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SYMBOLIC USES OF METAL IN MOCHE BURIALS

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B.A., University of Texas at Austin, 2007

A Research Paper
Submitted in Partial Fulfillment of the Requirements for the
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Approved by:

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CHAPTER 1

INTRODUCTION

The Moche culture that flourished on the Northern coast of Peru (ca.1-750CE) is well known by its surviving monumental architecture as well as the visually and technologically advanced array of finely produced crafts. Well publicized archaeological data of this coastal strip is derived primarily from elite burials associated with temple mound complexes adding to the resplendence of the associated archaeological record. Likewise, the data are consistently within a biased parameter that represents only the upper portions of what archaeologists deem a stratified society. Much of the interpretation on social stratification is based on quality and quantity of grave goods, and due to the nature of the burials, both of these stipulations are met. Moche burials exhibit ceramic vessels, textiles, coffin-like encasings, and metal implements that each range in quality and number. While a gradation of energy expended in terms of mode of interment, grave furniture and the range of artifact forms may be inferred, some artifacts stand outside quantifiable features that provide a reductionist view of status.

The presence of abundant and skillfully worked metal in burials seems to serve as the best indication of social stratification in Moche society. Shimada (1999) suggests that precious metals were the “aesthetic locus” (1999:428) of the Mochica (Moche) culture and had the highest value in terms of both “labor and material costs” as well as “iconographic content” (1999: 428). Metal objects would be emulated and influential in the style and production of other crafts. The importance of metals can be readily seen in

well documented burials and associated artifacts. For example, the mere existence of tombs as elaborate as those discovered in Sipán in the Lambayeque Valley (Alva and Donnan 1993) or Huaca de la Cruz in the Virú Valley (Strong and Evans 1952) offers a potentially clear, albeit simplified, depiction of metal as a valued commodity. The highest quality and quantity are understood to be reserved for the highest levels of society (Tainter 1978), and it is assumed that social status held by the Moche during life is immediately indicative of the social role at death (Lechtman 1984; Parker Pearson1999; Peebles and Kus 1977).

Peruvianists often mention the systematized use of copper sheets placed in the mouths and hands of the deceased (Strong and Evans 1935; Donnan and Mackey 1978; Shimada 1994), however the purpose, or potential meanings of these repeated patterns have not been explored in depth. The presence of these objects is observed at all hypothetical levels of the "stratified" Moche polity (Donnan and Mackey 1978) and also cross-cuts gender and age divisions. The repeated appearance of this treatment, though little explored, provides an alternative view of the valuation of metals from a processual, social-organizational stand point towards a ritual, symbolic perspective and begs questions such as, "Why were these objects made of metal?" or "Why were they placed in the hands, the mouth and feet?"

The purpose of this research is to determine whether the uniform material as well as prescribed placement of metal objects in the mouth and hands of the deceased show deeper symbolic meaning beyond the standardization of Moche funerary practices. Because this treatment is present at all presumed levels of society, some insights as to uses of metal beyond conspicuous display of wealth in material may be garnered. The analysis will be based on burials of what is considered Moche "elite," in the excavations

at Huaca de la Cruz in the Virú Valley (Strong and Evans 1953), the Sipán burials at Lambayeque (Alva and Donnan 1993; Alva 2001), and the compilation of burials from the Huacas del Sol and de la Luna at the site of Moche in the Moche Valley by Donnan and Mackey (1978). This study aims to offer a different understanding of the symbolic meanings of metals, beyond being indicative of vertical social status.

Valuation of Metal vs. Metal in and of Itself

The valuation of metals in Moche society is two-fold: first, by a processual archaeological approach that posits that a clear depiction of social stratification can be deduced by the quantification of metals and metal types present in mortuary contexts, and second, a more post-processual, symbolic approach through which the valuation of metals may 1) be directly representative of an individual's social persona in life, and 2) that the material, production and placement of implements serve as metaphors for deeper symbolic and religious belief systems.

Pre-Hispanic civilizations of the Peruvian Andes have a history of very complex metallurgical traditions that exhibit distinct differences in technologies, raw materials and artistic conventions (Lechtman 1984; Shimada 2001). The sophistication of metallurgical techniques reached an apex during the Early Intermediate Moche time period, 1-750CE from which subsequent forms and techniques of metallurgy were disseminated Lechtman 1984:15). Extant metals used by the Moche included gold, silver, copper and *tumbaga,* a "low karat gold-copper or gold-silver-copper alloys" (Shimada 2001:187) combining two or more metals. Copper was particularly integral to the metallurgical innovations attained by the Moche because it was the most readily attainable, alloyable metal (Lechtman 1984; Shimada1999). Copper was highly useful in that it could be it

manipulated without further processing, and also serve as the primary base for the development of *tumbaga* alloys (Lechtman 1984). Through archaeometric experimentation archaeologists have been able to gain an in-depth understanding of chemical properties of copper and *tumbaga* within Moche metallurgical processes including depletion gilding and proto-brazing (Lechtman 1984, 1985; Shimada 1994, 2001).

Lechtman (1985) notes that the Moche did not utilize metals to the ends of warfare or transportation, and in her opinion there is a rather curious lack of interest in the use of metallurgy for weaponry that prevailed in Old World civilizations. Rather, the metals are found as use for the above mentioned decorative, iconographic, and more pertinent to the purposes of this paper, expressions of symbols and ritual beliefs. Exhaustive research on topics of Moche iconography has shown that ceramic, textile and metal arts carried significant cultural meaning that often had immediate correlations with historical events and individuals. For example, the discovery of the "Warrior Priest" at Huaca de la Cruz (Strong and Evans 1953) set the precedent for direct connections between the archaeological record and iconographic representations. The Warrior Priest (burial 13; Strong and Evans 1953:151) was interred with a young boy (burial 16) at his right side. Strong and Evans link the treatment at burial to an associated artifact they title "ceremonial digging stick" (1953:156). The carved object served as a mirror image of the burial within, complete with miniature representation of the gilded copper "bird headdress" and other "accoutrements symbolic of high position about him" (Jones 2001: 208). As is depicted in the "ceremonial digging stick," the aged man was accompanied in life as well as death by a young boy whose lot in life was to aid in the execution of a

ceremonial commencement of the agricultural season by the spilling of symbolic turquoise seeds (Strong 1947).

The discovery of the Warrior-priest and later the "Lord of Sipán" (Alva and Donnan 1993), an individual covered head to toe in gold, silver and copper, became the impetus for defining social stratification in the Moche society. After such elaborate tombs were excavated it became the logical interpretation that the higher the status of the burial the greater the quantity and quality of metal objects were buried with him or her (Alva and Donnan 1993; Strong 1947; Donnan and Castillo 1992). Furthermore, those that are of the "highest status" are all bestowed by their discoverers with monikers that overtly associate the individuals with ritual activities and social roles held in life. Through the analysis of iconographic representation and associated grave goods further than solely quantifying the material remains on a comparative level, archaeologists give individuals politically significant and religiously charged names such as "Warrior Priest" (Strong and Evans 1953) or "Priestess" (Donnan and Castillo 1992) and the "Lord of Sipán" (Alva and Donnan 1993).

Because the aforementioned individuals make up a very small percentage of the total individuals buried in the Moche burial pattern, a more interesting and likely more pertinent implication of symbolism would be the study of the symbolic import of metal itself as opposed to the iconographic representations sculpted in the material. Lechtman (1984, 1985) provides a description of the valuation of metal based on its allotted color, i.e. goldness or silverness. Reconstructions of metal workshops (Shimada 2001) show that the production of metal objects (crafts may have been produced elsewhere) was done by a few skilled specialists and possible apprentices in small designated workshops. Despite the small, modular nature of copper production it is likely that the goods were

disseminated over large areas, making it more accessible to broader social groups, thus reducing the likelihood of social value based on monetary wealth or economic value. Due to the mastery of metallurgical techniques and the availability of copper, the raw material was intentionally manipulated to alter the visible appearance. The skill of the metal workers allowed for controlled variations in coloring of metals. They were able to gild or plate copper based objects with solid gold or silver (Jones 2001). Lechtman (1984, 1985) describes the differentiation between rare, solid gold ingots and the gold infused *tumbaga* that are copper-rich. Her studies are focused on methods and scientific testing of electrochemical gilding and the mixing of silver or gold into copper to create varied colors of *tumbaga*. The analysis purports the hypothesis that the aesthetic effects of the objects, rather than the production specifics or material quality, may have been of primary importance for the Mochica (Lechtman 1985).

CHAPTER 2

METHODS

Description of Practice

The point of contest to the aforementioned processual understanding of metal implements is what is of most interest here. Although it seems as though a social hierarchy could be determined by the analysis of copper, silver, and gold or alloys present in differential burials throughout the Moche polity, these views tend to be reductionist.

The majority of the information on Moche burial practices over time comes from the Moche Pyramid area in the Moche Valley (Donnan 1991; Donnan and Mackey 1978), Sipán (Alva 2001), and as such these are the data that will be examined in closer detail for uses of metal, specifically those objects that are closest to the body. The whole of Moche burial patterns can be summarized as follows. Moche individuals from all five chronological phases (Larco 1948) are buried in a supine position. All burials include ceramic vessels and some form of body encasing ranging from simple shroud wrapping to more elaborate coffins. Also present are organic materials including pieces of gourd, textiles and other plant fibers. Some burials have associated retainer burials and animal bodies and/or bones, and finally, an array of metal implements (Donnan 1991). There is no appropriate inventory of grave furniture and accoutrements within Moche burials, nor is the quantity or quality of objects a clear determinant of vertical and bounded social rank as they vary from one burial to another (Tainter 1978; Shimada 1994). The

exception to this lack of structure, or appropriateness is the uniform appearance of small copper or gold implements in the mouths and hands of the deceased.

As mentioned previously, the specific area of interest for this paper is the standardized practice of interring individuals with metal implements on their person. This pattern includes the placement of amorphic, bent, broken or otherwise damaged or deconstructed metal objects in the mouth, hands and near the feet of the corpse (Donnan and Mackey 1978:210; Shimada 1994; Jones 2001). These objects are small in size reaching only up to 5cm in diameter, then folded or rolled multiple times. The implements, particularly those found in the mouth, are often wrapped in unspun cotton fiber, tied in yarn (ex. M-IV7, M-IV11, M-IV19). Few examples are found with textile fragments resembling a finished product (ex. M-IV3). Although all metal objects are thinly hammered and rolled or folded, some metal objects are oblong, tube-like implements or can have repoussé decorations and perforations. This whole practice may have originated beginning with object placement in the mouths of the deceased during the Salinar and Gallinazo period (ca.500-1BCE), and within Donnan and Mackey's study, the only Gallinazo burial described have a metal implement in his mouth (Donnan and Mackey 1978; Shimada 1994:66).

Data

The sample collected by Donnan and Mackey (1978) includes 103 burials excavated in the Moche Valley from 1969-1978. As with the other material remains associated with burials documented in the Donnan and Mackey volume, there are no clear distinctions as to what individuals would be buried with the metal objects on, or in their bodies. The Appendix below provides burial contexts for those individuals found with

these personal metal items derived from the Donnan and Mackey volume (1978). The monograph displays the data in chronological order. Lacking from this volume are examples of burials from the Moche V period while burials from Moche III and IV are overrepresented. The data compiled for this paper (Appendix) show only those burials that represent any portion of the standardized ritual that are specified as Moche, such as the presence of the implement in the mouth, one or both of the hands. These constitute over half of the total number of burials attributed to the four phases of the Moche present in the reduced data. Of the 15 burials that show at least one portion of this ritual practice, half include various other metal artifacts associated on or in close proximity to the body. Most of these are treated in a damaged or compacted manner comparable to those implements found in the hands and mouths. The majority are hammered copper sheets either folded or rolled in or otherwise intentionally damaged. Those copper sheets that are treated as such are found in many cases at on or between the feet (M-IV8, M-IV9,), or leg bones (M-IV3,M-IV7). Also common are metal disks located on the face, under the skull or on the chest of the body. All of these are being considered for analysis due to 1) the close association to the body based on physical contact with the deceased, and 2) similar compositional form, material and treatment of the metallic object.

In order to predict any "proper" placement of the objects, the elite burials at Sipán in and Huaca de la Cruz will be considered. Three of the five burials excavated by Strong and Evans (1953) (including one "sacrificed man" stratigraphically above the primary burial, two sacrificed women, one young sacrificed boy, and the Warrior-Priest) at Huaca de la Cruz exhibit portions of the ritual. One of the two sacrificial women was buried with a copper tube in her mouth (Strong 1947:476), likewise, the warrior man interred after the set of individuals in the primary set, held a copper object wrapped in cotton in

his mouth and by his wrists were two more pieces of copper (Strong 1947:478). The aged Warrior-priest himself held "large strips of folded copper plates… in both the right and left hands" (Strong and Evans 1953: 156). He did not have a copper disk in his mouth; however, he was interred with two layers of metal masks, one more elaborate and gilded copper, the other simple copper that covered the nose and lower part of the face (Strong and Evans 1953).

The site of Sipán likewise exhibits the deliberate practice even more specifically defined. Since discovery in 1987, twelve tombs have been excavated that pertain to a long lasting funerary tradition spanning multiple eras and various "ruling hierarchies" (Alva 2001:223). The most complex, sumptuary and metal-rich tombs at Sipán are Tombs 1, 2 and 3 which contain the bodies of the "Lord of Sipan," the "Bird Priest," and the "Old Lord of Sipán," respectively (Donnan and Alva 1993; Alva 2001). The Lord himself was holding ingots of solid metals. In his right hand he held a gold ingot, in his left, a silver one. In his mouth was yet another ingot, also of gold. Likewise, the Old Lord, buried two hundred years prior in a more distant Tomb 3 was found with a silver nose ornament positioned in the left hand. If the social role of the interred individuals at these sites is accepted as that of "priestly lords," it is likely that these individuals would represent "correct" practitioners of a widely accepted ritual practice.

CHAPTER 3

RESULTS

The pattern of the placement of these objects has been readily stated and accepted as part of the Moche burial pattern. The sample provided by Donnan and Mackey (1978) show that the material is uniformly copper, and there is no pattern for social differentiation on a relative hierarchical scale. This sample is not large enough to discern a proper placement of each of these items, as they may occur either in the mouth, hands, left or right hand, or any combination of the three and as such, more elaborate tombs that exhibit these rituals have been included in the study. Furthermore, although many researchers limit the pattern only to the mouth and hands, this research has also broadened the scope of the use of metals to include other areas of the body such as the feet, pelvis and legs.

The use of metal at Sipán is highly elaborate and has been extensively studied in terms of power symbols represented in death through associated metal grave furniture (Alva 2001). As the focus of this study is to determine patterning of simple metal objects in the mouths, hands, and feet of the deceased, a detailed inventory and ranking of metal objects overall has not be conducted. Most instructive for the purposes of this research is the question of whether the burials at Sipán, including the Lord of Sipán and the Old Lord (Alva 2001) and the associated secondary burials possessed the metal implements that fit the patterns described above, and if so, of which materials and form were they comprised. In general, the pattern in these elite burials relates to the Lechtman's (1985)

hypothesis that metal was valued based on their appearance. The burials at Sipán suggest that objects placed in the mouth and right hand should be gold and the left hand silver. Furthermore, the analysis of other vestments such as bimetal gold and silver backflap (Alva and Donnan1993:154), and an evenly divided gold and silver stylized peanut necklace (Alva and Donnan 1993:94), for example, support the notion that gold and silver placements were consciously differentiated on the right and left sides respectively and together represented a unified bimetal awareness (Alva and Donnan 1993; Shimada 1994; Jones 2001; Lechtman 1985).

No pattern as clearly indicated in the case of these elaborate burials is visible in the burials of the Moche Valley (Donnan and Mackey 1978). The presence of an object in the right hand only appeared only once more than in the left hand only (Appendix). Furthermore, there is evidence of gilding in only one of the hand-held metal objects (M-IV 7) which occurred in the right hand.

One of the primary limitations of the analysis of the small objects is the lack of compositional analysis of the specific items. The prospect of determining whether or not these objects were gilt in either silver or gold is inhibited by poor preservation of the thin sheet metals comprised of a few microns in thickness, and would require future analysis (Jones 2001; Shimada 1994). It is highly likely, however, that many of the previously defined “gold” or “silver” ingots (Strong and Evans 1953; Strong 1947), are copper-gold or copper-silver alloys that can contain minimal percentages of the more aesthetically appreciated metal rather than pure gold or silver (Lechtman 1985). Archaeologists also emphasize the probable symbolic dualistic nature of the juxtaposition of silver and gold within the same decorative objects expressed in “bimetallic articles or pairs of

ornaments" (Alva 2001:225) and relate them to mythological origins based on later Chimú and Incaic cosmology (Lechtman 1985:17).

Rather, the metal sheets that are found in the burials from Donnan and Mackey (1978) are all made of copper. Despite the existence of other, possibly more valuable metals (Shimada 1994:104), copper was likely not used for monetary purposes. Despite their size and shape, these objects have not been identified as having any relationship to monetary currency and are unrelated to similar small metal objects, *naipes*, accumulated in the later Sicán culture (Shimada 2009). The symbolic meaning of copper thus increases as its utilitarian and secular use is inconclusive. To add to the curious use of a less valuable metal in these ritual practices is also the use of unmodified organic fibers to wrap the implements, as Moche status has also been associated to the valuation and presence of elaborate textiles in mortuary contexts (Donnan 1991; Lechtman 1985).

CHAPTER 4

DISCUSSION

Along with the possibility of symbolic meaning expressed through the coloration of metals is the unique and prescribed placement of the various metal implements. The metals, despite composition are placed in very personal areas of the individuals. Edmund Leach (1977) described the creation of boundaries and the liminal transitory space in between as being structural conceptions of distinguishing between the living and the dead (Parker Pearson 1999:46), and defined a fundamental premise that determined "all humans are interested in what distinguishes the inside from the outside of their bodies," (Parker Pearson 1999:46). This cross-cultural generalization posits the notion that orifices, including mouths, may have important symbolic significance even if the meaning eludes us. The placement of the objects within the mouth, and even hands, which have the ability to enclose an object within their grip, may have symbolic meaning for the Moche and the differentiation between the exterior and interior.

In conjunction with the idea that the living may create boundaries and emblems that differentiate the dead from the living, is the notion of placing an inedible object in the mouth - particularly one wrapped in unspun cotton fibers. This deliberate filling of the mouths of the dead by the living may serve to mark a difference between the living and the dead due solely to the repulsive nature of placing metal wrapped in raw fiber in a living being's mouth. A more natural association is the mouth to the consumption of food for sustaining the living. The placement of inedible metallic objects and non-food organic

material in the body is thus a practice that would be reserved for the non- living and perhaps even a symbolic feeding of the dead.

The discovery of some metal implements being perforated (M-IV9) may indicate that these objects had some functional use before their final composition in funerary contexts. These perforations are likely proof of being sewn onto cloth as part of decorative garb used during life. This assumption would posit that the objects were of a personal nature both in life as in death worn or interred near or within the body.

By including the implements found in the mouth and hands, those that are closely associated to the body and placed on the feet, pelvis and chest a broader association can be made. When analyzed as a bigger picture, connections between the center of the body (chest and pelvis) can be symbolically linked to the head and the extremities. Furthermore, the use of circular metal sheets made of the same material, manipulated in similar fashions, and located in these particular areas seem to connect the hands, the head and the feet created clear links to one another simply through the use of a common material. As we do not have documentation on beliefs held by the Moche that connect or place importance on these parts of the body, one may infer that there was an ideological belief linking the mouth, or head, to the hands and feet to the torso.

These locations may again distinguish the difference between the living and the dead. An upright, animate human being has mobility in his or her arms and legs and has the capacity for extending their limbs about them. As, for example in the Vitruvian man, the body is understood as a geometric organism. The splaying of limbs in turn marks a circular pattern of mobility between the hands feet and head. Conversely, in death the body becomes immobile, compressed and folded, as expressed in the Moche positioning of the body in supine position with arms at the side and ankles crossed. The treatment of

the metal implements experience the same destructive process as the body, as none of these items are found unfolded or without intentional damage before interment. Thus there is a possibility for metaphor between the treatment of a whole circular metal object being used in life (see above) and the destruction of this object in death.

There is further inclination to associate the quadrants of the body to four cardinal directions. The rigidity of an in depth contextual analysis of the accoutrements in the royal tombs of Sipán, executed by Alva (2001), show that there may in fact, have been symbolic spatial distribution of items, particularly those closest to the body of the deceased. These patterns including the alternation of top and bottom, upside down and right side up placements, as well as a clear vertical axis that divides the body into distinct gold and silver halves may allude to Moche world views. This assumption, however, cannot be proven in the sample from the Moche Valley (Donnan and Mackey 1978).

Overall, the treatment of the metal implements, along with the distinct placement of the objects on and in the body, mirrors the body of the deceased itself. Examples of sacrifice of ceramic vessels, or rather deliberate breaking of ceramic vessels during the interment process, have been found in Moche burials (Benson 2001; Donnan 2001). This destruction of a functional vessel during interment has been associated with a metaphoric killing of a formerly functional implement emulating the process of human death. This pattern may be translated into the metal objects discussed in this paper. Because most of the thin sheets of metal seem to have at one time been used in the realm of the living, the act of rolling and folding at once transform the object from functional to nonfunctional or from living to dead.

CHAPTER 5

CONCLUSIONS

The analysis of ritual patterning in Moche mortuary practices provides many interpretations. The problem remains, however, that although insightful connections can be made through broader contextual analyses overlooked by the sweeping generalizations of processual archaeologists, symbolic meanings remain speculative. This analysis has taken some of these oversights into account in order not to solve the question of meaning, as this is beyond our knowledge, but rather to take into consideration further contexts of the objects yet unexplored. As a pattern of burial has already been defined numerous times by Peruvianists, the question became, "Can any fine tuning be done to these patterns?" This research showed, that yes, a pattern can 1) be broadened to include implements and parts of the body previously unmentioned based on broader symbolism of metals to create a more detailed contextual analysis as well as similar treatment of the metals, and 2) potential relationships between the intimate placement of the objects and possible uses of these implements to the living.

This research is restricted by a small sample of burials, and as is the case in most archaeology done in Peru, this sample is limited to burials distinguished as high status individuals based on location of burials about or within defined religious centers. This may account for higher degrees of religious, symbolic burial treatment than if the sample was broadened to include commoner burials outside the urban centers. Even though the notion that the social persona of the dead changes at death has been contested (Peebles

and Kus 1975), in the instance of elaborate tombs of Moche “Lords” and “Priests,” it appears that the promulgation of a social role in the Moche ideology is carried with the individual between the realms of the living and the dead. Donnan (1992) notes that there are no heirlooms in the Moche upper strata, but rather the Moche priests and priestesses would take with them their entire regalia to the grave. This could imply that the attainment of prestige in the Moche religious and political sectors of society was achieved, implying a more fluid division of classes than permitted by the relative valuation of material remains as analyzed per processual archaeologists. If the notion that life continues beyond normal death, how burials are furnished and individuals represented in death may have stronger implications towards ritual beliefs in life rather than the presentation of status. More definitively, in depth contextual analyses of the Moche elite (Alva 2001) show that the Moche were buried to reflect their social roles in life. This notion, along with the standardization of a single mortuary practice across all social relationships, and the inversion of quality and quantity of goods in those considered elite versus non-elite, question the rigidity of social rank among the Moche. Therefore, the theories developed by the processual and post-processual archaeologists are both victims of normalizing complex ritual behaviors in terms of material, ecological remains or symbolic exemplifications of conspicuous wealth and power, and are aimed to achieve the same end – the recapitulation of social rank and organization, conclusions that may hopefully be expounded upon through more detailed and compositional analyses.

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APPENDIX

APPENDIX

Presence of Metals in Hands and Mouth of Deceased data collected from Donnan and Mackey 1978

Phase	Burial #	M/F	Age	Location	Mouth	Material	Wrapped	Metal in hands	Other metal on body	Other artifacts
I	1	M	35-50	Pyramids at Moche Trench C	1-rolled b/w teeth	Copper	1/2		1-wrapped Under chin	Fabric 3ceramics Cane wood
III	4	F	20s	Caballo Muerto (pp. 82)	1 -folded	Copper		L- bent copper R - folded		4 ceramic vessels Within plaza
IV	3	M	45-60	Pyramids at Moche Trench B (pp. 102)	1- disk folded	Copper	Wrapped and tied in textile		Copper sheets 1- over face, 1 over left femur and pelvis, 1-foot One over L ilium.	62 ceramic vessels Mudbrick construction Spindle whorl Copper needle Other implement Tweezers Textiles Wood tumi Animal bones llama, cuy.
	7	M?	Adult	Pyramids at Moche Trench B (pp. 132)	1 folded	Copper	Unspun bast fibers .006cm thick adhered to one side of the copper in mouth	R- folded w/evidence of gilding	Folded on L tibia Copper disk on ribcage Multiple fragments on face over eye (evidence of gilding)	Mudbrick Metal fragments over face 19 vessels Gold-copper alloy earspools with mosaic inlay Stone beads
	8	M	40	Pyramids at Moche trench B (pp. 140)	Missing head			R- 2 folded and repousee implements	3 folded copper sheets between the feet	9 Ceramic vessels 7 copper objects
	9	M	Adult	Pyramids at Moche Trench B (pp. 144)		copper		L-folded	1 Copper disk beneath head 1disk over face (both have	Mudbrick 17ceramic vessels Black, blue stones animal bones, human

APPENDIX

Presence of Metals in Hands and Mouth of Deceased data collected from Donnan and Mackey 1978

									indications of gilding, and traces of woven fabric) Copper sheet under feet, under toes of L foot	bones Reed matting Possible coffin
	11	M	45-55	Pyramids at Moche Trench B (pp. 154)	folded	Gilded copper	Wrapped in unspun fiber and spun yarn	R-folded	Copper sheet bent over skull (gilded)	Mudbrick 6 ceramic vessels Copper crosspiece Copper tweezers Copper tumi
	12	F	Adult	Pyramids at Moche Trench E (pp. 160)	unspecified	Copper		L- textile impressions R		4 ceramic vessels Habitation midden
	14 and 15	F	30-40 youth	Pyramids at Moche Trench D (pp. 168)	unspecified	Copper				18 ceramic vessels Spindle whorl Copper fragments in fill Reed fragments Bones of young llama Childs skeleton beneath.
	16	?	Adult	Pyramids at Moche (pp. 176)	Folded	Copper		L- folded copper		Mudbrick, part of architectural complex 2 ceramic vessels, Llama bones, 2 spindle whorls
	17	M	35	Pyramids at Moche Zone F (pp. 180)	folded	Gilded copper		Disturbed-no R arm.	Cylindrical copper near L foot 1 copper sheet placed at as a collar around neck	9 ceramic vessels , Textile fragments 2 gilded copper earspools w/ mosaic inlays Polished stone necklace (100 beads)

APPENDIX

Presence of Metals in Hands and Mouth of Deceased data collected from Donnan and Mackey 1978

									2 gilded copper sheets above mandible	Llama bones, mandible
	18 and 19	M	30-40 and infant	Cerro Blanco Zone G (pg 184)	2 unspecified forms	Copper	1-Wrapped in unspun cotton with strands of loosely spun S-twist cotton yard 1-unwraped	L- copper object wrapped in unspun cotton and S-spun cotton thread of irregular thickness. R-copper stain		1 ceramic vessel, Fragments of gourd and around face, Possible associated infant burial with 1 ceramic vessel.
	20	F	Adult	Huanchaco Zone B (pp. 190)	1 circular, amorphic shape	Copper				Constructed tomb, wooden beams 1 ceramic vessel Textile fragments
	23	?	Youth	Huanchaco Zone B (pp. 196)	1 unspecified form	Copper		L, R,		Constructed tomb, wrapped in reeds, Textiles present 1ceramic vessel
	25	M	Adult + 2 fetuses	Huanchaco Zone B (pp. 200)	1 Unspecified form	copper		L, R (near, not in hand)		Cane mat 1 piece of copper over fetus (BMIV.27) 10 vessels Shell beads 3 extra human hands 2 llama skulls Llama longbones Multiple unidentified animal bones

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