

Robert J. Bischoff

SR. DIGITAL DATA SPECIALIST

Center for Archaeology and Society
School of Human Evolution and Social Change
Arizona State University

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Education

Utah Valley University

ASSOCIATES – HISTORY AND POLITICAL SCIENCE

2011

Brigham Young University

B.A. ANTHROPOLOGY

2015

Brigham Young University

M.A. ANTHROPOLOGY – THESIS: A SPATIAL AND TEMPORAL ANALYSIS OF SAN JUAN
RED WARE

2018

Arizona State University

PH.D. ANTHROPOLOGY

In progress

Research interests

Southwestern U.S.; social networks analysis; geographic information systems; quantitative methods; data conservation, management, and dissemination; R; 3D modeling; geometric morphometrics; projectile points; ceramics; interaction, migration, and identity.

Professional Appointments

Digital Data Specialist Sr.

CENTER FOR ARCHAEOLOGY AND SOCIETY

Arizona State University
2023-current

Publications

[1] Robert J **Bischoff** and James R Allison. “Using Nonoptimal or Archival Photographs for Constructing 3D Models’”. In: *Proceedings of the 46th Annual Conference on Computer Applications and Quantitative Methods in Archaeology (in press)*. Tübingen University Press, 2023.

[2] Robert J **Bischoff** and Cecilia Padilla-Iglesias. “A description and sensitivity analysis of the ArchMatNet agent-based model’”. En. In: *PeerJ Computer Science* 9 (Jul. 2023), p. e1419. ISSN: 2376-5992. DOI: 10.7717/peerj-cs.1419. <https://peerj.com/articles/cs-1419/>.

[3] Robert J **Bischoff**, Cecilia Padilla-Iglesias, and Claudine Gravel-Miguel. “Evaluating the Effects of Randomness on Missing Data in Archaeological Networks’”. In: *Accepted to CAA 2021 Conference: Limassol, Cyprus* (2023). DOI: 10.31235/osf.io/vdy9b. <http://dx.doi.org/10.31235/osf.io/vdy9b>.

[4] Matthew A Peeples and Robert J **Bischoff**. “Archaeological networks, community detection, and critical scales of interaction in the U.S. Southwest/Mexican Northwest’”. In: *Journal of Anthropological Archaeology* 70 (Jun. 2023), p. 101511. ISSN: 0278-4165. DOI: 10.1016/j.jaa.2023.101511. <https://www.sciencedirect.com/science/article/pii/S0278416523000272>.

[5] Robert J **Bischoff**. “Geometric Morphometric Analysis of Projectile Points from the Southwest United States’”. In: *SocArXiv Preprint (accepted to Peer Community In Archaeology)* (Sep. 2022). DOI: 10.31235/osf.io/a6wjc. <https://osf.io/preprints/socarxiv/a6wjc/>.

[6] Robert J **Bischoff**. “Material Culture Networks in Tonto Basin’”. In: *SocArXiv Preprint (accepted to Kiva)* (Dec. 2022). DOI: 10.31235/osf.io/g5n9q. <https://osf.io/preprints/socarxiv/g5n9q/>.

[7] Daniel J Hruschka, Robert **Bischoff**, Matt Peeples, Sharon Hsiao, and Mohamed Sarwat. “CatMapper: A user-friendly tool for integrating data across complex categories’’. Jan. 2022. <https://osf.io/preprints/socarxiv/n6rty/>.

[8] Robert J **Bischoff** and James R Allison. “Rosegate Projectile Points in the Fremont Region’’. In: *Utah Archaeology* 33.1 (2020), pp. 7–48. DOI: 10.31235/osf.io/dwrba. <http://dx.doi.org/10.31235/osf.io/dwrba>.

[9] Joseph A Bryce, Spencer FX Lambert, Robert J **Bischoff**, and Brandon Walter. “Period I at Wolf Village’’. In: *Utah Archaeology* 33.1 (2020), pp. 99–116.

[10] Spencer FX Lambert, Joseph A Bryce, and Robert J **Bischoff**. “An Examination of the Use of Birds by the Fremont People’’. In: *Journal of California and Great Basin Anthropology* 39.1 (2019), pp. 25–41.

Research Experience

Research Assistant—CatMapper—with Dr. Daniel Hruschka

DR. DANIEL HRUSCHKA AND DR. MATTHEW PEEPLES

ASU

5 December 2019-2022

Social Science Data Analyst and Programmer

DR. DANIEL HRUSCHKA AND DR. MATTHEW PEEPLES

ASU

16 May 2022 - 15 August

2022

Research Assistant—Cyber-Southwest—with Dr. Matthew Peeples

DR. MATTHEW PEEPLES

ASU

20 May - 13 August 2019

Research Assistant—with Dr. James Allison

DR. JAMES ALLISON

BYU

2015-2018

Teaching Assistant—Brigham Young University Field School at Coal Bed Village—with Dr. James Allison

DR. JAMES ALLISON

BYU

25 June - 9 August 2018

Crew member—Little Baullie Mesa Ceramic Survey—with Dr. James Allison

DR. JAMES ALLISON

BYU

21-25 August 2017

Teaching Assistant—Hinckley Mounds Archaeological Survey—with Dr. Michael Searcy

DR. MICHAEL SEARCY

BYU

12 November 2016

Teaching Assistant—Brigham Young University Field School at Wolf Village, UT—with Dr. Michael Searcy

DR. JAMES ALLISON

BYU

26 April - 13 June 2016

Teaching Assistant—Hinckley Mounds Archaeological Survey—with Dr. Michael Searcy

DR. MICHAEL SEARCY

BYU

7 November 2015

Crew member—Brigham Young University Field School at Wolf Village, UT—with Dr. James Allison

DR. JAMES ALLISON

BYU

22 April - 5 June 2013

Teaching Experience

TEACHING ASSISTANT—ASB 337: PYRAMIDS AND HIEROGLYPHS—WITH DR. JOEL PALKA

ASU

2019

TEACHING ASSISTANT—ASB 335: ANCIENT RUINS OF THE SOUTHWEST—WITH DR. MICHELLE HEGMON

ASU

2018-2019

TEACHING ASSISTANT—ASM 345: DISEASE AND HUMAN EVOLUTION—WITH DR. LAURA BIDNER

ASU

2018

Professional Presentations

- [1] Robert J **Bischoff**, Daniel J Hruschka, and Matthew A Peeples. *An Example of Data Integration Using the ArchaMap Application*. Paper presented at the Computer Applications in Archaeology Annual Meeting, Amsterdam, Netherlands. April 5th, 2023, 2023.
- [2] Robert J **Bischoff** and Cecilia Padilla-Iglesias. *ArchMatNet: an agent-based model to investigate the validity of social networks in archaeology*. Paper presented at the Society for American Archaeology Annual Meeting, Portland, Oregon. March 31st, 2023, 2023.
- [3] Daniel J Hruschka, Robert J **Bischoff**, and Matthew A Peeples. *ArchaMap: a solution for finding and merging archaeological data*. Paper presented at the Society for American Archaeology Annual Meeting, Portland, Oregon. March 31st, 2023, 2023.
- [4] Matthew A Peeples, Daniel J Hruschka, and Robert J **Bischoff**. *The ArchaMap Data Integration Tool: A Case Study from the Roosevelt Dam Archaeological Projects, Arizona*. Poster presented at the Society for American Archaeology Annual Meeting, Portland, Oregon. March 30th, 2023, 2023.
- [5] Robert J **Bischoff**. *Projectile Point Networks in Tonto Basin During the Classic Period*. Paper presented at the 87th Annual Meeting of the Society for American Archaeology, Chicago, Illinois. March 31st, 2022, 2022.
- [6] Robert J **Bischoff** and Daniel J Hruschka. *Using R Shiny and Neo4j to Build the CatMapper Prototype Application*. Paper presented at 2022 userR Conference, virtual, June 21st, 2022., 2022.
- [7] Robert J **Bischoff**, Daniel J Hruschka, and Matthew A Peeples. *CatMapper and the ArchaMap Database: A web-based application for integrating archaeological data*. Paper presented at 2022 Computer Applications in Archaeology Conference, Oxford, UK, August 9th, 2022., 2022.
- [8] Robert J **Bischoff** and Cecilia Padilla-Iglesias. *Modeling the Connections Between Material Culture Networks and Social Interaction*. Paper presented at the Connected Past Conference, Heraklion, Greece. September 2nd, 2022, 2022.
- [9] Daniel J Hruschka, Robert J **Bischoff**, Matthew A Peeples, Sharon Hsiao, and Mohamed Sarwat. *SocioMap: Tools for integrating data across complex, dynamic categories*. Paper presented at History in Ones and Zeroes — The Challenges Involved in Coding the Past, Vancouver, BC. September 2022, 2022.
- [10] Robert J **Bischoff**. *Geometric Morphometric Analysis of Hohokam Projectile Points from the Tonto Basin*. Paper presented at the 86th Annual Meeting of the Society for American Archaeology, virtual. April 15th, 2021, 2021.
- [11] Robert J **Bischoff**, Cecilia Padilla-Iglesias, and Claudine Gravel-Miguel. *Evaluating the Effects of Randomness on Missing Data in Archaeological Networks*. Paper presented at the Computer Applications and Quantitative Methods in Archaeology Conference, Cyprus (virtual). June 16th, 2021, 2021.
- [12] Claudine Gravel-Miguel, Robert J **Bischoff**, and Cecilia Padilla-Iglesias. *An Agent-based Model to Improve Archaeological Social Network Reconstructions*. Paper presented at the European Archaeological Association meeting, virtual. 2021, 2021.
- [13] Cecilia Padilla-Iglesias, Robert **Bischoff**, and Claudine Gravel-Miguel. *An agent-based model to explore the relationship between archaeological assemblages, past social networks and cultural dynamics*. Paper presented at the 86th Annual Meeting of the Society for American Archaeology, virtual. April 17th, 2021, 2021.
- [14] Robert J **Bischoff** and Matthew A Peeples. *Measuring Distances for Southwest Ceramic Circulation and Exchange*. Poster presented at the 2020 Southwest Symposium, Phoenix, AZ. January 31-February 1, 2020, 2020.
- [15] Barbara J Mills, Jeffery J Clark, Scott Ortman, Matthew A Peeples, Sudha Ram, William H Doelle, Leslie Aragon, Kendall Baller, Robert **Bischoff**, Zach Cooper, Faiz Currim, Kaitlyn Davis, Fan Dong, Rebecca Harkness, Evan Giomi,

Kelsey Hanson, Yuanxia Li, Andre Takagi, and Joshua Watts. *Creating a Space for Collaborative Synthesis: The cyberSW Project*. Paper presented at the 2020 Southwest Symposium, Phoenix, AZ. January 31, 2020, 2020.

[16] Robert J **Bischoff**. *San Juan Red Ware Distribution Patterns and Social Networks in Southeastern Utah*. Paper presented at the 84th Annual Meeting of the Society for American Archaeology, Albuquerque, NM. April 13, 2019, 2019.

[17] Robert J **Bischoff** and Matthew A Peeples. *How Far Were Ceramics Really Circulated?*. Paper presented at the 2019 Arizona Archaeological Council Fall Conference, Phoenix, AZ. November 8, 2019, 2019.

[18] Robert J **Bischoff**. *An Examination of the Role of San Juan Red Ware Vessels in Social Interaction*. Paper presented at the 83rd Annual Meeting of the Society for American Archaeology, Washington, DC. April 13, 2018, 2018.

[19] Robert J **Bischoff** and James R Allison. *Bad Photogrammetry: Using Suboptimal or Archival Photographs for Constructing 3D Models*. Paper presented at the 2018 Computer Applications and Quantitative Methods in Archaeology International Conference, Tübingen, Germany. March 20, 2018, 2018.

[20] Robert J **Bischoff** and Joseph A Bryce. *Getting the Right Impression: Using 3D Models to Investigate Impressions of Perishable Artifacts*. Poster presented at the 16th Biennial Southwest Symposium, Denver, CO. January 5, 2018, 2018.

[21] Robert J **Bischoff**. *A Spatial Analysis of San Juan Red Ware: Evaluating Fall-off Curves with Straight-line or Least Cost Path Distance*. Poster presented at the 82nd Annual Meeting of the Society for American Archaeology, Vancouver, BC. March 31, 2017, 2017.

[22] Robert J **Bischoff**. *Evaluating Fall-off Curves with Straight-line or Least Cost Path Distance*. Poster presented at the 2017 Mary Lou Fulton Mentored Research Conference, Provo, UT. April 13, 2017, 2017.

[23] Robert J **Bischoff**. *Moving Forward with Digital Databases: Current Opinions and Potential Solutions*. Paper presented at the 2017 Computer Applications & Quantitative Methods in Archaeology Conference, Atlanta, GA. March 15, 2017, 2017.

[24] Spencer F X Lambert, Robert J **Bischoff**, and Joseph A Bryce. *Feathered Fauna: A Look at Bird Usage among the Fremont*. Paper presented at the 82nd Annual Meeting of the Society for American Archaeology, Vancouver, BC. March 31, 2017, 2017.

[25] Robert J **Bischoff**. *Projectile Points of Wolf Village*. Paper presented at the 2016 Utah Professional Archaeological Council Winter Meeting, Salt Lake City, Utah. March 4, 2016, 2016.

[26] Robert J **Bischoff**. *Rosegate in Utah Valley: Reconsidering the End of Rosegate Production*. Paper presented at the 2016 Great Basin Anthropological Conference, Reno, NV. October 7, 2016, 2016.

[27] Robert J **Bischoff**. *Rosegate to Side-notched: A Reevaluation of Fremont Projectile Point Chronology*. Paper presented at the 2016 Pecos Conference, Alpine, AZ. August 8, 2016, 2016.

[28] Spencer X F Lambert, Joseph A Bryce, and Robert J **Bischoff**. *An Analysis of the Early Occupation of Wolf Village*. Paper presented at the 2016 Great Basin Anthropological Conference, Reno, NV. October 7, 2016., 2016.

[29] Robert J **Bischoff**. *Structure 2, Wolf Village: Ceremonial Burial of a Communal Structure*. Poster presented at the 2014 Mary Lou Fulton Mentored Research Conference, Provo, UT. April 10, 2014, 2014.

[30] Robert J **Bischoff**. *Wolf Village: Trade Fairs and Communal Structures at a Fremont Village*. Paper presented at the 2014 Utah Conference on Undergraduate Research, Provo, Utah. February 28, 2014, 2014.

Public Presentations

[1] Robert J **Bischoff**. *San Juan Red Ware and Social Networks Across the Southwest*. Webinar sponsored by the Hisatsinom Chapter of the Colorado Archaeological Society and Crow Canyon. October 22, 2020, 2020. <https://youtu.be/570kCW1-9N8>.

[2] Robert J **Bischoff**. *3D Modeling in Archaeology*. Presentation given at the February 2018 Utah Statewide Archaeological Society Utah Valley Chapter meeting, Lehi, Utah. February 15, 2018, 2018.

[3] Robert J **Bischoff**. *Modeling 3D Artifacts*. Presentation given at the November 2017 Utah Statewide Archaeological Society Utah Valley Chapter meeting, Provo, Utah. November 16, 2017, 2017.

[4] Robert J **Bischoff**. *Rosegate Projectile Points*. Presentation given at the October 2016 Utah Statewide Archaeological Society Utah Valley Chapter meeting, Provo, Utah. October 13, 2016, 2016.

Professional Memberships

SOCIETY FOR AMERICAN ARCHAEOLOGY	2015-Current
REGISTER OF PROFESSIONAL ARCHAEOLOGISTS	2019-Current
ARIZONA ARCHAEOLOGICAL COUNCIL	2019-Current
ARIZONA HISTORICAL SOCIETY	2022-Current
ARIZONA ARCHAEOLOGICAL AND HISTORICAL SOCIETY	2022-Current
UTAH PROFESSIONAL ARCHAEOLOGICAL COUNCIL	2016-Current
CAA INTERNATIONAL	2017-Current

Professional Development

International Summer School at Kiel University MODELLING SPHERES OF INTERACTION	Kiel, Germany 5-9 September 2016
National Center for Preservation Technology and Training ADVANCED 3-D IMAGING AND MORPHOMETRICS FOR ARCHEOLOGY	Tucson, AZ 15-18 October 2018
Neo4j CERTIFIED NEO4J PROFESSIONAL	2019

Grants

Graduate and Professional Student Association – at ASU RESEARCH GRANT FOR DISSERTATION	\$2,000 2022
Department of Anthropology, BYU TRAVEL GRANT TO ATTEND SAA ANNUAL MEETING IN VANCOUVER, BC	\$500 March 2017
Department of Anthropology, BYU TRAVEL GRANT TO ATTEND SAA ANNUAL MEETING IN ORLANDO, FL	\$1,300 April 2016
Department of Anthropology, BYU PROFESSIONAL DEVELOPMENT GRANT TO ATTEND MOSAIC SUMMER WORKSHOP IN KIEL, GERMANY	\$1,518 September 2016
College of Family Home and Social Sciences, BYU TRAVEL GRANT TO ATTEND CAA CONFERENCE IN ATLANTA, GA	\$1,000 March 2017
Department of Anthropology, BYU TRAVEL GRANT TO ATTEND SAA ANNUAL MEETING IN WASHINGTON, D.C.	\$1,160 April 2018
CAA International TRAVEL GRANT TO ATTEND CAA CONFERENCE IN TUBINGEN, GERMANY	\$583 March 2018
School of Human Evolution and Social Change, ASU GRANT TO ATTEND THE ADVANCED 3-D IMAGING AND MORPHOMETRICS FOR ARCHEOLOGY WORKSHOP SPONSORED BY THE NCPTT	\$410 September 2018
Graduate and Professional Student Association – at ASU TRAVEL GRANT TO ATTEND SAA ANNUAL MEETING IN ALBUQUERQUE, NM	\$667 April 2019
Department of Anthropology, BYU TRAVEL GRANT TO ATTEND SOUTHWEST SYMPOSIUM IN DENVER, CO	\$184 January 2018
Department of Anthropology, BYU TRAVEL GRANT TO ATTEND BIENNIAL CONFERENCE ON SCIENCE AND MANAGEMENT ON THE COLORADO PLATEAU FLAGSTAFF, AZ	\$250 September 2017

College of Family Home and Social Sciences, BYU	\$580
TRAVEL GRANT TO ATTEND SAA ANNUAL MEETING IN VANCOUVER, BC	March 2017
Department of Anthropology, BYU	\$229
TRAVEL GRANT TO ATTEND GREAT BASIN ANNUAL CONFERENCE IN RENO, NV	October 2016
Department of Anthropology, BYU	\$270
TRAVEL GRANT TO ATTEND SOUTHWEST SYMPOSIUM IN TUCSON, AZ	January 2016
Department of Anthropology, BYU	\$1,287
TRAVEL GRANT TO ATTEND CAA CONFERENCE IN ATLANTA, GA	March 2017
Graduate College, Arizona State University	\$95
GRANT TO VIRTUALLY ATTEND SAA CONFERENCE	March 2021
School of Human Evolution and Social Change, Arizona State University	\$3,000
RESEARCH GRANT FOR DISSERTATION	2022
School of Human Evolution and Social Change, Arizona State University	\$1,337
TRAVEL GRANT TO ATTEND SAA ANNUAL MEETING IN CHICAGO, IL	2022
Center for Archaeology and Society, Arizona State University	\$1,700
CENTER FOR ARCHAEOLOGY AND SOCIETY STUDENT RESEARCH GRANT	2023
Center for Archaeology and Society, Arizona State University	\$25,509
NSF DOCTORAL DISSERTATION RESEARCH IMPROVEMENT GRANT	2023