# CONTEXTUALIZING HIGHLY FRAGMENTED REMAINS AS COMPLEX MORTUARY PRACTICES IN THE AMERICAN SOUTHWEST (AD 700-1700)

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# ABSTRACT

CONTEXTUALIZING HIGHLY FRAGMENTED REMAINS AS COMPLEX MORTUARY PRACTICES IN THE AMERICAN SOUTHWEST (AD 700-1700)

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Violence is never an isolated or meaningless act, but intentional, communicative, and socially meaningful. This dissertation extrapolates that meaning through a holistic methodology by focusing on the cultural context of previously analyzed and archived collections of heavily fragmented human remains from the American Southwest (AD 700-1700). The intent is to provide critical information about the motivation and meaning behind these assemblages. Previous works claiming these osteological collections were the result of cannibalism are problematic with indigenous populations having lived with this dehumanizing stigma for more than two decades. The goal of this study was to provide a different interpretation to explain the cultural reasoning behind the behaviors related to the modification and handling of these bodies. This research used a number of lines of evidence including an extensive review of the literature, ethnographic histories, original field notes, maps, and photos from excavations to contextualize and reinterpret the earlier conclusions.

Although the majority of the remains for this research have been repatriated or are no longer available for physical examination, this dissertation shows the possibility of continuing bioarchaeological research on repatriated sites. By analyzing the nuances and characteristics of

these numerous different archaeological sites from across the American Southwest with fragmented remains this research adds to the existing literature regarding these processed skeletal collections. This research urges scholars to not rudimentarily place these remains in a single category of cannibalism, but to instead view the sites individually and holistically across time and place and most importantly within cultural context.

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# DEDICATION

This dissertation is dedicated to my parents. Thank you for all your tireless hours of help and proof reading. You allowed me to do key points of my degree in your basement surrounded by people I love. Thank you to my sisters who encouraged me to follow my dream. Thank you to my cohort and UNLV friends for all the walks and times you allowed me to bounce ideas off you. And to Barry for supporting my dream of being Indiana Jones and getting a higher degree to play in the dirt.

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# CHAPTER 1

## Introduction

This dissertation is a reanalysis of collections of highly fragmented and commingled human remains from the Ancestral Puebloan Region of the American Southwest. The primary goal of this study is to use multiple types of data to better interpret the motivations behind the behaviors related to the cultural modification of bodies. This research includes data from ethnographic accounts, original field notes, osteological records, and previously published sources on the topic to better understand the motivation for extreme processed events in the United States Southwest. This dissertation is composed of three distinct papers that were written as two book chapters and a journal article. The first paper is a book chapter written for *The Routledge Handbook of the Archaeology of Violence in the Americas*, a volume edited by R. P. Harrod and A.M. Pérez-Fórez. This first paper, presented in Chapter 2 is titled "The Makeup of a Massacre: Patterns in the Demography of Extreme Processed Events from the American Southwest." The second paper, introduced in Chapter 3, is a journal article for *KIVA: Journal of Southwestern Anthropology and History* titled "Commingled and Burned Ancestral Pueblo Remains as Complex Mortuary Practices." Chapter 4 presents an additional book chapter titled "Ontological Insecurity and Social Transformation: Ritualized Violence and Corporeality—Pueblo Case Study." This book chapter discusses the social theory of ontological insecurity as possible motivation for the creation of these highly fragmented remains This chapter is part of the book *Exploring Ontologies of the PreContact America* edited by Gordon F.M. Rakita and Nené Lozada.

## Highly Fragmented Remains

Throughout the Ancestral Southwest numerous disarticulated, fragmented and burned collections of human remains have been found that are frequently explained as the result of extreme processing events. Extreme perimortem processing or extreme processing was a term coined by Kuckelman in 2000 to indicate skeletal collections which have been broken into small fragments. This term is amply fitting as many of the extreme processed skeletal collections consist of especially small fragments. For example, the average fragment length of a long bone from the site of Sacred Ridge was less than 5 cm long (Osterholtz, 2018) Besides breakage and burning, these assemblages often show evidence of cut marks and commingling. Most of these collections include individuals of both sexes and a range of ages from children to adults. These highly fragmented remains have been found in sites throughout the Ancestral Puebloan region including, New Mexico, Colorado, Arizona and Utah. In addition, these assemblages range greatly in the archaeological time periods of their creations. For example, Sacred Ridge from Colorado is one of the earlier sites dating to the Pueblo I period or around AD 810 Polacca Wash on the other hand dates to the Pueblo IV period around AD 1485-1675. These collections in the American Southwest have been the subject of numerous research investigations. This dissertation adds to the literature surrounding these remains by placing them in their cultural context.

## Background Cannibalism Claims and Framing for Current Research

The focus of this dissertation is to systematically reanalyze disarticulated and commingled human remains from the American Southwest (AD 700-1700) that represent the ancestors of present-day Hopi, Zuni and other Pueblo groups. The American Southwest has a deep history of occupation and a rich archaeological record. The human remains discussed in this dissertation have been of interest to numerous researchers over the years. A popular

interpretation for the creation of these skeletal assemblages has been cannibalism. The claims of cannibalism come largely from the highly publicized book by Turner and Turner (1999) entitled *Man Corn: Prehistoric Cannibalism and Violence in the American Southwest* that was reissued as a paperback in 2011. The actual empirical data from which the interpretation of cannibalism is based on has been challenged by cultural anthropologists and archaeologists (Martin, 2016; Martin and Osterholtz, 2016; Perez, 2006; Darling, 1999; Bullock, 1991).

Turner and Turner (1999) proposed these cannibalistic events where examples of social pathology exhibited by so called "Toltec thugs" from Chaco Canyon who roamed the countryside creating terror. White (1992) claims that because the human remains were handled similarly to butchered animals they too must have been eaten. Lekson (2002) believes that Chaco Canyon and later Aztec Ruins controlled the region politically and these extreme processing events were political executions that were used as a way to create terror and force villages to follow Chaco's political rule. In this instance the widespread knowledge of these events was intended to induce other villages to "behave" and fall in line with their political control. For numerous years archaeologist were content to push the theory of rampant cannibalism across the Southwest despite vocal disagreement from descendent communities.

Criticisms and alternative hypotheses have been presented, ranging from ancestor veneration to secondary burials, mortuary rituals and perhaps a form of social violence with symbolism and ritual at its core (Bullock, 1991; Nichols and Crown, 2008; Darling, 1999; Martin, 2016; Martin and Osterholtz, 2016; Perez 2012). Perez (2012) suggested ancestor veneration that included secondary burial practices that involved the disarticulation of particular body parts. Tool marks and cuts on the bones might be attributed to the ritualistic removal of flesh. The breakage of the bones can also be explained by secondary burial and relocation of the

remains in prehistoric times. A site in the La Plata area of New Mexico, LA 37592, has an assemblage that in the past has been defined as cannibalism, but in fact, there is conclusive evidence of secondary relocation of the remains at this site (Martin, 2016). All of these culturally specific motivations have context-dependent factors and, by extension, will have different skeletal signatures that would aid in differentiating among the motivations and behaviors at the time of the killings (Martin, 2016). Schachner points out that the "assumed homogeneity of Ancestral Pueblo mortuary activities is likely incorrect" (2015:112). Considering the number of different mortuary practices and activities that existed in North American and Mesoamerican societies it is no surprise that there might have been multiple practices in the Ancestral Southwest as well that caused these fragmented collections. Comparing data from the Southwest with known cases of cannibalism, massacres and complex mortuary practices can offer a picture of why these collections were handled in such a way.

To ascertain the motivation behind the treatment of these remains, each assemblage should be contextualized in terms of mortuary treatment and archaeologically reconstructed attributes of the larger site (Pearson, 1999). By using archival data collected from the field notes of the original excavation team as well as past publications and ethnographic accounts the purpose of this dissertation is to better situate these collections within the history of the Ancestral Southwest. It is fortunate that there is a rich archival and ethnographic body of resources on the historic Pueblo people from which some of the symbolic and ideological context may be partially reconstructed (Whiteley, 2008). As has been argued by Crandall and Martin (2014) a more integrated and holistic approach to the cultural manipulation of the dead is needed. The remains must be contextualized within their local cultural and historical setting. Manipulation of corpses can have a number of different meanings and it is important to firmly place the remains within

their cultural context before suggesting a motivation. An understanding of the cultural context based on a comparison of local burial customs and practices is crucial information for making claims of cannibalism (Villa, 1992).

**Ethical Consideration**

Bioarchaeology offers the unique potential to give voice to past populations and to present complex and nuanced interpretations based on more advanced methods for data analysis. (Zuckerman et al., 2014). It is important to note that the skeletal collections to be used in this dissertation are tied to multiple tribes and descendent communities. Tribes have been vocal about wishing to have their ancestors' remains returned and reburied. Researchers working with indigenous remains and artifacts should be mindful of this opinion and should strive to respect descendants' wishes.

By focusing on archival information and past data collected by bioarchaeologists, this research demonstrates a new, more conscientious approach to reconstructing the past through bioarchaeology. Archaeological skeletal collections that were acquired without the consent of the descended populations deserve to be repatriated per the wishes of their descendants. In addition, skeletal collections require long-term resources to ensure they are stored and handled correctly (Freiwald and Wolf, 2019). When the ultimate goal of the descendant communities is to have ancestor remains returned, bioarchaeologists must begin exploring and utilizing alternate ways of studying skeletal collections that may not involve handling physical remains. Combining reliable past research about the basic information regarding the remains and original source material from excavators, ethnographies, current archaeological and environmental research, and contemporary theoretical approaches past skeletal collections can continue to add to the depth of

knowledge that surrounds past populations without researchers disregarding modern descendant wishes.

Widespread claims of cannibalism have concerned Native American communities which have steadfastly argued that the Turners' interpretation is both wrong and harmful (Dongoske et al., 2000; Ferguson et al., 2001; McGuire and Van Dyke, 2008; Whiteley, 2008). The cannibalism hypothesis fails to account for the broader understanding, meaning, and context relating to mortuary archaeology and how this is entwined with the role of violence and death in small-scale societies (Nichols and Crown, 2008). By using archival data from the original excavators, this researcher hopes to better understand these collections and how they were produced and at the same time respect the descendant communities' wishes for these remains to be repatriated.

**Previous Methodology to Conclude Cannibalism**

The original methodology used to argue that these remains were produced by cannibalism involved a cursory checklist. This checklist used the presence or absence of six criteria that included breakage, cut marks, burning, anvil abrasions, pot polishing, and missing vertebrae (Turner and Turner 1999). These criteria were based on the assumption that these human remains were being treated the same way as large animal remains that were butchered to be consumed. However, it has also been pointed out by researchers that there are only so many ways to disarticulate a large animal, humans included (White 1992:359)

If the skeletal collection checked positive for these criteria (no matter the context), the Turners labeled the assemblage as cannibalism. This label has overshadowed other potential hypotheses regarding corpse manipulation and unusual mortuary treatment. As pointed out by Bullock (1991), the six criteria used by the Turners could also be produced from death by

battery, manipulation of the bodies as part of a mortuary rite, or veneration of the dead through defleshing and dismemberment. What is also important to note is that the Turners originally proposed 14 criteria that were necessary before they would concede it was cannibalism, but because none of the assemblages met those criteria, they reduced it to the six phenomena they saw most frequently on the bones (Kantner, 1999)

Through simple cursory observations, there are fundamental differences in how the remains for these collections were processed and how the bones of butchered animals were handled. For example, these fragmented human remains were not found in trash middens (White, 1992). Faunal remains were often discarded in trash areas, whereas the fragmented human remains were found in pit houses, kivas, towers and other domestic structures. In addition, faunal remains often have evidence of carnivore gnawing on the bones, yet there is a lack of carnivore damage on the human remains (White, 1992). There is also a lack of human teeth marks found on the purposed cannibalism collections from the Southwest. Meanwhile, human teeth marks have been found on other archaeological cannibalized skeletal collections in other locations (Cáceres, 2007).

**The Power of the Dead**

This dissertation explores the connection between the handling and manipulation of the dead and the power that this treatment has over the living (Crandall and Martin, 2014). For example, Osterholtz's 2020 edited volume *The Poetics of Processing: Memory Formation, Identity, and the Handling of the Dead* discusses how group identity can be created and strengthened through the manipulation and transformation of the dead. Corpses have power as individuals and objects (Anstett, 2014). Corpse modification and manipulation can have important cultural significance. For this research the term “complex mortuary practice” refers to

the variety of rituals and rites surrounding how the living interact with the dead. Multiple other researchers have suggested that the dead remain socially and politically active even after death (Crandall and Martin, 2014; Tung 2014). The disarticulated remains in the Southwest could present a greater symbolic meaning than simply showing the end of a cannibalistic feast. Each assemblage must be richly contextualized in terms of mortuary treatment, i.e. demography, placement of remains and how they were handled as well as other archaeological attributes (Pearson, 1999). Violence against a corpse communicates symbolic and socially meaningful messages to the living. Therefore, violence like corpse manipulation, has influence on both the perpetrators as well as the individuals witnessing the violence and/or the aftermath of the violence (Whitehead, 2005). How dead bodies are handled can determine how the perpetrators viewed the individuals they were disarticulating and burning. This is an important theoretical perspective that can be used to better understand a wide range of cross-cultural behavior around the power of the dead (Verdery, 1999).

Understanding how and why individuals died, and under what circumstances, has not been fully interrogated for these human remains. The handling and manipulation of the body prior to burial or discard has never been fully examined or conceptualized. The variability and nuance in how these remains were processed has traditionally been argued to reflect the reductionistic interpretation that these remains were all produced by the same process and therefore represent the same practice, i.e., cannibalism (Kohler et al. 2014; Turner and Turner 1999). A goal of this research is to add to this concept and to better understand the social agency of dead bodies, their agency in restoring balance and harmony, and the role of the dead in acting as power-brokers between the dead and the living.

**Research Objectives and Questions**

For this dissertation a literary review of commingled fragmented remains in the American Southwest was conducted. Multiple sites were identified and examined for both their cultural context and their nuances. Original fieldwork from archaeologists was studied as were books, journal articles and edited volumes related to fragmented remains in the American Southwest. In addition, ethnographic oral histories, legends and Puebloan cosmology were combined with the osteological data that was obtained from previously published sources. These different lines of evidence are used to better place the commingled remains in their cultural context which is so frequently missing when discussed by other researchers. As Armelagos (2008:216) stated, "the issue of social violence in the Pre-Hispanic American Southwest begs for a multidisciplinary approach."

For this dissertation the three papers contribute to the holistic view of these commingled remains. Each paper focuses on a different line of evidence or aspects regarding the remains and compares them between sites. Eighty-seven sites with commingled human remains were analyzed and studied. Seventy-six of these sites were pulled from the Turners' 1999 book *Man Corn: Prehistoric Cannibalism and Violence in the American Southwest*. Additional and more recent sites were found (Akins 2008; Billman et al 2000; Fetterman et al. 2005; Graver et al 2001; Kennett et al. 2017; Kuckelman 2010; Kuckelman et al 2002; Ogilvie and Hilton 2000; Osterholtz 2018; Osterholtz and Martin 2017) and added to the list. A variety of different information was analyzed from each of the sites to determine patterns that might arise between them. Combining all of these lines of data helped create and understand the variability of how and why these fragmented remains were handled.

The research questions examined for this dissertation are as follows:

1.) What are the demographics of these commingled remains?
    a. Do these demographics match known cannibalism collections? Or are they more consistent with other violent events like warfare?
2.) Are there any patterns or similarities in how the bodies were handled?
3.) Do any ethnographic accounts offer cultural context for the skeletal collections?
4.) What social theory may offer a cultural motivation for these highly fragmented remains?

**Methods**

This dissertation connected osteological data, archaeological data, ethnographic history and original field excavation notes together to create a better understanding of highly fragmented assemblages. Although the remains were not physically handled by the author, previously published data was procured to obtain information about demography including minimum number of individuals (MNI), age and sex estimation of individuals from these collections. Unpublished information about archaeological sites, and the highly fragmented remains found within a national repository, were reexamined by looking at field notes, photos, and past communications by original archaeologists. For example, the author of this dissertation reviewed notes, reports, correspondence, photographs, and maps from both Morris' and Hyde's expeditions in the Southwest that are housed at the American Museum of Natural History to gain information about sites with highly fragmented remains that are not currently found in published literature. Additionally, there are a large number of scholarly articles and books written about these processed assemblages, however there is a continuing need to combine information and reexamine past claims as additional information is discovered. The list of sites for this dissertation were largely pulled from Turner and Turner's 1999 book *Man Corn: Prehistoric Cannibalism and Violence in the American Southwest*. Although the Turners' conclusion of

cannibalism rested on poorly supported scientific assumptions, the Turners did collect and document a large amount of information about extreme processed sites in the Southwest. Additional sites researched and excavated after the publication of the Turners' book were added for this current study. Combining reliable past research about the basic information regarding the remains and original source material from excavators, ethnographies, current archaeological and environmental research, and contemporary theoretical approaches past skeletal collections can continue to add to the depth of knowledge that surrounds past populations without researchers disregarding modern descendant wishes. This approach offers future research to continue cultivating additional information from skeletal collections once they have been repatriated.

**Table 1.1** Methods and Material Reviewed for this Dissertation

| Chapter Number and Paper Title | Research Question Addressed in Paper | Number of Sites Reviewed in Each Paper | Main Information for Paper | Types of Material |
|---|---|---|---|---|
| Chapter 2: The Makeup of a Massacre: Patterns in the Demography of Extreme Processed Events from the American Southwest. | Research Question 1 and 3 | 7 Sites | Demographic Information | • Dissertations<br>• Ethnographic History<br>• Oral Accounts<br>• Original Field Notes and Excavation Data<br>• Osteological Data<br>• Published Papers |
| Chapter 3: Commingled and Burned Ancestral Pueblo Remains as Complex Mortuary Practices | Research Question 2 and 3 | 43 Sites | Examining for Information about Burning | • Correspondents by Original Archaeologists<br>• Dissertations<br>• Ethnographic History<br>• Forensic Literature<br>• Land Survey Reports for Private Landowners<br>• mtDNA Research<br>• Museum Catalogs<br>• Oral Accounts<br>• Original Field Notes and Excavation Data<br>• Osteological Data<br>• Published Papers<br>• Unpublished Photographs of Remains<br>• Zooarchaeological research |
| Chapter 4: Ontological Insecurity and Social Transformation: Ritualized Violence and Corporeality—Pueblo Case Study | Research Question 3 and 4 | 14 Sites | Examining for General Information about Sites | • Dissertations<br>• Ethnographic History<br>• Oral Accounts<br>• Original Field Notes and Excavation Data<br>• Osteological Data<br>• Published Papers<br>• Spanish Historical Notes |

The first research question for this dissertation is mainly addressed in the first paper, presented in Chapter 2, that focuses on the demography seen within the highly fragmented remains, although this question is also touched on in all three papers for this dissertation. The demography of the commingled remains is an important question to ask as it shows who was chosen to have their remains modified in such a complex manner. Chapter 2 covers the demography of seven sites in detail. This chapter looks at the differences and similarities between sites that have been labeled as cannibalism by past researchers and which all have highly fragmented remains. Looking at the osteological sex and age of individuals we can see if a pattern between the sites is apparent.

Chapter 2 also explores why particular parts of the population were chosen to be killed in these highly fragmented collections. Is there any evidence that there was some similarity between individuals within these collections? The sites were examined to see if particular subpopulations within communities were overrepresented within the skeletal assemblages. The selection of particular subpopulations within a community, like a family unit, is rooted in deep cultural context. By looking at the individuals found within these fragmented collections researchers can better understand why these assemblages were created.

Question two is discussed in Chapter 3. In particular the aspect of burning of the remains is closely examined. Originally, the burning of the human remains was assumed to be caused by cooking, however this disregards Puebloan cosmology and beliefs around fire, burning and ash. Combining the ethnographic accounts involving ash and the rituals that are often associated with it this dissertation offers an alternative explanation for the burning of the remains.

All three chapters address question number three. This dissertation pulled heavily from ethnographic accounts and literature as a way to return these fragmented remains to their cultural context. The American Southwest is fortunate to have a plethora of ethnographic literature regarding oral history and ethno-legends. The researcher recognizes that ethnographic data has limitations. These limitations include the fact that most ethnographic information is written by nonindigenous individuals and hundreds of years after these skeletal collections were created. In addition, it must be assumed that rituals and practices changed throughout the history of the Puebloan Region and that ethnographic literature may not include all sacred ritual activities. Despite the challenges related to ethnographic data it should still be considered when studying archaeological material such as these collections. The three papers that make up this dissertation discuss different ethnographic accounts, including ones written by indigenous authors as a way of connecting the remains within the culture in which they existed.

Finally, the third chapter focuses on the social theory of ontological insecurity and the idea of corporality regarding humanhood and the creation of these remains. Ontological insecurity offers a unique way to view these highly fragmented remains with social turmoil being the root cause leading to the way the corpses were handled. The belief that your world view is being disrupted may have been such a fear-provoking event that individuals, broke, cut, burned and discarded the remains of others.

# CHAPTER 2

## Chapter submission to the *Routledge Handbook of the Archaeology of Violence* in the Americans: The Makeup of a Massacre: Patterns in the Demography of Extreme Processed Events from the American Southwest.

**Abstract**

Violence is never done in isolation what may appear as a meaningless act, is often deeply rooted in cultural context. Victims of violence are chosen by the perpetrators, and who they select is an important aspect of the act. In the Pre-Hispanic American Southwest there are numerous groups of commingled and disarticulated human remains that have been researched. Described as extreme processed events these remains are often burned, broken, highly fragmented, and frequently show evidence of cut marks. These collections are compiled of individuals from varying demographics, including adults of all ages and sex, and juveniles ranging from infants and neonates to late teenagers. Numerous researchers have speculated that these assemblages are the results of violent events within the communities. Theories for the motivation of these violent events range from witch executions, political executions, massacres, and cannibalism. The demographics of the victims can offer a clearer understanding of the exact nature of violence that occurred. All male assemblages are frequently tied to warfare, while collections made up of individuals who might form a family unit may suggest a massacre event. Many of the collections in the Southwest consist of individuals who appear to be members of family units, people of all ages and sex, suggesting a massacre related to witchcraft. By closely examining the demographic make-up of these extreme processed events and how their remains

were handled, patterns regarding who was selected to have this violence inflicted upon them will become more apparent.

## Introduction

Throughout the Ancestral Southwest one can find multiple different mortuary contacts. Traditionally what is considered normative mortuary features would include articulated flexed or semi-flexed individuals in singular mortuary feature. Although, within what is considered standardized practice there can be a number of variations in body position and more than one interned individual within a mortuary feature. However, there are human remains that have been encountered in the American Southwest that fall outside of this "normative" mortuary treatment.

Numerous disarticulated, fragmented and burned assemblages of ancestral remains often called extreme processed remains have been found in the Ancestral Southwest. Researchers often lump all non-normative mortuary assemblages together without examining the nuances of each collection. An important feature that will be examined in this chapter is the demography of these processed remains. The population composition of each group of internments is unique in number, ages, and sex estimations. Understanding the demographic make-up of nonnormative mortuary treatments can help researchers better understand motivation for how individual bodies were handled after death. Sites that appear at a cursory glance to be the result of similar events may present an alternative explanation once the demography is considered.

The purpose of this chapter is to examine the demographics of seven sites with what is considered nonnormative mortuary treated remains. First, a discussion of what has traditionally been considered normative mortuary treatment of ancestral remains is presented. Although the author hesitates to call a singular practice the normal style of burial in the Ancestral Southwest as there are a large variety of practices and regional differences, frequently seen across time

periods. Still outlining what many researchers have called traditional or normal mortuary practice will help the reader better understand the differences seen in extreme processed assemblages. It has been suggested that all seven sites in this investigation are the result of violence of some type.

Of the seven sites ranging from late Pueblo I (AD 750-900) to Pueblo IV/Historic (AD 1350-1600) selected to be discussed in detail for this chapter, four of them show similar demographics of familiar units with a minimum number of individuals (MNI) between 20 and 35, with a range of ages and sexes. Four sites, Sacred Ridge, Rattlesnake Ruin, Mancos Canyon and Leroux Wash have relatively similar demographics. The additional three sites, Salmon Ruin, Te'ewi and Polacca Wash demonstrate unique and different demographics from the first four sites listed. Demographics of the final three sites suggest different motivations were behind who was selected to be killed. Although the exact motivation behind these nonnormative mortuary treated remains will never be known it is imperative for researchers to explore all aspects of the remains to better understand their similarities and nuances.

**Violence**

First, it is important to understand violence is never done in isolation, it is highly communicative, and socially meaningful. Victims of violence are chosen by the offenders, and who the perpetrators select is an important aspect of the act. The demographics of the victims can often offer a clearer understanding of the exact nature of violence that occurred. Assemblages primarily made up of young male individuals are often tied to warfare. Alternatively, collections made up of individuals who might form a family unit may suggest a massacre event which affected a whole village or a residential group. Many of the fragmented collections in the Southwest are made up of individuals of all sexes and ages. These commingled

and disarticulated ancestral remains that have been researched by multiple scholars for decades. Described as extreme processed events these remains are burned, broken, cut and highly fragmented (Kuckelman 2000). This paper examines the demography of these assemblages and how they were handled and processed. In addition, by analyzing the patterns regarding who was selected to have this violence inflicted upon them, may cause the culturally specific motivation behind these nonnormative mortuary practices to become clear.

Ideas behind indigenous forms of violence are often centered around Western concepts of warfare and violence. Although massacres may occur and be used during warfare, a massacre event is not only an inherent result of warfare. Traditionally, in many cultures, warfare and violence have been linked to masculinity and males (Martin 2016; 2021). It should be noted that the modern Western concept of a massacre is defined as "the act of an instance of killing a number of usually helpless or unresisting human beings under circumstances of atrocity or cruelty" (Merriam-Webster). The author of this chapter urges readers to view the use of the term violence in this chapter through a more nuanced lens. The term massacre in this chapter is used to refer to an event where a large number of noncombative individuals are killed during a single event. Motivation and reasoning for violence are often linked to a deep ideological context. Discerning social meanings and beliefs surrounding the killing of multiple people can be challenging, as many forms of violence in the past do not directly link to modern concepts of violence (Osterholtz and Martin 2017). Human violence can have a multitude of underlying social causes and complexities that are often socially sanctioned. Ideas such as ontological insecurity where social anxieties cause groups to undergo drastic and sometimes violent measures in order to resolve those fears should be explored. Violence can be a powerful tool that is used during times of social crisis.

The exact reason why groups of men, women and children were killed, disarticulated, and their remains commingled, can be assumed to be culturally specific and invoke an incredibly powerful message to those who survived or enacted the event. This chapter examines sites with nonnormative mortuary treated remains including remains that were highly processed and manipulated. Corpses can be viewed as being both an object and person (Alsheh 2017). Frequently the manipulation and mutation of corpses has some form of cultural significance. Even when an individual is deceased, violence towards corpses can act as a powerful symbol. Violence inflicted on corpses portray coded meanings to the living. Thus, violence does not only affect the person it is being enacted on but also has an impact on the individuals witnessing the violence or the aftermath of the violence (Whitehead 2005). Furthermore, how the remains were handled can determine how the perpetrators viewed the individuals.

The American Southwest has a rich and vibrant archaeological and ethnographic history. Indigenous people lived throughout the landscape sharing culture and subsistence strategies for hundreds of years. Although a number of the villages were multiethnic and multilingual, they shared common ideological practices (Osterholtz and Martin 2017). Cohesion between cosmic beliefs, trade routes and kin groups created villages and village clusters in the Ancestral American Southwest. Many commingled human skeletal remains assemblages and nonnormative mortuary treated remains suggest massacres or violent events happened These remains appear vastly different from traditional Ancestral Puebloan funerary practices suggesting researchers to believe that a unique motivation led to their creation. In addition, oral history from numerous modern groups includes tales of villages, families or groups being killed due to social or political reasons (Brooks 2016, Ferguson et al. 2001).

Massacres are a process that are shaped by local political cultural and social events (Klusemann 2012). Individuals killed during massacres are selected for culturally specific reasons. What underlying motivation or social fear caused a group to believe that the killing of a subgroup was needed? Why would a subgroup of the population be chosen? What broader implications were being communicated by choosing that particular subgroup? Massacres are normally defined as an activity that focuses on destroying noncombatants (Semelin 2007). By examining the demography of individuals who were all killed and interned together researchers can better understand the local dynamics that led to these massacres. Massacres are not only experienced by the perpetrators and the victims but also the bystanders who view the actual massacre or aftermath. Massacres and mass killings can have different demographic profiles based on the motivation and social implications. Eliminating a family unit can have a vastly different effect than the killing of a group of young males. Nonnormative mortuary treated remains especially extreme processed remains should have their demography carefully examined in order to give researchers a better understanding of the motivation that led to their creation.

**Normal Mortuary Features in the Southwest**

According to Hopi oral tradition Ancestral Hopi would frequently move across the landscape. Supernatural events or natural phenomena would often be the signal to show that it was time for a village to move on (Ferguson et al. 2001). Villages would leave behind mortuary features, settlements and cultural material, this meant sites were never truly abandoned. For descendant groups ancestral mortuary features acted as a type of spiritual guardianship and cultural anchor to many of the sites that were left behind. Ancestral mortuary features played and continue to play an important part of everyday life. They are mentioned in stories and clan

histories. Ferguson, et al., discuss how these buried individuals left behind were as "much alive in present as they were in the past" (2001:9).

Throughout the history of the American Southwest there have been a number of different settlement changes, as well as cultural and mortuary practices. Transitions in settlement patterns like the shift from hunter-gatherers (Basketmaker III) to more settled villages (Pueblo I) and then the move from villages (Pueblo II) to elaborate cliff-side clustered masonry buildings (Pueblo III), would logically be accompanied by shifts in subsistent practices and also funerary practices. Historically Pueblo funerary practices include setting the individual in a flex position and wrapping them in blankets and bindings (Mulhern and Charles 2020). This pattern of funerary practices has been seen as far back as the Pueblo I period. Broadly stated, while numerous variations exist and are found in archaeological records, the Ancestral American Southwest appears to be somewhat consistent with their mortuary practices in which fully articulated individuals are buried flexed in middens, with funerary objects.

The variabilities in mortuary practices, are expressed through differing funerary objects, mortuary feature locations and mortuary positions. For example, the placement of individual mortuary features can range from rock shelters to domestic floors to middens. It has often been assumed that burials were placed in middens or talus slopes as they were made up of softer dirt and were easier to dig. During Pueblo I in the Mesa Verde region, Stodder (2020) found that the most common (41%) location of mortuary features was in middens however it should be noted that pit structures, surface structures, extramural features and other locations were all also used. Middens may have been the most common, but they were not the only area for disposal of remains in the region. Many researchers have pointed out that the placement of remains was not only tied to easy disposal locations but also based on relationships to the living and how the

community viewed the individual in both life and death (Mulhern and Charles 2020; Stodder 2020).

At some sites correlations between individuals' sex and age may affect their funerary practice location and funerary objects (Mulhern and Charles 2020). For example, there may have been a slight trend for females to be buried in domestic structures over males (Stodder 2020). This may be linked to their social organization as Ancestral Puebloan groups were thought by many to be matrilineal and matrilocal, similar to contemporary Southwest indigenous groups. Interment of individuals in domestic structures was a way to ritually mark the structures as "occupied" and tied to particular family lineages. Many contemporary indigenous Southwest groups do not consider Ancestral Puebloan archaeological sites "abandoned" and feel that sites are still active with ancestors and past people living there (Ferguson et al. 2001; Stodder 2020). How the dead are handled by the living is seen in multiple different ways and the location of final disposal is only one of the many factors that conveys culturally significant meaning to others in the community about the deceased.

As stated above, traditionally Ancestral Puebloan mortuary features have been described as individuals in flexed or semi-flexed positions. However, once again the position of the body may vary with some individuals being extended on their back or lying face down (Stodder 2020). Exactly which position is considered normative and formal for the Ancestral Southwest continues to be researched. Many researchers still suggest formal internment involves flexed or semi-flexed position, though others suggest this might be a byproduct of tight mortuary pits. Burials in pit structures appear to result in more variety of mortuary positions, although other researchers would say these are abnormal burials (Stodder 2020; Wilshusen 1986). Many individuals are interred in single grave cut, however, multiple individuals in a single mortuary

feature is not unheard of, nor are cist burials. Overall social factors including age, social standing and even the season at time of death all appeared to influence how an individual was interred.

**Fragmented Remains and Nonnormative Mortuary Treatments**

As noted in the introduction, throughout the Ancestral Southwest there are numerous disarticulated and highly fragmented collections of ancestral human remains. Traditionally, these remains have been argued to reflect one singular type of violence; cannibalism (Kohler et al. 2014; Turner and Turner 1999; White 1992). Potential alternative hypotheses that may explain the social meaning and motivations for the production of heavily processed skeletal assemblages include: ontological insecurity (Freiberger and Martin 2024) massacre events (Martin 2016; Potter and Chuipka 2010), corpse mutilation as ancestor veneration (Perez 2012), witch executions (Darling 1999), social control (Harrod 2017), destruction of the bodies of enemies (Wilcox and Haas 1994) or for esoteric reasons related to Pueblo cosmology and ideology (Whiteley 2008).

The cause of these fragmented remains has been the subject of numerous research investigations. Understanding who was chosen to be killed in these highly fragmented collections and whose remains were handled in nonnormative mortuary treatment is important. These commingled remains are not solely of young men who were killed during a battle. Instead, many of these extreme processed assemblages are made up of what appear to be familiar units or small clans (Flinn et al., 1976; Kantner 1999). For this chapter the author suggests that the following four cases are examples of some type of massacre event with the demography representing a familiar group. Almost all of the assemblages contain the remains of infants, children, teens and adult males and females of all ages. Many of the assemblages represent 20 to 35 individuals, all of whom contain the taphonomic signature of cultural processing.

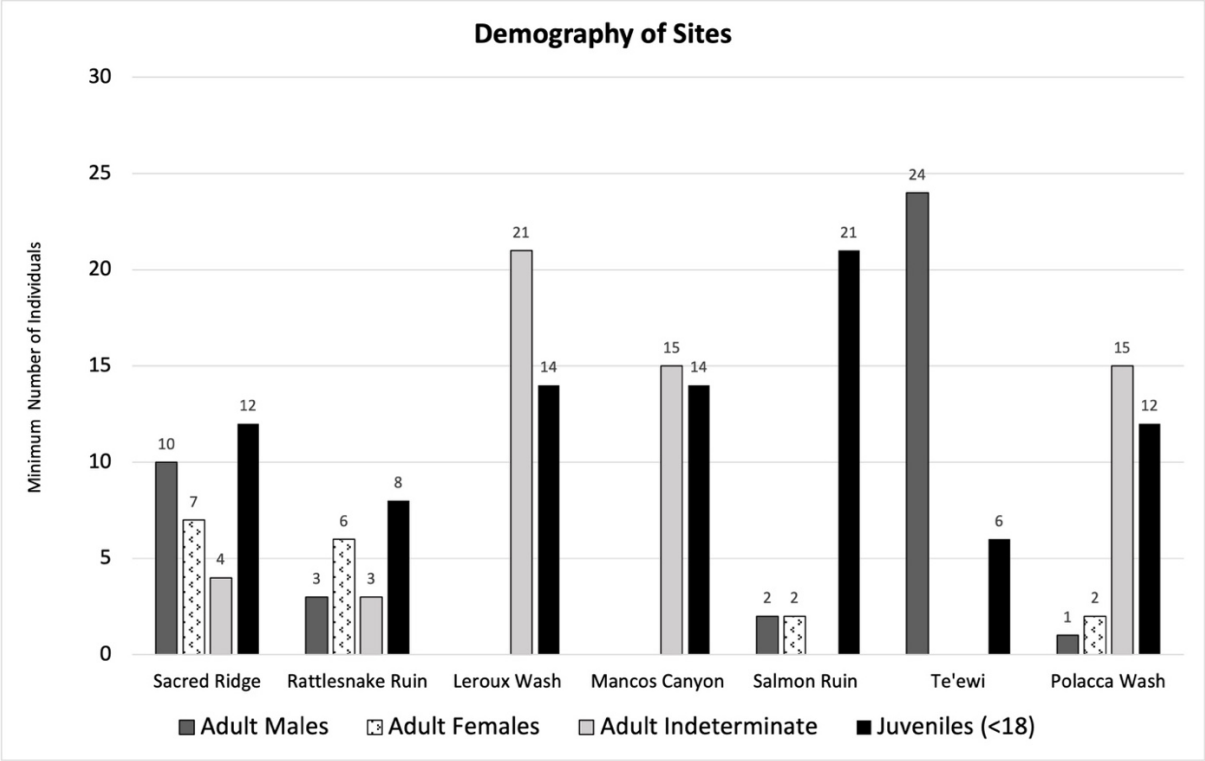


**Figure 2.1.** Demographics of seven sites are shown including adult males, adult females, adults of indeterminate sex, and juveniles

The demographics of seven unique sites are shown in figure 2.1. The first four sites show similar demographics. These demographics suggest familiar units as they include similar numbers of both adults and juveniles. For this study the term juvenile is used for individuals estimated to be under the age of 18 years. This term is used for biological age and does not convey a social category. Ethnographically Puebloan children are not considered human or members of society when born and must go through multiple initiation rites before their identity is solidified as human and as an adult (Ortiz 1969). Ethnographically there is a variety of different ages at which individuals start their final transition into adulthood for historical Puebloan Groups. For females these social rituals normally started at menarche, around 12 years old, whereas with male individuals they tended to start slightly later. The age of adulthood could be as late as 20 years of

age (Nikitovic, 2017). Since it is impossible to identify which individuals have gone through social rituals, this paper uses skeletal maturity to distinguish between juveniles (below 18 years of age) and adult (above 18 years of age). The last three sites demonstrate unique demographics, which suggest different motivations behind their creations. Salmon Ruin is comprised of mostly juvenile individuals with the majority of remains belonging to individuals estimated to be younger than 11 years of age (Akins 2008). The demographic of Te'ewi is heavily skewed towards male individuals whereas Polacca Wash has several individuals who past researchers were unable to estimate the sex of. Turner and Morris argued that many of these indeterminate individuals appeared gracile and may have been female (1970). If even half of the individuals scored as indeterminate were in fact female this would also skew the demography of Polacca Wash to be highly female.

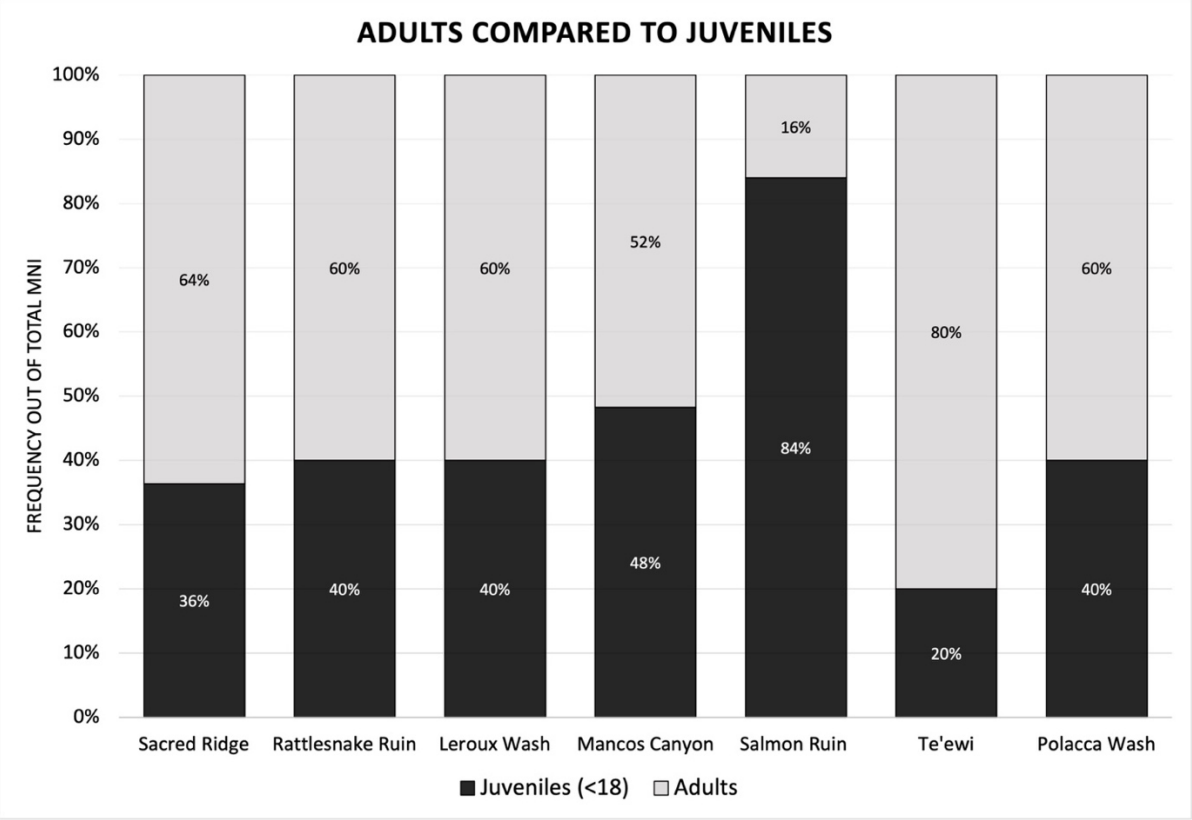


**Figure 2.2.** The total frequency of adults compared to juveniles at each site. For this graph the

term juvenile includes any individual estimated to below 18 years of age. The adult category includes individuals estimated to be male, female, or indeterminate

The similarity of the demography of the first four sites (Sacred Ridge, Rattlesnake Ruin, Leroux Wash and Mancos Canyon) becomes more apparent when only age ranges are examined. Even Polacca Wash appears almost identical to Rattlesnake Ruin and Leroux Wash when examining the relationship between adults and juvenile individuals.

**Demographics Suggesting Familiar Units**

*Sacred Ridge*

Sacred Ridge is a small early Pueblo I habitation site from southwestern Colorado. Consisting of around 22 pit structures, the site was occupied from approximately early AD 700's to AD 810. The cluster of structures at Sacred Ridge was one of the largest Pueblo I site in the region. Some researchers suggest that it was a regional ritual center with public architecture (Potter and Chuipka 2007). Highly fragmented remains of 33-35 individuals were found in two domestic structures. Remains from each structure were processed identically and are combined in MNI count and the majority of discussions about demography and remain handling (Osterholtz and Martin 2017).

The remains excavated from the two pit houses at Sacred Ridge were highly fragmented, consisting of more bone fragments than any other Southwest processed assemblage to date, with a total of 14,882 fragments (Potter and Chuipka 2010). The bone fragments were identified to belong to at least ten males, seven females, and four adults of unknown sex, five juveniles, three children between the age of 2 and 12 and four infants younger than two years of age (Osterholtz 2018). The demography of Sacred Ridge appears to be similar to that of a large family or clan.

Almost no articulated remains were discovered within this assemblage (Osterholtz 2012). However, there appears to have been a pattern in the way that individuals were dismembered as damage was found in the same location on the same bones of multiple different individuals. Most individuals appear to have been struck by a blow to the right side of the cranium (Osterholtz 2012). The bones had evidence of cut marks, burning, scrape marks, chop marks and anvil abrasions. The cutmarks are consistent with torture, scalping, hobbling, defleshing dismemberment, disemboweling and removal of ears and lips. Regardless of age or sex, individuals appeared to have been handled in the same manner.

Considering the demography of the individuals at Sacred Ridge, a massacre of a family unit or a clan is a possible explanation for the nature of the remains. Some researchers have suggested an ethnocide occurred at Sacred Ridge (Potter and Chuipka 2010). Based on dental and cranial studies the individuals found in this commingled assemblage appear to share inherited traits and to be more closely related to each other rather than other individuals at Sacred Ridge, suggesting a familiar tie (Potter and Chuipka 2010). Regardless, it does appear that a large number of people were selected from the population and killed. Men, women and children were all chosen, and their remains were handled in similar ways. After this event at the site of Sacred Ridge, the remaining village members moved to a different location.

*Rattlesnake Ruin*

Located near Mustang Mesa in Blanding Utah, Rattlesnake Ruin is a Pueblo II (AD 1050-1100) site that is made up of field houses, storage units and mortuary features. A relatively small site, Rattlesnake Ruin was a more or less isolated site without any defensive architecture. The remains of 20 individuals were found within a charnel pit at the site (Turner and Turner 1999). The remains of the individuals within the assemblages were burned, disarticulated, and

cut. The cut marks were coarse and heavy which is dissimilar to other extreme processed collections in the Southwest. Most of the cut marks were located at joints suggesting that the individuals were dismembered. Baker (1990) noted that a number of cut marks found around the patellar ligament imply that upper and lower legs were separated. Heavy cut marks on the occipital region of many of the craniums suggest that heads may have been removed as well (Baker, 1990). Of the 20 individuals found in the charnel pit the demography was three adult males, six adult females, three adults of unknown sex, one juvenile, five individuals between the age of 2 and 9 and two infants younger than 2 years old (Turner and Turner 1999). Individuals of all ages, as well as an even mixture of sexes were found in the assemblage. Again, the demography is similar to a small clan, family unit or residential group with no distinction between how the remains were handled.

*Mancos Canyon*

Mancos Canyon is a medium size late Pueblo II or early Pueblo III (AD 1100-1150) pueblo in the Mesa Verde region of southwest Colorado. The presence of superimposed pueblo room blocks has been used to suggest that there were two occupations of Mancos (Nordby 1974). Around 2,200 disarticulated, commingled and processed human remains were recovered from what were described as bone beds, from habitation spaces (Osterholtz and Martin 2017; White 1992). The remains of 29 to 33 individuals were found scattered in nine separate “bone beds” according to Nordby (1974:243) and Nickens (1975:294). These “bone beds” were found on the surface of masonry rooms at the Pueblo (White 1992). White based his MNI of 29 off dental representation, with the following demography: one individual of unknown age, 15 adults, eight juveniles, between the ages of 6 to 18 and five younger individuals, with ages from birth to 6 years old (Turner and Turner 1999). Nickens, on the other hand, determined the MNI to be 33

with the majority being “adolescents and young adults” (Turner and Turner 1999:221). The sex of the remains was not estimated by either White or Nickens. The remains at Mancos showed evidence of cut marks, crushing and burning. Although this site is almost four hundred years later in time than Sacred Ridge, the remains at Mancos Canyon show signs of disarticulation, burning, cut marks and breakage patterns similar to the remains at Sacred Ridge. However, methods of processing varied slightly between the Sacred Ridge and Mancos sites. Whereas Sacred Ridge was disarticulated at muscle and joint articulation points with cut marks, Mancos was dismembered mostly through crushing (Osterholtz 2014). Although the end result was remarkably similar, different techniques were used in the handling of the remains from these two sites. In addition, refitting between sets of remains found in different rooms was possible at Mancos, unlike at Sacred Ridge. This suggests that perhaps the remains were processed in a single location and moved after or during a later occupation of the site (Osterholtz and Martin 2017). It is possible that abandoned structures that served as burial deposits were then reused at a later date due to cultural fill between bone deposits and upper floors.

Once again, the demography of Mancos represents a similar demography of a small clan or family unit with men, women and children being present. Age may have played a factor in how the remains were disposed of with the majority of the juvenile remains being found in a single room, Room 15 (White 1992). It also appears that the juveniles at Mancos were processed less than the juveniles from Sacred Ridge (Osterholtz 2014). However, sex estimation of the remains at Mancos based on cranial and pelvic measurements, show that both males and females were equally represented in the assemblage (Osterholtz and Martin 2017). Once again regardless of the individuals’ identities or age, it appears that the remains at Mancos were handled in a similar manner, with all individuals being disarticulated and processed.

*Leroux Wash*

Leroux Wash is a pueblo in northeastern Arizona, north of Holbrook dating to Pueblo II into Late Pueblo III (AD 1065-1300) based on ceramic types (Turner and Turner 1995). Leroux Wash was a medium sized pueblo with around 15 to 20 rooms and a great kiva. The remains of 21 to 35 individuals were found in two shallow pits. Unfortunately, due to treasure hunting the remains were disturbed before proper examination occurred. Different researchers have examined this site resulting in differing MNIs, however bones showing cut marks, anvil abrasions and burning were noted by all researchers. The demography used in this chapter is based on Turner and Turner 1999 reexamination of the remains. The Turners stated that the demography of this site was 35 individuals including twenty-one adults of unknown sex, eight juveniles between the age of 10 to 18, and six children between the age of 2 and 9. No sex estimations were obtained on the remains and/or listed in Turner and Turner 1995 or 1999 reports on this site. Although it is unknown what proportion of the remains belonged to either sex, once again this age demography suggests a familiar group with both adults and juveniles ranging in age.

**Sites with Differing Demographics**

*Salmon Ruin*

Located by the San Juan River in New Mexico, Salmon Ruin is a large E-shaped pueblo from Pueblo III (circa AD 1263). In 1973 the Tower Kiva at Salmon Ruin was excavated, and fragmented remains were encountered within the feature. The burnt remains of multiple individuals and little cultural material were discovered within the Tower Kiva (Akins 2008). A MNI of 25-35 individuals were found within the Tower Kiva, consisting of mainly juveniles.

According to the Turners in 1999 the demography of this site was 35 individuals with two adults and 33 juvenile individuals. Akins in 2008 suggests the demography is closer to two adult males, two adult females and 21 juveniles. This chapter uses Akins' demography for the Tower Kiva at Salmon Ruin. The age distribution of the Tower Kiva at Salmon Ruin is heavily skewed towards younger individuals. Twenty-one individuals are below the age of 11 years, and the majority, 13 individuals, are between the age of 2 and 6 (Akins 2008).

It was originally suggested that the individuals at this site were trapped in the feature during a fire and that Salmon Ruin was the site of a "tragic event" (LeBlanc 1999:33). Other scenarios included disease, sacrifice or even the pueblo being "attacked, sacked and burned while it was still occupied" (Moorehead 1906:53). Turner and Turner suggest that the remains from Salmon Ruin were created in an act of cannibalism. However, evidence of violence is scarce and almost entirely on the adults remains from the Tower Kiva assemblage (Akins 2008). Also, based on skeletal data the individuals from the Tower Kiva appear healthy. In addition, the demography of Salmon Ruin is greatly different from what is seen in other extreme processing events. The majority of individuals at Salmon Ruin are young. Furthermore, Akins (2008) suggests that some of the bodies were dry before they were burned. Other individuals found in the Tower Kiva appear to have been deliberately placed on fire. Placing remains in sacred places like kivas would have created a lasting memory in the community. Some event that might have resulted in a disproportionate number of children dying which may have caused grieving members of the community to intern the remains in an atypical manner at a prominent and most likely an important location like the Tower Kiva.

*Te'ewi*

Te'ewi is a large double-plaza pueblo, located on an overlook of the Chama River in northwestern New Mexico (Reed 1953). The site is dated to Pueblo III into the start of Pueblo IV (AD 1250 -1445). The skeletal remains of 30 individuals were found within a burnt kiva, Kiva I or Room 6. The demography of this site is twenty-four adult males, and six children between the age of 2 and 9. Many of the bones appear to have been broken and crushed. Interestingly no female skeletal remains were recorded within the assemblage (Turner and Turner 1999). The original researchers at Te'ewi proposed that the individuals were killed during the burning of the kiva maybe during an attack on the pueblo. The remains are found both "above as well as below the fallen roof layer" (Reed 1953:104). Reed interpreted this to suggest that some individuals were killed during the fire whereas others escaped but were killed before fleeing the pueblo and were consequently thrown back into the kiva.

The demography at Te'ewi Kiva is heavily skewed with males and young males, that is, no female individuals were identified within the assemblage (Turner and Turner 1999). This demography is more commonly found in warfare. It might be of interest to note that Reed and Wendorf (1953), two of the original researchers at Te'ewi, wrote that the remains were the result of an attack. They additionally suggested that the inhabitants of Te'ewi were influenced by or associated with non-Puebloan groups to the east (Wendorf 1953). Perhaps this led to some type of conflict resulting in violence between cultural groups in the Chama River area.

*Polacca Wash*

Polacca Wash a Historic site is an isolated charnel deposit of skeletal remains from around AD 1580 plus or minus 85 years, with numerous individuals. Polacca Wash is situated about halfway between Awat'ovi and Shungopovi, two Hopi villages in northeastern Arizona.

The remains were not found in association with any habitation structures and few cultural artifacts were found at the site. It appears no other cultural activities occurred at the site and the remains were left in isolation (Turner and Turner 1999). The estimated MNI for this site is 30 individuals with the following demography: 18 adults, four juveniles between the ages of 13 and 17, six individuals between the ages of 4 and 12 and two infants between the ages of 1 and 3 years old (Turner and Turner 1999). Almost half of the individuals at Polacca were juveniles, with children and infants making up 46% of the total individuals (Osterholtz and Martin 2017) The demography from Osterholtz and Martin 2017 is used for this chapter with an MNI of 30 including one adult male, two adult females, 13 individuals of unknown sex, and fourteen juveniles. The Turners suggest that the majority of the remains listed as "unknown" belonged to female individuals as they were gracile (Turner and Morris 1970). The demography of Polacca Wash is different from the other listed sites in this chapter because of the high number of women and children represented within.

The remains from Polacca Wash present an interesting case study as researchers have suggested that they are related to the massacre that occurred at Awat'ovi. Awat'ovi was a historical Hopi village located in northeastern Arizona. During the 1700's a massacre occurred there and the whole village, men, women and children were all executed (Brooks 2016). Fueled by beliefs that the village had turned away from the Hopi way of life, the leader of Awat'ovi was said to have asked his neighbors to eliminate the village. Men were killed at the site of Awat'ovi when the village Kiva was set on fire. Because of its location halfway between Awat'ovi and Shungopovi and removed from any other cultural context, the remains of at Polacca Wash have been suggested to be the captives taken from Awat'ovi who were killed during their transportation to other villages (Fewkes 1893; Turner and Turner 1999). Oral tales of women or

individuals with ritual knowledge and children being taken captive from Awat'ovi and then killed fit with the demography seen at Polacca Wash (Brooks 2016). The lack of male remains at Polacca Wash suggests that most of the men were killed at the village.

**Table 2.1.** Motivations for Nonnormative Mortuary Treatment of Remains

| Sites | Suggested Motivation by Researchers | Taphonomy | MNI | Adult Males | Adult Females | Adult (sex unknown) | Juveniles (younger than 18 years) | Suggested Motivation based on this Review |
|---|---|---|---|---|---|---|---|---|
| **Sacred Ridge** (Pueblo I) | Cannibalism; Ethnogenocide; Massacre of family unit within a community by other members of the community | EP Remains* Bone Breakage Cut Marks Burning | 33 | 10 | 7 | 4 | 12 | Massacre of family unit within a community |
| **Rattlesnake Ruin** (Pueblo II) | Cannibalism | EP Remains* Bone Breakage Cut Marks Burning | 20 | 3 | 6 | 3 | 8 | Massacre of family unit within a community |
| **Leroux Wash** (Pueblo III/IV) | Cannibalism; Social Control | EP Remains* Bone Breakage Cut Marks Burning | 35 | | | 21 | 14 | Massacre of family unit within a community |
| **Mancos Canyon** (Pueblo III) | Cannibalism | EP Remains* Bone Breakage Cut Marks Burning | 29 | | | 15 | 14 | Massacre of family unit within a community |
| **Salmon Ruin** (Pueblo III) | Cannibalism; Violence - Attack by other community; Sacrifice; Epidemic | EP Remains* (maybe) Bone Breakage Cut Marks, according to the Turners only Burning | 25 | 2 | 2 | 0 | 21 | Unusual death of multiple children maybe violent maybe natural. Community responded by burning the Tower Kiva. |
| **Te'ewi** (Pueblo III/IV) | Violence - Attack by other community | Bone Breakage Cut Marks Burning | 30 | 24 | | | 6 | Violent event |
| **Polacca Wash** (Historic) | Cannibalism; Violence - Multi community involved single massacre | EP Remains* Bone Breakage Cut Marks Burning | 30 | 1 | 2 | 14 | 13 | Violent event |

EP Remains* = Extreme Processed Remains

## Conclusion

Massacres are a specific type of violence. They often have a social or political goal as their motivation. Massacres are made up of men, women and children, non-combatants, innocents and bystanders. Massacres suggest a unique motivation different from a mass killing that includes only combatants. Although the make-up of massacres may appear to be random with no selection bias, those chosen to be killed are picked for a reason. This intentional selection and reasoning are deeply rooted in cultural contexts. As noted in this chapter, it is possible that these groups of ancestral remains could be linked to ontological insecurity. When Ancestral Puebloan groups felt that their world was thrown out of balance, often the course of action to resolve the unbalance was to eliminate a particular group. Modern indigenous groups have ethnographic stories including the destruction of communities or family units based on the idea that they had turned "evil." Individuals who have become "evil," including witches, were no longer viewed as human, and had to be eliminated. In addition, witchcraft was often viewed as an inherited trait resulting in whole families practicing the craft (Darling 1999). Belief that a cultural crisis had progressed so far that the only solution included killing a familiar unit may have occurred resulting in these highly fragmented remains.

As Osterholtz and Martin (2017:121) note, "massacres rely on intentionality and group sanctions before, during and after the killings". If the focus of massacres is to destroy noncombatants, then demography is of key importance. For example, the first four sites described in this chapter show demography of family units and fit well into this aspect of massacres. Sites such as Te'ewi show demographics that are heavily male skewed, suggesting a completely different motivation perhaps male versus male violence or even small-scale warfare. Sites similar to Polacca Wash where the demography consists more of women and children

indicates that these individuals were possibly captives showing a different social motivation. The killing of particular demographics and the treatment of their bodies holds social power over the living. Investigating and carefully examining demographics can help researchers better understand the meaning and motivation behind mass killings and nonnormative mortuary treated remains from the American Southwest.

Chapter 2 provided a broad overview of the general demographic profile of seven site with fragmented remains from the American Southwest. It is clear that some of these collections have remarkably similar demographics such as Sacred Ridge, Rattlesnake Ruin and Leroux Wash whereas others have strikingly different demographics, for example, Te'ewi. Each of these different demographics suggest that the remains were handled in different ways. Simply lumping all of these sites with highly fragmented remains together creates a bias conclusion that negates the cultural context in which the remains were created.

The demographics of these sites discussed in this chapter also question the practicality of assuming these collections are cannibalized. In their 1999 book the Turners' state that the "average human adult would provide about 66 pounds of edible meat" (35). This estimate, provided by Richard A. Diehl based on faunal remains, and the Turners' own calculation regarding human body size and the meat provided was based on comparisons to sheep. If each individual adult in these collections was providing 66 pounds of meat based on the demography of multiple collections, they would result in hundreds of pounds of meat. For example, at Rattlesnake Ruin the collections includes the remains of 12 adults and 8 juveniles. Based solely on the adults in that collection, not including the 8 juvenile individuals, that would be 792 pounds of edible meat. This number appears overwhelming when it has been shown that these fragmented remains were normally created during a single event. To argue that these collections

are cases of cannibalism where due to starvation, implies an exaggerated response that contradicts cultural context and human behavior. The resulting quantity of procured human meat, based on the Turner's estimation suggest that the individuals facing starvation turned to excessive killing within their own communities to stave their hunger.

The demographics of the fragmented collections range from single individuals to groups of over 30 individuals. Most of the skeletal collections are made up of multiple individuals with both biological sexes represented and a range of ages present. However, some are skewed in either age range or with the majority of individuals being a particular sex. By comparing and contrasting these seven sites the unique aspects of each collection can be viewed. Seeing the different demographics assists researchers in examining the intricacies that make each site distinct as well as the characteristics that are shared between sites. These patterns help researchers better understand the motivation behind how these highly fragmented remains were handled and the extreme processing events that formed them.

Since the demography of these fragmented remains does not match known cases of starvation cannibalism where the weak, including the old and young, are normally eaten suggests the possibility of a deeper cultural meaning (Kantner 1999). In Chapter 3 examines how the extreme processed remains were handled, in particular the aspect of burning the remains. Burning and ash serve important cultural roles in Puebloan cosmology and ritual events. Understanding that burned remains do not automatically imply that they were cooked for consumption is a key point that is explored in Chapter 3.

# CHAPTER 3

## Submission for *KIVA Journal of Southwestern Anthropology* and History: Commingled and Burned Ancestral Pueblo Remains as Complex Mortuary Practices

**Abstract**

Highly fragmented and commingled ancestral Pueblo remains have been recovered from sites dating from AD 700 - 1700. Recovered and previously analyzed, these assemblages have been found throughout the American Southwest. A popular narrative for the past 25 plus years has been that the burning seen on some of the remains were part of the process of body disarticulation and anthropophagy (cannibalism). These interpretations have failed to include Puebloan ethnographies which highlight the importance of burning and the production of ash as part of a process of cultural transformation, purification, and protection. Accounts exist of fire being used as protection from inherently dangerous and transgressive forces such as witchcraft and malleolus magic from others. The act of burning holds an encompassing and broader cultural meaning then considered by any prior discussion of burned human remains. This research embraces the complicated relationship between those who have died and those who handled their corpses. The Pueblo customs and traditions around the processing of bodies is intentional, communicative, and culturally meaningful. This study includes a review of published bioarchaeological data, archival resources and ethnographies to provide a more culturally sensitive and contextualized account of interpreting these remains.

## Introduction

Highly fragmented and burned ancestral remains have been recovered from the Puebloan regions of the American Southwest over a period that spans 850 years. These assemblages of ancestral human remains come from archaeological sites dating from the first occurrence in 800 during Pueblo I (750 to 950) to Pueblo IV (1350-1600) and additionally including an historic case from 1700. Fragmented, disarticulated, and commingled human remains, also known as extreme processed remains (Kuckelman 2000) have come to be understood as skeletal collections that have been intentionally culturally modified at the time of death by others. Frequently these remains are cut, broken, defleshed, disarticulated commingled and burned. These remains have been analyzed and published largely by White (1992) and Turner and Turner (1999) and the majority have been labeled as sites of anthropophagy (cannibalism).

Bioarchaeologists in prior publications have suggested alternative possible motivations behind the creation of these heavy culturally modified remains. Perez (2012) considered that these assemblages were part of ceremonies that venerated those who died and might not have represented violent acts but rather acts of honor and respect for the dead. Martin (2016) suggested that these remains were the end result of massacres of individuals, extended families or small communities that were thought to be malevolent forces (witches). In 2017 Harrod discussed these remains as part of a pattern used to demonstrate social control between the elites and others. Most recently, Freiberger and Martin (2024) used theories about ontological insecurity whereby perceptions of dangers (real or imagined) motivate the need for dramatic and memory-inducing activities that bring communities together during cultural crises.

Archaeologists have also weighed in with alternative explanations. Darling (1999) detailed the ethnographic findings that suggested that up to colonization and even during it,

witch executions were prevalent and often included the destruction of witches' bodies in ways that would render them no longer human. Lekson (2002) discussed the idea that these remains may represent political executions meant to sway public opinions and loyalties.

However, the theme of anthropophagy remains in both the literature on Ancestral Pueblo as well as in the popular imagination as the dominant motivating factor in explaining these assemblages. Turner and Turner (1999) and White (1992) authored books on the topic of cannibalism. These publications are still sold in bookstores and gift shops throughout the Southwest, including being sold in Park Service and National Monument gift shops. These books provided detailed descriptions and hundreds of photographs to bolster an interpretation of anthropophagy. Prior to his death, Christy Turner was even featured in a popular PBS documentary that discussed his findings of cannibalism juxtaposed to indigenous scholars (Engel, 2000).

The anthropophagy argument hinges on the idea that human remains were processed the same way that large mammals were processed. The Turners state that in the American Southwest "cannibalism can be differentiated from all other forms of bone damage and mortuary practice by a distinctive signature which matches that seen in the bone refuse of large and small game animals" (1999:2) The original methodology used to argue that these remains were produced by cannibalism involved a cursory checklist of disarticulated human remains. The designation of anthropophagy depended on the presence or absence of six criteria that included breakage, cut marks, anvil abrasions, pot polishing, missing vertebrae and burning. If the skeletal collection checked positive for these criteria (no matter the context), the Turners labeled the assemblage as cannibalism.

The argument for anthropophagy continues with the assumption that the taphonomic damage pattern found on the fragmented and commingled collections of human remains would not correlate with secondary burials, animal or other environmental forces (Turner and Turner 1999:10). In addition to showing cutmarks, breakage and crushing many of the remains are burnt which was seen as a central feature and one of the six criteria that "proves" anthropophagy (Turner and Turner 1999). Ethnographically, game animals were roasted more often than boiled with animals placed in ashes, cooked over a fire or cooked in an earthen oven (Brown 1993; Turner and Turner 1999). Therefore, the criterion of burning is supported by the idea that faunal remains from the region are often burned during the cooking process. White in his book even states "cutmarks and burning on a human bone assemblage are often held to be the primary signatures of cannibalism" (1992:339).

Thus, the dominant theme of cannibalism continued to be promoted and supported (e.g., Billman et al. 2000; Lambert et al 2000; Potter and Chuipka 2010) and therefore, indigenous populations have been living with the dehumanizing stigma for more than two and half decades. The cannibalism label has overshadowed other potential hypotheses regarding corpse manipulation and unusual mortuary treatments. As pointed out by Bullock (1991), the six criteria used by the Turners could also be produced from death by battery, manipulation of the bodies as part of a mortuary rite, or veneration of the dead through defleshing and dismemberment. McGuire and Van Dyke (2008:7) further implore that it is high time to "dismember the (cannibalism) trope" because the trope itself "undermines good research by reducing the question to the presence or absence of cannibalism." The variability in how these remains were created has been discounted through a simple and reductionistic explanation.

The objective of this study is to review and synthesize the literature based on these remains, while adding contextual information from archival sources and ethnographic oral histories to give cultural context to these assemblages. This study strives to provide a new way of framing ancestral behaviors by examination of the role of burning and the production and use of ash in Pueblo cosmology, ideology and social processes. Ashes and burning play important roles in purification, protection and transformations (Roth and Adams 2021). Burning and ashes serve a critical role in many Pueblo ceremonies and curing rites. There are accounts of fire being used as protection from inherently dangerous entities such as witches and malevolent magic. This study explores the idea that the burning of these highly fragmented remains held greater cultural meaning that had nothing to do with anthropophagy. It is critical that a more integrated, systematic, and contextualized study is done so that the lasting legacy for Native Americans living today in the Southwest regions is as accurate as possible.

## Methods

### *Review of the Osteological Literature of 43 Sites*

In a review of the osteological literature, the study examined several aspects. First, the current interpretation of the remains was documented. Second, the demography of the sites was recorded. Third, the spatial and temporal location of the sites were identified. And finally, the burn patterns of the remains were addressed.

This research did not involve the physical handling of any human remains where tribal representatives have requested that no further studies be carried out utilizing the actual bone collections. It is the ethical duty of bioarchaeologists to hear, understand, and respect the wishes of descendants when handling their ancestors' remains. Bioarchaeology offers the unique potential to give voice to past populations and to present complex and nuanced interpretations

based on more advanced methods for data analysis. (Zuckerman et al. 2014). While permission to continue to study this topic through previously published materials was not obtained directly from descendant Pueblo people, no ancestral remains were handled during this research. As well this manuscript was distributed to several Pueblo groups via their cultural heritage representatives[1]. [[1]Sent to Stewart Koyiyumptewa, Hopi Cultural Preservation Office]

The initial step for this study, was examining the literature of 86 sites in the American Southwest identified with fragmented and disarticulated remains. The volume by Turner and Turner (1999) contains an overview of 76 archaeological sites that yielded disarticulated remains. In combination with more recent findings (Akins 2008; Billman et al 2000; Fetterman et al. 2005; Graver et al 2001; Kennett et al. 2017; Kuckelman 2010; Kuckelman et al 2002; Ogilvie and Hilton 2000; Osterholtz 2018; Osterholtz and Martin 2017) this study extrapolated 43 sites to examine based on the fact that at all the skeletal remains at these sites showed signs of burning. (Turner and Turner, 1999; White, 1992;). These sites included good archaeological context and provenience, information about burning, and a clear minimum number of individuals found within the assemblages. Because descriptions exist of the analytical findings regarding the nature of the osteological literature, the location and percentage of bones showing burning was calculated to establish patterns of burned bone.

Secondly, ethnographic oral histories in the literature related to burning were examined as well as original field notes. The author applied and received permission from the American Museum of Natural History to collect information about a sample of these archaeological sites. Notes and archival sources from the Morris and Hyde Expeditions were examined to look for contextual information at the time these fragmented and burned bones were retrieved. The purpose of this literature review was intended to offer information on how archaeological context

and osteological analyses data can be combined to increase our understanding of how these remains can be interpreted.

**Table 3.1.** 43 Sites with Burned, Fragmented and Commingled Human Remains Sorted by MNI

| Name | Claims | Time Period | MNI | Adult Males | Adult Females | Adult of Unknown Sex | Juveniles (<18 yr. old) |
|---|---|---|---|---|---|---|---|
| Teec Nos Pos (Turner and Turner 1999) | Cannibalism | Pueblo II | 2 | 1 | - | - | 1 |
| Pueblo Bonito (Room 61 and 80) (Pepper 1920) | Cannibalism | Pueblo II | 2 | - | - | 2 | - |
| Aztec Wash II (Turner and Turner 1999) | Cannibalism | Pueblo III | 2 | - | 1 | - | 1 |
| Hanson Pueblo (Turner and Turner 1999) | Cannibalism | Pueblo III | 2 | - | - | 1 | 1 |
| San Juan River (Turner and Turner 1999) | Cannibalism | Pueblo III | 2 | 2 | - | - | - |
| Canyon Butte Ruin 3 (Turner and Turner 1999) | Cannibalism | Pueblo III | 4 | 1 | 1 | 1 | 1 |
| Cottonwood Wash (Turner and Turner 1999) | Cannibalism | Pueblo I | 4 | 1 | 1 | - | 2 |
| Yellow Jacket 5MT-1 (Turner and Turner 1999) | Cannibalism | Pueblo II | 4 | 1 | - | - | 3 |
| La Plata 23 (Turner and Turner 1999) | Cannibalism | Pueblo III | 5 | - | - | 2 | 3 |
| House of Tragedy (Turner and Turner 1999) | Cannibalism | Pueblo III | 5 | 2 | 2 | 1 | - |
| Fence Lake (Turner and Turner 1999) | Cannibalism | Pueblo III | 5 | 2 | 1 | 1 | 1 |
| Ash Creek (Turner and Turner 1999) | Cannibalism | Pueblo III | 5 | - | - | 4 | 1 |
| Marshview Hamlet (Turner and Turner 1999) | Cannibalism | Pueblo II | 6 | 1 | 1 | 1 | 3 |
| La Plata Highway LA 37593 (Turner and Turner 1999) | Cannibalism | Pueblo II | 6 | 1 | 2 | 1 | 2 |
| Monument Valley (Turner and Turner 1999) | Cannibalism | Pueblo II | 7 | 2 | 3 | - | 2 |
| Houck K (Turner and Turner 1999) | Cannibalism | Pueblo III | 7 | 2 | 1 | 1 | 3 |
| Cowboy Wash (Billman et al 2000) | Cannibalism | Pueblo III | 7 | 3 | 1 | - | 3 |
| La Plata Highway LA 37592 (Turner and Turner 1999) | Cannibalism | Pueblo III | 7 | 1 | - | 2 | 4 |
| Small House (Turner and Turner 1999) | Cannibalism | Pueblo II | 8 | - | - | 3 | 5 |

| Name | Claims | Time Period | MNI | Adult Males | Adult Females | Adult of Unknown Sex | Juveniles (<18 yr. old) |
|---|---|---|---|---|---|---|---|
| Peñasco Blanco (Turner and Turner 1999) | Cannibalism | Pueblo III | 8 | 1 | 1 | 4 | 2 |
| Yellow Jacket 5MT-3 (Turner and Turner 1999) | Cannibalism | Pueblo II | 10 | 2 | 1 | 3 | 4 |
| Burnt Mesa (Turner and Turner 1999) | Cannibalism | Pueblo II | 11 | 4 | 2 | 1 | 4 |
| Sambrito Village (Turner and Turner 1999) | Cannibalism | Pueblo II | 11 | 1 | 2 | 5 | 3 |
| Aztec Wash I (Turner and Turner 1999) | Cannibalism | Pueblo III | 13 | 3 | 3 | 1 | 6 |
| Rattlesnake Ruin (Baker 1990) | Cannibalism | Pueblo II | 20 | 2 | 4 | 3 | 11 |
| Mancos Canyon (White, 1992) | Cannibalism | Pueblo III | 29 | - | - | 16 | 13 |
| Polacca Wash (Osterholtz and Martin 2017) | Cannibalism | Pueblo IV | 30 | 1 | 2 | 13 | 14 |
| Leroux Wash (Turner and Turner 1999) | Cannibalism | Pueblo III | 35 | - | - | 21 | 14 |
| Largo-Gallina Bg51 (Turner and Turner 1999) | Violence/ Cannibalism | Pueblo III | 3 | - | - | 3 | - |
| Grinnell (Graver et al 2001) | Violence/ Cannibalism | Pueblo III | 8 | 1 | 2 | 2 | 3 |
| Ram Mesa Kiva (Ogilvie and Hilton 2000) | Violence/ Cannibalism | Pueblo II | 13 | 2 | 2 | 2 | 7 |
| Largo-Gallina Bg2 (Turner and Turner 1999) | Violence/ Cannibalism | Pueblo III | 16 | 7 | 4 | 4 | 1 |
| Salmon Ruin (Akins 2008) | Violence/ Cannibalism | Pueblo III | 25 | 2 | 2 | - | 21 |
| Sacred Ridge (Osterholtz 2018). | Violence/ Cannibalism | Pueblo I | 33 | 10 | 7 | 4 | 12 |
| Castle Rock (Kuckelman et al 2002) | Violence/ Cannibalism | Pueblo III | 41 | 5 | 3 | 10 | 23 |
| Jack Smith's Alcove House (Turner and Turner 1999) | Violence | Pueblo II | 2 | 1 | 1 | - | - |
| Lake Roosevelt (Grapevine Springs South/Annes) (Turner and Turner 1999) | Violence | Pueblo III | 4 | 2 | - | - | 2 |
| Seed Jar Site (Fetterman et al. 2005) | Violence | Pueblo II | 12 | 1 | 1 | 3 | 7 |
| Pueblo Bonito (Room 33) (Kennett et al. 2017) | Violence+ | Pueblo II | 14 | 9 | 4 | 1 | - |
| Sand Canyon (Kuckelman 2010) | Violence | Pueblo III | 23 | 3 | 9 | 3 | 8 |
| Te'ewi (Turner and Turner 1999) | Violence | Pueblo III | 30 | 24 | - | - | 6 |
| Awat'ovi (Turner and Turner 1999) | Violence | Pueblo IV | 800^ | - | - | - | - |
| Black Mesa (Turner and Turner 1999) | Other | Pueblo II | 3 | - | - | 2 | 1 |

Table 3.1. Site claims listed next to the sites are from previous researchers. The demographic and minimum number of individuals is taken from previous publications

The violence+ for Pueblo Bonito Room 33 was marked as human sacrifice with possible cannibalism because it was near other sites that Turner and Turner (1999) stated were "confirmed" cannibalism cases

800^ The exact MNI for Awat'ovi is unknown; however, this MNI is based on average size of Hopi villages in 1664 (Turner and Turner 1999:67)

**Findings**

*Interpretation claims*. The 43 sites identified as having heavily modified and burned ancestral remains, show two main claims of motivation, cannibalism and or violence (See Table 3.1.). 36 (83.7%) of the assemblages included some claim of anthropophagy as the explanation for the disarticulation and burning. Seven of these 36 sites do have conflicting claims with primary researchers and archaeologist disagreeing on the motivations being either violence or cannibalism. For 7 (16.3%) of the sites, "violence" or a "violent event" were offered as explanations of the disarticulated remains. This includes Room 33 at Pueblo Bonito, Turner and Turner suggested that this collection of remains was a human sacrifice with possible ritualistic cannibalism because of the proximity of other skeletal collections (Room 61 and Room 80 at Pueblo Bonito and Peñasco Blanco) with the designation of cannibalism. One single site Black Mesa is listed on the table as "Other". Black Mesa was listed in the Turners' 1999 book Man Corn as a possible example of cannibalism based on the six criteria they had established. Although, three of the six criteria established by Turner and Turner were not found at Black Mesa, and still it was included in Turner and Turner's list of highly fragmented remains and

possible cannibalism cases. Other researchers of Black Mesa suggest the remains were disturbed which is what had caused a similar taphonomic pattern (Martin et al, 1991).

*Demography and MNI.* The demography and minimal number of individuals (MNI) of the sites with burnt highly fragmented remains is variable (See Table 3.1.). Assemblages with MNIs between 2 and 10 individuals are most common with 26 (60 %) of the sites having an MNI in this range. However, sites with significantly larger MNIs also show collections with culturally modified remains. Six (14%) of the sites have MNI of 30 or more people not including Awat'ovi who's MNI is cited as 800. Estimated MNI of Awat'ovi is based on the population counts for Oraibi and Shungopovi two Hopi villages that were contemporaneous with Awat'ovi (Brew 1949; Turner and Turner, 1999).

The majority (24; 56%) of these sites contain skeletal collections including the remains of men, women, and children of all ages and sexes. There are some sites that do not fit this pattern. Te'ewi includes adult males and juveniles whose sex is not able to be determined. The remains of 30 individuals were found in a Kiva at Te'ewi (Turner and Turner, 1999). Of those 30 individuals 24 were males with the other 6 were juveniles. Other sites such as Salmon Ruin also had culturally modified remains. However, at this site once again the demography appears slightly different from the majority of other sites. At Salmon Ruin the remains of 35 individuals were found. Most of the individuals (33) at Salmon Ruin were juveniles and the demography was heavily skewed towards individuals under the age of 11 years (Akins 2008).

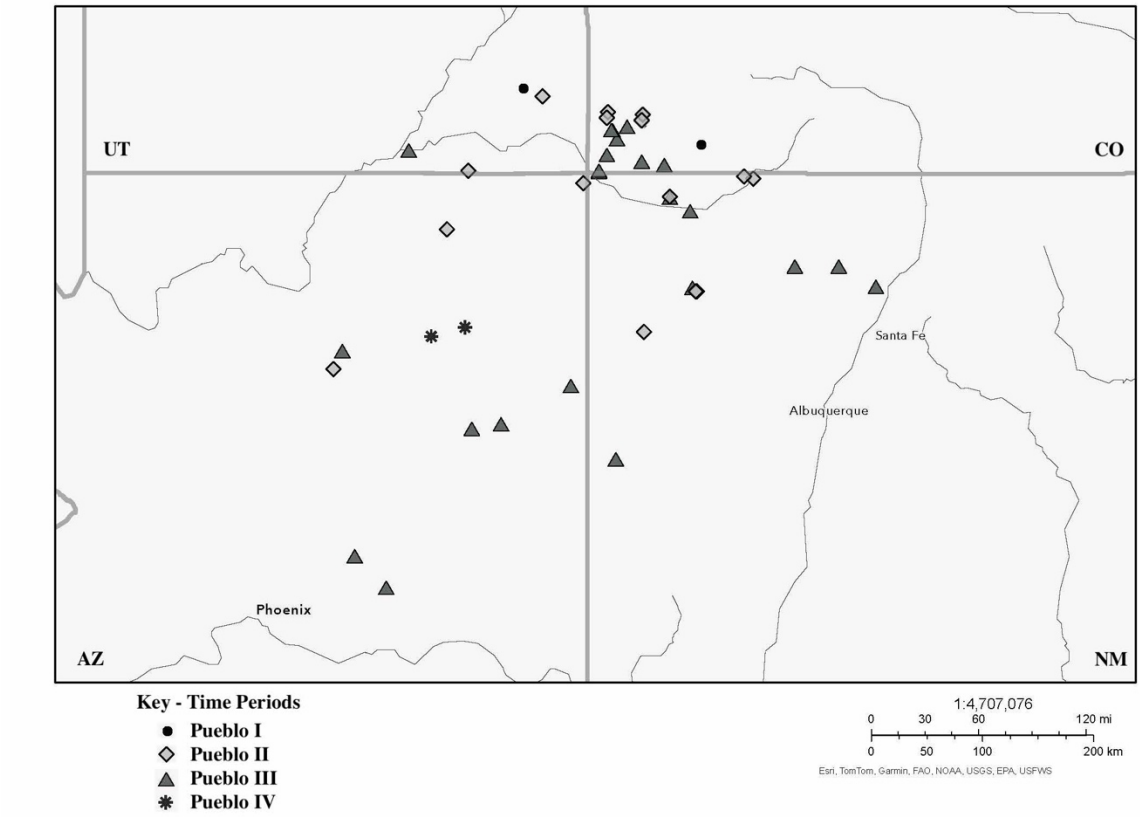


**Figure 3.1.** Map with 43 sites with highly fragmented and burned remains

*Spatial and temporal location.* Figure 3.1. displays the spatial and temporal location of the remains. Spatially these sites are found throughout the Ancestral Puebloan cultural region. There does appear to be some clustering around culturally significant areas including Chaco Canyon and the Mesa Verde region. These sites also represent all time periods of the Ancestral Puebloan cultural region spanning from AD 800 to AD 1700. One half of the sites (23) are from the Pueblo III period (AD 1150-1350), followed by 15 (34.9%) sites from the Pueblo II period

(AD 900-1150). However, sites in the Pueblo I period (AD 750-900) and Pueblo IV period (AD 1350-historic times) exist with the same clustering phenomenon.

Temporally, these sites with burnt culturally modified remains do not directly link to the Chaco cultural Phenomenon. Turner and Turner suggest that cannibalism and these fragmented remains were part of a regional system controlled by Chaco Canyon and influenced by cultures in Mesoamerica (Turner and Turner 1999). However, there are sites from the Pueblo I period before Chaco Canyon was culturally important during and sites that show culturally modified human remains in the historic times as well.

*Correlations with drought and environmental conditions.* The warfare/violence and resource model has been popular for the past 40 years. In 2002 Lekson created a timeline with resource unpredictability (AD 600-900) that correlated with feuding and raiding followed by environmental stability and peace (AD 900-1250) and then again resource scarcity and warfare from AD 1250 onward. Figure 3.2. was created for this paper with the 43 sites related to burning superimposed on it. Environmental and social conditions were modeled after Lekson's (2002) and Martin's (2016) resource predictability timelines. The 43 sites of this study do not appear to directly correlate with periods of droughts or environmental hardship. Droughts and resource scarcity were common in the Ancestral Puebloan region as they are today, however past people most likely had a number of different ways to mitigate these challenges references. Neither do these sites directly correlate with the period of "Pax Chaco" as Lekson suggested 2002. A recent study by Freiberger and Martin (2024) showed that many of these sites with disarticulated remains did not correlate to periods of drought or extreme resource deprivation. Moreover, these events that included mass deaths seemed to occur regularly across time and in different regions as is also represented with these 43 sites.

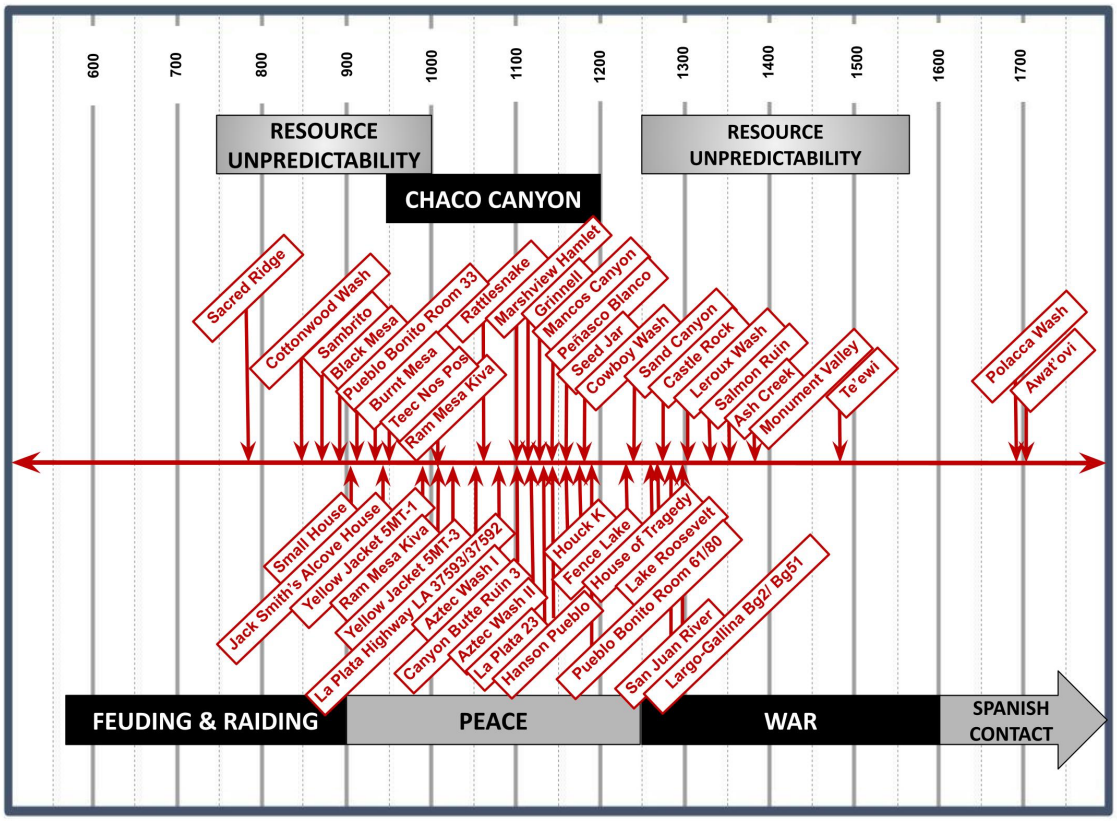


**Figure 3.2**. Timeline of burned highly fragmented remains that demonstrate these collections occurred throughout different time periods and during times of resource and social stability

*Burn patterns*. Not all the sites identified gave descriptions of how, where and to what extent the remains were burned but for those that did include this information the following was found. Based on burn patterns it appears that many of the collections of human remains were thermally altered before they were defleshed. The Mancos, Polacca Wash and Castel Rock sites have a burn pattern showing that the more superficial a bone is, such as the tibial crests, the more burning damage it showed (Kuckelman et al. 2002; Turner and Morris 1970; White 1992). An absence of internal burn marks on skulls and long bones as sites like Cowboy Wash suggest that

burning of the remains occurred before breakage (Billman et al. 2000). Interestingly the burnt remains at Cowboy Wash were found in pit houses that did not show signs of burning.

At Mancos the pattern of burning appears to have been the result of low temperatures with mostly discoloration, exfoliation, and general deterioration of the bone (White 1992:158). A skull at Burnt Mesa shows burn damage that resulted in charred or calcined bone possibly the results of bone being placed directly into a fire for longer periods of time (Flinn et al 1976). Burnt Mesa and San Juan River appear to have been burned after breakage based on burning found along the edges of bone fragments (Turner 1983; Turner and Turner 1999). Researchers at Seed Jar suggest that burning was the final step in processing. Crushed and broken bones were placed directly into the hearth (Fetterman et al. 2005). At Sacred Ridge, reassociated skull fragments demonstrated vastly different exposure to heat based on coloration between surrounding skull fragments.

The presence of flesh on bones does not automatically imply that fragmented remains were consumed, as there is a numberer of mortuary practices that involve burning of bodies. For example, a mortuary practices at Çatalhöyük, in Turkey, included defleshing bodies and removal of particular skeletal elements as well as indirect burning of the remains during abandonment rituals of domestic structures (Haddow et al. 2016). For some sites in the American Southwest, re-articulated pieces of broken remains that are burned to different degrees suggests that disarticulation and breakage of long bones and skulls into small segments occurred prior to burning. Highly fragmenting bone before roasting for cooking would suggest an unusual order of events if the bones were burned only for consumption. Additionally, forensic experimentation and case studies show that bone responds differently to burning according to tissue shielding the bone (Symes et al 2015). Areas such as the distal and proximal ends of long bones are often

burned first even in articulated individuals. Regions like the superior portion of the parietals along the sagittal and coronal suture as well as portions of the frontal bone also are first to burn in fires not related to cannibalism or disarticulation (Fojas et al. 2011; Symes et al. 2015). Interestingly these are the exact same region of bone mentioned to be burned by Finn et al. who suggested the skull was used as a cooking pot.

> "Those bones at the top of the skull, the frontal and parietal bones, display the highest amount and degree of burning of any cranial bone. Perhaps the skull itself was used as a cooking utensil, being turned upside down so that it rested in the fire pit on the frontal and parietal sections, while the brain roasted within it. Long bones contain marrow of course, and the smashing and roasting of these bones would have provided access to this useful food item" (Finn et al. 1976:315).

Researchers have also compared frequency of burned bones in faunal collections to the frequency of burned human remains at these sites. These frequencies are based on skeletal elements that show burning vs total skeletal elements that are not thermally altered. In the Southwest zooarchaeological reports show a wide range of frequency for burned faunal bones from archaeological sites. For example, at Coronado in New Mexico 2.6% to 79.4% of the artiodactyl assemblages are burned (White 1992:335). In comparison the percentage of human remains burned ranged from 0.5% of total skeletal fragments to 98.6% of fragments showing signs of burning. (Turner and Turner 1999). There are seven known sites whose percent of human bone fragments burned fall outside the range of percent burned of bone found in zooarchaeologist find in faunal collections.

*Review of Archival Notes at the American Museum of Natural History*

The original field notes that described the retrieval of the remains from five archaeological contexts were reviewed. These five collections were excavated from Pueblo Bonito Room 33, Room 61, Room 80; Peñasco Blanco and La Plata 23. The notes all confirmed that burning or ash was involved in the five sites as described in the published literature. However, there was additional information noted in the records that gave furth information about the use of fire in of each collection. For example, at Pueblo Bonito George H. Pepper writes that the remains of Burial 14 (H/3672) in Room 33, despite the remains themselves not showing any thermal alteration; the burial was described as "rested upon bed of fine ashes" (1987:18). The ash was most likely a very intentional addition to that crypt as was the thousands of other funerary offerings found with Burial 13 and Burial 14 at Pueblo Bonito. Other remains from separate locations throughout Pueblo Bonito are described as "charred" or "calcined."

These notes also give contextual information about the burn patterns related to collections at these Chacoan sites. In his original 1887 field notes and then again in this anthropological papers Pepper wrote the following about the remains in Room 61

> "The broken skull, most of the pieces of which were blackened and charred, were scattered over an area fully 4' in diameter […] There was no evidence of there having been fire in this room, the only piece of charred wood being a section of a post […] this had evidently been thrown in. The pieces of the skull were lying as though they had been scattered by hand; had they fallen from the ceiling above, they would not have covered so much space, and rodents would hardly have carried them around to such an extent." (1987:32)

It appears that the remains in Room 61 were burned in a separate location before being deposited with in the room in Pueblo Bonito. This burn pattern of intentionally placing and scattering burned remains around a room may be related to a deeper cultural motivation than from a cannibalistic event like Pepper assumed.

As for the remains in Room 80, they appear to have fallen from the room above them. (Pepper 1920). They were also found with highly decorated painted stone mortar. Pepper states

> "These bones show evidence of having been burned and they were broken as is the case with other human bones found in the pueblos of this group; form the fact that they had been in one of the upper rooms it may be that they had been used for some ceremonial purpose, as it was not the custom to bury even portions of bodies in the upper rooms" (1920:267).

Pepper claimed both the remains in Room 61 and 80 were the result of cannibalism. He also believed cannibalism occurred at Peñasco Blanco a few miles away from Pueblo Bonito.

The written descriptions of the archaeological dig at Peñasco Blanco are unfortunately lacking in detail. The catalogs at the American Museum of History state that "Human bones from the room in Penasco Blanca [Peñasco Blanco] – most of them split – some burnt- "Waylo"" (American Museum of Natural History Catalog for Peñasco Blanco reviewed 2022:13). The catalog has two more entries about human bone being retrieved from Peñasco Blanco all credited to Waylo a Navajo workman on the site. The catalog also includes additional archaeological material found associated with catalog number (#11801) relating to the fragmented remains. This archaeological material included yellow jasper and other stones as well as a deer bone. Possibly burial mats were also found with the remains however, they are stated to be found with the "bodies in Rooms" not the fragmented remains' catalog number.

Pepper also writes about Peñasco Blanco in his anthropological papers on Pueblo Bonito.

> "…our Navajo workmen cleaned out a number of rooms in Penasco Blanco and in one of these a great many human bones were found. Some of these, including portions of the skull were charred, and the majority of the long bones had been cracked open and presented the same appearance as do the animal bones that have been treated in a similar way for the extraction of the marrow" (1920:378).

Pepper claimed the remains at both Peñasco Blanco and Rooms 61 and 80 in Pueblo Bonito were the results of cannibalism.

The final site that had original field notes available at the American Museum of Natural History was La Plata 23. Morris stated that the remains from La Plata 23 were "mixed through the burned layer were many bones, principally human, most of them splintered and charred wholly of in part." (1939:37). H. L. Shapiro in his 1927 reports his belief for cannibalism at La Plata based on the remains of two individuals being found in a large pot.

> "At La Plata I found a small cave which yielded evidence of a great fire which covered a large part of the cave floor. On one side, but resting directly on the fire, was a large corrugated pot. Inside the pot were the remains of two individuals, including a deformed skull, pelvis, vertebrae, ribs and broken long bones. Scattered in the refuse were bits of charred bones and part of a long bone split for marrow. A few fragments of lower jaw found in the pot had evidence of burning, the other bones were apparently boiled. There was no evidence that this was a burial. My conclusion is that this was probably a case of cannibalism of a kind not heretofore reported. (1927:2-3).

It is evident that these sites in the Southwest have been labeled as cannibalism for over a century.

**Ethnographic Oral Histories of the Use of Fire**

Ignoring the complicated relationship between the dead and the living, between corpses and mortuary specialists, and between Pueblo cosmology and ideology has permitted largely white non-Pueblo researchers to concoct an interpretation of cannibalism that really has very little basis in Pueblo beliefs. If cannibalism was taking place over a period of 850 years and across the Southwest landscape it would seem there would be some oral history, but there is none. On the other hand, the ethnographic literature is replete with the use of fire and ash in Pueblo history as a purifying agent and tool used in protecting the living from both malevolent spirits and to separate and purify a space from the dead. Fire has not only been used as a means to cook food material but also used in a multitude of different ways. From the historical record, fire has been used as a weapon of total or ritualistic destruction, ritualistic purification, ritualistic closure of sites (Darling 1999; Malotki 2002). This history offers an alternative way of interpreting the diversity and nuance seen in the assemblages.

*Use of fire as destruction.* There are ethnographic oral histories of fire being used for destruction is the tale of Qa'ötaqtipu (Malotki 2002). Qa'ötaqtipu and a neighboring village Matsonpi had been having a friendly running challenge. After losing multiple times the villagers of Matsonpi upped the competition to a life-or-death challenge. A boy from Qa'ötaqtipu loses his race and is killed. His uncle the chief of Qa'ötaqtipu plans revenge. The chief of Qa'ötaqtipu prays to the Yaayapontsa, fire spirts, to burn down Matsonpi. In a surprising twist the ethnohistoric account ends with the chief of Matsonpi asking Spider women for help and the fire turning around and burning Qa'ötaqtipu.

Another ethnographic account of a community being destroyed and cleansed by fire is Pivanhonkyapi. The Hopi tale of Pivanhonkyapi has the town being burned down at the request

of the village chief after the town had fallen into the hands of malevolent forces (Malotki 2002). Pivanhonkyapi was said to be located close to Old Oraibi. In this story, the entire village of Pivanhonkyapi has become corrupted by a gambling game. The villagers no longer pay attention to anything, but the game and the village had been engulfed in social chaos. The chief begs his people to return to their normal life, but when they stop tending their fields and taking care of their children and do nothing but gamble the chief has the village cleansed by fire. The wholesale destruction of a corrupt community in order to eradicate evil is a common theme in Hopi ethnographic accounts (Lomatuway'ma et al. 1993).

The ethnohistoric accounts state that the full village of Awat'ovi was massacred during a single event. Awat'ovi was destroyed at the request of the village chief as the entire village had been corrupted and the villagers were no longer following *suyanisatsi* or the life of balance. In one version of the legend a sorcerer who is identified as the Spanish missionaries, are turning the villages away from the ideal Hopi life by baptizing residents (Malotki 2002). When the other villages in the area came to assist the chief of Awat'ovi in cleansing his village the first thing they did was pull up the ladder of the Kiva and set the ceremonial structure on fire full of all the men and boys of Awat'ovi (Brooks 2016). In the case of Awat'ovi it is abundantly clear that cooking is not the only reason that remains might be burned.

*Burning as a closing ritual.* Archaeologically, there is a relatively high frequency of pit houses and villages being burned throughout the Ancestral Puebloan region (Roth and Adams 2021; Adams 2016; Walker 1998). For example, at the Homo'ovi village cluster, 13 out of 26 Kivas have evidence of burning (Adams 2016). This ritualistic event of burning down buildings, especially Kivas or underground ceremonial structure, has become known as "closure" events. Closure events can be defined as a practice of ending occupation or use of a structure or

settlement in particular for rituals and ceremonies (Adams 2016). Social groups will transfer ritualistic practices from one location to the next. Archaeologically these burning events appear to be tied to settlement and community movement away from sites (Adams 2016). Many contemporary Puebloan groups do not consider past archaeological sites "abandoned" and believe that these settlements are still active with ancestors living there (Ferguson et al. 2001; Stodder 2020). Individuals buried at these sites created a cultural tie to these spaces. Mortuary features and cultural material left at these sites serve as a type of spiritual guardianship of the settlements. Connection to the individuals that once lived that those various sites is a key part of group identity. There are Hopi accounts of an ancestral villages being referred to by name when recounting clan histories by Hopi elders (Ferguson et al. 2001:9). The Hopi in particular have a number of ethnohistoric accounts referring to the spiritual belief of migration and ties to places of the past. Domestic structures with interments could still be considered ritually "occupied" as buried individuals may be considered as "much alive in present as they were in the past" (Ferguson et al. 2001:9).

The need to transition to new buildings and close old ones is incredibly important for Southwest people whose origin stories focus on the act of migration and moving across the landscape (Courlander 1971). Homes were intimately associate with people's lives, sometimes even including the burial of ancestors beneath subfloors (Walker and Berryman 2023). Closure events which frequently involved burning or the use of ash created a strong cultural and social memory. The closing of structures can ritualistically change the role of the building itself. Structures are transitioned from one role "the home", to a new one "the old home" so that people can reestablish their social and culture life in another structure, "the new home" (Walker and Berryman 2023). This ritual transformation is seen as separating the old space from the living

and lets it belong to the past inhabitants the dead. In addition, closure events would offer protections for both past and future communities from any danger or dangerous object left at the site (Walker and Berryman 2023).

*Malevolent spirits and witches.* Executions by fire in many cultures were used as an extreme form of punishment for perceived transgressive acts that the accused individuals caused. For example, in Europe between 1450-1750 some 200,000 people were burned at the stake for crimes such as witchcraft, sorcery, and heresy (Topp 1973). Although some researchers argue that the concept of witches were introduced by European influences, ethnographic stories including malevolent spirits and "bad people" can be found suggesting that a similar concept existed in the Ancestral Puebloan world prior to European contact (Darling 1999). Even if the term witches and witchcraft may be a European introduction, the idea of people who have bad intentions and the ability to do evil to others appears to have been present in the Ancestral Puebloan world based on ethnographic oral histories (Malotki and Gary 2001) Southwest groups have generational stories and origin myths plagued with witches and malevolent spirits. Ritualistic countermeasures to help protect communities from these malevolent spirits are also often discussed in the ethnographic accounts.

As entities, witches were not thought to be human but were almost viewed as parasites that leeched off the lives of their victims. Anyone in the community could be a witch. "The Pueblo witches (are not) disassociated evil sprites […] they are simply ordinary humans who possess a special degree of supernatural power and direct it toward antisocial ends" (Tyler 1964:259). Strangers were almost always considered possible witches (Darling 1999). Children were especially susceptible to witches as they were uninitiated into society and thus could be easily stolen away. These malevolent entities were thought to bring evil to the whole community.

Epidemics and crop failures were frequently blamed on witches (Malotki and Gary 2001). To protect the community and oneself from these malevolent beings, ritualistic acts of purification were committed. Many of these ritualistic acts of purification included the use of ash and burning (Roth and Adams 2021; Adler 2021). “The use of ashes is distinctively antiwitch prophylaxis” for some Puebloan groups (Parson 1939:464).

Witches could be ritualistically fought and destroyed as it was the only way to guarantee that the witch would not come back to life and terrorize the living (Darling 1999). Not only could witches affect the living they also had the ability to perform necromancy and keep individuals’ spirits from returning to their ancestors. Witches could be controlled through medicine and curing societies, in addition, witches could be killed and destroyed. Darling discusses that idea that the burning the bodies of those considered witches was a way to ritually separate the deceased from the living community. Parsons states that the remains of burned witches were placed in a specific area designated for them (1939:730). It appears that burning and fire were a common way to dispatch witches, considering ash is used to fend off witches during life it is logical that fire would also protect against them in death.

Even in regard to stories connected to the afterlife and the Land of the Dead in Hopi ethnography witches are often associated with having to be burned. Malotki and Gary discuss how almost always witches get their “just deserts” be it in the living world or the afterlife (2001:xxiv). In a number of ethnographic stories “witches and mean people, some of whom are consumed in ovens from which they emerge as beetles” (Ferguson et al. 2001:12) or thrown into fire pits (Green 2008) or a flaming fire pit (Titiev 1942).

There is one ethnographic narrative of a Hopi Man who faced a near death experience and was taken to the Land of the Dead. In the Land of the Dead this man saw what happened to

witches. Standing around a large pit of fire were eight individuals four were called “Two-Hearts” or witches.

> “Those in front are Two-Hearts. They killed the people standing behind them and now it is their turn to suffer. The crowds of people have come from the House of the Dead to see the Two-Hearts get their punishment. Look!" Then he yelled out, "Ready, push!" The woman on the north pushed her Two-Heart into the pit and I could see the flames lap him up, sending out rolls of black smoke. Then the man on the west pushed over his naked woman, and the woman on the south shoved in her man, causing great volumes of smoke to rise out of the pit. Finally, the man on the east pushed his girl and the work was done.” (From Sun Chief: The Autobiography of a Hopi Indian, 1942 Quotation pulled from Green, 2008:289)

**Discussion**

Most formal interments in the Ancestral Puebloan world included fully articulated individuals in flexed or semi-flexed positions (Stodder 2020). Mortuary features may include intentional pits in middens, or under subfloors in structures or even natural opening. Funerary objects found with individuals where normally few (McGregor 1965). The number of individuals found within burial spaces varies with some mortuary features containing multiple individuals whereas other are solely occupied. Although there is a wide variety of burial practices and mortuary features seen in the Ancestral Puebloan past most individuals remained articulated during internment. Contrary to what is considered normative or formal interments skeletal collections of human remains that are cut, broken, crushed, burned and commingled are also found throughout the Southwest.

As described in this article's osteological review these assemblages of fragmented and commingled remains consist of multiple individuals, and the number varies from single individuals to assemblages of over 40 individuals and as high as 800 plus individuals. Martin (2016), in a summary of published material on these remains, demonstrated that there is variability in the demographic and archaeological features of these assemblages. Yet, most researchers dismiss the variance and deviation among the different assemblages which mutes the possibility of nuance and distinctive features. The demography of these skeletal collections includes individuals of all sexes including infants, children and elderly.

Despite a few outliers (Salmon Ruin, San Juan River and Largo-Gallina Bg-51) most of the sites have remains from a variety of individuals for different ages and sex. Individuals within these collections are not only the young and old which have historically been the demographic of starvation cannibalism (Askenasy 1994; Hardesty 1997). It has been suggested that the demography of the majority of other sites resemble a family or extended family unit or residential group (Flinn et al., 1976; Kantner 1999). At some locations like Sacred Ridge dental analysis has provided evidence supporting that the highly fragmented ancestral remains shared inherited traits (Potter and Chuipka 2010). This dental study also pointed to the individuals within the collection were more closely related to each other than other individuals at the site. If the individuals in assemblages were related to each other this could suggest that some inherited trait caused them to be killed. In Puebloan groups witchcraft was thought to be inherited (Darling 1999:46-47) and this might lend support to the concept that these remains belong to individuals deemed as malevolent beings.

The burning of malevolent beings is a common theme in Ancestral Puebloan stories and myths. Witches consisted of any demographic and are often members of a community in which

they were causing harm. Perhaps individuals who were deemed no longer human, witches, two-hearts or malevolent spirts were burned and disarticulated as a way to render them no longer dangerous and to separate them from the living.

**Conclusion**

It is critical that anthropologists work to recognize and change the research shortcomings in the field. This study worked to offer a more holistic explanation of the reason behind fragmented remains in the Southwest. The study suggests alternative hypotheses focused on explanations that include complex mortuary practices and does not reductively label the remains as a product of cannibalism without exploring and contextualizing the processed remains as representative of a socially communicative and ideologically meaningful practice. The fragmentation and burning of bodies was undertaken as a culturally specific act to separate the dead from the living and to remove their power. The act of burning serves a double purpose of both purifying and exorcising evils in Southwest societies. Because ash can act as an agent of purification it stands to reason that burning the remains of individuals considered malevolent or dangerous would lessen their power. The reduction of bodies and their subsequent burning could have served an important ceremonial and ritualistic act that resulted in transformation of the dangerous spirit. Use of fire and ash aided in purification of the body which helped transform it into something no longer dangerous. The remains of bodies should not be viewed separate from their social context. How these remains were handled was not done in isolation, but was socially motivated, highly performative and was culturally meaningful. Burning was a common occurrence within these skeletal collections. It took time and effort to modify the remains so that the transformation resulted in something positive

These fragmented and burned individuals occur through multiple generations and across the ancestral landscape. The skeletal collections are seen for hundreds of years in the archaeological record. This patterning suggests a shared ideology that continued generation after generation. Although examples of cannibalism can be found throughout history and around the world, there are no recorded links to cannibalism in the oral history of indigenous communities in the American Southwest. The widespread claims of cannibalism have brought grief to Native American communities who have steadfastly pointed out that this interpretation is wrong and harmful to Pueblo communities (Whiteley, 2008; Ferguson et al. 2001; Dongoske, et al. 2000). Each of assemblages in this study has verity and nuances and therefore, I argue that the act of burning, and disarticulation were of key cultural importance.

Burning of the remains was not done for simple consumption. The amount of burning seen on the bones as well as a variety of different burn patterns suggest that the burning had a deeper cultural meaning besides cooking. Considering some skeletal collections were broken before burning whereas others appeared to be burned before breaking suggests that roasting was not the primary goal. In addition, considering some assemblages show that close to over 90% of the bone fragments were burned suggests roasting to a degree that would make the flesh inedible. Alternatively, collections with burning on only 0.5% or slightly higher, of the total skeletal fragments might suggest roasting was not done long enough or with enough thermal intensity to cook the remains for consumption. If cooking nor total cremation was the motivation behind burning the fragmented remains it stands to reason that a deeper cultural reason was behind their handling.

Considering the numerous different ways that fire and ash can be used in the indigenous Southwest a unique mortuary activity including the burning of remains is possible. Ash is used to

close structures and separate them from the currently in use or "living" structures, could ash and burning be used to separate the dead from the living in the same way? Maybe the individuals in these highly fragmented collections were being ritualistically separated from the other ancestral remains at archaeological sites. Perhaps the individuals in these assemblages were deemed no longer part of the community during life and thus had to also be separated during death. Since ancestors and their remains play such an important role as stewards of past sites, maybe individuals whose past communities did not want them remaining as guardians were burned disarticulated and broken.

The exact motivation behind the creation of these highly fragmented and burned remains will most likely never be fully understood. Ideologies and beliefs of past people can be explored and studied using ethnographic and historic comparisons, but their precise system of values and world views will always escape researchers. However, using a holistic approach and viewing each line of archaeological data within the best cultural context possible will hopefully get scholars one step closer to understanding past people and the remains they left behind.

Chapter 3 discuss the aspect of burning within these collections of fragmented remains. Burning is one of the original criteria the Turners listed for labeling skeletal collections as cannibalism. In Chapter 3 we see that burning was a common occurrence in these highly fragmented remains. Chapter 3 therefore, offers an alternative explanation of complex mortuary practices, for why these remains were burned. By examining Puebloan curing rituals and closing ceremonies it becomes clear that burning and ash hold a vital role in Puebloan cosmology. By combing this concept with the fact that a large number of fragmented remains have been burned the idea that the burning was just a biproduct of cooking appears unlikely.

Burning is just one of the patterns that can be seen when examining these highly fragmented remains. It is clear that these remains were handled with a deeper cultural meaning in mind. By looking at Puebloan ethnographic accounts it is suggested that burning was an intentional act as a way to separate these remains from the living and remove any spiritual power they might have over the living. Chapter 3 also looks at a number of different ways that ash and burning serves as a tool to remove spiritual power from places and objects. These ethnographic accounts also offer insight about why past people would want to separate these remains from the living. If individuals within these assemblages were viewed as malevolent sprits or witches, it is possible they were no longer viewed as human. Chapter 4 will explore this concept that the individuals within these skeletal collections were considered nonhuman. The social theory of ontological insecurity is offered as the framework for the motivation behind these remains.

# CHAPTER 4

The paper for this dissertation chapter was submitted and is expected to be published in 2024. It will appear as Chapter 5 in *Exploring Ontologies of the PreContact America* edited by Gordon F.M. Rakita and Nené Lozada. The title of the book chapter is Ontological Insecurity and Social Transformation: Ritualized Violence and Corporeality—Pueblo Case Study.

**Abstract**

Indigenous forms of violence are frequently framed and interpreted through a western lens. Collections of commingled and disarticulated human remains from the Prehistoric American Southwest have been pigeonholed into the Western assumption that they were caused by resource competition and warfare. By reexamining these cases through the frame of ontological insecurity a rich cultural context and series of complex behaviors immerges related to personhood and acts of violence in the past. The Hopi idea of *koyaanisqatsi,* or life out of balance, fits well with the concept of ontological insecurity. Interpreting the processed human remains within this framework aids in explaining the culturally specific behavior that led to ritual violence seen in the bioarchaeological record. Ontological insecurity and *koyaanisqatsi* show that this violence was purifying, regenerative, transformative and ideological.

## Introduction

Indigenous forms of violence are frequently framed and interpreted through a Western lens and are often relegated to the category of warfare. Keeley's (1996) *War before Civilization* set the stage by providing a broad cross-cultural review of what he termed warfare in small-scale

societies using archaeological and ethnographic data. He never defines warfare; the review includes a wide range of activities such as raids large and small, skirmishes, ambushes, captive taking, surprise attacks, short-term fighting, longer term rivalries, border conflicts, frontier encounters, familial feuds, conflict arising from vengeance and wife-stealing as well as food shortage and droughts, standing armies, and wholesale massacres of entire communities. While lumping all of these forms of culturally specific and culturally sanctioned forms of violence into a single category expedites analysis and cross-cultural comparison, it removes from the equation the cultural context and history of these highly variable behaviors in different settings at different times.

For the Colorado Plateau region of the US Southwest, LeBlanc (1999) presented a similar format as Keeley but for a specific region in the United States. His volume, *Prehistoric Warfare in the American Southwest,* follows the same convention of using a wide range of indicators from the archaeological record to demonstrate the rise and fall of warfare through time. There is a dearth of skeletal bodies recovered with undisputed signs of death due to warfare; therefore, much of the evidence is archaeological, including defensive and fortified villages, palisades, hill slope retreats, forts, guard villages, towers, ditches and walls, rock art depictions of fighting and war shields, weapons and lithic caches, site abandonments and burning, and guarded rooftop entryways (Wilcox and Haas 1994). Fleshing out the apparent motivations for warfare in the Southwest, LeBlanc (1999:14) states that "researchers should not assume that warfare does not have competition as the major cause; instead, competition should be suspected and looked for." The double negative notwithstanding, LeBlanc and others (Wilcox and Haas 1994; Billman et al. 2000; Lekson 2002; Kohler et al. 2014; Schachner 2015) believe that competition for scarce

resources due to environmental change explains almost all conflict and violence in past Pueblo groups.

This study challenges that functionalist approach with bioarchaeological data. There have been more than a hundred assemblages of human bone remains that are disarticulated with fractures, cut marks, and other signs of human alteration (Hurlbut 2000). These disarticulated human remains have not really played much of a role in the warfare narrative with LeBlanc referring to them as "badly treated bodies" (1999:176) but not really exploring the cultural context or the variability they exhibit. Generally, these fragmented remains lack evidence of embedded points which would prove warfare, although individuals do show evidence of scalping and perimortem head fractures indicative of a violent death for most (Martin 2016).

These disarticulated skeletal bodies show clear evidence of killing, de-fleshing, dismembering, and breakage and have been factored in either as an outcome of cannibalism related to food shortage and/or, as articulated by Turner and Turner (1999), as some rogue activity that had little to do with larger cultural processes. Because earlier maps of these assemblages seemed to cluster during the Chaco Canyon phase (AD 900-1150), LeBlanc suggests that they may have had something to do with the construction of Chaco Canyon great houses. These large and ceremonial architectural features created a ceremonial and/or political center that dominated the Pueblo world. The combination of competition for scarce resources and building a power base included killing those who were transgressors whereupon they were "discarded as the body of a dead dog might be, (or) systematically processed for consumption, as a deer would be" (LeBlanc 1999:177). In summary, the disarticulated remains were not seen as part of warfare and violence, but rather as some vague idea about intimidation (and/or alternatively, as a food source) during the Chaco period which many insist was a peaceful time

with resources aplenty. Perhaps, both these theories fall into the pitfall of Western assumptions about the reasoning behind disarticulating bodies and the only "logical" reason to do so. As King et al. points out Western assumptions and Western ontological perspectives may have shaped these ideas more so than the bioarchaeological data, mortuary practices and ethnographic input (2024).

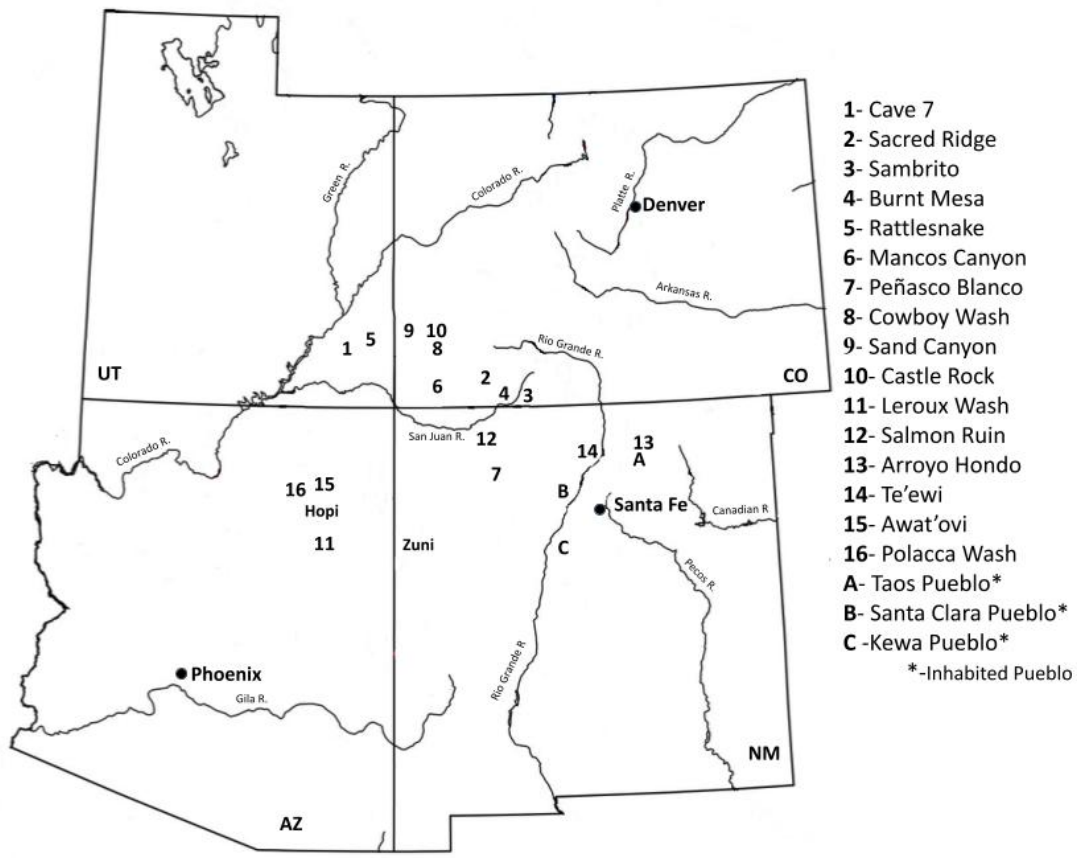


**Figure 4.1**. Map showing the distribution of disarticulated human remains that were likely part of either small-scale or larger massacre events.

These interpretations are erroneous and mistaken attempts to make the disarticulated assemblages fit with the preestablished model based on resource competition and warfare. Osterholtz (2020) has taken a different approach to violence in Pueblo groups that relies on emic notions of about the nature of violence, its culturally specific meanings, the underlying symbolism and ideology that provide its power, and the fact that violence is largely performative and discursive. These assemblages represent individuals who were the direct ancestors to the contemporary Hopi, Zuni, and Pueblo groups living along the Rio Grande today with a long and unbroken *in situ* habitation of the Colorado Plateau and Rio Grande (Map 4.1). There has been virtually no integration of the vast and rich ethnohistoric and archival information available on ideologies and social processes in the literature on warfare and violence in the Southwest by archaeologists (e.g., Ware 2014). The warfare narrative has held steady for the past 40 years with remarkable tenacity--there were times of raids and fighting which corresponded to resource scarcity (AD 600-900), this is followed by peace and environmental stability (AD 900-1250), and this is followed by a prolonged period of warfare corresponding with the resource depletion due to the Great Drought in the 1300s (AD 1250-1600s) (Lekson 2002:16) (Figure 4.2).

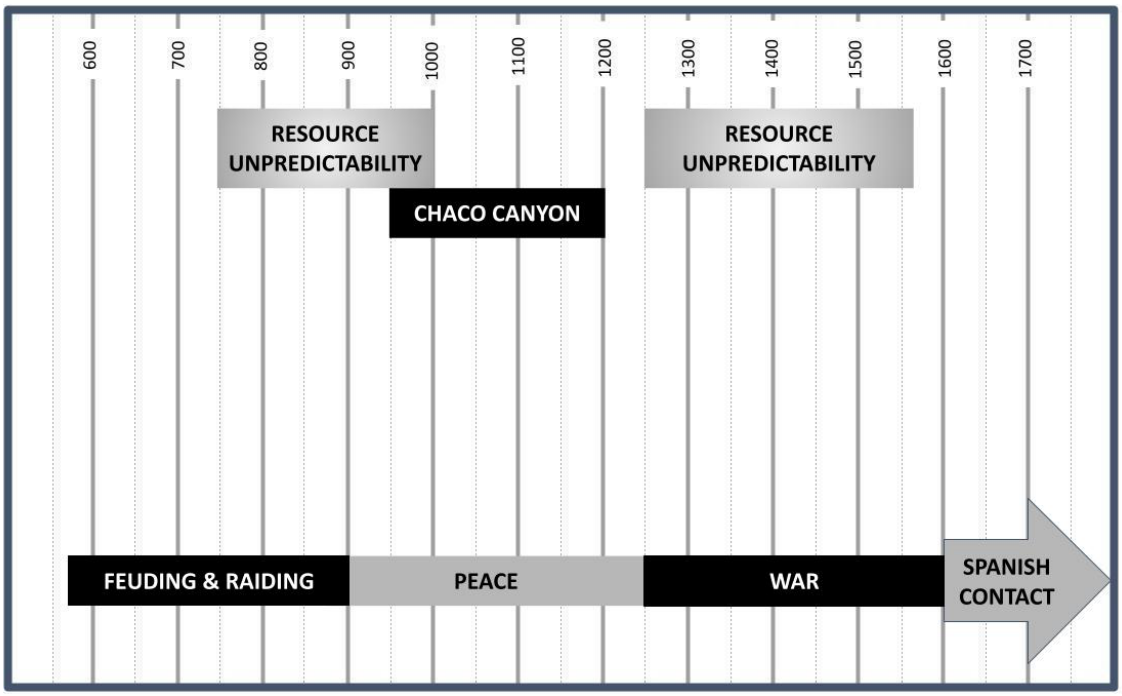


**Figure 4.2.** The timeline representing the warfare narrative for past Pueblo groups showing that alleged relationship between resource scarcity, droughts and competition and forms of warfare

There are three problems with this explanatory narrative that so neatly ties periods of warfare and violence to periods of resource unpredictability. First, the notion that all groups "fight for 'real reasons'--notably scarce resources" has been challenged by researchers such as Topic and Topic (2009:17) who demonstrate that for some Andean cultures such as the Moche, warfare was waged without any tangible benefits whatsoever. There is no evidence showing groups of warriors working in a coordinated fashion against another group and there is no acquisition of land or resources. Instead, there is a highly ritualized display of aggression and violence that is shaped by both ideological beliefs and a commitment to a particular cosmology. Using the Western notion of warfare does not in any way fit what these enactments are, yet it is common to see it referred to as Moche warfare.

Second, if it is intangibles or "not real reasons" that groups carry out violence, using the standard Western warfare model will reveal nothing of what is really going on. Motivations based on symbolism, ritual and complex ideological formulations do not have counterparts in either Western lexicon or imagination. Just as for the Moche, the Pueblo case presents elements of nuance that must be understood within a more emic approach. Ontology provides a more inventive framework and theoretical scaffolding from which to generate possible motivations for violence that likely fall far outside of Western reasoning. Alberti (2016:164) suggests that ontology, as used by archaeologists, concerns itself with beliefs about reality and with how reality is produced and reproduced. Ontology integrates data from different aspects of people's inner and outer lives such as beliefs about the body (corporeality), ancestors, landscapes, the afterlife, liminality of human-being, and the animacy of objects (Geller 2024; Wallis and Krigbaum 2024). To take this approach forces us to at least attempt an emic explanation regarding violence. While we may never get it exactly right, it is far more productive to ask the question, what did *they* imagine the value of violence to be? And, once that question is approached, it may be that our whole understanding of what violence itself is will have to be rethought.

Whiteley (1988:73-74), having worked for years with the Hopi, offered an explanation regarding the aspects of their reality that was outside of our scientific worldview when he wrote that their understanding of the environment "depends on an elaborate, highly sophisticated knowledge of ecological processes; yet it also depends on something more, something the English vocabulary . . . can only reduce to 'magical actions,'(and) 'supernatural beliefs.'" Assuming that all violence is related to competition for scarce resources during droughts cannot begin to account for the disarticulated assemblages of human bodies discovered across a large

regional landscape and across 1,000 years. The environmental model simply does not explain the complex behaviors associated with creating the disarticulated bone assemblages in the Southwest.

There are layers of complexity to the decision-making processes of whom to attack and kill, how to kill them, how the bodies were to be de-fleshed and dismembered, what to do with the body parts, and where to eventually deposit the fragmentary bodies (Martin 2016). While some (Lekson 2002; Schachner 2015) have attempted to demonstrate that the timing of these killings is temporally specific and related to drought and environmental unpredictability, it does not hold up. These assemblages of partial bodies have been found throughout the chronology (AD 800-1700) (Martin 2021). Any clustering of sites with disarticulated bodies relates more to the bias in where archaeologists have chosen to excavate. It is no surprise that there is an abundance of these assemblages discovered during the Chaco phase (AD 900-1150) given the amount of archaeological work done on these sites since the early 1900s.

A third problem, and perhaps the most important, is that there is no evidence that modern notions about warfare are applicable to Pueblo groups. The use of terms such as warfare, raiding, and skirmishes as well as cannibalism are problematic because these Westernized cultural categories are poor approximations for the malevolent and powerful forces believed to have been the root of all worldly troubles and insecurities by Pueblo groups (Ortiz 1969:140). The currently catalogued temporal and spatial existence of these disarticulated assemblages based on bioarchaeological data demonstrate that they exist starting in AD 800 and going through to AD 1700 (Martin 2016; 2021) (Figure 4.2). Equally important, these assemblages correlate with every environmental condition (too wet, too dry, just right) and thus correlate directly with nothing specific in terms of resource availability, droughts, subsistence strategies, trade, or

population size. The assemblages are found preceding, during, and after droughts and periods of environmental unpredictability. Thus, competition for scarce resources as posited by LeBlanc (1999) or cannibalistic activity associated with power and control (Turner and Turner 1999) do nothing to explain the occurrence of these assemblages.

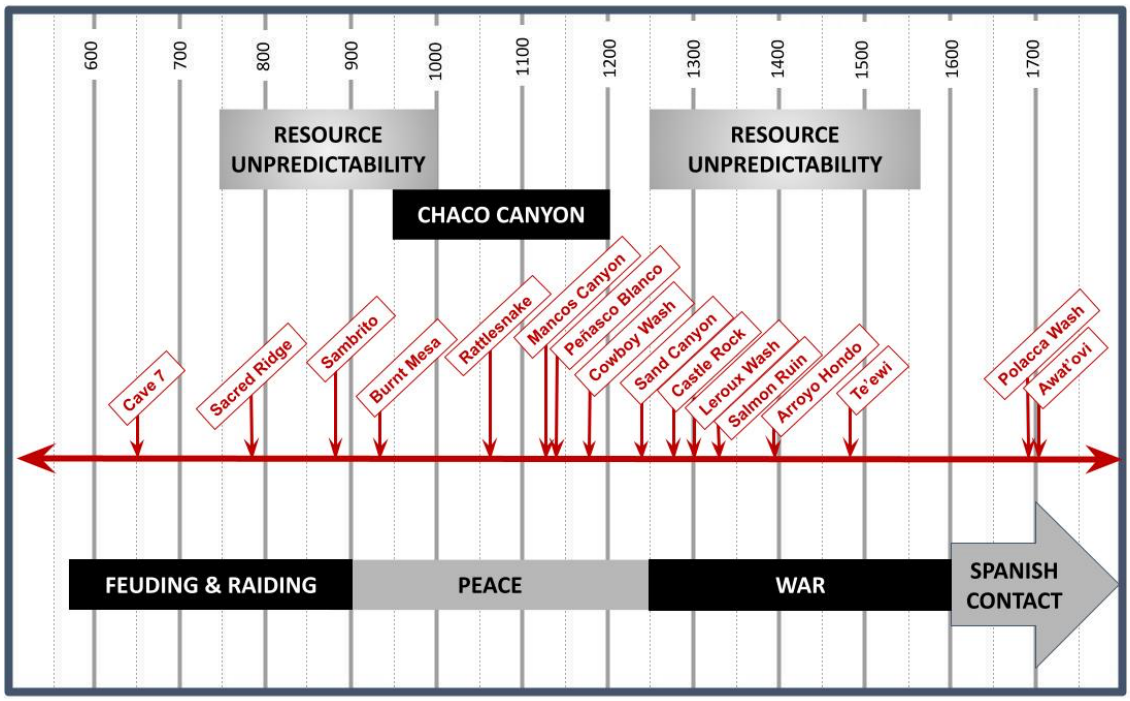


**Figure 4.3.** The timeline with the massacre events plotted revealing their steady distribution across time, and their general lack of correspondence with resource scarcity, droughts, and competition.

To better understand the incentives behind the making and moving of fragmented bodies in the past, Anthony Giddens's (1991) theory of ontological insecurity is explored using ethnographic and archival resources on Pueblo cosmology and ideology to interpret the timing, location, and characteristics of the disarticulated remains. Our goal is to investigate the narratives

of anxiety that might motivate groups to attack and kill men, women, and children living in nearby villages. Giddens's theory as articulated in 1984 explored notions about how people in general are preoccupied on a daily basis with a "security of being" (discussed in Kinnvall and Mitzen 2018:826). As one's perception of the world strays from safety to danger, it can motivate specific kinds of actions dictated by, as mentioned above, magical actions and supernatural beliefs. We show here how Pueblo notions regarding corporeality, liminality, and the power of bodies within the framework of ontological insecurity provides a very different set of possible motivating factors for the killing of neighbors and the curation of the bodies in very specific ways.

**Worlds Out of Balance and Ontological Insecurity**

After decades of ignoring ethnohistoric sources there has been a renewed interest in data regarding Pueblo social, ceremonial and political institutions (Ware 2014; Whiteley 2008; Fowles 2013). These works offer a look at the interconnected and dynamic relationships among social collectives, kin-based groups and ritual sodalities. The Hopi idea of *koyaanisqatsi,* which can be translated to life out of balance or social chaos, is a contrast to *suyanisatsi,* or life of harmony and balance (Lomatuway'ma et al. 1993). These two concepts are driving forces behind many Indigenous practices including the use of culturally sanctioned violence (Ortiz 1969; Lomatuway'ma et al. 1993; Whiteley 1998).

Violence, like all other expressive and communicative social behaviors, is entwined in complex ways with ritual symbolism, cosmology, ideology and social processes. Violence is present within cultural systems all the time so it does not appear, disappear, and reappear based solely on droughts and other environmental factors. The presence of disarticulated assemblages has been used as a proxy for violence and the date of the sites from which these came are plotted

against a timeline which makes it appear that each collection represents a beginning and end of a violent episode. These episodes are better thought of, not as discreet events, but as part of an ongoing discourse between a wide array of actors including victims, perpetrators, bystanders, ancestors, supernatural beings, and animate objects (Whitehead 2002).

Within this framework, Giddens's concept of ontological insecurity is useful for contextualizing the use of violence in communicating specific messages, maintaining order, and transforming social relations. It is reasonable to assume that powerful actions involving violence may be utilized during periods of cultural crisis to repair disruptions and restore social cohesion.

Giddens (1991) adapted the term ontological insecurity from Ronald David Laing's (1965) rumination on how individuals' lives, especially in modern times, are preoccupied with creating a sense of security though stable routines, norms, and a sense of belonging. As mentioned before, ontological security is threatened when anxieties and the dangerous unknowns are kept at bay. The contemporary Hopi describe this security as *suyanisatsi,* or life of harmony as mentioned above (Lomatuway'ma et al. 1993). This security is maintained by shared cultural norms and participation in shared rituals and routine within a society.

Ontological security will prevail as long as group identity is stable and cohesive. Group identity is the glue that keeps societies functioning around norms and routines (Giddens 1991). When societal routines are undermined and threatened the core identity of the group and its adherence to routines and norms is at risk, known as ontological insecurity. These threats can be real or existential. It does not matter as long as they are perceived by the population to be a threat. The perception of nonexistent outside threats to a collective group can be just as fear-provoking as actual threats and can cause people to react just as strongly in response.

A world that is fragile, contentious, and conflictual creates moments of great cultural crisis. People strive to resolve these threats and apprehension that could destroy their world. Politics of fear and anxiety can encourage this feeling of unease. Populations will seek out the source of the problem and eradicate the threat in any way they can. Since ontological security is felt as a sense of order and continuity in regard to people's daily experiences, ontological insecurity signals disorder, danger, and a descent into chaos. But as many who write about ontological insecurity stress, there are really never periods of security because insecurity is always lurking and never really extinguished (Van Marle and Maruna 2010). As Jock Young (1999:15) explains, "Because of ontological insecurity there are repeated attempts to create a secure base . . . to be rigid rather than flexible . . . to be punitive and excluding rather than permeable and assimilative."

As mentioned earlier, *koyaanisqatsi* fits well with Giddens' (1990) notion of ontological insecurity. In oral tradition, a narrative exists regarding important cosmological ordering of the supernatural world and the persistence of malevolent spirits that inhabit the earth (Whiteley 2008). These malevolent spirits act to disrupt stability in the world and throw it into chaos. The term "witches" has been used by researchers to link this idea of malevolent spirits using a Western term. Within the Pueblo language, witches as a descriptive term, was not used. Rather, it is described in Hopi and Tewa languages as malevolent forces who commit transgressions while inhabiting the corporeal bodies of community members of all ages and sexes (Darling 1999).

Pueblo people existed in a society in which cycles of ritual acts of purification were constant and necessary to maintain the sense of *suyanisatsi* or ontological security (Brooks 2016). These acts of purification take many forms. Ritualized dances, performances, secret societies' initiation rites, the formulation of clans, and sodalities all worked to maintain

ontological security within society. Many narratives of Pueblo cosmology are a narrative of fear and anxiety about the world around them. It should be noted that destruction and starting anew was also an acceptable way to resolve *koyaanisqatsi* (Lomatuway'ma et al. 1993).

> "In the eyes of the Hopi, *koyaanisqatsi* generally engulfs an entire community and constitutes a point of no return, only a new beginning can remedy the situation. To eradicate the evil and begin anew, *tabula rasa* must be created, which regularly implies the wholesale destruction of the corrupt community. (Lomatuway'ma et al. 1993:76)

If a community had fallen too far into chaos, complete destruction was considered an allowable way to eradicate the transgressors. In *Hopi Tales of Destruction* (Malotki 2002) a collection of Hopi "mytho-historical" tales collected from individuals living in modern Hopi villages (Third Mesa and Second Mesa) describe the total destruction of seven different ancient Hopi villages. The "mytho-historical" tales are all legends based on historical events. All but one of the villages is destroyed because of human deeds (gambling, sorcery, adultery) that have thrown the village into social chaos.

*Koyaanisqatsi* is directly sited by the modern Hopi narrators for the cause of destruction for three of the villages; Pivanhonkyapi, Sikyatki, and Awat'ovi. At Pivanhonkyapi a gambling game threw the whole village into social chaos. Concerned for his people the chief of Pivanhonkyapi asked for help from the Yaayapontsa, a type of fire spirit/creature, to set fire to the village and rid the evil from his people. The Yaayapontsa agreed and with the help of another neighboring village set fire to Pivanhonkyapi, killing all who were inside.

> "This is how the village leader of Pivanhonkyapi purged the dark hearts of his people. These events truly took place. In this manner Pivanhonkyapi fell into ruin. No one lives there anymore, for the fire killed all the villagers. (Malotki 2002:54)

The demise of Sikyatki as well calls upon *koyaanisqatsi* as the reason for the execution of the entire village. Two boys competed in a race for the right to marry the same girl, but one of the boys was a witch. When the witch boy was defeated in the race the winning boy kills him. This angers the witch boy's family; also all witches, they begin to cause "every possible trouble for the rest of the villagers" (Malotki 2002:67). The chief of Sikyatki wants the witches destroyed and thus asks a neighboring village to attack and wipe out Sikyatki. The neighboring village agrees and attacks and kills everyone in Sikyatki. "This is how Sikyatki was destroyed. And all the witches, those excrement people, perished. The village chief, who had hatched out the scheme, lost his life with them" (Malotki 2002:68).

Awat'ovi was also said to have fallen into *koyaanisqatsi.* After basically becoming a "pro-Catholic" and "pro-Spain" Pueblo after the Puebloan Revolt of 1680, the town was thrown into social chaos. At the village chief's request Awat'ovi was destroyed by neighboring villages.

> "Thus, the village leader Ta'palo sacrificed his own children (the village) to get rid of this life of evil, craziness and chaos. In this endeavor he was helped by the other villages. Together they laid waste to Awat'ovi. (Malotki 2002:189)

Awat'ovi is unique in that there is historical, archaeological, and bioarchaeological confirmation of this attack and destruction occurring. The ethnographic oral history and the skeletal evidence combined should offer support to the idea that *koyaanisqatsi* and this need to return the world to a state of ontological security was the driving factor behind the attack. The search for ontological security is such that it can never really be achieved for any length of time, rather it "is a constant quest for something that will always at every level from the personal to the world political, remain out of reach" (Kinnvall and Mitzen 2018:825). Perhaps these disarticulated remains were the result of this "constant quest" to achieve a level of security and relieve fears.

The disarticulated remains found across time suggests that these were akin to massacres of entire families, clans, sodalities, or villages. Ethnographic oral history supports this theory as well. Almost all of the assemblages contain the remains of infants, children, teens, and adult males and females of all ages. Many of the assemblages represent 15 to 35 individuals, all of whom contain the taphonomic signature of cultural processing including perimortem trauma, de-fleshing, dismembering, reduction through fracturing and splintering, strategically placed cutmarks, anvil abrasions, and chop marks (Hurlbut 2000; Martin and Osterholtz 2020). These individuals appear to be curated. Individuals were chosen to be killed, processed in very specific and ritualized ways, and the fragmented body parts represented by bones were intentionally placed in specific areas of the site such as kivas, near shrines, and within habitation areas (Osterholtz 2014). Assuming that the way these remains were created and curated across the Pueblo landscape had meaning, we incorporate ontological insecurity theory as a more inclusive and flexible framework for including data on the corporeality of the bodies. The symbolism and ideology associated with the dead and how they are handled, in addition to their relationship with the living, creates a particular reality that encompassed dealing with a range of possible insecurities.

**Ontological Insecurity, Pueblo Massacres and the Bioarchaeological Record**

Combining the concept of ontological security with the bioarchaeological record is just one approach for researchers to use to examine the complexity of the timing, creation, and placement of disarticulated remains. The effort to maintain a balanced world might be the driving force behind the creation of these fragmented body assemblages and we present below the data that supports this. Sites in the Colorado Plateau region where the assemblages have been excavated and analyzed are presented below and captured in Figure 4.2. In general, these sites

with disarticulated remains start at around AD 800 and run through to historic times in AD 1700. The assemblages were found in kivas, pit-structures, domestic rooms/room blocks, and isolated charnel deposits. Cut marks and anvil abrasions were generally located in strategic places where de-fleshing and dismembering would be facilitated. Many of the remains have been burned in addition to being cut and broken. The following is a brief snapshot of disarticulated remains that demographically represent violence of small- to large-scale groups of people.

*Cave 7*

The Basketmaker II site of Cave 7 is located in a small alcove in a sandstone canyon in Southeast Utah. Richard Wetherill excavated this site in 1893 and stated that the estimated 90-96 individuals excavated were an example of a single ancient massacre, although other researchers disagree and suggest the site shows multiple cases of violence over time (Turner and Turner 1999). Regardless, this site offers unique evidence of violence within the early farming groups of the American Southwest. Remains have cut marks on them and a few anvil abrasions but no burning. There is clear evidence of violence occurring at this site with breakage and trauma being seen on the remains.

*Sacred Ridge*

Sacred Ridge is a Pueblo I (AD 700-900) site from southwestern Colorado. This site is made up of a cluster of structures and is one of the largest Pueblo I site in the region. The remains of 33-35 people were found in two pit structures. (Osterholtz 2014). The bone fragments belonged to both males and females as well as adults and children. Most individuals appear to have been struck by a blow to the right side of the skull. The bones had evidence of cut marks, burning, scrape marks, chop marks, and anvil abrasions. Cutmarks are consistent with torture, scalping, de-fleshing, dismemberment, disemboweling, and removal of ears and lips.

*Sambrito Village*

Sambrito Village, a Pueblo II (AD 900-950) site, is located in northwestern New Mexico in San Juan County on the west bank of the Sambrito Creek (Kuckelman, Lightfoot, and Martin 2000). The large village was made up of multiple pit houses and structures. The fragmentary scattered remains of 11 individuals were found in Pit House 25 (Turner and Turner 1999). The collection was made up of eight adults, and three children. The 11 individuals from Pit House 25 were found under the collapsed roof of a burned pit house. The collection is made up of mainly long bones and skull fragments (Turner and Turner 1999).

*Burnt Mesa*

Burnt Mesa is a Pueblo II site dating from AD 900-950 excavated in 1969 by Alan Brew (Kuckelman, Lightfoot, and Martin, 2000). Consisting of three pit houses and one surface structure, Burnt Mesa is located on a plateau north of the San Juan River in northwestern New Mexico (Turner and Turner 1999). A group of disarticulated fragmented human remains was discovered scattered around a pit house floor. The fragmented human remains appear to be from a single event during the final occupation of the site before it was abandoned. This collection is made up of at least 11 individuals of all ages.

*Rattlesnake Ruin*

Located on private land, Rattlesnake Ruin is on Mustang Mesa northeast of Blanding, Utah. Dating to the Pueblo II (AD 1050-1100), Rattlesnake Ruin is a small masonry field house with a storage and burial pit (Turner and Turner 1999). Isolated and relatively small in comparison to other sites, Rattlesnake Ruin had no defensive architecture. Human remains were discovered in a charnel pit at the site. There are at minimum 20 individuals (Turner and Turner 1999). Similar to other sites the remains at Rattlesnake Ruin had cut marks, breakage, and anvil

abrasions. The majority of the cut marks are located at joint sites suggesting that the individuals were dismembered. Interestingly the cut marks at Rattlesnake Ruin are heavy and coarse (Turner and Turner 1999).

*Mancos Canyon*

Mancos Canyon is a medium-sized pueblo in the Mesa Verde region of southwest Colorado from around (AD 1100) (White 1992). Almost 400 years after Sacred Ridge the disarticulated remains from Mancos have shockingly similar demography, trauma, and breakage patterns. Mancos was analyzed by White (1992) and pronounced to be the result of cannibalism based on the bones showing evidence of cut marks, crushing, and burning. In 2014 Osterholtz meticulously compared the disarticulation and damage between Sacred Ridge and Mancos and found them nearly identical. Bone by bone, Osterholtz discovered the same pattern of cutting, de-fleshing, and dismembering of bodies. Similar patterns have been noted on other sites including Castle Rock and Sand Canyon.

*Peñasco Blanco*

The site of Peñasco Blanco is a Chacoan Great House located in Chaco Canyon in San Juan County, New Mexico. The site dates from AD 900 to 1120-1125. The site is a Great House with 150 ground-level rooms although the site might have stood three stories high and had nine or more kivas (Turner and Turner 1999). The remains of eight individuals were found in a single room at Peñasco Blanco. As with the other sites the remains show a range of individuals of different sex and ages with the bones being highly fragmented.

*Cowboy Wash*

The site of Cowboy Wash is located in southwest Colorado and dates to the Early Pueblo III phase. The fragmented remains of seven individuals were located in three pit houses at the

site. The remains included two adult males, one probable adult male, one adult female, two adolescents and one child (Billman et al. 2000). The bones were broken, cut, chopped, and burned. Billman, Lambert, and Leonard suggested this site was cannibalistic as they claimed a human coprolite from the site had human muscle myoglobin in it. This led to the conclusion that the seven individuals were butchered for the purpose of being consumed.

*Sand Canyon*

The site of Sand Canyon was occupied during a similar time period AD 1250 to 1277 and is also located in southwest Colorado. Thirty-five people of different ages and sexes all died at the end of the site's occupation (Kuckelman 2010). The preservation and degree of articulation of remains varied greatly for these thirty-five individuals. Some remains were fully articulated whereas others were commingled, and still others were scattered through the site. Twenty-three of these thirty-five individuals were found in the abandonment context of the site with no formal burial. The remaining twelve individuals were collected as scattered bone throughout the abandonment deposits. Eight individuals' show perimortem skull fractures or direct evidence of violence at the time of death. Other individuals within this collection show cut marks or intentional damage to the remains done shortly after death.

*Castle Rock*

Castle Rock is also located in the Mesa Verde region of southwestern Colorado and was inhabited between AD 1256 to AD 1280-1285 (Kuckelman et al 2002). The fragmented remains of 41 individuals, both males and females and ranging in ages from infants to older adults, were all found on a kiva floor under collapsed roofing material. These remains showed evidence of antemortem trauma and perimortem fractures. Crushing was present as were cutmarks, and heat alteration or burning.

*Leroux Wash*

Leroux Wash is either a Pueblo II site based on the ceramics or a late Pueblo II dating to AD 1250-1300. The site is made up of a medium sized 15 to 20 room masonry pueblo, a few outlying rooms and a great kiva (Turner and Turner 1999). The human remains were found in two charnel pits near the exterior wall of the pueblo. Unfortunately, the remains were badly disturbed before proper examination happened. Between 21 to 35 individuals of varying ages and sexes were found at Leroux Wash, all showing cut marks, anvil abrasions, and burning.

*Salmon Ruin*

The site of Salmon Ruin is located on the bank of the San Juan River near the modern city of Bloomfield in northwestern New Mexico. Salmon Ruin is a large E-shaped pueblo made up of small kivas, a great kiva, a plaza and a tower kiva. The fragmented remains were dated to AD 1240-1263, the town was totally abandoned in AD 1300. The remains of 30 to 35 infants and children were discovered under the burnt roof of a Kiva. The skeletal collection is almost all infants and children with only 2 adults (1 male, 1 female) being accounted for (Turner and Turner, 1999). The remains have been broken, crushed, and burned, although a few of the children's remains appeared to correlate together as individual bodies.

*Arroyo Hondo*

Arroyo Hondo is a small pueblo located close to modern-day Santa Fe, New Mexico. The site dates from AD 1340 to AD 1360 and grew rapidly, but the pueblo was abandoned around AD 1425 (Palkovich 1980). The remains of 15 individuals who faced violent deaths were found in two room blocks and a kiva. This assemblage was comprised of 1 infant, 5 children/adolescents and 9 adults (both males and females).

*Te'ewi*

The site of Te'ewi is located on a high terrace on the west side of Chama River in northwestern New Mexico. Te'ewi was a large six hundred room double plaza Pueblo occupied from AD 1250-1500. The remains of 30 individuals of different ages were found in a burnt kiva. The assemblage included 6 infants and small children and 24 males (Turner and Turner 1999).

*Awat'ovi*

This pattern of mass killing continued into historical times as well. In the 1700s there was a well-documented massacre event at Awat'ovi, a historical Hopi village. A reanalysis of the historical massacre at Awat'ovi suggests that more than 80 men, women, and children were tortured, some burned alive, beaten, executed, de-fleshed, and dismembered (Brooks 2016). Despite this destruction, a firsthand account about the key events leading up to this massacre demonstrates how ontological insecurity and corporeality underlie the actions. The leader of Awat'ovi was convinced that it was beyond his power to restore harmony to his village where members had been influenced by the missionaries and were renouncing traditional beliefs (Brooks 2016; Malotki 2002). The leader believed that the people of Awat'ovi were beyond redemption and had been corrupted by malevolent and dangerous forces creating a state of *koyaanisqatsi* within the town.

Thus, the people of Awat'ovi were no longer human in the eyes of their village leader, many having turned to witchcraft and sorcery (Malotki 2002). In his mind these nonhumans had to be destroyed in order to remake the balance of the world. He approached three neighboring villages for help. As the narrative goes, the leader said that he had been thinking for a long time what to do but could find no other solution to the problem other than to eradicate the village and burn it to the ground so that Awat'ovi no longer existed. Some bioarchaeologists have suggested

that the remains of 30 individuals found at Polacca Wash were members of Awat'ovi that had been killed during its destruction (Turner and Turner 1991). As mentioned before the idea of total destruction of an entire community in order to eradicate evil was a culturally acceptable practice. On one specific morning the leader of Awat'ovi left the gate unlocked and a large number of warriors from other villages descended for an attack.

It is at Awat'ovi that we see best the entanglements of ontological insecurity, violence, supernatural intervention, and the power of leaders to make decisions about how best to reinstate cultural integrity. During the massacre event, warriors took on the likeness and power of various deities and war gods, using symbolism and ritual to transform them from humans into supernatural beings themselves. The men wore ritual masks and embroidered kilts to call upon the powers of supernatural deities (Martin 2021). This corporeal shift produces a liminal state for the perpetrators. Through transmogrification, both the individuals being killed (transgressors who were no longer human) and those carrying out the killing (warriors who had taken on the role of supernatural deities) were no longer human at the time of the massacre event. Within an emic framework, no humans were involved in the massacre and no humans died. This was a battle between supernatural deities and underworld transgressors. Personhood is a liminal state for Pueblo and Hopi people (Malotki and Gary 2001; Martin 2021). Pueblo children are not considered human until after a series of initiation rites that occur around the age of 12, before that they are thought of as still being part of the spiritual realm of existence (Ortiz 1969). Thus, this highly ritualized symbolic spectacle of annihilation did not involve any human beings.

Understanding the power of ritual as a response to ontological insecurity provides some indications about motivation for the killings. Kertzer's (1989:9) definition of ritual as "action wrapped in a web of symbolism" is a useful way of thinking about why ritual violence is so

powerful and so persistent across generations. Without symbolism, repetitive actions are more like habits and are not particularly powerful in communicating ideological beliefs. Beliefs, like *koyaanisqatsi,* about the cultural order can be both reinforced and changed through ritualized activities that are rich with symbols. Ritual events have meaning to the perpetrators and victims, as well as the witnesses and survivors. Also, many ritual events tap into connections between the living and dead and the living and supernatural forces. It provides a role in making these events part of the collective memory over many generations (Whitehead 2004).

Ritual violence also legitimates social authority, and its power is in the fact that very little needs to be explained, as the symbols are readily understood. Rituals renew and reinforce collective identities, and this promotes the necessity of deep history remembrance of these rituals and their constancy over time (Allen et al. 2012:168). Ritual specialists are often transformed into other kinds of beings in order to perform the dangerous acts involved in ritual violence. Whitehead showed in great ethnographic detail the poetics (or deep meaning) of violence as a discursive practice made meaningful by the rituals and symbols associated with it.

Massacre events based on bioarchaeological analyses of disarticulated remains happened every couple of hundred years, and they do not appear to be triggered by weather patterns or the rise and fall of political centers. Histories of violence are expressed, performed, and ritualized producing deep cultural memories. These are moments of negotiation and possibilities for transformation. Violence in this context, while horrific and chaotic, is also transformative and regenerative. As mentioned before, Pueblo folklore is filled with stories telling of the eradication of villages due to the suspicion of their being overrun by nonhuman transgressors, or witches, and the bioarchaeological evidence supports this (Malotki 2002).

Massacres occur only after failed attempts to create unity across social cleavages. These events often involve the radical redrawing of social borders through violence, destruction, and chaos which leads to regeneration and transformation. Massacre theory suggests that extreme cruelty and a larger-than-life spectacle is necessary for social memory over many generations as well as to communicate to survivors, participants, the ancestors, and the deities that social cohesion has been restored. *Koyaanisqatsi* or ontological insecurity explains the preconditions of the massacre. In the three oral stories of Pivanhonkyapi, Sikyatki, and Awat'ovi the massacre and *koyaanisqatsi* at the villages lead to their abandonment by the survivors. Coincidentally most of the archaeological sites mentioned in this chapter with highly fragmented remains were also abandoned close to the time of deposit. The idea that *koyaanisqatsi* would lead to an event that causes the town to migrate appears to be a common theme in Hopi oral literature (Malotki 2002). A few of the Hopi narrators in Malotki's book cite *koyaanisqatsi* as the reason for the Hopi leaving the underworld.

For spiritual leaders, warriors, witches, and children, personhood is liminal. Humans can transmogrify into beings with transgressive power; they can also transmogrify into powerful supernatural beings. However, taking on the power of supernatural deities and carrying out dangerous acts of massacre is risky and perilous for mere mortals. These liminal states that they inhabit as warriors are captured in petroglyphs of eerie half human, half spirits, as well as the long rhythmic trance-like dances done in preparation. The Pueblo twin war gods seen in the center world represent the split identities and dualities that must be negotiated. Massacres were integrated proactively into an ideology of purification, regeneration, and transformation.

We need research questions and strategies that will help identify the culturally specific and nuanced characteristics of violence, and how it intersects with and is embedded in other

realms of life. Violence is a cultural performance, fully sanctioned by the group and not considered deviant behavior. Violence is fraught with symbolism that both contains and conveys cultural meaning to a specific audience. Rituals regulate and normalize violence using notions of corporeality and liminality. Pigeonholing these complex behaviors into Western categories such as warfare, witches, and—worst of all—cannibalism completely ignores the rich cultural context of violence and creates the false notion that violence is a monolithic activity unrelated to broader concerns.

Instead of seeing violence as only chaotic and a form of rupture, it can be re-imagined as a regenerative with the power to assuage forces in the supernatural word, and mend fissures in the natural world. Violence is an ancient behavior that is deeply embedded within belief systems. Violence can function to sustain, restore, and purify communities. It is time to abandon the idea that these communities underwent periods of peace and conflict in response to singular events such as drought.

**Conclusion**

Ontological insecurity theory suggests that reactions to perceived threats generally involve decreased tolerance for deviance of any kind and "an insistence on strict policing of moral boundaries" (Van Marle and Maruna 2010:10). This explains the events that led up to the destruction of Awat'ovi, where members of the village were associating with the nearby mission church and were acting in ways considered "un-Hopi." It also may explain why these massacre events happen consistently throughout an almost 1,000-year time span. The massacres are carried out in order to repair cultural fissures and to reinforce the collective identity of the remaining villages. Even when things such as bodies or bones are "discarded, destroyed and demolished--something is nearly always left--in other words, gathered" (Olsen 2010:167).

Interpreting the human remains within the framework of ontological insecurity aids in explaining what might have been at risk if the massacres had not occurred in a timely fashion. Kluckhohn and Strodtbeck (1961:298) have stated that "Pueblo culture and society are integrated to an unusual degree, all sectors being bound together by a consistent, harmonious set of values, which pervade and homogenize the categories of world view, ritual, art, social organization, economic activity and social control." In this entangled world view, it is nearly impossible to isolate any single aspect of Pueblo culture, including violence (Martin 2016). Although not engaging in warfare in the modern sense of standing armies, the ancient Pueblos clearly engaged in ritualized violence that resulted in the destruction of entire villages.

# CHAPTER 5

## Conclusion

The research presented in this dissertation establishes the hypothesis that the processing events and highly fragmented remains of the American Southwest are the result of Ancestral cultural practices. Fragmented remains that are shockingly similar have been seen for hundreds of years throughout the region. The longevity and similarities between the assemblages lead to the findings in this research that they are not the result of cannibalistic acts driven by hunger over an 850-year time span, but instead are the result of layers of cultural complexity. For example, the act of burning the remains has in the past been seen as a form of cooking, however when recontextualizing this act and understanding the importance of burning and ash in the Ancient Puebloan World, the burning of the remains takes on a very different meaning (Roth and Adams 2021).

It is possible that these assemblages might be presenting different events. Events such as massacres of family units or violent events may have resulted in similar taphonomic signatures in the osteological remains. Given that these highly fragmented remains occurred throughout the Southwest for just 150 years short of a millennium, it is possible that the meaning behind these assemblages changed or was altered over centuries. Placing a single motivation of cannibalism over the collections without including any cultural context is robbing these collections of cultural nuances. The idea that the only reason these remains would be cut, broken and burned was to be consumed is labelling these collections though a Western lens of violence and mortuary practices. As Whiteley (2008:211) has so elegantly stated, the cannibalism "account lies more in the realm of imagination and fantasy, especially colonial fantasy, than in the realm of analytical explanation."

This dissertation focused on reconstructing a more nuanced cultural context informing the combination of events that led to these heavily processed human remains using multiple lines of evidence. This research sought to extrapolate that meaning through a holistic methodology. By combining osteological records, archaeological data, ethnographic accounts and Puebloan ideology this dissertation strove to reconnect these fragmented remains with cultural meaning. Cannibalism may have seemed liked a plausible interpretation in the past, but the methodology limited the amount of contextual information that was utilized. This dissertation suggests that these fragmented remains were the result of a complex mortuary behavior deeply rooted in cultural motivation.

These fragmented remains were meant to be communicative. That is, the body processing represents instead institutional and socially significant performances wherein the remains of the dead were handled in specific and intentional ways that conveyed contextually contingent meaning to those who witnessed the event and the fragmented human remains it produced. The three papers of this dissertation discussed different aspects of these processed remains and how they connected to their cultural motivation.

Chapter 2 examines the demography of these collections at seven sites. The demography between the seven sites varies greatly in both their similarities and differences. This demonstrates the nuances between sites and collections and that each assemblage should be viewed individually and not grouped into a single motivation of cannibalism. As covered in Chapter 2, assuming sites like Salmon Ruin and Rattlesnake Ruin were created and handled in the same way is ignoring the variety of who's remains are included in the assemblages. The propositions that these collections might be the result of different cultural events despite having fragmented, commingled, and burnt remains should be strongly considered.

In Chapter 3 the combination of ethnographic evidence and Puebloan cosmology was added to the study of these fragmented remains at 43 sites. The aspect of burning of these remains was investigated. The symbolic meaning behind ash and burning and how it was related to the beliefs of descendent communities was combined with osteological data to offer a unique motivation for why the remains were burned. Assuming that the only reason that the remains were burned was for consumption erases the cultural importance of these processed remains. Chapter 3 discuses that the remains still may have cultural power and significance. Perhaps this was the reason that the majority of these fragmented remains were burned. The combination of ethnographic accounts regarding ash and burning being used to protect the living and ritually close spaces may have been the motivation for why numerous collections with fragmented remains were burned. This act was deeply rooted in cultural motivation and was communicative to the community that participated in the act.

Chapter 4 dives deeper into the examination of the cultural motivation behind the fragmented remains at 16 sites. Motivation such as communities feeling as if their world view and way of life was threatened could have contributed to processing the remains in this manner. Chapter 4 discusses how ontological insecurity can be as fear provoking within a community as physical threats. Communities could be so affected that they responded by killing a group of people and cutting, breaking and burning their remains before leaving an occupied site. Were the remains no longer seen as human or was a ritualistic power obtained by culturally manipulating the remains in a particular way? Chapter 4 includes ethnographic accounts of towns being destroyed because of ontological fear from community members and surrounding communities. Again, the lens of ontological insecurity offers researchers a way to view these collections of fragmented remains that connect them closer to their original cultural meaning.

## Contribution to the Literature

Although researchers will never be able to discover the exact meaning and motivation behind the collection of fragmented bones from the Ancestral Puebloan region, a holistic approach will allow researchers to get one step closer. This dissertation demonstrates the importance of holistic research. The goal of this research was to not reductively label the remains as a product of cannibalism without exploring and contextualizing the processed remains as representative of a socially communicative and ideologically meaningful practice.

Each of these skeletal collections deserves to be carefully reexamined and new information or new lines of data added to why these remains exist in this state. This dissertation was focused on comparing and contrasting multiple aspects of the sites with fragmented remains. The intense modification that occurred to these extreme processed remains would have taken time and effort, and therefore suggests culturally specific motivation. Because of the nature of the corpse manipulation, it can be suggested that extreme processing events are likely tied to some type of complex mortuary ritual. The symbolism and ideology associated with the dead and how they are handled and their relationship with the living creates a particular reality. This dissertation examines the intentional, communicative and socially sanctified meaning of violence. Through the careful examination of multiple lines of evidence and site-specific information this dissertation strove to better connect these fragmented remains with their cultural context and motivation.

## Future Directions

This dissertation shows how future research in bioarchaeology may be conducted on repatriated collections. The goal of this dissertation and the research it produced was to honor descendant communities wishes to not handle and examine the physical human remains but also

to offer alternative explanations to a harmful stereotype regarding these remains. New revisions to the Native American Grave Protection and Repatriation Act (NAGPRA) were signed into effect in January 2024. The updated requirements to NAGPRA state that museums and other federal agencies streamline their inventories of Native American remains and sacred objects so they can be repatriated to the tribes (U.S. Department of the Interior 2024). It is the ethical duty of bioarchaeologists to hear, understand, and respect the wishes of descendants when handling their ancestors' remains. However, bioarchaeological research is still possible. By pulling data from previously published sources on archaeological and osteological data, examining original field notes, and compiling ethnographic accounts still offers researchers an avenue to conduct investigations into the past while also respecting descendants wishes.

Not only should bioarchaeologists look for more ethical ways of conducting their current research, but they should constantly reexamine past research to verify or provide alternative conclusions. It must be remembered that statements about past populations can have strong impacts on modern populations. Harmful stereotypes that have been propagated by past researchers can be dismantled and replaced with scientifically sound and culturally specific interpretations regarding the meaning of disarticulated human remains. Research like this dissertation provided has the potential to correct the current assumptions made concerning cannibalism in the ancient Southwest with a more nuanced and well-supported set of interpretations within their cultural context.

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2014 Recovering th Body politic' A relational ethics of meaning for bioarchaeology Cambridge *Archaeological Journal* 24(3):513-522.

# CURRICULUM VITAE

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## Education

2019 **Ph.D. in Anthropology**
University of Nevada, Las Vegas, Department of Anthropology
Focus Area: Bioarchaeology
Advisor: Debra Martin, Ph.D.

2015 **Master of Arts**
Tulane University, Department of Anthropology
Focus Area: Bioarchaeology
Independent Study: *Maceration of Embalmed Bones*
Advisor: John Verano, Ph.D.

2014 **Bachelor of Science**
Tulane University, Department of Public Health
Graduated *cum laude*
Double Major: Public Health & Tropical Medicine and Anthropology

## Field Experience

2023 Belen, New Mexico Historic Cemetery
Crew Supervisor at the Nuestra Señora de Belén Mission Archaeological Project (NSF Award #: 2051184 - *Biological Impacts of Colonial Practices: Bioarchaeological Reconstruction of Health and Demography*)
Supervised excavation units and other crew members on site
Was responsible for opening the majority of the new units on the site
PIs: Dr. Debra Martin (University of Nevada, Las Vegas) and Dr. Pamela K. Stone (University of Massachusetts, Amherst)

2022 Belen, New Mexico Historic Cemetery
Crew Member/Unit Supervisor at the Nuestra Señora de Belén Mission Archaeological Project (NSF Award #: 2051184 - *Biological Impacts of Colonial Practices: Bioarchaeological Reconstruction of Health and Demography*)
Helped place, map, and open excavation units on site
PIs: Dr. Debra Martin (University of Nevada, Las Vegas) and Pamela K. Stone (University of Massachusetts, Amherst)

2019 Belen, New Mexico Historic Cemetery
Crew Member at the Nuestra Señora de Belén Mission Archaeological Project (NSF Award #: 2051184 - *Biological Impacts of Colonial Practices Bioarchaeological Reconstruction of Health and Demography*)
Part of "Archaeology Girls! Excavating Belen New Mexico's History" (funded through an American Association of University Women community action grant)
PIs: Dr. Debra Martin (University of Nevada, Las Vegas) Pamela K. Stone (University of Massachusetts, Amherst) and Dr. Ventura Perez (University of Massachusetts, Amherst)

2017 Trujillo, Peru
Bioarchaeology Intern
Assisted with skeletal analysis of human remains of largest child sacrifice site to date**.** Worked in English and Spanish with Peruvian students and professors
Study of the child sacrifice site published in National Geographic in April 2018
With Dr. John Verano (Tulane University) and Gabriel Prieto (National University of Trujillo)

2017 Moche Valley, Peru
Assisted with Dissertation Project Survey Work
Surface collected pottery to help estimate population density for the Moche Valley Collected diagnostic pottery from sites to identify culture of site
With University of Pittsburgh Ph.D. Student Patrick Mullins (now Ph.D.)

2013 Moche Valley, Peru
Intern in Archaeology with Moche Rapid Response Crew Member in Peru
GPA mapped archaeological sites to help get the sites approved from the Peruvian government to protect the site in the future
Collected diagnostic pottery from sites to identify culture of site
Sponsored by University of North Carolina at Chapel Hill
With Dr. Brian Billman (University of North Carolina at Chapel Hill)

2012 Moche Valley, Peru
Moche Archaeology Field School
Excavation of domestic Moche Site
Study Abroad through University of North Carolina at Chapel Hill
With Dr. Brian Billman (University of North Carolina at Chapel Hill)

## Lab Work and Independent Research

| | |
|---|---|
| 2023 | Lab Manager for Southwestern Archaeological Research Lab<br>University of Nevada, Las Vegas<br>Overseeing material inventory for transportation to Maxwell Museum in Albuquerque, New Mexico<br>Supervising undergraduate students in lab |
| 2020-present | Zape Osteology Lab<br>University of Nevada, Las Vegas<br>Cataloging, sorting, organizing/reassociating, and analyzing ancestral remains from Zape Cave, Durango Mexico |
| 2021 | American Museum of Natural History<br>New York City, NY<br>Preliminary Dissertation Research (Funded by Edwards & Olswang Scholarship)<br>Worked with Registrar for Archives and Loans for the Division of Anthropology |
| 2016 | Maceration of Embalmed Bones<br>Tulane University<br>Developed a new technique for cleaning and defatting bones that is effective on embalmed samples<br>Created a magnetic skeleton reconstruction of a hand and a foot<br>With Dr. Michael Dancisak, Director of Center for Anatomical and Movement Sciences |
| 2014 | Hyperbaric Oxygen Promotes Proximal Bone Regeneration Project<br>Tulane University, Lab Assistant<br>Conducted H&E (Hematoxylin and Eosin) staining on rodent bone and tissue for imaging<br>Created graphs and graphics from data to show the effects of hyperbaric therapy on rodent bone regeneration<br>With Dr. Mimi Sammarco, Research Assistant Professor |
| 2011 | Mitochondrial DNA Lab<br>Duke University, Paid Lab Assistant<br>Conducted different laboratory tests on mDNA samples<br>Performed H&E (Hematoxylin and Eosin) staining and Western Blots<br>With Dr. Hagir B. Suliman, Duke Center for Hyperbaric Medicine and Environmental Physiology |

## Publication

In progress:
**Freiberger, J. C.,** The Makeup of a Massacre: Patterns in the Demography of Extreme Processed Events from the American Southwest. In Routledge Handbook of the Archaeology of Violence in the Americas, edited by R. Harrod and A. Perez, Routledge. (Book chapter in progress/review 2023).

**Freiberger, J. C**., & Martin, D. L. (2024). Pueblo Warriors, Witches and Cannibals: Indigenous Concepts of Corporeality and the Bioarchaeological Record. In Gordon F.M. Rakita and Nené Lozada (eds) *Exploring Ontologies of the PreContact America*. University of Florida Press.

## Professional Paper, Poster, and Workshop Presentations

Paper Presentation: **Freiberger, J. C.** *Interpreting Burned Commingled Ancestral Remains in the American Southwest.* Abstract submitted (Sept. 2023) for the 89th Annual Meeting of the Society for American Archaeology (2024), New Orleans, Louisiana

Paper Presentation: Edmonds, E., **Freiberger, J. C.** and Stansbury, K. *Updated Demographic Profile of a Commingled Assemblage from Durango, Mexico*. Abstract submitted (Sept. 2023) for the 89th Annual Meeting of the Society for American Archaeology (2024), New Orleans, Louisiana

Workshop Presentation: Freiberger, J. C. *Prehistoric Food Processing in the Virgin Branch Puebloan World.* (Nov. 2023) for the Cultural Site Stewardship Get-Together (2023), Kanab, Utah

Paper Presentation: **Freiberger, J. C.** *Interpreting Burned and Commingled Ancestral Remains as a Complex Mortuary Practice* (Oct. 2023) For the Department of Anthropology University of Nevada, Las Vegas Proseminar Series

Poster Presentation: Edmonds, E., **Freiberger, J. C.**, and Martin, D.L. (2023 April 19-22). *Differential Stature for Men and Women in the Southwest (A.D. 900-1425): A Biocultural Examination of Gendered Patterns.* Poster session presented at American Association of Biological Anthropologists, NV

Poster Presentation: Edmonds, E., Stansbury, K., **Freiberger, J. C.**, Wollen, K., Gaddis, K., and Byrnes, J. (2023, April 17-19). *Two Case Studies of Subadult Cranial Pathology from Durango, Mexico*. Poster session presented at Paleopathology Association, Reno, NV

Poster Presentation: Stansbury, K., Edmonds, E., **Freiberger, J. C**., Gaddis, K., and Wollen, K. (2022, October 21-22) *Reanalysis of Subadult Remains from Durango, Mexico:*

*Osteobiographies as the Future of Bioarchaeology?* Poster session presented at Western Bioarchaeology, Riverside, CA

Paper Presentation: Martin, D., Edmonds E., and **Freiberger, J. C.** (2022, June 1-3) *Massacres and Ontological Insecurity: Cultural and Environmental Crises.* Paper presented at Warfare, Environment, Social Inequality, and Pro-Sociability, Seville, Spain

Poster Presentation: **Freiberger, J. C.**, and Martin, D. (2022, March 30 -April 3) *The Use of Fire for Ritualistic Destruction and Purification of Highly Fragmented Remains.* Poster session presented at Society for American Archaeology, Chicago, IL

Poster Presentation: **Freiberger, J. C.**, and Martin, D. (2022, March 23- 26) *Reanalysis of Disarticulate and Commingled Human Remains: Burning as Complex Mortuary Ritual, not Anthropophagy*. *Project.* Poster session presented at American Association of Biological Anthropologists, Denver, CO

Poster Presentation: **Freiberger, J. C.**, Martin, D. Stone, P., and Ralston C. (2021, April 7 - 28). *Collaborating with Local Communities in Developing Conservation Bioarchaeology Projects: The Historic Belen Bioarchaeology Project.* Poster session presented at American Association of Physical Anthropologists, Virtual.

Poster Presentation: **Freiberger, J. C.**, Martin, D. Stone, P., and Ventura, P. (2019, October 18 - 19). *Nuestra Señora de Belén Archaeological Site: Community Engagement and STEM Outreach for Middle School Age Girls.* Poster session presented at the Western Bioarchaeology Group Conference, Denver, CO.

## Teaching Experience

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| Spring 2024 | Instructor on Record: Department of Anthropology University of Nevada, Las Vegas for Online ANTH 110L (Introduction to Physical Anthropology Lab) |
| Fall 2023 | Instructor on Record: Department of Anthropology University of Nevada, Las Vegas for ANTH 110L (Introduction to Physical Anthropology Lab) |
| Spring 2023 | Instructor on Record: Department of Anthropology University of Nevada, Las Vegas for ANTH 110L (Introduction to Physical Anthropology Lab) |
| | Part Time Instructor: Department of Anthropology University of Nevada, Las Vegas for ANTH 365 (Bones, Bodies and Trauma) Taught all Lab classes |
| Fall 2022 | Instructor on Record: Department of Anthropology University of Nevada, Las Vegas for ANTH 110L (Introduction to Physical Anthropology Lab) |
| | Part Time Instructor Department of Anthropology University of Nevada, Las Vegas for ANTH 462 and ANTH 662 (Human Osteology) |

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| Fall 2021 | Teaching Assistant: Department of Anthropology University of Nevada, Las Vegas for ANTH 473 and ANTH 673R (The Anthropology of Violence) [Online] |
| Fall 2020 | Guest Lecturer for ANTH 662 (Human Osteology) on the Bones of the Hands and the Feet [Online] |
| Spring 2020 | Teaching Assistant: Department of Anthropology University of Nevada, Las Vegas for HON 320-1002 (Broken Bodies, Broken Bones: Global Perspectives on Massacres) |

## Professional and Academic Service

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| Fall 2023 | Organized Prehistoric Food Processing Techniques Workshop for Utah State Historic Preservation Office |
| | Intern at the Nevada State Historic Preservation Office |
| | Assisted with cataloging and repatriation efforts of ancestral individuals from Pueblo Grande de Nevada for the State of Nevada Lost City Museum |
| | Assisted with cataloging and repatriation efforts of ancestral individuals from Mule Springs for the Las Vegas Natural History Museum |
| Summer 2023 | Assisted with the Transportation of Archaeological Artifacts from the University of Nevada, Las Vegas to the Maxwell Museum in Albuquerque, New Mexico for Curation |
| Spring 2023 | Assisted with Bone Identification Workshop hosted by Nevada State Historic Preservation Office |
| Spring 2022 | Assisted with “Ology Day” at Las Vegas Natural History Museum<br>Talked to visitors about Anthropology at Table for Museum |
| Fall 2019 | University of Nevada, Las Vegas Department of Anthropology Open House |

## Grants, Scholarships, Awards and Funding

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| 2021- Present | Graduate Assistantship in the Anthropology Department at the University of Nevada, Las Vegas Funding and Tuition for Ph.D. Program paid for by the University of Nevada, Las Vegas<br>Package Value: $47,247.50 per year |

2022- Present Student Worker for Graduate College at the University of Nevada, Las Vegas
Additional Part Time Work with the Retention, Progression and Completion Office in the Graduate College at the University of Nevada, Las Vegas

2024 Graduate & Professional Student Association Sponsorship
Awarded Travel Funds to Travel to SAA Conference in New Orleans, LA
Value: $1921.05

2023 Graduate & Professional Student Association Sponsorship
Awarded Travel Funds to Travel to AABA Conference in Reno, NV
Value: $500.50

2023 Graduate & Professional Student Association Sponsorship
Awarded Travel Funds to Travel to PPA Conference in Reno, NV
Value: $1007.03

2022 Graduate & Professional Student Association Sponsorship
Awarded Travel Funds to Travel to WeBig Conference in Riverside, CA
Value: $257.54

2022 Edwards & Olswang Scholarship Fund
Awarded Travel Funds to Travel to Belen New Mexico for Summer Excavation Work
Value: $700.00

2019- 2021 Graduate Assistantship for the Graduate College the University of Nevada, Las Vegas Funding and Tuition for Ph.D. Program paid for by the University of Nevada, Las Vegas
Package Value: $36,444.50 per year

2020 Edwards & Olswang Scholarship Fund
Awarded Travel Funds to Visit American Museum of Natural History for Preliminary Dissertation Research
Value: $360.00

## Current Professional Memberships

- American Association of Physical Anthropologists – Student Member
- National Honor Society for University of Nevada, Las Vegas
- Paleopathology Association – Student Member
- Society for American Archaeology – Student Member
- Western Bioarchaeology Group – Student Member
- UNLV Anthropology Society