

Interpreting Conflict in the Ancient Andes

Implications for the Archaeology of Warfare¹

by Elizabeth Arkush and Charles Stanish

This article critically assesses recent interpretations of premodern defensive architecture and militaristic themes in the archaeological record, using the Andes as a case study. While archaeologists have proposed intriguing alternative hypotheses that call into question the existence of war in the past, much evidence for conflict has been incautiously dismissed. This stance has seriously skewed our understanding of the development of premodern societies. It is suggested here that because archaeologists underutilize ethnographic and historical evidence, the architecture of premodern defenses is poorly understood and many arguments used to dismiss military interpretations are incorrect. These misperceptions are addressed with empirical observations based upon known analogies from ethnography and history. The problematic dichotomy of "ritual battle" and "real war" is discussed, and the article concludes with a reassessment of the evidence for warfare in a few controversial Andean contexts in terms of more reliable material criteria for recognizing the existence of war and peace in the archaeological record.

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The present paper was submitted 22 VIII 03 and accepted 10 VI 04. [Supplementary material appears in the electronic edition of this issue on the journal's web page (<http://www.journals.uchicago.edu/CA/home.html>).]

1. We thank the anonymous reviewers, whose comments were very helpful in revising this article, as well as the many colleagues and friends who gave their time and advice. We are especially grateful

The problem of violent conflict in the premodern world is one of enduring interest for anthropologists and comparative historians both theoretically and empirically. Indeed, warfare appears in the first written histories around the globe as a primary concern of both indigenous intellectuals (Maya, Aztec) and European chroniclers (Andes, Oceania). Anthropologists and archaeologists debate how far back patterns of violence can be traced in human societies, how common and how varied warfare is, the extent to which early complex societies were conceived in the fire of war, and how eons of war and peace have shaped our social, cultural, and political patrimony (Carneiro 1970, 1981; Ferguson 1984, 1990; Fried, Harris, and Murphy 1968; Haas 1990, 2001; Keeley 1996; Kelly 2000; Lambert 2002; Otterbein 1970, 1994; Reyna 1994; Reyna and Downs 1994; Thorpe 2003; Toynbee 1950). The relevance of these complex questions to a modern world plagued by violence could hardly be greater. To investigate them we need archaeological evidence about the prevalence, intensity, and nature of warfare in past societies. Yet the archaeological interpretation of violent conflict in many parts of the world is plagued by epistemological and methodological problems that have never been satisfactorily addressed.

From this perspective, the Andean area is particularly problematic. Late Andean prehistory was profoundly shaped by warfare. Spanish conquistadors encountered huge Inca armies supported by a superb logistical framework of roads, supply depots, secondary centers, and forts (D'Altroy 1992, 2002; Hemming 1970; Hyslop 1984; Rowe 1946). In early Spanish chroniclers' accounts, based on Inca oral histories, military might was a cornerstone of imperial power. The empire had emerged from military victories over some groups, the peaceful submission of others persuaded by the threat of military reprisals, and the violent suppression of several rebellions. Inca histories also describe a period of frequent warfare before the empire arose in which local war leaders battled each other for plunder or political dominance (Cobo 1979 [1653]:96-97 [12.1]; Guaman Poma 1980 [1613]:52). Quechua and Aymara, the principal indigenous languages of the Andean sierra, have ample native vocabularies of militaristic terminology (Espinoza 1980:179; Stanish 2003:297). In short, when Europeans arrived in the sixteenth century, they found indigenous Andean cultures steeped in military experience, strategies, and expertise.

Nevertheless, many Andean archaeologists are reluctant to conclude that the particular sites or cultures they study were involved in military conflict in prehistory.

to Mark Allen, Rick Chacon, John Papadopolous, Joyce Marcus, Ivan Ghezzi, Elsa Redmond, Bruce Owen, Nicholas David, and Petya Hristova for enlightening conversations on the topic and/or helpful research suggestions. Ben Orlove provided useful editorial comments. Early and partial versions of this article were presented at the 2001 meetings of the Society for American Archaeology and at the Cotsen Institute of Archaeology at the University of California, Los Angeles, in 2003, and we thank the participants in those meetings, including the discussants at the SAA session, Jonathan Haas, and Steven LeBlanc, for their comments. We also thank Lawrence Cohen for reading and providing comments, as well as Aimée Plourde and Julia Sanchez for comments on an early draft.

Sites that appear defensive or defensible have been assigned exclusively ceremonial, social, or domestic functions. Warfare depicted in iconography or described in historical documents is considered "ritual" rather than "real." Debates swirl over whether human trophies and the remains of sacrifice victims constitute evidence of warfare or of "ritual battle." The result is a great deal of confusion about what archaeological evidence does in fact indicate warfare or peace. The same problems of interpretation have occurred in ongoing or recent debates in the archaeological literature for other regions of the world such as the American Southwest, the Maya region, Neolithic Europe, and the eastern Woodlands of North America (see overviews by Haas and Creamer 1993, 1997; Keeley 1996; LeBlanc 1999; Marcus 2000; Webster 1977, 1993, 2000; Wilcox and Haas 1994; and papers in Mainfort and Sullivan 1998).

We recognize that conflict of varying intensity has occurred throughout prehistory, including in the Andes, and we believe that there have also been significant periods of low conflict or peace (Carneiro 1994, Haas 2001). However, we argue that Andean anthropologists have often been too quick to dismiss warfare as a valid explanation for the empirical patterns seen in the archaeological record. In this article, we describe the main arguments against militaristic explanations in the prehistoric Andes. These same themes appear frequently in the archaeological literature in many other regions of the world. We then attempt to correct these arguments by drawing on historical or ethnographic documents that describe combat in premodern settings. We discuss what architectural features do or do not indicate a defensive site function and take issue with the false dichotomy between ritual and warfare. Finally, we reassess the topic of "ritual battle" from both a comparative perspective and an Andean one and conclude that more care must be taken in invoking it as an analogy. We stress that ethnographic and historical analogy, not common sense or deductive reasoning, is our best guide for assessing whether conflict is detectable in any particular archaeological context.

Current Interpretations in the Andes

Although the interpretation of evidence for war is a general problem in archaeology (Vencl 1984), it is also a problem specific to the Andes. Comparatively less archaeological research has been done in much of the Andes than in other areas of prehistoric state development, so evidence for warfare aside from fortifications is often scanty. The distinction between ritual combat and militaristic warfare has special resonance for the Andes, where a form of "ritual battle" called *tinku* has been practiced from at least the Inca period until the present. Andean iconographic traditions portray highly ritualized aspects of combat, suggesting to some scholars that Andean militarism was ritual rather than political in nature. Finally, with the notable exception of Topic and Topic (1987, 1997a), few Andeanists have foregrounded the issue of interpreting conflict or treated it systematically.

Many of the interpretations we question are presented as comments or asides in publications focused on other themes or as part of unpublished presentations. For these reasons, the following discussion is centered on lines of argument rather than on individual scholars.²

Controversy about the role of prehistoric warfare surrounds many different kinds of societies from the entire area of western South America, and controversial sites span the entire cultural sequence. The cultures in question include small-scale, decentralized societies without archaeologically visible elite leadership such as the farmer and herder communities of highland Junín, the builders of Early Horizon walled hilltop sites in the coastal Casma, Santa, and Nepeña valleys, the Moche culture, with its highly elaborated status distinctions, complex iconography, and monumental architecture, and the vast and populous Inca empire, built on an economic, military, and ideological infrastructure of control and expansion (fig. 1). For all of these cultures, militaristic explanations have been rejected for two primary reasons: the nature of the defensive architecture and the evidence for ritual or ritualized conflict.

First, warfare is often rejected as an explanation because of apparently inadequate or problematic site defenses. Topic and Topic (1987) have argued that Andean defensive sites must be distinguished by unequivocal criteria such as parapets, slingstones, and ditches or dry moats (see also Hyslop 1990:chap. 6 and Morris 1998 for weapons and barracks as criteria). Other scholars have implicitly followed this conservative strain of interpretation, leaving many Andean sites in a dubious category. For instance, it has been proposed that sites that are only partially encircled by walls offer no protection against a determined enemy. Topic and Topic (1987:50) note that at the nucleated mesa-top center of Marcahuamachuco, barriers formed by the back walls of long residential galleries leave many access routes to the top, suggesting that they could not have been intended as defenses. Parsons, Hastings, and Matos (2000:167) apply the same argument to smaller, incompletely walled hilltop sites of the Junín area, as does Ellesen (1972) for Inkallaqta in Cochabamba. Likewise, fortified sites with multiple doorways in their walls appear to offer easy entry to attackers. Archaeologists have questioned the defensibility of multiple doors at sites such as the Early Horizon center of Chankillo in the Casma Valley, with its thick walls and baffled gates (Topic and Topic 1997a:569), Late Intermediate Period Pacatnamú in the Jequetepeque Valley, with its triple wall-and-ditch defenses (Donnan 1986:59), despite evidence for a mass sacrifice of male prisoners at the site (Verano 1986), the Inca hill-fort complex of Pambamarca in Ecuador (Hyslop 1990:166, 187), and many of the *pukaras* or hilltop forts that dotted the politically decentralized Late Intermediate Period land-

2. There is a diversity of opinion among Andean archaeologists, and the rejection of militaristic explanations we describe is not an orthodoxy. Many other Andean archaeologists do readily interpret archaeological evidence or site patterns as indications of warfare.

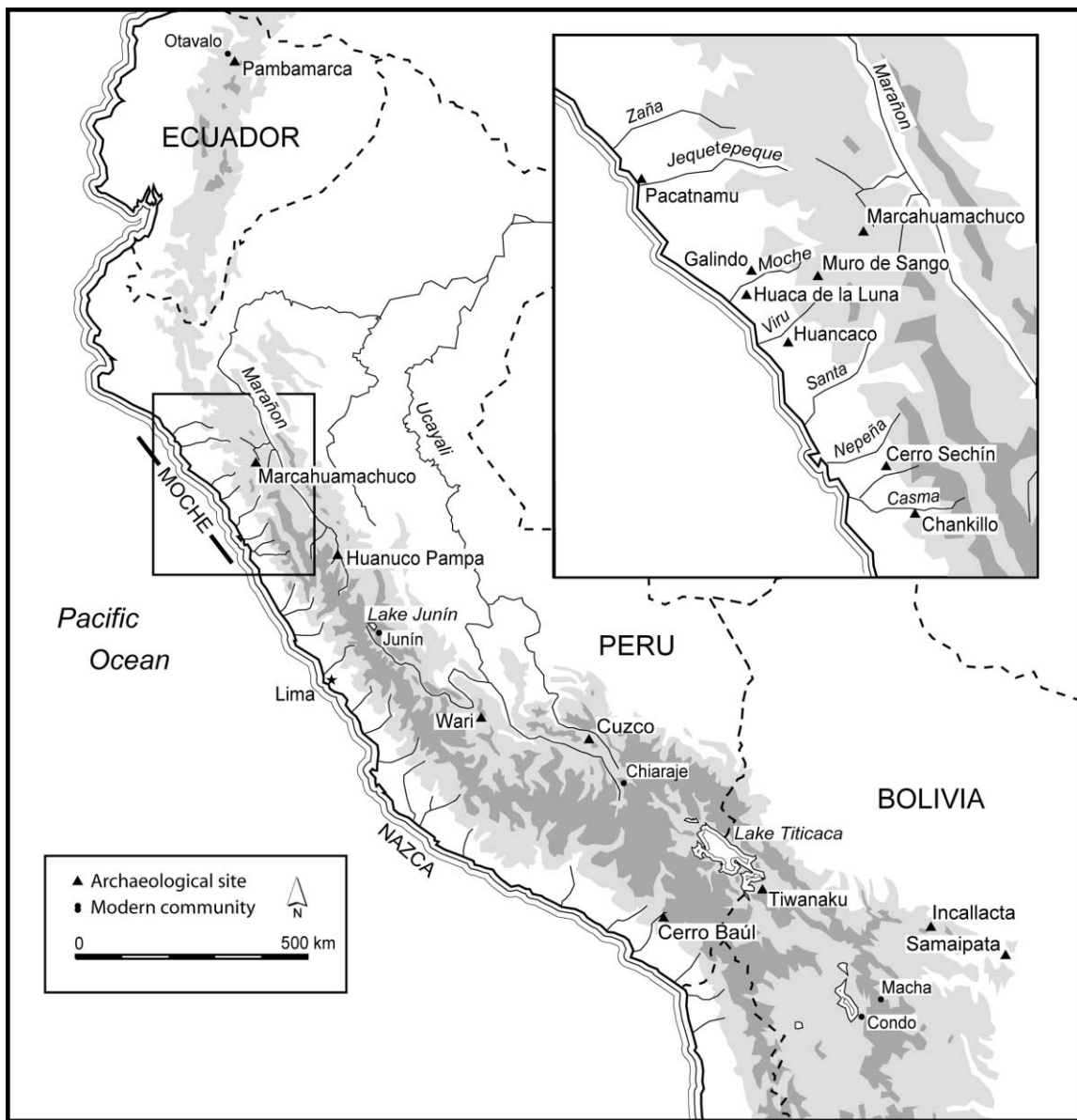


FIG. 1. *The Andes, showing sites mentioned in the text.*

scape in the central Andean highlands (Hyslop 1976: 110–14).

Often, where there are walls at Andean sites, they lack a parapet (a raised ledge protecting a defender who stands behind or on top of the wall). Topic and Topic (1987:48) suggest that high, unparapeted walls would have tended to trap defenders blindly inside without any opportunity to fire projectiles at attackers. They use this argument to question the defensive intent of Marahuamachuco and Early Horizon walled hilltop sites of the Nepeña and Santa Valleys, as well as walled elite compounds in general (Topic and Topic 1987:49, 50; 1997a:570), and Rawls (1979:92) makes the same point for the high, thick walls

that partially encircle the Middle Horizon capital of Wari.

Andean sites or walls may appear nondefensive for several other reasons. Sometimes a defensive interpretation for a site is rejected because the walled area has no evidence of occupation (Parsons, Hastings, and Matos, 2000:167; see Belovich 1998:175 and Milner and O'Shea 1998:188 for the same argument applied to Late Woodland fortified hilltop sites of eastern North America) or because the site is so far from settlements as to have been inconvenient as a refuge and useless for guarding houses, fields, and goods (Topic and Topic 1997a:570). Many Andean walled sites, such as the Late Early Ho-

rizon "forts" of the Santa and Nepeña Valleys, also lack internal sources of water, a problematic feature because they could not have withstood a siege of more than a day or two (Topic and Topic 1997a:570). "Great walls" like the 74-kilometer-long, discontinuous wall on the north rim of the Santa Valley (Wilson 1988:251–59), the partly parapeted wall complex of the upper Virú Valley, and the shorter walls of the upper Moche drainage (MacKenzie 1983) seem impossible to defend because their entire length could never be manned (for the same argument applied in other regions of the world, see Barfield 1994; Burnez and Loubountin 2002:26; Milner and O'Shea 1998:188).

Archaeologists sometimes propose that fortifications were more symbolic than utilitarian (e.g., Hastorf 1993: 65; Parsons, Hastings, and Matos 2000:167; Wilson 1988: 259). Fortification walls send powerful messages: of fierceness, numbers, and impregnability to outsiders and of solidarity and fear and possibly the need for leadership to insiders. Walls may mark off special places, underline social boundaries, and create categories of "insider" and "outsider." These symbolic functions are also seen as possible alternatives to defensive uses for "enclosures" in Neolithic Europe (Evans 1988; Oswald, Dyer, and Barber 2001; Skeates 2002; Whittle 1988, 1996), hillforts in Iron Age Britain (Hamilton and Manley 2001, Hill 1995), eastern Woodlands sites (Belovich 1998), and *pa* in Maori New Zealand (Barber 1996; Marshall 1987; Mihaljevic 1973, cited in Allen n.d.).

The second major reason for rejecting militaristic explanations is evidence for ritual activity, ritual activity and "real" warfare often being seen as mutually exclusive.³ In the prehistoric Andes, aspects of combat were sometimes highly ritualized, as is evidenced by iconography and archaeological remains best-known for the coastal cultures of Moche and Nazca.⁴ It has been argued that the combat depicted on Moche pottery was part of an elite ritual rather than warfare between polities or ethnic groups because this combat involved elaborate regalia, was celebrated in art, and resulted in ceremonial sacrifice of captives that has been attested archaeologically. Proponents of this view include Alva and Donnan (1994), Bawden (1996), Bourget (1997, 2001), Bourget and Newman (1998), Castillo (2000), Donnan (1997, 2001), Hocquenghem (1978; 1987: chap. 5), Parsons, Hastings, and Matos (2000:171–2), Shimada (1994:108–10), and Topic and Topic (1997a, b); for the other side of the debate, see Billman (1997, 1999), Proulx (1982), Quilter (2002), Verano (2001a, b), and Wilson (1988). The militaristic iconography of Nazca ceramics and the elaborate treatment of Nazca trophy heads, which were sometimes taken from women and children as well as from men, have sparked a debate over whether these trophy heads

were taken in the context of warfare, "ritual battle," ritualized sacrifice, or a cult of the ancestors (Baryabar 1987; Browne, Silverman, and Garcia 1993; Carmichael 1992, 1994, 1995; Coelho 1972; Guillén 1992; Kellner 2001; Neira and Coelho 1972; Proulx 1989, 1999; Silverman 1993:221–25; Silverman and Proulx 2002:chap. 9; Tello 1918; Urton 1993; Verano 1995; Williams, Forgey, and Klarich 2001).

Iconographic portrayals of violence are particularly difficult to assess. At the Initial Period site of Cerro Sechín in the Casma Valley, stone carvings of two facing rows of armed figures and mutilated, dismembered bodies have been variously interpreted (see reviews by Bischof 1995, Burger 1999). Urton (1993:137) suggests that the symbolic architectural dualism of the carved panels may represent not "real war" but the social dualism of two moieties engaged in repeated ritual battles, while Kaulicke (1995) interprets the carvings as a complexly structured representation of the cosmic cycle of death and rebirth and Cordy-Collins (1983) suggests that they portray a metaphorical rite of passage into a shamanic role. Other scholars have seen the carvings as a record of actual violent conflict (Pozorski 1987, Tello 1956), ritual sacrifice (Kauffmann 1979), or even (in one of the wilder flights of interpretation) a repository of anatomical knowledge (Grollig 1978, Heck 1989, Paredes 1975). Without other evidence, interpretations of iconographic violence often rest on the degree to which the violence appears ritualized or structured.

Ritual features at Andean walled sites have also caused scholars to question whether these sites were really used defensively. For instance, Parsons, Hastings, and Matos (1997:334; 2000:168) note that walls at the Late Intermediate Period sites of the Junín highlands are frequently associated with tombs, suggesting a ritual rather than a defensive function. The same logic has been applied by archaeologists working elsewhere, notably on Neolithic European causewayed enclosures and the hillforts of Iron Age Britain (Bowden and McOmish 1987, 1989; Evans 1988; Hamilton 2001; Hill 1995; Oosterbeeck 1997; Whittle 1987, 1988).

A rare argument rejects warfare as an explanation on theoretical grounds. "War" can conjure up particularly Western visions of battlefields and armies. Topic and Topic (1997a:575) suggest that the unique aspects of the Andean area mean that this view of war is not applicable here and analogies drawn from other cultures may be inappropriate. Anthropologists and military historians have debated the extent to which war is culturally constructed and ideologically contingent, and some have proposed that there are distinct "Western" and "non-Western" ways of war (Carman 1999; Hanson 1989, 2001; Keegan 1993). Such arguments support alternative explanations for archaeological patterns that appear classically military to a Western eye.

In the Andes, the dominant alternative explanation scholars turn to when they reject warfare is *tinku* or "ritual battle." Numerous archaeologists invoke *tinku* or *tinku*-like practices as an explanation for apparently inadequate site defenses, ritualized conflict, ritual fea-

3. This problematic dichotomy between ritual activity and "serious" warfare has perplexed Mayanists as well (see Webster 2000:104).

4. Combat itself appears to have been a theme of considerable mythic importance in iconographies from very early in the Andean sequence to at least the Middle Horizon (Bawden 1996, Cordy-Collins 1992). Combat and attendant rituals may have been an integral part of the maintenance of elite power.

tures in walled sites, warlike iconography, or violence not restricted to adult males (e.g., Browne, Silverman, and Garcia 1993:276; Carmichael 1992, 1994; Hocquenghem 1978; Morris 1998; Parsons, Hastings, and Matos 2000:171–72; Romero 1996; Rostworowski 1988:79; Silverman 1993:221, 224; Topic and Topic 1997a; Urbano 1988; Urton 1993:138–39; and even, uncharacteristically, Verano 2002:232). This stance thus implies that *tinku* is an ancestral Andean form of relatively bloodless social negotiation that perhaps evolved into or devolved from more destructive warfare (e.g., Hastorf 1993).⁵

Most of these ideas are quite reasonable, and they have led archaeologists to reexamine settlement patterns, recognize alternative means of negotiating social landscapes, and rediscover the fascinating phenomenon of the Andean *tinku*. However, we believe that they have failed to take into account a wider range of ethnographic and historical evidence from outside the Andean area. By its very nature, warfare is highly structured, and patterns of warfare from around the globe have valuable lessons to offer.

When Is a Fort Not a Fort? Interpreting Defensive Architecture

Archaeologists' reasoning about defense is too easily colored by images of medieval European castles or ancient Near Eastern forts. While these comparisons can be useful in their appropriate contexts, analogies from a much greater range of cultures are needed to assess the prehistoric past both in the Andes and throughout the world. Many Andean defensive sites are questioned simply because their defenses are held to the standards of more technologically sophisticated warfare or warfare between states with standing armies when less populous or centralized societies were the builders and attackers.

Since fortifications are costly to build, people tend to do the minimum needed to protect themselves. Fortifications are scaled to the level of the attacker's tactics and technology rather than to the available base of defensive knowledge. As Vencl (1983:314) argues, sophisticated fortification techniques repeatedly fell into disuse or failed to spread throughout European history because people did not expend the extra effort to make a fort impregnable against tactics that were not used. For example, fortifications in ancient Greece quickly became more sophisticated after the time of the Persian Wars. Fairly rudimentary fortifications had been adequate during the internecine hoplite warfare of the Greek city-states, but they no longer sufficed against large, well-supplied armies of mercenaries with advanced siege technologies. The rapidity of this shift suggests that earlier Greek defensive works had not been "held back" by technological level or lack of labor; they simply had not

been worth the effort until a new threat appeared (Kern 1999; Lawrence 1979; Winter 1971:292–302).⁶

Andean states, for all their impressive accomplishments, had military technology very different from European and Near Eastern types because of the lack of professional standing armies,⁷ draft animals, and heavy wheeled armaments (Topic and Topic 1987, D'Altroy 1992). In addition, small-scale, decentralized societies and regional chiefdoms flourished before the emergence of Andean states and in the spatial and temporal interstices between them. In these nonstate contexts (as elsewhere in the world) we should expect that war parties would have been smaller, defenses less impressive, and attacks more likely aimed at raiding, harassment, or the capture of prisoners and trophies rather than the conquest of territory and subjects (Carneiro 1994, Keeley 1996, Redmond 1994). This does not mean that warfare in the Andes involved low casualties or low stakes. However, fortifications did not need to look like Old World citadels to be effective. Cross-cultural ethnographic and historical sources demonstrate repeatedly that smaller and less impregnable defenses like those seen in many parts of the pre-Hispanic Andes were used in similar premodern contexts around the world. By and large, these sites were perfectly defensible in their social context. Many of the criteria used to argue against military functions of settlements in the Andes and elsewhere are incorrect when compared with ethnographic and historical data from organizationally and technologically similar societies.

INCOMPLETE WALLS

Incomplete walls around a site appear to negate a military function because they seem to offer no protection against a determined enemy (Topic and Topic 1987:50; Parsons, Hastings, and Matos 2000:167). However, a review of the literature indicates that forts were often built with unwallled approaches on the most difficult access points, usually with natural barriers such as a cliff, a river, or a steep slope.⁸ This is true for both small-scale, decentralized societies such as the Yanomamö (Redmond 1994:20) and highly centralized states. Fortifications at Greek settlements with historically documented defensive functions such as Eleusis, Phyle, Messene, Koroni, and Gortys had gaps protected by difficult terrain (see

5. The "ritual battle" view of pre-Hispanic Andean conflict is reminiscent of the now-defunct orthodoxy that Maya conflict consisted of small-scale "ritual wars" pursued solely to obtain sacrificial victims.

6. There are many other examples of people adapting their defenses with remarkable speed to new military technologies. The Maori of New Zealand quickly redesigned forts to withstand European-supplied guns (Best 1927, Prickett 2002), as did the Iroquois, adopting square fort plans with bastions (Keener 1999:786). Indigenous Andeans developed effective techniques against Spanish horses within a matter of months after contact (Hemming 1990:193).

7. Certainly, "warrior" classes may have existed as early as Moche if not before. Likewise, the Inca empire had a huge military capacity, but its army was largely drafted as corvée labor from among its subjects.

8. In some parts of the world, walls could also have been supplemented or supplanted with live vegetable defenses, as in Indonesia (Adriani and Kruijt 1950:247) and equatorial Africa (Seignobos 1980).

Adam 1982:168–251; Leriche and Tréziny 1986:625–40 [pl. 1–16]). At Eleusis, defensive walls grew as military technology advanced, but even in the Roman period a naturally defensible hill provided enough protection on one side to remain unwallled. Likewise, the centralized, militaristic state of Monte Albán in Oaxaca protected its capital by a wall only on the gentler slopes (Marcus and Flannery 1996:150). The walls at Marcahuamachuco mentioned above resemble those of the galleries of houses from the American Southwest, which efficiently form a barrier with their back walls (LeBlanc 1999: 56–58). Walls that supplement natural defenses are a logical, cost-efficient response to warfare. The fact that Andean site walls from many different social contexts supplement natural defenses and block the routes of easiest access should be seen as evidence *for* defensive design, not against it.

PARAPETS AND NO PARAPETS

A parapet is a raised ledge partly protecting a defender who stands behind a defensive wall. Well-preserved walls at Andean sites sometimes lack a parapet. Andean stone-built site walls usually employ a double-walled, rubble-fill construction and would have been thick enough for rapid movement and defense on top of the wall, but in any case the lack of parapets should not be seen as a critical weakness for military explanations.

Simple palisades share the weakness of unparapeted walls in that they do not offer defenders visibility for projectile fire, but they are known from many locations ethnographically: among others, the palisaded villages of the Amazonian lowlands (Redmond 1994) and contact-period Pacific Northwest settlements such as those of the Tlingit (Emmons 1991). Simple palisades are extremely common in the archaeological record, found across Neolithic Europe (Burges et al. 1988) and North America (Milner 1999). Palisades such as these protected inhabitants from surprise attack, kept noncombatants and wounded or exhausted warriors out of the fray, and concentrated attackers at a few defensible entry points.⁹ In some parts of the world, as warfare grew more frequent and war parties larger, parapets or firing platforms became a necessity. Thus, in prehistoric Iroquois villages of the American Northeast, palisade walls at first merely blocked access. As time went on, however, double or triple rows of palisades were built, furnishing support for raised firing platforms, especially on the sides most vulnerable to attack, while less accessible approaches might still be blocked with a single palisade (Keener 1999: 781–82). We do not know whether Andean parapets followed a similar evolution, but we can say that the numerous Andean sites with parapets on only some portions of their surrounding walls normally have them on the more vulnerable sides. One cannot imagine that

only in those sections did the walls have a defensive purpose.

In sum, parapets, wall-top walkways, or towers are not essential criteria for a defensive function. They simply imply that there was a significant danger of attackers' scaling or breaching the walls.

MULTIPLE DOORS

Multiple entries at many Andean walled sites seem likely to have allowed easy access to attackers even though other aspects of these sites (hilltop siting, multiple walls, baffled gates) indicate a defensive nature. However, multiple entries in defensive constructions are often found in the ethnographic literature, where they are reported to be useful for peacetime coming and going but also to serve a tactical purpose. Defenders need to be able to come out and fight attackers to drive them off effectively, and numerous small posterns or sally ports are standard tactical devices in many premodern contexts. Sally ports can be easily defended because the enemy must enter singly; they can be quickly blocked from inside with perishable materials or nonmortared stone and disguised from the outside. This site design has the advantage of allowing defenders to choose their point of exit and potentially attack their enemy from the flank or the rear. For instance, disguised underground posterns at the Hittite site of Hatassus allowed defenders to make surprise sorties opposite from the probable approach of attackers (Kern 1999:15). As Lawrence (1979:332–42) points out, sally ports became crucial for defense in the Hellenistic era as siege engines and protective coverings for the besiegers made city walls more vulnerable. Ancient military thinkers agreed on the utility of sally ports. Philo of Byzantium, an authority on defensive works from the third century BC, advises that multiple disguised or baffled sally ports be constructed (Lawrence 1979:81),¹⁰ and in Caesar's accounts a favorite tactic of Roman legionaries besieged by Gauls in a fortified camp was to make sudden sorties "from all the gates," outflanking their enemy (Caesar 1960 [ca. 52 BC]:94 [2.4], 102 [3.2], 157 [6.2]).

There are examples of multiple-door forts from less complex societies as well. Ditches and earthworks at Middle Woodland fortified sites such as Fort Ancient in Ohio are pierced with numerous entrances (Connolly 1998), as is the middle fortification wall at the Chalcolithic fortress of Zambujal in central Portugal (Sangmeister and Schubart 1972:194–95). The fortified My-

9. Palisades did sometimes incorporate gaps or chinks as shoot-holes, even though their main purpose was to block access (e.g., Stirling 1938:59).

10. Philo of Byzantium gives this advice on sally ports: "Many posterns should interrupt the frontage to facilitate the emergence [of sortie parties] and in order that on their return [these parties] will not expose themselves unprotected by retiring towards their shielded side, [because] the party that went out by the first postern will be effecting the [re-]entry by the second, and all the other [parties will be] making their return in a similar manner. Some of the posterns should be at an angle, others should make a closure. In front of all of these, structures should be built in order that they [i.e., the posterns] will not be easily set on fire or shattered . . . and that the enemy should not come close to them, and that when some [of our men] are about to go out [on a sortie] they will not be visible to the enemy" (Lawrence 1979:81).

cenaean settlement of Gla, sociopolitically comparable to Andean Middle Horizon states, had at least four doorways strategically located on four sides (Dickinson 1994: 162). Carolingian forts such as the fortress of Pipinsburg, Germany (Tuulse 1958:20), might have multiple entrances even in a military context in which sieges were not often employed. Multiple doorways in these cases served strategic functions as sally ports and escape routes, and they were often defended with baffling walls or posts for covering fire.

REFUGES

A defensive interpretation for a site may be questioned when the walled area has no evidence of occupation or is too far from settlements to have guarded houses and crops, but in fact many fortified sites are “last resorts,” empty refuges used only in times of emergency. Refuges are attested ethnographically and ethnohistorically from many parts of the world and many different kinds of polities,¹¹ from refuges and fortified refuge caves in contact-period Hawai’i (Kirch 1984, Kolb and Dixon 2002) to fortified redoubts used as refuges and communal granaries by agro-pastoral communities in Algeria and Morocco (Montagne 1930) and fortified islands or headlands used as refuges by early contact-period Indians of the Northwest Coast and North Pacific Rim (Maschner 1997, Maschner and Reedy-Maschner 1998, Moss and Erlandson 1992; see other examples from Keeley 1996: 190–93).

A particularly well-documented example is the *pa* of the New Zealand Maori. While some of these elaborately fortified hilltop sites were permanent settlements, others were used primarily as emergency refuges serving dispersed, undefended hamlets of extended families. These *pa* protected not fields or habitations but people and their harvested stores of sweet potatoes (Vayda 1960). They also served as points from which to launch attacks against offensive war parties that had failed to take them or strayed too far into enemy territory (Allen n.d.). Archaeologically, refuges, even those found far from settlements, should be interpreted as evidence for warfare. They suggest that the people who used them expected attacks less frequently than people who fortified their permanent settlements or that they served a wide region of dispersed rural inhabitants or that it was more convenient to live most of the time in another locale that could not be fortified. They also imply that their defenders expected to have advance warning of attacks. Refuges would have protected people, livestock, and sometimes stores rather than growing crops and houses. Smaller “un-

occupied forts” may simply have been watch-posts for sentries who guarded against surprise attack.¹²

LACK OF WATER SOURCES

Most prehistoric fortified sites in the Andes have no internal water source. For instance, most *pukaras* of the northern Titicaca Basin lack water. At the massive hilltop Wari site of Cerro Baúl in the Moquegua Valley, water must be carried from the base of the hill, a trip of an hour or more. The amount of water that could be carried up in jars at the news of an approaching enemy would have been limited, making the site ill-equipped to withstand a prolonged siege. If such a siege or blockade was not in the enemy’s arsenal of tactics, however, there would have been no need to provide against it. Prolonged sieges are a logistical nightmare, for a blockading army is taken away from production tasks at home, leaves the home territory undefended, and has to be fed while it is waiting. Even the Incas, with their extraordinarily well-developed logistical system of supply depots and roads, appear to have used the blockade only a few times in their conquest of the Andes.¹³ Earlier conquest states such as Wari and the chiefdoms of the Late Intermediate Period were probably incapable of mounting prolonged sieges at all.

In many premodern contexts that lacked centralized states with sophisticated logistics, blockades were not used, and forts or defensively located settlements without water sources or cisterns are very common. This is true for most Maori *pa* (Vayda 1960:73) and for the mountaintop forts used by the Toradja of Indonesia (which were sufficient against internecine headhunting but could not withstand sieges by the Dutch [Adriani and Kruijt 1950]). An increase in siege capabilities caused Late Bronze Age Mycenae, Tiryns, and Athens to excavate tunnels from within the fortification walls to underground water sources outside the walls (Osgood, Monks, and Toms 2000:120). The fact that people use hilltop sites located inconveniently far from water is, in fact, an argument for warfare rather than against it. As a case in point, many peoples of highland New Guinea

12. There is another possible explanation for apparently empty walled areas. When new settlements are built in hostile territory, fortifications may be built first. If these sites were abandoned before being finished, they would look like forts with little or no evidence of occupation. This scenario is documented by Bamforth (1994:105) for two precontact sites of the North American Great Plains.

13. Only a few separate episodes of prolonged siege are described in the chronicles: Huayna Capac’s siege of the Cayambis, in the Cañari region (Cobo 1979[1653]:157–59 [12.17], Sarmiento 1967[1572]:161–64 [chap. 60]; Pachacuti’s siege of the people of Huamanga (Cobo 1979[1653]:138 [12.13]), possibly the same incident as the conquest of the Vilcas area (Cieza 1959[1557]:128–29 [1.89]); Pachacuti’s siege of the Chichas in Collasuyu (Betanzos 1996[1551–57]:113 [chap. 23]; Mayta Capac’s siege of a fort in the province of Cuchuna, probably the site of Cerro Baúl (Garcilaso 1966[1609]:143 [3.4]); and Topa Inca’s siege of the inhabitants of the Cañete Valley, which lasted a remarkable four years, according to Cieza (1959[1553]:342–44[2.59]) and resulted in the Inca military base of Inkawasi. Most sieges were successful fairly quickly, as was that described for Pukara Juli in Collasuyu (Cobo 1979[1653]:140).

11. While Keeley (1996:58) contends that empty refuges are used primarily in chiefdom or early state contexts, there are enough exceptions to this rule that it should be used with caution, if at all.

voluntarily resettled after “pacification” from ridgetop villages without water supplies to lower locations conveniently close to water (Rowlands 1972:455).

“GREAT WALLS” AND LONG DEFENSIVE SYSTEMS

“Great walls” and very long site walls have been something of a puzzle to archaeologists in many regions, because manning their entire length simultaneously would have required an absurdly large population. But archaeologists should remember that it would have been equally difficult to attack very long walls simultaneously along their entire length. Long walls are defended by posting lookouts either along the wall or at watch-posts in front of it and by signaling defenders to come to a point of attack. Well-known cases such as Hadrian’s Wall in Britain or China’s Great Wall incorporated fortified watch-towers and well-staffed garrisons in such a way that fire and smoke signals could quickly call up troops to a vulnerable point (Johnson 1989, Waldron 1990). Such linear defensive systems had other purposes, such as social demarcation and the control of travel, but they were also intended and used for defense. Where very long walls are found, archaeologists should look for watch-posts and consider the possible means of signaling that sentries may have used to call defenders to their aid. A good example in the Andes is the Muro de Sango great wall (MacKenzie 1983:89; Topic and Topic 1987:50), a wall dividing highland from sierra valley, which includes fortified hilltop watch-stations.

Ritual, Warfare, and “Ritual Battle”

Archaeologists often mistakenly see ritualization and lethal, devastating warfare as mutually exclusive. This stance is rooted in a distinction between ritual combat and “real war” that has been debated by many scholars working both in the Andean area and elsewhere. The general concept of “ritual battle” or “ritual war” as a distinct form of conflict from “true war” has a long pedigree in anthropology (see also Carman and Harding 1999:3–6). Originally set forth by Turney-High (1971 [1949]), it has been recently reprised by military historians such as Chailand (1994), Gray (1997), Keegan (1993), and Hanson (1989, 2001), who take the line that non-Western and nonstate warfare practices were often highly ritualized, “gamelike,” and ineffective, in contrast to a secular, lethal “Western way of war” whose unique effectiveness has led to Western domination. Such claims rest on the fact that small-scale, decentralized societies may engage in formalized, low-casualty battles as part of a graduated scale of violent conflict. For instance, set-piece battles among the Dani of New Guinea are a classic example of “ritual combat” in the anthropology of war (Heider 1970, 1979). In Dani battles, men dodge spears thrown at each other; they may agree to take rests and shout witticisms at each other, greeted by laughter from both sides; in one instance, battle was broken off to throw spears at a passing bird. Battles tend

to result in few or no casualties. There are many similar examples from other small-scale societies (Gat 1999). Participants themselves view the battles as trifling, calling them, among the Maring of New Guinea, “nothing fights” (Vayda 1976:15).

Anthropologists of warfare generally reject this dichotomy between Western and non-Western ways of war or “ritual” and “secular” war. Ethnographers note that low-casualty, stylized forms of tribal battle are only one face of conflict that can escalate to include raids on settlements, ambushes, or massacres—attacks which are much more destructive (Gat 1999, Heider 1979, Keeley 1996, Shankman 1991, Vayda 1976).¹⁴ People living in these societies often build fortified settlements against such attacks. Limited, formalized conflict also coexisted with warfare with significant consequences in politically centralized societies, as in the Aztec flower wars and wars of conquest (Hassig 1988). Carman (1999), while contending that real cultural differences exist between Western and non-Western ways of war, argues that Western war, focused on structured, rule-bound battles, is no less ritualized and no more rational than other traditions (and see Keeley 1996 and Webster 1998, 2000).

Meanwhile, in the Andes, scholars draw on modern ethnographies to emphasize a distinction between *tinku*, “ritual battle,” and *ch’ajwa*, territorial warfare. Some (e.g., Hastorf 1993:981; Parsons, Hastings, and Matos 2000:172) suggest that the two forms of conflict could have coexisted. Others (e.g., Hocquenghem 1978, Morris 1998) implicitly present them as mutually exclusive, interpreting prehistoric sites or iconography as evidence for either one or the other. Topic and Topic (1997a) argue that the dichotomy should be rejected specifically because it is inadequate to treat a continuous Andean spectrum of more to less ritualized and more to less “serious” conflict. They correctly note that some Andeanists mistakenly assume that a criterion for warfare is conquest or conflict over territory, even though nonstate societies practice devastating warfare that is not over territory, and they suggest that scholars should analytically disaggregate the axes of intensity, aims, and ideology in warfare.

The analytical conflation of ritualization with inconsequentiality has been a source of error in archaeological interpretation. When ritual elements in war, in defensive sites, and in warlike iconography are seen as evidence for ritual battle, they are actually being used as an argument for the inconsequentiality of conflict in the Andes and other regions. There are two problems with this argument. The first is that warfare of all kinds and scales can be ritualized, including warfare that involves the

14. In some cases, more rules operate to contain the consequences of warfare when the social units are closely related (e.g., Meggitt 1977). In the larger context of wars that include raids, ambushes, and massacres, it becomes clear that tribal ritual battles serve an important purpose of displaying group strength and thus act as a deterrent (Carman 1999; Gat 1999; Morren 1984; Vayda 1976:17). Interestingly, Orlove (1994) argues that one function of modern Andean *tinku* is to signal group strength and determination to the competing side and to outsiders and the government.

killing of enemies, the taking of property and people, and the appropriation of land. In the same vein, sites should not be seen as *either* defensive or ritual in nature, because ethnography and history amply demonstrate that we should expect to see ritual uses of defensive sites, both during and after their use as forts, as well as defenses at ritually important sites.

The second problem is that the analogy of ritual battle is often used inappropriately. If most warfare is ritualized, what exactly do anthropologists mean by the misleading terms of “ritual battle” or “ritual combat”? They mean conflict that is not necessarily more ritualized than “real war” but that is wholly contained and circumscribed and therefore has very limited political and demographic effects. Such battles occur in the Andes but also in other cultures. There are real differences between these types of combat and warfare. The ethnographic evidence prompts us to urge that the old “ritual battle” versus “real war” dichotomy be reformulated as a dichotomy between “contained, festive combat” and “potentially destructive warfare,” with the understanding that ritual elements can pervade both types. Examining these contained forms of battle more closely allows us to see that they occur in certain places, and when they appear *without* more destructive warfare it is primarily under the umbrella power of an organized state. These conclusions may be helpful in guiding archaeological analogy.

WARFARE AS RITUALIZED

Ritual in war does not equate to inconsequentiality, because *most* war is “ritualized,” if we take ritual to mean those cultural rules which alter peoples’ behavior from some notion of rationality or functionality. The point has been made elsewhere and does not need to be explored in depth here. Keeley (1996) and Keegan (1993) emphasize general patterns of ritualization in warfare, including modern and Western state warfare. Pomp and spectacle abounded in European wars of the seventeenth and eighteenth centuries, which were wrapped in religious and nationalistic symbolism and permeated with ritual practices before, during, and after the battles (Keegan 1976, 1993; Keeley 1996; see also Carman 1999, Howard, Andreopoulos, and Shulman 1997). Webster (1998) discusses the ritualization of Mayan and Polynesian warfare. Garlan (1975) portrays the rule-bound and ritualized aspects of Greek and Roman warfare. Hasisg’s treatment of Aztec warfare (1988, 1999) includes many ritualized aspects, such as the carrying of the god into battle, the capture of enemy gods from temples, the destruction of temples, and, of course, the sacrifice of war captives. Several scholars have emphasized the ritual aspects of Inca warfare (Bram 1941; Rowe 1946; Ogburn 2004; Topic and Topic 1997a; Ziolkowski 1995:chap. 5): sacrifices, the divination of battle outcomes, the carrying of *huacas* or idols into battle, triumphal processions, and the taking of human trophies. Indeed, the taking of trophies and the sacrifice of captives are very common el-

ements of highly destructive warfare in many premodern and even modern societies (Keeley 1996:100).¹⁵

In all of these cases, highly ritualized warfare had real political and devastating human consequences. Thus, ritualization such as elaborate iconography, the ritual treatment of trophies, or the sacrifice of prisoners reveals much about the beliefs of the cultures involved but little about the scale, intensity, and effects of war. This does not mean that the Moche, the Nazca, and other Andean cultures did not practice contained, low-casualty ritual battles but simply that mutilation, sacrifices, trophies, and the like are not good evidence for it. Investigating the ritualized treatment of human remains will not resolve this issue; other lines of evidence are needed.

CEREMONY AND DEFENSE: NOT MUTUALLY EXCLUSIVE

It is also inappropriate to dichotomize sites as *either* defensive or ceremonial, and this view can prevent us from understanding multiple site uses and complicated site histories. Ethnography and history amply demonstrate that we should *expect* to see ritual uses of defensive sites both during and after their use as forts. For instance, at many Inca military sites ceremonial sectors are an integral part of the site’s layout and, indeed, defensive function (Hyslop 1990:chap. 6). From Christian and Islamic ritual areas in circum-Mediterranean premodern fortresses to chapels on modern military bases, defensive installations in state-level societies of the West are replete with ritual spaces and ritual practices. Indeed, a fort is used for a mere fraction of the time for actual fighting or defending, and therefore ritual artifacts and buildings are common in many forts, along with evidence for other nonmilitary activities such as burials, residences, storage, and trade (Vencl 1983:313).

Not only do defensive sites often have ceremonial sectors but ceremonial sites may well have defensive walls because they are frequently targets for destruction. Temples in the ancient Mediterranean world were often destroyed when a city was sacked as the Athenian Acropolis was by the Persians under Xerxes. Ritual destruction was an important aspect of Aztec and earlier Mesoamerican warfare: when a city was conquered, the primary target was the temple, and the Aztec glyph for “conquest” was the image of a burning temple (see, e.g.,

15. Ethnographic and ethnohistoric examples come from the Philippines, Indonesia, New Guinea, Nigeria, the Balkans, the Amazon, and North America (see, e.g., sections on “headhunting” and “scalping and war trophies” in Divale 1973:32–34, 37–39). As an archaeological example, Milner, Anderson, and Smith (1991:584) report 11 decapitated skeletons at an Oneota cemetery from the Central Illinois River. Such decapitated people can be women and children, as well as adult men—the Jivaro, among others, beheaded as many inhabitants of enemy settlements as possible (Redmond 1994:74). Trophy heads taken in war may undergo elaborate ritual treatment afterwards, as noted by Proulx (1989). Thus, the question of whether Nazca trophy heads were the result of “real war” or “ritual combat” should center not on the treatment of the trophy heads themselves but on other evidence for warfare and its chronology in the Nazca area.

Marcus 1992:369, fig. 11.9). This was a practical move as well as a symbolic gesture, for the temple would be the most heavily fortified site in the city and temple precincts contained the city's armories (Hassig 1988: 105). Examples of Andean fortified or protected ceremonial centers are the Inca shrines of Ancocagua south of Cuzco (Reinhard 1998) and Samaipata in Bolivia; another may be the much earlier complex of Chankillo in the Casma Valley, where recent research has strengthened the case for both defensive and ceremonial uses.

Site uses also change through time, and in ranked or stratified societies the last use of a defensive site may be ritual or commemorative in nature. Forts that cease to be militarily necessary are frequently converted into hallowed ground and can become pilgrimage destinations, ritually charged areas commemorating past transformational events in the history of a people, and, often, preferred locations for burial and spectacle. Defensive walls are broken to allow access for visitors; ritual areas that existed in the fortress are now enhanced or entirely new ritual architecture is built while the costly maintenance of the military features is discontinued. For instance, Cerro Baúl, a highly defensible hilltop site occupied by Wari colonists in the Moquegua Valley, deep in the Tiwanaku sphere, may have undergone such transformations. Williams (2001:81) and Williams and Nash (2002) propose that Baúl was originally occupied as a defensive outpost, while a later architectural remodeling may have signaled its ideological and ceremonial uses in an era of friendlier relations with Tiwanaku-affiliated settlers in the sierra.

RITUAL BATTLE IN THE ANDES AND ELSEWHERE

Tinku or "ritual battle" is the most common alternative explanation Andeanists give when warfare is rejected as an explanation. But if much of destructive warfare is ritualized, what exactly is meant by the term "ritual battle," and when should archaeologists consider it to be a viable interpretation?

In contrast to warfare, ethnographers document some forms of festive combat that are highly formalized and constrained and that rarely affect politics on the ground, even though participants may sometimes be wounded or die. These battles form part of periodic festivities or rites of passage and are often sponsored or supervised by political and/or religious authorities. They are not accompanied by extra-battle attacks, ambushes, or the destruction of property. In this category we could place "games" and military training exercises such as modern boxing, medieval tournaments, seventeenth-century Venetian bridge-battles (Davis 1994), martial arts traditions in a variety of cultures (Jones 2002), and the Maya ball game. We could include annual or semiannual fighting ritual linked to agricultural fortune such as the *pasola* of Sumba Island in eastern Indonesia (Hoskins 1993: 153–59) and Nahua "tiger fights" in southern Mexico (Leroux 1998), which bear some similarities to Andean *tinku*. This category could also include scripted battles with predetermined outcomes such as Moros y Cristi-

anos, a reenactment of a semimythic battle between Moors and Christians that is practiced annually in many parts of Spain and Latin America (Dreissen 1985, Harris 2000). With some stretching, we might include the Aztec flower wars that were waged periodically against semi-autonomous states such as Tlaxcala.¹⁶ Andean *tinku*, discussed here, clearly falls into the category of contained, festive combat.

Modern *tinku* is a widespread and varied practice. Researchers have observed *tinku* or gathered informants' accounts of it from the highlands of Bolivia, southern Peru, and Ecuador (Alencastre and Dumézil 1953; Allen 1988:187; Bandelier 1910:88; Barrionuevo 1971; Brownrigg 1972; Chacon, Chacon, and Guandinango 2003; Gorbak, Lischetti, and Muñoz 1962; Hartmann 1972, 1978; Hopkins 1982; Molinié-Fioravanti 1988; Orlove 1994; Platt 1986; Remy 1991; Sallnow 1987; Skar 1982; Zecenarro 1992; Zorn 2002). It should be noted that the category of behavior that has been termed "ritual battle" or *tinku* by Andean anthropologists is quite broad, ranging from the potentially lethal battles described here to much more peaceful encounters between community authorities, sometimes involving the throwing of fruit or flowers.¹⁷

Tinkus are fights between different communities, moieties, or kin groups. They happen at set times of the year in association with the church calendar and are embedded in a series of other rites and festivities taking place at that time. The two sides meet in a prearranged spot; in Peruvian or Bolivian *tinku* it is usually on a hill or at the boundary between the groups' territories, but in Ecuador and some parts of highland Bolivia it is in or near the town plaza. A festive atmosphere prevails. Women as well as men come to the event, bringing food and alcohol to consume or sell or even engaging in the fighting along with their kinsmen (Alencastre and Dumézil 1953:20; Gorbak, Lischetti, and Muñoz 1962:247; Orlove 1994:135; Platt 1986:239; Remy 1991:269). Men and women wear festive dress, and the prelude to battle involves drinking, dances, and music (Chacon, Chacon, and Guandinango 2003; Gorbak, Lischetti, Muñoz 1962: 247, 253, 255; Platt 1989:239; Zorn 2002:119). Battles are considered spectacles, and there may be more spectators than fighters. In the highlands of northern Ecuador, in-

16. Flower wars were used for combat training and procuring sacrifice victims and were distinct from Aztec wars of conquest. Highly formalized, ritualized, and prearranged, flower wars were an opportunity for warriors to achieve personal prestige by taking captives even in times of peace (Hassig 1988, Hicks 1979).

17. For instance, in Pacariqtambo near Cuzco, the principal headmen of the two moieties meet each year around the time of Carnival near the town plaza, accompanied by musicians, dancers, and women with jars of *chicha*. The headmen lash each other's legs with a sling, and the head dancers of each side throw unripe peaches at each other (Urton 1993:126–27). Cereceda (1978) reports similar mock battles near Oruro, Bolivia, in which the mayors of different communities fight in pairs, taking turns slinging fruit and flowers at each other (cited in Hopkins 1982:172). Some Andean dances include mock battles; for instance, as part of the Qollur Rit'i pilgrimage, dancers representing highlanders and lowlanders perform a ritual battle with a predetermined outcome (Molinié-Fioravanti 1988:58).

indigenous families come from a wide region to watch, bringing children with them and sitting in the grandstands, where they are safe from the violence in the plaza (Richard Chacon, personal communication, 2004).

When the two sides fight, they use arms considered traditional or “Inca,” that is, slingshots, boleadoras, clubs, and whips; horses are sometimes used (Alencastre and Dumézil 1953:20; Gorbak, Lischetti, and Muñoz 1962:248; Orlove 1994:135). Young women may fight (e.g., Zorn 2002:139), though the majority of reported battles are between men only. In southern Peru in the *tinkus* of Chiaraje and Toqto, the two sides take a break in the middle to rest, drink, dance, and sing fighting songs before resuming the battle (Gorbak, Lischetti, and Muñoz 1962:249, 253; Orlove 1994:135; Sallnow 1987:138; Zecenarro 1992:154). Since there is no “defending” and no “attacking” side, fortifications are not used.¹⁸ Nevertheless, the fighting can be very violent. Personal and group hostilities and grievances often enter into the battle. People are gravely injured and sometimes die either during the battle or after they are taken as prisoners and beaten (Hartmann 1972:128; 1978:203; Gorbak, Lischetti, and Muñoz 1962:250; Sallnow 1987:138; Orlove 1994:136). Few anthropologists have given accounts of *tinku* deaths they actually witnessed, and therefore it is difficult to estimate the frequency with which they occur. Drawing on several years of observations, Guandinango (1995, cited in Chacon, Chacon, and Guandinango 2003) estimates that one to four men die per year in the series of four *tinkus*, held annually in the town of Cotacachi, near Otavalo in northern Ecuador. In the three battles witnessed by Gorbak, Lischetti, and Muñoz in southern Peru in 1960, one death occurred from a rock to the head (1962:249). There was no mourning for the slain combatant, and the participants considered the death an omen for a good harvest. Battles may be less violent in other areas; in Condo, Bolivia, after a man almost died in an especially bitter and politicized *tinku* in 1972, the practice was ended by mutual agreement (Sikkink 1997:181). No ethnographic account of *tinku* reports any taking of trophies.

Because of this potential for bloodshed, the practice of *tinku* has an uneasy relationship with governmental and church authorities. Often police or other local authorities are present at a *tinku* in order to prevent bloodshed (Chacon, Chacon, and Guandinango 2003; Orlove 1994:

136; Cereceda 1978:37–49, cited in Hopkins 1982:173; Platt 1986:240; San Martín 2002:394), and deaths from *tinku* have caused governmental authorities or the church in some areas to suppress the custom (Allen 1988:183; Sallnow 1987:139; Zorn 2002:146). In other areas, authorities are aware of the custom but do not interfere or attend. *Tinku* does not result in the winners’ taking territory or tribute or in the establishment of any relationship of political dominance and subordination (Orlove 1994:133).

Participants give a variety of reasons for fighting. They may say that they fight because the winning side will enjoy a prosperous year (Alencastre and Dumézil 1953:21, 29; Chacon, Chacon, and Guandinango 2003; Gorbak, Lischetti, and Muñoz 1962:248, 287; Hartmann 1972:130; but see Remy 1991); this is the reason most often cited by archaeologists in drawing analogies to pre-Hispanic conflicts. Combatants also target particular individuals to avenge past acts of violence or settle old scores (Sallnow 1987:136; Orlove 1994:35). Groups with traditional animosities fight for the prestige of defeating the other side (Hartmann 1972:129). Increasingly, people participate in *tinku* as a powerful statement of indigenous peasant autonomy and fierceness versus the dominant or mestizo culture (Chacon, Chacon, and Guandinango 2003; Orlove 1994; Zorn 2002). *Tinku* is exciting, and participants often refer to the event as a “game” or “playing” (*juego, puñllay*; see Allen 1998:183; Hartmann 1972; Hopkins 1982:182–83; Orlove 1994:148; Remy 1991); indeed, *tinku* bears formal similarities to more conventional-looking sports (Orlove 1994). Meanwhile, anthropologists have most frequently taken structuralist approaches to *tinku*. Etic explanations include the renegotiating of moiety identity through structural opposition, encouraging the fertility of the earth through the spilling of sacrificial blood, and marking territorial boundaries.

How old is *tinku*? It is clear that similar ritual battles existed throughout the colonial period, because there are records of governmental attempts to suppress or regulate them (Hopkins 1982:168; Urton 1993:134; Zuidema 1991). According to contact-period Spanish accounts, supervised, ritualized, bounded battles did exist in the Inca era as part of both military training and the festival calendar. Cobo, significantly, compares them to “our jousting tournaments” (1990 [1653]:215 [14.9]), and Acosta calls them “fights made in jest,” noting they were termed *puñlla* or “play” even then (1954 [1590]:206 [6:xxviii], cited in Hopkins 1982:169).¹⁹ These battles bore similarities to *tinku*, although they were more closely linked to state authority. They took place in the plaza and often involved the throw-

18. Molinié-Fioravanti’s informants state that “small fortifications” were constructed for somewhat anomalous battles in the town of Yucay prior to the 1940s (1988:54). Here, apparently bloodless battles between *hurin* and *hanan* moieties would take place at Carnival in the streets near the town plaza, each side taking turns to launch projectiles into the territory of the other. The moieties’ traditional territories were not altered by these battles. This is the only reported instance of the construction of fortifications in *tinku*. It should be noted that in Saraguro, Ecuador, the intercommunity *tinkus* practiced until the 1960s, using long-stemmed plants as weapons, took place on hilltops and sometimes on fortified hilltop archaeological sites—the abandoned and overgrown *pucaras* of the Late Intermediate Period or Late Horizon (D. Ogburn, personal communication, 2004). However, there is no evidence of walls’ or fortifications’ being constructed for *tinku* in Ecuador.

19. See Topic and Topic (1997a:573–74) for a more detailed discussion of the terms used for “war” or “battle” in early colonial Quechua and Aymara dictionaries. While *tinku* originally signified both warfare and ritual battle, other words seem from their evidence to have referred to one or the other (*ch’ajwa*, contrary to its modern usage, to ritual battle and *auca* to war). *Puñlla* could mean to do battle as well as to play. Topic and Topic argue that the blurriness of these terms indicates there was no pre-Hispanic distinction between warfare and ritual battle.

ing of fruit or the use of blunted weapons [e.g., Cobo 1990 [1653]:135 [13.26], 215 [14.9]; Betanzos 1996[1551–57]:63 [chap. 14]; Garcilaso 1966[1609]:367 [1.6.24]; Gutiérrez de Santa Clara 1905[1615]:563]. The early sources also give two accounts of scripted or staged mock battles with predetermined outcomes: one for the funeral ceremonies of Pachacuti Inca (Betanzos 1996[1551–57]:136) and the other to celebrate Tupac Inca's triumphant military campaign of Quito (Pachacuti Yamqui S. 1927[1613]:192–93, cited in Topic and Topic 1997a:577). Finally, Valera states, rather vaguely, that the Incas ordered neighboring communities to participate in "military games" two or three times a month "in order to reconcile their spirits and keep peace always" (1956:53 [chap. 15], cited in Gorbak, Lischetti, and Muñoz 1962:286).

In sum, in the Inca period most ritual battles were supervised performances directed by a state authority in a public locale with spectators. They seem to have functioned as state-sponsored "games" (not unlike medieval tournaments), as rites of passage for young nobles, or as staged battle reenactments like *Moros y Cristianos*. Modern *tinkus* are often not supervised by local authorities and probably have more serious repercussions than their precolonial antecedents. However, governmental authorities are aware of them and either passively allow them to occur or actively manage and legislate them, and it is clear that because of this the effects of *tinkus* recently and in the more distant past are minimal. They take place entirely in a bounded space and time and do not involve extra-battle attacks such as raids or ambushes. *Tinku* practitioners live in undefended, low-lying settlements—that is, they do not fear attacks on their settlements. Nor does *tinku* resolve disputes, determine relationships of political dominance, or result in the taking of tribute or territory. (Group disputes over territory, while they may occasionally erupt in violence, are pursued primarily through the courts [see, e.g., Isko 1992]).²⁰ The existence of larger governmental structures makes these political consequences impossible.

ANDEAN *TINKU* AS AN ANALOGY IN ARCHAEOLOGY

What does this discussion mean for archaeological interpretation? Clearly, *tinku* and its ilk are different from warfare not because they are more ritualized but because they are much more circumscribed. Used as an analogy for conflict in the prehistoric Andes, *tinku* implies that such conflict was limited in scope and nearly bloodless. Archaeologists must be careful to use this analogy only where it is appropriate. Ritual elements associated with prehistoric conflict do not mean that this conflict was analogous to *tinku*.

Tinku or *tinku*-like festive combat is a more viable explanation where we see evidence of combat (e.g., in iconography) without evidence of larger political and de-

mographic effects such as fortification, conquest, burning, and high rates of skeletal trauma. (Unfortunately, *tinku*-like battles may be archaeologically invisible in many cases precisely because of their contained nature.) In addition, we believe that it is probably more likely to have taken place in a *state*. *Tinku* battles, like tournaments and battle reenactments, are limited forms of violence allowed within a state which proscribes more destructive violence or violence with political repercussions. As mentioned above, while contained, low-casualty battles are a centerpiece of tribal warfare, they are also accompanied by raids and massacres; overall death rates are quite high, and villages are commonly fortified (Keeley 1996). If contained ritual battles in the Andes existed in the absence of centralized state control, they probably did so alongside destructive warfare. Finally, most forms of festive combat are spectacles that take place in a public area and are attended by a large audience. There is no evidence that they are ever the primary reason for the construction of defensive architecture.

In the Andes, states such as the Inca may have allowed a localized expression of intergroup hostilities in the form of contained, formalized battles, staged and supervised by state authorities, while larger-scale violence was prohibited or suppressed. Morris (1998) plausibly suggests that these battles could have formed an important component of Inca administration and probably took place in public settings like the plaza at Huanuco Pampa.²¹ At this point it is impossible to say whether these battles were an Inca innovation or a relic of earlier, more destructive warfare defanged—the first stage of a graduated scale of violence that originally included raids and massacres and that had resulted in the extensive fortification of the pre-Inca highlands.

What about the case for ritual battle prior to the Inca conquest? Moche combat may have been *tinku*-like, but the question should be decided on other evidence (the presence or absence of fortifications, buffer zones, overall rates of skeletal trauma, etc.), not on the ritualization of Moche conflict (see below). For hilltop Andean walled sites, we consider ritual battle without larger-scale, more destructive warfare to have been very unlikely. Neither modern *tinkus* nor other mock battles and reenactments nor the low-intensity tribal battles described in ethnographies use fortifications.

To summarize, archaeologists can expect destructive warfare and ritual to go hand in hand. Ritual is also involved in contained forms of festive combat such as *tinku*, games, and rites of passage that can be distinguished precisely by their lack of larger effects. Such set-piece combat surely took place in the prehistoric past, but it should not be associated with fortifications, high rates of trauma, or the other indices of destructive warfare, and we should not be misled by ritual features, tro-

20. According to Platt, *tinku* can occur alongside such conflict over territory (*ch'ajwa*) between Bolivian communities. In these times, *tinkus* are more violent, and informants claim that they even result in cannibalism (1986:240).

21. However, contra Morris, these battles would have been neither the method chosen by rebels to throw off the Inca yoke nor that used by the Incas in their imperial expansion. Rebellions and campaigns of conquest described in the chronicles made use of forts, ambushes, retreats, and massacres—all the tactics of militaristic wars for power.

phies, and ritual iconography into thinking that prehistoric conflict was small-scale or unimportant.

A Reappraisal of War in Contested Contexts of the Prehistoric Andes

How, then, can archaeologists identify warfare? While there is no single archaeological indicator of either war or peace, there are many reliable indicators of defensive site design and of warfare patterns. Comprehensive discussions of the archaeological indicators of warfare are given by Wilcox and Haas (1994), LeBlanc (1999:54–91), Redmond (1994), Vencel (1984), Haas (2001:332), and Walker (2001). They include defensive site design or architecture such as parapets, bastions, enfilade wall construction,²² multiple lines of defense, a high or inaccessible location, defensively designed entries, the hasty construction of walls (LeBlanc 1999:64), and the later enclosure of a small portion of a large site.²³ Distinctive settlement patterning, such as settlement nucleation, frequent site abandonment, population replacement, site location in economically marginal land, and frequent site destruction and burning, may also be telling. At a larger scale, buffer zones or widely spaced sites, clusters of allied sites, and patterns of hilltop settlement come into focus as indicators of warfare. Bioarchaeological and mortuary data, where available, provide some of the best evidence for warfare, and the growth of this field of research in the Andes promises to elucidate many knotty questions about conflict. Such evidence includes patterns of skeletal trauma, skewed sex ratios in burial populations, unusual burial patterns (e.g., bodies buried after a period of exposure and mass graves), trophies or artifacts of human bone, and skeletons missing common trophy parts such as heads. Additional evidence comes from warriors' graves, artifacts such as weapons, armor and cached valuables, and iconography, though its use can be problematic (e.g., see Verano 2001b:122). As LeBlanc (1999) and Haas (2001) argue, when several of these indicators are present, warfare is the best explanation; when they are lacking in a well-researched context, then warfare is unlikely.

Obviously, analyzing regional patterns of war and peace requires extensive survey, excavation, and architectural data combined with good chronological controls. As research advances in the Andes, there is beginning to be good evidence that several contested sites or cultures were actually engaged in destructive warfare with sig-

nificant consequences rather than or as well as contained and festive forms of combat.

Ivan Ghezzi's recent project at the Early Horizon site of Chankillo in the Casma Valley is a good example (Ghezzi 2004). Topic and Topic (1987, 1997a) earlier identified the defenses at the site as problematic because of their multiple doors and external bar-holds. Ghezzi's project has since found definitive archaeological indicators of defense such as parapets, weapons, and a possible dry moat on one side. At the same time, the site clearly had ceremonial functions and was not ideally situated for defense because of ceremonial needs. It is an excellent demonstration of the principle that important ceremonial locations may be fortified and that defensive sites may have ritual functions.

The nature of Moche conflict has been debated for decades. Clearly, combat was central to Moche art and one of its major themes, and its depiction in art suggests that it was a highly ritualized activity. Participants in the battles on Moche fineline pottery appear to be elite, wearing elaborate regalia, and are portrayed as heroic individuals rather than warring masses. Warriors are shown capturing prisoners and leading them from the battlefield; the captives are subsequently sacrificed and dismembered and their blood presented in a goblet to a lordly figure in a highly conventionalized scene (Donnan 1976). Thus, in Moche pottery, the aftermath of combat was heavily ritualized, and its most celebrated result was the sacrifice of prisoners rather than the conquest of territory or the looting of goods. There is robust archaeological evidence that the sacrifice ceremony was actually performed, probably repeated across a large area of Moche influence and throughout a long time period, and was not simply the depiction of a mythic event (Alva 2001; Alva and Donnan 1993; Bourget 1997; Bourget and Newman 1998; Castillo and Donnan 1994; Donnan 1988; Donnan and Castillo 1992; Verano 2001a, b). Over 75 adult males archaeologically recovered at Huaca de la Luna had been mutilated, sacrificed, and dismembered in highly structured, ritualized ways (Bourget 1997, 2001), and analysis of goblets demonstrated that they had contained human blood (Bourget and Newman 1998). Although the modern Andean *tinku* does not seem to be a closely related phenomenon, there is nothing in Moche iconography to contravene the interpretation of combat as a contained ritual performance between members or factions of the Moche elite.

However, as we have argued above, ritual elements in Moche combat should be viewed separately from the extent to which Moche warfare may have altered political relationships and endangered people's lives. Although there is at present considerable debate over whether the Moche were a politically unified state or two or more autonomous polities with a shared elite culture (see reviews by Shimada 1994, Quilter 2002), the case is strong that Moche people practiced warfare, not just *tinku*-like staged battles. Fortifications decreased sharply in the Moche Valley itself as the valley became politically unified (Billman 1999). The abrupt intrusion of Moche artifacts, architectural complexes, and elite burials in the

22. Walls or bastions constructed to enable defenders to direct flank-fire at the attackers.

23. Where urban sites enclose a portion of their area, it is almost certainly for warfare. It is more cost-effective to enclose a core portion to which defenders can retreat in times of war than to wall in the whole city's area; this pattern occurred in Roman cities in the wake of the invasions of the mid-third century (Luttwak 1976:169) and in Maya cities at the time of the collapse (Demarest et al. 1997). It is repeated at the Moche V center of Galindo (Topic and Topic 1987).

Virú (Willey 1953), Santa (Donnan 1973, Wilson 1988), and Nepeña Valleys (Proulx 1982) is best explained as an invasion. Fortifications at Huancaco in the Virú Valley and other sites indicate warfare on the fringes of the Moche sphere. The Moche presence in these southern valleys was limited to the down-valley portion; where Moche-affiliated populations came into contact with highland groups such as the Recuay, the boundary was fortified, as in the Nepeña Valley (Proulx 1982; Topic and Topic 1987:52). Verano (2001a, b) finds that the Huaca de la Luna sacrifice victims were physically active males with skeletal evidence of recent and older healed traumas consistent with battle injuries, suggesting that they had been professional warriors. In Moche V, while combat scenes continued to be painted on pottery along with some new themes, fortifications at Galindo and Puente Serrano in the Moche Valley and mid-valley fortress and "great wall" construction attest to intense defensive warfare (Bawden 1982, Topic and Topic 1987). So do the numerous Moche V fortified sites in the Zaña and Jequetepeque Valleys (Dillehay 2001).

While there is good archaeological evidence for warfare, it is still possible that a form of staged combat practiced by elites evolved as a separate activity. At this point, we can state the following: warfare for defense and probably conquest *did* exist in Moche times; elites engaged in fighting and prisoner sacrifice either in these wars or in more contained, staged combats, and it was this elite activity that was depicted in Moche iconography.

The Andean highlands are dotted with Middle Horizon and Late Intermediate Period fortified sites (Arkush n.d., Matos 1999, Parsons and Hastings 1988). To us the case seems very strong that defense was one of the primary concerns of the builders of the walled Late Intermediate Period sites that Parsons, Hastings, and Matos (2000) report in the Junín area, especially when the impressive size of some of the walls is noted: up to 7 m high and 5 m thick (pp. 286, 289), sometimes with what appears to be a parapet (pp. 258 and pl. A26, 289, 301), paired with ditches up to 4 m deep and 5 m wide (p. 289), occasionally with towers on the outer face that could have been used to direct flanking fire from slingshots at attackers attempting to scale the walls. The sites termed "concentric wall sites" seem similar to the Late Intermediate Period walled sites except that they normally do not incorporate ditches and their walls sometimes extend around hilltop sites rather than cutting off the gently sloping sides of ridge-crest sites. It seems likely that warfare was common in the Junín at least in this period as it was in many other parts of the Andean sierra.

Conclusions

Warfare was important in the Andean past and shaped it in many ways. It varied greatly, as did the societies that practiced it. In order to study this fascinating variability, archaeologists need to place their interpretations on firmer ground.

The best way to do this is to use multiple lines of evidence for warfare and to draw on appropriate analogies. The archaeology of warfare cries out for the use of ethnographic analogy. We are archaeologists, not warriors. We cannot know what premodern war was like without going to the experts: the many ethnographers, colonizers, historians, and military sages who described in detail the face of small-scale ground war in a world without gunpowder. It is time to return to these sources as a guide for understanding war in the past, particularly the prehistoric past.

In saying this we do not wish to discourage archaeologists from thinking about warfare by burdening them with an immense body of literature that they must first master. But it is crucial that certain important and counterintuitive lessons be taken from ethnography and history. One important lesson is that fortifications need not be mighty and impregnable or even continuous to be effective when war parties are small. The presence of multiple entrances or very long walls or the absence of parapets at a site need not rule out a defensive function. Another lesson is that warfare in all times and places has ritual elements and ideological significance and that this topic must be considered separately from the scale, intensity, and effects of warfare on people's lives. We should expect ceremonial sectors at defensive sites and defenses at ceremonial sites. Drawing on the ethnographic evidence about ritual battle, we propose that archaeologists reconceptualize the distinction between "ritual battle" and "real war" as a distinction between contained, festive combat and destructive warfare and carefully consider the contexts in which contained forms of combat are most likely to have occurred.

Finally, we wish to stress that people in the Andean area are comparable to people in other places. Because the cosmology of prehistoric Andeans was unique (as, perhaps, is every cosmology), it is sometimes suggested the practices of native Andeans were not comparable to practices elsewhere. The sense is that Andeans were more deeply engaged in the realm of ritual than others, particularly Westerners, and therefore while walls elsewhere may have a defensive function, here a ceremonial function is somehow more plausible. Any attempt to draw archaeological inferences by means of analogy is open to this postprocessualist criticism. However, we feel that it has less force in the study of warfare than in other areas of human behavior. In war, essential choices such as defensive site design are more constrained than most cultural choices because the stakes are so high and the logic of force so fundamentally simple. To deny the most likely explanation for massive walls in the Andes on the basis of Andeans' supposedly more spiritual nature is to deny their participation in human universalities and to reduce them to a pasteboard tourist image of mysterious mountain peaks, panpipes, and condors.

There are many intriguing questions to pursue about warfare in the past. How important was ritual in warfare in different times and places? How destructive, intense, and large-scale was warfare? Was it targeted at people, livestock, land, or ritual structures? When did peace pre-

vail, and why? How did these factors change over time, and how did societies of the past change with them? As sites and regions become better known and chronologies are perfected, we will fill in the answers to some of these questions—but only if we can place our archaeological interpretations on a firm foundation of appropriate historical and ethnographic analogy.

Comments

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8 IX 04

Warfare and its evidence were clearly part of life in past Andean society. At times we forget how universal this aspect of society is, with our interest in consensual aspects of past lifeways and a more nuanced view of daily practice. War has held sway in many discussions, but Arkush and Stanish crisp this up with their succinct, systemic presentation of the major material evidence. Despite their stance that we have lost sight of the power of warfare in the past Andean world, I think that conflict and aggression have dominated most archaeological models over the past 50 years, with only some work moving away from these power-oriented models. While most would agree that warfare was prominent in many settings across the Andes, attention has been focused on the material expressions of the wartime lived experience via walls and doorways. It is equally important to ask why there is a discussion about not placing violent conflict prominently in our archaeological interpretations. This revisitation is timely because these days we have war on our minds.

When I was young, I was given the impression that, after World War II and the extent of that global horror, warfare was going to fade; no one would want to partake in that again. Yet it does return regularly, proving that it is still part of societal existence, woven in with justifications and moralities (as Bob Dylan says, everyone has God on their side). Arkush and Stanish focus on the place of warfare in the Andean prehistoric evidence, hoping to recalibrate our interpretations. How does overt political power play out through the symbolic components of conflict? The Andes is a particularly good place for such a discussion, since the strong current of ritual warfare throughout the highlands today allows archaeologists to propose past wartime possibilities beyond the processual power-driven models. The activities allow us to see some Andean conflicts as more regulatory and others as expansive.

While I am one of the Andeanists who thinks that conflict and its physical manifestations must have had strong symbolic components, as described by ethnographers around the world, I would never agree with the assessment that sites that have defensive architecture

were exclusively ceremonial. Part of the problem with assigning levels of conflict to the past is the need for evidence. Doughnut stones can break soil in fields as well as the heads of enemies. We need to try to find actual evidence of combat to convince ourselves. Arkush and Stanish do open up the debate for multiple interpretations that include the dominance of warfare. Thus, many sites are not substantiated as purely defensive but still could have been built for defense in addition to other cultural constructs.

The incomplete nature of many architectural features across the Andean region is the most common reason for rejecting warfare tactics as the overarching reason for their construction. Further, there are often ceremonial aspects to these high-walled sites. But why could these walls and passageways not have been multipurpose or even modified for different purposes over time? As well as channeling the lives of the local residents, walls do send powerful messages to keep defense and protection in mind even in the absence of conflict as do the war memorials throughout Europe (Rowlands 1993). Thus, a wall may have been inspired by a battle or threat of warfare, but years later it may have been used for corralling llamas, with more doors added for passage. Walled redoubts, perhaps built first as refuges, may eventually have become places of residence. Hilltops are known to be sacred locations, where the dead are kept. Merging residence with the ancestral home should come as no surprise. Most country churches in England were built simulating medieval fortresses, with parapets and a sense of solid protection; here there is the transference of the power of corporeal defense to defense of a Christian soul. As Arkush and Stanish point out, it is for us to unravel what the place was used for.

Ritual warfare can have real consequences, not only death but loss of land, family, goods, and status. While we cannot prove that warfare occurred at any site in the Andes, there is evidence that allows us to be clear about the importance of warfare, both symbolically and physically. Thoughtful presentations allow for these possibilities to influence our interpretations.

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This article offers a timely and needed discussion of several forms of reasoning that have been used to deny the existence or historical importance of warfare in the Andes before European contact. While I agree with the authors on the main issues, I think that the reluctance of scholars to accept that war played any significant role in the Andean past calls for an explanation beyond the general disposition of anthropologists to “pacify the past” (Keeley 1996) or the belief that Andeans had a “more spiritual nature.” This attitude may derive at least in part from their awareness of the importance of inter-

regional interaction throughout the history of the area and the related notion that “complementarity” is an essential quality of the Andean ethos. Whether complementarity is conceived in terms of migration, direct control of distant ecozones, caravan traffic, or some other practice, it is implicitly assumed that the circulation of people and goods that was necessary for the reproduction of Andean peoples could not take place without peace. Let me illustrate this point with the example of the southern Andes.

The idea that the highlands of southwestern Bolivia, northwestern Argentina, and northern Chile experienced endemic conflicts during the Late Intermediate Period is supported by several lines of evidence, including rapid population aggregation, shifts to defensible locations for settlement, fortified sites, new weapons or changes in the frequency or design of existing ones, cuirasses, helmets, “trophy heads,” and rock art representations of fighting. These indicators have not been recorded everywhere but seem to be present to some extent in areas with significant human occupation all the way to the Argentine province of Catamarca. The existence of intense interregional interaction during this period is, however, equally well supported, for example, by nonlocal items recovered from domestic and funerary contexts, widely shared iconographic themes, and direct remains of traffic such as trails or caravan-related campsites, rock art, and shrines.

For a long time, archaeologists have been uncomfortable with this impression that the Late Intermediate Period was a period of both conflict and interaction. To reconcile what was perceived as a contradiction, they speculated—before extensive chronometric data were available—that these two phenomena had not been strictly contemporaneous. In Argentina, Núñez Regueiro (1974:183) proposed that warfare broke up toward the end of the period as a result of the territorial conflicts produced by the development of vertical archipelagoes during an early phase. A reverse scenario was envisioned in Chile; conflicts had occurred first, when valley populations built a line of *pukaras* (fortresses) in reaction to the pressure exerted by highland groups attempting to place ethnic colonies at lower altitudes. Over time, this line of fortresses became obsolete because these groups worked out interethnic agreements for the common exploitation of resources; *pukaras* lost their defensive purpose and became nodes of interregional trade (Núñez and Dillehay 1979:113; Schiappacasse, Castro, and Niemeyer 1989:187).

Recent research in various parts of the southern Andes indicates that most *pukaras* were built after AD 1200, during the late portion of the Late Intermediate Period, but it also supports the idea that there was a great amount of interregional interaction during this time. Is this apparent contradiction leading us to dismiss the evidence of conflict and conclude that warfare was inconsequential or did not exist at all? Curiously, a common way of arguing against pre-Inka warfare lately is simply to recount the evidence for intensified economic and cultural interaction (shared techniques, stylistic conven-

tions, or architectural forms, nonlocal pottery, etc.), as if these data logically excluded the possibility of armed hostilities.

I fully agree with Arkush and Stanish on the need to use proper ethnographic and historical information rather than common sense to inform our understanding of past warfare. Another “important and counterintuitive lesson” that we learn from these disciplines is that, instead of precluding each other, warfare and the exchange of people and goods are closely associated cross-culturally (e.g., Junker 1999, Keeley 1996, Lévi-Strauss 1943, Redmond 1994, Vehik 2002, Wiessner and Tumu 1998). Their coexistence over short periods can take multiple forms, including ritually regulated truces, war payments, cycles of fighting and feasting, norms allowing trade between enemies in certain places or contexts, and “neutral” groups or specialized traders. There is no contradiction between war and “complementarity,” whether we conceive it as the hallmark of *lo andino* or a common demand met by mountain populations throughout the world. I think that the Late Intermediate Period offers an interesting opportunity to explore the (perhaps unique) cultural practices that allowed ancient Andean people to acquire distant resources and exchange with one another even in times of war. In order to start this exploration, however, we need to take into account the archaeological evidence of conflict for what it is instead of ignoring it on the basis of a priori assumptions about how Andean societies work.

THERESA TOPIC

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This article reflects the interest in prehistoric warfare that is part of a broader discussion among social scientists about conflict. With heightened levels of conflict confronting us, there is a great need to understand the history of warfare. Much recent discussion focuses on the degree to which the prevalence, nature, and conduct of armed conflict varied across time and between cultures. The “universalist” camp considers conflict to be an innate part of human nature and a key factor in the development of social institutions in the past. This school considers warfare to be based in material motivation; people fight for economic and political advantage. If combatants offer any other explanation for their behaviour, they are considered to have been duped. Researchers can confidently compare Marcahuamachuco, Fort Ancient, the Maori, and the Greek city-states, since all groups will have had similar motivations and experiences. I advocate a quite different interpretive position, viewing conflict as regulated by culture. This produces considerable diversity cross-culturally in the prevalence, motivation, and practice of warfare. Since the stimuli for conflict are varied, participants’ explanations of their motivation have value. Comparative military history is fascinating, but understanding of prehistoric warfare in

the Central Andes must also be based on ethnohistoric, ethnographic, and archaeological information from that area.

For example, the concept of *tinku* is crucial to understanding Andean warfare. Arkush and Stanish rightly decry the false dichotomy between “real war” and “ritual battle” but proceed to treat *tinku* as a gloss for “ritual battle.” This is far too simplistic. The Quechua term *tinku* refers to the point at which balanced but opposing things meet and applies to much more than just warfare. *Tinku* battles are fought between closely related communities, even between moieties of a single lineage. These battles renew social identity, creating a “whole” from two parts. They are predictive of the success of the coming harvest. *Tinku* are explicitly stated to renew the earth, providing human blood to ensure the fertility of the earth. Deaths are viewed as beneficial to both sides and are not avenged. The concept of *tinku* is part of the overriding Quechua concern for reciprocity in all relationships. *Tinku* battles still take place, despite efforts of church and civil authorities to eradicate them. Their survival despite 500 years of colonialism indicates their centrality to the Andean conceptualization of war. Moreover, recent archaeological work in Peru provides support for the antiquity of the concept of *tinku* not only as it applies to warfare but also in its broader sense.

The concept of *tinku* also addresses agency in warfare. Warfare was a means by which participants played an active role in the regeneration and rebalancing of the earth and the cosmos. Conflict in this social and cosmological frame was not “inconsequential” and was not “festive”; lives were lost and political fortunes affected.

As Arkush and Stanish acknowledge, J. Topic and I have not limited our treatment of Andean warfare to arguing for the essential nature of *tinku*. We have described the changing contexts and practice of warfare, from the simple preparations for defence at the pre-ceramic Ostra site to the effects of changing information technology on the logistical support available to Chimú and to Inca armies. Warfare in the Central Andes was characterized by rich variability through time and space, but this variability cannot be appreciated if *tinku* is dismissed as conceptually irrelevant.

Arkush and Stanish discuss the design of fortifications at some length, arguing for more standardized evaluation of site defensibility. But if *tinku* considerations motivated a significant proportion of conflict in the Andean past, military architecture in the Andes will differ in understandable and predictable ways from other traditions. A case in point is the site of Chankillo. Arkush and Stanish imply that J. Topic and I argued that the site was not a fortification because it had too many doors. In fact, the main piece of evidence we cited was that the barholds for closing the gates were always on the outsides of the walls; *defenders could not close the gates from the inside!* This observation requires explanation.

If battle is scripted according to *tinku* rules, the defensibility of a “military” structure is only one of several considerations. Its spatial location (on the boundary between two communities or in a visually impressive po-

sition) will carry social and symbolic weight. The structure may serve as a setting for performance, as a temple, and as a storage place for military and ritual paraphernalia. Sacsahuaman, the most impressive fortification in the New World, was described by indigenous and Spanish chroniclers. Cieza de León describes it as a temple in which arms and armour were stored. Pachacuti Yamqui provides an account of a *tinku* battle staged there. Guamán Poma tells us how St. James the elder came down from the heavens on a white horse to rescue the Spanish from the Inca siege. If we ignore these voices, we cannot claim to understand Andean warfare.

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Arkush and Stanish’s article is a welcome contribution to the debate over Andean warfare and its recognition in the archaeological record. Andean archaeology is seeing a shift in thinking similar to what has occurred in Maya studies in recent years (Webster 2000). Part of this is due to the results of recent site surveys and excavations that demonstrate a plethora of fortified sites in the Andes (e.g., Billman 1999, Dillehay 2001, Ghezzi 2004), but Arkush and Stanish go farther in addressing some fundamental theoretical issues central to the debate, arguing that comparative ethnographic and historical data have been underutilized in interpreting the evidence of fortified sites in the Andean archaeological record.

On the theoretical level, they make the point that debates over whether Andean warfare was ritual or secular create a dichotomy that may never have been recognized by ancient Andean societies. They provide good comparative examples of how ritual elements are commonly incorporated into warfare in both simple and complex societies. Time will tell, however, whether their suggestion for replacing the ritual-versus-secular-warfare dichotomy with the idea of festive versus destructive warfare will be widely adopted. I am not certain what they mean by “destructive” or from whose perspective (the conqueror’s or the vanquished’s) this is judged. Nevertheless, their point is well taken that attempts to characterize ancient Andean warfare as exclusively ritual or secular are unproductive exercises.

I agree with them that ritual battles (*tinku*) seen in the Andes today are problematic as models for ancient Andean warfare, particularly in cases where there is clear documentation of the capture and execution of prisoners, such as at the site of Moche and in several Late Intermediate Period sacrificial contexts on the north coast of Peru (Bourget 2001, Verano 1986, Verano and Walde 2004). In the Moche case, the treatment of captured prisoners, which included sacrificing them and leaving their bodies to decompose on the surface (denying them proper burial) and in some cases defleshing or dismembering their bodies and modifying their skulls as trophies, seems incongruous if indeed these warriors were the revered

elites of Moche society, who, as some scholars have suggested, engaged in strictly ritual combat (Verano 2001b). Perhaps the victims were high-ranking members of competing polities, but it is hard for me to imagine such treatment for the elite members of one's own society. Likewise, suggestions by some scholars that Nasca trophy heads might represent "revered ancestors" rather than the heads of enemies taken in battle have not proven convincing to me (Verano 1995, 2001a; also Proulx 1989).

In their review of possible fortifications in the Andean archaeological record, Arkush and Stanish provide some convincing counterarguments to those who have questioned the defensive nature or potential of specific constructions. They also make the important point that archaeological sites have *histories* of use and modification and are not static constructions that can be classified as either defensive or nondefensive in nature. In summary, this article confronts important issues in the debate over the evidence for warfare and militarism in the ancient Andes and makes useful suggestions for how scholars might better exploit comparative approaches to interpreting the archaeological record.

Reply

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We thank the commentators for their insightful and constructive comments on our paper. As anthropologists emerge from an era in which warfare was sometimes characterized in overreductive terms—as motivated purely by the need for protein or so ritualized as to be completely divorced from material concerns—we will come to a more fruitful understanding of this complex and ever-changing practice. Still, we feel that the emphasis of many Andeanists on past peoples' regulation of social and ritual order may underestimate the impact of warfare on Andean people and societies.

We wholly agree with Hastorf's point that defense may be only one of multiple purposes for a site or a wall or a tool—a point we were unable to develop fully in the paper because of space considerations. As Vencl (1983, 1984) has noted, archaeologists may neglect the military uses of multifunctional sites (e.g., settlements used partly as forts) and structures (e.g., storehouses or roads with wartime functions). The problematic practice of trying to determine a site's or a wall's "primary function" can prevent us from understanding multiple uses and complicated site histories. For instance, the intriguing associations of tombs with defensive outer walls at many late Andean highland sites suggest a double role for walls. Conversely, walls that are not normally considered defensive may have been intended partly for defense in case of disaster. Surely social demarcation was uppermost in the minds of the architects of elite com-

pound walls at sites like Chan Chan, but did they not also think that such walls could prove useful in the case of crisis or social upheaval? These considerations might allow us to ask why elite residences in some Andean societies were *not* walled: perhaps elites felt more secure, not just less interested in spatially demarcating their exclusive status.

While we readily admit that fortification walls have symbolic meaning, we feel that it is risky to argue that a fortification's "primary function" was as a symbol of power on the landscape, intended to discourage attack and impress people with the power of a group or a leader, rather actually to protect in battle. As Keeley (2001:333) points out, fortifications have symbolic force only because people know what they are for. The ethnographic and historical record is remarkably lacking in examples of societies that built fortifications but did not use them. While an individual defensive site may never have been attacked, such sites were fortified in a context of warfare that required precautions to be taken.

Site uses also change over time, as Hastorf and Verano stress. The chronology of Andean sites is often not clear enough to permit us to spot these transformations, and it is likely that later uses become confused with original intent at many sites.

Artifacts, too, may have multiple or unclear functions: as Hastorf notes, a doughnut-shaped stone might be either a macehead or a clod-breaker. The fact that agricultural tools, hunting tools, and weapons overlap is a problem in archaeology, and not just in the Andes. Vencl (1999) terms this category "tool-weapons," including as examples the polished adzes of Neolithic Europe, used primarily for woodcutting and occasionally for warfare. As he demonstrates, specialized hand-to-hand weapons are often lacking in nonstate societies; warriors rely more heavily on projectiles (the same ones as for hunting), and agricultural tools may be used as weapons in close combat. Bioarchaeological analyses of skeletal trauma may help resolve this problem in specific contexts.

Our position on these ambiguities is as follows: The nature of archaeological explanation is such that no interpretation is ever final; it is always possible to imagine a different explanation for any archaeological pattern. But we are able to eliminate possibilities and provide more plausible explanations as data accumulate and as theory becomes more sophisticated, and here lies the value of precise terminology, tightly constructed research designs, and collegial disagreements and debate. Warfare leaves many different kinds of traces in the archaeological record, so debates that hinge on a single question of interpretation—the use of a tool-weapon or the design of a wall—will best be resolved through the exploration of other lines of evidence. The more research we can do to uncover these indices and the better chronological control we can attain, the more securely we will be to distinguish episodes of war and peace.

Nielsen contributes a very interesting discussion of the coexistence of interregional interaction and conflict in the southern Andes in the Late Intermediate Period.

The reluctance to discuss warfare in the Andean past may indeed have to do with Andeanists' emphasis on complementarity. Nielsen's own research, his reliance on multiple lines of evidence for warfare, and his consistent use of comparative examples and models have resulted in an impressively detailed and comprehensive picture of warfare and society in the late southern Andes (Nielsen 2001, 2002). As he and other scholars emphasize, exchange, intermarriage, and warfare go hand in hand; indeed, in conflict-ridden times the making and maintenance of alliances becomes very important. The forcible movement of people and goods should also not be overlooked.

Topic provides an important contrast to our point of view, and her work represents a respected opposing tradition in Andean archaeology. Broadly, she rejects comparative approaches and emphasizes the unique richness of Andean culture, while we find comparisons central to anthropological archaeology. However, we would argue that her dichotomy between "universalist" and "cultural diversity" camps in the anthropology of war is too polarizing. Taking a comparative approach to warfare does not mean insisting that all warfare has material causes or that there are no differences in warfare across cultures. Indeed, almost all anthropologists would agree that there is considerable cultural diversity in warfare. However, this holds true more in some aspects of warfare, such as ideas about warrior identities or the rituals that precede and succeed battle, than in others, such as the design of effective fortifications.

The complex nuances of the Quechua word *tinku* obscure the fact that *tinku* is often not the term used by Andean participants in talking about these encounters—it is rather one appropriated by anthropologists and used mostly in a restricted sense to refer to contained annual or semiannual battles, the same sense in which we use it here. *Tinku* does have symbolic and structural aspects, and these have been explored in the anthropological literature on the Andes along with the broader concepts of structural opposition that *tinku* relates to. Topic criticizes our use of the word "festive" for these events, and Verano questions the distinction of "festive" from "destructive" conflict. We feel, with Remy (1991), that many treatments of *tinku* have emphasized the themes of structural opposition and regeneration through violence to the point that they have tended to ignore its pervasive festive elements, as well as the importance of individual actions and grievances. But this issue perhaps distracts from our main point, which is that the dichotomy between *tinku* (or similar phenomena) and warfare is a real one. Festive or not, *tinku* and like phenomena are strictly circumscribed in time and space. Warfare, what we call "destructive" conflict, has wider repercussions, blurring into attacks on settlements and on noncombatants, massacres, and the destruction and appropriation of property.

Tinku is not warfare, and it does not seem analogous to the warfare that can be detected archaeologically for the Andes from fortifications, skeletal trauma, and other evidence. For instance, as Topic notes, deaths from *tinku* are not avenged. If prehistoric Andean conflict did not

include the concept of vengeance, it is hard to understand how it could have caused people to live on hilltops and build defensive walls around their settlements. We do not have sufficient evidence to form an opinion on how far back *tinku* existed prior to the Inca era; indeed, we wonder whether this issue will be resolvable through archaeological evidence at all, since *tinku* now leaves few if any permanent traces and pre-Hispanic cases of conflict (such as Moche conflict) do not resemble *tinku* in almost any way.

A case in point, again, is Chankillo. Topic suggests that this site may have been designed according to "*tinku* rules"—but nothing resembling Chankillo or a fortified site or even a temple has ever been reported to have been constructed for *tinku*. Rather, the case of Chankillo exemplifies the strength of the comparative method. Given the totality of the newly available evidence at the site (Ghezzi 2004)—parapets, a dispersion of bola stones outside the walls, baffled entrances, concentric walls in a classically defensive pattern, a possible dry moat, and its strategic hilltop location—we feel that Chankillo's defensive design is very well supported indeed. There remains the single enigmatic piece of evidence of the bar-holds or gate-pins, which Topic and Topic (1987, 1997a) originally identified as problematic because they are located on the outside. How can these data be reconciled with defensive design? One possibility lies in the fact that defensive sites undergo transformations through time. When the military threat to the people who used Chankillo ended, the site may have retained its symbolic importance for either the victors or the losers. As with other forts after their use as forts has ceased, access routes actually reversed as the site became a revered pilgrimage destination.

A second possibility is that the bar-holds may not have supported doors at all but may have been a type of defensive feature known as shutters. Shutters can be made of any durable material. They swing open vertically and to the outside; since they are hinged at the top, they can only be opened from the inside. Crenel shutters were common on the crenellations of medieval Old World castles, where they protected defenders from projectiles and hid the movement of warriors around the castle wall. The bar-holds at Chankillo could have held a beam to anchor a shutter; if so, multiple shuttered sally ports would have constituted an ingenious defensive device at Chankillo.

Of course, Chankillo was not just a fort. Ghezzi's interpretation of the site is as a fortified temple—part of a ceremonial complex that probably involved solar observations. This interpretation suggests, quite fascinatingly, that ceremonial centers in this Early Horizon context were potential targets for destruction or conquest. Potentially useful analogies might be made to many other cases of the destruction of ritual sites or structures: again, Mesoamerican temples, the ancestral chancel structures of Mississippian chiefs, which were targets for destruction in elite status rivalry wars (Steinen 1992, Anderson 1994), and Andean cases such as the destruction of the ceremonial platform at Omo in the Moquegua

Valley at the end of Tiwanaku occupation (Moseley et al. 1991) and the destruction of a complex of ritually important structures and burials in the Quebrada de Humahuaca in far northwestern Argentina at the moment of Inca conquest (Nielsen and Walker 1999). All of these cases, while imbued with symbolic meaning, represent destructive conflict with profound political repercussions. They do not look anything like *tinku*; we must consider them to be warfare in one of its manifold forms.

We are happy to agree with Topic that the rich variability of Andean warfare across time and space is an exciting field for future exploration. However, applying the analogy of *tinku* unilaterally to the remote pre-Hispanic past may obscure rather than illuminate this variability. Our intention in the discussion of *tinku* was to take issue with the implication that pre-Hispanic Andean conflict was a bloodless, low-stakes exercise—a complementary dance of paired communities or moieties in which few people actually died and no village was ever burned, no social group shattered, no leader toppled, no community forced to flee. In fact, Topic and Topic, who have clearly thought about these issues a great deal, do not seem to us in recent publications to be making this argument. Rather, they are moving towards a very interesting exploration of the ideological and ritual meaning that suffused warfare in different Andean contexts, and while we disagree with their claim that a comparative approach is not appropriate for studying Andean warfare, we commend them for this endeavor.

As Topic says, it is important to listen to the voices of native Andeans, and she lists several early perspectives on the famous fortified hill of Sacsahuaman above Cuzco. One voice not listed is that of Manco Inca, who in a brilliant military effort against great odds besieged the Spaniards in Cuzco in 1536 and nearly defeated them. Sacsahuaman was his principal military base because, as Bauer (2004:100) points out, it was critical for maintaining control over the city. The walls were built with blocks so large that they could not be scaled and incorporated angles to direct flanking fire at attackers; the fort housed arms and had space for a garrison of 5,000 soldiers (Hemming 170:199) and even included an underground cistern in case of siege—an innovation practically unheard of in Andean forts (Hemming 1970:196; Sancho 1918 [1534]; Valcárcel 1934). As their fortunes reversed, Manco Inca's forces found themselves besieged in Sacsahuaman by the Spaniards and their allies. Sacsahuaman's impregnable walls proved their worth for several days of intense fighting. The Spaniards finally succeeded in taking the massive terraces by constructing scaling ladders and using them in a night assault. The rebel army retreated to the towers inside, but its large numbers rapidly exhausted the supplies of food and the water in the cistern, and it was fast running out of slingstones (Hemming 1970:199–201; Sancho 1918 [1934]). After the terribly bloody defeat of the Inca forces, the Spaniards hurriedly garrisoned and resupplied the fort against Manco Inca's reinforcements, who were not able to recapture it in several more days of battle. Sacsahuaman, while it had had symbolic and ritual uses, was of pivotal military

importance in the intense struggle to control the Inca capital—a fact that was recognized immediately by the warriors and generals of two cultures a world apart.

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