

Elisha Charley, MCRP

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Enrolled member of the Navajo Nation

Academic Position

Assistant Professor and Program Coordinator Building Information Modeling (BIM) program, Navajo Technical University (NTU), Crownpoint NM, 8/2012-05/2019

- August 2013 established and offered an Associate of Applied Science in Building Information Modeling (BIM) program.
- Dec. 2017 established and offered an Articulation Agreement with the UNM (SA+P), Albuquerque, NM advance NTU-BIM students in obtaining a Bachelor of Arts in Environmental Planning.
- August 2018 Title Promotion from Lecturer to Assistant Professor.

Education

Ph.D. in Urban Planning, Arizona State University, Tempe, AZ 08/2019-Present

- Area of Concentrations: Indigenous planning and Navajo self-help housing.
- Advisors: Dr. Jose-Benito Chavez, Dr. Michelle Hale, and Wanda Dalla Costa AIA LEED A.P.

Master of Arts in Community, Regional, and Planning (MCRP), University of New Mexico, Albuquerque, New Mexico, 2017

- Area of Concentration: Physical Planning and Indigenous Planning
- Advisor: Dr. Theodore (Ted) Jojola Ph.D. and Moises Gonzales MUD

Bachelor of Applied Science in Interior Design, Northern Arizona University, Flagstaff, AZ 2012

- Area of Concentration: Interior Architecture and sustainable design

Publications

Charley, E., Varfalameyeva, K., Alsanad, A., & Solis, P. (2022). Mapping for Resilience: Extreme Heat Deaths and Mobile Homes in Arizona. In *Youth Mappers - Undecided* (p. Chapter 12). Springer Nature.

Varfalameyeva, K., Solis, P., Phillips, L., **Charley, E.,** Hondula, D., & Kear, M. (2021). *Heat Mitigation Solutions Guide for Mobile Homes* (Knowledge Exchange for Resilience Briefings Series, p. 44). Arizona State University. <https://hdl.handle.net/2286/R.2.N.162992>

In preparation:

Charley, E. (2022). *Planning with Informal Work Activities: A Case for 21st Century Indigenous Self-Sustainability Methods on Nihok'aa Diyin Dine'é Bikéyah*. University of New Mexico Press.

Collaborative Research

- **Research Fellow** - Nááts'ílid Initiative, Dennehotso AZ, 01/2023 – Present
 - Collaborate in team projects relating to housing development in Dennehotso.
 - Co-develop archival projects and models for the organizational framework.
 - Engage with surrounding communities gathering story interviews centering on Nihok'aa Diyin Dine'é structures and relationality.
- **Graduate Research Assistant** – ASU Knowledge Exchange for Resilience, ASU Main campus, 07/2020-05/2023; 05/2019-08/2019 (summer intern).

- Distributed I-buttons in the field (Mesa, AZ) collecting temperature data
- Researched mobile home construction methods, materials, and housing policies
- Presented findings of summer research and plans for continuing research methods
- Contributed to an internal research finding report
- **Research Associate** - Co-collaborated with the University of New Mexico School (UNM) School of Architecture and Planning (SA+P), Indigenous Design Planning Institute (iDPi)
 - Collected lidar data of Indigenous architecture with tribal members of the Zuni Pueblo, Isleta Pueblo, and Santo Domingo Pueblo.
 - Developed student-based projects focusing on indigenous architectural and cultural preservation with applied lidar technology and 3D modeling software
 - Co-created 2D and 3D architectural deliverables
- **Research Associate** - NSF-ATE Metrology Certification Project Grant, Center of Digital Technologies NTU, Crownpoint, NM, 5/2016-8/2016.
 - Objective: To develop an International Metrology Certification with Tribal students attending Navajo Technical University.
 - Collaborated with Dekker/Perich/Sabatini (DPS) Revit technicians to implement laser scans within Autodesk Revit, ReCAP, and InfraWorks software.
 - Co-authored research findings with students, developing internal reports and projects to implement best practices within the NTU-BIM curriculum.
- **Faculty Mentor** NASA CIPAIR & MUREP Research Grant, Center of Digital Technologies NTU, Crownpoint, NM, 05/2013-08/2013.
 - Objective: Strengthening Digital Manufacturing Curriculum at Navajo Technical College.
 - Supervised interns and administered project assignments focusing on Faro VirtuSurv and PointSense Plant software capacity.
 - Conducted laser scans in the field, integrated data, and reverse-engineering 3D modeling utilizing collected point cloud data.
 - Co-authored internal reports of research findings

Media

- Alisa Reznick, “Visualizing Arizona heat through maps”, ASU Now: Access, Excellence, Impact. July 3, 2019. Obtained 1/27/2020. <https://asunow.asu.edu/20190705-visualizing-arizona-heat-through-maps>
- Native News Online Staff, “NTU’S BIM PROGRAM TO CELEBRATE IT’S YEAR OF ACHIEVEMENT WITH AN OPEN HOUSE”. *Native News Online*, April 25, 2018. Obtained 01/27/2020. <https://nativenewsonline.net/education/ntus-bim-program-to-celebrate-its-year-of-achievement-with-an-open-house/>
- Carolyn Gonzales, “UNM professor and class win national planning award”, *UNM Newsroom*, June 19, 2017. Obtained 01/27/2020. <https://news.unm.edu/news/unm-professor-and-class-win-national-planning-award>

Presentations

- Tewa, Rae L., **Charley, E.**, De Mesa, Alycia., Brown, Kevin. (04/21/2023) PhD Student Panel at the Indigenous Scholar Symposium. Arizona State University Women Indigenous Council Doctoral Scholars. 3:00 pm – 7:00 pm. ASU Tempe, AZ.
- **Charley, E.** (01/19/2023) *Qualitative Research Methods in Indigenous Planning Theoretical Framework*. [Engineering for Humanity course at Arizona State University School of Human Evolution and Social Change]. 10:30 am – 11:30 am. ASU Tempe AZ.
- Hale, M., Chavez, J.-B., & **Charley, E.** (2022, March 2). *Food Stands & Navajo Flea Markets: Using Planning Tools to Tell the Story* [American Indian Studies Association]. 3:00pm-4:00pm, Arizona State University, Tempe AZ.

- **Charley, E.** (07/2018) *Dine (Navajo) Architecture and Planning Research* [5th Annual TCU Faculty Research Convening hosted by American Indian College Fund (AICF)]
- Halliday, Scott., **Charley, E.** (10/2017) *LIDAR Technology and Preservation* [Technology Preservation and Tradition in New Mexico Workshop]. Santa Fe New Mexico
- **Charley, E.**, Shirley, M. (07/2017). *Tribal College and University (TCU) Articulation Agreement with Traditional University* [4th Annual TCU Faculty Research Convening hosted by AICF]

Teaching and Instructional Activities

- **Teaching Assistant** PUP 579 Planning Methods 2 School of Geographical Science and Urban Planning Arizona State University. 01/2022-05/2022
 - Grading assignments
 - Provide students with feedback relating to assignment improvements
 - Assist a professor with administrative tasks
- Teaching Specialties: Building Information Modeling program at Navajo Technical University, Crownpoint NM
 - DFT 101 Entry Computer-Aided Drafting
Fall 2012, Fall 2013, Fall 2014, Fall 2015, Fall 2016, Fall 2017,
 - DFT 120 Computer-Aided Drafting 1
Fall 2012, Fall 2013, Fall 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019
 - DFT 220 Computer-Aided Drafting 2
Spring 2013, Spring 2014, Spring 2015, Spring 2016, Spring 2017, Spring 2018, Spring 2019
 - AMT 311 Laser Scanning Methods & Techniques
Spring 2014, Spring 2015, Spring 2016, Spring 2017
 - DFT 112 Architectural Drafting
Fall 2013, Fall 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018
 - DFT 212 Architectural Drafting 2
Spring 2013, Spring 2014, Spring 2015, Spring 2016, Spring 2017, Spring 2018, Spring 2019
 - DFT 240 Building Codes
Spring 2014, Spring 2015, Spring 2016, Spring 2017, Spring 2018, Spring 2019
 - DFT 250 Construction Management/Estimating
Spring 2014, Spring 2015, Spring 2016, Spring 2017, Spring 2018, Spring 2019

Professional Recognition

Recipient of the 2017 American Institute of Certified Planners (AICP) Student Project Award for “Contribution of Planning and Temporary Issues; The Secondary Dwelling Unit (SDU+U) study.”

Fellowships and Scholarship Awards

Ph.D. Urban Planning program at Arizona State University, Tempe AZ

- Recipient of ASU-Interdisciplinary Enrichment Fellowship
- Recipient of ASU-Knowledge Exchange for Resilience Fellowship
- Recipient of ASU-Graduate College Fellowship
- Recipient of The Frank and Harrison and Harry Austin Voting Rights Scholarship
- Recipient of Navajo Nation Graduate Scholarship
- Recipient of Navajo Nation Chilchibeto Chapter Scholarship
- Recipient of ASU University Grant
- Recipient of Andrew Mellon Fellowship, Naatsiilid Initiative Dennehotso, AZ

Masters of Arts in Community, Regional, and Planning at University of New Mexico, Albuquerque NM

- Recipient of UNM-JB Jackson Scholarship Award, 2017

- Recipient of American Indian College Fund Mellon Fellowship, 8/2016-5/2017
- Recipient of Navajo Nation Graduate Scholarship, 8/2015-5/2017

Bachelor of Applied Science in Interior Design at Northern Arizona University, Flagstaff AZ

- Recipient of Navajo Nation Undergraduate Scholarship
- Recipient of American Indian Services Scholarship for Native American
- Recipient of Chilchinbeto Chapter Scholarship
- Recipient of NAU-Continuing Higher Education Scholarship

Experiences

- **Design Automation Group (DAG) Tech Support** – Jacobs BIAF Advance Facilities & U.S. Federal Solutions Dept., Tempe, AZ, 03/2019-Present.
 - Manage automation programs and software; Provide technical support for Revit, laser scanning, and Navisworks users.

Professional Memberships

- American Planning Association, student member Arizona Chapter, 2019-Present
 - Western Planner - Tribal and Indigenous Planning Interest Group
- American Association of Geographers, student member, 2019-Present
 - Indigenous Peoples – Knowledge Communities member
- ASU Women’s Council of Indigenous Doctoral Scholars, student member 2021-Present
- ASU American Indian Graduate Student Association, student member 2019-Present
- Chilchinbeto Chapter House (Navajo Nation) voting member 2004-Present
- The American Indian Council of Architects and Engineers, student member 2023-Present