Making and Marking Maleness and Valorizing Violence
A Bioarchaeological Analysis of Embodiment in the Andean Past

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The unmarked category of man and claims of innate violence have been tightly linked in the public imagination and in much scholarly work, both in views of the past and the present and in how those temporalities mutually inform one another. However, these notions of the naturally violent man eschew the evidence showing how social, political, and other processes interact to make and mark gender and connect narratives about violence with gender and other aspects of identity. Drawing on examples from the pre-Hispanic and early Spanish colonial Andean world, I explore how (bio)archaeology investigates both overt physical violence and structures of violence that can be hidden yet are deeply impactful. This kind of analysis places the archaeological body at the core, also interrogating how norms about violence become embodied. Through a consideration of this constructive process, I examine the corporal effects of various narratives about violence, gender, and the body in the (pre)historic Andes. These (bio)archaeological and ethnohistoric data are also examined to scrutinize how these stories of past violence are used in the service of normalizing and naturalizing (male) violence today.

Online enhancements: appendix

The process through which communities valorize and sanctify certain kinds of violence by certain categories of people, while marking other forms of violence as deviant, requires much monitoring and adherence and the production of material culture—in a variety of formats—to maintain and extend those narratives and norms. The body in particular is a flexible, material form that can be molded to do that work, particularly as social norms and their effects are enacted and embodied by individuals. Thus, in a journal issue titled “Toward an Anthropological Understanding of Masculinities, Maleness, and Violence,” we can use archaeological and bioarchaeological perspectives to interrogate the making and marking of maleness and explore its potential connectedness to valorized notions of violence in the past and how that informs the present. This path of inquiry requires a bioarchaeology of embodiment that situates the corporal at the core, evaluates bodily practices, and documents how violence—both overt and subtle—is inscribed on the body.

This theoretical approach on the bioarchaeology of embodiment seriously accounts for the corporeality of the body (its materiality), how social and gender norms shape bodily praxis, and how those two interact, such that the latter helps to shape the former and vice versa. In other words, how do normative notions about social and gender identities and roles become inscribed in the body, and simultaneously, how does the materiality of the body shape social and gender norms, particularly as they relate to violence? For example, in the late pre-Hispanic Andes in southern highland Peru, some females were corporally “marked” during their infancy; their caregivers modified their heads, permanently marking their social, ethnic, and perhaps gender identities (Velasco 2018). Those markings that were expressed through the body in turn shaped social, gender, and other cultural norms and provided visible cues as to how these females were to be treated. To that point, those females with cranial modification suffered significantly less violence, and they had access to a greater variety of food resources, than females without cranial modification (Velasco 2016, 2018), showing how their marked bodies translated into health and dietary benefits. Their bodies were a key conveyer of information, guiding themselves and others on how they were to be perceived and treated, while also shaping what resources and opportunities they could access.

As we conceive the bioarchaeological body in this way, we can see how the body is both brush and canvas, reacting to and shaping society in profound ways. Corporal markers of violence, in particular, hold significant potential to both respond to and structure social and gender norms. Observing a black eye on a young woman might raise questions about her personal relationships and bring forth ideas about “proper” gender comportment and gender relations. It may also expose assumptions about gender when it is revealed that she is a boxer. Observing a man with a scar on his forehead or an amputated leg can do the work of affirming ideas about masculinity—nations of toughness, risk-taking, and propensity for violence,
perhaps. When those corporal clues are combined with other material markers—military paraphernalia, for example—they may code for and instantiate notions of patriotism and sacrifice for nation. The body, however, never narrates in a vacuum. For bodies marked by race, ethnicity, and economic or immigrant status, among other markers of difference, a facial scar may be recast into a cultural narrative that justifies fear and stories of natural proclivities for violence. The body scarred by trauma becomes material evidence for violence in the past and then used as an alleged predictor for violence in the future. Indeed, the body—how it is marked and how people embody norms—is a powerful and essential source for narrating stories about masculinity and violence. And this applies to bioarchaeological bodies too; they can be analyzed to reveal empirically based narratives about sociocultural norms surrounding violence and the ways ideas about gender might be implicated in that constructive process.

In the sections below, I discuss ways bioarchaeologists can theorize about violence, gender, and the body. I explore how ideas on structural violence (Farmer 2004; Galtung 1969) provide key analytical insights into evaluating physical violence that overtly and intentionally results in bodily trauma and more subtle forms of violence that also lead to bodily harm (e.g., malnutrition) but are more hidden within the fabric of society. This is followed by a discussion that explicitly situates bioarchaeology within anthropological inquiries into violence and masculinity and an evaluation into the ways that societies delegate different aspects of violence to individuals and institutions. I discuss cranial trauma data and highlight studies of iconography that together permit an analysis of patterns and performances of violence through time in the Andes. The discussion of sex-based differences in violence further requires an interrogation into sex, gender, and sexuality, as those provide crucial insights into the material manifestations that past people had about those topics—both as a reflection of those ideals and as a way to reify those ideals. Evaluating how categories of people were portrayed and perceived—from the mundane to the sacred—is an essential analytical step in documenting how society marked its people. This made some groups of individuals more susceptible to violent attack and/or occupational injuries, and for some it created less access to nutrient-rich foods or foods that were integral to commensal feasting and its associated opportunities for accessing social, economic, and political power. Following the analytical thread of structural violence and its outcomes, I present dietary isotope data and explore how these data can be used to unfurl structural violence and attempt to show how the ways a society is organized can have direct and indirect impacts on people’s health, particularly as it relates to sex-based (and gender) distinctions that a society marks. I conclude with a synthetic interpretation, suggesting that the case studies from the Andes prove fruitful when thinking and theorizing about how social and historical forces can have profound effects on individual health and lived experience.

Structural Violence Marking Other Axes of Difference

Overt physical violence is not the only means by which violence is enacted. Emaciated bodies suffering from malnutrition are also markers of violence, not from blatant blows to the face but from a system that leads to the unequal distribution of dietary resources or unequal access to medical care. That inequality can track along gender lines, racial lines, social class, and other markers of distinction (Adler and Newman 2002; Sapolsky 2005; Sultana 2013). These seemingly subtle forms of violence, what Galtung (1969) and Farmer (2004) referred to as structural violence, are deep-seated and hidden within the sociopolitical structures and social institutions. They are baked into the societal cake, making it hard to separate the sociopolitical and historical ingredients and pinpoint one specific cause, person, or event that leads to harm for some and not others. Those structural forces that are so deeply shaped by social and economic policies contribute to various social and economic inequalities and insecurities (Benson, Fischer, and Thomas 2008), and those have real consequences on the health, well-being, opportunities, and risks for different groups of people.

Bioarchaeologists have recently begun tackling those issues of structural violence in the distant past (Klaus 2012; Nystrom 2014; Stone 2012; and see VanDerwarker and Wilson 2016), exploring, for example, how Spanish colonial policies and practices wreaked havoc on the health and lifeways of indigenous Andeans in Peru, particularly among women, who exhibited skeletal evidence for chronic infection that was more than twice the rate of men (Klaus 2012). Those notions about gender and race that were being (re)formed in the Spanish colonial era—how men and women of distinct racial groups were to be treated, how each was valued (or not)—were essential components for other aspects of racialized gender identity and racialized gender expectations. They traversed into and shaped ideals regarding who was authorized to enact violence, and they marked and codified who was an appropriate target for overt and “subtle” forms of violence. Sexual violence against native women in North America (Smith 2015) and Latin America (Graubert 2000; Stolcke 1994) was also part of the explicit colonialist program in which notions of masculinity were inextricably linked. These theoretical and analytical perspectives that allow bioarchaeologists to interrogate questions about violence—in its many forms—have enabled a richer and deeper temporal view into the processes by which ideas about gender and violence are fomented.

Bioarchaeology can document the corporal impact of those structural forces (including ideas about gender and violence) and explore how those materialized notions, visible on the archaeological body, often perpetuate the very ideals that produced them in the first place. For example, foot-binding in China was constructed as a corporal performance of femininity and beauty, and it rendered women dependent on others, marking them as weaker and in need of care. Those traits were then
naturalized as an aspect of womanhood; the bound feet literally limited physical activity and created dependency for women, a cultural pattern that spanned centuries. Indeed, Lee (2019) found that starting with the Ming Dynasty (1368–1644 CE) and into the Qing Dynasty (1644–1911 CE), female foot-binding went from 50% to 100% of the female skeletons at the Xuecun site in Henan Province. The bioarchaeological analysis showed that muscle attachment sites on femurs, tibias, and fibulas were gracile and smooth, indicating very little leg muscle activity; these characteristics were also associated with osteoporosis in some cases. The naturalized dependency, “weakness,” and health complications of Chinese women with bound feet continued throughout the life course; elderly Chinese women from the 1990s whose feet were bound as children suffered more falls and fractures than those without foot-binding (Cammingins, Ling, and Stone 1997). These corporalized notions of Chinese femininity affirmed, perpetuated, and naturalized the ideals of female dependency and weakness, the very ideals that produced the gendered body transformations in the first place or, better said, that produced them simultaneously.

This form of structural violence that targets a particular sex over others—and with adverse health outcomes—has been similarly explored by bioarchaeologists in cases of Victorian era corset wearing and Burmese neck rings, both of which inhibit physical activity and contribute to health complications (Stone 2012). These examples of how femininity becomes naturalized through acts on the body pave the way for deeper considerations of overt and subtle means by which societies engage in “buying the boy and girling the girl” (Joyce 2000b; and see Butler 1993). Those processes that feed the naturalization of masculinity and femininity, and how those are then linked and naturalized with violence, are a necessary arena of analysis in critical discussions of masculinity and violence, the topic of this special issue.

Structural violence can also shape patterns of physical violence, meaning that the way a society is organized can structure who is likely to perform a violent act against another person and/or receive a violent injury. Thus, it is not analytically and experientially accurate to strictly separate structural violence from physical violence, as the former can profoundly impact the latter (Galtung 1969). For example, in a society where men are portrayed and perceived as having more authority and status than women, bioarchaeologists and forensic anthropologists might observe patterns of facial trauma on women that reflect intra-household (domestic) violence that is sublethal and recidivistic, and at times lethal. Thus, when physical violence against a female is documented, we should not assume it resulted solely from one bad actor in the community; instead, we should explore whether it is also a product of a societal system that deems one gender as dominant over another, a cultural construction that sets the platform for certain kinds of behaviors and abuses to occur. Interrogating those gender dynamics, however, does not mean that craniofacial trauma on a female should be assumed to stem from domestic violence (Holliman 2011); sports or warfare may better explain the injury, and contextualized analysis informed by theories on gender and society can help to untangle those interactions and interpretations.

Of course, gender hierarchies do not mean that gender-based violence is an inevitable outcome, but our task as analysts of society is to interrogate the various factors that contribute to particular outcomes. As an anthropological bioarchaeologist, I am particularly interested in how society and history shape health outcomes and lived experience—exposure to violence, diet, and (mal)nutrition, for example—for different population subgroups. Moreover, societal norms not only affect who is an appropriate enactor of and target for violence, but those norms can also structure how physical violence should be enacted, as in sublethally or lethally or whether violence should be carried out with bare hands or with a weapon, among other nuanced characteristics about the enactment of violence. In all, the actors, recipients, and witnesses of violent acts and the manner in which the violence is conducted are profoundly shaped by the social structures writ large (the cultural, political, social, and gendered ideas and ideals) that teach and guide people how to behave.

Situating Bioarchaeology in the Study of Violence and Masculinity

For bioarchaeologists thinking about structures of violence that shape both overt violence (e.g., broken noses) and “hidden” violence (e.g., malnutrition or disease), combined with an analytical lens on bodily praxis and the idea that the body is a

1. The female foot-binding documented here was the severe form that altered the morphology of the foot bones.
2. By “physical violence,” I mean bodily injuries that are intentionally inflicted against another person (Tung 2014a:230–231), either with bare hands or a formal or improvised weapon. While intentionality is exceedingly difficult to access (Galtung 1969)—whether referring to people of today or from centuries ago—scholars can assess the evidence and posit interpretations on the context of the violence. Although not all physical traumas from a violent act can be documented on archaeological bodies (e.g., a stabbing that affects soft tissue and organs will not be observed in a skeleton), bioarchaeologists can document several kinds of injuries that likely stem from violence. Cranial trauma, projectile point injuries, and certain kinds of skeletal fractures (e.g., parry fractures or boxer fractures) are typically interpreted as reliable—though imperfect—proxies for violence (Lovell 1997; Walker 2001). Other kinds of skeletal fractures, such as a Colles’ fracture or a fractured distal fibula, could result from an accidental fall. In this study, I focus on cranial trauma, in large part because it is shown to be the best indicator for physical violence (Walker 2001) and is regularly recorded as a proxy for violence, making comparisons between studies more tenable.
3. Although we can document sublethal versus lethal trauma in many cases, the intention to kill may have had a sublethal outcome, or the intent to injure or maim may have resulted in death.
form of material culture (sensu Sofaer 2006), it becomes clear that these are not abstract theoretical frames. They are the theoretical and methodological scaffolding that shapes how we conduct much of our research. When we speak of overt physical violence that makes the body bleed, leaves visible wounds in the flesh, and permanently scars the skin and bones of a person, we can see how the body is a canvas; it is a material manifestation of society’s ideas and ideals. Moreover, studies of the archaeological body are fundamental for documenting the individual lived experiences of a person and documenting—as Bourdieu (1984) described it—the objectified history that accumulates over time. Yet living and dead bodies also act (Tung 2014a), and those scars narrate; thus, the body (and body parts, such as trophy heads and corporal relics) also do the work of making and remaking society. As Bourdieu endeavored to examine the modus operandi of social life, he argued that habitus shapes bodily acts (the way we embody norms and then perform them) and how bodies are acted upon (and see Joyce 2003). Mauss (1950 [1934]) similarly examined this through his brief discussion of body techniques, what Csordas (1990:11) characterized as “the sum total of culturally patterned uses of the body in a society.” According to Csordas (1990:11), the study of body techniques “was a means to organize an otherwise miscellaneous domain of culturally patterned behavior.”

Within bioarchaeology, this might mean that a healed cranial fracture on a man reveals the experience of physical violence inflicted on him—the pain he experienced and the recovery he must have endured. Yet, in aggregate with others in the community, multiple examples of violence may also hint at social norms and gender norms regarding who was a socially appropriate target for violence. Conversely, other cases of violence may reveal transgressions—deviations from what was culturally accepted behavior. Extraordinary acts of violence that injure, maim, and kill can—though not always—mark the body in overt ways. These are culturally patterned uses of and against the body in society. As Csordas noted in his characterization of Mauss’s work: “The body is simultaneously both the original object upon which the work of culture is carried out, and the original tool with which that work is achieved” (Mauss 1950 [1934]:372). The body is the brush and the canvas, operating in a social world with lines, borders, frames, and constraints, while also expanding that world with novelty, diversity, creativity, negotiation, and subdued or outright resistance.

Extraordinary acts of violence are not the only kinds of practice that shape a person and society. Mundane, daily activities—and how they differ between males, females, and others—also reveal the patterned uses of the body in society, whether it is constant laboring in silver mines that lead to patterned lesions on the skeletal canvas or whether it is the daily consumption of foods that sustain growth and development. Alternatively, illness and deficient diets may fail to sustain growth, a process that inscribes the body with skeletal and dental lesions that reveal those physiological perturbations in the developing child. Many aspects of those seemingly mundane experiences can be powerfully shaped by social forces, showing yet again how structural violence is insinuated into the very fabric of society.

Through analysis of an individual skeleton from centuries past, we can bear witness to aspects of her life and inquire about the structural factors that shaped those particular health outcomes. Can we also identify how larger social forces become inscribed in bodies, and can we train our analytical methods to see the violence hidden within those norms when it exists (sensu Farmer 2004; Galtung 1969)? Those social norms and political decisions may not immediately (or ever) break bones, but they can profoundly impact morbidity and mortality, contributing to health inequalities and greater risks for violence for certain members of society. How does a community’s notion regarding proper behavior for boys and men translate into distinct health outcomes and higher rates of violent trauma relative to girls and women? How do boyhood, girlhood, manhood, womanhood, and other gender categories become a template upon which both overt and seemingly invisible acts of violence become inscribed?

Further examples of structural violence that are supported and perpetuated by gender norms can be seen in the distribution and consumption of resources, dietary, monetary, or otherwise. How do ideas about manhood become linked to accepted practices regarding, say, how salaries are distributed? The idea of the “manly provider” has serious material implications, and those have long-lasting, downstream effects on autonomy, health, and other aspects of life. In the archaeological past, how did narratives about gender structure access to political roles, camelid herds, exotic trade items, or dietary resources? And why is this important when thinking about masculinity and violence? I suggest that bioarchaeological inquiry into experiences of violence in the past must deeply engage with and attempt to uncover the process by which gender norms and other aspects of identity (e.g., age, social class, ethnic affiliation, occupation, etc.) intersect to form how those cultural understandings shape other aspects of life (Agarwal 2017), beyond the deadly and physically injurious encounters. To view the daily life of people from the past is to begin to uncover how gender and other aspects of identity were marked, made meaningful, and used as proxies for treating people in particular ways.

Certain aspects of daily life, such as eating, can be studied in bioarchaeology through stable isotope analysis because the consumption of certain categories of foods can leave isotopic crumb trails, enabling a researcher to infer the foods eaten, both in childhood and adulthood, while also interrogating how those foods might have been produced and (unequally) distributed. This provides a means to interrogate how notions of maleness masculinity and femaleness femininity (or childhood versus adulthood, or urban versus rural people) are generated in the seemingly mundane arena of eating. While variation in food consumption may reveal agential capacities realized as idiosyncratic food choices, they also illuminate past perspectives about broader social and political decisions regarding how food...
is to be distributed. This can have profound and long-lasting impacts on an individual’s growth and development, ability to recover from illness and injury, capacity to reproduce, and overall health status. In these ways, the body is the canvas onto which a society’s norms and perspectives about gender, and what is appropriate to eat and drink, are thus inscribed. Although those norms intersect with and are structured by many facets of social life—gender, occupation, social status, age, citizenship, among others—in the context of this study, these dietary norms are particularly examined through the bioarchaeologically identified category of skeletal sex and through patterns of violent trauma.

Norms about performing masculine identity—or any aspect of identity—are embodied (and see Gillespie 2008; Meskell and Joyce 2003). People perform disciplinary norms, the “citational precedents” of what others have done before them, particularly as related to performing gender (Butler 1990). This also applies in analyses of how people perform identity and belonging to social or economic classes, or academia, or a political party. Identity, belonging, and ways of being are learned through the life course, by watching others, by seeing material representations of certain bodies, by witnessing the treatment of corpses, by acting in the world, and by learning how certain acts elicit responses from others. A social bioarchaeology of physical and structural violence aims to document and critically analyze how those norms are generated, perpetuated, and challenged. Studying violence is not just about the violence itself; it also enlightens us to the ways that violence against the body is about larger sociocultural issues, such as ideas about gender, age, race, social interactions, power, political economy, and ritual life, among others (sensu Csordas 1999).

Embodiment is also a process that occurs by engaging with material culture (e.g., cooking implements, weapons, clothes, jewelry, armor, etc.) and by seeing physical representations that educate and narrate certain ways of being (Joyce 1996, 2000a). In the archaeological past, those material forms could be wide-ranging and far-reaching, whether as iconography on a ceramic urn or a textile, as carved images on stone buildings, as engravings on portable rocks and shells, or as ritual spaces that were marked for only certain categories of people (Tung 2014a). Materially representing ideas and ideals extends them and makes them more durable (Robb 2004), so they are less ephemeral than fleeting social interactions. However, those material manifestations are also open to contestation, negotiation, and destruction. Thus, (bio)archaeologists attempting to interrogate the process by which norms regarding violence—overt and subtle—and the process by which gender identity is constructed must examine the archaeological body, embodiment, and material attempts to narrate, perpetuate, and/or reshape norms. Moreover, thinking about individuals from the past in this way—as social subjects—requires that they be “theorized as specifically situated: as men and women, children and elders, celibate and sexually active, and above all constantly in a state of transformation” (Joyce 2007:82). Our analytical efforts to do this aid in seeing various actors in the past and (re)imagining various ways of being. Failing to do this may naturalize and essentialize what it is to be an Inka woman, a Roman man, or a Maya person. Thus, our evaluative toolkits can highlight dominant social and gender norms that shape identity and daily practices in the communities we study without essentializing particular groups of people in the past.

When creating “exemplary masculinities,” however, the ideal and “everyday realities of social practice” do not always align (Connell 2002:90), as when examples of modern manhood are performed in commercial sport but differ greatly from most men’s lives. This gap between idealized and realized can also be seen when male bodies are perfectly carved in marble or exquisitely represented as specimens of physical prowess adorned in warrior regalia, or colorfully represented in art for all to admire and to which to aspire. Those material representations are aspirational, yet powerful, because they establish the way things ought to be, thereby creating a “pattern of practice (i.e., things done, not just a set of role expectations or an identity)” (Connell and Messerschmidt 2005:832). Examining masculinity through the lens of violence is not meant to mutually reify them, nor is it meant to essentialize “the character of men” (Connell and Messerschmidt 2005:836); rather, the bridging of these is intended to interrogate their mutual construction and deconstruction, showing how these linkages have been created, perpetuated, destroyed, and reimagined in a variety of times and locales.

These theoretical scaffoldings inform much of this work as I discuss case studies from the Peruvian Andes in which patterns of trauma and diet reveal much about that past society’s norms. Those data are not merely counts of broken bones—they are a window into a society’s ideals about how certain people should act and be acted upon. They reveal clues into what a person’s roles in society ought to be and how those roles were enacted. The dietary isotope data serve similar ends, particularly in terms of understanding how different aspects of one’s social identity might shape such seemingly commonplace activities as eating. In short, this analysis takes seriously that the body is a canvas—and the brush—for reflecting and generating social and political life, especially as related to ideas about the construction of gender and acts of violence in its many forms.

The Process of Delegating Violence

Creating and sustaining norms about who enacts and who suffers from violence relies in large part on the social and political process of delegating those rights, responsibilities, and burdens to certain classes of people. Early tales of “savagery” among indigenous peoples in colonized lands relied on specific tropes about violence and how it was carried out by native peoples in faraway lands. A key component of that myth that served colonial ends was the perceived randomness and brutality of the violence. Raids! Mutilations! Revenge Killings! These tribal and/or small-scale societies were depicted as vicious, irrational killers who could pounce at any time, thus putting neighboring tribes or communities at risk (see Pinker
2011). This was set in contrast to the European notions of “just and fit” war (Whitehead 2002, citing Hanson 1989 and Keegan 1993), which was presented as organized and disciplined with its clear rules of engagement. From the European war leaders to the men carrying out the acts of violence, there were systems, propaganda, and practices that valorized them and integrated them into the social narrative; “the ‘manly’ conduct of face-to-face combat served as the appropriate theatre for the expression of masculine virtues—bravery, continence, and discipline” (Whitehead 2002:233). The supposedly rational and well-scripted acts of European violence were starkly contrasted to the narratives of undisciplined, random violence of indigenous groups. Those narratives of distinction rested on the Western ideal that killings were to be carried out by a specialized class, marking them with societal approval and ensuring that their violence was sanctioned by the state and in service of the state. Those narratives further provided—and continue to provide—fodder for the characterization of indigenous people as “uncivilized” (and worse), a label used to justify the methodical extermination and marginalization of native bodies in the colonial era and in the present.

Those biased representations of indigenous versus Western violence have obscured the process by which violence of a certain kind becomes institutionalized in societies across the globe. The process of delegating murderous acts to soldiers required a reimagining of gender roles, social identity, and the nature of political organization. In this way, states could monopolize violence and redistribute it to certain actors working on behalf of the state; the warriors were legitimated by the state, and the state simultaneously earned legitimacy from the efforts of the warriors. This mutual dependence also results in tautology, a role reversal, an iterative process through which making warriors means making war (Tung 2014b). That is, once a legitimate warrior class is created, it can powerfully shape the perceived needs for war. What is a warrior without war? Without weapons? Warriors may need war to sustain their identity, enhance status, and perpetuate their worth. Simultaneously, times of war and rising tensions justify the need for warriors and the attendant institutional structures that support war, its agents, and its material accoutrements.

As states redistribute violence to a specialized class, states may also delegate violence to more distal regions within their domain, as when colonial forces pushed violence to its margins and to marginalized peoples (Macleod 1998). This could ensure the effective flow of commerce, capital, and bureaucracies in colonial cores. The push to isolate violence to certain zones is apparent today too, as when economic and sociopolitical forces create and drive violence to urban areas (Bourgois 1995), while using those same forces of capital and cultural gatekeeping to pacify other spaces of living, such as the suburbs and gated communities (see Low 2001). Societies design places of violence and peace; there is a constructive process through which places are marked for violence or for peace. This process of delegating violence—to classes of people and targeted regions and places—normalizes it. Depending on the context, the violence can be claimed as a violence in control, a kind of necessary violence that is restrained, rational, and used for legitimate reasons to achieve particular ends. In other contexts, the violence that is normalized can become naturalized; it is constructed as inevitable and derided as irrational and unrestrained, an animalistic instinct that gets attributed to certain peoples and places.

Violence and war among “small-scale societies and tribes” are often naturalized (Shackelford and Hansen 2014), and this violence is rarely described and perceived as rational and restrained. Yet there are always sociopolitical and cultural framings around the norms for violence and for what is considered abnormal. Modern “civilized states” are not the only polities that engage in this process of framing war and violence (and peace) in particular ways to suit specific ends (see Martin 2021). In the studies discussed here, I explore the (bio)archaeological record to track those complex sociopolitical and cultural processes—and the mundane ones too—that enable the delegation of violence.

Bioarchaeological Methods: Documenting Violence

To explicate the ways in which bioarchaeologists study violence in all its forms and evaluate the process of creating masculine identities and narratives about violence, I discuss cranial trauma data from the Andes (Argentina, Bolivia, Chile, Ecuador, and Peru) (fig. 1) and dietary isotope data from my original research and other Andean studies. I analyze new and previously published data on cranial trauma from 4,500 adult crania (appendix, available online) that span the Archaic (8340 BCE to ca. 1500 BCE) to the Spanish colonial era (1532 CE) (table 1). Only adult (>15 years old) crania that are at least half complete are included. New data from Nasca, Peru, derive from my analysis of looted crania (N = 19) that were observed on the surface of archaeology sites. Although looters stole grave goods, they left the human bones scattered around the edges of tombs, and crania that were well enough preserved to observe for trauma were included in the analysis. Those crania are associated with specific time periods based on the analysis of associated ceramics and grave goods (Ogburn 1993). New cranial trauma data from the Juch’uypampa cave in Salar de Uyuni, Bolivia, are derived from three well-preserved adults that date to the Middle Horizon (Tiwanaku) era.

Cranial trauma is an excellent proxy for overt physical violence and has been used by many bioarchaeologists as a meaningful way to study violence (Knüsel and Smith 2014; Martin and Frayer 1997; Martin, Harrod, and Pérez 2012; Walker 2001). There are issues, of course, with comparing cranial trauma data between dozens of different studies; one of the greatest

4. The majority of publications stated their criteria for study inclusion. However, earlier studies (e.g., pre-1990) sometimes did not state completeness, so if the author included it, I assumed the crania were at least half complete. When possible, I verified this by examining photos and text details.
concerns is whether or not the skeletal sample is representative of the once-living population. In many studies, the denominator is the number of individuals in the mortuary sample, which may have little bearing on the actual demographic profile of the once-living population. As such, bioarchaeologists must always be clear about the likelihood that the mortuary sample is representative of the once-living population. Given that the cranial trauma portion of this study focuses on adults only, the

Table 1. Chronological phases in the Andes

| Chronological phase     | Dates          | Prominent cultural groups                                      |
|-------------------------|----------------|---------------------------------------------------------------|
| Archaic                 | 8000–1500 BCE  | Chinchorro                                                   |
| Formative               | 1500 BCE–100 CE| Chavin, Cupisnique, and regional polities                     |
| Early Intermediate period | 100–600 CE   | Nasca, Moche, Cajamarca, Recuay, Huarpia                      |
| Middle Horizon          | 600–1000 CE    | Wari, Tiwanaku                                               |
| Late Intermediate period | 1000–1400 CE  | Regional polities, Chimu                                     |
| Late Horizon            | 1400–1532 CE   | Inka                                                         |
| Spanish colonial era    | 1532–1821 CE   | Spanish colonialism                                          |
picture of violence is necessarily partial and does not reveal experiences of whole communities. Nonetheless, as an analytical undertaking, the concentration on those who died as adults allows a more focused interrogation of this demographic group’s experiences with violence and what that reveals about the process of constructing particular narratives about masculinity and its association with violence and other markers of identity. Future work will explore the role of violence in the lives of children in the pre-Hispanic and colonial Andes.

This work builds on syntheses by Arkush and Tung (2013), expanding (and at times correcting) that earlier summary while also adding an essential analysis of sex-based differences in cranial trauma when those data were available (see discussion on skeletal sex and gender below). Those sex-based data are evaluated to explore gender roles and norms. Several of the published studies did not separately present antemortem and perimortem trauma; thus, those two categories of trauma had to be consolidated. If the original study collapsed subadults (<15 years old) and adults (>15 years old), the text was scoured to identify the number of subadults and extract them from this analysis (appendix).

Results and Discussion: Chronology and Culture of Violence in the Andes

Early Pre-state Societies Show Lowest Levels of Violence

The trauma data on 4,500 adult crania are presented in the appendix. The frequencies of adult cranial trauma through time suggest that there were temporal periods when violence was relatively low (fig. 2). The lowest levels of cranial trauma are observed in the hunter-gatherer, horticultural and pre-intensive agriculture, and pre-state groups (i.e., Archaic, Formative, Early Intermediate period). Although sample sizes are smallest for those early eras (116 of 939 adult crania exhibit trauma: 12%), and we do not yet have a reliable understanding of how representative those skeletal samples are of the once-living populations, the rates from the early periods are significantly lower (Fisher’s exact, \( P = .0001; N = 4,500 \)) relative to the later temporal groups, when 794 out of 3,561 (22%) adult crania exhibit trauma. Notably, those early (pre-state) temporal periods are what scholars such as Gat (2000) and Pinker (2011) would characterize as humans living in a “state of nature” when violence was unrestrained and violent outbursts occurred in contexts of anarchy. The synthetic cranial trauma data from the Andes presented here belie those claims and show that early nonstate groups have the lowest frequencies of violence.

Pinker (2011) synthesized studies by Keeley (1996) and Bowles (2009), which differ from data presented here in that Pinker focused only on perimortem (deadly) violence, and the 20 archaeological human populations in Pinker’s study span the globe and include samples with two or more skeletons (not just crania). Also, Pinker inadvertently double-counted one society (see Ferguson 2013). In contrast, this analysis includes data on combined antemortem and perimortem cranial trauma, so frequencies herein are generally higher because this reporting captures both sublethal and lethal violence among adults only. Nonetheless, using cranial trauma as a proxy for violence—particularly when focused on a geographic region such as the Andes and not a random global dataset as was used by Pinker—we can obtain a deeper and more contextualized understanding of the cultural, sociopolitical, and environmental conditions in which violence occurred.
The temporal pattern of violence-related trauma in the Andes (e.g., lowest levels in pre-state societies) should not be taken as evidence of a “natural” nonviolent past from which the caricatures of the “noble savage” are derived. In the same way that Pinker’s characterization of humans living in anarchy is the fount from which violence naturally emerges is an incorrect characterization, the flip side of this—the peaceful, noble savage—is also a hollow caricature of complex human behaviors and social praxis. Instead, the data on violence over several millennia in the Andes reveal the complex interplay between sociopolitical contexts, ritual practice, the natural environment, and historical legacies, among other factors, that shape the rhythms of violence as well as who is perpetrator and victim.

**Uptick in Violence with the Development of Andean States**

The data reveal that the Middle Horizon (MH) is concomitant with a significant uptick in violence relative to the preceding era ([Early Intermediate period] EIP = 12%; MH = 19%; Fisher’s exact, $P = .0035; N = 1,022$). The issue of sample representativeness, however, could be obscuring representative rates. For example, the Castillo de Huarmey sample, in which a “Wari queen” and 53 other elite females and two males were recovered (among others who were not observed for cranial trauma), is not representative of the once living population. Similarly, small sample sizes (e.g., less than 10 individuals) are not likely representative. Thus, if those are eliminated from the MH sample, the adult cranial trauma rate slightly rises to 21% (115 of 549). Notably, this is not a significant difference from the complete sample ($P = .342$), and the two ways of analyzing the data consistently show that the MH is associated with significantly more violence for adults relative to earlier eras.

This is a remarkable observation because the MH period marks the development of two Andean states (Wari and Tiwanaku), and the increase in violence is likely related to the dramatic changes in sociopolitical organization, particularly as the Wari and Tiwanaku states expanded outward to incorporate other communities. This does not require that state agents (e.g., military personnel) be the sole proprietors of violent acts carried out to meet state ends, though they were likely key contributors. Rather, Wari and Tiwanaku state policies and practices would have contributed to regional disruptions and reformulations in alliances, trade relationships, political economies, etc., that could have given rise to skirmishes and increased violence between other polities, perhaps even those that did not have direct ties to the developing states.

The significantly higher levels of violence associated with new states in the Andes raise questions about the role of the state as a force in squelching violence (see Pinker 2011). Although states gain a monopoly on violence, we must investigate the timing and rhythm of those patterns in violence and interrogate the spatial and human distribution of violence. It is not simply that violence diminishes or disappears with the emergence of the “civilizing” state. Instead, violence may surge in the beginning, wane as communities are incorporated, and see a resurgence as peripheral groups resist nonlocal rule or as political infighting takes over during times of social fragility or environmental instability. Violence is distributed in nonrandom ways across space and against certain categories of people.

In this first-ever time of centralized states in the Andes, males are key targets of violence, suggesting that they are the sex most likely to be involved in physical conflict (discussed below). Moreover, violence may be pushed to the spatio-political margins and to marginalized peoples (see discussion above), and violence—as in harm to the body—may take on new forms, as in structural violence, when malnutrition, infectious disease, or occupational injuries begin affecting certain regions or particular segments of the population more so than others. In these new state regimes, are certain categories of people at greater risk than others? Are notions about male gender roles reconfigured to support state ends? These are essential questions to ask, and an analysis of sex-based differences in cranial trauma may provide insights to address those questions.

In addition to place and people, (bio)archaeological work in the Andes must dissect archaeological time into more socially tangible units. We are still struggling to individuate chronological configurations of violence and make sense of the relationship between early state development, different phases of state governance, gender roles in those subphases, and their relationships to violence. To wit, the MH encompasses 400 years (600–1000 CE). If we are to clarify the patterns of violence as related to social and gender roles generally, and the construction of manhood and masculinity in particular, then we must endeavor to parse the data in meaningful ways that enable us to tackle questions of anthropological significance. There are limits of course, given that accelerator mass spectrometry dating typically gives 100- to 200-year time spans for the late pre-Hispanic era. Thus, it may be that two-century blocks within the MH (e.g., early and late MH) (Jennings et al. 2015) and the Late Intermediate period (LIP) (e.g., early and late LIP) (Arkush 2008) are the best we can achieve, which is certainly better than our current 400-year temporal blocks. Nonetheless, this analysis presents a first pass at studying patterns of gendered violence in the specific context of recognized temporal phases in the pre-Hispanic and colonial era Andes. What do these data reveal about the impact of profound new forms of political organization—such as the state or colonial incursion—as related to exposure to violence for men and women? This topic is subsequently addressed after

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5. Artifact analysis has long been used to create chronologies. For example, in the Andean EIP, MH, and LH (Late Horizon), the stylistic details of material culture contributed to important temporal subdivisions, but deploying those chronological categories requires that skeletons are associated with well-dated artifacts.
discussions on sex-based patterns of violence-related trauma in the Andes.

**Highest Frequencies of Violence in Post-state Times (the LIP)**

The bird’s-eye view of cranial trauma in the Andean past reveals another remarkable observation: the exceptionally high rate of cranial trauma in the Late Intermediate period (LIP) after the decline of Wari and Tiwanaku states (fig. 2). Not only does the LIP have the highest cranial trauma rate (28%) (fig. 2), but it is significantly higher than all other time periods combined \(P < .0001; N = 4,500\) and all other time periods compared individually (table 2). Admittedly, this era includes four centuries—as did the MH—during which this time of intense violence waxed and waned in different regions. For example, in the former Wari imperial heartland in the Ayacucho Basin, adult cranial trauma is significantly higher in the second half of the LIP relative to the MH time of Wari imperial rule (Tung 2008a), and it is significantly higher for children too (Tung et al. 2016). These high rates of violence are apparent nearly two centuries after Wari imperial decline, an outcome likely tied to both political and environmental transformations (e.g., long-term drought) and the likelihood that many who lived in the Wari heartland fled the region, heading west to the Paracas and Nasca areas immediately following Wari political collapse (Fehren-Schmidt et al. 2014). Approximately 170 kilometers to the southwest of Ayacucho in the Nasca highlands, adult cranial trauma rates are also at their highest in the terminal centuries of the LIP (McCool 2020). In the Department of Cusco (heartland of the later Inka empire that reigned from 1400 to 1532 CE), adult cranial trauma rates in the LIP hover around 24%, which is lower than what is observed in Ayacucho and the Nasca highlands. The variability in adult cranial trauma rates through time and across regions within a particular time frame become more pronounced when delving into a more nuanced discussion of sex-based differences in violence-related trauma (see below). Moreover, as the data on cranial trauma from the 4,500 adults show, the frequencies are most marked between periods of state rule and pre-state and nonstate rule, further clarifying how particular forms of sociopolitical organization can have life-and-death consequences in people’s lives.

**Bioarchaeological Explorations of Skeletal Sex, Gender, and Sexuality amid Violence in the Pre-Hispanic Andes**

The cranial trauma data reveal profound differences in experiences of violence between those identified skeletally as males and females (fig. 3). In all time periods except the EIP and the late MH/early LIP, males exhibit significantly higher frequencies of cranial trauma than females (table 3). What activities did males engage in that contributed to such a higher exposure to violence, and what were the expectations in pre-Hispanic Andean society that led males to engage in so much more physical conflict? Clearly, these cranial trauma data raise questions about the construction of sex-based norms and roles in society, which can extend into ideas and ideals about appropriate gender comportment and gender-based roles in a community. However, extending the identification of a skeleton as male or female into an analysis of gender can be fraught with biases and assumptions about gender that may not be wholly appropriate.

Skeletal sex is not a one-to-one connection to socially identified gender (Geller 2008, 2017; Walker and Cook 1998), but bioarchaeologists have long used the estimation of skeletal sex and associated context (burial style and location, grave goods, clothing, skeletal markers, body modification, figurines, iconography, etc.) and documents (when available) as contextual information to aid in framing discussions about gender norms and roles in past societies. There are concerns, of course, about bias when bioarchaeologists divide up a population as skeletally male or female, perhaps reifying modern, Western notions of a gender binary that may not have existed for other groups. It is indeed a paradox, as Joyce (2017:6) notes, that explorations of sex and gender might require “some degree of grounding in sex [as] a necessary first step toward recognizing that sex is not a determinative origin of authentic gender” and may be a means for “capturing gender as an emergent property, rather than as determining ‘real, authentic’ sex.” Thus, this analysis and theoretical exploration of
gender—and masculinity in particular—required some a priori categorizations of skeletal sex, while recognizing the limitations and reification of binaries that this classification system produces.

In the pre-Hispanic Andes, Spanish chroniclers noted the ways that the Inka empire created gender divisions in gods, the cosmos, and daily life. Although the sociopolitical and religious structures of the Inka are not necessarily representative of the millennia before the rise of the Inka, they provide insights into how Andean peoples may have perceived the categories of men, women, and perhaps nonbinary and what that reveals about the role of gender in organizing society and political and religious life. For example, Silverblatt (1987:41) argues that Viracocha was an “androgynous divinity” at the apex of the cosmological order, noting that the inscription above Viracocha’s image states, “Whether it be male, whether it be female” (Silverblatt citing Pachacuti Yampqui 1950:226 and La Fone 1950:306). Furthermore, Silverblatt (1987) cites Pachacuti Yampqui (1950:220) again, stating, “Viracocha incorporates the opposing forces that each gender represents: ‘the sun [male], the moon [female], day [male], night [female], summer [male], winter [female].’” However, the series of lesser gods, humans, and many components of the natural and social world are gendered as male or female in the gender dualism of Andean sociopolitical life.

This accords with what has been recorded in the (bio)archaeological record, in which skeletal sex appears to correlate with other material markers of socially performed gender. For example, the repeated pattern of *tupus* (metal pins used to fasten clothing together) and spindle whorls with female skeletons is often cited as evidence of this persistent correspondence (though there was one EIP Moche male with a single spindle whorl that was in one of the 62 ceramic vessels that were found with him, but Gero [1992] notes that this was the richest tomb and implies that the whorl inclusion appeared accidental) (Gero 1992:19–20). And while weaving in the southern Andes was more associated with male identity, the sex-gender correspondence there also persists and spindle whorls are associated with males (Gero 1992). Currently, we have no published evidence of a skeleton of one sex being interred with the material markers of the other sex (e.g., male skeleton with *tupus*), which could be taken as a material correlate of gender as an emergent property that rejects the gender binary. (However, I would not be surprised if future research—now that scholars are more explicitly testing these ideas rather than assuming correspondence—demonstrated this.) While there are certainly other ways that Andean peoples may have recognized and performed nonbinary gender, to my knowledge, there are no published examples of (bio)archaeological data suggesting nonbinary or a third or other gender

Table 3. Comparing adult cranial trauma frequencies between males and females

| Time Period          | Males | Females | Males vs. Females | P Value |
|----------------------|-------|---------|-------------------|---------|
| Archaic              | N = 254 | N = 177 | P = .004          |         |
| Formative            | N = 202 | N = 520 | P = .999          | .999    |
| EIP                  | N = 230 | N = 74  | P < .001          | .001    |
| Late MH to Early LIP| N = 1,262 | N = 171 | P = .272          |         |
| LIP                  | N = 326 | N = 594 | P = .005          | .005    |
| LIP to LH            | N = 326 | N = 594 | P = .036          | .036    |

Note. Fisher’s exact test. Time periods with statistically significant differences are in boldface. Note that sex-based differences in the LIP to LH era are nearly statistically significant. Data on colonial era sex-based differences were not available for comparison. EIP = Early Intermediate period; MH = Middle Horizon; LIP = Late Intermediate period; LH = Late Horizon.
identity in the Andes, but ongoing scholarship has broadened, and scholars are now asking more nuanced questions on this topic.

Further insights into gender can be gained from sexuality studies and how males and females (and other entities) are portrayed. While the fluidity of sexual orientation is documented in Moche ceramics from northern coastal Peru (100–700 CE), where a few same-sex scenes exist (Weismantel 2004:503), there are also very common depictions of female-male sexual acts in the Moche ceramic corpus that run the gamut of penis-vaginal, penis-anal, and penis-oral combinations (Weismantel 2004). Recuay ceramics from northern Peru similarly show female-male sex acts (primarily vaginal-penis), and the figures are often in similar scale and elaborately dressed befitting the high status of the man and woman, further prompting Gero (2004:22) (in combination with some of her other research [Gero 2001]) to suggest that elite status was garnered on one’s own and not from association with an elite spouse.

In contrast, Moche ceramic pots express more gender asymmetries, wherein the depictions of fellatio suggest that the female is being forced or commanded to conduct the act (Gero 2004). Moreover, while there are numerous representations of Moche fellatio, there are no depictions of cunnilingus in Recuay or Moche art (Gero 2004; Weismantel 2004), and this erasure of female pleasure and numerous depictions of Moche men in orgasmic states of ecstasy has prompted Gero (2004) to suggest that these were powerful narratives used to teach and enforce notions of male dominance. These depictions of men and women in sex acts clarify the point that Andean peoples, at least in northern Peru, carefully depicted men and women and used these depictions as a means to construct narratives about gender roles and possible gender hierarchies. This reminds us that the constructive process of maleness, femaleness, and other sex or gender categories is played out and portrayed in a variety of arenas. If, in the Moche case, male identity (at least for certain social categories of males) is tied to notions of dominance in sex acts, does this do some of the work in creating notions of power in other settings too? This is recursive, of course; dominance in military settings may create and sustain notions of dominance in situations that range from intimate sexual acts, to household negotiations, to exclusive rituals, to very public community gatherings. Indeed, the Moche world is rich with recovered material culture that allows scholars to document those diverse portrayals of people (and animals, plants, and things). Ranging from line drawings of military personnel, ritual specialists, and weavers on ceramic pots (Bourget 2006), to sculpted vessels of humans engaged in a variety of activities, to life-size murals of naked male prisoners being paraded, there is a rich corpus to interrogate how the material world (including human bodies themselves) reflects and generates ideas about masculinity and violence, among other traits.

Given that males experienced significantly more violence than females in most of the chronological eras in the Andes, this suggests that there were gender norms regarding which sex should engage in violent activities. Andean men were taught—perhaps even trained—to participate in physical conflict, a process that was abetted through the production of material culture. For example, in Moche society, iconography and figures were a powerful medium through which to educate the populace about gender comportment and the activities that society valued. The walls of the Moche pyramid at Huaca Cao Viejo (fig. 4) and many Moche ceramics depict naked male prisoners with ropes around their necks (fig. 5), which is in stark contrast to warriors in active combat who are depicted

Figure 4. A Moche mural depicting naked male prisoners with ropes around their necks. La Huaca Cao Viejo, site of El Brujo, Chicama Valley, northern Peru. Photo credit Kevstan, Own work, CC BY-SA 3.0. https://commons.wikimedia.org/wiki/thumb?curid=6359894.
in full regalia wielding weapons (Bourget 2006) (fig. 6). The celebration and valorization of the male warriors in large public spaces and in transportable pottery created and upheld the notion of the male warrior who should enact violence, while also teaching Moche peoples that appropriate targets were other men. Although we are currently lacking large published datasets on sex-specific cranial trauma frequencies from Moche populations, there is ample evidence showing that male warriors were common victims in Moche ritual sacrifice (Verano 1995, 2001a, 2001b), though women and children were also attacked and ritually sacrificed. Indeed, at the late Moche site of Huaca Colorado in Jequetepeque, 18% of females \((N = 11)\), 20% of males \((N = 5)\), and 10% \((N = 10)\) of juveniles died a violent death (Alaica et al. 2020).

In Wari society (Middle Horizon, 600–1050 CE, central Andean highlands) at the height of the Wari era (ca. 800 CE), adults exhibit cranial trauma frequencies near 20% and there are over 30 human trophy heads (adult males and children) from D-shaped temples (Tung 2012). Notably, the vast majority of those trophy heads derive from nonlocals, suggesting that Wari military personnel traveled to distant lands and took captives who were later sacrificed and transformed into trophies. Those interpretations are based on strontium isotope data (Tung and Knudson 2011), cut marks indicative of processing (Tung 2008b), and iconography depicting weapon-wielding warriors holding captives, warriors and deities wearing and carrying trophy heads, and disembodied heads and hands in association with warriors (Ochatoma, Tung, and Cabrera 2008) (fig. 7). Together the suite of data reveals the process by which violence—of a certain kind—was valorized within Wari society. The concerted and coordinated efforts to valorize the exploits of Wari military personnel served to
generate and perpetuate specific narratives about violence within the Wari state apparatus, particularly as they related to a violence under control, state-sanctioned, and meted out for state ends. These efforts were materialized in the ritual, political, social, and economic spheres through the creation of specialized ritual spaces in which warriors were valorized in many different ways. For example, there are beautifully carved obsidian blades and points that also reveal the linkages to trade alliances, economic production (Burger, Bencic, and Glascock 2016), and the integration of skilled craftspeople into this performative, state-sanctioned violence. Further, there are depictions of warriors and their exploits in carved stone statues and on elaborate, polychrome ceramic urns that are 1 meter in diameter and high fired, showing the ways in which highly skilled artisans were brought into the production of Wari statecraft. Finally, the bodies of the warriors themselves served as a medium for the valorization of violence and Wari authority. That is, the scars on the bodies—the broken noses, the scars, and the head wounds—provided a living canvas to communicate values and ideals about proper gender comportment and gendered roles that were valued in social and political life. These bodies performed social facts. These bodies were teachers of social facts. And others learned from the bodies: living bodies, dead bodies, and representations of bodies.

**Seeing the Victims, Imagining the Killers**

The violence-related trauma discussed here is one-sided in that bioarchaeologists see only the victims, though it may not be accurate to label them as “victims.” They well may have been the perpetrator who killed an opponent, suffering a broken nose in the process. Nonetheless, in the pre-Hispanic Andes where we have no written records, the bony scars on archaeological bodies are the only clues that reveal to us that violence actually occurred.

The limitation that reveals only the injured party in bioarchaeological analysis thus requires a much larger cultural frame that includes significant contributions from archaeologists. The archaeological information can provide crucial details about settlement patterns, weaponry, iconography, defensive architecture or the lack thereof, the local landscape and its exploitation, the production and use of material culture, food refuse remains, and much more. Nonetheless, there is a real constraint in bioarchaeological analysis in terms of seeing the various components of the violent interaction. Improved methodologies, deeper contextualization, and greater theoretical engagement may well be some of the ways to address these
shortcomings. Fortunately, the growing number of bioarchaeological studies about violence have provided insights into our anthropological understandings of conflict and trauma in ways that could never have been achieved when the individual body was excluded from the analysis. As these summarized cranial trauma data have shown, we can “see” who is injured and/or killed, which provides the necessary empirical data to evaluate patterns and identify the larger social forces that structure who is typically harmed and who is typically protected. Those patterns are not random, and seeing the victims allows us to see more of the sociopolitical structures driving those outcomes. However, we must be clear that we cannot identify the perpetrators, except in rare cases when, for example, a native Andean from the Spanish colonial era suffered a lethal gunshot from a Spanish-issue weapon (Murphy et al. 2010); yet even then, though a Spanish aggressor may be assumed, there can be ambiguity regarding who fired the lethal shot.

Somewhat paradoxically, paleopathological analysis and stable isotope analysis that reveal to us the experiences of infectious disease, malnutrition, and dietary profile may be more illustrative of the power structures that shape particular health outcomes. That is, the more “subtle” forms of (structural) violence insidiously hidden within sociopolitical structures may be detected through the documentation of distinct disease profiles and diets between men and women, warriors and nonwarriors, elites and sub-elites, or between locals and migrants, among other social and demographic distinctions.

Structures of Violence: The Distribution of Dietary Resources in Post-Wari Society

Violence can take many forms, whether it is overt physical violence that kills outright or as harm to certain individuals that is deeply integrated into the very social structures that constitute society (sensu Farmer 2004; Galtung 1969). Here, I focus on political economy and consumption (and by extension, the distribution) of foods among Andean and post-Wari communities in the former Wari heartland to gain insights into how foodways and distributive practices may have marked and made gender and whether that constructive process was informed by and contributed to structural violence in post-Wari society.

Sex-based dietary differences revealed through stable carbon and nitrogen isotope data from the post-Wari era (ca. 1350 CE) show differential access to valued dietary resources, hinting at the development of novel notions of gender after Wari imperial decline. In the preceding Wari era, isotope studies from sites in the Wari heartland show that men, women, and children had similar diets (Finucane 2009; Finucane, Agurto, and Isbell 2006), a pattern suggesting that there was an equal distribution of certain dietary resources. Maize, a socially and politically valued food in the Andes, particularly when fermented and made into chicha (maize beer) (Gagnon and Juenst 2018), was not preferentially distributed to any particular group in the heartland in Wari times, and males and females also had similar access to protein, as revealed by the stable nitrogen isotope data (Finucane 2009; Finucane, Agurto, and Isbell 2006).

After Wari political collapse, when violent conflict significantly increases and lethal trauma becomes significantly more common (Tung 2008a, 2016), a new sex-based difference in diet emerges. My recent stable carbon isotope analysis of post-Wari skeletons shows that males have greater access to 13C enriched foods, such as maize and chicha—a food and drink of high social and political valence. Notably, maize is produced in Wari, terminal Wari, and post-Wari times, yet significant sex-based differences in the consumption of this valued food occur only in the post-Wari phase (fig. 8). This dietary distinction could result from larger structural forces—particularly in the form of gender norms—that strongly shape what post-Wari women and men ate and drank. Those gendered diets are also informed by the political economy, such as the foods that are locally produced, exported, and imported. Conversely (but not exclusively), men and women may have had equal access to various foods, and the sex-based differences may be a serendipitous outcome of individual food and beverage choices. An analyst of society could never simply point to one side of this structure-agency sphere to explain those dietary outcomes (and attendant nutritional and health status), but as scholars we can show how sociopolitical structures have long informed, and been shaped by, individual social praxis.

6. The 35 countries were in the Americas, Europe, Asia, Africa, and the Middle East (Wilsnack et al. 2009).
Men and Meat: Not a Natural Marker of Masculinity

There are no sex-based dietary differences in protein consumption (e.g., meat and marine foods) among post-Wari individuals. Stable nitrogen isotope values are primarily a reflection of protein sources (among other factors) (DeNiro and Epstein 1981; Mekota et al. 2006; Schoeninger, DeNiro, and Tauber 1983), and those values are statistically similar between males and females ($t = -1.4; P = .15; df = 135$). However, there is a marked spread of nitrogen isotope values, but it is not shaped by skeletal sex (fig. 8), suggesting very different foodways or other life experiences among those post-Wari individuals.

Logan, Hastorf, and Pearsall 2017), then many females were not just excluded from consuming certain foods, they were excluded from the spaces of political decision-making and access to ritual and other platforms of power. These structures of violence that determine the unequal distribution of a valued food may reflect hierarchical notions of genders in the post-Wari era, something that was not isotopically apparent in Wari times. In this way, seemingly innocuous gender norms that seem natural (“It’s just what men prefer”) may have had negative repercussions for some women, doing a social and political violence that stunted social or political opportunities. However, we must also acknowledge that the sex-based distinctions in post-Wari times may also reflect food and drink preferences among women; perhaps they opted for other beverages and foods. In this way, the dietary difference may have been driven by the agential capacities of females, which was nonetheless actualized within the cultural and political frames that shaped what they had access to and what they were socialized to consume.

Gender-Forming Foods

Whether sex-based differences in diet in the post-Wari era are an outcome of structural violence and also a means for creating and maintaining it, sex-based differences in foodways and eating have the potential to reify ideas about gender and appropriate gendered behaviors and responsibilities. Food preparation, serving food, and plowing agricultural fields were all strictly sex-specific in the rural Andes of the 1970s, where the two former activities were conducted by females and the foot plow was used by males (Allen 1988), an observation that is not meant to apply static gender norms into the distant past but to highlight the ways that the production and preparation of food can be highly gendered, at least conceptually if not always in practice (Allen 1988:78). Allen’s ethnographic research in Sonqo in the Department of Cusco illuminates these gender constructive processes when she describes an Andean girl who expressed interest in male activities, and “she was subject to crushing and universal disapproval” (Allen 1988:80), an observation that reveals the subtle and overt ways that community members are kept in line and cajoled into following a society’s gender (and other) norms.

If bioarchaeologists are to understand the role of gender—of masculinity, femininity, and others—and the social roles and social acts associated with them, particularly as they relate to the enactment of violence, then we must endeavor to interrogate the many facets of social and political life through which gender is embodied. Do differences in foodways, familial responsibilities, ability to travel, occupation (e.g., farmer, herder, metallurgist, weaver, etc.), or access to rare resources, among other aspects of social life, reveal and also shape how masculinity is constructed and performed relative to femininity? And how are those aspects of social life tied up with the ways that we mark identity and belonging (Dietler 2012; Fischer and Benson 2006; Mintz 1985) and deeply tied up with the ways that we mark identity and belonging (Dietler 1996, 2007; Hastorf 2006, 2016).

More broadly, this suggests that although meat consumption has long been tied to notions of masculinity in our hominid past and the modern era (Calvert 2014; Hart and Sussman 2009; Lavallee 1969), this was apparently not a marker of masculinity in Wari or post-Wari times. This line of bioarchaeological data denaturalizes the notion that meat eating is a universal component of masculine identity (see further discussion below). Ideas about what foods, plants, and drinks are appropriate to consume are culturally and historically contingent (Benson 2012; Fischer and Benson 2006; Mintz 1985) and deeply tied up with the ways that we mark identity and belonging (Dietler 1996, 2007; Hastorf 2006, 2016).

Figure 8. Post-Wari era. Stable carbon isotope values ($\delta^{13}C$ on X-axis and $\delta^{15}N$ on Y-axis) of males and females show that females have statistically significant lower carbon isotope values than males, indicating that they consumed significantly less maize. Nitrogen isotope values, in contrast, show no significant differences between males and females.

Logan, Hastorf, and Pearsall 2017, then many females were not just excluded from consuming certain foods, they were excluded from the spaces of political decision-making and access to ritual and other platforms of power. These structures of violence that determine the unequal distribution of a valued food may reflect hierarchical notions of genders in the post-Wari era, something that was not isotopically apparent in Wari times. In this way, seemingly innocuous gender norms that seem natural (“It’s just what men prefer”) may have had negative repercussions for some women, doing a social and political violence that stunted social or political opportunities. However, we must also acknowledge that the sex-based distinctions in post-Wari times may also reflect food and drink preferences among women; perhaps they opted for other beverages and foods. In this way, the dietary difference may have been driven by the agential capacities of females, which was nonetheless actualized within the cultural and political frames that shaped what they had access to and what they were socialized to consume.
should be lived and experienced. From “Real men don’t eat quiche” (satirical manifesto for masculine performance in the 1980s; Feirstein 1982) to the perceived challenges to masculine identity brought forth by the proposed New Green Deal (“They want to take away your hamburgers!”), it is clear that food is used to make and mark masculinity. If chowing down a burger and grilling a steak are means by which to perform masculinity in the modern United States (Rothgerber 2013; Sobal 2005), it is worth querying how food preparation and consumption were tied to gender marking in other times and places.

In the Wari and post-Wari worlds, meat consumption does not appear to have been a key marker for gender distinction, though it may have been used to mark other social, political, or ethnic differences. Instead, the consumption of maize—perhaps in the form of chicha—may have been a powerful marker of distinction (Gagnon and Juengst 2018; Goldstein, Coleman, and Williams 2009; Moseley et al. 2005) in the post-Wari world when much of the social and political order was in disarray. Perhaps gender orders were also up for renegotiation, and maize consumption in daily diets and chicha at feasting rituals may have become a new cultural correlate for marking and performing masculinity. Implicated in this process, then, is the potential for creating and perpetuating gender inequalities. These inequalities are part and parcel of structures of violence that excluded females from a valued dietary resource, while also excluding women from the means through which sociopolitical bonds were formed.

Unequal access to certain dietary resources is not unique to the post-Wari world of the Andes. In the Eastern Zhou region of China (770–221 BCE), stable isotope analysis shows that two noble individuals consumed much more animal protein (and perhaps fish) relative to the non-nobles, isotopic data that accord with written accounts noting the sumptuary rules associated with consuming meat (i.e., reserved for nobles) and celebrating nobles as the “meat eaters” (Zhou et al. 2019). Plant foods were also markers of status, and nobles consumed no wheat and ate millet only in this pre-imperial era (Zhou et al. 2019). In the later imperial period, class distinctions marked by the consumption of certain plant foods fell away, and people of all social classes began consuming large quantities of wheat (Zhou et al. 2017). This brief example from China and the examples from the Andes demonstrate the ever-changing ways that food can become associated with particular social classes, gender, or other markers of distinction.

Conclusions

These bioarchaeological and isotopic data from the Andean past provide a case study to explore larger themes as they relate to the ways that exposure to violence, poor health, or infectious disease are profoundly impacted by social processes that construct narratives about gender identity and appropriate behaviors. The iconographic depictions of Moche and Wari warriors show one of the ways through which narratives about masculine identity and associated expectations to engage in violence (at least for some males of a particular social class) were made and maintained. The Moche and Wari—among other Andean groups—put forth great effort in terms of resources, skills, and logistical organization to produce and distribute ceramics and other media that, in effect, taught people about proper gender comportment and the behaviors that were to be valued and valorized, and thus embodied by men and women. Ways of drinking, having sex, fighting, farming, and fishing, etc., were all portrayed in Moche art, and they functioned to celebrate and teach certain behaviors deemed appropriate and desirable by Moche leaders, producers, and community members. Those ideals, however, are rarely left unchallenged. People question norms, and sometimes producers themselves subtly challenge the status quo and ways of representing ideals, as in the case of some Wari and Tiwanaku artisans who used creative license to alter the appearance of highly regarded deities, humans, plants, and animals (King and Delgado Pérez 2012; Knobloch 2000). While those alterations could be aesthetic choices informed by some other desire, they could also be artists’ means for reimagining other ways of representing self, community, and being in the world. Those novel and altered “representations” can then teach anew, guiding people to absorb and enact different beliefs, behaviors, and ideas on what to value.

Ceramics, statuary, and murals were not the only media through which messages about manhood (and personhood more generally) were conveyed. Embodiment theory shows us ways that we can use bioarchaeological data to document and decipher how messages in media taught men to behave and how their scarred and sometimes valorized bodies became a communicative medium themselves. For example, cranial trauma data show more male violence than female violence, demonstrating how materialized notions about social identity and gender roles can translate into real harm for both men and women, but significantly more so for men in the Andean time periods discussed here. The injuries sustained and the scars on their bodies (and the imagined ways that they wore their regalia, wielded weaponry, and engaged in combat) reveal the ways that some Andean men came to embody notions of a particular masculine identity, while simultaneously reinforcing it.

Harm to a person need not be experienced only as overt, intentional, physical violence. Other harmful experiences can result from more concealed social structures that (un)intentionally do damage to certain subgroups. For example, the sex-based dietary differences in post-Wari times expose how gender can be a powerful structuring factor in access to resources, which may have downstream effects on physiological health and on sociopolitical standing in a community. That is, the dietary difference observed in post-Wari times when women

7. Quote from Sebastian Gorka, one of President Trump’s former advisers, speaking at the Conservative Political Action Conference (Kendra Pierre-Louis, New York Times, March 8, 2019).
had less access to maize and chicha relative to men is likely an artifact of particular gender norms and gender roles in that society. In turn, these social practices also recursively shape ideas regarding how women are to behave and be treated. The practices of producing, preparing, serving, and consuming food are all implicated in the process of forging ideas about gender. Excluding post-Wari women from some aspects of commensal feasting, which likely involved chicha consumption, is also to exclude them from other attendant social and political posturing, alliance building, and status aggrandizing that can occur in those moments. To be excluded from those then further alienates and excludes women from the spaces and social webs of interaction that shape community decision-making and other practices that can profoundly impact post-Wari women’s lives and livelihoods. In this way, we can see how overt, physical violence is not the only way that harm is done to certain categories of people. Structural violence stemming from the way a society is organized may not always lead to a skull fracture that leaves a person maimed or dead, but it can also slowly affect nutritional health, which has subsequent effects on growth and the ability to recover from sickness and injury. Furthermore, given the way that food, commensal feasting, and access to political capital are inextricably linked in many precontact Andean societies, a sex-based difference in diet may reflect those larger limitations on women’s ability to realize their full potential. As Galtung (1969:168) noted, “Violence is present when human beings are being influenced so that their actual somatic and mental realization are below their potential realizations.” He continues, “We are rejecting the narrow concept of violence in which violence is somatic incapacitation or deprivation of health . . . at the hands of an actor who intends this to be the consequence” (italics in the original). In his expansive characterization of violence, he urges us to see the unintentional ways that harm—broadly conceived—is realized. Clearly, food is not solely about caloric intake; it is a powerful means through which social and gender hierarchies are reified and social identity and sociopolitical relations are forged. These are the ingredients that shape how our societies get organized. Although social, gender, racial, and other inequalities can get baked into the societal cake, concealed in tradition, norms, and claims of natural ways of being, anthropologists as analysts of society can document the ingredients that constitute society and the ways that society brings forth certain ideals and experiences. As archaeologists, we are particularly well trained to see social ingredients materialized, and as bioarchaeologists we can reveal the social as materialized in and through the body.

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References Cited

Adler, Nancy E., and Katherine Newman. 2002. Socioeconomic disparities in health: pathways and policies. Health Affairs 21(2):60–76.
Agarwal, Sabrina C. 2017. Understanding sex and gender-related patterns of bone loss and health in the past: a case study from the Neolithic community of Çatalhöyük. In Exploring sex and gender in bioarchaeology, S. C. Agarwal and J. K. Wesp, eds. Pp. 165–188. Albuquerque: University of New Mexico Press.
Alalà, Aleka K., Luis Manuel González La Rosa, and Kelly J. Knudson. 2020. Creating a body-subject in the Late Moche Period (CE 650–850): bioarchaeological and biogeochemical analyses of human offerings from Huaca Colorado, Jequetepeque Valley, Peru. World Archaeology 52(1):49–70.
Allen, Catherine J. 1988. The hold life has: cocoa and cultural identity in an Andean community. Smithsonian Series in Ethnographic Inquiry. Washington, DC: Smithsonian Institution.
Arkush, Elizabeth N. 2008. War, chronology, and causality in the Titicaca Basin. Latin American Antiquity 19(4):339–373.
Arkush, Elizabeth, and Tiffany A. Tung. 2013. Patterns of war in the Andes from the Archaic to the Late Horizon: insights from settlement patterns and cranial trauma. Journal of Archaeological Research 21:307–369.
Benson, Peter. 2012. Tobacco capitalism: growers, migrant workers, and the changing face of a global industry. Princeton, NJ: Princeton University Press.
Benson, Peter, Edward F. Fischer, and Kedron Thomas. 2008. Resocializing suffering: neoliberalism, accusation, and the sociopolitical context of Guatemala’s new violence. Latin American Perspectives 35(5):38–58.
Bourdieu, Pierre. 1984. Distinction: a social critique of the judgement of taste. Cambridge, MA: Harvard University Press.
Bourget, Steve. 2006. Sex, death, and sacrifice in Moche religion and visual culture. 1st edition. Austin: University of Texas Press.
Bourjouis, Phillippe. 1995. In search of respect: selling crack in El Barrio. Cambridge: Cambridge University Press.
Bowles, Samuel. 2009. Did warfare among ancestral hunter-gatherers affect the evolution of human social behaviors? Science 324(5932):1293–1298.
Burger, Richard L., Catherine B Mencic, and Michael D. Glascock. 2016.Obsidian procurement and cosmopolitanism at the Middle Horizon settlement of Conchopata, Pera. Andean Past 12:21–44.
Butler, Judith. 1990. Gender trouble: feminism and the subversion of identity: thinking gender. New York: Routledge.
———. 1993. Bodies that matter: on the discursive limits of “sex.” New York: Routledge.
Calvert, Amy. 2014. You are what you (m)eat: explorations of meat-eating, masculinity and masquerade. Journal of International Women’s Studies 16(1):18–33.
Connell, R. W. 2002. On hegemonic masculinity and violence. Theoretical Criminology 6(1):89–99.
Connell, R. W., and James W. Messerschmidt. 2005. Hegemonic masculinity: rethinking the concept. Gender and Society 19(6):829–859.
Corrada, Thomas J. 1990. Embodiment as a paradigm for anthropology. Ethnos 18(1):5–47.
Tung Making and Marking Maleness and Valorizing Violence

Goldstein, David J., Robin C. Coleman, and Patrick Ryan Williams. 2009. Current Anthropol. 45(3):305–325.

DeNiro, Michael J., and Samuel Epstein. 1981. Influence of diet on the distri-

bution of nitrogen isotopes in animals. Geochimica et Cosmochimica Acta 45(3):341–351.

Dietler, Michael. 1996. Feasts and commensal politics in the political econ-

omy. Current Anthropology 37(3):451–465.

———. 1999. Embodiment and cultural phenomenology. In Perspectives on embodiment: the intersections of nature and culture, G. Weiss and H. F. Haber, eds. Pp. 143–162. New York: Routledge.

Cummings, S. R. X. Ling, and K. Stone. 1997. Consequences of foot binding among older women in Beijing, China. American Journal of Public Health 87(10):1677–1679.

DeNiro, Michael J., and Samuel Epstein. 1981. Influence of diet on the distri-

bution of nitrogen isotopes in animals. Geochimica et Cosmochimica Acta 45(3):341–351.

Dietler, Michael. 1996. Feasts and commensal politics in the political econ-

omy. Current Anthropology 37(3):451–465.

———. 1999. Embodiment and cultural phenomenology. In Perspectives on embodiment: the intersections of nature and culture, G. Weiss and H. F. Haber, eds. Pp. 143–162. New York: Routledge.

Cummings, S. R. X. Ling, and K. Stone. 1997. Consequences of foot binding among older women in Beijing, China. American Journal of Public Health 87(10):1677–1679.

DeNiro, Michael J., and Samuel Epstein. 1981. Influence of diet on the distri-

bution of nitrogen isotopes in animals. Geochimica et Cosmochimica Acta 45(3):341–351.
