Resumo: os Tupinambá eram agricultores sedentários que habitavam a costa leste do Brasil. Fontes de exploradores europeus do século XVI oferecem ricos detalhes sobre a vida e práticas de guerra dos Tupinambá, sugerindo a presença de uma violência altamente organizada e um sistema de guerra incumbido em suas práticas diárias, crenças cosmológicas e animísticas, celebrações, canibalismo, e em seus ideais de honra, prestígio e vingança. Utilizando-se da informação etnohistórica, este artigo discute o potencial para a compreensão das práticas de guerra Tupinambá através do estudo da cultura material relacionada a tais atividades. Visto que os estudos arqueológicos sobre a guerra Tupinambá são pouco frequentes, intentamos correlacionar a informação etnohistórica com os tipos de objetos e estruturas que arqueólogos podem razoavelmente esperar recuperar, caso as fontes sejam precisas e os materiais preservados. Argumenta-se que, ao usar tal analogia como um ponto de partida, futuros pesquisadores serão capazes de melhor testar suas hipóteses contra o registro arqueológico, como um esforço para adquirir maior conhecimento sobre o estilo de vida dos Tupinambá.

In this paper, we utilize ethnohistoric sources to understand Tupinambá practices of warfare during the 16th century along Brazil’s Eastern Coast, and conclude with how future studies might benefit from archaeological data. For the latter, we discuss material signatures researchers might use in the recognition of cultural practices related to organized violence or warfare. Combined, the archaeological record and ethnohistoric sources often enable rich insight into the practice of warfare (Allen, 2014; Allen, Arkush, 2006; Arkush, Stanish, 2005; Keeley, 1996; Kim, Kiszel, 2018). While ethnohistoric documents are an important source of information on Tupinambá warfare practices during the European contact period, archaeology can further our understanding of indigenous lifeways prior to European contact. Such material data can provide insights on warfare and how social relations may have been impacted by outbreaks or threat of organized violence.

Three 16th century European sources offer rich details on the lives and warfare practices among the Tupinambá: Hans Staden (2006 [1557]), André Thevet (1944 [1557]), and Jean de Léry (1980 [1578]). Hans Staden (2006 [1557], p. 77) actually lived with the Tupinambá for nine months as a war prisoner in the village called Uwattibi, currently the city of Ubatuba in coastal São Paulo state, after surviving a shipwreck, before his subsequent release. These three documents offer fine, commissioned illustrations and rich descriptions of Tupinambá everyday life, often depicting realistic images of their interactions with material culture. These descriptions are not without their challenges however, as they may be subject to incomplete observation or ethnocentric bias. For instance, some of the accounts, especially those by Thevet, mix fantasy and reality in their descriptions. Therefore, these ethnohistoric accounts have to be considered quite critically, because they had specific audiences and were written for colonial purposes. They were written in Europe (in France by Léry and Thevet, and in Germany by Staden), likely subject to the authors’ ambitions in retelling their heroes’ fantastical adventures in the New World.

Even though some impressive archaeological research has been conducted (e.g., Brochado, 1984, 1991, 2001; Buarque, 2010), archaeological research on Tupinambá warfare and violence is still sparse. A small number of Tupinambá houses have been archaeologically identified, but Brochado (2001, p. 345) states that no Tupinambá house has been completely excavated. Instead, most archaeological work has focused primarily on identifying and understanding Tupinambá origins, and their ceramic and lithic technology, style, and function (e.g., Almeida, 2015; Almeida, Neves, 2015; Brochado, 1989; Cordeiro et al., 2019; Corrêa, 2020; Cruz, 2008; Moraes, 2007; Neves et al., 2011; Noelli, 2008; Prous, Lima, 2008).

Acknowledging the importance of these types of research, this article intends to move discussions forward by focusing on one avenue to understanding Tupinambá social meanings and changes through the study of the material culture associated with warfare and violence. Virtually no archaeological research has been performed on the phenomenon of Tupinambá warfare. This paper aims to provide guidelines for future field and laboratory research based on new excavations and the study of existing collections. The larger goal is, therefore, to direct new research that can answer questions associated with Tupinambá violence and warfare. In the long term, archaeology can offer insights and another line of evidence into many questions related to Tupinambá social violence and warfare practices, complementing ethnohistoric information and current anthropological discussions. How far back in time can Tupinambá warfare be
traced? Under what kinds of exogenous and endogenous conditions did it develop? How did its practice change through time, regionally and cross-culturally? In what ways did the practice affect settlement patterns, inter-community interactions, and perceptions and belief systems? When did it become institutionalized and socially embedded in the historically known, contact-period Tupinambá societies? Conversely, how did cultural practices and social institutions seek to alleviate tension, resolve conflict, and either deter or prevent warfare?

Without considering the range of social variation through time and space for warfare, scholars can lose sight of the vast diversity of ways in which communities throughout the history of humanity have viewed the uses of violence, and its potential interconnections with ritual, ideology, and other forms of cultural practice (and even cultural performance). Studying violence allows a glimpse into how certain beliefs and practices impact daily lifeways, thus offering clues as to how we might study these phenomena archaeologically on a more granular level. This is where a case like the Tupinambá can provide important data for future research and theorizing, especially given the existence of complementary ethnohistoric data.

Archaeology can also investigate how patterns of cultural practice changed in the face of colonial impacts (e.g., see FERGUSON [1999] for discussions on how such interactions impacted the lives of the Yanomami of southern Venezuela). For example, Kusimba (2006) argues that the post-16th century contact between Europeans and Eastern African native peoples fueled long-term conflicts in the region, along with social and economic instability. There, warfare unprecedentedly increased with European contact, trade and resource demands. Kusimba suggests that this situation was the result of a combination of factors: over-exploitation of elephants for ivory, intense trading, slave demand, diseases, climate change, and the cessation of social alliances. Many long-term social alliances were broken, leading to situations where groups and individuals could no longer depend on each other in times of need. This situation also led to an increase in the use of natural shelters for defensive purposes.

In Brazil, although historians and cultural anthropologists have been discussing topics related to warfare for decades (e.g., AGNOLIN, 2002; CASTRO, 1986; CUNHA, CASTRO, 1985; FERNANDES, 1963, 1970; LIMA, 2009; MANO, 2009; YAMAUTI, 2006), archaeologists have not paid enough attention to the topic of warfare in general, despite some notable exceptions (e.g., GRILLO, 2009; LESSA; SOUZA, 2009; LINO, FUNARI, 2013; LINO, SYMONDS, 2021, OLIVEIRA et al., 2017). For instance, Buarque (2010) and Prous (2005) suggest that there are a small number of iconographic depictions of human bodies in ceramic plates recovered in Tupinambá archaeological contexts. These exceptions notwithstanding, researchers have generally not considered Tupinambá material culture in attempts to recognize the role of organized violence for social change.

This situation is compounded by the tendency for some archaeologists to downplay or mask the area’s cultural diversity and great time depth by using the generic term ‘Tupiguarani Tradition’ (for a critique see BROCHADO, 1984). Archaeologically, the Tupi were groups that lived in Eastern Amazon and Brazil’s East Coast, while the Guarani resided in southern Brazil and adjacent areas in the west. Even among Tupi groups there was a great variety of cultures encompassed under the term, among them the Tupinambá. In many cases, archaeologists are not explicit about the specific ‘Tupiguarani’ society they are studying, which makes it more difficult to search for any
specific Tupi group in the archaeological literature. In the long term, this situation has blurred our understanding of the unique characteristics of each society, as well as of the forms of inter- and intra-cultural diversity.

To address such problems, we attempt to correlate the wide range of information available in ethnohistoric accounts with the types of objects and features associated with violence that we could reasonably expect to find in the archaeological record, should the accounts be accurate and the materials preserved. We acknowledge the problems with the use of analogies drawn from the written records, as discussed by numerous researchers (e.g., HAAS, 2001; HAAS, PISCITELLI, 2013; MASCHNER, REEDY-MASCHNER, 1998; STEIN, 2001; WILBERS-ROST, 2009). However, when applied critically, these sources can offer powerful insights into a range of Tupinambá practices like revenge warfare, warfare cosmologies and beliefs, and feasts related to the sacrifice of enemies and their cannibalistic consumption (AGNOLIN, 2002; CUNHA, CASTRO, 1985; FAUSTO, 1992; FERNANDES, 1970; LIMA, 2009; MANO, 2009; MÉTRAUX, 1950 [1928]; PERRONE-MOISES, 2015; PETERSEN, CROCK, 2007; SZTUMAN, 2005). We argue that by using such analogies as a starting point, future researchers will be able to test hypotheses against the archaeological record in efforts to augment knowledge about Tupinambá lifeways.

Such analogical reasoning, for example, was successfully applied by Souza (2012), who utilized the ethnohistoric record to understand the cultural meanings of polished artifacts recovered in archaeological contexts in eastern Brazil. Almeida and Neves (2015) also identified similarities between Tupinambá archaeological ceramic styles and ethnohistoric information. In addition, Brochado (1991) compared the Tupinambá ceramic vessels illustrated by 16th and 17th century European travelers with the vessels recovered in archaeological contexts, and argued that the similarities were striking. Another productive example of the similarities between the ethnohistoric descriptions and the Tupinambá material culture is the archaeological finds of polished stone *tembetás* (labrets or lip-plugs) (BROCHADO, 1984, p. 298), which were described and illustrated by the travelers (Figure 1).

![Figure 1: Tupinambá wearing lip and facial *tembetás*. Source: Staden (1557).](image-url)
DEFINING WARFARE

Defining warfare is a difficult task. Besides the fact that there are many types of warfare, it has distinct meanings and perceptions among cultures and individuals in different times and places. “[W]arfare is an activity that involves the behavior of many individuals, and it affects several aspects of social life” (KIM, KEELEY, 2008, p. 2056). To complicate the picture, warfare is not a single phenomenon, and should be seen as a multi-causal long-term process happening at different scales of social interactions (KUSIMBA, 2009; VASQUEZ, 1993).

Although some scholars have argued that organized warfare was restricted to the emergence of larger-scale societies (e.g., EMERSON, 2007; FERGUSON, 2006, 2013), many others have suggested and demonstrated that small-scale societies also practiced warfare (e.g., ALLEN, ARKUSH, 2006; CAMERON, 2019; CHACON, DYE, 2007; EMBER, EMBER, 1997; GULIAEV, 2003; HOLLIMON, 2001; JORDANA et al., 2009; KIM, KEELEY, 2008; LEBLANC, 2003; MASCHNER, REEDY-MASCHNER, 1998; MILNER, 2005; OTTERBEIN, 2004). In this paper, we argue and demonstrate that small-scale societies also engaged in highly organized warfare, such as the Tupinambá who were sedentary agriculturalists.

Although many scholars have defined warfare as an armed combat, emphasizing the use of weapons (e.g., EMBER, EMBER, 1997; KEELEY, 1996; OTTERBEIN, 2004), we understand warfare as a practice that is not restricted to the battlefield and armed combat. Beyond weapons, battlefields, defensive architecture, and other physical features that more readily leave archaeological signatures, practices of warfare also involve forms of psychological and symbolic violence (BOURDIEU, 2004; WHITEHEAD, 2004). Warfare can consist of a rich symbolic universe of images and creations (LIMA, 2009, p. 166-167). As suggested by Walker (2009), warfare is not always solely related with the living, but can also extend and incorporate the supernatural realm, animism, and cosmological beliefs as well. Moreover, there are a series of cultural manifestations that mark the daily practices embedded and connected to warfare (ARKUSH, 2009; INOMATA, TRIADAN, 2009; KOLB, DIXON, 2002; LIMA, 2009; WALKER, 2009; WIESSNER, 2009). Taking these perspectives into consideration, we use a more inclusive conceptualization of warfare, one that recognizes the use of organized violence between communities (whether states or non-states) that can involve both direct bodily harm as well as other forms of violence.

TUPINAMBÁ PRACTICES OF WARFARE

By the mid-16th century, the greatest enemies of the Tupinambá were the Tupiniquins and Maracajás (LÉRY, 1980 [1578]; STADEN, 2006 [1557], THEVET, 1944 [1557]). After interactions with Europeans, the Tupinambá allied with the French and the Tupiniquins with the Portuguese. Therefore, both groups became enemies, and by extension the Portuguese also became the Tupinambá enemies because of their alliance with the Tupiniquins.

There was a great contrast between the Tupinambá cultural perceptions of warfare and corresponding European counterparts. Based on ethnohistoric accounts, much of Tupinambá life was organized around revenge warfare practices and their associated cosmological connotations. Colonial Europeans tried to change the
behaviors of the Tupinambá warfare by decreeing that war prisoners should be sold to slavery as an economic activity, and not killed or eaten (CUNHA, CASTRO, 1985, p. 192-193). However, Tupinambá warfare was driven by the conquest of glory, prestige and honor, not by any form of economic finality conforming to Western ideals. For the Tupinambá, to sell a prisoner (men, women or children) was a dishonor to a true warrior. As Thevet (1944 [1557], p. 1315, our translation) informs: the Tupinambá “usually deride us [Europeans] and harshly berate us for freeing our prisoners, being for exchange of ransom or for other reasons, considering this a custom beneath one’s dignity of a true warrior. ‘About us’, they say, ‘we would never do such a thing.’” Léry states that he was trying to buy all the prisoners from a Tupinambá that visited him in his village, but with much hesitation and displeasure he only sold Léry a woman and her two-year old son for a high price to become slaves. The seller then lamented to Léry (1980 [1578], p. 190-191, our translation): “I do not know what is going to happen in the future, since after the Europeans got here, we do not eat even as half as many of our prisoners”.

Tupinambá prisoners had their eyebrows shaved and lived for months and even years in enemy villages, like Hans Staden, often taking spouses. Any possible child from that union could be further sacrificed when the time was chosen (STADEN, 2006 [1557], p. 159-160). As described by Thevet (1944 [1557], p. 131, our translation):

> the prisoners brought to the village – each warrior can bring as many as they want, but generally they only bring one or two – will be regally treated there. Five days after his arrival, a woman is given to the prisoner, who can be even the daughter of the one who captured the captive! She is in charge of providing all his necessities, including making him company in the hammock. (…) If perhaps children are born from the union from the prisoner with the woman it was given to him, they will be raised in the tribe for some time, but later they will be eaten because, after all, they are the enemies’ children.

However, Léry (1980 [1578], p. 193) and Thevet (1944 [1557], p. 132) inform that female prisoners, unlike men, would not get a spouse. Léry (1980 [1578], p. 193, our translation) states that as soon as the prisoners get in the village:

> they are not only well fed but they will also give them women (but not husbands to the female prisoners) not hesitating the winners in offering their own daughter or sister in marriage. They treat the prisoner well and satisfy all his/her necessities. They do not schedule ahead the day of the sacrifice; if they are recognized as good hunters and fishermen, and consider the women good for working in the fields or catching oysters, they are conserved during some time.

After being ritually killed in ceremonies, the enemies’ bodies were consumed in feasts by the Tupinambá. Two major types of cannibalism can be distinguished: endocannibalism and exocannibalism. Endocannibalism happens among group members, often not due to warfare, but as a form of ancestor worship, typically practiced for the perpetuation of the spirit of the deceased rather than dominance over the dead person, such as in the case of the Guayaki in Paraguai (CLASTRES, 2004 [1974]) and the Amahuaca in the Amazon (DOLE, 2004 [1974]). Exocannibalism on the other hand, involves the consumption of one’s enemies or other outsiders, often a captive taken during warfare (PETERSEN, CROCK, 2007, p. 554-555), such as
the type of cannibalism practiced by the Tupinambá. There is no evidence that the Tupinambá consumed their own members, and the practice appears to have been restricted to consumption of their enemies. It also appears that the anthropophagy was not gustatory (LOVISEK, 2007, p. 47), and more likely a form of ritual cannibalism. The former relates to the eating of human flesh as a food source, while the latter is practiced for ritual purposes. The practice of anthropophagy powerfully highlights the connection between cultural beliefs, violence, and warfare (KEELEY, 1996, p. 103; KIM, KISSEL, 2018, p. 45). Citing ethnographic data from Fiji, Robert Carneiro (1990, p. 202) describes cannibalism as “perhaps the most striking accompaniment of warfare”. In that context, the practice of captive-taking for consumption became not only an institutionalized practice, but one of the proximate causes for warfare. In that regard, the activities became deeply embedded within social institutions.

Cunha and Castro (1985), using ethnohistoric accounts, suggest that revenge was the most essential institution of the Tupinambá religion and society. For the authors, marriage, leadership, shamanism, and even prophecies were linked to revenge and were articulated by it. As informed by Léry (1980 [1578], p. 183, our translation):

> the savages go to war not to conquer each others' countries and lands, because land abounds for all; they do not intend to enrich themselves with the remains of the losers or with the prisoner's ransom. Nothing like that touches them. They confess themselves that they are compelled by another reason: to revenge families and friends that were captured and eaten in the past.

Cunha and Castro’s most relevant contribution is the suggestion that Tupinambá social practices and perceptions of time could not function without the idea of revenge; revenge killing and its associated powers served to link the past, present, and future. The dead prisoners leave a promise of a future revenge in the memories of both allies and enemies, while the present sacrifice was driven to revenge friends and allies who were previously killed and consumed by the enemy. Only the memory of a revenge (i.e., the will to revenge a person), not the prestige, social position and names, were transmitted from generation to generation. In this way, the enemy was cosmologically integral to the Tupinambá group identity and temporality.

A useful concept for understanding Tupinambá warfare practices of violence is Raymond Kelly’s (2000) notion of *social substitution*. Broadly, social substitution refers to the point when one’s identity becomes so socially embedded within a group that a single individual could “stand for” a larger group, such as a family, village, society, or political organization. Social substitution in the realm of warfare practices could explain how one individual could substitute for another in situations when blood vengeance was demanded. Rather than seeking the actual killer, Tupinambá groups seeking revenge could accept any member of the killer’s group as appropriate targets for satisfying their vengeance. Inter-group conflicts then would promote violence and the taking of sides in blood feuds, leading to more strongly defined group identities.

Besides the achievement of prestige and glory, Tupinambá warfare was also driven by cosmological beliefs. To enter the Tupinambá paradise a person needed to have killed an enemy for revenge (CUNHA, CASTRO, 1985, p. 195-196). Léry and Thevet inform that the Tupinambá believed that the soul was immortal. After death the brave warriors, and people who lived by acceptable cultural norms (including
killing and eating enemies), went to a nice place to live with their ancestors, while the cowards went to a terrible place to stay with Anhã, a bad spirit (LÉRY, 1980 [1578], p. 207; THEVET, 1944 [1557], p. 121). Anhã tormented them in life as well. On many occasions, Léry (1980 [1578], p. 207) and Thevet (1944 [1557], p. 115) heard the Tupinambá screaming for help because they claimed that Anhã was punishing and physically hurting them.

The Tupinambá also distinguished honorable death from natural death. An honorable death was one where a person was killed and eaten by their enemies. Staden, Léry, and Thevet had the opportunity to talk to prisoners before they were sacrificed. The answers of the prisoners were very similar, and they responded that they did not fear their death because it was honorable and their families and friends would avenge them. According to Léry (1980 [1578], p. 196, our translation), “although the savages fear the natural death, the prisoners think themselves happy for dying like that publicly in the middle of the enemies, not ever revealing a minimum sorrow.” Thevet (1944 [1557], p. 135, our translation) also adds that “when they become prisoners, do not think that they try to find a way to escape, because they do not expect anything else than to die like this, which they consider dignifying and honorable.”

Cowards on the other hand did not deserve such an honorable death. Thevet describes the story of a Portuguese who begged for his life when he was being captured by a Tupinambá group. The Tupinambá then killed him with an arrow instead of capturing him, stating that: “that be like this’, they said, ‘because he does not deserve to be honorably killed and in good company, like we do to the others!” (THEVET, 1944 [1557], p. 135-136, our translation).

WARFARE AND ITS POTENTIAL SIGNATURES IN THE ARCHAEOLOGICAL RECORD

After having presented the logic behind some aspects of Tupinambá warfare practices, as described in ethnohistoric accounts, in this section we attempt to operationalize the archaeological recognition of warfare-related activities. Because little has been done on the archaeology of Tupinambá warfare, we are only offering a starting point for discussion, consideration, and future investigations.

Worldwide, many archaeologists describe the range of archaeological indicators of warfare, which often include but are not limited to: defensive features (e.g., fortifications, traps), weapons, osteological evidence, and iconography (for a more detailed discussion of the archaeological indicators of warfare see HAAS, 2001, p. 332; KIM et al., 2015; KIM, KEELEY, 2008; KIM, KISSEL, 2018). The following section will be divided into the above categories. In order to make a strong case for the identification of warfare “[s]everal independent lines of evidence are thus necessary (…). Archaeologists must marshal an array of techniques and lines of evidence to circumstantially reconstruct past events, and the strength of claims rests upon the amount of circumstantial evidence that is available” (KIM, KEELEY, 2008, p. 2056).

Defensive Features

Tupinambá coastal and interior settlements encompassed large areas and were located within a range of environments and preservation contexts (BROCHADO,
2001). Staden (2006 [1557], p. 137-138) informs that the Tupinambá were often inclined to build palisades if they believed that such labor was necessary. Villages, Staden suggests, were often fortified by palm logs that were so tightly tied together that no arrow could pass through them. They did however leave some openings through which to shoot arrows. Around the palisade, which could measure about three meters high, they built another wooden fence that was not so tightly spaced, just enough so that a person would not easily pass through it. Léry (1980 [1578], p. 188, our translation) adds that “[i]t is true that around some border villages, and therefore more threatened by enemies, the savages usually put down palm logs of five to six feet high”.

Figure 2: Fortified Tupinambá village with trophy heads of enemies suspended at the entrance. Source: Staden (1557).

Sometimes they hung the heads of enemies at the entrance of the village or houses (Figure 2). “The head is reserved to be suspended on the tip of a stick that is put over their houses, as a sign of victory and triumph”, informs Thevet (1944 [1557],
They also could build traps around their village and shortcuts for escaping, as indicated by Léry (1980 [1578], p. 188, our translation) in this passage:

*in the entrance of difficult paths they put sharp crowfoots in the way that, if burglars try to enter at night, as they usually do, the people in the village can leave through shortcuts that are only known to them, and repel the aggressors; the latter, if they try to escape or fight, hurt their feet and fall down, being taken to be roasted.*

Since some of the weapons (discussed in the next section) included flaming arrows, we might also reasonably expect to see fire destruction or arson as another potential indicator of warfare. In relation to such a situation Staden (2006 [1557], p. 89-90) informs that the village where he was kept captive was unsuccessfully attacked by a Tupiniquin armada of 25 canoes. The following day, they received news “that a village called Mambukabe (Mambucaba) was attacked by the Tupiniquins, when they left from the place where I was kept captive, and that the dwellers had escaped except for a boy that they captured; and later they burned the huts” (STADEN 2006 [1557], p. 89-90, our translation).

Similarly, Léry (1980 [1578], p. 201) describes the story of a Maracajá village located near the fort where he resided (on Ilha Grande, in the modern state of Rio de Janeiro) that was attacked by a Tupinambá group. This Maracajá village “during the beginning of the war, i. e., twenty years ago, surrendered to our allies [the Tupinambá] being left in peace. However, one time, after drinking lots of cauim [alcoholic beverage] the Tupinambá decided to sack them, claiming that they were the descendants of the enemies” (LÉRY, 1980 [1578], p. 201, our translation). The Tupinambá conducted a surprise attack at night. When some French people arrived on the night of the attack, the houses in the village had been burned to force the people out. According to what was told to Léry by third parties, the men and women were butchered and roasted, including nursing infants.

Archaeologically, some of the above-mentioned activities and cultural practices might leave discernible material signatures. For instance, palisades could be identified by posthole patterns and may have involved an exterior ditch of some kind. Depending on the morphology and shape of ditches, a military or defensive function could be inferred (KEELEY et al., 2007). Other architectural features, such as traps, would also be revealing, along with indications of deliberate destruction or arson. Additionally, the presence of “buffer zones” or “no-man’s lands” might also be an indicator that security or conflict were sources of concern. Finally, habitation sites (or temporary refuges) situated in relatively inaccessible places could also be an important indicator.

**Weapons**

Depending on cultural context, weapons designed for use against humans can indicate the presence of warfare behaviors, though there are challenges in identifying implements as weapons (designed for warfare) versus tools for hunting, construction, or farming (KIM, KISSEL, 2018, p. 70, see also CHAPMAN, 1999, for a detailed discussion). Milner (1999, p. 109-110), for instance, acknowledges how in precolumbian North America weapons were mostly the same as, or virtually indistinguishable from, everyday tools. On the other hand, certain implements are clearly specialized for...
warfare, such as close-range shock weapons like tomahawks, maces, lances, daggers, and swords (KEELEY, 1996, p. 50).

These interpretative challenges notwithstanding, the use of weapons in Tupinambá societies is indicated by ethnohistoric data. The primary weapons used by Tupinambás were the bow and arrow, and a unique club, the wooden mace-like *ibirapema* (Figure 3). The *ibirapema* could be highly ornate with high-quality feathers and pigments. According to the ethnohistoric descriptions, both weapons appear to have been very important for them. The *ibirapema* was used in close combats and to ritually kill the enemy in sacrifices, while the bow and arrow was used for hunting, fishing, and in both close and distant combat by land or water using canoes. They also manufactured large, dull, and round shields from large animal skins (favoring the thickest part of the tapir skin) or tree barks (Figure 4), which were only used to guard against the enemies’ arrows (LÉRY, 1980 [1578], p. 186; STADEN, 2006 [1557], p. 159).

Figure 3: Two chiefs holding weapons, an *ibirapema* on the left and a bow and arrow on the right.

Source: Staden (1557).
“Wherever they go, either in the woods or in the water, they always take with them their bow and their arrows”, informs Staden (2006 [1557], p. 140, our translation). The arrows were made of sharpened bones, shark teeth, pieces of dried hard waxed *taquara*₁, or poisonous stingray spines; all of which were tied to the tip of the arrow often with strips of tree bark (LÉRY, 1980 [1578], p. 185; STADEN, 2006 [1557], p. 159). Sometimes they also made flaming arrows by tying cotton mixed with wax that they lit on fire. Léry (1980 [1578], p. 185) describes that the bow was made of a black wood, the same that they made the *ibirapema* with, and measured almost 180 cm in length. It was longer and thicker than the ones he was familiar with in Europe. Léry actually states that Europeans could not bend or shoot with it, not even with the bow and arrows that nine or ten year old Tupinambá used. The Tupinambá also utilized a very thin but strong cord made of a plant called *tucum*₂ to make the bow. They also placed two feathers in the arrow tied with a cotton thread.

According to Léry (1980 [1578], p. 185), the *ibirapema* was made of a red or black wood. It could measure about 170 cm in length, and more than 10 cm wide at the center. It could be dull, oval or round in its extremities with a thickness of almost two palms there. Although somewhat different from the *ibirapema*, clubs used in warfare are also identified in other regions of the world. For example, archaeological short clubs – about 30 cm in length and made of quality wood, stone, or whalebone with fairly sharp edge – were also used as weapons in pre- and post-European contact warfare conflicts by the Maori groups of New Zealand (ALLEN, 2006, p. 188-190).
In the Tupinambá case, Léry (1980 [1578], p. 185, our translation) states that the *ibirapema* “is sharp as an ax, cutting very well because it is made of a hard heavy wood like the boxwood. And they are very skilled when angry, that two or more of our best swashbucklers would have difficulty in confronting a Tupinambá.” Léry also suggests that the Tupinambá were very skilled with the bow and arrow as well, and could shoot arrows with great speed and precision. In fact, boys as young as three- or four-years-old were taught how to use the bow and arrow (THEVET, 1944 [1557], p. 135). And after birth if the baby was a boy the father would give him a small *ibirapema* and a small bow with tiny short arrows made of parrot’s feathers. “After putting all of this close to the boy, the father kisses him with a smile and says: ‘My son, when you grow up you will be skilled with weapons, strong, brave and bellicose to revenge your enemies’” (THEVET, 1944 [1557], p. 225). These are examples of Tupinambá children being socialized for hunting and combat, which is a part of their cultural practice of warfare. The recovery of such artifacts in specific contexts could help provide material support for ethnohistoric accounts describing their uses within warfare contexts.

Osteological Evidence

Every time Tupinambá killed an enemy, they made a mark on their own body (see the body scarification in Figure 3) and acquired the dead individual’s name, meaning that they bear upon their own bodies the number of sacrificed victims that they had killed (LÉRY, 1980 [1578], p. 200; STADEN, 2006 [1557], p. 152-153, 166). Males with more marks were considered better warriors, and acquired the most prestige and more wives. This prestige could not be inherited, but had to be acquired individually by merit. A person could also acquire names and body scars by breaking the skull of the enemies, killed in the battlefield, ceremonially, or after digging up their corpses or skulls (CUNHA, CASTRO, 1985). Léry (1980, [1578], p. 198, our translation) observed that: “it is common in these countries to say: ‘I will break your head’.”

The evidence that this could leave in the archaeological record is skeletal remains with post- or perimortem skull fractures from heavy blows, parry fractures on forearms, and other human skeletal trauma, such as from arrow wounds. Even the presence of healed fractures might indicate the presence of non-deadly violence. It must be noted, however, that finding such clues can be challenging. For reference, a preliminary study of the frequency of death and human skeletal traumatic impact caused by arrow wounds was conducted by Milner (2005). Utilizing information from 191 patients from the 19th century Indian Wars in western United States, Milner suggests that on average only one in three arrows damaged human bone, and that as many as one-half of the individuals wounded by arrows lived for months or years following their injuries. Hence, many injuries to soft tissue would not have survived for future archaeologists to detect.

During feasts involving ritualized sacrifice, the Tupinambá prisoner would be killed by only one person, who would later make a scar on the killer’s body (STADEN, 2006 [1557], p. 166, THEVET, 1944 [1557], p. 133). The killer was the only person who could not eat the prisoner’s flesh and could not participate in the party after the sacrifice. The killer would perform a ritualistic ceremony where the prisoners, tied by a thick cord called *muçurana*, would warn that their death would be revenged by their group. The killer would give a single blow to the prisoners head with the *ibirapema*, the wooden sword, to break the skull (Figure 5).
The prisoner’s body would be defleshed and cooked (usually roasted and/or boiled). After European contact, newly introduced tools were appropriated for use by the Tupinambá to butcher their enemies as implied by Léry (1980 [1578], p. 199, our translation) in this passage: “[a]fter the arrival of the Christians to the country, the savages begin to cut and retaliate the body of the prisoners, animals, and other preys with knives and tools given by the foreigners, which they used to do with sharpened stones as an elder told me.”

No parts of the body would be wasted. Even the blood would be collected sometimes for the purpose of spreading it over the kids’ bodies to make them braver and remind them of the importance of revenge (LÉRY, 1980 [1578], p. 199; THEVET, 1944 [1557], p. 132). If there were insufficient food for everyone, the feet, hands and other parts would be used to make soup. Often friends and families from other villages were invited to the feasts, and if they were not able to arrive on time, some meat would be preserved for them. Such feasts and ritualized ceremonies could unite a large
number of members from allied villages. “All the surrounding villages are alerted on the day of the execution [of the prisoner] and soon begin to arrive from all corners men, women, and children” (LÉRY, 1980 [1578], p. 193, our translation). “Villages were related by kinship and alliances and participated in the same rituals, defense of territory, and raiding warfare” (BROCHADO, 2001, p. 346).

Léry (1980 [1578], p. 187-200) and Thevet (1944 [1557], p. 140) suggest that sometimes the enemies’ arm or leg long bones were used to make musical instruments, flutes or fifes, that were played in feasts or during war campaigns to rally the fighters and enrage the enemies. Elsewhere, ethnographic research interestingly shows how the femora of respected community members in New Guinea were fashioned into daggers, which were believed to possess both physical as well as symbolic power (DOMINY et al., 2018). The Tupinambá also wore trophy necklaces made of the enemies’ teeth (LÉRY, 1980 [1578], p. 189). If preserved, these kinds of activities could be detected by the evidence of human bones with cut marks, burning and calcination, or by the presence of long bone flutes and drilled tooth necklaces. It is very probable that most of the consumed remains of prisoners would be discarded in middens. Members of the community on the other hand were often buried with grave goods in two contexts: directly in the ground in the village (STADEN, 2006 [1557], p. 93); or, less commonly, in primary or secondary burials within ceramics that were normally larger food serving vessels (BROCHADO, 2001, p. 347).

Parallels related to the practice of cannibalism can be seen elsewhere in the world (for examples in the Americas see CHACON, DYE, 2007). For example, Mensforth (2007) describes and analyzes a number of hunter-gatherer Late Archaic period sites throughout eastern United States with evidence of cannibalism, violence, and warfare. Salts Cave Vestibule site in Kentucky is particularly interesting because the material culture recovered there possibly closely correlates with archaeological evidence that can be reasonably expected to find at Tupinambá sites. Radiocarbon dates from the site range from 1460 to 710 B.C. (MENSFORTH, 2007, p. 249). Thousands of human and animal bones – 2,000 fragmentary bones were analyzed for each category – were recovered, but none were associated with graves or formal burial pits. Mensforth states that Robbins (1974) estimated that the assemblage contained a minimum of 41 individuals from all age categories (infants, children, adolescents, and adult males and females). “The presence of many disarticulating and defleshing cut marks, combined with evidence that many of the bones had been chopped, splintered and burned, led Robbins (1974) to conclude that these human and animal remains were most likely processed for human consumption” (MENSFORTH, 2007, p. 249). In addition to the evidence of cannibalism, at least nine tools manufactured from fragments of human bones were identified, and were associated with other human and animal remains, including seven human bone awls, and awl-like implements. “Two cut and polished bone tubes were fashioned from adult human femur shafts. In one case the distal end of the bone had been smoothed, rounded and burned, which suggests that it was used repeatedly for culinary or crematory purposes” (MENSFORTH, 2007, p. 258).

Ritual practices related to organized violence and cannibalism can be inferred from skeletal trauma and the contexts within which osteological remains are recovered. Beyond that, the presence of specialized utensils for use in these rituals would also be very telling. Of course, there may be challenges in identifying instances of possible exocannibalism from endocannibalism. The possibility of forced movement could
also be tested through analysis of human remains and their isotopic signatures. This could be a complementary step in efforts to determine whether or not specimens were victims from outside areas that were likely brought in through coercive means (see, for example, PRICE et al., 2011).

Building on these ethnohistoric data, future archaeological studies could be carried out to revisit material records and to potentially capitalize on innovative methods of analysis. For instance, the extraction of residues from ceramics and other classes of artifacts could potentially identify feasting activities involving sacrifice, cannibalism, and raiding. Moreover, replicas of *ibirapema* could be used in experimental studies that test their ability to cause telltale fractures. Similar kinds of ballistic studies have been carried out on the so-called “Thames Beater” from the Neolithic period of the United Kingdom, helping to demonstrate the military potential as a club of the wooden implement (DYER, FIBIGER, 2017). It is also worth asking if other kinds of equipment or personal adornment were worn by warriors, such as bark for armor and padding, or even apotropaic items. As noted earlier, Walker (2009) argues that warfare does not only involve the living, and it is possible that symbolic or spiritual agents were important in considerations of power, violence, and threat. Are there clues from either the ethnohistoric or archaeological records that speak to the use of talismans or other items carried for potency or protection during combat? In addition, if ethnohistoric data suggest that trophy items were produced, such as musical instruments from the bones of sacrificed enemies, or necklaces made from their teeth, it may be worth revisiting existing collections in a systematic manner to test such assertions.

Iconography and Ceramic Analysis

One possible line of evidence of Tupinambá warfare and violence is through the study of their ceramic iconography. Although Léry (1980 [1578], p. 187-191, 227) informs that only men were warriors, he also suggests women marched in war campaigns with men, but did not participate in the battlefield *per se*. Léry and Staden write that women were responsible for making ceramics and *cauim*, a beer commonly made with manioc or maize, and both could be made and consumed in daily practices or in feasts. This observation is important for two reasons: 1) it suggests a wide range of activities, practices, and behaviors that are potentially related to warfare (however indirectly); and 2) it demonstrates the range of demographics for potential participants for the disparate practices.

The ceramics used for feasts were highly ornate and decorated by women as well. The ethnohistoric records and illustrations describe plates used to prepare or serve the human body for consumption, especially intestines and brains. Staden (2006 [1557], p. 165-166) informs that women and children ate a sort of gruel made of the enemies’ intestines (Figure 6). Archaeological artifacts have been found bearing the symbolic depictions resembling those shown in the travelers’ stories. These plates display decorated designs that were interpreted by Prous (2005) as representing stylized human vertebra, intestines and perhaps brains (for examples of archaeological Tupinambá plates with decorated designs of stylized intestines or brains, and of an open body showing a spine filled with intestines see figures 4 and 11 from PROUS, 2005, p. 25-27). Similarly, Buarque (2010) speculates that there are several ceramic plates with intestinal and skeletal motifs recovered from funerary contexts at Tupinambá sites in Rio de Janeiro state.
Unfortunately, apart from possible representations of human body stylized designs, there are no clear iconographic depictions of captured war prisoners from outside communities, such as those of the Moche for example (BAWDEN, 1999). Moche iconography displays a highly representational style that portrays captives tied to ropes and in body postures indicative of their situation of subjugation. In contrast, Tupinambá iconography represents an abstract style, therefore, interpretations of their meanings can be less straightforward, and more speculative in comparison.

Another line of evidence to investigate cannibalism in the archaeological record is through ceramic residue analysis. This method of analysis could assist in the identification of the types of foods that were cooked and/or served in ceramic vessels and containers. This would provide stronger evidence for studying Tupinambá warfare and violence archaeologically in comparison to iconographic studies, if cannibalism could be identified via residue analysis.
Another potential indicator for practice of captive-taking could be the presence of very different or foreign styles of material culture (e.g., pottery). Of course, such evidence would be difficult to distinguish from the acquisition of foreign material culture by other means, such as through marriage alliances or trade, but researchers have proposed innovative frameworks for testing various scenarios (see CAMERON, 2011 and 2019 for a discussion of captives and culture change). In relation to trade, Brochado (2001, p. 346) suggests that lithics and clays for white slip not found everywhere were usually traded for. He also adds that “[i]n historic times, there was mention of short-and long-distance trade of rocks for lip plugs and axes, plumes, decorated gourds, textiles, pottery (...). Redistribution was part of the reciprocity system” (BROCHADO, 2001, p. 346). Ultimately, inferences about captive-taking would need to be based on a combination of material indicators.

CONCLUSION

Scholars interested in warfare can benefit from considering the Tupinambá case because their warring practices were so unique, richly described, highly organized, and integrated into cultural practices. Researchers have also much to gain by utilizing the information offered in the ethnohistoric accounts. This is especially true in the Tupinambá case, because the early accounts offer detailed descriptions and illustrations of Tupinambá warfare, everyday practices, and their associated material culture. Although perceptions and attitudes about warfare likely varied from one individual to another, it is clear organized violence was significant for Tupinambá society at large. The case is unique because the structure of the society seems to have been so profoundly organized around warfare, at birth, marriage, death, and in the afterlife.

Throughout this paper, we have utilized information from ethnohistoric records written during the 16th century to infer some possible strands of evidence archaeologists might come across that could illustrate Tupinambá warfare practices in future studies. These textual records, when critically examined, offer a range of information about Tupinambá warfare that could complement the archaeological record and lead to richer and more meaningful interpretations. Such detailed ethnohistoric information could be tested against the archaeological record, by comparing and contrasting the descriptions given by early explorers with potential material culture correlates, such as:

1) defensive features: evidence for posthole patterns from palisades, the presence of ditches, and perhaps traps;
2) human skeletal remains: evidence for cut marks, violent trauma, broken craniums, burning and calcination, as well as drilled tooth necklaces and long bone flutes or fifes;
3) weapons: bow and arrows, ibirapemmas, and shields;
4) iconography and ceramic analysis: perhaps decorated ceramics for feasts or residue analysis of pottery used to prepare, cook, or consume human remains.

Finally, we hope to have demonstrated that small-scale societies did in fact participate in warfare practices that could be highly organized, institutionalized, and ritualized. While some of these activities would have been directly related to violence, some behaviors and practices may not have appeared to have an obvious connection.
instance, as we have observed, ceremonies or feasts occurring before or after raids could also be taking place, thus widening the scope of potential practices (and their material indicators) that researchers can consider when researching warfare. The Tupinambá, for instance, had a complex system of warfare before European contact in the 1500s. Their warfare did not emerge or accelerate through their interactions with Europeans, but instead was transformed, and eventually diminished. The latter occurred partially because the Europeans forced the practice of warfare to fit into their own economic system, and also due to depopulation caused by the introduction of European diseases, as witnessed by Staden (2006 [1557], p. 92-94). Consequently, Tupinambá warfare practices and cosmological beliefs were reconfigured through time.

To satisfy the economic demands of the European ideal of warfare, the Tupinambá were forced to sell prisoners to slavery. The ritualized sacrifice of the prisoner and their cannibalistic consumption in feasts also decreased until its extinction. In this sense, the interactions with Europeans affected Tupinambá lives, leading to great socioeconomic changes and the destructuring of a highly organized violence and warfare system that was once embedded in their daily practices, animistic and cosmological beliefs, celebrations, and in their ideals of honor, prestige, and revenge. For Fausto (1992), leadership among the ancient Tupinambá on the coast does not correspond to a structural position because it is not related to the rules of heredity or affiliation, it can only be understood within a centrifugal logic of war and cannibalism. In general, Tupinambá chiefs were capable of influencing followers because of their oratorical talent and as great warrior expedition leaders and killers. “Among the modern Tupinambá populations, however, the figure of the warrior becomes increasingly removed from a position of leadership, as the process of pacification advances” (SZTUMAN, 2005, p. 71, our translation). See Monteiro (2001) for a detailed discussion on how the interactions between Europeans and Tupinambás transformed both cultures though time.

The goal of this paper is to offer what we hope can be a useful point of departure for future research. We anticipate that future archaeological investigations undertaken by researchers who are cognizant of the material indicators for organized violence will be able to construct a more complete picture of the changing patterns of Tupinambá warfare through several centuries of cultural sovereignty.

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TUPINAMBÁ PRACTICES OF VIOLENCE, WARFARE, AND CANNIBALISM IN SIXTEENTH CENTURY BRAZIL THROUGH ETHNOHISTORY AND ARCHAEOLOGY

Abstract: the Tupinambá were sedentary agriculturalists inhabiting the Eastern Coast of Brazil. Sixteenth-century European explorer accounts offer rich details of Tupinambá life and warfare practices, suggesting the presence of a highly organized violence and warfare system embedded in their daily practices, animistic and cosmological beliefs, celebrations,
cannibalism, and in their ideals of honor, prestige, and revenge. Building on ethnohistoric information, this article discusses the potential to further understanding of Tupinambá warfare practices through study of material culture signatures. Because archaeological studies on Tupinambá warfare are sparse, we attempt to correlate the ethnohistoric information with the types of objects and features archaeologists could reasonably expect to recover, should the accounts be accurate and the materials preserved. We argue that by using such analogies as a starting point, future researchers will be able to better test their hypotheses against the archaeological record in efforts to augment knowledge about Tupinambá lifeways.

Keywords: Tupinambá. Violence. Warfare practices. Ethnohistory. Archaeology.

Footnotes
1 Taquara is the name of many species of true grasses of South America, related to bamboo.
2 Tucum is the name of many thorned palms that are used to make fibers.

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