

Mark D. McCoy

Department of Anthropology
909 Antarctic Way
Florida State University
Tallahassee, FL 32304

Email: mark.mccoy@fsu.edu
Website: <https://myweb.fsu.edu/mm23cu/index.html>
Office: 218 Carraway Building

Education

2006 PhD, University of California, Berkeley, Anthropology
1999 MA, University of Auckland, Anthropology, First class honors
1997 BA, University of New Mexico, Anthropology, *magna cum laude*

Employment

2024-present Department Chair, Anthropology, Florida State University
2023-present Professor, Anthropology, Florida State University
2014-23 Associate Professor, Anthropology, Southern Methodist University
2013-14 Senior Lecturer, Anthropology, University of Otago
2009-12 Lecturer, Anthropology, University of Otago
2006-09 Assistant Professor, Anthropology, San José State University
2005-06 Adjunct Lecturer, Anthropology, San José State University

Publications

Books

Kirch, P.V. with **M.D. McCoy**. (2023) *Feathered Gods and Fishhooks: The Archaeology of Ancient Hawai'i*. Second edition. University of Hawaii Press.

McCoy, M.D. (2020) *Maps for Time Travelers: How Archaeologists Use Technology to Bring Us Closer to the Past*. University of California Press.

Journal Articles (peer-reviewed)

h-index: 27

69. **McCoy, M.D.**, Moncrieff, H. (2026) The importance of fit-for-purpose evaluation in computer vision in archaeology: A case study in extracting geospatial data from legacy archaeological maps. *Heritage* 9 (8) 327
68. Shepardson, Britton L., Manuel Aguilar, Margarita Amezcuita, Lexy Apaza, Carlos Arriagada, Hiva Atan, Javiera Ayala, José Pablo Ayala, Frank Baca, Mauricio Baca, Manoa Boulineau, Sindbad Boulineau, Antonela Cadagan, Ermelina Calderón, Javi Campos, Mana'u Cardinali, Azumi Ccanto, Vicente Cifuentes, Isidora Contreras, Jean Cruces, Silvana Cruces, Shomara Cruz, Martín Cuevas, Jhojan Cusihuata, Ma'aranui Enright, Angélica Figueroa, Pamela Figueroa, Renata Foitzick, Benjamin Fuentes, Fernando Ganga, Gabriel González, Luz González, Andrés Guzman, Maria Homberger, Mata'u Hugueño, Hitu Icka, Vai Icka, Hanga Ika, Patricio Lagos, Hoa Laharoa, Mary Lopez, Dayana Lovon, Gabriela Maldonado, **Mark McCoy**, Omar Monares, Fernanda Mondaca, Alison Montoya, Alonso Montoya, Mara Mulrooney, Sofiu Muñoz, Heirangi Olivares, Miru Pakarati, Hiva Iti Pakomio, Apetahi Quiroz, Juan Manuel Quispe, Maryori Quispe, Georgina Riroroko, Repahoa Riroroko, Fernando Rivera, Antonia Rojas, Rocío Rupay, Amado Soto, Dorita Suarez, Rocío Teao, Ukita Teao, Mana Ora Teave, Kio Tuki,

- Moana Tuki, Angel Valdes, Josefa Vargas, Gabriel Vera, Valentina Vicencio, and Valentina Wilkins. 2025. Terevaka Archaeological Outreach (TAO) 2023–2024 Field Report: Making Public Archaeology Less about Archaeology and More about Community Engagement. *Journal of Polynesian Archaeology and Research* 2:61-72.
67. Mehta, Jayur Madhusudan, Chamberlain, Elizabeth L., Helmer, Matthew, Haire, Elizabeth, **McCoy, Mark D.**, van Beek, Roy, Wang, Haizhong, Yu, Siyu. 2025. Preserving coastal environments requires an integrated natural and cultural resources management approach. *PNAS Nexus*, 4(4):2025. <https://doi.org/10.1093/pnasnexus/pgaf090>
66. **McCoy, M.D.**, J. Birch, S. Chirikure, P. Cruz, A.S. Green, D. Gronenborn, D. Lawrence, & P. Roscoe, (2025). War both reduced and increased inequality over the past 10,000 years. *Proceedings of the National Academy of Sciences, USA* 122 (16) e2400695121, <https://doi.org/10.1073/pnas.2400695121>
65. Bogaard, A., P. Cruz, M. Fochesato, J. Birch, G. Cervantes Quequezana, S. Chirikure, E.R. Crema, G.M. Feinman, A.S. Green, H. Hamerow, G. Jin, T. Kerig, D. Lawrence, **M.D. McCoy**, J. Munson, S.G. Ortman, C.A. Petrie, & P. Roscoe. (2025). Labor, land, and the global dynamics of economic inequality. *Proceedings of the National Academy of Science, USA* 122 (16) e2400694122, <https://doi.org/10.1073/pnas.2400694122>.
64. Kohler, T.A., A. Bogaard, S.G. Ortman, E.R. Crema, S. Chirikure, P. Cruz, A. Green, T. Kerig, **M.D. McCoy**, J. Munson, C. Petrie, A.E. Thompson, J. Birch, G. Cervantes Quequezana, G.M. Feinman, M. Fochesato, D. Gronenborn, H. Hamerow, G. Jin, D. Lawrence, P.B. Roscoe, E. Rosenstock, G.K. Erny, H. Kim, R. Ohlrau, J.W. Hanson, L. Fargher Navarro, & M. Pailles. (2025). Economic inequality is fueled by population scale, land-limited production, and settlement hierarchies across the archaeological record. *Proceedings of the National Academy of Science, USA*. 122 (16) e2400691122, <https://www.pnas.org/doi/10.1073/pnas.2400691122>.
63. Chuan-Chou Shen, Felicia Beardsley, Shou-Yeh Gong, Osamu Kataoka, Minoru Yoneda, Yusuke Yokoyama, Chun-Yuan Huang, Hsun-Ming Hu, Sze-Chieh Liu, Hong-Wei Chiang, Hsin-Lin Wei, Yun-Chuan Chung, Leilei Jiang, Albert Yu-Min Lin, James Fox, Mordain David, Jason Lebehn, Jason Barnabas, Gus Kohler, Zoe T. Richards, Jean-Paul A. Hobbs, **Mark D. McCoy** (2024). Links between hydroclimatic histories and the rise and fall of a Pacific Chiefdom. *PNAS Nexus* 3(10):399, <https://doi.org/10.1093/pnasnexus/pgae399>
62. Shepardson, Britton L., Alvaro Alexiz Espinoza Alvarez, Lexy Apaza Quispe, Hanna Araki Hey, Otea Araki Villaseca, Carlos Arriagada, Mahorangi Atan Hotu, Daniel Atariki Gajardo Troncoso, Sharlim Azumi Ccanto Pumacchua, Frank Deivid Baca Curillo, Mauricio Baca Cabeza, Yonathan Baigorria, Jamie Bellian, Renato Berospi Huaman- Baji, Kaitlyn Bolland, Manurangi Castillo Pont-Hill, Brooklyn Christofis, Silvana Cruces, Marama Rangi Hetu'u Del Carmen Tepano Tikare, Miguel Duran Riroroko, Analía Gaete, Yeraldly Gallardo, Luz Gonzalez Mancilla, Andrés Guzman, Natalie Hansen, Anastasia Vaihoa'ata Haoa Delgado, Nainoa Haoa Paoa, John Alexander Huaman Montoya, Meri Icka Otero, Patricio Lagos, Gabriela Maldonado, Morgan Mallek, Sindbad Manae Boulineau, Mikaela Marcavillaca Bujaico, Heinui Mardones Riroroko, **Mark McCoy**, Atariki Mejias, Omar Monares, Fernanda Mondaca Rodriguez, Alonso Montoya Marcavillaca, Shelby Morgan, Princesa Moulton Atán, Ssunmy Navarro Huanca, Nehe-Nehe Vaihoa'ata Pate Tepano, Toui Rangi Quiroz, Yannely Quispe Huanca, Piero Ramos Olivera, Elisa Reinante Gutiérrez, Isabella Vaikaranga Reyes Pakarati, Sofia Riquelme Gutiérrez, Sydney Rittershaus, Po-patiri Rivera Pakarati, Juan José Rodriguez Moreno, Yilian Romero, Gabriela Salas Barria, Rodrigo Sallo Quispe, Andrew Svabik, Anapuakatiki Tepano Gutiérrez, Baruc Ote Rangi Ta'ava Nui Tepano Tuki, Amely Tiznado Soto, David Torres, Moeto Vai Kikiri Roa Tuki Teao, Tau ao Tuki Hey He, Rocío Vallejos Bermedo, Angeles Vargas Alvarez, Tau a hiro Vera Rapu, Valentina Vicencio, Max Willetts, Hiti Rau Williams Morales Hey, Jose Fernando Yucra

- Delgado, and Yanella Zapata (2023) Terevaka Archaeological Outreach (TAO) 2022-2023 Field Report: Program Expansion. *Journal of Polynesian Archaeology and Research* 1:79-86.
61. **McCoy, Mark D.** Tam-Sing, Tracy, Yent, Martha, Horsburgh, K. Ann. (2023) Report on Midden Exposed by Coastal Erosion in Lapakahi State Historical Park, North Kohala District, Hawai‘i Island. *Journal of Polynesian Archaeology and Research* 1:32-46.
 60. **McCoy, Mark D.**, Panuska, J. (2023) Visible Wealth in Past Societies: A Case Study of Domestic Architecture from the Hawaiian Islands. *Cambridge Archaeology Journal*.
<https://doi.org/10.1017/S0959774323000331>
 59. Quintus, S. Dye, T., Mills, P. Lundblad, S. Balai, C. Rieth, T.M., Filimoehala, D., Filimoehala, C.W., Morrison, A.E., Tulchin, J., Duarte, T. **McCoy, M.D.**, and P. Jiang (2023) The Patterning of Volcanic Glass Transfer across Eastern O‘ahu Island, Hawai‘i *Journal of Archaeological Science: Reports* 52(2023)104282.
 58. Sefton, J.P. Kemp, A.C., Engelhart, S.E., Ellison, J.C. Karegar, M.A., Charley, B., and **M.D. McCoy**. (2022) Implications of anomalous relative sea-level rise for the peopling of Remote Oceania. *Proceedings of the National Academy of Science, USA*. 119 (52) e2210863119.
 57. Butler, C.M.V., Stevenson, C.M., **McCoy, M.D.**, Jorgensen, A. and T.N. Ladefoged. (2022) Temporal patterns in the economization of obsidian use in Aotearoa New Zealand. *Journal of Island and Coastal Archaeology*. 10.1080/15564894.2022.2135649.
 56. Horsburgh, K.A., Gosling, A.L., Cochrane, E.E., Kirch, P.V., Swift, J.A., and **M.D. McCoy**. (2022) Origins of Polynesian Pigs Revealed by Mitochondrial Whole Genome Ancient DNA. *Animals* 2022, 12, 2469.
 55. **McCoy, M.D.**, Casana, J., Hill, A.C., Laugier, E.J., and T.N. Ladefoged (2022). Mapping Ancient Architecture Via Unpiloted Aerial Vehicle-Acquired Lidar: A case study of the Hōlualoa Royal Centre, Kona District, Hawaii Island. *Journal of the Polynesian Society* 131 (1):71-92.
 54. **McCoy, M.D.**, Cheng, H., Mulrooney, M.A., and T.N. Ladefoged (2022). Garden Offerings in the Kona Field System, Hawai‘i Island: A fine-grained chronology and its implications. *American Antiquity*. DOI: <https://doi.org/10.1017/aaq.2022.3>.
 53. Casana, J., Laugier, E.J., Hill, A.C., Reese, K.M. Ferwerda, C., **McCoy, M.D.** and T.N. Ladefoged. (2021) Exploring Archaeological Landscapes Using Drone-Acquired Lidar: Case Studies from Hawai‘i, Colorado, and New Hampshire, USA. *Journal of Archaeological Science: Reports* 39: 103133.
 52. **McCoy, M.D.**, Casana, J., Hill, A.C., Laugier, E.J., Mulrooney, M.A. and T.N. Ladefoged. (2021) Unpiloted Aerial Vehicle Acquired Lidar for Mapping Monumental Architecture: A Case Study from the Hawaiian Islands. *Advances in Archaeological Practice* 9(2):160–174.
 51. **McCoy, M.D.** (2021) Defining the Geospatial Revolution in Archaeology. *Journal of Archaeological Science: Reports* 37:102988.
 50. **McCoy, M.D.** (2021) Archaeology of Poverty (‘Ilihune) in the Hawaiian Islands. *Hawaiian Archaeology* 15:7-14.

49. **McCoy, M.D.**, Cervená, C., Mulrooney, M., McAlister, Kirch, P.V. (2020) Obsidian and Volcanic Glass Artifact Evidence for Long-Distance Voyaging to the Polynesian Outlier Island of Tikopia. *Quaternary Research* 98:49-57.
48. Hermann, A., Forkel, R., McAlister, A., Cruickshank, A., Golitko, M., Kneebone, B., **McCoy, M.D.**, Reepmeyer, C., Sheppard, P., Sinton, J., Weisler, M. (2020). Pofatu, a curated and open-access database for geochemical sourcing of archaeological materials. *Scientific Data* 7:141.
47. Ladefoged, T.N., **McCoy, M.D.**, Graves, M.W. (2020) Collective action and political agency in the leeward Kohala hinterlands, Hawai'i Island. *Journal of Pacific Archaeology* 11(1):10-20.
46. **McCoy, M.D.** (2020) The Site Problem: A critical review of the site concept in archaeology in the digital age. *Journal of Field Archaeology*. 45(S1):S18-S26.
45. **McCoy, M.D.**, Ladefoged, T.N. (2019). In Pursuit of Māori Warfare: New archaeological research on conflict in pre-European contact New Zealand. *Journal of Anthropological Archaeology* 56:10113.
44. Stephens, L. et al. (2019). Archaeological assessment reveals Earth's early transformation through land use. *Science* 365(6456):897-902.
43. Reeder-Myers, L.A., **McCoy, M.D.** (2019). Preparing for the future impacts of mega storms on archaeological sites: an evaluation of flooding from Hurricane Harvey, Houston, Texas. *American Antiquity*. 84(2):292-301.
42. Ladefoged, T.N., Gemmell, C., Jorgensen, A., Glover, H., Stevenson, C., **McCoy, M.D.** O'Neale, D.O. (2019). Social network analysis of obsidian artefacts and Māori interaction in northern Aotearoa New Zealand. *PLoS ONE* 14(4):e0216420.
41. **McCoy, M.D.**, Gemmell, C., Jorgensen, A., Glover, H., Stevenson, C., McCoy, M.D. O'Neale, D.O., Ladefoged, T.N. (2019). Geochemical Sourcing of New Zealand Obsidians by Portable X-Ray Florescence from 2011 to 2018. *Journal of Open Archaeology Data*. <http://doi.org/10.5334/joad.52>.
40. Flexner, J.F., Field, J.S., **McCoy, M.D.**, Ladefoged, T.N., Kirch, P.V. (2018). Foreign material culture from Hawaiian households in Leeward Kohala. *Australian Historical Archaeology* 36:29-37.
39. Lincoln, N., **McCoy, M.D.**, Ladefoged, T.N. (2018). Stable carbon and nitrogen isotopes in kukui (*Aleurites moluccanus*) endocarp along rainfall and elevation gradients: archaeological implications. *PLoS ONE* 13(10): e0204654.
38. **McCoy, M.D.** (2018). Celebration as a Source of Power in Archaic States: Archaeological and historical evidence for the Makahiki festival in the Hawaiian Islands. *World Archaeology* 50(1):242-270.
37. **McCoy, M.D.** (2018). The Race to Document Archaeological Sites Ahead of Rising Sea Levels: Recent applications of geospatial technologies in the archaeology of Polynesia. *Sustainability* 10, 185; doi:10.3390/su10010185
36. Horsburgh, K.A., **McCoy, M.D.** (2017). Dispersal, Isolation, and Interaction in the Islands of Polynesia: A Critical Review of Archaeological and Genetic Evidence. *Diversity* 9, 37. doi:10.3390/d9030037.

35. **McCoy, M.D.** (2017). Geospatial Big Data in Archaeology: Prospects and problems too great to ignore. *Journal of Archaeological Science* 84:74-94.
34. Flexner, J.L., Mulrooney, M.A., **McCoy, M.D.**, Kirch, P.V. (2017). Visualising Hawaiian sacred sites: The archives and J.F.G. Stokes's pioneering archaeological surveys, 1906-1913. *Journal of Pacific Archaeology* 8(1):63-76.
33. **McCoy, M.D.**, Mulrooney, M.A., Horrocks, M., Cheng, H., Ladefoged, T.N. (2017). Evaluating Agricultural Bet-Hedging Strategies in the Kona Field System: New high-precision $^{230}\text{Th}/\text{U}$ and ^{14}C dates and plant microfossil data from Kealakekua, Hawai'i Island. *Archaeology in Oceania* 52(1):70-80.
32. Maxwell, J.J., **McCoy, M.D.**, Tromp, M., Hoffman, A., Barber, I.G. (2017). The Difficult Place of Deserted Coasts in Archaeology: New archaeological research on Cooks Beach (Pukaki), Coromandel Peninsula, New Zealand. *Journal of Island and Coastal Archaeology* 1-20. <http://dx.doi.org/10.1080/15564894.2017.1285833>
31. **McCoy, M.D.**, Alderson, H.A., Hemi, R., Cheng, H., Edwards, R.L. (2016). Earliest direct evidence of monument building at the archaeological site of Nan Madol (Pohnpei, Micronesia) identified using $^{230}\text{Th}/\text{U}$ coral dating and geochemical sourcing of megalithic architectural stone. *Quaternary Research* 86:295-303.
30. Mulrooney, M.A., Wong, C., Esh, K., Belluomini, S., **McCoy, M.D.** (2016). Integrating Research and Collections Management: The Ho'omaka Hou Research Initiative at the Bishop Museum. *Museum Worlds* 4:52-62.
29. Flexner, J.L., **McCoy, M.D.** (2016) After the Missionaries: Historical archaeology and sites of traditional religious ritual in the Hawaiian Islands. *Journal of the Polynesian Society* 125(3):307332.
28. **McCoy, M.D.**, Codlin, M.C. (2016) The Influence of Religious Authority in Everyday Life: A landscape scale study of domestic architecture and religious law in ancient Hawai'i. *World Archaeology*. <http://dx.doi.org/10.1080/00438243.2016.1164073>
27. **McCoy, M.D.**, Robles, H.R. (2016) The Geographic Range of Interaction Spheres during the Colonization of New Zealand (Aotearoa): New evidence for obsidian circulation in Southern New Zealand. *Journal of Island and Coastal Archaeology*. 11(2):285-293.
26. **McCoy, M.D.** Codlin, M.C. (2015) Decoding the Rock Art of Old Hawai'i: A brief report on petroglyphs in Manuka, Ka'u District, Hawai'i Island. *Hawaiian Archaeology* 33-45.
25. **McCoy, M.D.**, Alderson, H.A., Thompson, A. (2015) A New Archaeological Field Survey of the Site of Nan Madol, Pohnpei. *Rapa Nui Journal* 29(1):5-22.
24. Mulrooney, M.A., Esh, K.S., **McCoy, M.D.**, Bickler, S.H., Sinoto, Y.H. (2014) New Dates from Old Samples: A revised radiocarbon chronology for the Wai'ahukini Rockshelter Site (H8), Ka'u District, Hawai'i Island. *Hawaiian Archaeology* 17-26.
23. **McCoy, M.D.** (2014) The significance of religious ritual in ancient Hawai'i. *Journal of Pacific Archaeology* 5:72-80.
22. Lawrence, M., **McCoy, M.D.**, Barber, I., Walter, R. (2014) Geochemical Sourcing Obsidian from the Purakaunui Site, South Island, New Zealand. *Archaeology in Oceania* 49(3):158-163.

21. **McCoy, M.D.**, Carpenter, J. (2014) Strategies for obtaining obsidian in pre-European contact era New Zealand. *Public Library of Science One (PLOS One)*. DOI: 10.1371/journal.pone.0084302
20. **McCoy, M.D.**, Ladefoged, T.N., Codlin, M., Sutton, D.G. (2014) Does Carneiro's circumscription theory help us understand Maori history? An analysis of the obsidian assemblage from Puerua Pa, New Zealand (Aotearoa). *Journal of Archaeological Science* 42:467-475.
19. **McCoy, M.D.**, Browne Ribeiro, A.T., Graves, M.W., Chadwick, O.A., Vitousek, P.M. (2013) Taro (*Colocasia esculenta*) farming in ancient Hawaii: sedimentology and soil nutrient analyses of irrigated pondfield soils. *Journal of Archaeological Science* 40(3):1528-1538.
18. **McCoy, M.D.** Athens, J.S. (2012) Sourcing the Megalithic Stones of Nan Madol: an XRF study of architectural basalt stone from Pohnpei, Federated States of Micronesia. *Journal of Pacific Archaeology* 3(1):105-114.
17. **McCoy, M.D.**, Ladefoged, T.N., Graves, M.W., Stephens, J.W. (2011) Strategies for constructing religious authority in ancient Hawai'i. *Antiquity* 85, 927-941.
16. **McCoy, M.D.**, Mills, P.R., Lundblad, S., Rieth, T., Kahn, J.G., Gard, R. (2011) A cost surface model of volcanic glass quarrying and exchange in Hawai'i. *Journal of Archaeological Science* 38, 2547-2560.
15. **McCoy, M.D.**, Asner, G. P., Graves, M.W. (2011) Airborne lidar survey of irrigated agricultural landscapes: an application of the slope contrast method. *Journal of Archaeological Science*, 38(9), 2141-2154.
14. Ladefoged, T.N., **McCoy, M.D.**, Asner, G.P., Kirch, P.V., Puleston, C.O., Chadwick, O.A., Vitousek, P.M. (2011) Agricultural potential and actualized development in Hawai'i: an airborne LiDAR survey of the leeward Kohala field system (Hawai'i Island). *Journal of Archaeological Science* 38: 3605-3619.
13. **McCoy, M.D.** (2011) Geochemical characterization of volcanic glass from Pu'u Wa'awa'a, Hawaii Island. *Rapa Nui Journal*, 25(2), 41-49.
12. **McCoy, M.D.**, Graves, M.W. (2010) The role of agricultural innovation on Pacific Islands: a case study from Hawai'i Island. *World Archaeology*, 42(1), 90-107.
11. **McCoy, M.D.**, Ladefoged, T.N., Blanshard, A., Jorgensen, A. (2010) Reconstructing lithic supply zones and procurement areas: an example from the Bay of Islands, Northland, New Zealand. *Journal of Pacific Archaeology* 1(2), 174-183.
10. **McCoy, M.D.**, Graves, M.W., Murakami, G. (2010) Introduction of breadfruit (*Artocarpus altilis*) to the Hawaiian Islands. *Economic Botany*, 64(4), 374-381.
9. Kirch, P.V., Millerstrom, S., Jones, S., **McCoy, M.D.** (2010) Dwelling among the gods: a late precontact priest's house in Kahikinui, Maui, Hawaiian Islands. *Journal of Pacific Archaeology* 1(2):145-160.
8. Mosley, B., **McCoy, M.D.** (2010) Sourcing obsidian and pitchstone from the Wakanui Site, Canterbury, New Zealand. *Rapa Nui Journal* 24(2):6-15
7. **McCoy, M.D.**, Ladefoged, T.N. (2009) New developments in the use of spatial technology in archaeology. *Journal of Archaeological Research* 17 (3):263-295.

6. **McCoy, M.D.** (2008) Hawaiian limpet harvesting in historical perspective: A review of modern and archaeological data on *Cellana* spp. from the Kalaupapa Peninsula, Moloka'i Island. *Pacific Science* 62(1):21-38.
5. Kirch, P.V., **McCoy, M.D.** (2007) Reconfiguring the Hawaiian cultural sequence: Results of re-dating the Halawa Dune Site (MO-A1-3), Molokai Island. *Journal of the Polynesian Society* 116(4): 385-406.
4. **McCoy, M.D.** (2007) Revised late Holocene culture history for Moloka'i Island, Hawai'i. *Radiocarbon* 49(3) 1273-1322.
3. **McCoy, M.D.**, Hartshorn, A.S. (2007) Wind erosion and intensive prehistoric agriculture: A case study from the Kalaupapa field system, Hawai'i. *Geoarchaeology: An International Journal* 22(5):511-532.
2. **McCoy, M.D.** (2005) The development of the Kalaupapa field system, Moloka'i Island, Hawai'i. *The Journal of the Polynesian Society*. 116(4):339-358.
1. Lidefeged, T.N., Graves, M.W., **McCoy, M.D.** (2003) Archaeological evidence for agricultural development in Kohala, Island of Hawai'i. *Journal of Archaeological Science* 30:923-41.

Book Chapters (peer-reviewed)

- Mulrooney, M. A., and **M.D. McCoy**. 2026. "The Production of Obsidian Moai Eyes: New Geochemical Sourcing Data on Legacy Artifact Collections on Rapa Nui (Easter Island)." Change and Resilience in Rapa Nui and the Pacific, edited by Fanny Wonu Veys et al., Leiden University Press, 2026, pp. 325–38. <http://www.jstor.org/stable/jj.38164301.23>.
- Mialanes, J, Ford, A., Goodall, B., Codlin, M. **McCoy, M.**, Summerhayes, G., David, B., Richards, T. and I. J. McNiven. 2022. The Stone Artefacts of Tanamu 1. In *The Archaeology of Tanamu 1: A Pre-Lapita to Post-Lapita Site from Caution Bay, South Coast of Mainland Papua New Guinea*. Edited by B. David, K. Szabo, M. Leavesley, I.J. McNiven, J. Ash, and T. Richards. Oxford: ArchaeoPress Publishing, Ltd., 89-106.
- Lundblad, S.P., Mills, P.R., **McCoy, M.D.**, Kahn, J.G., Mulliken, K., Kaylor, D. (2013) Identification of Volcanic Glass Sources Inferred from Geochemical Analysis of Artifacts on Leeward Hawai'i Island. In *Pacific Archaeology: Documenting the Past 50,000 Years*. Glenn R. Summerhayes & Hallie Buckley, eds. University of Otago Studies in Archaeology No. 25, pp. 67-75.
- McCoy, M.D.**, Graves, M.W. (2012) Small valley irrigated taro agriculture in the Hawaiian Islands: an extension of the 'wet and dry' hypothesis. In M. Spriggs, D. Addison and P. J. Matthews (eds) (2012) *Irrigated Taro (Colocasia esculenta) in the Indo-Pacific: Biological, Social and Historical Perspectives* (Senri Ethnological Studies 78). Osaka: National Museum of Ethnology, pp. 115-130.
- McCoy, M.D.** (2008) Life outside the temple: reconstructing traditional Hawaiian ritual and religion through new studies of ritualized practices. In *Religion, Archaeology, and the Material World*. Lars Fogelin, ed. Southern Illinois University's Center for Archaeological Investigations, Occasional Paper No. 36, pp. 261-278. Carbondale, Illinois.

Short Communications

- McCoy, M.D.** (2026) Archaeological Studies—A journal for open research in archaeology. *Archaeological Studies* 1(1) 1.
- Bogaard, A., Ortman, S., Birch, J., Cervantes Quequezana, G., Chirikure, S., Crema, E. R., Cruz, P., Feinman, G., Fochesato, M., Green, A. S., Gronenborn, D., Hamerow, H., Jin, G., Kerig, T., Lawrence, D., **McCoy, M. D.**, Munson, J., Roscoe, P., Rosenstock, E., Thompson, A., Petrie, C. A. and Kohler, T. A. (2024) “The Global Dynamics of Inequality (GINI) project: analysing archaeological housing data,” *Antiquity* 98 (397). doi: 10.15184/aqy.2023.188
- McCoy, M.D.** (2022) Lidar Data Reveals Hidden History of Hawaiian Islands. *GIM International* 6(36):59-61.
- McCoy, M.D.** and T.N. Ladefoged. (2021) Invited Comments on: States Without Archaeological Correlates? A report from Hawai‘i. *Journal of Pacific Archaeology*
- McCoy, M.D.** (2015) Taro (*Colocasia esculenta*) In *The Archaeology of Food: An encyclopedia*. M.C. Beaudry & K. Metheny, eds. AltaMira/Rowman & Littlefield.
- McCoy, M.D.**, Kahn, J.G. (2014) Editor’s Introduction: Understanding the Hawaiian Past: Papers in Honour of Patrick V. Kirch. *Journal of Pacific Archaeology* 5:v-vii.
- McCoy, M.D.**, Ladefoged, T., Bickler, S.H., Stephen, J.W., Graves, M.W. (2012) The value of an “eclectic and pragmatic” approach to statistics in chronology building: a reply to T.S. Dye. *Antiquity* 86(334).
- McCoy, M.D.** (2011) The Origins of Pacific Peoples. In *Encyclopedia of World History*. A. J. Andrea, ed. ABC-CLIO.
- Potts, K., **McCoy, M.D.** (2012) Geophysical survey and excavations in search of Pa a Tu Pare Taniwha (144/11), Taieri Plains, Otago. *Archaeology in New Zealand* 55(1):21-32.
- McCoy, M.D.** (2008) Comment on Ladefoged and Graves. Variable Development Of Dryland Agriculture in Hawai‘i: A Fine-Grained Chronology from the Kohala Field System, Hawai‘i Island. *Current Anthropology* 49(5):771-802.
- McCoy, M.D.** (2008) The Development of Hawaiian Communities. In *Archaeology in America: An Encyclopedia*. Francis P. McManamon, ed. Greenwood Publishing.

Book Reviews

- McCoy, M.D.** (2020) Book Review: An Unauthorized Companion to American Archaeological Theory, by L. Fogelin. *Current Anthropology* 61(1): 133-134.
- McCoy, M.D.** (2019) Book Review: Heiau, ‘Āina, Lani: The Hawaiian Temple System in Ancient Kahikinui and Kaupō, Maui, by Kirch, P.V., Ruggles, C. *Archaeology in Oceania*.
- McCoy, M.D.** (2018) Book Review: The Oxford Handbook of Prehistoric Oceania. *Journal of Pacific Archaeology*. 9(2):95-96.
- McCoy, M.D.** (2015) Book Review: Kua‘aina kahiko: life and land in ancient Kahikinui, Maui, by Kirch, P.V. *Antiquity* 89(344):504-5.

McCoy, M.D. (2011) Book Review: Roots of Conflict: Soil, agriculture and sociopolitical complexity in ancient Hawai'i, edited by Kirch, P.V. *Archaeology in Oceania* 46:142-3.

McCoy, M.D. (2004) Book Review: Defining the Pacific: Opportunities and Constraints (The Pacific World: Lands, People, and History of the Pacific, 1500-1900, Vol. 1) edited by P.W. Blank and F. Spier. *Pacific Affairs* 76(4):688.

Recent Reports

McCoy, M.D., Ferwerda, C., Casana, C. (2026) *Final Report on 2025 UAV Remote Sensing Survey of Kalaupapa National Historical Park*. Report on file with U.S. National Park Service.

Sangamnerkar, S., **McCoy, M.D.** (2026). *Search and Recovery Report CS25-0179, an Aircraft Crash Site (PW-00037) Correlated with BuNo 57540, Nekken Village, Aimeliik State, Palau, Excavated from 3 June through 5 August 2025 during 25-2PW-B*. Department of Defense POW/MIA Accounting Agency.

Shepardson, B.L., **McCoy, M.D.**, and M.A. Mulrooney. 2024. *INFORME: Proyecto No-invasivo de Escaneo Ultrasónico de los Moai Trabajo de Campo, Noviembre de 2023 En alianza con TAO (Terevaka Archaeological Outreach)*. Report to Comunidad Indígena Ma'u Henua.

Shepardson, B.L., **McCoy, M.D.**, and M.A. Mulrooney. 2023. *Reporte resumen de los trabajos en el campo para el proyecto no-invasivo de escaneo ultrasónico de los Moai tras actividades educativas con los alumnos de Rapa Nui que se inscriben en la implementación del programa TAO en noviembre de 2023*. Letter report to Comunidad Indígena Ma'u Henua.

McCoy, Mark D. 2023 *Search and Recovery Report CS23-0260, an Aircraft Crash Site (PW-00037) Associated with BuNo 57540, Aimeliik State, Republic of Palau 26 June through 2 August 2023*. Report prepared for the U.S. Department of Defense POW/MIA Accounting Agency.

McCoy, Mark D., Shepardson, Britton L. 2022. *A Report on Experiments in Measuring Weathering of Tuff Using Ultrasonic Pulse Velocity Tests*. Report on Terevaka Archaeological Outreach 2022 prepared for Museo Antropologico Padre Sebastian Englert, Rapa Nui, Chile.

Awards

Awarded Society for American Archaeology's Book Award (Popular), 2021, for "Maps for Time Travelers: How archaeologists use technology to bring us closer to the past." Reviews: Robinson, A. (2020) *Nature* 582, 333. Fagan, B. (2021) *Journal of Interdisciplinary History* (2021) 51 (4): 628–629.

Awarded Top Graduate Advisor, 2013, University of Otago.

Awarded External Grants

Total awarded external funding as PI/co-PI: \$1,040,951

National Science Foundation \$155,481 (2023-2026, Award 2313020) *Explaining the Destruction of Monumental Architecture*. Why did people in the past destroy monumental architecture? Previous research has focused on monument construction with less attention on the cause, or causes, of damage and demolition. The resulting knowledge gap makes ancient societies appear cohesive and stable, compared

with historic or contemporary society, when episodes of intense destruction are documented in the written record. This research will be conducted on Rapa Nui (Easter Island) where hundreds of massive statues that were displayed upright around the island were toppled over. Many believe they were pulled down by people during a chaotic period of warfare in the distant past. It has also been suggested statues may have been toppled by neglect, or strong earthquakes. The interdisciplinary team brings expertise in archaeology, seismology, and civil engineering to the puzzle of what happened to these iconic statues to discover the cause, or causes, of statue destruction on Rapa Nui.

Our first objective is to build a chronology of statue toppling based on the exposure of broken statues to weathering. Statues were carved out of tuff, a porous stone made from compressed volcanic ash. Exposure to rain and sea spray damages tuff in way that can be measured non-destructively with a specialized handheld ultrasound first developed to be used by engineers to test the quality of concrete. The team will conduct experiments to estimate the rate of weathering by artificially weathering tuff blocks in the lab and by leaving tuff blocks outside in different locations on Rapa Nui. Importantly, previous archaeology gives the team known points in time to anchor their chronology. The fieldwork will be integrated into the long running Terevaka Archaeological Outreach (TAO) educational program that has provided hundreds of local high school students with hands-on experience in conservation and research.

Our second objective is to assess how statues were toppled by looking for evidence of purposeful destruction, neglect, and strong earthquakes. Each will produce distinctive patterns in the timing and location of statue toppling. The team will take advantage of advances in archaeoseismology, specifically engineering computer simulations that predict how statues will behave in major earthquakes, coupled with recorded and synthetic earthquake waveforms specific to Rapa Nui. Data produced by these two objectives will be delivered to the local community to help make decisions about future conservation of statues.

PI: Mark D. McCoy, co-PIs: Mehrdad Aghagholizadeh, Heather DeShon, Nicos Makris, Mara Mulrooney, Britton L. Shepardson. Public abstract:

https://www.nsf.gov/awardsearch/showAward?AWD_ID=2313020&HistoricalAwards=false

National Science Foundation funded SPARC Research Collaboration Award. (2019-2020)

Measuring the Influence of Royal Centers in the Early States of Ancient Hawaii. As principal investigator of this collaborative award funded project, my role is to supervise UAV-based LiDAR mapping of settlements along the coast of Hawai‘i Island. Working with local Native Hawaiian (Kānaka Maoli) stewards, and the State Parks of Hawai‘i, our team will examine what influence royal centers had on the larger settlement pattern outside of the clearly defined boundaries of sacred precincts. PI: Mark D. McCoy. Co-PIs: Adam Johnson; Thegn N. Ladefoged. Grant website:

<https://sparc.cast.uark.edu/about/funded>

National Center for Preservation Technology and Training. \$40,000 USD (2017-2019) *Testing and Treatment of Microbial Impacts on Generic Archaeological Collections.* As principal investigator, my role in this project is to identify archaeological fauna appropriate for a research design aimed at determining the impacts of microbial communities on the preservation of ancient DNA. PI: Mark D. McCoy. Co-PIs: K. Ann Horsburgh. Grant website: <https://www.ncptt.nps.gov/blog/microbial-impacts-onhttps://www.ncptt.nps.gov/blog/microbial-impacts-on-archeological-collections/archeological-collections/>

Royal Society of New Zealand Marsden Fund. \$705,000 NZD / \$514,000 USD (2017-21) *The Making of Maori Society: An archaeological analysis of social networks and geo-political interaction.* This is a major interdisciplinary research initiative that uses advances in the analysis of artifacts made of obsidian to create computer models of ancient social networks among Maori. The goal is to explain how changes in networks can help explain the evolution of society. As co-PI, my role in this project includes planning, collaborating with local Maori, directing lab research, and synthesizing the results for publication. PI: Thegn N. Ladefoged Co-PIs: Mark D. McCoy, Dion O’Neale, Chris Stevenson. Grant website:

<https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsdenhttps://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsden-grants-awarded-2016/grants-awarded-2016/>

National Geographic Society. \$19,800 USD (2012-13). *The Origins of the Megalithic Architecture of Nan Madol (Pohnpei, Federated States of Micronesia)*. As principal investigator, my role in this project included planning and supervising fieldwork, chemical characterization and 3D laser scanning of architectural stone, GIS modelling of how labor was mobilized in the transportation of building materials, and synthesizing the results for publication.

Royal Society of New Zealand Marsden Fund. \$300,000 NZD / \$245,000 USD (2010-13) *The Archaeology of Territoriality: Trade, conflict, and agriculture in New Zealand before European contact*. As principal investigator, my role in this project extended from planning fieldwork, collaborating with local Maori, directing field and lab research, and synthesizing the results for publication.

National Science Foundation's Dissertation Improvement Grant. \$11,670 USD (2005-06) *Landscape, Memory, and Society: An Ethnohistoric-Archaeological Study of Three Hawaiian Communities*. P.I.: Kirch, P.V. This grant supported laboratory analysis for my dissertation research following three seasons of field work in Kalaupapa, Hawai'i.

Other External Funded Research (not counted in total awarded external funding)

Defense POW/MIA Accounting Agency. \$568,290 (2025). *Terrestrial Recovery Excavation at the Wreckage of a World War II, Vought F4U-1D Corsair, Republic of Palau*. I am leading a search and recovery mission aimed at recovering the remains of a pilot who crashed in World War II. PI: Mark D. McCoy. /Lead Archaeologist: Sayali Sangamnerkar.

Defense POW/MIA Accounting Agency. \$236,105 (2023). *Terrestrial Recovery Excavation at the Wreckage of a World War II, Vought F4U-1D Corsair, Republic of Palau*. I led a search and recovery mission aimed at recovering the remains of a pilot who crashed in World War II. PI/Lead Archaeologist: Mark D. McCoy.

National Science Foundation \$194,735 (2021-2023). *The Creation and Division of Wealth and the Long-term Consequences of Inequality*. I have been selected to be part of a working group of scientists to study the prehistory and early history of the development of wealth inequality. The key measure of wealth inequality to be examined is differences in house sizes at any single moment in time, since wealthier households tend to live in larger houses in many different societies. The team will first assemble these data for as many regions as possible. Then, house-size differences will be compared with information on other social and cultural trends in these societies over time (for example, changing political organization, violence, and population size), in regions where these are known, to understand how changes in these domains affect wealth inequality (and vice versa). PI: Scott G. Ortman, co-PIs: Amy M Bogaard, Timothy A Kohler. For more see:

Kohler, T., and A.E. Thompson. 2022. The Global Dynamics of Inequality Project (GINI): A progress report on a new model for collaboration. *SAA Record* 22(3):19-23.

Bogaard, A., Ortman, S., Birch, J., et al. 2023. The Global Dynamics of Inequality (GINI) project: analysing archaeological housing data. *Antiquity*. 1-7. doi:10.15184/aqy.2023.188.

Other Service, Affiliations, and Memberships

Founding Editor-in-Chief, *Archaeological Studies* (2026-present)
 Chair, Society for American Archaeology Dissertation Award Committee (2023-26)
 Editorial Boards: *Journal of Archaeological Research*, *Journal of Polynesian Archaeology and Research*
 FSU Native American and Indigenous Studies Center, Affiliated Faculty (2023–present).
 Grant Review Panelist for: NSF, AIA, Fulbright
 Volunteer, FSU annual event for Lighthouse of the Big Bend
 Member: Society for American Archaeology, Society for Hawaiian Archaeology, New Zealand Archaeological Association

Invited Presentations

Invited Public Talk. 2026. Ka Ipu Makani Koehana Series, Moloka‘i Island, Hawai‘i.

Invited Talk. 2025. Dartmouth College. Sponsored by Department of Anthropology.

Keynote. 2022 Texas GIS Forum. This long-running event attracts GIS professionals from both the government and private sectors (<https://tnris.org/events>).

Invited Workshop. 2022. “The World History of Ritual Workshop” organized by Harvey Whitehouse (Anthropology, Oxford).

Speaker. 2022 Dallas Literary Festival. African American Museum of Dallas.

Invited Talk. “Archaeology as a Social Science: A Case Study of Wealth Inequality in Ancient Hawai‘i.” *University of Auckland*, Auckland, New Zealand. April 6, 2022.

Discussant. Roundtable at *American Anthropological Association* meeting: “The Ethics of Mapping and Geospatial Archaeology.” Organizers: Jessica Munson and Andrés Mejía-Ramón. St. Louis, November 18-22, 2020. Event postponed due to Covid-19.

Invited Talk. “How Archaeologists Use Geospatial Technologies to Document Archaeological Sites Ahead of Rising Seas.” *Academia Sinica*, Taipei, Taiwan. August 5, 2019.

Invited Talk. “The Application of Terrestrial and Airborne Lidar for Creating 3D models of Archaeological Sites and Landscapes on the Remote Islands of the Pacific.” *Culture x Technology 3D Workshop*, National Museum of Prehistory, Taiwan. August 7, 2019.

Discussant, *Society for American Archaeology* Session: “Archaeological Vision in the Age of Big Data.” Albuquerque, April 10 - 14, 2019.

Roundtable, *American Anthropological Association* meeting: “Anthropologies and the Environment: Technology as Outreach in Education” San Jose, November 14-18, 2018. Roundtable featured in: Venter, Marcie. 2018. “Environment, Technology, and Education at the Annual Meeting.” *Anthropology News website*, November 5, 2018. DOI: 10.1111/AN.1022.

American Institute of Archaeology’s 2017-2018 lecture series. Cleveland Natural History Museum; SUNY Albany; and Orange County, California.

Teaching

General Education: *How to Build a Time Machine: Technology for Reconstructing Our Past*; *Human Evolution and World Prehistory*; *Fantastic Archaeology*; *Introduction to Archaeology*; *People of the Earth*. Methodology: *Geospatial Archaeology*; *Archaeological Field School*. Topical/Regional: *History of Anthropology*, *Wealth & Power*; *Coastal and Island Societies*; *Ancient Hawai'i*; *Pacific Archaeology*; *Landscape Archaeology*. Graduate: *World Archaeology*; *Gender and Sex in Prehistory*; *Archaeological Theory*. A full list of classes available upon request.

Public Outreach

Collaboration with local communities is a regular part of my work on Pacific Islands. In Hawai'i, New Zealand, and Micronesia, I regularly give public talks and work with traditional leaders and local historic preservation officers to help with efforts to protect archaeological and cultural sites. In 2017, I was invited to sail to the remote Northwest Hawaiian Islands by the Office of Hawaiian Affairs as part of their stewardship of the marine preserve Papahānaumokuākea. I also serve as Vice President of the Tallahassee chapter of the American Institute of Archaeology.

Media

[Faculty Spotlight: Mark D. McCoy](#). By Carolina Ortega, 10 July 2025.

[5 Questions with Mark McCoy: War and Inequality](#), By McKenzie Harris, 6 May 2025.

[5,700 years of sea-level change in Micronesia hint at humans arriving much earlier than we thought](#). *The Conversation*. By Sefton, J. McCoy, M. and A. Kemp. (2022).

[Netflix's Ancient Apocalypse series uses 'racist ideologies' to rewrite Indo-Pacific history, experts say](#) *ABC News* (2022).

[Professor Who Explodes Indiana Jones](#) *D Magazine*. By Laray Polk, 9 July 2020.

["I Was Arrested for the Same Reason as George Floyd, and Lived. That's White Privilege"](#) By M.D. McCoy, *Newsweek* (4 June 2020).

[Our Ancestors Would Have Found Isolation Hard Too](#). *University of California Press Blog*. By M.D. McCoy, 19 May 2020.

[Maps for Time Travelers with Dr. Mark McCoy - Ep 131](#) ArchaeoTech Podcast. (2020)

[Q&A with Archaeologist Mark McCoy, author of Maps for Time Travelers](#) (with Tim Sullivan) (2020)