

2025 NMAC MEMBER RESEARCH GRANT RECEIPIENT REPORT

Exploring Diné Fortresses on Chacra Mesa

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I was fortunate to receive a NMAC grant to conduct research on Diné fortresses on Chacra Mesa, historically referred to as “pueblitos.” These fortresses are located near Chaco Canyon and Pueblo Pintado, NM (Figure 1). The grant supported lodging and travel, including driving from our base camp in Cuba, NM to the sites, and I am very grateful for this support. Our fieldwork took place over three weeks in October (October 7–25, 2025).

Chacra Mesa forms the southeastern flank of Chaco Canyon (Figure 1), a major cultural center of the Ancestral Puebloans from 850 to 1250 CE, known for its monumental great houses and extensive trade networks. While Chaco Canyon lies within northwestern New Mexico, Chacra Mesa is located just outside the Dinétah, the ancestral homeland of the Diné, located to the northeast (Figure 2). The Dinétah played a central role in early Diné cultural development (Towner 1996), but Chacra Mesa provides a distinct and valuable perspective for examining Diné interactions with Puebloan groups, Utes, and Spanish colonists.

The Diné connection to Chaco Canyon is understudied, and fortress sites from the Gobernador Period (1630–1765 CE) may represent some of the earliest Diné settlements in the canyon area. While defensive fortresses in the Dinétah are well documented, those outside this region remain less understood. In the mid-1700s, Diné communities on Chacra Mesa constructed sandstone masonry fortresses to defend against Ute raids and encroaching Spanish colonists. Unlike similar structures in the Dinétah, which often served as both defensive and habitation sites, fortresses on Chacra Mesa appear to have functioned primarily as lookout points along trade and migration routes (Vivian 1960; Brugge 1986; Van Dyke et al. 2023; Winnicki 2023). Residential dwellings, or hogans, were typically located nearby (Dykeman 2023; Vivian 1960).

While the fortresses themselves have been well documented, my research focused on the surrounding communities: where people lived, how long they occupied these areas, and how they interacted with neighboring groups. We re-recorded four Diné fortress areas previously documented by Gwinn Vivian in the 1960s, searching for discrete forked-stick or masonry hogans. Our goals were to better understand community structure, occupation patterns, and site function. We collected cores and cross sections for dendrochronology and collected gray ware ceramics for petrographic analysis. These analyses will help determine whether ceramics were locally produced or acquired through trade.

Fieldwork Highlights

At Site CM 10, previously recorded as an isolated fortress by both Vivian (1960) and Windes and McKenna (unpublished), we documented three new forked-stick hogans and a small trash midden near the fortress (see Photo 1). Site CM 2 and 4, previously noted as a reused Pueblo III defensive site (CM 2), showed dense occupation on the lower bench with 14 hogans (CM 4), most accompanied by their own trash scatters with Gobernador Polychrome, Puebloan tradewares, and flaked tools.

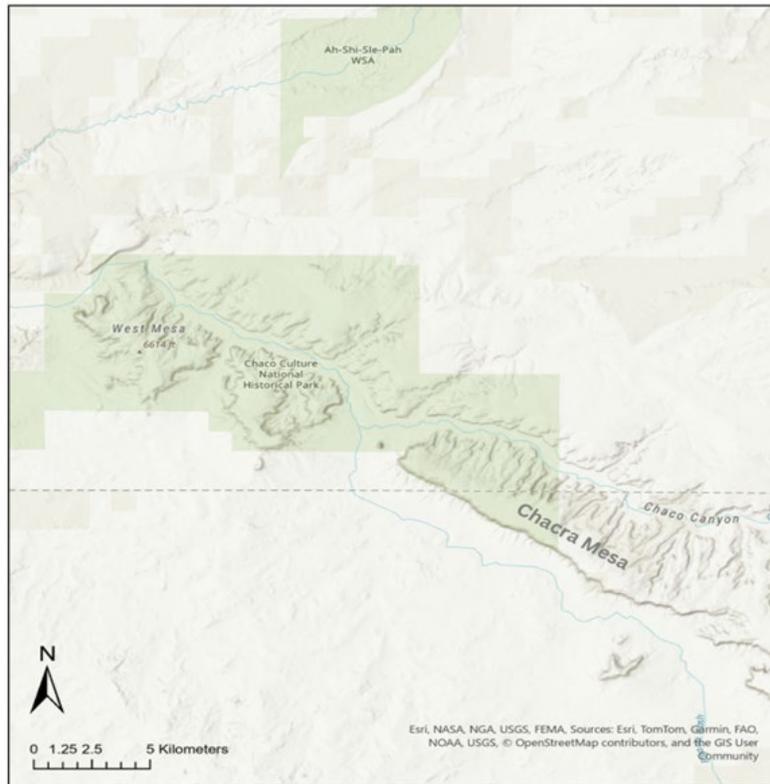


Figure 1. Chaco Canyon and Chacra Mesa



Photo 1. CM 10 Fortress Looking South.



Photo 2. Fortress at CM 2, PIII construction with repaired Gobernador Walls (1700s) and Hogan on detached hoodoo in background.



Photo 3. Masonry Hogan 9 at CM 4.



Photo 4. Vivian's (1960) excavated woodpile from Forked Stick Hogan 1 at CM 4.

We looked for CM 99, also recorded as an isolated fortress by Vivian in the 1950s. We surveyed the canyon and were unable to find the fortress that Vivian recorded in the 1950s. While we resurveyed the canyon, we discovered three forked-stick hogans dating to the Gobernador Period based on ceramics (Gobernador Polychrome and Jemez Black-on-White trade wares). We found datable forked poles as well, that will be dated by the Laboratory of Tree Ring Research. At NLC-EC-UC-P, a Navajo Land Claim fortress near Pueblo Pintado, we found ceramics, flake tools, bone tools, and expansive views of the area on a defended escarpment.

Ceramic Petrography

Petrographic analysis of Diné'tah Gray ceramics and Gobernador Polychrome will help assess whether potters sourced clay and temper locally, brought pots with them to defensive sites, or received them through trade. Ceramics made locally suggest longer-term occupation, whereas non-local ceramics may indicate occasional use of the sites and trade interactions with Puebloan groups. Diné'tah Gray is the primary Diné utility ware in the 18th century, yet little is known about its production, especially outside the Diné'tah. The only previous petrographic analyses in the area were done in Counselor (20 miles from Chacra Mesa), and they found Diné'tah Gray tempered with volcanic ash (Reed and Hensler 2001; Towner 2016).



Figure 2. Map of Diné'tah and Chaco Wash (Dykeman 2003)



Photo 5. Forked Stick Hogan remains.



Photo 6. Possible Jemez Black on White sherd.



Photo 7. Navajo Land Claim Site



Photo 8. Ceramics from CM 4- Top Tewa Polychrome, Bottom Gobernador Polychrome sherds.

Dendrochronology

Windes and McKenna revisited sites CM 2, CM 4, and CM 10, attempting to date wood from these locations. The dates for CM 2 and CM 4 are approximately 1782–1784 CE. I returned, hoping to find features and culturally modified trees to date. At CM 10, we found 3 new forked stick hogans, but they had no wood to date. We did find a culturally modified tree near the fortress, and we hope that it will lead to dates. During our search for CM 99, we found three forked stick hogans from the Gobernador Period and, based on the ceramics, and we were able to take dendrosamples from beams of two of those features. Additionally, we found burned wood at NLC-EC-UC-P.

While working on the survey, we found other sites that did not date to the Gobernador Period; however, their proximity to the sites may show continuity and deep connections of the Diné to Chacra and the Chaco area, so we sampled some of these sites as well.



Photo 9. Tanachy Bruhns Coring a Reservation Era House Door Beam.



Photo 10. Crew for Week 1 of my project from left (Leonard Perry, Julia Coverdale, Liv Winnicki, Wade Campbell)

Project Crew and Collaboration

My primary advisor, Dr. Ruth Van Dyke (Binghamton University), provided crucial expertise and guidance in planning and logistics leading up to the project. We collaborated closely with Diné historian and Chapter Vice President Leonard Perry (Crownpoint, NM) and engaged with local chapter house members and allottees. Dr. Wade Campbell (Boston University) provided essential guidance throughout the project, on safety during 4x4 driving, and invaluable expertise on Navajo Archaeology. Field assistance and ceramic identification (especially of those tricky graywares!) was provided by Julia Coverdale (Binghamton University), fieldwork and help with

all the hard stuff by Tanachy Bruhns (Chaco Canyon National Historical Park), and visiting helpers, including Leslie Sesler and Tim Hovezak, who helped identify subtle features like dismantled fork-stick hogans.

Next Steps

I will be processing drone imagery to produce detailed maps, submitting dendrochronology samples, and preparing ceramics for thin-section petrographic analysis. These results promise to shed new light on Chacra Mesa's Diné communities, their interactions and material culture. Future fieldwork will also include recording oral histories from local Diné residents to enrich the historical narrative of this landscape. This project highlights the importance of collaborative, community-centered research in understanding Diné history and cultural heritage with the Chaco Landscape. Thank you NMAC for helping to fund my project!

REFERENCES

Brugge, David M.

- 1963 *Navajo Pottery and Ethnohistory*, pp. 1–37. Navajoland Publications, Navajo Tribal Museum, Window Rock, Arizona.
- 1972 The Navajo Exodus. In *Archaeological Society of New Mexico Supplement No. 5*, pp. 1–16. Archaeological Society of New Mexico, Las Cruces, NM
- 1980 *A History of the Chaco Navajos*. Reports of the Chaco Center No. 4. U.S. Dept. of the Interior, National Park Service, Albuquerque.
- 1986 *Tsegai: An Archeological Ethnohistory of the Chaco Region*. Publications in Archeology 18C. U.S. Department of the Interior, National Park Service, Albuquerque.

Dykeman, Douglas

- 2023 Early Navajo Land Use and Economy: The Perfect Southwest Adaptation. In *Documenting the Dinétah: Papers in Honor of James M. Copeland*, edited by Emily J. Brown, Matthew J. Barbour, Jeffrey L. Boyer, and Cordelia T. Snow, pp. 179–192. Archaeological Society of New Mexico, Albuquerque.

Dykeman, Douglas D., and Paul Roebuck

- 2012a Navajo Emergence in Dinétah: Social Imaginary and Archaeology. In *From the Land of Ever Winter to the American Southwest: Athapaskan Migrations, Mobility, and Ethnogenesis*, edited by Deni J. Seymour, pp. 150–181. University of Utah Press, Salt Lake City.
- 2012b *Navajos in the A.D. 1500s: Archaeological Excavations at Archaeological Excavations at LA 55979*, Dinétah, New Mexico. Dykeman Roebuck Archaeology, Farmington, NM.

Ownby, Mary F., Deborah L. Huntley, and Hector Neff

- 2014 A Combined Approach: Using NAA and Petrography to Examine Ceramic Production and Exchange in the American Southwest. *Journal of Archaeological Science* 52:152–162.

Reed, Paul, and Kathy Hensler (editors)

- 2001 *Eight Thousand Years on Sisnathyel Mesa: Excavations at LA 16257 (NM-G-53-19) along the N46 Road near Counselor, New Mexico*. Navajo Nation Papers in Anthropology No. 36. Navajo Nation Archaeology Department, Window Rock, AZ.

Stephens Reed, Lori

- 2023 Pottery of the Diné'tah: A Review of Navajo Ceramic Technology, Style, and Iconography. In *Documenting the Diné'tah: Papers in Honor of James M. Copeland*, edited by Emily J. Brown, Matthew J. Barbour, Jeffrey L. Boyer, and Cordelia T. Snow, pp. 179–192. Archaeological Society of New Mexico, Albuquerque.

Towner, Ronald H.

- 1996 The Pueblito Phenomenon: A New Perspective on Post-Revolt Navajo Culture. In *The Archaeology of Navajo Origins*, edited by Ronald H. Towner, pp. 149–171. University of Utah Press, Salt Lake City.
- 1997 *The Dendrochronology of the Navajo Pueblitos of Diné'tah*. Ph.D. dissertation, Department of Anthropology, University of Arizona, Tucson.
- 1998 Navajo Culturally Modified Trees in the Diné'tah. In *Diné Bíkéyah: Papers in Honor of David M. Brugge*, edited by Meliha S. Duran and David T. Kirkpatrick, pp. 195–210. Archaeological Society of New Mexico Volume 24. Archaeological Society of New Mexico, Albuquerque.
- 2003 *Defending the Diné'tah: Pueblitos in the Ancestral Navajo Homeland*. University of Utah Press, Salt Lake City.
- 2008 The Navajo Depopulation of Diné'tah. *Journal of Anthropological Research* 64(4):511–527.
- 2016a Early Navajo Land Use in Northwestern New Mexico: Big Bead Mesa in Regional Perspective. *Journal of Field Archaeology* 41(1):118–129.
- 2016b Arboreal Archaeology and Early Navajo Land Use. *Journal of Archaeological Science Reports* 6:342–350.

Towner, Ronald H. (editor)

- 1996 *The Archaeology of Navajo Origins*. University of Utah Press, Salt Lake City.

Van Dyke Ruth M., Davina Two Bears, Liv Winnicki, and Maxwell Forton

- 2023 Condition Assessments and Emergency Treatment of Maintained Archaeological Sites On Chacra Mesa, Chaco Culture National Historical Park. Report prepared for the *USDI, National Park Service, Aztec, New Mexico*.

Vivian, R. Gwinn

- 1960 The Navajo Archaeology of the Chacra Mesa, New Mexico. MA thesis, Department of Anthropology, University of New Mexico, Albuquerque.

Winnicki, Liv

- 2023 *Context Is Crucial: A Review of Prior Research on Chacra Mesa*. Master's thesis, Department of Anthropology, Binghamton University, State University of New

York, Binghamton.