoft SharePoint, General Mac, Windows, and limited UNIX abilities.

UNIVERSITY COURSES PREPARED TO TEACH:

Spatial Analysis and Geomatics Applications in Archaeology Advanced Seminar in Spatial Analysis in Archaeology Historical GIS and Spatial Analysis for Historical Archaeology Fundamentals of Environmental Geomatics Air Photo Interpretation and Photogrammetry Satellite Applications (remote sensing, GPS and telecommunications) Geomatics for Disaster Planning, Mitigation and Response Remote Sensing and Digital Image Processing (basic and advanced) Geographic Information Systems (basic and advanced) Global Positioning Systems, Theory and Applications

SHORT COURSES PREPARED TO TEACH:

I have given over 200 GIS and remote sensing short courses on six continents around the world since 1986 in over 35 countries for various universities, national governments, international agencies and private companies including: The United Nations, NASA, the U.S. Departments of Agriculture, Commerce, and Energy, NATO, the Government of Canada, and many others.

These include programs at the Université Paris 1 Panthéon-Sorbonne Paris, Harvard University, Sandia National Laboratories, Argonne National Laboratories, University College, London, Dubai Global Space Technology Forum, the University of Bahrain, UAE University, The Technion, Israel, Charles University, Prague, Czech Republic, François Rabelais University, Tours, France, the Centre archéologique europeéen at Bibracte, France, Maison des Sciences de l'Homme de Dijon, Université de Bourgogne, Dijon, France, the University of Copenhagen, Denmark, Witwatersrand University, Johannesburg, South Africa, the University of South Africa, Pretoria, South Africa, Cape Town University, the Kenya Wildlife Service, Nairobi, Kenya, the Chinese Academy of Space Technology, Beihang University Beijing, Shen Zhou Institute, Beijing, The Institute of Digital China, Peking University, Beijing, the United Nations Office of Outer Space Affairs in Vienna, the UN Regional Centre for Space Science and Technology Education for Latin America and the Caribbean (CRECTEALC), Tonantzintla, Puebla, Mexico, the Tuxtla Gutierrez Institute of Technology, Chiapas, Mexico, among others. Short Courses and lectures prepared to teach include:

Archaeological Geomatics (1-3 days, as required) Introduction to Integrated Geomatics (4 days) Introduction to GIS (1 or 4 days) Introduction to Global Positioning Systems (1 or 3 days) GIS for Global and Regional Analysis (4 days) Remote Sensing and GIS for Disaster Planning, Mitigation, and Response (1 or 3 days) Introduction to QGIS/GRASS (3 or 5 days) Introduction to the Internet for GIS and environmental users (2 days) Introduction to Space Remote Sensing (1–3 days) Advanced High-Resolution Space Remote Sensing Systems and Applications (3 days) The ARGOS Environmental Telemetry System (1 day) Disruptive Innovation in the space sector (1 day)

PUBLICATIONS: (9 books published, 1 accepted, 2 in preparation, 5 published by Springer Press, 19 additional book chapters, over 50 peer review publications, 19 technical reports, and 5 CD-ROMS of global GIS data). The Springer Handbook of Satellite Applications, of which I was an executive co-editor and author, has had over 397,000 downloads, and was one of the top ten downloaded Springer Engineering books in 2017.

PUBLICATIONS IN PRESS, REVIEW, OR IN PREPARATION:

Madry, Scott, Elizabeth Jones, Seth Murray, Tamara Misner, Amanda Tickner. "Continuity and Change in Burgundy, France: Techniques in Historical Ecology for the Analysis of Complex Regional Data". (2024) 300 pp. *book in preparation, detailing 30 years of field work and analysis of data from Burgundy, France. Section 1: Theory and Analysis, Section 2: Methods and Techniques.*

Pelton, Joseph, and Scott Madry (2023) "Space Systems, Quantum Computers, Big Data and Sustainability". In: *Artificial Intelligence for Space Applications: AI4SPACE*. Pp. *1-37*. Edited by Matteo Madi. CRC Press Taylor & Francis.

Madry, S. et al. (2023) "A Stratospheric Balloon Program as a Space Mission Analog: An Educational Activity at the International Space University". Paper published in the proceedings 74stInternational Astronautical Congress (IAC), Baku, Azerbaijan, 2-6 October 2023.

Farhan, A., Nasseri, S., Dinas, PI, Chapman, H., Brazeau, S., Madry, S., Clark J., Upshur, R. (2023) "Utilizing remote sensing and innovative space technology to enhance disaster management and relief". Paper published in the proceedings 74st nternational Astronautical Congress (IAC), Baku, Azerbaijan, 2-6 October 2023. IAC-23,E5,4,1,x77718

Madry S., Jansen G., Murray, S., Jones, E., Willcoxon, L., Alhashem, E. (2023) *A Focus* on the Future of our Tiny Piece of the Past: Digital Archiving of a Long-term Multiparticipant Regional Project in: proceedings of the 50th Computer Applications in Archaeology conference. Amsterdam, the Netherlands. April 3-6, 2023. Madry, Scott, Anna Westin, and Elizabeth Jones, editors (2023). "Methods, Techniques, and Theory in Historical Ecology: The Collection, Analysis, and Integration of Complex Regional Data". Accepted for publication by the Swedish Diversity Centre Press, Uppsala, Sweden. A 14 author, 20-chapter book on the conduct of large, interdisciplinary projects in historical ecology. I am co-author of: chapter 7 Landscape archaeology and historical archaeology, chapter 19 The integration of data, methods, and theory in historical ecology, chapter 20 Collaboration and working across disciplines, and chapter 21 Future directions, recommendations and final conclusions. I am sole author of chapter 12 Historical cartography, chapter 13 Geographic Information Systems and Geomatics, chapter 14 Aerial photography, chapter 15 Remote sensing and Image processing, chapter 16, Global Navigation Satellite Systems, and chapter 18 Emerging Technologies.

Mitisbeer, Taanaaa J. Daaree UJ Bain, Mitibbae FF. Rossenneisier, Maaree J. Gaal Badd, Stephen RR. Maggeess, Ericocc Staatffin, Eritiabeth AA Jooness, Scott Maaldyy, Aamaadaa Tökkeer, Seth Muluraay, aad Erinii jy Eril bottt (2028) chericaleanidal taolo giboresponse opficate oplanduplated shartershere the opest 189 (paystate Solo vandstealaan de aange sha Sates in Sationice e Franke, Franke, Ie (in Quaitern) ary Research).

Madry, Scott, Elizabeth Jones, Seth Murray, Tamara Misner, Amanda Tickner, Duncan Anderson. (2023) "An Interdisciplinary Analysis of Historical Forest Change in Southern Burgundy, France." (In preparation for *the Journal of Rural Landscapes: Society, Environment, History).*

Madry, Scott, Elizabeth Jones, Seth Murray, Tamara Misner, Amanda Tickner, Duncan Anderson. (2023) "Burgundy without wine? Historical and contemporary processes of abandonment of viticulture in Burgundy, France. In preparation.

Madry, Scott (2023) Sensing the Past Very Remotely Now: A personal memoir of my time working at NASA Stennis and the early days of archaeological remote sensing. Chapter in a NASA book honoring the retirement of Dr. Tom Sever, NASA Office of the Historian, NASA Headquarters, Washington, D. C.

Madry, S. L. Laidet, and J. Arnould, eds. (2023) Multicultural foundations and influences of human space exploration, International Academy of Astronautics Cosmic Study VI.17. Published by the International Academy of Astronautics, Paris, France.

Madry, Scott (2023). Culture: The Hidden Inhibitor and Enabler of Our Dreams of Space in *Multicultural foundations and influences of human space exploration IAA Cosmic Study VI.17.* International Academy of Astronautics, Paris, France.

PUBLICATIONS:

Madry, S. and C. Carnett <u>Interactive Learning for Improved Presentation Skills Training</u> <u>at the IAC Initial Lessons Learned</u> (2022) Paper presented in Session 4, postgraduate education. 2022.09.22 <u>IAC-22,E1,4,8,x67207</u> Paris, France. Available online.

Madry, S. (2021) "The Carolina Union Proudly Presents...Memories of the Tech Crew of Memorial Hall". Kindle Direct Publishing, 195 pages. https://www.amazon.com/gp/product/B09DN397SZ/ref=dbs a def rwt hsch vapi tpbk

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Madry, S. (2021) An Introduction to the QGIS Open Source Geographic Information System. A 220-page book by Locate Press. <u>https://locatepress.com/book/itq</u>. Second edition now in preparation for publication in fall, 2023.

Madry, S. and J. Pelton. (2020) "Historical Perspectives on the Development of Small Satellites" In J. Pelton and S. Madry (Eds.), "*Handbook of Small Satellites: Technology, Design, Manufacture, Applications, Economics and Regulation*" Springer Nature, Switzerland. Vol.1 pp. 3-33.

Pelton, J. and S. Madry Power Systems for Small Satellites (2020) In J. Pelton and S. Madry (Eds.), "Handbook of Small Satellites: Technology, Design, Manufacture, Applications, Economics and Regulation" Springer Nature, Switzerland. Vol.1 pp. 189-203.

Pelton, J. and S. Madry (2020) Retrofitting and Redesigning of Conventional Launch Systems for Small Satellites In J. Pelton and S. Madry (Eds.), "*Handbook of Small Satellites: Technology, Design, Manufacture, Applications, Economics and Regulation*" Springer Nature, Switzerland. Vol.1 pp. 403-423.

Niederstrasser, C. and Madry, Scott (2020) "New Launchers for Small Satellite Systems" In J. Pelton and S. Madry (Eds.), "Handbook of Small Satellites: Technology, Design, Manufacture, Applications, Economics and Regulation" Springer Nature, Switzerland. Vol. 1 pp. 423-437.

Madry, Scott Smallsat Rideshares and Launch Aggregators (2020) In J. Pelton and S. Madry (Eds.), "Handbook of Small Satellites: Technology, Design, Manufacture, Applications, Economics and Regulation" Springer Nature, Switzerland. Vol. 1 pp. 437-453.

Madry, Scott and J. Pelton (2020) "Student Experiments and Education with Small Satellites" In J. Pelton and S. Madry (Eds.), "*Handbook of Small Satellites: Technology, Design, Manufacture, Applications, Economics and Regulation*" Springer Nature, Switzerland. Vol 1. pp. 621-639.

Madry, Scott (2020) "Precision Agriculture and Forestry: Bytes for Bites" In J. Pelton and S. Madry (Eds.), "*Handbook of Small Satellites: Technology, Design, Manufacture, Applications, Economics and Regulation*" Springer Nature, Switzerland. Vol .2 pp. 929-959.

Madry, Scott and J. Pelton (2020) "Small Satellite Systems to Manage Global Resources, Energy Systems, Transportation, and Key Assets More Efficiently" In J. Pelton and S. Madry (Eds.), "Handbook of Small Satellites: Technology, Design, Manufacture, Applications, Economics and Regulation" Springer Nature, Switzerland. Vol. 2 pp. 959-975.

Pelton, J. and S. Madry (2020) Global Launch Vehicle Systems for Potential Small Satellite Deployment In J. Pelton and S. Madry (Eds.), "*Handbook of Small Satellites: Technology, Design, Manufacture, Applications, Economics and Regulation*" Springer Nature, Switzerland. Vol. 2 pp. 1,481-1,529.

Madry, S. (2019) "Disruptive Space Technologies and Innovations: The Next Chapter" Springer Nature, Switzerland. 252 pages.

Madry, S., Peter Martinez, and Rene Laufer (2018) "Innovative Design, Manufacturing and Testing of Small Satellites" Springer Nature, Switzerland. 161 pages.

Jones, Elizabeth A., Anna Westin, Scott Madry, Seth Murray, Jon Moen, Amanda Tickner. (2018) How to Operationalize Collaborative Research. in *Issues and Concepts in: Historical Ecology: The Past and future of Landscapes and Regions* eds. Carole Crumley, Anna Westin and Tommy Lennartsson. Cambridge University Press. Pp. 240-275.

J. Pelton, S. Madry, & S. Camacho-Lara, editors (2017) Handbook of Satellite Applications, second edition New York; Heidelberg-Dordrecht; London: Springer. Two volumes, 1,556 pages.

J. Pelton, S. Madry, & S. Camacho-Lara, editors (2017). Satellite Applications Handbook: The Complete Guide to Satellite Communications, Remote Sensing, Navigation, and Meteorology. In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, second edition Vol.1, pp. 3-19.

Madry, S. Introduction and History of Space Remote Sensing. (2017) In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, second edition Vol 1. pp. 823-832

Madry, S. and Joseph Pelton (2017) Electro-Optical and Hyperspectral Remote Sensing. In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, second edition Vol 1. pp. 901-910.

Pelton, J. Scott Madry, and S. Camacho-Lara (2017) Introduction to Space Systems for Meteorology In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, second edition Vol 2. pp. 1161-1170.

Camacho-Lara, S., Madry, S., & Pelton, J. (2017) United States meteorological satellite program. In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, second edition (Vol. 2 pp. 1171-1196). New York; Heidelberg-Dordrecht; London: Springer.

Camacho-Lara, S., Madry, S., & Pelton, J. (2017) International meteorological satellite systems. In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, second edition (Vol. 2 pp. 1197-1219) New York; Heidelberg Dordrecht; London: Springer.

Pelton, J. and Scott Madry (2017) Innovations in Hosted Payloads. In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, second edition (Vol. 2 pp.1223-1236). New York; Heidelberg Dordrecht; London: Springer.

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Madry, S., E. Jones, A. Tickner and D. S. Murray. (2015) "Water and Landscape Dynamics in Southern Burgundy: Three and a Half Centuries of Water Management in an Agricultural Landscape" *Journal of Water History* 7(3):301-335.

Madry, S. (2015) "Global Satellite Navigation Systems" Springer Press, New York, Heidelberg-Dordrecht, London. 110 page book.

Petros C. Dinas, Christian Mueller, Nathan Clark, Tim Elgin, S. Ali Nasseri, Etai Yaffe, Scott Madry, Jonathan B. Clark and Farhan Asrar. (2015) Innovative Methods for the Benefit of Public Health Using Space Technologies for Disaster Response. The Journal of Disaster Medicine and Public Health Preparedness, Cambridge University Press. Available on CJO2015. doi:10.1017/dmp.2015.29.

Stancioff, C, R. Pontius, S. Madry, E. Jones (2015) "Historic Forest Change: New Approaches to Land Use Land Cover" Pp. 65-71, Proceedings of the 42nd Annual Conference on Computer Applications and Quantitative Methods in Archaeology CAA 2014- 21st Century Archaeology. F. Gilligny, F. Djindjian, L. Costa, P Moscati and S. Robert, eds. Archaeopress, Oxford, UK.

Madry, S. (2014) "Space Systems for Disaster Warning, Response and Recovery" Springer Press, New York, Heidelberg-Dordrecht, London, 146 page book. http://www.springer.com/us/book/9781493915125

Pillot, L, L. Saligny and S. Madry (2013) "The evolution of territorial occupation: Exploratory Spatial Data Analysis: Uncertainty and heterogeneity of data in archaeology" in: *Proceedings of the Computer Applications in Archaeology conference*, Southampton, United Kingdom, March 26-29, 2012.

Seth Murray, S., Scott Madry, Elizabeth Ann Jones, Amanda Tickner (2012) "Mills and Ponds: 250 years of continuity and change in the Burgundian landscape." Paper presented to the Nineteenth Century French Studies Colloquium in Raleigh, NC. Session chair" "Agricultural/Landscape History & Rural Life in the Uxeau Commune and Environs (Saone-et-Loire), 1759 to the present, with a special focus on 1834-1925." October 13. In conference proceedings.

Pelton, J., Madry, S., and Camacho-Lara, S. (Eds.). (2012) Handbook of Satellite Applications, Springer, New York, Frankfurt, and London. (Executive co-editor). First edition, 2-volume, 1,226 page reference work.

Pelton, J., Madry, S., & Camacho-Lara, S. (2012) Satellite applications handbook: The complete guide to satellite communications, remote sensing, navigation and

meteorology. In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, (Vol. 1 pp. 3–18). Springer, New York, Frankfurt, and London.

Madry, S. (2012). Introduction and history of space remote sensing In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, (Vol. 1 pp. 657–667). Springer, New York, Frankfurt, and London.

Pelton, J., Madry, S., & Camacho-Lara, S. (2012) Electro-optical and hyper-spectral remote sensing. In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, (Vol. 1 pp. 729–739). Springer, New York, Frankfurt, and London.

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Camacho-Lara, S., Madry, S., & Pelton, J. (2012) International meteorological satellite systems. In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.) Handbook of Satellite Applications, (Vol. 2 pp. 1021–1042). Springer, New York, Frankfurt, and London.

Madry, S., Pelton, J., & Camacho-Lara, S. (2012) Ground systems for satellite application systems for navigation, remote sensing and meteorology. In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, (Vol. 2 pp.1095–1110). Springer, New York, Frankfurt, and London.

Pelton, J., Madry, S. (2012) Common elements versus unique requirements in various types of satellite application systems. In J. Pelton, S. Madry, & S. Camacho-Lara (Eds.), Handbook of Satellite Applications, (Vol. 2 pp.1111–1128). Springer, New York, Frankfurt, and London.

Madry, S., A. E Jones, A. Tickner and S. (2011) "Une Micro-Histoire de la Terre et de L'Utilization des Resources- L'integration des GIS-H (Systemes d'information géographique historiques) et des données qui y sont liées en Bourgogne du sud". Murray in: Le Monde des Cartes, Rapport Cartographique National revue de Comité Français de Cartographie No 208, pp. 75-94, Juin 2011.

Madry, S., and Davis, M. (2011) "The International Space University's Southern Hemisphere Summer Space Program". Paper presented at the 62nd International Astronautical Congress, Cape Town, South Africa. With Michael Davis. Included in the proceedings.

Pelton, J., and Scott Madry (2010) "Satellites Serving Humanity". In: "The Farthest Shore: A 21st Century Guide to Space" by Apogee Books, Canada.

F. Guim, F., E. Oxalap, I. Rodero and S. Madry. (2009) "A Google Earth-Based Distributed Infrastructure to Support Natural Disaster Response." Proceedings: 4th International Conference on Recent Advances in Space Technologies: Space for the Developing World, 11–13 June, 2009, Istanbul, Turkey.

Madry, S., E. Jones and A. Tickner. (2009) "An Improved Extraction of Historical Cartographic Features into GIS: A French Case Study". in: Proceedings of the Computer Applications in Archaeology conference, Williamsburg, Va. USA March 22-26, 2009. In Proceedings, and available online at:

http://www.caa2009.org/articles/Madry Contribution186 a.pdf

Blanton, B., S. Madry, K. Galluppi, K. Gamiel, H. Lander, M. Reed, L. Stillwell, M. Blanchard- Montgomery, R. Luettich, C. Mattocks, C. Fulcher, P. Vickery, J. Hanson, E. Devaliere, J. McCormick. (2008) Report for the State of North Carolina Floodplain Mapping Project: Coastal Flood Analysis System, Submittal No. 1. Renaissance Computing Institute Technical Report TR-08-08, the University of North Carolina at Chapel Hill. https://www.renci.org/wp-content/uploads/2014/03/TR-08-08-small.pdf

Madry, S., (2008) "Des gorilles du Rwanda aux sites archéologiques de la vallée de l'Arroux, Introduction aux nouveaux outiles de cartographie et d'analyse spatiale". in: "La Cartographie au Service de la Recherche et de l'Aménagement du Territoire", Centre Archéologique Européen, Glux-en-Glenne, France.

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Madry, S. (2007) "Hic sunt dracones (Here be dragons): The Integration of Historical Cartographic Data into Geographic Information Systems." In: Between Dirt and Discussion: Methods, Materials, and Interpretation in Historical Archaeology. Steven N. Archer and Kevin M. Bartoy, eds. Springer, New York, pp 33-60.

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Madry, S., Scott Seibel, Ben Resnick, Matt Cole, and Steve Gould. (2005) "Development of a State-wide Archaeological Predictive Model for the North Carolina Department of Transportation and Computerized Archaeological Database for the NC Office of State Archaeology." n: *GIS and Archaeological Site Location Modeling*, Mark W. Mehrer and Konnie L. Wescott, eds. Pp. 292-310. Taylor and Francis Books, Boca Raton Florida.

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Madry, S., Greg Smith, Scott Seibel, Ben Resnick, Matt Cole, and Steve Gould. (2004) "Development of a State-wide Archaeological Predictive Model for the North Carolina Department of Transportation and Computerized Archaeological Database for the NC Office of State Archaeology." In: *Analyzing Space in Time: New Directions for GIS in Archaeology*. Scott Branting, ed., Oxford: Archaeopress.

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Madry, S. (2003) "Practical Aspects of GIS and Predictive Maps from Burgundy, France and North Carolina, USA." Invited paper at: International Conference on Landscape Archaeology and GIS: Predictive Maps – Settlement Dynamics – Space and Territory in Prehistory, Wünsdorf (near Berlin) Germany, Land Brandenburg, Oct. 15th -19th 2001.

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Madry, S., (1999) "Earth Systems Science and Geographic Information Systems," in:

Keys to Space: an Interdisciplinary Approach to Space Studies A. Houston and M. J. Rycroft, eds. McGraw Hill, New York and International Space University, Strasbourg, France.

Madry, S., (1999) Digital images of SIR-C Satellite radar data of the Virunga Mountain Goi Park. in National *Geographic Satellite Atlas of the World*. Page 174. National Geographic Magazine, Washington, D.C.

Steklis, H.D., Gerald-Steklis, N. and Madry, S. (1998) The mountain gorilla: Conserving an endangered primate in conditions of extreme political instability. *Primate Conservation* 17:145-151,1997.

Madry, S., and L. Rakos (1997)"Line-of-sight and Cost Surface Techniques for Regional Archaeological Research in the Arroux River Valley," in: New Methods, Old Problems: Geographic Information Systems in Modern Archaeological Research, edited by H. D. G. Maschner. Center for Archaeological Investigations, Occasional Paper no. 23, 1996, pp. 104-126.

John Hancock's Life and Speeches: A Personalized Vision of the American Revolution, 1763-1793, (1996) by Paul D. Brandes (manuscript negotiated with publisher, completed, re-edited, camera-ready copy produced, and delivered to publisher by S. Madry after the death of Prof. Brandes). The Scarecrow Press, Inc. Lanham, Md. & London.

Madry, S., (1996) Digital 3-d image of SIR-C radar data overlaid on Digital Elevation Model showing Virunga Mountain Gorilla research area. As part of article "Gentle Gorillas, Turbulent Times" by G. B. Schaller p. 69, Vol. 188, No. 4, October, 1995. National Geographic Magazine, Washington, D.C.

Madry., S., and R. Wincek (1995) "Applications of Digital Terrain Data, Archival Maps, Historical Aerial Photographs for Regional Archaeological Analysis," Paper presented 23rd annual meeting of the Computer Applications in Archaeology conference, Leiden Netherlands, April 2, 1995.

Five CD-ROMs published (1992-1995), which contained the most comprehensive global scale GIS/remote sensing data set in existence at the time, done in cooperation with the U.S. Army Corps of Engineers Construction Engineering Research Laboratory, Champagne, IL. and the Institute for Technology Development's Space Remote Sensing Center, NASA Stennis Space Center.

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1995	CD-ROM #5	Global Arc Data
1993	CD-ROM #4	Global Grass Data
1993	CD-ROM #3	Global Grass data
1992	CD-ROM #2	Global Grass data
1992	CD-ROM #1	Global Grass data

Lozar, R. S, Madry, and J. Xu. (1995) "Sites of the World": A New Global GRASS CD-ROM, R. Lozar and J. Xu. In "Proceedings of the International Society for Photogrammetry and Remote Sensing Commission IV Symposium on Mapping and Geographic Information Systems," Athens, Georgia, USA

Madry, S., and R. Lozar (1994) "Global Data and Tutorial to Model Climatic Change and

Environmental Sensitivity" (with R. L. Lozar) pp. 25-45, "Proceedings of the International Workshop on Global GIS, International Society for Photogrammetry and Remote Sensing Workshop IV/6," ISPRS Intercommision Working Group III/IV, Japan Society of Photogrammetry and Remote Sensing. August 24-25, Tokyo, Japan.

Spies, T.E., D.A. Robinson & S.L. Madry (1993) "GIS in the development of regional microwave-based snow cover algorithms". Proceedings of the 8th Annual GRASS GIS User's Conference.

Madry, S., J. A. Cavallo, J. Harris, and R. K. Porter. (1993) Paper The Application of Comp based Geographical Information Systems for the Management of Eastern Africa's Cultural Resources." presented at: Four Million Years of Hominid Evolution in Africa: An International Congress in Honour of Dr. Mary Douglas Leakey's Outstanding Contribution in Paleoanthropology. 12 August, 1993. Arusha, Tanzania.

Madry, S. (1993) "Un Emploe des Systemes de Teledetection et d'information Geographique dans une Analyse Regionale de Repartition Spatiales Archaeologiques," In: Archeologues et Ordinateurs, Lettres d'Information du Centre de Recherches Archeologiques. 17:1-11. Paris: Centre Nationale de la Recherche Scientifique.

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Madry, S. (1990) "The Realities of Hardware," in Interpreting Space: GIS and Archaeology, K. Allen, S. Green, and E. Zubrow, eds. Taylor & Francis, London.

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Johnson. J., Madry, S., and T Sever (1990) "Remote Sensing and GIS Analysis in Large Scale Survey Design in North Mississippi," Vol. 7, Number 2, Winter 1988, pp. 124-131 Southeastern Archaeology.

Madry, S. (1988-1990) Founder and Editor: Remote Sensing Newsletter in Anthropology Archaeology, a quarterly newsletter in remote sensing applications for anthropology and archaeology, international circulation of 600.

Madry, S. (1987) "Remote Sensing in a Temperate Regional Archaeological Survey in France," in Regional Dynamics: Southern Burgundy from the Iron Age to the Present, edited by C. L. Crumley and W. H. Marquardt-published by Academic Press.

Madry, S. (1987) "Téledetection," (Remote Sensing) Vol. No. 56 pp. 2-6. in Echos Du Passé, Revue Periodique de l'Association Les Amis Du Dardon, Gueugnon, France.

Madry, S. (1986) "La Grenouilliers Perdue," Vol. No. 54. in Echos Du Passé, Revue Periodique de l'Association Les Amis Du Dardon, Gueugnon, France with Dr. Carole L. Crumley.

Madry, S. (1986) "Regional archaeological spatial modeling: a test case from the Upper Neuse River basin, North Carolina". North Carolina Collection (Wilson Library) – Thesis Call number C378 UO2 1986 MADRY, S.L.H.

Madry, S. (1984) Multiscalar Applications of Remote Sensing in a Temperate Regional Archaeological Survey. Technical paper of the 50th Annual Meeting of the American Society of Photogrammetry. D. F. Marble and D. J. Peuquet.

Madry, S. (1983) "Remote Sensing in Archaeology." Archaeology Magazine, May-June, 1983 (pp. 18-19).

Madry, S. (1983) "Applications of the Enviro-Pod with DA 85A Panoramic Cameras in South-Eastern historic and prehistoric archaeological survey". Technical Papers of the American Society of Photogrammetry. Annual Meeting 1983.

Madry, S. (1983) A multiscalar application of remote sensing in a temperate regional archaeological survey. North Carolina Collection (Wilson Library) UNC Thesis Anthrop. 1983 M183

Book and Article Reviews

1991 Review of *Basic Photo Interpretation*, by USDA-SCS for *Geographic Information Systems*.

1985 Review of *Roman Britain from the Air* by S. Freer and J.K.S. St. Joseph, *American Antiquity*. Vol. 50, #4 October, 1985.

1983 Review of *Air Photo Interpretation for Archaeologists* by D. R. Wilson, *Archaeology*, November-December, 1983.

TECHNICAL REPORTS AND CONTRACT PUBLICATIONS:

Madry, Scott, and Elizabeth Jones (2015) "Historical Cartographic Research and associated fieldwork in support of Regional Historical Archaeological Project in Burgundy, France". Research Report. Franklin Research Grants, American Philosophical Society.

Madry, Scott, Elizabeth Jones and Amanda Tickner (2013) *"Interdisciplinary History of Rural Water and Land Use in Southern Burgundy, France"*. Online Research Report http://www.doaks.org/research/support-for-research/project- grants/reports/2012-2013/madry. Dumbarton Oaks.

Madry, S., Greg Smith, Scott Seibel, Ben Resnick, Matt Cole, and Steve Gould. (2006) "North Carolina Archaeological Predictive Modeling Project: Results of Task 2: Cabarrus, Chatham, Forsyth, Granville, Guilford, Randolph, and Wake Counties." Prepared for the NCDOT and Federal Highway Administration by Environmental Services, Inc.

Madry, S., Greg Smith, Scott Seibel, Ben Resnick, Matt Cole, and Steve Gould. (2006) "North Carolina Archaeological Predictive Modeling Project: Results of Task 1: Cabarrus, Chatham, Forsyth, Granville, Guilford, Randolph, and Wake Counties." Prepared for the NCDOT and Federal Highway Administration by Environmental Services, Inc. ESI Report of Investigation No. 416, T.I.P Number E-4602. September, 2003. Report on file at ESI and NCDOT.

Madry, S. (2002) "Archaeological Survey and Development of a GIS-Based Site Probability Model: Duval County Florida," With Greg Smith and Matt Cole. Report submitted to Duval County Florida.

Madry, S., (2001) "Archaeological Survey and Development of a GIS-based Site Probability Model: St. Johns County Florida. With Greg Smith and Carrie Whitehill. Report submitted to St. Johns County Florida.

Madry, S., (2001) "White Paper regarding EOSDIS products and services". Provided to the NASA Goddard Space Center's Earth Observation System Data Information System.

Madry, S., (2000) "A GIS-based Analysis of Three Wine-growing Regions in France." Project report of project conducted for the DuPont de Nemours Corporation.

Madry, S., (1998) "The Future of Advanced Commercial Technologies in Space." Report submitted to the U.S. Department of Commerce, Office of Air and Space Commercialization by Futron Corporation, Bethesda, Maryland, through the Futron Corporation, Bethesda, MD.

Madry, S., J.-M. Hartman and R. Bochkay. (1994) "An Analysis of the Potential of Geographic Information Systems for Scenic Highway Analysis and Determination," Report submitted to the New Jersey Department of Transportation.

Madry, S. and T. Airola (1993) "A Watershed Management Program for the Black River and a Portion of the Upper Raritan Basin using Geographic Information Systems Technology," Publication No. P-17508-1-93, New Jersey Agricultural Experiment Station. Report on file-Cook College Remote Sensing Center. (first author and principal investigator)

Madry, S., and C. Crumley (1993) "Integrating Advanced Satellite and Airborne Remote Sensing and Geographic Information Systems Technologies for Regional Archaeological Settlement Pattern Analysis in the Arroux River Valley, Burgundy, France," Report submitted to the National Geographic Society.

Madry, S. and T. Airola (1993) "New Jersey Urban Forestry Demonstration Project: Passaic County Natural Resource Management Database Development Program"," Publication No. P-17518-1-93, New Jersey Agricultural Experiment Station. Report on file-Cook College Remote Sensing Center. (first author and principal investigator)

Madry, S. and T. Airola (1993) "A Wetland Mitigation Siting Study of the Region of the Raritan River Basin Using Geographic Information Systems Technology," Report submitted to the New Jersey Department of Transportation and on file-Cook College Remote Sensing Center. (first author and principal investigator)

Madry, S. and T. Airola (1993) "An Application of Geographic Information System Technology to the Morristown National Historic Park, Morristown, New Jersey," Report submitted to the National Park Service Northeast Region Headquarters and on file-Cook College Remote Sensing Center. (first author and principal investigator)

Madry, S., and C. Crumley (1993) "Integrating Advanced Satellite and Airborne Remote Sensing and Geographic Information Systems Technologies for Regional Archaeological Settlement Pattern Analysis in the Arroux River Valley, Burgundy, France," Report submitted to the National Geographic Society.

Madry, S. and T. Airola (1990) "Pilot GIS Site Evaluation Study," Report submitted to the U.S. Army Corps of Engineers, Baltimore District, and on file-Cook College Remote Sensing Center. (first author and principal investigator)

Hargrove, T., C. Spears, G. I. Williams, and S. Madry (1986) Archeological Investigations of the National Register Bennehan-Cameron Plantation Historic District and the Areas of Proposed Recreational Development and Proposed Wildlife Subimpoundments at Falls Lake, Wake and Durham Counties. Report Submitted by Archaeological Research Consultants, Inc., to the Wilmington District, United States Army Corps of Engineers.

Hargrove, Thomas H., Dennis Lewarch, Scott Madry, Ian Von Essen and Charlotte Brown.(1984). *A Cultural Resource Survey at U.S. Marine Corps Air Station, Cherry Point, North Carolina*. Report submitted to the Archaeological Services Branch, National Park Service, Atlanta. Chapel Hill, N.C.: Archaeological Resource Consultants.

Madry, S. (1984) "Appendix B: Aerial Photography at the Gregg Shoals and Clyde Gully Sites in Archaeological and Geological Investigations at Two Piedmont Sites on the Savannah River: The Final Report on the Gregg Shoals and Clyde Gully Sites," by V. Ann Tippitt and William H. Marquardt. Report submitted to the National Park Service, Atlanta, Georgia.

RECENT CONFERENCE PAPERS, SHORT COURSES AND PRESENTATIONS:

- Half-day and two-hour inter-cultural and presentation skills workshops for the International Astronautical Congress, Baku, Azerbaijan, November.
- 2023 QGIS hands-on short course, Computer Applications in Archaeology conference, Amsterdam, the Netherlands, 1 April 2023.
- 2023 Multiple lectures, hands-on workshops, and field trips for the International Space University Southern Hemisphere Summer Space Program, including program manager of the stratospheric research balloon mission. University of South Australia, Adelaide, Australia, January/February 2023.
- 2022 QGIS hands-on short course, UNC-Chapel Hill Library, Oct. 2022.
- 2022 Invited participant in the United Nations Science Summit for the U.N. General Assembly number 77. Topic: Space systems for disaster planning and response.
- Half-day and two-hour inter-cultural and presentation skills workshops for the International Astronautical Congress, Paris, France, September.
- 2022 Multiple lectures and workshops in Satellite Applications for the International Space University's Summer Space Program, Lisbon, Portugal.

- 2021 Half-day inter-cultural and presentation skills workshop for the International Astronautical Congress, Dubai, United Arab Emirates
- 2019 Anderson, D. Scott Madry, Seth Murray, Elizabeth Jones, and Amanda Tickner Poster Paper "From La Révolution to Now: Mapping Forest Change in Uxeau, France over 253 years". **Co-first prize-winning poster** at the 2019 oSTEAM annual conference, November 14-17, Detroit Michigan.
- 2019 D. S. Murray, Elizabeth Anne Jones and Scott Madry "Interdisciplinary approaches to understanding the bio-cultural heritage of forests in Europe" Presented to the *Rural History Association* in Paris, France, September 13.
- 2018 Half-day inter-cultural and presentation skills workshop for the International Astronautical Congress, Bremen, Germany
- 2017 D. S. Murray, Elizabeth Anne Jones and Scott Madry "Burgundy without wine? Contemporary processes of abandonment of viticulture in France." Paper presented to the Rural History Association in Leuven, Belgium. September 13, 2017.
- 2016 Half-day inter-cultural and presentation skills workshop for the International Astronautical Congress, Adelaide, Australia
- 2016 D. Seth Murray, Anna Westin, Anamaria Iuga, Tommy Lennartson, Eva Gustavsson, Elizabeth Anne Jones, and Scott Madry "The Meadow is the Mother of Fields": methodological challenges and opportunities for comparative landscape research." Paper presented to the Permanent European Conference for the Study of the Rural Landscape in Innsbruck, Austria. September 8.
- 2015 "Burgundy without wine? Contemporary processes of abandonment of viticulture in France." Poster reviewed by the Executive Board and presented at the *American Anthropological Association* in Denver, CO. Nov. 20, 2015 by D. S. Murray, S. Madry and E. Jones
- 2015 Invited Keynote speaker and hands-on GIS workshop convener, The 5th International Conference on Earth Observation for Global Changes (EOGC 2015) & the 7th International Conference on Geo-information Technologies for Natural Disaster Management. UAE University, Al Ain, United Arab Emirates
- 2015 Two week lecturer position as TEMA fellow, the European Union Erasmus Mundus international masters program, Charles University, Prague, the Czech Republic.
- 2015 QGIS and GRASS GIS short course, the Odum Institute, UNC-CH, 5 hours
- 2015 Invited Graduate hands-on GIS studio and public lecture, University of Maryland, School of Information, College Park, MD.
- 2015 Half-day inter-cultural and presentation skills workshop for the International Astronautical Congress, Jerusalem, Israel

- 2015 Invited Ph.D. jury participant, department of Archaeology, the Sorbonne, Paris, France
- 2015 Invited lecture, Singularity University Graduate Studies Program, NASA Ames Research Center, Mountain View, CA.
- 2015 Two invited public lectures "Interdisciplinary Landscape History of the Last Three Centuries in Burgundy, France" and "An Overview of Historical GIS in Historical Ecology: Four Case Studies". And participated in 3-day workshop. Biodiversity Institute, Uppsala University, Uppsala, Sweden.
- 2015 Organizing committee and co-sponsor 3rd Manfred Lachs International Conference on Newspace Commercialization and the Law. March 16-17, 2015, ICAO Headquarters, Montreal, Canada
- 2015 Invited paper and presentation "Future Policy, Legal, and Practical Issues in Global Navigation Satellite Systems (GNSS)". 3rd Manfred Lachs International Conference on NewSpace Commercialization and the Law. March 16-17, 2015, ICAO Headquarters, Montreal, Canada
- ²⁰¹⁵ Tickner, Amanda, Scott Madry, Elizabeth Anne Jones, and Seth Murray 2015 Using Historic Maps in Research: A Case Study of Research in Burgundy France. Paper presented by at the North Carolina Geographical Information Systems Conference. Raleigh, NC February 25-27.
- 2015 Hands-on Open Source QGIS/GRASS course, the Odum Institute, UNC-CH
- 2015 Invited lecture on Open Source tools for disaster management, Copenhagen Center for Disaster Research, University of Copenhagen, Denmark
- 2014 D. Seth Murray, Scott Madry, Elizabeth Ann Jones, and Amanda Tickner "Persistence and Change in the Environmental and Agricultural History of Burgundy, France." Paper presented to the World Congress of Environmental History in Guimarães, Portugal. July 10.
- 2014 One day Open Source GIS/remote sensing workshop, UNC-Greensboro Dept. of Geography
- 2014 Invited lecture, GIS in Anthropology class, UNC-CH
- 2014 Open Source GIS software in Archaeology short course, 5th International Conference on Remote Sensing in Archaeology: The Age of Sensing, 13-15, 2014 Duke University
- 2014 Session chair "Integrated Technologies", 5th International Conference on Remote Sensing in Archaeology: The Age of Sensing, 13-15, 2014 Duke University
- 2014 Conference organizing committee and conference workshop chair, 5th International Conference on Remote Sensing in Archaeology: The Age of Sensing, 13-15, Oct. 2014 Duke University
- 2014 QGIS and GRASS GIS short course, the Odum Institute, UNC-CH, 5 hours.

2014 "Space4Health: Exploring Innovative Ways to Utilize Space for Disaster Relief" by S.

Nasseri, A. Blanc, M. Czapski, S. Madry, D. Williams and F. Asrar. Poster paper presented at the 2014 International Astronautical Congress, Toronto, Canada

- 2014 Half-day inter-cultural and presentation skills workshop for the International Astronautical Congress, Toronto, Canada
- 2014 Half-day inter-cultural and presentation skills workshop for the International Space Education Board, at the International Astronautical Congress, Toronto, Canada
- 2014 Invited Lecture, "Marine Applications for Space Remote Sensing: Pitfalls and Promise" at the Space Generation Congress, Toronto, Canada.
- 2014 Invited 6-day lecture program at Cape Town University's MPhil. in Space Studies program, department of electrical engineering, Cape Town, South Africa. Including 11 lectures, 3 hands-on workshops, 2 public lectures and 1 field trip.
- 2014 Muurray, S Scott Madry, Elizabeth Ann Jones, Amanda Tickner "Persistence and Change in the Environmental and Agricultural History of Burgundy, France". Poster presented at the *World Congress of Environmental History* in Guimaraes, Portugal, July 10
- 2014 Core Chair, International Space University Space Studies Program, Montreal, Canada. Responsible for 4 weeks of lectures and lecturers, quizzes and exams, workshops and advising students.
- 2014 1 Day GIS for disaster management workshop, Regional Centre for Space Science and Technology Education for Latin America and the Caribbean (CRECTEALC), Tuxtla Guitierez, Mexico
- 2014 QGIS and GRASS GIS hands-on workshop, the Odum Institute, UNC-CH
- 2014 University of South Australia (UniSA) Graduate Certificate Program in Space Studies faculty.
- 2014 "Locating and Digitizing Archaeological Features using GPS with Scanned Historical Maps in the Field: Applications for Historical Archaeology" Paper by Scott Madry, Elizabeth Jones, Amanda Tickner, presented to the Computer Applications and Quantitative Methods in Archaeology conference, Université Paris 1 Panthéon-Sorbonne Paris, France, 22nd to 25th April 2014
- 2014 One day hands-on QGIS workshop at the Computer Applications and Quantitative Methods in Archaeology conference, Université Paris 1 Panthéon-Sorbonne Paris, France, 22 April 2014
- 2014 Program manager and lead faculty, 5-week Southern Hemisphere Summer Space Program (SHSSP), International Space University and the University of South Australia. Responsible for 5-week program, lectures, program management, etc.
- 2013 "Water Use in Rural Southern Burgundy: a temporal and spatial analysis" Paper by Seth Murray, Elizabeth Jones, Amanda Tickner, Scott Madry presented to the *Social Science History Association* in Chicago, IL. November 22. 2013

- 2013 Workshop on the Use of Space Science and Technology for the Prevention of and Response to Disasters in Mesoamerica, Tuxtla Gutierrez, Mexico. A 5-day conference on GIS for disaster management, hosted by the United Nations Regional Centre for Space Science and Technology Education for Latin America and the Caribbean (CRECTEALC), I presented two papers and gave a ½ day GIS hands-on workshop.
- 2013 "QGIS and InaSAFE: Open source tools for disaster management". Invited keynote address and ½ day hands-on workshop presented at the 5th Geo-Information Technologies for Natural Disaster Management conference, Dewey College, Mississauga, Ontario, Canada.
- 2013 "The Southern Hemisphere Summer Space Program- Three Years On": Scott Madry and Michael Davis, Paper presented at the 64th International Astronautical Congress, Beijing, China. In session E.1.4 Postgraduate education.
- 2013 Half-day Intercultural and Presentation skills workshop for the 64th International Astronautical Congress, Beijing, China.
- 2013 Methodological Challenges and Opportunities for Interdisciplinary Water History in Burgundy, France by Seth Murray, Elizabeth Jones, Amanda Tickner, Scott Madry. Paper presented at the International Water History Conference in Montpellier, France June 27th 2013.
- 2013 Core lecture chair, the International Space University Space Studies Program, Strasbourg, France. Four weeks of lectures and workshops, responsible for 4-week core lecture program of over 60 lectures, exams, etc.
- 2013 4-day hands-on GIS workshop in archaeology at the centre archéologique européen, Bibracte, France (in French)
- 2013 Field work in Burgundy, France and invited lecture at the Maison des Sciences de l'Homme de Dijon, Université de Bourgogne, Dijon, France
- 2013 Academic Council meeting, International Space University, Strasbourg, France.
- 2013 Program manager and lead faculty, 5-week Southern Hemisphere Summer Space Program (SHSSP), International Space University and the University of South Australia. Responsible for 5-week program, lectures, program management, etc.
- 2012 An Integrative Historical GIS study of rural land use in Southern Burgundy, France. by Elizabeth Jones, Scott Madry, D. Seth Murray and Amanda Tickner. Paper presented in the session "Sustainability in History" of the 37th Annual Meeting of the Social Science History Association Vancouver, British Columbia, November 1-4, 2012
- 2012 Half-day inter-cultural and presentation skills workshop for the International Space Education Board, at the International Astronautical Congress, Naples, Italy.
- 2012 QGIS and GRASS GIS hands-on workshops, the Odum Institute, UNC –CH.
- 2012 Crops and Animal Husbandry: A Dynamic interplay in a Responsive Adaptation to

Environmental and Socio-economic Change. Paper presented in the session Agricultural/Landscape History and Rural Life in Uxeau Commune and Environs, 1759 to the present, with a Special Focus on 1834-1925 by Elizabeth Jones, Scott Madry and Amanda Tickner at the 38th Annual Nineteenth Century French Studies Colloquium, in Raleigh North Carolina, October 11-14, 2012

- 2012 Woods and Vines: Key Components in an Agrarian Repertoire. Paper presented in the session Agricultural/Landscape History and Rural Life in Uxeau Commune and Environs, 1759 to the present, with a Special Focus on 1834-1925 by Amanda Tickner, Elizabeth Jones, Scott Madry at the 38th Annual Nineteenth Century French Studies Colloquium, in Raleigh, North Carolina, October 11-14, 2012
- 2012 "GRASS GIS and QGIS: Open Source GIS". Four-hour short course sponsored by The Odum Institute, University of North Carolina at Chapel Hill.
- 2012 Invited presentation and panel discussant at the United Nations in New York City on "How satellite imagery analysis can benefit NGO humanitarian efforts".
- 2012 Keynote Address entitled "Integrating Space Technologies into Disaster Management Operations "Pitfalls and Promise" for the Global Earth Observation System of Systems (GEOSS) session in the Young Professionals Virtual Forum of the 63rd International Astronautical Congress (IAC) in Naples, Italy.
- 2012 Crops and Animal Husbandry: A Dynamic interplay in a Responsive Adaptation to Environmental and Socio-economic Change. Paper presented in the session Agricultural/Landscape History and Rural Life in Uxeau Commune and Environs, 1759 to the present, with a Special Focus on 1834-1925 by Elizabeth Jones, Scott Madry and Amanda Tickner at the 38th Annual Nineteenth Century French Studies Colloquium, in Raleigh North Carolina, October 11-14, 2012
- 2012 Mills and Ponds: 250 Years of Continuity and Change in the Burgundian Landscape. Paper presented in the session Agricultural/Landscape History and Rural Life in Uxeau Commune and Environs, 1759 to the present, with a Special Focus on 1834-1925 by Scott Madry, Amanda Tickner, Elizabeth Jones at the 38th Annual Nineteenth Century French Studies Colloquium in Raleigh, North Carolina, October 11-14, 2012
- 2012 Woods and Vines: Key Components in an Agrarian Repertoire. Paper presented in the session Agricultural/Landscape History and Rural Life in Uxeau Commune and Environs, 1759 to the present, with a Special Focus on 1834-1925 by Amanda Tickner, Elizabeth Jones, Scott Madry at the 38th Annual Nineteenth Century French Studies Colloquium, in Raleigh, North Carolina, October 11-14, 2012
- 2012 Four day short course on use of open source GIS for archaeology. The University of South Africa, Pretoria, South Africa, Sept 10-14.
- 2012 Invited lecture entitled "The role of geomatics in a long-term historical settlement pattern study", Uppsala University, Sweden. Aug. 30.
- 2012 International Space University Summer Space Program Faculty, Florida Institute of Technology.

- 2012 Visiting Professor, Université François-Rabelais, Tours France for the spring semester. Including weekly GIS and remote sensing hands-on classes, working with students and faculty, and two seminar lectures, invited evening lectures (all in French).
- 2012 Invited participant, "Workshop on the Use of Space Applications in Humanitarian Operations" in Warsaw, Poland. Organized by the Space Research Centre of the Polish Academy of Sciences (CBK), the Main School of Fire Service (SGSP) and Secure World Foundation (SWF).
- 2012 1 day GRASS/QGIS hands-on GIS workshop. Computer Applications in Archaeology annual conference, Southampton, UK.
- ²⁰¹² Program Director, International Space University Southern Hemisphere Summer Space Program, University of South Australia, Adelaide, Australia.
- 2011 "The International Space University's Southern Hemisphere Summer Space Program". Paper presented at the 62nd International Astronautical Congress, Cape Town, South Africa. With Michael Davis.
- 2011 Four day hands-on GRASS/QGIS GIS workshop. Witwatersrand University, Johannesburg, South Africa.
- 2011 Invited participant United Nations SPIDER Conference on the role of social media in disaster response. UN Center, Vienna, Austria. Presentation entitled "The role of advanced technologies in disaster response: the emergency managers perspective".
- 2011 International Space University Summer Space Program Faculty, Technical University, Graz, Austria. 4 weeks.
- 2011 "The use of Google Earth and related virtual globes for archaeological site identification, analysis and protection". Paper presented at the Scientific Computing & Cultural Heritage (SCCH11) conference, hosted by the Heidelberg Graduate School of Mathematical and Computational Methods for the Sciences, Heidelberg University, Heidelberg, Germany July 7-9, 2011
- 2011 Agrarian land use and forest change in Southern Burgundy, France: A multi-source study. Paper presented in the session: Paleoecology and Historical Ecology at the 34th Annual Meeting of the Society of Ethnobiology, "Historical and Archaeological Perspectives in Ethnobiology" in Columbus, Ohio, May 4-7.
- 2011 Program Director, International Space University Southern Hemisphere Summer Space Program, University of South Australia, Adelaide, Australia.
- 2010 Four day short course on use of open source GIS for archaeology. The University of South Africa, Pretoria, South Africa, Sept 10-14.
- 2010 Invited paper "An Application of Community Remote Sensing and GIS" The Myanmar Cyclone and GISCorps Response" in: the session Community Remote Sensing: A New Approach for Geoscience Applications. Geological Society of America annual meeting, Denver, Colorado, November 1-4.

2010 International Space University Summer Space Program Faculty, Strasbourg, France. 4

Weeks.

- 2010 5 Day short course on Satellite Applications at the University of Bahrain "ISU Executive Space Course" through the International Space University, Manama, Bahrain.
- 2009 "Historic Ponds in Rural Southern Burgundy: Water management from the Medieval Period through the Present Day" Elizabeth Jones, Scott Madry and Dennis McDaniel. Presented in session organized by S. Madry "Water Management and Land-Use: An Interdisciplinary Study in Historical Ecology of an Agricultural Landscape in Southern Burgundy from the Middle Ages through the Present Day". First World Congress of Environmental History, Copenhagen Denmark August 4-8, 2009.
- 2009 Madry, Scott, Elizabeth Jones, and Amanda Tickner "An Improved Method for Extraction of Historical Cartographic Features into GIS: A French Case Study". Paper presented at the 37th Computer Applications and Quantitative Methods in Archaeology Conference: Making History Interactive, in Williamsburg, Virginia March 22-26, 2009.
- 2009 Scientific Committee member at: Computer Applications and Quantitative Methods and Archaeology Conference "Making History Interactive," Williamsburg, Virginia.
- 2009 "Status of Renaissance Computing Institute Disaster Technology Initiatives." At: North Carolina Emergency Managers Association Meeting, Sunset Beach, NC.
- 2009 "Personal Locator Beacons, Satellite Search and Rescue Technologies." At: North Carolina Emergency Managers Association Meeting, Sunset Beach, NC.
- 2009 "The URISA GIS Corps and the Myanmar Cyclone Project." At: North Carolina Geographic Information Systems Conference, Raleigh, NC.
- 2009 "Public GIS, Automated Vehicle Tracking, and the NC GIS Disaster Volunteer Program," with Greg Dobson of UNC–Asheville. At: North Carolina Geographic Information Systems Conference, Raleigh, NC.
- 2009 "The Renaissance Computing Institute Geospatial Initiative." Poster paper at: North Carolina Geographic Information Systems Conference, Raleigh, NC.
- 2008 "The Application of Space Technologies for International Disaster Management." Invited paper at: Space Technologies for Disaster Response and Planning Half-day Seminar on Advanced Space Technologies for Civil Defense and Disaster Management Chair and moderator, session titled: "Defense and Security," Global Space Technology Forum, Space Technology Commercialization for the Future, Abu Dhabi, United Arab Emirates 16–18 November 2008.
- 2008 "Our New Digital World from Space: How Advanced Technologies are Changing Your World." University of North Carolina at Chapel Hill Fall Community Classroom Series (The William and Ida Friday Center for Continuing Education).
- 2008 Invited Dinner Speaker at: NCAUG Fall Conference September 17–19, 2008 Carolina Beach, NC. The NC GIS Disaster Team, chair of session titled: "GIS in Emergency Management."

- 2007 "Google Earth for Scientific Regional Analysis," with Amanda Henley. Two-hour short course sponsored by The Odum Institute, University of North Carolina at Chapel Hill.
- 2007 "Advanced Video Teleconferencing and Shared Authoring Web Space Development for the North Carolina Emergency Management Community." At: annual meeting of the NC Emergency Management Association, Sunset Beach, NC.
- 2007 "CURISA & CGITA GIS in the Carolinas Conference," Embassy Suite Hotel Resort & Conference Center, Charlotte, Concord, North Carolina. At: URISA GIS Corps and Recent Myanmar (Burma) Disaster Project, chair of session.
- 2007 Invited Lecture at the Shen Zhou Institute, Beijing, hosted by the China Academy of Space Technology and China Aerospace Science and Technology Corporation.
- 2007 Invited lecture at the Institute of Digital China, Peking University, Beijing China.
- 2007 Invited lecture at the International Space University, Space Odyssey Institute, Beihang University, Beijing China.
- ²⁰⁰⁷ Madry, S., C. Crumley and S. Renfrew "Burgundy through Space and Time" in Sensing Our Planet, National Aeronautics and Space Administration Earth Science Research Features: Annual Report, pp. 2-7.
- 2006 S. Madry "An Evaluation of Google Earth for Archaeological Aerial Prospection and Site Survey" paper presented at: Digital Discovery: Exploring New Frontiers in Human Heritage. CAA 2006. Computer Applications and Quantitative Methods in Archaeology. Proceedings of the 34th Conference, Fargo, United States, April 2006.

Additional presentations and workshops back to 1978 available upon request.

MAJOR CONSULTANCIES:

2005-08 Consultant to the government of the Isle of Man for Geospatial data integration and display in Google Earth.

2005-08 Consultant for the Renaissance Computing Institute, University of North Carolina at Chapel Hill, for geomatics research in disaster response. Funded by FEMA and State of North Carolina for the North Carolina Division of Emergency Management.

2000-06 Consultant for Environmental Services, Inc. of Jacksonville, Florida, for various GIS and remote sensing services, including in-house training, proposal preparation, project management, and strategic planning.

1996 Consultant and subject matter expert for the Discovery Channel documentary entitled *High-Tech Archaeology*.

1996 Consultant to the Discovery Channel documentary entitled The Satellites.

1996 Consultant to United Nations UNISTAR (United Nations International Short-Term Applications Consultancies), Turkey. 1996 Consultant to Kennedy and Marshall, producers of the film CONGO.

1995 Consultant to NATO for geomatics technology transfer to Turkey.

1988-89 Editorial Consultant, Time Life Books Inside Computers series.

Memberships:

Corresponding member of the International Academy of Astronautics, Paris, France (member of the working group on the role of space in society, the workforce development and young professionals committee, and the Space Education and Outreach committee), Sigma Xi, Lambda Alpha (the anthropology honors society- a founding member of the UNC-CH chapter), American Association of Aeronautics and Astronautics (senior member), American Society of Photogrammetry and Remote Sensing (former Chairman of the Archaeology and Anthropology Committee of the Remote Sensing Applications Division of the Society, former chair of the RSAD GIS liaison committee and member of GIMS committee), NC Society of Photogrammetry and Remote Sensing (current chair of the education committee), and the Fulbright Alumni Association. Former director of the Orange County, NC chapter of the American Red Cross (3 years), and former director of the Global Environmental Institute, EcoAccess Foundation, the Global Space Institute, and the Open GIS Foundation. Former member of the New York Academy of Science.

Peer Review and Graduate Committees:

Peer review services have been provided to: Journal of Field Archaeology, American Antiquity, National Geographic Society, the Journal of Computer Applications in Archaeology, Photogrammetric Engineering and Remote Sensing, Acta Astronautica, ISPRS, National Science Foundation, NASA, US Department of Commerce, US DOD, US Army Corps of Engineers, the European Space Agency, Czech Science Foundation, Fulbright Scholars Program, the MacArthur foundation, and others.

I was the advisor for seven successful M.S. students at Rutgers, and have served as a Ph.D. or Masters committee member or external examiner for students at UNC-Chapel Hill, Rutgers University, Université Paris 1 Panthéon-Sorbonne Paris, the University of Copenhagen, the University of the Witwatersrand in Johannesburg, South Africa, the University of Cape Town, South Africa, and Università di Corsica Pasquale Paoli, Corsica, France.

AWARDS AND HONORS:

2023 Award from the American Red Cross Disaster Services for twenty years of volunteer service.

2020 Elected a corresponding member of the International Academy of Astronautics, Paris, France

2018 Fulbright Specialist Award to teach at the University of Cape Town, South Africa.

2018 Gold President's Volunteer Service Award for volunteer work done for the American Red Cross disaster services.

2017 Village Pride "Hometown Hero" award for local community service with the American Red Cross, from WCHL radio, second award.

2012 President's Volunteer Service Award, presented by President Barak Obama, for volunteer work done for the URISA GIS Corps.

2011 Fulbright Senior Specialist Award for teaching and research at the University of the Witwatersrand, Johannesburg, South Africa.

2009 Village Pride "Hometown Hero" award for local community service with the American Red Cross, from WCHL radio.

2005 Fulbright Senior Specialist Award for teaching and research at the Université de Bourgogne in Dijon, France.

2005 Certificate of Appreciation for service in the Hurricane Katrina relief efforts from the American Red Cross.

2005 Certificate of Appreciation for service in the 2005 Hurricane season relief efforts from the American Red Cross.

2003 Annual Historic Preservation Award from Jacksonville Historic Preservation Commission for GIS archaeology predictive model developed for Duval County Florida.

2003 Certificate of Recognition for service in the Hurricane Isabel relief efforts from the American Red Cross.

2003 Good Neighbor Award for significant humanitarian contributions in support of the American Red Cross.

2002 Orange County Key Volunteer Award for work with the American Red Cross.

2002 Special Citation for Exceptional Volunteer Service in the 9/11 Disaster from the American Red Cross.

2001 Orange County, NC Chapter of the American Red Cross Volunteer of the Year.

1997 Konstantin E. Tsiolkovsky Medal, awarded by the Tsiolkovsky Museum of the History of Cosmonautics, Kaluga, Russia, for efforts in support of the ideals of K.E. Tsiolkovsky and international cooperation in space research and education.

1995 Merit Award, Rutgers University

1994 Merit Award, Rutgers University

1004 Elected to the Academic Council (faculty senate), International Space University, reelected in 1996 and 2010

1992 Nominated for President's Award, Rutgers University.

1991 Merit Award, Rutgers University.

1991 Research featured in the *McGraw Hill Yearbook of Science and Technology*, McGraw Hill Publishers: Lanham, MD.

1969 National Daughters of the American Revolution Annual Medal for Academic Achievement.

RESEARCH GRANTS AND CONTRACTS:

I have been P.I. or co P.I. on US\$5million in grants and contracts from local, state, and US federal agencies, private foundations, commercial corporations, international organizations, and foreign states. These include the National Science Foundation, the National Geographic Society, NASA, US Department of Agriculture, USAID, US Army Corps of Engineers, US Department of Transportation, US Department of Commerce, US Soil Conservation Service (now US Natural Resources Conservation Service), US Forest Service, US National Park Service, EPA, the States of North Carolina, Florida, and New Jersey, the government of Bahrain, the government of Canada, the government of the Isle of Man, E. I. DuPont de Niemours, Inc. the J. M. Kaplan fund, the World Monument Fund, the Dian Fossey Gorilla Fund, the American Philosophical Society, Dumbarton Oaks Harvard University Research Institute, the Educational Foundation of America, and others. (n.b. These do not include commercial contracts through Informatics International, Inc.)

- 2016 \$6,000 from the American Philosophical Society's Franklin Research Grant program in 2016 for Burgundian field work.
- 2015 \$10,000 from the Dumbarton Oaks program in garden and landscape studies, Harvard University for Burgundian field work.
- 2015 \$7,500 from the J. Burke Trust for Burgundian regional research.
- 2004 \$2,000 UNC faculty travel funding with Prof. Carole Crumley for Burgundy work.
- 2002 \$18,900 Mountain Gorilla Geomatics analysis USAID to Dian Fossey Gorilla Fund.
- 2001 \$12,500 White Paper regarding EOSDIS products and services. NASA Goddard Earth Observation System Data Information System.
- 2001 \$32,000 A GIS Archaeological Predictive Model for Duval County, Florida. Through ESI, funded by St. Johns County, FL.
- 2001 \$750,000 initial funding, and \$350,000 follow-on funding. Development of a State-wide Archaeological Predictive Model". In conjunction with ESI of Jacksonville, FL and GAI Consultants of Pittsburgh, PA. A three-year project selected by NCDOT and funded by the US Department of Transportation. I was the P.I.
- 2000 \$8,000. A GIS-based analysis of three wine growing regions in France. Funded by E. I. DuPont de Niemours.

At

Rutgers

^{1996 \$35,000.} An Integrated Application of Geomatics to the Ani Site, Eastern Turkey, from

the J. M. Kaplan Fund and World Monument Fund, New York.

- 1995 \$15,000 from the Dian Fossey Gorilla Fund. A Proposal to the Dian Fossey Gorilla Fund for the Production of a Satellite-derived Base Map, GIS Database, and Purchase of GPS Receivers to Support the Karisoke Research Center, Rwanda-Phase II S. Madry, Principal Investigator, with Dr. Dieter Steklis as Co-PI.
- 1994 \$675,000 (over 3 years) Public Use of Earth and Space Science Data Over the Internet: Usability and Interoperability: a Dual strategy for Enabling Broader Public Use of NASA's Remote Sensing Data on the Internet," C. Behrens (Bell Communications Research), Principal Investigator, S. Madry, (Rutgers), D. Schell (Open GIS Foundation), J. Green (NASA Goddard NSSDC), Q. Ellis (Camber Corp), Co-PIs.
- 1993 \$29,900 from the Dian Fossey Gorilla Fund for the Production of a Satellite-derived Base Map, GIS Database, and Purchase of GPS Receivers to Support the Karisoke Research Center, Rwanda," S. Madry, Principal Investigator with Dr. Dieter Steklis as Co-PI.
- 1993 \$76,450 Research, Teaching and Public Outreach Enhancement at Rutgers Center for Remote Sensing and Spatial Analysis and Institute for Marine and Coastal Sciences, from Sun Microsystems Computer Corporation. S. Madry and S. Glenn, co-Pls.
- 1993 \$98,238 from U.S. Environmental Protection Agency-Region II. Digital Data Development for EPA Region II, Site Discovery and Oil Spill Response/Planning Programs, with Dr. R. Lathrop as Co-Pl.
- 1993 \$87,000 from New Jersey Department of Transportation. A Wetland Mitigation Siting Study of the Region of the Raritan River Basin Using Geographic Information Systems Technology.
- 1993 \$112,000 from New Jersey Department of Transportation. Wetlands Mitigation Bank Site Selection Project-Passaic County.
- 1993 \$9,650 from U.S. Army Corps of Engineers Construction Engineering Research Laboratory (USA/CERL). Global GIS Soils Data Reliability Evaluation.
- \$22,000 from New Jersey Office of State Planning. (Co-Pl with Dr. J.M. Hartman as Co-Pl). Scenic Highway Planning Program: GIS Data Base Development and Analysis.
 \$497,000+ over 5 years. Passaic Watershed Regional Watershed GIS Project. (U.S. Federal Court Consent Decree funded).
- 1992 \$79,800 in equipment grants. Sun Microsystems Academic Enhancement Grant of 8 Sun workstations for the Cook College Remote Sensing Center for GIS and remote sensing education and research.
- 1991 \$50,000 USDA/SCS Great swamp watershed management GIS development program \$10,000 per year for 5 years.
- 1991 \$93,000 National Science Foundation, "A Remote Sensing Investigation of Social and Environmental Change in Papua, New Guinea Tropical Forests: The Impacts of Common Property Resource Exploitation." (Co-PI with Dr.

George Morran as PI).

- 1991 \$79,600. Educational Foundation of America. Providing computerized Geographic Information Systems and remote sensing education to the Kenya Wildlife Service for use in African wildlife ecology and park management.
- 1991 \$10,000 USDA/SCS Great swamp watershed management GIS development program \$10,000 per year for 5 years (year 1).
- 1991 U.S. Army Corps of Engineers, Construction Engineering Research Laboratory, Cooperative research and development agreement to jointly develop and market the GRASS Global DC-ROM database.
- 1991 \$95,000. USDA Forest Service, Urban Forestry GIS cooperative research project with Passaic County, New Jersey.
- 1990 \$12,000 U.S. National Park Service, Northeast Regional Office. GIS Database Development for Morristown National Historical Park.
- 1990 \$6,500. U.S. Army Corps of Engineers, Baltimore District, "Pilot GIS Site Evaluation Study."
- 1990 \$82,000 New Jersey Council on Affordable Housing "Vacant Land Assessment of New Jersey Using Remote Sensing. (Co-PI with Dr. Teuvo Airola as Co-PI).
- \$250,000. 5-year cooperative R&D agreement with USDA Soil Conservation Service.
 "Inventory Development--Continued Remote Sensing Applications in New Jersey."
 \$50,000/year, (Co-PI with Dr. Teuvo Airola, as Co-PI).
- 1989 \$241,000. New Jersey Agricultural Experiment Station, Cook College, Rutgers University. "A Watershed Management Program for the Black River and a Portion of the Upper Raritan Basin." (Co-PI with Dr. Teuvo Airola as Co-PI).

At

- NASA 1988 \$1,000,000* U.S. Army Corps of Engineers Construction Engineering Research Laboratory. Two year, \$500,000 per year, open-ended contract to provide GIS and remote sensing services, including training, database development, and other services. *Slightly less than the total amount was provided.
- 1986 \$5,000.00 Grant from Gannett Foundation for production of "Remote Sensing Newsletter in Anthropology_and Archaeology."
- 1986 \$37,000.00 "Remote Sensing and Archaeological Research Design in North Mississippi," 1 U.S. Army Corps of Engineers, Vicksburg District, with Dr. Jay Johnson and Thomas L. Se NASA.
- 1986 \$25,750.00 National Science Foundation United States France Cooperative Science Program to collaborate in remote sensing and archaeology at the United Nations Environment Programme, Global Resource Information Database (UNEP-GRID) in Geneva, Switzerland. NSF INT- 8614319, Co-PI with Dr. Carole L. Crumley as PI.

At UNC- CH		
1986	\$33,500 National Geographic Society "Remote Sensing Applications to Regional Archaeological Survey" Co-PI with Dr. Carole L. Crumley as PI.	
1986	\$1,500 Grant from National Science Foundation (through AAAS, section H) for production of Remote Sensing Newsletter in Anthropology and Archaeology.	
1984	\$1,000 UNC-CH Research Council grant VP565, "The Analysis of Archaeology Settlements at a Regional Scale: An Application of Digital Terrain and Environmental Data," with Dr. Roy S. Dickens, Jr.	
1981	\$1,000 UNC-CH Research Council grant VP318, "The Analysis of Archaeology Settlements at a Regional Scale: An Application of Low-Level Aerial Photography," with Dr. Carole L. Crumley.	
1980	\$1,000 UNC-CH Research Council grant VC939, "The Analysis of Archaeology Settlements at a Regional Scale: An Application of Satellite Imagery Analysis," with Dr. Carole L. Crumley.	
1979	\$1,000 UNC-CH Research Council grant VC899, "The Analysis of Archaeology Settlements at a Regional Scale: An Application of Low-Level Aerial Photography," with Dr. Carole L. Crumley.	
PUBLIC SERVICE:		

I have been a volunteer for the American Red Cross for 20 years, including multiple deployments for regional and national disasters, including hurricanes, fires, ice storms, floods, Hurricane Katrina, and the 9/11 disaster. I am an advanced disaster instructor and have given over 30 Red Cross disaster services courses. I was a local Disaster Action Team Captain for 7 years, responding to local house fires and incidents on call, and was a member of the Board for the Orange County, NC chapter for 3 years. My current primary work is as a government liaison officer, working at federal, state, and local Emergency Operations Centers to coordinate the disaster response.

I also volunteer for the URISA GIS Corps, which provides remote geomatics support for international disasters, including working remotely for disasters in Myanmar and Australia.