

Article

Matriarchs and Metopism: An Analysis of the Wari Iconographic Representation of the Skull

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Abstract

While skeletal imagery appears across various ancient Andean traditions, the Wari Empire (c. 600–1000 CE) developed a uniquely standardized and widespread skull motif—the *uma tullu*—distributed throughout its former territory. Through an analysis of 63 artifacts spanning ceramic, textile, and metal, this study identifies key diagnostic markers of the motif: the representation of the metopic suture and the application of red pigment. By cross-referencing these stylistic features with bioarchaeological data, the research posits that the *uma tullu* served as a central communicative device. In the absence of a formal script, this motif may have encoded imperial values and ancestral cult practices, facilitating ideological expansion and state identity. Ultimately, this work demonstrates how standardized iconography functioned as a system of graphic communication and ideological cohesion in the Middle Horizon Andes.

Keywords: Wari empire; middle horizon; metopism; iconography; ancestor veneration; bioarchaeology; Andean archaeology

1. Introduction

Born in the Peruvian province of Huarochirí in 1880, famed archaeologist Julio C. Tello grew up collecting Indigenous skulls from nearby archaeological sites—some of which were sent to foreign scholars to satisfy the 19th-century appetite for racialized specimens. Yet, for Tello, these remains transcended the cold classifications of phrenology; after holding an Inca skull in his hands, he wrote: “That skull, honored by the centuries, connected with my heart and made me feel the message of the race whose blood ran through my veins. From that moment I became an anthropologist” (Burger, 2009, p. 69). Throughout his career, Tello navigated this inherent ambivalence, treating human remains simultaneously as objects of empirical inquiry and as a visceral, heartfelt connection to his own ancestry. In the Andes, a skull is rarely just an anatomical object; it is a contested relic where the violence of colonial science meets the intimacy of Indigenous memory.

The treatment of the dead in the Central Andes diverges sharply from Judeo-Christian taboos or even other Indigenous traditions in the Americas. In the Andean worldview, the dead are not gone but perceived as powerful, caring entities that remain active in the world of the living. Andean people have been interacting with their dead for centuries, be it through the display of deceased bodies and body parts or the ritual handling of severed heads (Andrushko, 2011; Tung, 2008; Eeckhout & Owens, 2015; Urioste, 1981; Weismantel, 2015a). Such practices continued until recently, as anthropologist Allen (1982) noted that even in contemporary rural communities like Sonqo in southern Peru, families continued to save and display the bones of their dead—particularly skulls—for household protection.



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The enduring Andean connection with the deceased is perhaps most evident in the Ayacucho Basin, the ancient heartland of the Wari Empire (c. 600–1000 CE) in central Peru. In this region, the relationship between the living and the dead remains not merely an ethnographic relic, but a vibrant contemporary reality; artisans at the Cerámicas Wari workshop in Ayacucho, for instance, interpret the skull motifs on their vessel replicas as symbols of ancestors who have been reunited with their families (Personal communication, 16 September 2021). This modern resonance raises a fundamental question regarding Wari mortuary culture: were objects decorated with skeletal imagery mere representations of the deceased, or were they presentations—tangible, active manifestations of the dead themselves?

The answer to this question appears deeply embedded in the identity of the Ayacucho region, a name often translated from Quechua as the “Corner of the Dead” (Cavero Carrasco, 2007). Centered within this basin, the Wari Empire emerged as the first expansive state to unify the diverse landscapes of the Peruvian Andes. Preceding the Inca by several centuries, the Wari maintained a sophisticated bureaucracy and a cohesive religious ideology, both of which were disseminated throughout the territory via a standardized architectural program and the widespread performance of state-sponsored drinking ceremonies (Isbell & Schreiber, 1978; Knobloch, 1983; Cook, 1984; Isbell & Cook, 1987; Jennings, 2006; Williams et al., 2001).

Linguistically, the term “Wari” is deeply entangled with concepts of the dead. It is important to note, however, that “Wari” is an exonym of modern academic construction; it is highly unlikely that this term was used by the group itself to self-identify, nor is there evidence that neighboring groups used it to name them during the Middle Horizon. Nevertheless, the modern usage of the term retains a striking conceptual link to the past. In the 17th century, de Arriaga (1968, p. 116) noted that *huari* referred to the “first settlers” or ancestors of a place (Duviols, 1973). In contemporary Ayacucho folklore, “Wari” persists as the name for the ancient inhabitants of the region, but also that of a specific affliction caused by contact with ancient human remains (Ansión, 1987, p. 93). Hence, while the term “Wari” is a modern construct, the linguistic overlap between this name and the dead suggests that, in the Ayacucho region, ancestors and bones were a central pillar of social cohesion.

Despite this enduring cultural connection, the role and status of the deceased in the Wari Empire require further scholarly investigation. While pioneering bioarchaeological research by Tung (2007, 2008, 2012) has scrutinized the empire’s skeletal record—specifically regarding cranial deformation, trauma, and trepanation—the concurrent iconographic treatment of the skull has been largely overlooked. This study aims to bridge that divide, connecting the biological reality of the Wari dead with the symbolic and artistic frameworks through which they were remembered and venerated.

2. Defining the *Uma Tullu*: Terminology and Iconography

2.1. Terminology

This article shifts the focus from the skull as a purely skeletal structure to the skull as a sophisticated visual sign used throughout Wari material culture. To emphasize this distinction, I adopt the Quechua term *uma tullu*—literally “bone head”—to describe the Wari skull motif. In the early Quechua dictionary of González Holguín (2007), *tullu* refers to the bones of the human body (e.g., *huasa tullu*, “shin”; *huactantullu*, “back ribs”) as well as those of animals (e.g., *challwaptullun*, “fish bones”). Interestingly, *tullu* also designates the essential structural element of plants, such as the cane of the quinoa (*quinuap tullun*), and inanimate objects, such as the spindle stick (*puchkap tullun*). *Tullu*, therefore, signifies more than just bone; it represents a universal structural spine that supports humans, animals, plants, and objects alike.

Conversely, *uma* (or *huma*) in Quechua designates the head not merely as an anatomical feature, but as the seat of memory (Classen, 1993, p. 88). Indeed, the Quechua expression for “to remember”—*humayman cuttichicupuni*—literally translates to “bringing something back to the head” (González Holguín, 2007, p. 247). By synthesizing these linguistic layers, I propose that the *uma tullu* should be understood not as a static symbol of death, but as an animate structural encasement of memory.

2.2. Iconography

The *uma tullu* is defined by four primary diagnostic markers across media (Figure 1). While medium-specific limitations—particularly in metalwork—occasionally lead to simplification (Figure 2), each specimen in the study clearly adheres to this standardized model and displays at least two of the following:

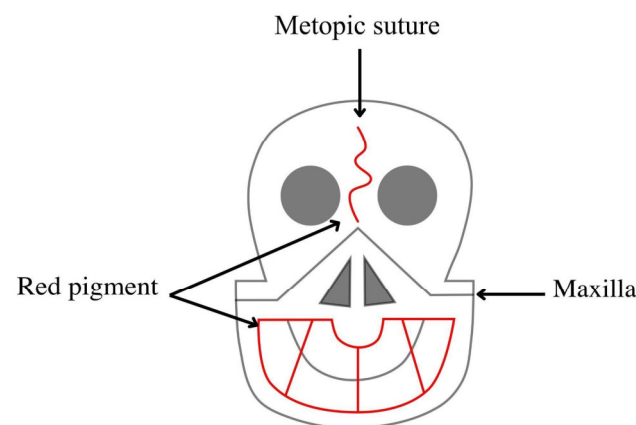


Figure 1. Primary characteristics of the *uma tullu* design.

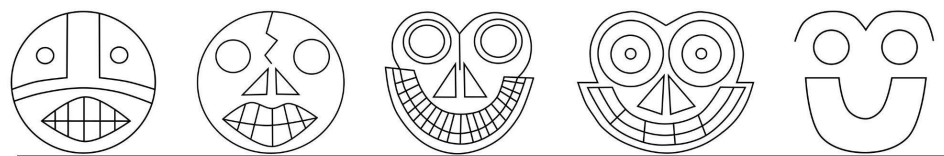


Figure 2. *Uma tullu* iconography on metal.

1. Coloration: On ceramics, the skull is consistently painted bone-white; on textiles, it is rendered in white or beige thread.
2. Orbital and Nasal Cavities: The motif features a nasal opening marked by two symmetrical triangles and typically includes dark, hollow eye sockets.
3. A Metopic Suture: In over half of the corpus ($n = 35$), a wavy vertical line is depicted along the center of the frontal bone, directly corresponding to where the metopic suture would be on a skull. Given that some objects also feature two additional wavy lines—corresponding to the coronal and sagittal sutures (Figure 3a,c,d)—this central line is almost certainly a deliberate reference to human anatomy rather than a purely decorative addition.
4. Red Pigmentation: Red highlights are applied with consistent intent to the sutures and the outline of the mouth, which often appears in a wide, “grinning” expression.

The metopic suture and red pigmentation distinguish the *uma tullu* from any other skull imagery in the ancient Andes (see Section 2.3). These two features might initially appear fortuitous, but closer examination reveals that the motif is deeply anchored in biological reality rather than artistic imagination.

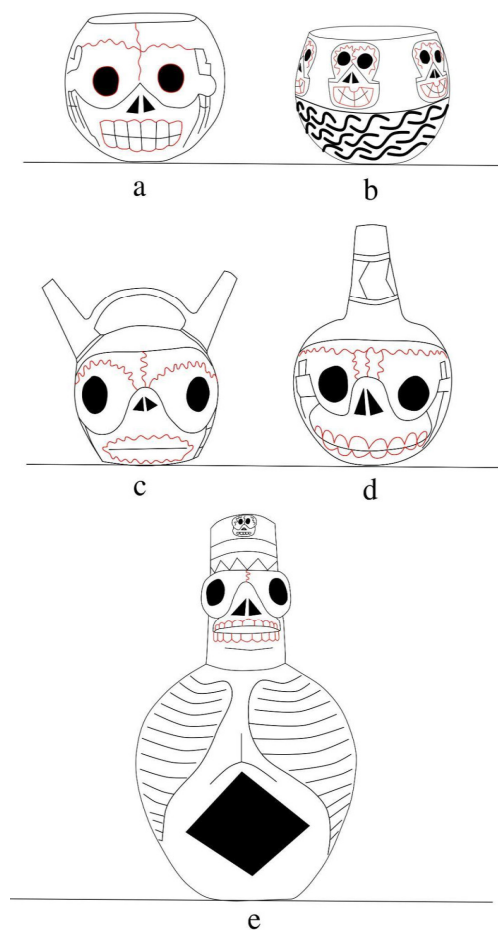


Figure 3. Typology of Wari ceramics with *uma tullu* iconography (a) modeled vessel (Pachacamac, American Museum of Natural History); (b) painted bowl (unknown provenance, Museo Larco); (c) bottle with double spout and bridge (unknown provenance, Dumbarton Oaks); (d) bottle (unknown provenance, Fowler Museum); (e) face-neck bottle (Espíritu Pampa). Not to scale.

First, the fact that the Wari people chose to depict the metopic suture reflects a certain level of anatomical knowledge and an intentional iconographical choice, as most human skulls do not show a metopic suture. This suture typically fuses in humans by nine months of age (Zdilla et al., 2018), and is thus invisible on most skulls beyond those of infants. However, metopism—the persistence of the suture into adulthood—is a documented genetic trait which occurs around the world, including in the Andes. Bioarchaeologist Verano (1987, 2003, p. 113) estimated that roughly 10% of Highland Inca populations exhibited metopism, a frequency significantly higher than that observed in Andean coastal groups (Sullivan, 1922, p. 233). The recovery of adult skulls with metopism in the Wari heartland (also located in the Highlands) suggests that the *uma tullu* did not necessarily depict infants with unfused sutures, but rather a recognized biological variation within the adult population.

Second, the application of red pigment to the mouth and sutures on the *uma tullu* are correlated by the archaeological record. The use of cinnabar and other red pigments on human remains is well-attested in the Wari archaeological record: for example, individuals interred at Conchopata and in the “Red Mausoleum” at Castillo de Huarmey were found with red pigment applied directly to their faces or skeletal remains (Tung & Cook, 2006; Więckowski, 2019, Figure 29). No other color than red is ever used to paint (or weave) sutures and other details on the *uma tullu*, and the skull itself is always depicted bone white—suggesting a deliberate attempt to emulate the color of human remains.

Hence, given how intentional Wari artists had to be to create such a detailed and uniform design of a human skull, I propose that the *uma tullu* likely functioned as a visual record of Wari mortuary practice. By choosing to depict skulls with a metopic suture and highlighting it with red pigment, Wari artists appear to have transformed biological idiosyncratic features into a visual symbol, shared throughout the empire.

2.3. Cross-Cultural Comparisons

While skeletal imagery appears across the ancient Andes, the Wari *uma tullu* is unique in its number, standardization, and abstraction. Comparing the Wari motif to the traditions of the Nasca, Moche, and Tiwanaku highlights the specific semiotic role the skull would have played in the Wari Empire.

In the Early Intermediate Period (200 BCE–600 CE), the Nasca, on the South Coast of present-day Peru, famously curated trophy heads taken from enemies in battle (Proulx, 1989). While these heads appear frequently on Nasca pottery—often carried by warriors and deities or depicted with signs of fresh violence, such as dripping blood—they are fundamentally different from the *uma tullu*. Nasca representations focus on the fleshed head, complete with pinned lips and carrying ropes passed through the forehead (Kroeber & Collier, 1998). In contrast, the Wari motif showcases a dry, skeletonized skull, devoid of explicit indicators of violence. Nasca trophy-heads may have provided an initial iconographic foundation for the Wari, but the transition from the fleshed, violent trophy to the abstracted, skeletal *uma tullu* suggests a profound conceptual shift: the Wari moved away from celebrating military victory toward the management of a distinct and standardized imperial symbol.

The Moche, contemporary to the Nasca, did depict skeletons more frequently than perhaps any other Andean groups, but their approach was narrative and naturalistic. Moche skeletons are typically full-bodied figures engaged in lively activities such as dancing, playing music, or sexual encounters—themes often linked to ancestor worship and the continuity of life (Donnan, 1982, p. 100; Donnan, 1978, p. 106; Weismantel, 2004, pp. 501–502). Visually, Moche skeletons lack the diagnostic markers of the *uma tullu*, such as the metopic suture or the specific red-pigmented highlights. When standalone skull-shaped vessels do occur in Moche art (e.g., Museo Larco ML013346; ML001427), they often appear flayed or mutilated, as if representing an individual in the process of dying quite literally rather than a reinterpreted skeletal symbol. Ultimately, while Moche art uses the full skeleton to tell a story of life and death, Wari art treats the *uma tullu* as an isolated, abstracted fragment that stands on its own as what seems to be a state-controlled icon.

Finally, despite the long-standing comparisons between Wari and its contemporary southern state, Tiwanaku, the *uma tullu* is strikingly absent from the Altiplano repertoire. The rare occurrences of skull designs in Tiwanaku—such as on modeled bowls from Moquegua or foot-shaped vessels from Pariti—are widely considered to be the result of a Wari influence rather than local Tiwanaku inventions (Goldstein, 1989, p. 121; Korpisaari & Trigo, 2018, pp. 196–198). These isolated examples lack the metopic suture and appear primarily on ceramics, whereas the Wari applied the *uma tullu* across a wider range of media, including textiles, metal, and shell. This suggests that the skull was a primarily Wari preoccupation, exported to the Tiwanaku sphere through imperial interaction rather than shared heritage.

By moving away from the fleshy realism of the Nasca and the narrative animation of the Moche, the Wari seem to have created with the *uma tullu* a standardized and media-transcendent sign that was unique to them.

3. Corpus Overview

This study is based on a primary database of 63 objects, including ceramics, textiles, and metalwork, curated from international museum collections, private archives, and published archaeological reports.

3.1. Selection Criteria and Methodology

The corpus was initially established by identifying ceramic vessels with *uma tullu* designs, as it is the medium on which the motif is most prevalent and clearly defined. I only selected objects exhibiting at least one of the *uma tullu*'s two primary diagnostic features (the metopic suture or red highlights). To ensure consistency, I conducted direct physical examinations of some of these objects, such as those held in the Museo Nacional de Arqueología, Antropología e Historia del Perú (MNAAHP) and the Museo Larco in Lima, as well as the archaeological collections at the Universidad Nacional de San Cristóbal de Huamanga in Ayacucho. Specimens that displayed highly abstracted or simplified iterations of the motif (e.g., [Knobloch et al., 2023](#), Figure 4, PK004) were excluded to avoid over-interpretation in cases where the iconography remained ambiguous.

Following the analysis of the ceramic specimens, I expanded the corpus to include textiles and other media. For textile-based motifs, I relied on established identifications by specialist [Bergh \(1999\)](#) as well as published items from the art market, such as art galleries' online collections. When evaluating artifacts in more challenging media (metal, feather, and shell), I first prioritized specimens exhibiting a clear correlation with the *uma tullu* design, specifically the depiction of nasal cavities and the metopic suture. I then expanded the corpus to include some more abstracted versions to account for the technological limitations of these materials and the small size of these items (Figure 2; see also [Paulsen, 1968](#), Figure 23).

Of the 63 objects analyzed, 33 lack precise contextual provenance—which includes all 12 textiles. The remaining 30 objects possess provenance data with varying degrees of precision, ranging from highly specific records (site, pit, and stratigraphic level; e.g., [Bennett, 1953](#), Plate 3b) to broader regional attributions (e.g., [Menzel, 1968](#), Figure 40a–c). A full list of the analyzed objects detailing their collection, provenance, and diagnostic features is available from the author upon request.

The distribution of the corpus mirrors the reach of the Wari Empire itself, with samples originating from the following key centers:

- The Heartland: Ayacucho (Conchopata and the capital, Wari);
- The Coast: Castillo de Huarmey and Pachacamac;
- The Southern Highlands: Pikillacta;
- The Eastern Lowlands: Espíritu Pampa.

Recent studies indicate that most ceramics recovered from Wari provincial sites were produced locally rather than imported from centralized imperial workshops ([Glowacki, 2005](#); [Williams et al., 2019](#); [Druc et al., 2020](#)). Although similar provenance data for other media—particularly textiles—is currently limited, this trend suggests that local artists were responsible for crafting *uma tullu* ceramics. Their ability to replicate this motif across such diverse regions points to the successful dissemination of a standardized imperial iconography, which local practitioners integrated seamlessly.

While preservation bias favors ceramics, the presence of the motif on fragile textiles and precious metals suggests it was a pervasive element of Wari material culture. Ceramics comprise 70% of the corpus, appearing in four primary forms: painted bowls and tumblers, modeled vessels, face-neck bottles, and other bottles (Figure 3). Despite this formal variety, the *uma tullu* iconography adheres to well-defined sub-types.

3.2. Painted Bowls and Tumblers

Painted bowls and tumblers are the most common form ($n = 10$). They are most often globular, skillfully painted and burnished. Their uniformity is remarkable: their decoration is divided in two sections on the exterior wall of the vessel, with the upper row depicting repeating *uma tullu* on a red or dark background, and the lower row being filled with dark side-S motifs on a white background. Such painted bowls and tumblers have been recovered from Castillo de Huarmey, in the north of the Wari Empire, to Pikillacta, in the south (Więckowski, 2019, Cover; Bennett, 1953, Plate 3; Glowacki, 1996, p. 192; Isbell, 1977, Figure 40E).

3.3. Modeled Vessels

These vessels are modeled in the round to recreate a three-dimensional *uma tullu*. The most well-known example is a set from Pachacamac at the American Museum of Natural History (Figure 3a), mistakenly described in scholarship as a pair (Quilter, 2005, p. 128). It was actually part of a group of three vessels separated in 1931, when one of the bowls was sent to the Phoebe A. Hearst Museum of Anthropology in Berkeley. Other examples, such as the one excavated in EA 153 at Conchopata, seem to have been unicums.

3.4. Face-Neck Bottles

Wari face-neck bottles offer a unique context for the *uma tullu*, transforming the anatomical fragment into a full-bodied entity. On these vessels, the skeletal motif is—ironically—brought to life through the addition of elite regalia, such as woven hats, elaborate tunics, and, in some instances, long black hair. Within the studied corpus, 66% of these vessels feature yellow-painted eyeballs, which contribute to the lifelike appearance of the skull. However, the metopic suture—otherwise ubiquitous in *uma tullu* iconography on ceramic—is notably absent, marking a striking departure from standard stylistic conventions.

A significant exception to this rule is the bottle excavated by Javier Fonseca Santa Cruz from a D-shaped temple at Espiritu Pampa (Figure 4). This artifact deviates from the established norm by featuring a skeletonized torso marked by an internal black rhombus (likely representing the liver) as well as a prominent metopic suture and a secondary register of *uma tullu* motifs adorning the rim of the figure's hat.

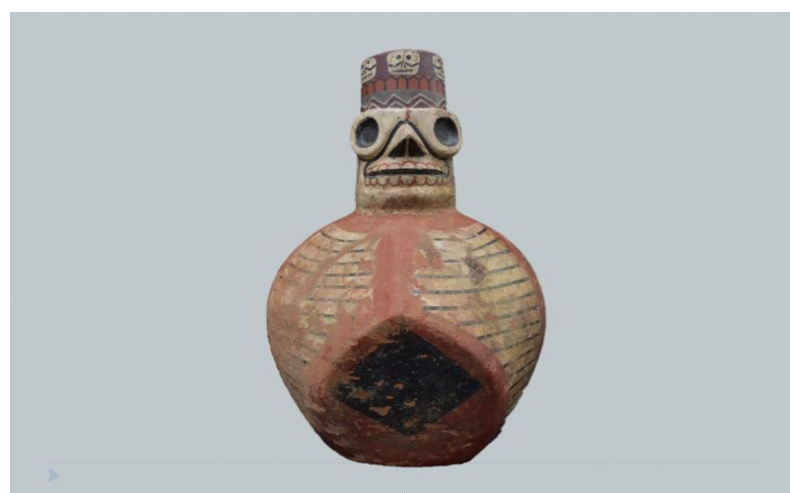


Figure 4. *Uma tullu* face-neck bottle featuring a row of *uma tullu* motifs on its hat, excavated in a D-shaped temple at Espiritu Pampa. Image courtesy Javier Fonseca Santa Cruz.

3.5. Textiles

Textiles account for 19% of the corpus ($n = 12$), consisting exclusively of interlocking tapestry tunics. These garments are highly standardized, typically featuring a total of sixteen *uma tullu* motifs—eight on the front and eight on the back—mirrored around a central seam. The number of these motifs may correspond to the architectural niches found in Wari D-shaped ritual structures (Cook, 2000), which likely served to display ancestral remains or offerings—a practice that finds echoes in contemporary Andean ritual (Allen, 1982, p. 184). However, as archaeological excavations have documented significant variability in the number of niches across different sites (Reid, 2023), any direct correlation between these architectural and iconographic counts remains interpretive.

Unlike their ceramic counterparts, textile-based *uma tullu* are consistently rendered in profile and feature two distinct formal elements:

- **Stripes and Circles:** Four or five colored stripes extend from the base of the skull, ending in concentric circles. These may represent ritualized wigs fashioned from human hair and dyed threads, similar to those recovered from archaeological mummy bundles (Stone-Miller, 1994).
- **The “Tuning Fork” Pattern:** The background of these tunics is filled with interlocking, zigzagging “Y” shapes. While textile specialist Bergh (1999, p. 42) associates this design with fertility or agricultural fields, it may also represent a stylized abstraction of the cranial sutures that are otherwise absent from the textile skulls.

None of the tunics included in this corpus currently possess secure archaeological provenance, which limits our ability to definitively reconstruct their original depositional context. We can, however, infer that the presence of the *uma tullu* motif, stripes and circles, and “tuning fork” pattern suggests these tunics served primarily as funerary garments intended to envelop mortuary bundles. If so, these standardized garments would have functioned as an imperial shroud, effectively cladding the deceased in a shared identity that transcended local or provincial affiliations.

3.6. Metal and Other Media

Due to the prevalence of historical looting and the subsequent melting of precious metals, Wari metalwork remains exceptionally rare. The *uma tullu* motif persists, however, on a select group of gold and silver ornaments, ranging from detailed depictions—complete with visible metopic sutures—to highly abstracted iterations featuring only the grin and brow bone (Figure 2). Many of these sheet-metal items were perforated; for instance, a collection of 14 ornaments currently at the Houston Museum of Fine Arts (2010.674.1–.14) appears to have functioned as sequins intended to be stitched onto textiles. Similar square and circular ornaments have been recovered from Espíritu Pampa (Fonseca Santa Cruz & Bauer, 2020, pp. 165–167), suggesting that these shimmering metallic *uma tullu* served a parallel function to the motifs woven into tapestry tunics.

Beyond metal, the motif appears in shell mosaic (e.g., Ethnologisches Museum, Berlin, V A 41595) and featherwork (e.g., Princeton University Art Museum, 1996-228.3), further confirming that the *uma tullu* was a foundational element of the Wari visual repertoire.

Overall, the homogeneity of the *uma tullu* across diverse media—ceramics, textiles, metal, and featherwork—stands in sharp contrast to the typical heterogeneity of Wari art. Whether these objects were produced in centralized workshops or replicated locally, the strict adherence to specific diagnostic markers, even within highly abstracted forms, indicates that the *uma tullu* functioned as a tightly regulated imperial symbol.

4. Interpretations of the *Uma Tullu*

The standardization of the *uma tullu* strongly suggests that the motif served a defined socio-political function, likely acting as a primary medium for projecting state identity. While it could be argued that the *uma tullu* represents a generic defeated opponent—akin to the Nasca trophy head, a practice well-documented in the Wari Empire (Tung, 2008; Andrushko, 2011)—the motif's specific diagnostic features point toward more nuanced identities. Based on the persistent depiction of metopism and the deliberate application of red pigment, I propose two primary interpretations of the *uma tullu*: the sacrificed child or the venerated ancestor, with the latter potentially tied to matriarchal lineages.

4.1. The Child Hypothesis: Sacrifice and Imperial Control

Because the metopic suture typically fuses by nine months of age, its prominent depiction on the *uma tullu* suggests a link with infants. In the ancient Andes, deceased children often held a unique status as intercessors between the living and the sacred, and as such, they may have served as objects of imperial control for the Wari. For example, at Conchopata, 23% of recovered trophy heads belonged to children aged between three and twelve—a significant increase from earlier periods (Tung & Knudson, 2011). Isotope analysis revealed that half of these children were non-local, which for Tung and Knudson indicates that the Wari practiced ritual sacrifice of young provincial subjects to assert imperial dominance. This strategy was later mirrored by the Inca in Capacocha ceremonies, during which children from around the empire were brought to high peaks where they were sacrificed (Classen, 1993, pp. 79–80).

The application of red pigment (either cinnabar or ochre) on child remains is a recurring Andean trope, including in the Wari Empire. In the EA 98 and 179 at Conchopata, the isolated mandible and teeth of children were found covered in cinnabar (Tung, 2012, p. 68; Tung et al., 2024, Figure 2). Later Chimú sacrificial sites at Huanchaco show red pigment on the foreheads of children, matching the exact placement of the red sutures in Wari iconography (Donnan & Foote, 1978, p. 406). The bodies of children sacrificed in Inca Capacocha ceremonies also occasionally bear traces of red pigment on their skin, as well as in one case in their vomit and feces, indicating that the pigment had been ingested (Ceruti, 2004, pp. 106–112).

However, not all remains of Wari children show signs of violence and are associated with sacrificial practices. Some were buried with elite grave goods and inverted bowls over their heads, a treatment identical to that of adult women. This would suggest that, for the Wari, certain children belonged to a protected, elite lineage rather than a sacrificial pool (Tung & Cook, 2006; Isbell & Groleau, 2010, p. 194). Whether members of the imperial elite or objects of sacrifice, the children mentioned in those multiple examples were far from infants, usually ranging between 5 and 15 years old—hence, far past the stage of displaying a metopic suture.

4.2. The Matriarch Hypothesis: Ancestors and Lineage

A compelling alternative interpretation is that the *uma tullu* represents powerful ancestral figures. To evaluate this hypothesis, we must first establish the parameters of ancestorhood within the Wari archaeological record. In this study, I define an ancestor as a deceased group member—whether linked through biological kinship or conceptual ties, such as the status of a ruler (Hill & Hageman, 2016; McAnany, 1995)—whose elevated position was materialized through long-term investments of memory and resources. Archaeologically, this status is typically signaled by three diagnostic patterns:

- Specialized Mortuary Treatment: The curation of skeletal elements, delayed or secondary interment, and the deliberate application of pigments, such as cinnabar;

- Landscape and Architecture: The deposition of remains within monumental structures, such as mausolea, or in proximity to vital landscape features like water sources;
- Recurring Ritual Performance: Ongoing engagement with the deceased through periodic offerings and communal libations.

Under this framework, I identify a Wari ancestor as a deceased person for whom sustained post-mortem investment and communal care are archaeologically evidenced. The following sections demonstrate how the *uma tullu* motif aligns with these established patterns of ancestral veneration, beginning with its direct association with elite funerary regalia.

First, on Wari face-neck bottles, skulls are frequently humanized and adorned in the same intricate tapestry tunics and hats known from high-status mortuary contexts (Stone-Miller, 1994; Bergh, 1999). These embodied representations mirror the actual treatment of ancestral funerary bundles, which were often lavishly clothed and topped with elaborate ‘false heads.’ This connection between artistic practice and ritual reality is further illustrated by a ceramic bowl excavated from Conchopata (EA 153) which depicts a defleshed *uma tullu* crowned with a jaguar headdress—a primary emblem of Wari power and prestige (Figure 5). Given the high investment of resources required for such funerary goods, it appears unlikely that these motifs were meant to represent deceased opponents or trophy heads. Instead, by depicting the *uma tullu* in elite attire—and, in some instances, augmenting the motif with realistic details like eyes and hair—Wari artists appear to have blurred the boundary between biological death and social life, reinforcing the belief that the deceased retained agency and status within the community (Parker Pearson, 1999).



Figure 5. Modeled bowl featuring an *uma tullu* with a jaguar headdress excavated in EA 153 at Conchopata. Museo Histórico Regional Hipólito Unanue, Ayacucho.

Secondly, many bowls and tumblers featuring the *uma tullu* incorporate rows of S-shaped motifs, which likely represent water—a critical resource during the Wari period, particularly given the state’s emphasis on constructing irrigation canals and aqueducts following a prolonged era of drought (Williams, 1997). Archaeologists Glowacki and Malpass (2003) have

argued that the Wari frequently deposited ancestral remains near water sources to mark territory and legitimize land claims, asserting the dominance of Wari ancestry over local lineages. This practice finds a parallel in later Inca methods of replacing local ancestral remains with their own to finalize the conquest of both territory and history (Nystrom, 2013).

Ultimately, the *uma tullu*'s primary diagnostic markers—red pigmentation and the metopic suture—find compelling correlates in the Wari bioarchaeological record, particularly within elite contexts. This pattern suggests a potentially gendered approach to ancestral curation, where the manipulation of remains through delayed interment and specific chromatic treatments served as a cornerstone of imperial ritual. No burial illustrates this correlation more vividly than EA 105 at Conchopata, a tomb containing fourteen individuals, including infants, children, and three adult women, including a pregnant one. Isbell (2007) initially interpreted it as the tomb of a polygamous lord, bioarchaeologist Tiffany Tung (Tung & Cook, 2006, p. 79) hypothesized it was a communal resting place for a kin group, citing shared genetic traits among the deceased. Radiocarbon dating later supported Tung's analysis, revealing a significant temporal gap: the man interred at the base dated to 714–953 CE, while the pregnant woman at the tomb's entrance dated to 343–645 CE. Based on this, Tung (2012, pp. 43–46) proposed that the pregnant woman “may represent an ancestral mummy that was saved for veneration rituals” long after her initial death. This evidence reinforces the hypothesis that the Wari practiced long-term ancestral veneration and that female figures may have held a central, honored role in these rituals.

Evidence linking Wari women to specialized mortuary treatments extends beyond EA 105. Another multiple burial at Conchopata, EA 150, contained high-status grave goods—including gold—and featured the remains of an elderly woman whose cranium was coated in cinnabar (Tung, 2012, p. 68). In the northern reaches of the empire, at the “Red Mausoleum” of Castillo de Huarmey, 30 of the 66 examined individuals exhibited facial pigmentation; notably, the most elaborate interment within that context was an elderly woman similarly painted in red (Więckowski, 2019, Figure 29). While these examples do not preclude the veneration of male ancestors, it is significant that the majority of adult remains found with red pigment to date have been sexed as female.

Furthermore, the prevalence of metopism—while still underexplored for the Middle Horizon—is evidenced in the imperial heartland. A cranium exhibiting both artificial deformation and metopism is currently held at the Museo de Sitio Wari, and an adult female skull recovered from the Cheqo Wasi sector displays an identical combination of features (Tung, personal communication, 20 October 2021). While a comprehensive, sex-cross-referenced survey is required to confirm the regional prevalence of this trait, clinical research offers a compelling parallel: studies indicate that metopism occurs significantly more frequently in females than in males (Vinchon, 2019; Zdilla et al., 2018).

Although elite female interments and the deliberate curation of their remains are well-documented, sex and gender remain under-theorized variables in the study of Wari ancestral veneration. Addressing ingrained androcentrism—which may lead to the misinterpretation of an elite burial as the resting place of a polygynous male lord rather than a matriarchal lineage—is critical for a more nuanced reconstruction of Middle Horizon social and political power.

Ultimately, the significance of the *uma tullu* motif transcends the specific identity of the individuals it represents. Once standardized as a state-sanctioned signifier, I argue that the *uma tullu* functioned as more than a representation of a deceased person; it evolved into a potent vessel for broader imperial ideology.

5. Discussion: The Metopic Suture as a Tinkuy

The evidence presented in this study suggests that the *uma tullu* was a standardized state icon that was painted, woven, or etched throughout the Wari territory, likely encoding

ancestral cult practices. But what was its role throughout the empire? How could skulls and ancestors facilitate ideological expansion and ideological cohesion across the expansive Wari territory? I hypothesize that the *uma tullu*—and the metopic suture in particular—encoded the Andean concept of *tinkuy*.

Traditionally referring to the meeting of two rivers, *tinkuy* describes a potent convergence where two halves meet to create a new, animated whole (Earls & Silverblatt, 1978, p. 311; Cereceda, 1987, p. 212). While projecting this pan-Andean ontology onto the Wari requires caution, the strategic placement of imperial sites like Cerro Baúl at the confluence of rivers suggests that the concept was foundational to Wari spatial and ideological logic.

The visual evidence for this connection lies in the representation of the metopic suture as a wavy, undulating line—a convention identical to the rendering of textile seams in Wari art. Unlike Tiwanaku or Inca garments, Wari tunics were constructed from two vertical panels joined by a central seam. In Wari iconography, specifically on ceramics depicting striped or tie-dyed garments, artists consistently rendered these seams as zigzagging lines (Figure 6). This is a purposeful departure from physical reality; on extant tie-dye tunics, these stitches appear as discrete, diagonal dashes. By opting for a stark, continuous wavy line on ceramics, Wari artists emphasized the tunic's seam beyond its literal manifestation. As Weismantel (2015b, p. 150) has argued regarding Chavín art, Andean iconography often collapses the boundary between interior and exterior, visible and invisible. Employing a similar strategy of making the hidden visible, Wari ceramicists traced the path of the thread as it traveled through the cloth, effectively providing an “x-ray” view of the stitch.

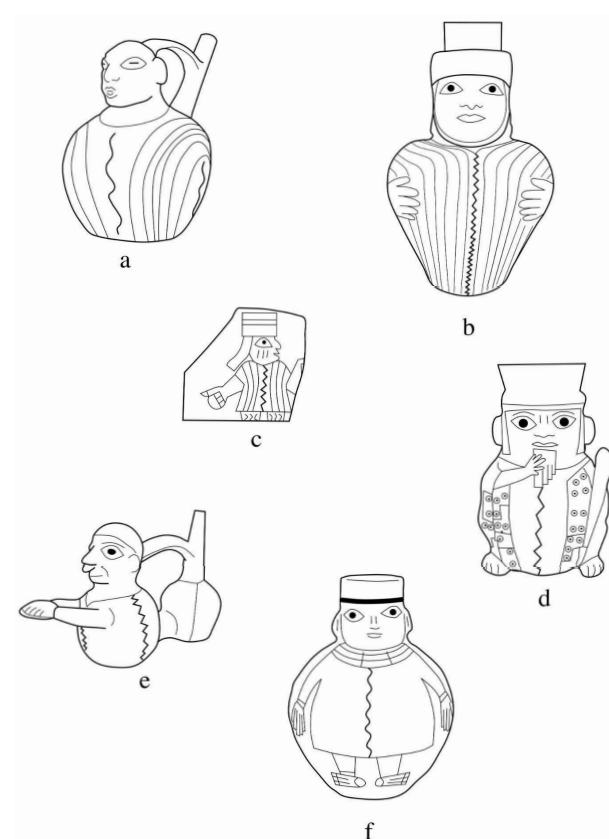


Figure 6. Examples of Wari ceramics depicting seams on tunics (a) bottle with bridge spout, unknown provenance, Fowler Museum (Los Angeles); (b) face-neck bottle, Pacheco, Museo Nacional de Arqueología Antropología e Historia del Perú (Lima); (c) fragment, Wari, Laboratorio de Arqueología, UNSCH (Ayacucho); (d) face-neck bottle, Museum of Fine Arts (Houston); (e) double-bodied bottle with bridge spout, Pachacamac, Ethnologisches Museum (Berlin); (f) face-neck bottle, Phoebe A. Hearst Museum of Anthropology (Berkeley). Not to scale.

The striking similarity between the textile *tinkuy*—the encounter of two halves—and the representation of the metopic suture on the *uma tullu* (an osteological *tinkuy*) creates a symbolic bridge between the social and the biological. Just as the stitches bind two halves of an imperial garment, the metopic suture serves as the *tinkuy* of the skull: it is the essential junction that unifies the human head.

I propose that by emphasizing this suture on the *uma tullu*, Wari artists transformed a biological feature into a profound metaphor for imperial cohesion and the animated power of the ancestors. Indeed, if the *uma tullu* served as a locus of convergence, then objects bearing this iconography likely played a pivotal role in constructing a unified imperial identity. Ceramics with *uma tullu* designs, in particular, would have functioned as essential tools for ritual commensality. By sharing food or drink from these vessels, the Wari could negotiate lineage, creating fictive kinship ties to integrate disparate groups into the imperial fold, just as Niles (1999, p. xvii) observed for the Inca: “the prestige of the living was directly related to the reputation of the dead.”

By framing the metopic suture as a *tinkuy*—the potent encounter between two halves—the Wari would have established a sophisticated visual metaphor for integrating newly conquered populations into the state. This “suturing” of diverse groups into a single imperial body provided a framework for transforming local lineages into a unified ancestral narrative. The enduring power of this iconography is perhaps best evidenced by its modern linguistic legacy in the Ayacucho region, where the term *wari* remains inextricably linked to the bones of the ancestors—a persistent echo of an imperial vision that sought to bridge the world of the living and the curated memory of the dead.

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References

- Allen, C. J. (1982). Body and soul in Quechua thought. *Journal of Latin American Lore*, 8(2), 179–196.
- Andrushko, V. A. (2011). How the wari fashioned trophy heads for display. A distinctive modified cranium from Cuzco, Peru, and comparison to trophies from the capital region. In M. Bonogofsky (Ed.), *The bioarchaeology of the human head: Decapitation, decoration, and deformation* (pp. 262–285). University Press of Florida.
- Ansión, J. (1987). *Desde el rincón de los muertos: El pensamiento mítico en ayacucho*. GREDES.
- Bennett, W. C. (1953). *Excavations at wari, Ayacucho, Peru*. Yale University Press.
- Bergh, S. E. (1999). *Pattern and paradigm in middle horizon tapestry tunics* [Ph.D. dissertation, Columbia University].
- Burger, R. L. (2009). The intellectual legacy of Julio C. Tello. In R. L. Burger (Ed.), *The life and writings of Julio C. Tello: America’s first indigenous archaeologist* (pp. 65–88). University of Iowa Press.
- Cavero Carrasco, R. (2007). *Retablo de memorias: Indígenas e indigenismo en Ayacucho*. Universidad Nacional de San Cristóbal de Huamanga.
- Cereceda, V. (1987). Aproximaciones a una estética andina: De la belleza al tinku. In T. Bouysse-Cassagne, O. Harris, T. Platt, & V. Cereceda (Eds.), *Tres reflexiones sobre el pensamiento andino* (pp. 133–223). Hisbol.
- Ceruti, C. (2004). Human bodies as objects of dedication at Inca Mountain Shrines (North-Western Argentina). *World Archaeology*, 36(1), 103–122. [CrossRef]
- Classen, C. (1993). *Inca cosmology and the human body*. University of Utah Press.
- Cook, A. G. (1984). The middle horizon ceramic offerings from Conchopata. *Ñawpa Pacha*, 22(1), 49–90. [CrossRef]

- Cook, A. G. (2000). Huari D-shaped structures, sacrificial offerings and divine kingship. In B. Benson, & A. G. Cook (Eds.), *Ritual sacrifice in ancient Peru* (pp. 137–164). University of Texas Press.
- de Arriaga, P. J. (1968). *The extirpation of idolatry in Peru*. University of Kentucky Press.
- Donnan, C. B. (1978). *Moche art of Peru: Pre-columbian symbolic communication*. Museum of Cultural History, University of California.
- Donnan, C. B. (1982). Dance in moche art. *Ñawpa Pacha*, 20, 97–120. [\[CrossRef\]](#)
- Donnan, C. B., & Foote, L. J. (1978). Child and llama burials from Huanchaco. In C. B. Donnan, & C. J. Mackey (Eds.), *Ancient burial patterns of the moche valley* (pp. 399–408). University of Texas Press.
- Druc, I., Giersz, M., Kałaskac, M., Siuda, R., Makowski, K., Chylac, J. M., Pimentel Nita, R., & Syczewskic, M. (2020). Offerings for wari ancestors: Strategies of ceramic production and distribution at Castillo de Huarmey, Peru. *Journal of Archaeological Science Reports*, 30, 102229. [\[CrossRef\]](#)
- Duviols, P. (1973). Huari y llacuzaz: Agricultores y pastores: Un dualismo prehispánico de oposición y complementaridad. *Revista del Museo Nacional*, 39, 153–191.
- Earls, J., & Silverblatt, I. (1978). La realidad física y social en la cosmología andina. In *Actes du XLIIIe congrès international des Américanistes (Paris, 2–9 Septembre 1976)* (Volume 4, pp. 444–473). Société des Américanistes.
- Eeckhout, P., & Owens, L. S. (2015). *Funerary practices and models in the ancient Andes: The return of the living dead*. Cambridge University Press.
- Fonseca Santa Cruz, J., & Bauer, B. S. (2020). *The wari enclave of espíritu Pampa*. Cotsen Institute of Archaeology Press at UCLA.
- Glowacki, M. (1996). *The wari occupation of the southern highlands of Peru: A ceramic perspective from the site of Pikillacta* [Ph.D. dissertation, Brandeis University].
- Glowacki, M. (2005). Pottery from Pikillacta. In G. F. McEwan (Ed.), *Pikillacta: The wari empire in Cuzco* (pp. 101–113). University of Iowa Press.
- Glowacki, M., & Malpass, M. (2003). Water, huacas, and ancestor worship: Traces of a sacred wari landscape. *Latin American Antiquity*, 14(4), 431–448. [\[CrossRef\]](#)
- Goldstein, P. S. (1989). *Omo, a tiwanaku provincial center in Moquegua, Peru* [Ph.D. dissertation, University of Chicago].
- González Holguín, D. (2007). *Vocabulario de la lengua general de todo el peru llamada lengua qquichua, o del inca*. Runasimipi Qespiqa Software.
- Hill, E., & Hageman, J. B. (2016). *The archaeology of ancestors: Death, memory, and veneration*. University Press of Florida.
- Isbell, W. H. (1977). *The rural foundation for urbanism: A Study of economic and stylistic interaction between a rural and urban community in eighth-century Peru* [Ph.D. dissertation, University of Illinois at Urbana-Champaign].
- Isbell, W. H. (2007). A community of potters, or multicrafting wives of polygynous lords? In I. Shimada (Ed.), *Craft production in complex societies* (pp. 68–96). University of Utah Press.
- Isbell, W. H., & Cook, A. G. (1987). Ideological origins of an andean conquest state. *Archaeology*, 40(4), 27–33.
- Isbell, W. H., & Groleau, A. (2010). The wari brewer woman: Feasting, offerings, and memory. In E. Klarich (Ed.), *Inside ancient kitchens: New directions in the study of daily meals and feasting events* (pp. 191–220). University of Colorado Press.
- Isbell, W. H., & Schreiber, K. J. (1978). Was huari a state? *American Antiquity*, 43(3), 372–389. [\[CrossRef\]](#)
- Jennings, J. (2006). Understanding middle horizon Peru: Hermeneutic spirals, interpretive traditions, and wari administrative centers. *Latin American Antiquity*, 17(3), 265–286. [\[CrossRef\]](#)
- Knobloch, P. J. (1983). *A study of the andean huari ceramics from the early intermediate period to the middle horizon epoch I* [Ph.D. dissertation, State University of New York].
- Knobloch, P. J., Glascock, M. D., & MacDonald, B. L. (2023). Picking up the pieces: Instrumental Neutron Activation Analysis (INAA) of early intermediate period and middle horizon pottery from Ayacucho, Peru. *Ñawpa Pacha*, 43(1), 55–98.
- Korpisaari, A., & Trigo, D. (2018). Los vasos con forma de calavera: Símbolo de un ritual de decapitadores y elemento panandino. *Arqueologia Boliviana*, 4(4), 196–198.
- Kroeber, A., & Collier, D. (1998). *The archaeology and pottery of Nazca, Peru: Alfred L. Kroeber's 1926 expedition*. AltaMira Press.
- McAnany, P. A. (1995). *Living with the ancestors: Kinship and kingship in ancient Maya society*. University of Texas Press.
- Menzel, D. (1968). New data on the Huari empire in middle horizon Epoch 2A. *Ñawpa Pacha*, 6, 47–114. [\[CrossRef\]](#)
- Niles, S. A. (1999). *The shape of inca history: Narrative and architecture in an Andean Empire*. University of Iowa Press.
- Nystrom, K. (2013). Bioarchaeological perspective on inca imperialism. In M. C. Lozada, & B. O'Donnabhain (Eds.), *The dead tell tales: Essays in honor of Jane E. Buikstra* (pp. 123–128). Cotsen Institute of Archaeology Press.
- Parker Pearson, M. (1999). *The archaeology of death and burial*. Sutton Publishing Limited.
- Paulsen, A. C. (1968). A middle horizon tomb, Ica Valley, Peru. *Ñawpa Pacha*, 6(1), 1–6. [\[CrossRef\]](#)
- Proulx, D. A. (1989). Nasca trophy heads: Victims of warfare or ritual sacrifice? In D. C. Tkaczuk, & B. C. Vivian (Eds.), *Cultures in conflict: Current archaeological perspectives (Proceedings of the 20th annual chacmool conference)* (pp. 73–85). Archaeological Association, University of Calgary.
- Quilter, J. (2005). *Treasures of the andes: The glories of inca and pre-columbian South America*. Duncan Baird.

- Reid, D. A. (2023). The role of temple institutions in wari imperial expansion at Pakaytambo, Peru. *Journal of Anthropological Archaeology*, 69, 101485. [\[CrossRef\]](#)
- Stone-Miller, R. (1994). *To weave for the sun: Ancient andean textiles in the museum of fine arts, Boston*. Thames and Hudson.
- Sullivan, L. R. (1922). Anatomical variations in American Crania. *Anthropological Papers of the American Museum of Natural History*, 23(5), 203–258.
- Tung, T. A. (2007). Trauma and violence in the wari empire of the Peruvian Andes: Warfare, raids, and ritual fights. *American Journal of Physical Anthropology*, 133(3), 941–956. [\[CrossRef\]](#) [\[PubMed\]](#)
- Tung, T. A. (2008). Dismembering bodies for display: A bioarchaeological study of trophy heads from the wari site of Conchopata, Peru. *American Journal of Physical Anthropology*, 136, 294–308. [\[CrossRef\]](#) [\[PubMed\]](#)
- Tung, T. A. (2012). *Violence, ritual, and the wari empire: A social bioarchaeology of imperialism in the ancient Andes*. University Press of Florida.
- Tung, T. A., & Cook, A. G. (2006). Intermediate-elite agency in the wari empire. In C. M. Elson, & R. A. Covey (Eds.), *Intermediate elites in pre-columbian states and empires* (pp. 66–93). University of Arizona Press.
- Tung, T. A., Fancher Whittemore, A., & Snyder, T. J. (2024). Dietas de los lactantes y las madres en conchopata un estudio de isótopos estables de carbono y oxígeno. *Chungara: Revista de Antropología Chilena*, 56(2), 273–286.
- Tung, T. A., & Knudson, K. J. (2011). Identifying locals, migrants, and captives in the wari heartland: A bioarchaeological and biogeochemical study of human remains from Conchopata, Peru. *Journal of Anthropological Archaeology*, 30, 247–261. [\[CrossRef\]](#)
- Urioste, G. L. (1981). Sickness and death in preconquest andean cosmology: The huarochiri oral tradition. In J. W. Bastien, & J. M. Donahue (Eds.), *Health in the Andes* (pp. 9–18). American Anthropological Association.
- Verano, J. W. (1987). *Cranial microvariation at Pacatnamu: A study of cemetery population variability* [Ph.D. dissertation, University of California Los Angeles].
- Verano, J. W. (2003). Human skeletal remains from Machu Picchu: A reexamination of the Yale peabody museum’s collections. In R. L. Burger, & L. C. Salazar (Eds.), *The 1912 Yale peruvian scientific expedition collections from machu picchu: Human and animal remains* (pp. 65–117). Peabody Museum of Natural History.
- Vinchon, M. (2019). The metopic suture: Natural history. *Neuro-Chirurgie*, 65(5), 239–245. [\[CrossRef\]](#) [\[PubMed\]](#)
- Weismantel, M. (2004). Moche sex pots: Reproduction and temporality in Ancient South America. *American Anthropologist*, 106(3), 495–505. [\[CrossRef\]](#)
- Weismantel, M. (2015a). Many heads are better than one: Mortuary practice and ceramic heads in Ancient Moche society. In I. Shimada (Ed.), *Living with the dead in the Andes* (pp. 76–100). University of Arizona Press.
- Weismantel, M. (2015b). Seeing like an archaeologist: Viveiros de castro at chavín de huantar. *Journal of Social Archaeology*, 15(2), 139–159. [\[CrossRef\]](#)
- Więckowski, W. (2019). *Wari women from Huarmey: Bioarchaeological interpretation of human remains from the wari elite mausoleum at Castillo de Huarmey, Peru*. Archaeopress.
- Williams, P. R. (1997). *The role of disaster in the development of agriculture and the evolution of social complexity in the South-Central Andes* [Ph.D. dissertation, University of Florida].
- Williams, P. R., Nash, D. J., Henkin, J. M., & Armitage, R. A. (2019). Archaeometric approaches to defining sustainable governance: Wari brewing traditions and the building of political relationships in Ancient Peru. *Sustainability*, 11, 2333. [\[CrossRef\]](#)
- Williams, P. R., Nash, D. J., & Isla, J. A. (2001). Cerro Baúl: Un enclave wari en interacción con Tiwanaku. *Boletín de Arqueología PUCP*, 5, 69–87. [\[CrossRef\]](#)
- Zdilla, M., Russell, M., Koons, A., Bliss, K., & Mangus, K. (2018). Metopism: A study of the persistent metopic suture. *Journal of Craniofacial Surgery*, 29, 204–208. [\[CrossRef\]](#) [\[PubMed\]](#)

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