

A Briefing on the Chronology and Iconography of the Mesa Prieta Petroglyph Landscape in North-Central New Mexico

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Formerly known as Black Mesa, Mesa Prieta is a unique and highly significant cultural landscape in Northern New Mexico along the banks of the Rio Grande. With 60,000 petroglyphs recorded to date and tens of thousands presumed not yet documented, Mesa Prieta is in the same league as world-renowned rock art landmarks such as the Mojave Desert's Coso Range. Surprisingly, however, very little recent professional attention has been given to this remarkable tableland and even less has been published about it. Research biases dismissing the Northern Rio Grande as a cultural backwater have contributed to this paucity of research and lack of published data. This article is intended as a brief report on the current state of recording, research, and interpretation of the mesa's petroglyphs. By consolidating published and largely unpublished summary data, this report will assist those with avocational or scholarly interests in becoming more familiar with Mesa Prieta.

Background

The 20-km-long (12.42-mi) tablelands of Mesa Prieta stretch from the pueblo of Ohkay Owingeh to the mouth of the Rio Grande Gorge in northern New Mexico. Over 60,000 petroglyphs have been documented on the mesa to date, with full systematic coverage of nearly 3,100 acres (out of 32,000). The mesa's petroglyphs have featured in the research of many Southwest scholars, including Polly Schaafsma (1980, 1992), Richard Ford (2002), Helen and Jay Crotty, and others (e.g., Dennis Slifer 2000). The bulk of petroglyph recording however, especially since 1999, has been by teams of trained volunteer citizen-scientists affiliated with the 501(c)(3) non-profit Mesa Prieta Petroglyph Project (MPPP). Prior to the establishment of MPPP, select areas of the mesa were also recorded by cultural resource management teams (e.g., Boyd and Ferguson 1988; Futch 2001). While many

significant archaeological features and artifacts also pepper the mesa, I will largely restrict the scope of this paper to petroglyphs, save for instances when the associated archaeological materials contribute directly to discussing context and/or dating.

The myriad of petroglyphs at Mesa Prieta date to virtually all periods of the human history of the area, as determined from petroglyph designs, repatination rates, superimposition, and associated archaeological artifacts and features. In the following paper I discuss the material and visual culture of this enigmatic landform in terms of its relationship to a regional chronology, with an emphasis on the relationships between petroglyphs and key historical events in the history of the Southwest. With its position at a crossroads between various precontact and colonial corridors, Mesa Prieta and the communities living at its foot have played a surprisingly influential role in development of the region's history.

Chronology

The following covers the history of Mesa Prieta over significant time periods in its past. Figure 1 is a table of the later time periods of the Northern Rio Grande timeline, presented alongside the timeline for the Four Corners area and San Juan Basin. The timelines diverge in the Late Archaic, which will be explained below. Each section presents the predominant iconographic themes for the given time period.

Paleoindian

Paleoindian occupation in Northern New Mexico was sparse, however there is clear evidence of use of Mesa Prieta in this early time period. Projectile point fragments, including from the fluted tradition, have been recovered. Petroglyph design elements from this period, however, are poorly understood (Shaafsma 1992). Future dating attempts might be able to help distinguish Early Archaic panels from possible Paleoindian ones.

Archaic

The Archaic period is an extensive block of time in the Early and Middle Holocene during which a rather consistent pattern of human ecology and material culture is presumed to have dominated much of North America's intermountain west region. Highly mobile hunter-gatherer lifeways largely defined the human ecology of said region, a pattern once described as the "Desert Culture" by Jennings (1957), who later retracted the idea in an aptly named paper "The Short Useful Life of a Hypothesis" (Jennings 1973). The term, however, still persists in academic parlance, now describing the material and ecological patterns but largely recognized not to describe any singular group. Later successors of the so-called Desert Culture of the Archaic belong to linguistically and genetically distinct lineages, indicating nomadic foragers of the Archaic were also likely culturally heterogeneous (Shaafsma 1992:33). To emphasize the distinction

between archaeological and social definitions of "culture", I acknowledge "Desert Culture" as a heuristic tool but prefer to use the phrase "Western Archaic Tradition."

Among the arid plateaus of the Southwest culture area, the Western Archaic Tradition is largely believed to have gone by the wayside centuries prior to Euro-American contact. While this may broadly be the case, there are many lines of archaeological evidence that allow us to infer patterns of behavior, social structure, and iconographic symbolism. The broad reach of this pattern of lifeways however provides ample area for cross cultural comparisons and includes regions such as the Great Basin where similar nomadic lifeways persisted among Numic populations as late as the early twentieth century (Steward 1929, 1941). Although ethnographic analogy must only be applied with extreme caution, evidence from the Great Basin can be useful for interpreting patterns in Archaic Period data. For example, Brosman's (2012) proposition that one function of southern Nevada's rock art may have been to indicate spur trails for various resource patches would be consistent with observations by MacKenzie and Borduin (2019) at Mesa Prieta linking concentrations of Archaic Period panels and artifacts to particular trails.

Early Archaic. The first clear images at Mesa Prieta are presumed to date from the Early Archaic Period (7500 B.C. to 600 A.D.). This statement should be qualified with a number of caveats. First, absolute dating techniques for petroglyphs require destructive analysis that yields coarse resolution. The few such methods that are in practice (e.g., Liu and Dorn 1996) have been met with undue controversy.

Images produced during the Early Archaic show a considerable amount of consistency across the desert west, from the western slopes of the Rocky Mountains to Owens Valley, California. Designs are typically complex abstract geometric compositions, implying a high degree of improvisation (Figure 2a). In the Great Basin, the prevailing paradigm

Late Precontact Timelines		<-- Rio Grande Ancestral Pueblo (600-1600 CE) -->				Spanish Colonial (1598-1821 CE)	Mx /Am * **
Northern Rio Grande	<... Late Archaic (1500-600 BCE)	Developmental Period (600 - 1100 CE)		Coalition Period (1100 - 1300 CE)	Classic Period (1300 - 1598 CE)	Pueblo V/Historic Pueblo (after 1598)	Mx /Am * **
		Basketmaker III (500 - 750 CE)	Pueblo I (750 - 900CE)				
Colorado Plateau	<... Basketmaker II (1500 - 500 CE)				Pueblo IV (1350 - 1600 CE) <td>Spanish Colonial (1598-1821 CE) <td>Mx /Am * **</td> </td>	Spanish Colonial (1598-1821 CE) <td>Mx /Am * **</td>	Mx /Am * **
						Pueblo V/Historic Pueblo (after 1598) <td>Mx /Am * **</td>	Mx /Am * **

*Mx = Mexican National (or "Rancho") Period, 1821-1848 **Am = American Period (includes territorial and statehood) after 1848

Figure 1. Graphical table of later time periods, contrasting the Northern Rio Grande with the Colorado Plateau. Paleoindian and Early Archaic have been omitted.



Figure 2. Examples of images from (a) the Early Archaic, and (b) the Late Archaic.

has been to categorize these images as either “rectilinear” or “curvilinear” abstract forms, with the former sometimes presumed by some (e.g., Heizer and Baumhoff 1962) to be earlier. In neighboring regions, including the plateaus of the Southwest, strikingly similar designs are virtually universal among the petroglyph panels presumed to date to this period. This wide-reaching similarity led some (e.g., Schaafsma 1980) to classify Early Archaic images of the Southwest and Great Basin as one in the same. Sometimes referred to as the Great Basin Abstract Style, these early intricate and abstract geometric forms are attributed to the Western Archaic Tradition (e.g., Schaafsma 1980).

Complex, intricate, and abstract forms stylistically linked to the Western Archaic Tradition are known in prominent positions at Mesa Prieta. Heavy to full patination in addition to the motifs described above are the primary criteria for inferring an Archaic origin of any particular panel or part thereof, although stylistically Archaic projectile points have also been identified on the escarpments. Despite some large, prominent, and decidedly Archaic panels, their distribution is rather sparse and their frequency low. Accounting for only sampling biases against more ephemeral marks (e.g., scratches and light pecking), current estimates are that no more than 5 percent of petroglyph panels contain firmly Archaic components, with even fewer of these comfortably from the Early Archaic. MacKenzie and Bourduin (2019) provide the following subcategories to describe most of the Early Archaic designs: linear meanders (complex curvilinear designs), branched lines and ladders (often rectilinear), grids and net-like patterns (may or may not combine rectilinear and curvilinear forms), discs, cupules, grinding slicks, and other patterns (rayed circles, very thick lines, and rock edge enhancement).

Late Archaic. By the Late Archaic (1500 B.C. to 600 A.D.), regionalization began to develop in rock art motifs in the desert west. In what is now Utah, the distinctive Barrier Canyon and

Glen Canyon Linear styles emerged (Schaafsma 1992:35). The Late Archaic roughly corresponds to the Great Basin’s Newberry Period (Schneider et al. 2000) and the Mojave Desert’s Gypsum Complex (Sutton et al. 2007), during which the Coso Representational Style (Heizer and Baumhoff 1962) emerged out of the Desert Archaic Tradition. At Mesa Prieta, the range of petroglyphs thought to originate from the Late Archaic Period broadened to add some of the first iconic designs to the visual lexicon (Figure 2b). These new designs were largely types of tracks, especially ungulate tracks, but also those of birds, human feet and sandals, and so-called bear tracks with occasional polydactyl variants (Mackenzie and Bourduin 2019). It is important to note that these designs appear to have persisted into early Pueblo (Developmental and Coalition) times. If that inference is correct, then the continuity of Late Archaic design elements into at least the Developmental Period at Mesa Prieta supports Steen’s (1983:169) supposition that “along the upper Rio Grande, a small stable population developed from an Archaic Base.”

Ancestral Pueblo

The onset of the Pueblo timeline along the northern Rio Grande began much later than in areas to the west and north, earning this region its own distinctive archaeological chronology. The persistent use of pithouses by small populations well past the onset of the Colorado Plateau’s early pueblos has erroneously earned the Northern Rio Grande a reputation as a cultural backwater (Fowles 2018). Instead of this flawed stereotype, scholars like Fowles argue for understanding the Northern Rio Grande as an area in which occupants and migrant groups adapted to social and demographic shifts as well as to environmental factors.

Developmental Period. Between the close of the Late Archaic and the onset of roomblock style pueblos in the area were several centuries of transition, the so-called “Latest Archaic” as Post (2002) quipped. As pithouse architecture

and semi-sedentary lifeways persisted between 600 to 1100 A.D., it should be no surprise that some continuity in rock art designs is also found. Design continuities in Northern Rio Grande rock art between the Late Archaic and “Latest Archaic”, a.k.a. the Developmental Period, when contemporaneous Chaco Canyon was constructing monumental great houses, have resulted in a profound research bias against the Northern Rio Grande region during this time period (Fowles 2018). In line with the positions of Post and Fowles, I argue that the continuity in designs (and even continued low frequencies) between the Late Archaic and Developmental Periods at Mesa Prieta represents the resilience of cultural identity for a likely nomadic or semi-nomadic local population that nonetheless maintained economic contact with, and derived inspiration of select motifs from, sedentary agriculturalists to the west.

At Mesa Prieta, icon-derived imagery such as human figures, faces, animals (Figure 3) and implements/artifacts increases for Pueblo periods, adding to a repertoire of figurative designs that already included tracks of humans and ungulates. While obvious hunting imagery is rare to lacking, both game animals (ungulates) and hunting weapons are depicted. Whether these were created during the Developmental or later periods remains a question as no associated habitation features have been unambiguously identified and excavated on the mesa. Comparing the levels of patination between different panels without rigorous (and destructive) geochemical and/or petrographic analysis yields unreliable results, but these designs do tend to have slightly higher levels of patination than the more ubiquitous Classic period designs. Because of precautions and uncertainty, it is most prudent to divide Mesa Prieta’s Pueblo petroglyphs into



Figure 3. Ancestral Pueblo petroglyph, deeply pecked, depicting a stylized quadruped.

two periods: Early Pueblo, encompassing both the Developmental and Coalition Periods, and the Classic Period.

Coalition Period. For the Chama River/Rio Ojo Caliente pueblos at the foot of the west escarpment of Mesa Prieta—namely Ponsipa-akeri and Sandoval—archaeological evidence from pottery sherd frequencies and the scale of architecture indicates that populations remained low in the Coalition period until the cusp of the transition to the Classic period (Duwe 2019; Ortman and Davis 2019). The pueblos of the Chama River and its tributaries likely predate the Rio Grande pueblos of Ohkay Owingeh and Phioge along the east escarpment. This means that significant differences in style, subject matter, or technical execution of petroglyphs between the west and east escarpments could be used to infer chronological differences between Coalition and Classic period designs.

Unfortunately, a number of factors complicate this. First, the topography and geological substrates differ between the two escarpments, with the east side exhibiting a gradual incline of natural benches topped with outcrops of the basalt capstone, while the west escarpment is much steeper, less wide, and dominated by soft limestone. Second, the MPPP's survey coverage to date is highly biased towards the east escarpment, in part due to pragmatism and in part because of an expectation by several successive project archaeologists that the west escarpment is largely not suitable for petroglyphs. Third, were any differences to be found they would need to be disentangled from the potential distinctions between residential communities, as Ponsipa-akeri was occupied well into the Classic period as well (Duwe 2019). The matter of Coalition period use, communities, and iconography at Mesa Prieta remains an open and largely unexplored question.

Classic Period. Based on style, qualitative evaluations of repatination, and associations with pottery fragments, the vast majority of Mesa Prieta's petroglyphs—roughly 75-80 percent—are believed to date to the Classic period (1300 to

1598 C.E.). Classic period images are dominated by iconic motifs (in the semiotic sense), including people, animals, and objects. In the first half of the fourteenth century, populations in the Northern Rio Grande area and particularly along its tributary, the Chama River, began to boom, largely as a result of the influx of agriculturalists leading to increased food productivity that further fueled population growth (Ortman and Davis 2019). Ortiz (1969) recounts an origin story from Ohkay Owingeh in which the two seasonal clans—summer and winter—migrated southward to found the northern Tewa pueblos. This oral tradition is largely thought to record the outflow of Pueblo III populations from the greater San Juan drainage south and east to the Rio Grande (Cameron 2006). This is not the only such story, however, and Tewa author Tessie Naranjo (2006) shares an account of her ancestors arriving at Santa Clara Pueblo from the Galisteo Basin area via Puyé. It seems that community formation and ethnogenesis during the Classic period was not a simple unilineal process. Classic period contributors to the visual and material culture at Mesa Prieta, while largely linked to migrating agriculturalists, also had family ties to other parts of New Mexico, and given the Early Pueblo (Developmental and Coalition periods) evidence, likely also to the “Latest Archaic” semi-nomadic hunter-gatherers of the area.

One prominent theme in Classic figurative motifs is the depiction of implements of hunting and violence. Weapons, archers, projectile point designs, shields and shield bearers, and metaphorical references (e.g., mountain lions) are common on Mesa Prieta, especially on the lower third of the east escarpment (Figure 4). Interestingly, the proportion of such martial imagery at Mesa Prieta compared to the Pajarito Plateau and other areas is significantly lower (Schneider 2019). Schneider (2019) interprets these low rates to indicate the martial imagery that does exist as functioning in some capacity other than to record violent events, most likely as an expression of ideology. Supporting Schneider's findings, multi-



Figure 4. Martial imagery conveying the “shield bearer” motif. Both elements combine pecking and scratching techniques to depict details, including handheld implements, legs, and ornaments.

element compositions laden with martial imagery (e.g., Liwosz 2021:Figure 5) indicate ceremonial events including processions and music.

Some of the most renowned and iconic images from Mesa Prieta are the unusually prolific flute player motifs, especially animal flute players. Flute players are not evenly distributed on the landscape. Instead, they cluster on steep (greater than 35°) slopes and are not found on free standing boulders in flat areas. Presently this association is hypothesized to indicate a strong association between the depiction of musical instruments and spaces which reflect sound in novel ways (e.g., strong echoes, possibly reverberation), however further testing is needed. Acoustical effects are a matter of ongoing study (e.g., Liwosz 2021), and are expected to articulate with discourses on ceremonialism and neuropsychology in rock art.

Flute player images fall into three sub-categories: anthropomorphic, zoomorphic, and therianthrope (Figure 5). The significance of the zoomorphic flute players is unclear, however associations with oral traditions seem likely for some. Therianthrope figures featuring both human and animal characteristics (e.g., Slifer 2000:88, Figure 92) may be linked to ritual transformations such as those common in shamanic religious traditions. Anthropomorphic flute players nearly invariably feature a “humpback,” and may often be phallic, supporting associations with fertility imagery (Slifer 2000:85-89). In this manner, at least some if not all of flute player images at Mesa Prieta are examples of a broader trend of both explicit and metaphorical expressions of fertility imagery. Sprouting seeds, genitalia, copulation scenes, and figures with “fertility humps” are all common

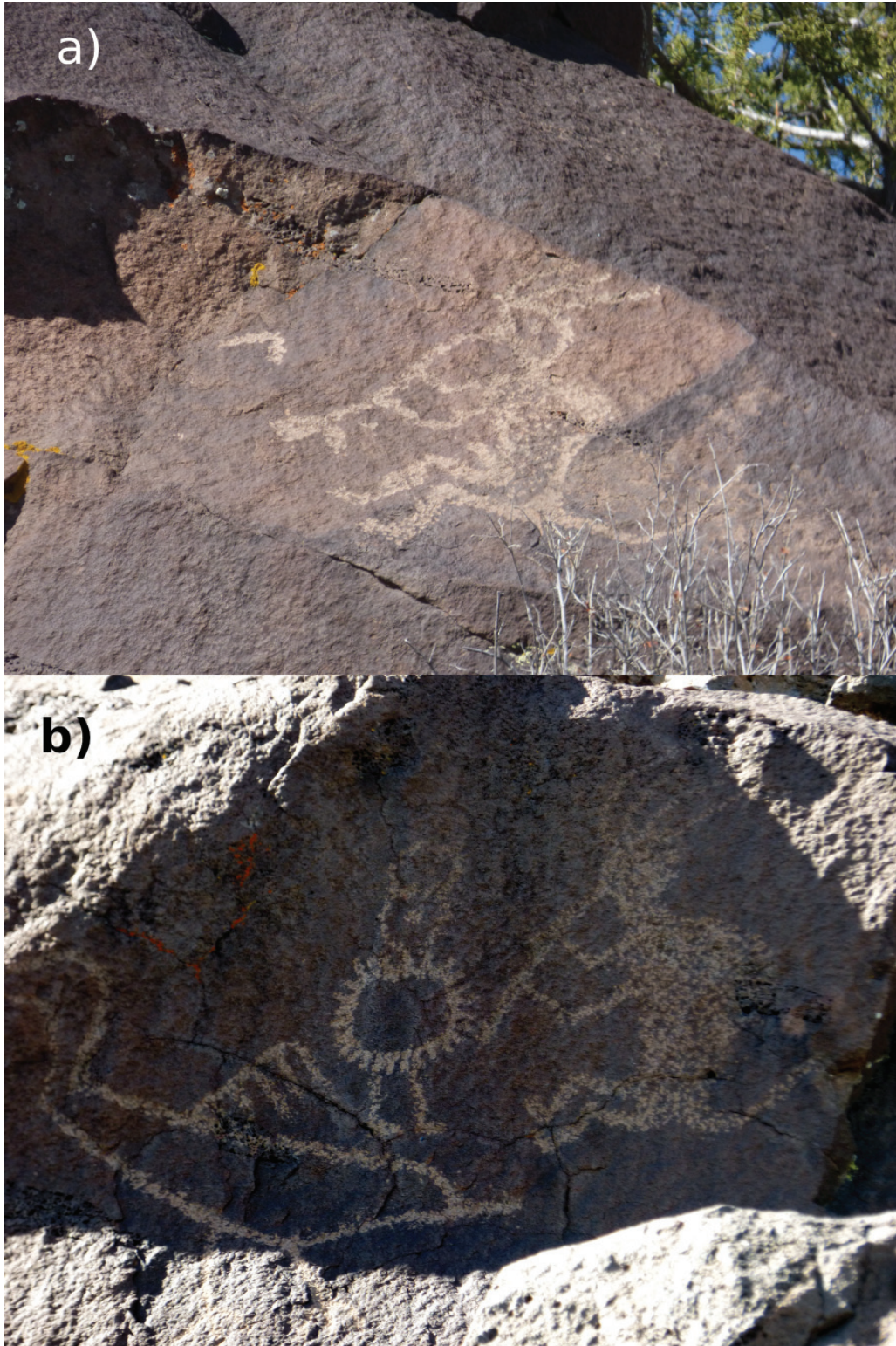


Figure 5. Examples of therianthrope flute players with human limbs, a “fertility hump” on their backs, and long tails.

Classic period motifs at Mesa Prieta. Examples of these are featured in several publications, including several shared by Slifer (2000:45, 57, 88, 92, 106, 153, and Plate 11). The frequency and prominence of fertility themes should be further explored in future at the mesa.

Post-Contact Periods

European contact and the beginnings of colonization of the region are generally marked at the arrival of Juan de Oñate in 1598, nearly a half century after the onset of contact in the Albuquerque basin. Interactions between indigenous and colonial-settler groups remained complex for centuries. Many New Mexico pueblos inhabited at the time of initial contact are still inhabited today, the closest of which are Ohkay Owingeh and Santa Clara Pueblo (Tewa), and Picuris and Taos (Tiwa). The continuation of Pueblo communities and traditions

in the face of settler claims has led some to adopt the term Pueblo V for the period from 1600 C.E. to today, but even this term does not fully encompass the many expressions of Indigenous sovereignty. In addition to the arrival of Euroamerican settlers, the Northern Rio Grande also saw more frequent interactions with increasingly mobile non-local Native Americans, especially Jicarilla Apaches and Comanches (Fowles et al. 2017). Scratched style equestrian designs (Figure 6) may be from Comanche visitors to the mesa and are not consistent with Pueblo carving techniques.

Nonetheless, colonization significantly contributed to profound economic shifts, increased population mobility, and escalating violence. These processes began during the Spanish Colonial period (1598-1821), roughly contemporary with the Mission period in regions like California. During this time, the Catholic church aggressively spread its influence, shaping religious traditions and ideals that are emblematic of New Mexico today. This



Figure 6. An uncommon equine image executed with an atypical scratching technique.

ideological shift indelibly changed the religious iconography at Mesa Prieta, where an estimated 3,500 instances of crucifixes (in several variants) have been recorded to date (Figure 7). The context of crosses is also interesting, as they are presumed to be associated with the perimeters of, or trails to, pastureland on the flatter benches of the east escarpment. Mesa Prieta saw significant domestic sheep and goat grazing from the seventeenth through nineteenth centuries. The pastureland associations are substantiated by presumptive livestock brand motifs (Figure 8). These images often correspond to confluences of letters and/or share formal similarities with later brands registered during the New Mexico Territorial period. Like many crucifixes, their pastureland context on and along the aforementioned benches. One last Colonial influence during this time, and somewhat unique to Mesa Prieta, is the appearance of a handful of Spanish heraldic lions (Figure 9).

The collision between Indigenous and Colonial worlds could not be more apparent than at Mesa Prieta, which was at the epicenter of one of the most momentous events in post-contact New Mexico, the 1680 Pueblo Revolt. Organizer Popé hailed from Ohkay Owingeh, seated right at the southern terminus of the mesa. To time the revolt, knotted segments of yucca cordage were distributed among the pueblos, with one knot untied each day to provide a countdown. The revolt itself, and the Spanish counter-offensive in 1692, spawned substantial violence. While MPPP and I do not have sufficient evidence at present to conclusively associate any particular panels to the Pueblo Revolt with certainty, many panels with relatively light repatination depict scenes with iconography reminiscent of the story of that event, as well as the overall trends in violence during this time. Ortiz (1969) describes scalp trophies as a symbolically important part of Tewa warfare, a practice which



Figure 7. Variations on the Christian cross motif.



Figure 8. A presumptive livestock brand pecked into a small stone and placed sideways on top of larger stones. This motif is ubiquitous in an area once suitable for grazing.

might be depicted in the panel in Figure 10. In another example, Figure 11, an outlined human holds a length of circular dots, reminiscent of knotted cords like the one described in the story of the Pueblo Revolt.

The briefest period in the settler-colonial timeline is the Mexican period (1821-1848), often referred to as the Rancho Period in California because during this time the Mexican national government secularized the powerful Catholic missions and redistributed the land to its more privileged citizens. Perhaps the most significant event for New Mexico during this time was the Mexican American War, which ultimately led to New

Mexico being ceded from Mexico and annexed by the United States. Once again Mesa Prieta was the seat of resistance, as “Nuevo Mejicanos” faced off against U.S. federal troops in a conflict that would be named the “Battle of Embudo” (McNierney 1980). Mesa Prieta was denoted as “high table land” in a 1948 map of the conflict (McNierney 1980:70). While no explicit iconography of this event has been identified, numerous bullet marks are present on boulders in the immediate area of the Battle of Embudo (although these may just as likely be marks from later recreational firearm practice). Private landowners in the vicinity frequently report recovering artifacts of the battle.



Figure 9. One of the less frequently seen Spanish heraldic lion designs. This design appears to merge the styles of Ancestral Pueblo petroglyphs with telltale European heraldic forms.



Figure 10. A panel with two pecked anthropomorphs, one on horseback. The standing figure to the right is holding two objects, with the infilled and raised object elaborated on with many fine scratches giving the impression of hair on a head or scalp.



Figure 11. Ancestral Pueblo image from the Wells Petroglyph Preserve of a person holding a beaded or knotted chord.

Concluding Remarks

Much of our knowledge of this exceptional landmark is owed to both archaeologists and avocational citizen scientists who have dedicated their time, often without compensation, towards recording and preserving Mesa Prieta. Archaeological interest in the petroglyphs began with regional surveys about a half century ago, however at the time much of the mesa was in private hands and unprotected. Strides towards preservation have only been made in more recent decades thanks in large part to outreach and public education programs. Spearheading this, Katherine Wells has ensured the preservation of 188 acres through a donation to the Archaeological Conservancy of some of the most petroglyph-rich acreage. Much remains to be protected in perpetuity, however, and only through scholastic interest and disseminating the results of these research projects through public programming and engagement can more of the 32,000-acre mesa be

moved towards protection.

In the previous discussion, I have related Mesa Prieta to several significant historic events, as well as to every period of human occupation in what is now New Mexico. This landmark exemplifies a location prone to repeatedly influence the history, ecology, and ideology of its resident populations over great time despite demographic shifts, what Schlanger (1992) called a “persistent place.” Mesa Prieta is uniquely emblematic of New Mexico, its dramatic geography, and every phase of its history. It also remains tied to the “big picture” academic questions of deep time, the peopling of the American interior, human ecology, processes of ethnogenesis, colonialism and resistance, and religious syncretism. While these densely theoretical topics are beyond the purview of the paper at hand, it is my hope that the information provided facilitates future interest into how Mesa Prieta and its immediate surroundings can contribute to those conversations.

Data Availability Statement

This paper references petroglyph records on file with the Mesa Prieta Petroglyph Project, a 501(c)(3) not-for-profit organization. The Mesa Prieta

Petroglyph Project supports outside scholarship. Records are regularly provided to the Laboratory of Anthropology. All petroglyph records, including physical and digital archives, are available to credentialed scholars through either institution.

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