Making Warriors, Making War

Violence and Militarism in the Wari Empire

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Violence can take many forms and occur in a variety of social contexts, and it may be especially linked to militarism and warfare. In those militarized contexts, violence can become codified and normalized, such that certain segments of society learn to engage in deadly aggression and the destruction of other human bodies. This chapter presents a case study of the Wari empire (AD 600–1000/1100), showing how violence, particularly in the context of militarism, may have been actively cultivated and encouraged in ancient Wari society of the central highland Andes. The data and interpretations presented in this chapter thus speak to a question that is central in this edited volume: how was war produced and reproduced in Pre-Columbian America? We can provide one possible explanation by examining how an ancient Andean group promoted violence and militarism to support its warfare activities and goals of imperial expansion. We can also explore how acts of war (e.g., abductions and head-hunting), and the ritual activities that celebrated those acts, simultaneously served to legitimize violence and make it an acceptable part of community life. Approaching a study of warfare in this way can reveal how war served to legitimize the need for a class of warriors in Wari society and, recursively, how the creation of a warriorhood aided in legitimating the cause for war.

This chapter presents an analysis of new data on violence-related cranial trauma from Wari heartland sites—Huari (the capital city of the Wari empire), Nawipukio, and Trigo Pampa—and combines that with previously published studies of human trophy heads and cranial trauma from the site of Conchopata, also located in the Wari heartland of the Ayacucho Basin (Figures 9.1 and 9.2). The data from Conchopata have been presented elsewhere (Tung 2012), but they are summarized here for a broader perspective on how the Wari empire promoted and enacted militarism. I also include a discussion of Wari weaponry and iconography to evaluate how material representations and the physical (skeletal) manifestations of violence...
figure 9.1
Map of Peru, showing sites discussed in text. Areas shaded in gray are regions with Wari presence; the checkerboard region has received less study, so Wari presence in those areas is unclear. (Map by Steve Wernke, modified by Tiffiny A. Tung.)
and war reify one another and structure behavioral norms. Of interest here are the social norms that come to embrace violent actions, especially within the context of militarization. I also explore how militaristic violence can bleed into other social arenas and contribute to domestic and social violence in a community.

Militarization

One factor that contributes to the production of war is the militarization of society generally and the creation of warriors specifically, for they are the ones who will participate in the deadly acts required in war. To define what I mean by militarization, I
draw from Michael Geyer (1989:79), who describes it as a "social process in which civil society organizes itself for the production of violence." This definition was originally used in studies of modern militarization, but it is pertinent for discussions of militarism in the distant past because, as Catherine Lutz (2007:320) elaborates, "the process involves an intensification of the labor and resources allocated to military purposes." This definition can thus be applicable to small-scale or complex societies if labor in the service of war is intensified (e.g., making weapons, building defensive walls, creating propaganda [iconography or ceremonies that promote war], growing surplus foods for military personnel or sieges). As I demonstrate, the Wari allocated resources and human energies for the promotion and actualization of militaristic activities, including the depiction of warriors and weaponry on polychrome ceramics, the production of weapons, the construction of ceremonial buildings that were used to highlight military actions, and the dedication of manpower to abducting enemies and transforming them into war trophies.

A warrior identity—or really, any social identity—must be actively constructed and maintained through actions, speech, material representations, rituals, coercion, and so forth—that is, through social practice that is enacted on a daily or at least regular basis. In trying to access those actions in the bioarchaeological and archaeological record, we need to conduct an empirical study that demonstrates the existence of military activity and the promotion thereof.

The enactments of violence and war are not natural outcomes of our biological makeup, so arguments that innate aggressiveness in males leads to the development and practice of warfare (Wrangham and Peterson 1996) do little to explain how and why war emerges at certain times and in particular places. Rather, as in the case presented here, society must make a concerted effort to promote and valorize violence, whether or not that violence is used in a militarized context to secure new territory and resources, defend old lands, respond to a real or perceived threat, or retaliate for an attack or some lesser transgression. The efforts to promote and actualize violence and militarization can be observed in human skeletons (e.g., as skeletal trauma and war trophies made from human body parts) and in associated material culture (e.g., weapons, defensive walls, militaristic iconography) recovered from archaeological sites. Skeletal trauma alone or militaristic iconography alone may not signify warfare; however, warfare may become apparent when the combined evidence includes violence-related trauma, nonlocal trophy heads, militaristic iconography, weapons, and, to a lesser degree, administrative sites in distant locales (demonstrating imperial expansion that may have sometimes occurred through militaristic means).

**Violent Intentions and Human Agency**

A bioarchaeological study of violence and warfare is an important aspect of anthropological research because violence is a specific human action carried out with the intent to injure, maim, or kill another person or group of people. Although other human actions may harm another person's well-being, they are not always clearly intentional (malnutrition, for example, can result from poor planning, a food shortage, or an intentional policy of unequal food distribution). Violence, in contrast, is an intentional act with an immediate effect: injury or death. (If someone inadvertently injures another person, say in a hunting accident, then that is not a violent act. And although that particular scenario is difficult to identify in the bioarchaeological record, it is assumed to be rare. Moreover, this sample contains no projectile point injuries that could have resulted from a hunting accident.) Accidental injury (e.g., falls in rocky terrain) can also lead to skeletal trauma, but this study focuses on skeletal traumas that are the best indicators of violence, specifically cranial fractures and ulnar parry fractures (Judd 2008; Lovell 1997).

Violence can directly and immediately lead to pain and death, and documentation of the intention behind these effects can provide insight into ancient human agency and the social structures that shape acts of violence. The decision to use or eschew
violence is informed by structure (cultural norms, for example, that lead men to be aggressive in certain contexts or pacifist in others) and individual agency (in which a person might evaluate the cost and consequences of violence given their personal history and social position in society). In other cases, violent actions may be dictated by others, which may result in limited evaluation and reflection on one's potential actions, but such acts are intentional nonetheless. The cultural messages surrounding what is considered appropriate behavior can be powerful, even somewhat deterministic in some cases. That is, in certain contexts violence may seem to be the only option, the only appropriate course of action, especially in a militaristic society in which cultural messages promote and validate violence both in war and in community life. This intense structuring of violent behavior can thus contribute to high levels of physical conflict, which lead to increased morbidity and high mortality for the victim community. It can also negatively affect the morbidity and mortality of the attacking community, as members may be injured in the process of attack. Identifying physical violence in the distant past can thus provide direct insights into individual and community morbidity and indirectly reveal how social structures and human agency interacted to shape violent actions of prehistoric peoples.

Although violent intentions may be identifiable, the motives behind violence are not. Is an instance of violence revenge for the murder of a family member? And is revenge killing an acceptable form of behavior? Or are individuals simply following military orders to kill an enemy, and if so, how was that obedience created and enforced? Or is an attacker seeking authority through violence that is socially sanctified, perhaps in the context of warfare or domestic disputes? Here we can see that the intent to maim or murder, evident, say, in a fractured skull, is distinct from the motives behind these effects; violence-related skeletal trauma only reveals the former. But this insight is significant nonetheless, and as anthropologists, we can explore how violent deeds were forged or discouraged through social structuring. Osteological data, combined with data from the archaeological record, can thus be used to reconstruct those larger social and political contexts in which violence emerged and reveal how social norms related to violence were cultivated. In many cases, militarism is a framework through which violence is promoted and celebrated, an issue discussed in this chapter.

The Wari Empire

During the early part of the Middle Horizon (AD 600–1000/1100), the Wari empire emerged from the Ayacucho Basin of the central highland Andes and expanded to conquer and sometimes incorporate large swaths of noncontiguous lands and people into what we now identify as Peru (Schreiber 1992). Wari influence ranged from the northern regions of Peru, at sites such as Viracochapampa (Topic and Topic 2010), down to the Wari ritual and administrative center of Cerro Baúl in the Moquegua Valley of southern Peru (Williams 2001; Williams and Nash 2006), with variable presence at places in between (see Figure 9.1).

Wari iconography suggests some of the ways that this imperialistic expansion may have been achieved. It is replete with images of warriors carrying weapons, wearing trophy heads, and holding prisoners—images that also hint at the value placed on militarism and belligerence. Those images are on large vessels and commonly appear in ritual smashes, suggesting that narratives about militarism were important to convey. Thus, we must evaluate if and how those apparent values were normalized and how particular kinds of violence came to be perceived as a mark of status. Notably, the artistic depictions of militarism and violence were not simply fictional tales. Wari warriors did indeed engage in head-hunting and made trophy heads from nonlocal individuals (Tung 2008, 2012).

Previous studies have shown that Wari expansionist activity was enacted through policies that promoted engineering and economic superiority (e.g., water canals, agricultural terraces, and increased crop production; Edwards 2010; Williams 2002) and ideological domination (Menzel 1964).
As will be shown, Wari imperial authority was also achieved through the creation of a warrior class and the militarization of some Wari heartland communities. These militaristic ways were also interwoven with Wari ritual life to more fully integrate them into the fabric of Wari society. The implementation of militaristic violence also offered some members of Wari society a path to—and a way to maintain—elite status.

The Wari Sites

Huari is the capital city of the Wari empire; the walled site is approximately 2 km² in size (Isbell et al. 1991). Cheqo Wasi is a mortuary sector within Huari, and ceramic associations indicate that the tombs date to the late/terminal Middle Horizon (Benavides 1991). They were excavated by Mario Benavides and colleagues in 1977 and have been described as royal or elite tombs (Benavides 1991). They are built of finely worked cut-stone masonry and are capped with large stone slabs that include a tiuco, a small cylindrical opening that permitted mourners to make repeated offerings to the dead (Cook 2001). Relative to other mortuary contexts in the Wari heartland, Huari–Cheqo Wasi is clearly one of the most elaborate funerary sectors and was likely the final resting place for the upper stratum of Wari society.

The site of Nawinpukio is located on a hill about 6 km east/southeast of the modern city of Ayacucho and was occupied during the pre-Wari (Early Intermediate Period [EIP], AD 1–550/600) and Wari periods. Sporadic excavations have been conducted there every decade since the 1960s, most recently by Martha Cabrera, José Ochatoma, and Guadelia Machaca in the 1990s and by Juan Leoni in 2003. Their excavations uncovered public, ritual, and mortuary architecture, but the settlement was smaller and was likely home to individuals of lower status than those at Conchopata or Huari (Leoni 2004).

Trigo Pampa is a small rural site in the Wari heartland, located approximately 15 km northwest of Conchopata. Human remains were recovered from pre-Wari (EIP, Huarpa) and Wari-era components, but only the two crania that date to the Wari period are considered here.

The cranial trauma data from Conchopata have been presented elsewhere (Tung 2012), but they are summarized here for comparison. Conchopata was a settlement with domestic, ritual, mortuary, and public architecture, demonstrating that it was home to a variety of activities, including feasting events, funerary and other kinds of rituals, and household activities such as cooking, weaving, and caring for children. Conchopata was also a location for large-scale pottery production, as evidenced by a large kiln, thousands of pottery production implements, and the presence of enormous ceramic urns (several over 1 m in diameter). The Wari-era human burials were excavated from tombs under the house floors, some of which had tiuccos similar to those at Huari–Cheqo Wasi (Isbell 2004; Tung and Cook 2006). The Conchopata tombs were of much simpler construction, however, and were likely used by people of somewhat lower social status than the capital city elites. But the presence of formal tombs, public plazas, and ritual structures at Conchopata suggests that they were of higher status than those at Trigo Pampa and Nawinpukio.

Materials and Methods

A total of seventy-three adult crania from these four sites were examined for fractures, a standard and reliable proxy for documenting violence in the past (Lovell 1997; Walker 2001). The sample includes twenty-four adult crania from the elite Cheqo Wasi sector in the capital city of Huari; five adult crania from two smaller heartland sites, Nawinpukio (n = 3) and Trigo Pampa (n = 2); and forty-four adult crania from the secondary Wari site of Conchopata (see Figure 9.2). The human remains from Huari–Cheqo Wasi are the first Wari-era skeletal remains from the capital city ever to be examined. Cranial trauma among juveniles is reported when data are available.

The results of a previous osteological study of thirty-one human trophy heads from Conchopata, eighteen of which underwent strontium isotope
analysis to determine their geological place of origin, are discussed in conjunction with the cranial trauma data to better reconstruct the larger social climate in which violence was enacted in Wari society. Finally, Wari iconography depicting warriors, weapons, and trophy heads and some of the weapons from the site of Conchopata are described to better contextualize the human remains.

To be included in this study of adult cranial trauma, a cranium had to be at least half complete and come from an individual over fifteen years of age. The crania were examined for ante- and perimortem cranial fractures. Antemortem fractures will exhibit evidence of healing and indicate that an individual did not immediately die from the head injury. In contrast, perimortem fractures show no evidence of healing and indicate that an individual died around the time that the cranial trauma was received. Although a perimortem cranial fracture is often the likely mechanism of death, injuries to other parts of the body (e.g., sharp force trauma to a vital organ that is no longer preserved) could also have been the primary mechanism. Nonetheless, in this study, perimortem cranial trauma is also referred to as lethal trauma because the injury was sustained around the time of death.

Results
Skeletal Trauma at Trigo Pampa and Nawinpukio
At the smaller Wari sites of Trigo Pampa and Nawinpukio, no adults exhibit cranial trauma (0/5). The long bones from the three Nawinpukio adults and the two Trigo Pampa adults exhibit no fractures.

Cranial Trauma at Huari—Cheqo Wasi
In contrast to those at the smaller Wari sites, half of the Huari—Cheqo Wasi adult crania (n = 24) exhibit either ante- or perimortem cranial trauma (Table 9.1). Specifically, 42 percent (10/24) exhibit antemortem trauma, and 8 percent (2/24) show perimortem trauma; both of those with perimortem trauma were females. (Sex-based differences will be further described.) No crania exhibit both ante- and perimortem trauma. Among three subadults (two infants and one early adolescent, twelve to fifteen years old), two (66 percent) exhibit cranial trauma. One infant cranium has a perimortem fracture on the left parietal, and the adolescent cranium exhibits a healed circular wound just lateral to the bregma.

Among the two female crania with perimortem trauma, one has only one fracture, and the other exhibits two perimortem fractures on the posterior of the right parietal, which were likely sustained from two consecutive blows to the head.

Among the ten crania with antemortem trauma, seven exhibit more than one wound, including a male with ten healed cranial fractures (Figures 9.3 and 9.4). This example suggests that those with multiple head injuries were either repeatedly hit in one violent incident, or they were hit in several different violent episodes. The wound on the frontal bone of the male with ten cranial fractures appears less well healed than the others and may have been received in a later violent incident. But the healing time may also have been slower because it was a larger fracture that was the result of a more forceful blow. Thus, while this injury may be an example of recidivism, differential healing rates of wounds that were received at the same time precludes a definitive identification. In the other cases, the well-healed nature of all wounds prevents a determination of the temporal sequencing of fractures.

Overall, the nearly complete adult crania exhibit thirty-nine antemortem and three perimortem head wounds, and the shapes of all but one are circular or oval (see Figure 9.4). The exception is on the male cranium with ten wounds: it had one rectangular depression on the posterior of the left parietal (see Figure 9.3, lower right photo), suggesting that he was hit with a different type of weapon than the others. The size of the antemortem wounds ranges from 0.40 to 16.32 cm^2 (length x width of wound margins); the average is 4.13 cm^2, and the median is 1.89 cm^2. Fourteen of the thirty-nine antemortem wounds are larger than the average size, suggesting that victims were sometimes hit with substantial force (Figure 9.5), such as when handheld weapons are used in close proximity. Notably, they survived those serious attacks as
<table>
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<tr>
<th>CRANIUM CODE</th>
<th>AGE</th>
<th>SEX</th>
<th>ANTEMORTEM OR PERIMORTEM</th>
<th>NUMBER OF WOUNDS</th>
<th>DESCRIPTION OF CRANIAL FRACTURES</th>
</tr>
</thead>
</table>
| 1            | Middle to old adult (45–65 yrs) | M   | Antemortem               | 10               | Wound 1: 4 x 4 mm  
Wound 2: 7.09 x 2.89 mm  
Wound 3: 21.15 x 24.54 mm  
Wound 4: 34.19 x 30.00 mm  
Wound 5: 35.49 x 10.88 mm and rectangular  
Wound 6: 3 small circular depressions (7 x 7 mm each) within a larger oval depression along sagittal suture  
Wound 7: 27.00 x 28.22 mm  
Wound 8: 7.39 x 9.60 mm  
Wound 9: on right zygomatic  
Wound 10: on center of frontal, 59.69 x 24.24 mm |
| 3            | Young adult (20–34 yrs)       | F   | Antemortem               | 1                | Oval blunt force trauma (BFT) on left frontal (7.57 x 5.32 mm) |
| 4            | Young adult (26–34 yrs)       | F?  | Perimortem               | 2                | Two circular perimortem depressions on posterior of right parietal (no measurements on data form) |
| 6            | Middle adult (35–49 yrs)      | F   | Perimortem               | 1                | Oval-shaped perimortem fracture on posterior of right parietal (6.63 x 4.24 mm) |
| 11           | Young adult (20–34 yrs)       | F?  | Antemortem               | 2                | Wound 1: oval BFT on posterior-lateral of left parietal (36 x 22 mm)  
Wound 2: oval BFT on posterior of right parietal; half of the wound missing (postmortem break on bone), but it is 14 mm wide by at least 6 mm long (not counted in wound size average) |
| 13           | Young adult (20–34 yrs)       | M?  | Antemortem               | 2                | Wound 1: circular BFT on left parietal boss (31.65 x 34.37 mm)  
Wound 2: oval BFT on center of occipital planum (14.23 x 19.55 mm) |
| 16           | Middle to old adult (40–60 yrs) | F   | Antemortem               | 5                | Wound 1: BFT along sagittal suture (23.92 x 7.21 mm)  
Wound 2: BFT on midpoint of sagittal suture (10.21 x 12.62 mm)  
Wound 3: superior of right parietal (16.24 x 14.09 mm)  
Wound 4: superior-lateral on right parietal (19.79 x 23.03 mm)  
Wound 5: lateral side of right parietal (47.40 x 34.43 mm) (Wound 4 seems to have occurred after wound 5 because it is superimposed on wound 5) |
<p>| 17           | Middle adult (35–49 yrs)      | F   | Antemortem               | 1                | Oval-shaped BFT on superior of right parietal (37.84 x 18.51 mm) |</p>
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<th>CRANIUM CODE</th>
<th>AGE</th>
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<th>ANTEMORTEM OR PERIMORTEM</th>
<th>NUMBER OF WOUNDS</th>
<th>DESCRIPTION OF CRANIAL FRACTURES</th>
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<tr>
<td>18</td>
<td>Middle to old adult (35+ yrs)</td>
<td>M?</td>
<td>Antemortem</td>
<td>6</td>
<td>Wound 1: shallow BFT on medial corner of supra-orbital margin of left orbit (8.30 x 8.84 mm)</td>
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<td>Wound 2: oval-shaped BFT (11.27 x 18.24 mm)</td>
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<td>Wound 3: circular BFT on left parietal (13.07 x 14.43 mm)</td>
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<td>Wound 4: oval BFT on left superior-frontal (49.40 x 30.82 mm)</td>
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<td>Wound 5: oval BFT on left superior (37.59 x 21.25 mm)</td>
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<td>Wound 6: circular BFT (10.9 x 10.4 mm)</td>
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<td>20</td>
<td>Young adult (20–54 yrs)</td>
<td>M?</td>
<td>Antemortem</td>
<td>8</td>
<td>Wound 1: oval BFT on superior of left parietal (16.40 x 9.81 mm)</td>
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<td>Wound 2: oval BFT on superior of left parietal (10.32 x 13.48 mm)</td>
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<td>Wound 3: oval BFT on superior of left parietal (11.70 x 13.33 mm)</td>
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<td>Wound 4: oval BFT on superior of left parietal (16.40 x 9.81 mm)</td>
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<td>Wound 5: oval BFT on superior of left parietal (10.08 x 14.24 mm)</td>
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<td>Wound 6: circular BFT on posterior of left parietal (10.48 x 9.41 mm)</td>
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<td>Wound 7: oval BFT on superior of right parietal (11.42 x 8.62 mm)</td>
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<td>Wound 8: oval BFT on superior of right parietal (15.56 x 22.90 mm)</td>
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<tr>
<td>21</td>
<td>Adult (20+ yrs)</td>
<td>F</td>
<td>Antemortem</td>
<td>1</td>
<td>Oval BFT on medial-posterior of left parietal (22.71 x 20.31 mm)</td>
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<tr>
<td>24</td>
<td>Adult (20+ yrs)</td>
<td>M?</td>
<td>Antemortem</td>
<td>3</td>
<td>Wound 1: oval BFT (15.12 x 8.88 mm)</td>
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<td>Wound 2: oval BFT (14.70 x 10.47 mm)</td>
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<td>Wound 3: oval BFT (14.26 x 11.66 mm)</td>
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<tr>
<td>N/A</td>
<td>Adult (20+ yrs)</td>
<td>?</td>
<td>Antemortem</td>
<td>2</td>
<td>Two right posterior parietal fragments from two separate adults, each with one healed head wound (33.03 x 18.45 and 20.45 x 13.24 mm; not counted when calculating the percentage of individuals with head trauma)</td>
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Total number of head wounds on complete/nearly complete crania: 42

Total number of head wounds on cranial fragments: 2
Figure 9.3
Male cranium with ten wounds, Huari–Cheqo Wasi. (Photographs by Tiffiny A. Tung.)

Figure 9.4
Locations of wounds on crania from Huari–Cheqo Wasi (the marks are not to scale): forty-two wounds from twelve injured adults and two wounds from two parietal fragments are mapped onto the skull drawings, which show a total of forty-four wounds. (Drawings by Tiffiny A. Tung.)
evidenced by the advanced states of healing of the cranial fractures. The adult male with ten healed wounds also exhibits a possible incomplete trepanation (scraping of the outer table only) on the center of his frontal bone, which coincides with the large healed cranial fracture (Figure 9.6). This pairing of wound and (incomplete) trepanation is not uncommon in Andean skeletal samples; their co-occurrence suggests that the surgical intervention was prompted by the cranial fracture, a procedure that likely relieved intracranial pressure (see Andrushko and Verano 2008; Verano 2007:109).

**Sex-Based Differences in Cranial Trauma at Huari–Cheqo Wasi**

Both ante- and perimortem trauma are discussed together, unless otherwise noted. A greater percentage of the females exhibit head trauma relative to males: 64 percent of women (5/11 with antemortem and 2/11 with perimortem trauma for a total of 7/11 affected) and 50 percent of men (5/10, all antemortem trauma). But perhaps owing to the small sample size, the difference between males and females is not statistically significant (Fisher’s exact, \( p = 0.425; n = 21 \)). The sex of three crania could not be determined, and none of them have a cranial fracture.

Although a greater percentage of females are injured, males exhibit more total head wounds than do females: the seven affected females exhibit a total of thirteen head wounds, and the five affected males have a total of twenty-nine (see Table 9.1, Figure 9.4). This is an average of 1.86 wounds per injured female and 5.8 wounds per injured male. (If the male with ten cranial wounds is excluded, the average wound count for men is still higher than for women: 4.75.) This figure suggests that although both sexes could be involved in incidences of violence where they...
were hit repeatedly, these were much more common for men. The numerous head wounds per person also suggest that assailants acted with the intent to injure and perhaps kill those victims; the wounds were not merely sustained in accidents.

It is also possible that those with multiple wounds engaged in violence on a regular basis, accruing a number of traumas over their lifetimes. This scenario seems to be especially true for Wari men, for whom violence may have been a norm, perhaps leading to numerous separate incidences of violence, as can occur when males are repeatedly called to participate in warfare activities (e.g., raids, battles, defense of settlement, etc.).

**Head Wound Locations**

The locations of head wounds on the Huari–Cheqo Wasi crania were analyzed to explore patterns in head injury for the entire population and men versus women in particular. Because attackers act with intent and are not random in terms of the body areas that they target (Walker 1997), data on wound location can sometimes reveal information about the assailant and victim, such as whether the victim was in a defensive or offensive position. This information may shed light on the social context of the violence—for example, battlefield conflict, raids, domestic abuse, ritual fights, or corporal punishment, among other possible violent scenarios (Tung 2007).

At Huari–Cheqo Wasi, one of the seven injured females (14 percent) and two of the five injured males (40 percent) have anterior head trauma. This suggests that females were rarely facing their attackers, while men were more likely to do so. Although the sample of injured men is small, they appear to have more commonly squared off with their assailants and received repeated blows to the forehead and face as a result. The following discussion of individual head wound locations further supports the notion that males were most often facing their attackers.

The data presented in the previous sections included trauma data on nearly complete crania only, but this section on head wound location considers two cranial fragments (from two separate adults) with healed fractures to obtain a clearer view of injury patterns. If cranial fragments with trauma had been included in the previous calculations (i.e., I had cherry-picked cranial parts with head wounds), the percentage of individuals with trauma would have been overestimated.

When all head wounds on males, females, and adult cranial fragments are counted, they total forty-four. In the whole population, the greatest number of wounds are located on the superior of the skull (21/44 = 48 percent), followed by the posterior (9/44 = 20 percent), and then the anterior (7/44 = 16 percent).

To determine whether the sexes were injured in different ways, head wound locations were analyzed for each sex. For both, the greatest percentage of wounds was on the superior of the cranium: 39 percent (5/13 wounds) for women and 55 percent (16/29) for men (see Figure 9.4). This finding could suggest that those with superior head wounds were in a physically inferior position relative to their attackers (e.g., kneeling) or that they were bombarded by stones thrown with a sling (known as a honda in the Andes). But when the sexes are compared, it appears that they were in distinct contexts when their injuries were sustained. The majority of the superior wounds on males are on the left side, and on females they are on the right (see Figure 9.4). Among the men, the numerous wounds on the left apex of the skull, combined with the larger than average wound size there, suggest that they were facing right-handed attackers who may have wielded weapons capable of inflicting blunt force trauma (e.g., a wood-handled weapon with a mace stone attached to the end; Figure 9.7). The action of raising a weapon in the right hand and bringing it down on an opponent could lead to large injuries on the left superior side of the victim's head (see Webb 1995). Additionally, the three male wounds on the left lateral of the parietal could have been sustained in a similar manner (i.e., a side-swiping blow from a right-handed attacker).

While both men and women had the greatest proportion of traumas on the superior portion of the skull (though, importantly, differing by side), the second most common location of male wounds was the anterior of the skull (6/29 = 21 percent),

238 TUNG
while that of female wounds was the posterior (3/3 = 23 percent). Indeed, the posteriors of two female crania show three perimortem wounds total, and because posterior head wounds are often interpreted as defensive injuries (e.g., ducking in the face of an oncoming blow or fleeing a raid), it is notable that those injuries were sustained around the time of death—that is, lethal violence on women occurred when they were apparently defenseless or attempting to flee an attack.

In all, 62 percent of female head wounds are on the right superior and the posterior of the skull, suggesting that the victims could have been injured while acting defensively: kneeling, ducking the
head, fleeing a raid, or fending off (frontal) attack from sling stones. Males also sometimes held their bodies in defensive positions and received occasional wounds on the posterior of the skull. But the location of the vast majority of male head wounds suggests that they were more commonly in offensive positions: 76 percent of male head wounds are on the left superior or anterior of the skull, and another 10 percent are on the left lateral. This finding suggests that men were often facing their attackers and sustaining trauma from right-handed opponents on the left superior, left lateral, and anterior of the skull.

Defensive Fractures at Huari–Cheqo Wasi
There is further evidence that these skeletal fractures are related to violence and not accidents: a healed parry fracture on a left ulna. This defensive wound is typically sustained when a victim raises his or her left arm to protect their head from a right-handed attacker. Eighteen percent (11/11) of left ulnae that were at least half complete exhibit this type of fracture (Figure 9.8), the highest rate of any Wari-affiliated population studied thus far (Tung 2012). Face-to-face violence rarely leads to parry fractures on the right ulna of the victim (the vast majority of humans are right handed, so attacks typically affect the left side of the body): thus, the absence of parry fractures on the seven right ulnae is to be expected.

Weapons from Huari and Conchopata
Additional data that support the notion that many injuries were not accidental, but were sustained in war, can be seen in the weapons recovered from Huari and Conchopata. At Huari, a recently discovered cache of obsidian points may have been used in war-related activities, though hunting cannot be excluded (Figure 9.9). At Conchopata, three obsidian knives and fifty-four points, of which fifty-one are obsidian, have been recovered thus far (C. Bencic, personal communication 2012), and these, too, could have been used in warfare.

A wooden object from Conchopata has been variably identified as a weaving implement (Goldstein 2003) and as an archer’s bow (Isbell and Cook 2002; Figure 9.10). The carving on the wood suggests
**figure 9.9**
Cache of obsidian points, Huari. (Photograph by Tiffiny A. Tung.)

**figure 9.10**
Possible wooden bow, Conchopata. (Photograph courtesy of William Isbell.)
figure 9.11
A Wari warrior holding a bow and arrows and two other warriors holding hand axes or mauls, ceramic urn fragment, Conchopata. (Photograph courtesy of William Isbell and Anita Cook.)

figure 9.12
A Wari warrior holding an ax or maul, ceramic bottle, Huari. (Photograph by Tiffiny A. Tung.)
that it is a bow and not a batten used in weaving because the rough surface would have caught on the yarn when it was passed between the warp (W. Isbell, personal communication 2012). The Conchopata bow is like those carried by warriors depicted on Conchopata ceramic urns, images that strongly suggest that this weapon was part of the Wari military arsenal and not just used for hunting (Figure 9.11). Although no points were found directly associated with the bow, one obsidian projectile point fragment was recovered from the same room (C. Bencic, personal communication 2012).

Although projectile points, a bow, and imagery of warriors carrying those weapons are present at Wari sites, arrow injuries are absent among Wari skeletons. Indeed, they are exceedingly rare among Andean skeletons in general, so this absence is not an anomaly. Instead, it highlights the probability that researchers are not observing projectile point injuries because they commonly affected unpreserved soft tissue, not bone. One recently discovered exception is an apparent projectile point injury on a Paracas (Late/Final Formative) skeleton from Palpa (south-central Peru): a projectile point was embedded in the space between the ribs of an undisturbed, beheaded male skeleton (Tomasto Cagigao 2009).

Another weapon type, the stone mace (see Figure 9.7), has been found at both Huari and Conchopata, and this type was apparently the weapon of choice in Wari society (and other areas of the Andes) based on the oval-shaped cranial fractures observed in this study and many others (Andrushko and Torres 2011; Kellner 2002; Murphy 2004; Torres-Rouff and Costa Junqueira 2006). Thirty-three stone maces were recovered from Conchopata (C. Bencic, personal communication 2012), and their likely function was as a weapon attached to the distal end of a stick and used in hand-to-hand combat. This weapon may explain the numerous wounds on the left lateral and left superior portions of men's crania. Eight ax heads/mauls were also recovered from Conchopata (C. Bencic, personal communication 2012; see Figure 9.7), and Wari iconography also depicts this weapon being carried by warriors (see Figures 9.11 and 9.12).

One of the most impressive weapons recovered from the Wari heartland is a solid copper-bronze
mace shaped like a pine cone (Figure 9.13). The excavation team led by William Isbell and Anita Cook recovered this weapon from Conchopata, and Isbell (personal communication 2010) suggests that it was cast and then likely tied to a club or a rope. Used as a weapon, this mace could have caused serious blunt force trauma to the skull.

**Discussion**

**Comparing Trauma Rates in the Middle Horizon**

Previous studies show that 23 percent of adults (10/44) at Conchopata exhibit antemortem cranial trauma (no perimortem trauma has been identified; Tung 2012), so the overall antemortem cranial trauma rate in the Wari heartland is 27 percent (20/73). This rate is statistically similar to frequencies documented at Berringa and La Real (31.5 percent, n = 143) in the Majes Valley of southern Peru (Tung 2007), among Nasca-Chakipampa (i.e., Wari-affiliated) burials in the Las Trancas Valley of Nasca (24 percent, n = 17; Kellner 2002), and among Tiwanaku-affiliated burials in Azapa (18 percent, n = 89; Fouant 1984) and San Pedro de Atacama (36 percent, n = 44; Torres-Rouff and Costa Junqueira 2006). (See Table 9.2 for cranial trauma frequencies among Andean Middle Horizon samples and the p-values for each comparison to the Wari heartland.) The Wari heartland cranial trauma rate is significantly lower than that of the Middle Horizon burials at Uraca in the lower stretches of the Majes Valley (Koontz 2011) but significantly higher than those of several other contemporaneous skeletal samples ranging from northern Peru to Cusco and to northern Chile (Table 9.2). This variability in cranial trauma rates suggests that conditions for warfare were contingent upon local circumstances and upon Wari (or Tiwanaku) policies and practices in a region.

**Comparing Trauma Rates in the Wari Heartland**

In a comparison of the Conchopata and Huari–Cheqo Wasi samples, Conchopata adults have smaller wounds, and fewer of the injured Conchopata adults exhibit more than one head wound (Table 9.3). This comparison suggests that Conchopata individuals were less likely to be victims of vicious attacks that resulted in numerous blows to the head. It is also possible that they were less likely to suffer from injury recidivism.

Like the burial sample from Huari–Cheqo Wasi, the Conchopata sample shows no significant difference in cranial trauma frequency between the sexes (Fisher’s exact, p = 0.519, n = 39; Tung 2012). While two of the three juveniles at Huari–Cheqo Wasi have head trauma, none of the thirty-nine children (under fifteen years old) at Conchopata display any head wounds, suggesting that violence affected children much more commonly at the imperial capital city. (Child trophy heads from Conchopata are excluded from this discussion, as they are a distinct subgroup.)

**Higher Rates of Violence among Wari Elites**

Although the Huari–Cheqo Wasi skeletal sample is small and dates to the latter part of the Middle Horizon, it is an important collection that provides the only view of health and lifestyle at the capital city of the Wari empire. The current data show that this elite mortuary sector at Huari exhibits the highest rate of head trauma among Wari heartland groups studied thus far. Moreover, an intriguing pattern of violence-related trauma is emerging—the higher-status sites contain significantly more individuals with violent injuries than do smaller sites: 50 percent of individuals at Huari–Cheqo Wasi (12/24), 23 percent at Conchopata (10/44), and none at Trigo Pampa and Nawinpukio (0/5). Even with the small sample sizes, these are statistically significant differences in cranial trauma frequencies. Huari–Cheqo Wasi adults exhibit significantly more cranial fractures than do adults at Conchopata (Fisher’s exact, p = 0.022, n = 68) and nearly significantly more than the Trigo Pampa and Nawinpukio combined samples (Fisher’s exact, p = 0.052, n = 29). This finding might suggest that elites and intermediate elites at sites like Huari–Cheqo Wasi and Conchopata, respectively, were more likely to be involved in warfare and other violent acts. Perhaps violent actions in war helped to establish and maintain elite status within Wari society, which hints at the possibility that militaristic
### Table 9.2

Adult cranial trauma frequencies among Middle Horizon skeletal populations in the Andes

<table>
<thead>
<tr>
<th>REGION</th>
<th>CULTURE OR SITE</th>
<th>ADULTS WITH CRANIAL TRAUMA</th>
<th>COMPARISON WITH WARI HEARTLAND (P VALUE)</th>
<th>REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ayacucho, Peru</td>
<td>Wari (Conchopata)</td>
<td>10/44 (22.7%)</td>
<td>N/A</td>
<td>Tung 2012</td>
</tr>
<tr>
<td>Ayacucho, Peru</td>
<td>Wari (Huari–Cheo Wasi)</td>
<td>12/24 (50.0%)</td>
<td>N/A</td>
<td>Tung, this volume</td>
</tr>
<tr>
<td>Ayacucho, Peru</td>
<td>Wari (Nawinpuko)</td>
<td>0/3</td>
<td>N/A</td>
<td>Tung, this volume</td>
</tr>
<tr>
<td>Ayacucho, Peru</td>
<td>Wari (Trigo Pampa)</td>
<td>0/2</td>
<td>N/A</td>
<td>Tung, this volume</td>
</tr>
<tr>
<td>Cusco, Peru</td>
<td>Qotakalli, Ak’awillay, Choquepuklo, and</td>
<td>3/36 (8.3%)</td>
<td>0.017</td>
<td>Andrushko and Torres 2011</td>
</tr>
<tr>
<td></td>
<td>Cotocotuyoc sites</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cusco, Peru</td>
<td>Pikkillacta</td>
<td>1/2 (50.0%)</td>
<td>0.484</td>
<td>Verano 2005</td>
</tr>
<tr>
<td>Andahuaylas, Peru</td>
<td>Turpo site</td>
<td>2/22 (9.1%)</td>
<td>0.061</td>
<td>Kurin 2012</td>
</tr>
<tr>
<td>Majes Valley, Peru</td>
<td>Wari affiliated (Beringa and La Real)</td>
<td>45/143 (31.5%)</td>
<td>0.325</td>
<td>Tung 2007</td>
</tr>
<tr>
<td>Majes Valley, Peru</td>
<td>Wari affiliated (Uraca)</td>
<td>19/32 (59.4%)</td>
<td>0.002</td>
<td>Koontz 2011</td>
</tr>
<tr>
<td>Las Trancas Valley, Nasca,</td>
<td>Nasca-Loro (Nasca burials with local</td>
<td>5/81 (6.2%)</td>
<td>0.000</td>
<td>Kellner 2002</td>
</tr>
<tr>
<td>Peru</td>
<td>ceramics: El Pampon, La Marcha, Los</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medanos)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Las Trancas Valley, Nasca,</td>
<td>Nasca-Chakipampa (Nasca burials with</td>
<td>4/17 (23.5%)</td>
<td>0.504</td>
<td>Kellner 2002</td>
</tr>
<tr>
<td>Peru</td>
<td>Wari goods: El Pampon, La Marcha, Los</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medanos)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasca, Peru</td>
<td>Nasca Middle Horizon</td>
<td>0/7</td>
<td>0.122</td>
<td>Tomasto Cagigao 2009</td>
</tr>
<tr>
<td>Azapa, Chile</td>
<td>Maisas, Cabuza, Tiwanaku</td>
<td>16/89 (18.0%)</td>
<td>0.107</td>
<td>Fouant 1984</td>
</tr>
<tr>
<td>San Pedro de Atacama, Chile</td>
<td>Solcor 3</td>
<td>10/92 (10.9%)</td>
<td>0.006</td>
<td>Torres-Rouff and Costa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Junqueira 2006</td>
</tr>
<tr>
<td>San Pedro de Atacama, Chile</td>
<td>Coyo 3</td>
<td>16/44 (36.4%)</td>
<td>0.208</td>
<td>Torres-Rouff and Costa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Junqueira 2006</td>
</tr>
<tr>
<td>Bolivian altiplano, Uyuni</td>
<td>Juch’uyampa Cave</td>
<td>1/3 (33.0%)</td>
<td>0.627</td>
<td>Tung, personal</td>
</tr>
<tr>
<td>salt flats</td>
<td></td>
<td></td>
<td></td>
<td>observation 2004</td>
</tr>
<tr>
<td>Taraco Peninsula, Lake</td>
<td>Chiripa</td>
<td>0/5</td>
<td>0.217</td>
<td>Blom and Bandy 1999</td>
</tr>
<tr>
<td>Titicaca, Bolivia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jequetepeque, North Coast,</td>
<td>Pacatnamu (ca. AD 500)</td>
<td>4/30 (13.0%)</td>
<td>0.098</td>
<td>Phillips 2009</td>
</tr>
<tr>
<td>Peru</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sican, Peru</td>
<td>Sican capital (La Leche)</td>
<td>1/32 (3.1%)</td>
<td>0.002</td>
<td>Farnum 2002, 2006</td>
</tr>
<tr>
<td>Sican, Peru</td>
<td>El Brujo, Chicama</td>
<td>2/27 (7.4%)</td>
<td>0.025</td>
<td>Farnum 2002, 2006</td>
</tr>
</tbody>
</table>
actions provided a path to power for certain individuals. That is, the making of warriors may have been viewed as a means for status enhancement, both for the individual men and for their communities. Conversely, those born into high-status families may have been expected to engage in warfare. In either case, violence appears to have been constructed as a valued way of being in Wari society. Those who engaged in it, and survived, were interred in the higher-status sites and tombs, and they were celebrated in rituals and represented in iconography, as will be discussed.

**Military Abductions: The Wari Trophy Heads**

Additional evidence for militarization in the Wari heartland can be seen in the thirty-one human trophy heads from Conchopata, an important sample that reveals that Wari warriors engaged in battles, raids, and other acts of war. The trophy heads were prepared from recently deceased bodies, not antique skulls that could have been taken from long dead ancestors, and the trophy head victims were primarily adult men, 42 percent of whom exhibit cranial trauma (Tung 2008). The trophy heads were recovered from uniquely constructed D-shaped ceremonial spaces, and they were found with sacrificed camelids and beautifully decorated ceramics that depict militaristic themes (Ochatoma Paravicino and Cabrera Romero 2002). This find shows how the militaristic acts were celebrated and integrated into ritual life and further demonstrates the value placed on human trophies of war and the warriors who abducted them.

Strontium isotope analysis reveals that the vast majority of the trophy head victims came from geological locales outside of the Ayacucho Basin (the Wari heartland), suggesting that they were not, for example, trophy icons of local warrior heroes or local criminals who were executed; rather, their nonlocal status suggests that they were foreign enemies of the Wari state (Tung and Knudson 2011). As argued elsewhere, the collective data on trophy heads and associated iconography showing Wari warriors and deities holding captives and trophy heads suggest that Wari military personnel traveled outside of the Wari heartland to engage in headhunting and occasionally to abduct live captives (Figures 9.14 and 9.15; Tung 2012).

While abducting prisoners and taking heads sometimes may have been a goal in itself—a tactic
figure 9.14
A Wari warrior wearing a trophy head, image from a ceramic urn fragment, Conchopata. (Drawing courtesy of José Ochatoma.)

figure 9.15
The Wari Staff Deity holding a bound captive and the Winged Profile Attendant holding a trophy head, ceramic urn fragment, Conchopata. (Photograph courtesy of William Isbell and Anita Cook.)
to terrorize and subdue other communities and to provide warriors with a means for status enhancement and a way of stratifying society—captive-taking was not necessarily the only objective of war. Rather, the expansionist nature of the Wari and the fact that they established administrative centers and built new irrigation canals and agricultural terraces in peripheral regions (Anders 1986; Schreiber 1992; Williams 2002) suggest that they were also focused on annexing land and resources. This process may have sometimes involved military actions, and when it did, warriors apparently engaged in prisoner capture. In other words, taking captives and war trophies was integrated into the larger project of making war, and subsequently, the ritual ceremonies in which human war trophies were displayed served to more fully integrate war-making into other facets of social and ritual life.

To conceive of war in this way breaks down the narrow perception that war can be about one thing only. This approach also reveals how war is not an isolated act divorced from other aspects of social, political, and ritual life. What I am arguing for is a more integrated perception of war: a way of seeing war as part of the Wari strategy for expansion and rule, a way for warriors to distinguish themselves from others in society, a way for ritual specialists and master artisans to perform their unique identities and set themselves apart from others, and a way for political elites to legitimize their authority over internal and external communities.

**Warriors and Militarism Depicted in Wari Iconography and Figurines**

Iconographic data from Huari and Conchopata, when evaluated in light of the skeletal trauma and trophy head data, further support the notion that warfare occurred and that Wari society was militarized at the large heartland sites. Ceramics show male warriors (Ochatoma Paravicino 2007) holding various types of weapons, including a bow and arrows and a hand ax (see Figures 9.11 and 9.12). Many of those depictions come from fine ware ceramics or oversized urns that were not produced at the household level (Cook and Benco 2002). Rather, the oversized urns would have been produced in large kilns and decorated by master artisans under the auspices of the Wari state (Isbell and Cook 2002). The creation of a special artisan class tasked with creating fine ceramics with militaristic imagery would have served to promote militarization and celebrate military prowess. Evidence that a special class of artisans created the ceramics can be seen in the standardization among images, which are so similar, in fact, that some imagery has been interpreted as being created by the same master artisan (Isbell and Cook 2002). Moreover, many of the Conchopata ceramics with militaristic imagery were found in ritual offerings in which they were smashed and combined with animal sacrifices and human trophy heads (Isbell and Cook 2002; Ochatoma Paravicino and Cabrera Romero 2002). Those offering contexts would have heightened the symbolic power of the military art and inextricably linked ritualism and militarism, a union that likely served to strengthen and normalize notions of Wari militarism by bundling its representations with valued ritual practices. Furthermore, the ceremonial context in which militaristic iconography and trophy heads were used would have served to celebrate militaristic exploits, communicating to Wari society that those violent actions, and the warriors who implemented them, were valued. The highly standardized Wari garments that have been recovered from other Wari sites, and the iconographic depictions of warriors wearing those Wari-style tunics, were also products and symbols of state largess and state ideology (Stone-Miller 1992), an ideology that stressed the importance of a military class and their warfare activities.

The Wari heartland was not the only region where Wari warriors were depicted with high levels of standardization. In the Cusco region at the Wari site of Pikillacta are figurines of Wari warriors carrying weapons (always in the right hand) and wearing similarly styled tunics and headdress; figurines of prisoners with bound hands and hair that has been chopped off are also found there (Arriola Tuni and Tesar 2011). These standardized tunic styles and weapons on the warrior figurines suggest that they were uniforms of office or status (Arriola Tuni and Tesar 2011) or at least attempts to establish
material markers of such. The specific weapons and shields that were grouped with particular uniform styles further suggest the existence of "fighting units, such as club wielders, atlatl dart throwers, sling stone throwers, and the like" (Arriola Tuni and Tesar 2011:30), a categorization of warriors and weapons that is similar to what is observed on the Conchopata ceramics (Ochatoma Paravicino and Cabrera Romero 2002; Ochatoma et al. 2008). Large skeletal samples from Pikillacta do not exist, so we do not know if individuals at Pikillacta actually engaged in warfare. Two Pikillacta individuals have been examined for trauma, however, and one of them was affected (Verano 2005).

Thus, unlike the Wari heartland, where various datasets similarly point to evidence of militarism and warfare (skeletal trauma; trophy heads; a dearth of men at the site, suggesting that some died while away on military campaigns [Tung 2012]; warrior iconography; weaponry), the Wari hinterland site of Pikillacta has not yet revealed evidence of militarism and warfare. But at the nearby Wari site of Cotocotuyoc, southeast of Cusco city, a male trophy head with ante- and perimortem trauma and cut marks was recovered (Andrushko 2011), and though its style is distinct from those found at Conchopata (Tung 2008), it does show similarities. For example, at both sites the trophy heads were found in ritual spaces along with camelid bones and ceramics, and both regions show iconographic evidence of trophy-taking (Andrushko 2011; Arriola Tuni and Tesar 2011). The Cotocotuyoc trophy head suggests that captive-taking and violence occurred in this region, but the overall low cranial trauma rate during the Middle Horizon in the Cusco area (8.3 percent for all adults, 19.0 percent for males; Andrushko 2011) and the single trophy head suggest that those militaristic activities were rare relative to the Wari heartland.

As this case study demonstrates, multiple lines of evidence should be used when evaluating whether warfare occurred and to what extent warfare and militarism were important parts of an ancient society. In short, data on violence-related skeletal trauma, trophy heads, weapons, demographic profiles, and militaristic iconography along with archaeological data from larger geographical areas that show the expansionist nature of a cultural group should all be evaluated. Iconography alone should never be used as an indicator of warfare; it holds the potential to be much too biased in its representations of war and warriors (Verano, this volume). This bias has especially been a concern in Moche studies, where military iconography dominates Moche ceramics and wall murals. Moche scholars still debate how accurately those images reflect the frequency and kinds of warfare practiced in Moche society (Verano, this volume). As John Verano (this volume) notes, "Moche art clearly celebrates militarism," as does Wari art, but as I (and others) have argued, militaristic iconography alone does not mean that Wari warfare (or Moche warfare) actually occurred, nor does it inform us about the kind of battles, if any, that actually occurred in Wari (and Moche) society. For that kind of information, investigators must look to more direct evidence, such as violence-related skeletal trauma and the presence of human war trophies (Walker 2001), as has been presented here and by others in their studies of other Andean communities. For example, researchers have similarly found human trophies in Moche society (Bourget 2006; Verano 1995), and at the three Moche sites of El Brujo, El Castillo, and Pacatnamu, cranial trauma totals 27 percent (18/66; Phillips 2009), a rate that is identical to the Wari heartland (20/73 = 27 percent). Although visual culture alone cannot directly speak to issues of warfare frequency and intensity, it can provide glimpses into how a society wanted to portray their warriors and war-related activities. In the case of the Wari, warriors appear to have been revered and celebrated, a portrayal that helped to ensure the development of a warrior class, and community support for them, both materially and ideologically.

I do not want to suggest that skeletal trauma, trophy heads, weapons, demographic profiles, administrative sites in peripheral regions, and defensive architecture are not without their interpretive problems in the study of war. Violent trauma can stem from domestic violence or community.
brawls, not warfare; trophy heads can come from local warrior heroes or ancestors; weapons can be ceremonial; demographic profiles can be skewed because of differential preservation rates or mortuary practices that placed some individuals in unexcavated sectors; distant administrative sites may have been peacefully established through diplomatic processes, not military subjugation; and defensive architecture may suggest a concern for war but does not reveal whether warfare actually occurred. Taken together, however, these data sets and deeper analyses of them (e.g., strontium isotope analysis to establish local versus foreign status and distinguishing between ante- and perimortem cranial trauma) can facilitate keen insights into the frequency and intensity of warfare and reveal how a community sought to portray war and warriors.

The Spread of Violence: Militarism and Social and Domestic Violence

In addition to warfare in which men were seriously injured and Wari state enemies were beheaded, violence against women was also common at Huari–Cheqo Wasi and Conchopata. Were they injured in combat, raids, or domestic disputes? Wari women probably did not engage in war as combatants because their head wound locations do not indicate violent offensive acts: females rarely exhibit anterior head wounds (one at Cheqo Wasi and none at Conchopata). Instead, the majority of wounds among Conchopata and Huari–Cheqo Wasi women can be described as defensive: most at Conchopata are on the posterior cranium (Tung 2012), and at Cheqo Wasi they are on the right superior and posterior. Could those defensive cranial fractures suggest that these women were raid victims, perhaps abducted from distant villages and later incorporated into Wari heartland settlements? Strontium isotope analysis suggests not. Only one of thirteen analyzed female skeletons from Conchopata exhibits a nonlocal strontium isotope signature (Tung and Knudson 2011), and that one foreign female was a unique case, a likely sacrifice victim buried in front of a ritual D-shaped structure (Tung 2012). One injured female, although her strontium isotope ratio is local, may have been of nonlocal status or born to a nonlocal mother (Tung 2012); she had a unique cranial modification style (annular) and was the only individual who belonged to haplogroup D (which reveals the maternal line; Kemp et al. 2009). Thus, the women with head wounds were either injured when they were abducted from other settlements with similar geological makeups to Conchopata, or they were attacked in their home site of Conchopata. As of yet, we have no strontium isotope data from Huari–Cheqo Wasi, and although the women’s burial treatment in high elite tombs suggests that they were local, this hypothesis has yet to be tested.

The violence against (local) females at both sites does suggest that they could have been beaten by local kin or community members or attacked by raiders from other settlements or both. Violence against females and violence in other sectors of community life, particularly when other militaristic actions are being carried out, is not unusual. Research by Carolyn Nordstrom (1998) shows a strong correlation between times of war, or war preparation, and other acts of violence in a community. Thus, even if the female trauma was not a direct result of warfare, its high frequency at elite Wari sites suggests a culture of violence that resulted from military training and the celebration of military exploits. The aggression and fighting skills that are taught and encouraged in the making of warriors can spread to other areas of life (see Nordstrom 1998). Indeed, global studies show that wartime is associated with dramatic increases in domestic and social violence (Nordstrom 1998:150), and in the modern United States, rates of domestic abuse by military personnel are three to five times higher than in the civilian population (Lutz 2004). Although these are modern data, the patterns may be nearly universal, showing that, cross-culturally, socialization for military violence can contribute to physical aggression in other contexts. This may well have been the case in elite Wari communities where warriors resided. Thus, some of the female (and male) injuries could have been inflicted both by enemies and members of the victims’ own community.
Conclusions: Promoting a Warrior Identity in the Production of Militarism and War

This chapter began by reiterating one of the volume's important questions: how was war produced and reproduced in Pre-Columbian America? The case presented here suggests that the creation and promotion of a warrior identity is integral to the production and reproduction of war. The production of warriors is not an isolated process but involves other facets of society; it requires that other community members dedicate labor and resources to the cause. In the case of Wari, the creation of warriors also required ceramic specialists to produce the medium upon which militaristic messages could be displayed, and it required the skills of other master artisans to create the warrior imagery itself. Ritual specialists were also integrated into warfare efforts, for they were the gifted ones who were sometimes tasked with transforming captives into trophies of war. Weapons were also made, many at the household level, but others, like the bronze cone-shaped mace, would have been produced by metallurgists who would have needed to independently obtain, or collaborate with others to obtain, the raw materials necessary for bronze production.

The militaristic messages and military preparations in the Wari heartland were apparently not in vain; they seem to have coincided with warfare. More than a quarter of the adult sample in the Wari heartland exhibit violence-related trauma, and we have clear evidence for captive-taking and head-hunting, practices indicative of warfare. The violent actions of war were not isolated incidences disconnected from the rest of Wari society. Rather, as I have argued, the raids, battles, and internal social violence occurred within a larger cultural sphere of militarization. Part of this militarization included the creation of a warrior class, not just the presence of occasional fighters. The generally widespread violence, offensive violent acts by men from the capital city, and presence of thirty-one human trophy heads at Conchopata, many of which were from foreign lands, demonstrate that violent encounters were not rare or singular events. Instead, Wari warriors—a particular class of men—were trained to engage in violence on a regular basis.

The training of warriors would have normalized physical aggression for men. Violence could thus been seen as a behavioral norm, something that was inculcated into them through discourse, imagery, and observations of other men. As Wari iconography shows, a warrior identity that emphasized aggressiveness (carrying weapons, taking trophy heads, and capturing prisoners) was celebrated in art and ceremonies. This valorization served to turn men into warriors, likely in the service of state goals, but also for their own social advancement. The observation that those with violence-related trauma are from elite sites suggests that violence, particularly in the context of militarism, may have been a path to elite status for many men. The link between militaristic actions and increasing status is another way that militarization was tightly woven into society, normalizing it in the process.

To suggest that aggressive behavior in men can become a norm does not presume that it is a natural outcome of their genetic constitution. I agree with Helle Vandkilde's (2003:137) critique of the "myth of the courageous warrior," the common assumption that the brave, violent male warrior is a pre-discursive ideal, a foregone conclusion. The actions of warriors and their belligerent behavior may not have always been valued and celebrated. Rather, societal norms that connect masculine identity with the aggressive qualities of a warrior must be constructed and maintained, sometimes in the face of competing discourses. For the Wari, significant data suggest that aggressiveness by warriors was socially promoted and socially valued.

Taken together, the osteological, artifactual, and iconographic data suggest that a military class developed out of a Wari imperial agenda of expansion, while simultaneously helping to produce imperialistic goals. In other words, the Wari expansionist agenda required warriors to carry out military goals, while the warrior class itself further promoted expansionist desires through its presence in life and in art. Those within the military class likely played an active role in shaping and perpetuating state...
institutions and policies, particularly as they related to expansionist goals and the abusive physical treatment of those who were deemed enemies of the Wari empire. Thus, we can envision how the process of making warriors leads to making war and, simultaneously, how acts of war contribute to the creation of warriors.

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NOTE

1 It is impossible to determine whether an individual is exactly fifteen years old at the time of death or twenty years old, the recommended age cutoff for the “young adult” category (Buikstra and Ubelaker 1994). Rather, bioarchaeologists typically assign age ranges (e.g., 5–8 or 18–22 years old), and when they cross-cut two (arbitrarily defined yet standardized) age categories, a final evaluation regarding which age grade a skeleton belongs to must be made. In this study, all but one case was clearly in the adult category; there was one female aged fourteen to seventeen years old, and she was designated as “over fifteen years old” in the final analysis. She had a fully erupted left second maxillary molar with a wear score of 4, and the left third molar development score was 8–9. (Right maxillary molars were lost postmortem.)

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