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FRYBREAD

Zwischen Powwow-Klassiker und Ablehnung



STEINE, GEISTER, WAKAN TANKA

Zur Bedeutung von Felsformationen im spirituellen Kosmos der Sioux



DIE LÖSUNG DES RÄTSELS DER BOHNENZEICHEN DER MOCHE

Kodierung für rituelle Kämpfer



DIE "VOGELKOPFMASKE" IN GOTHA

Überlegungen zum Tragen der "Maske"



REZENSIONEN | INFORMATIONEN | AUSSTELLUNGEN

Bean Patterns and Warriors in Moche Art: Solving the Riddle of the Painted *Pallares*

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Abstract.

Lima beans with pictograms were used as an information system by the Moche. Theories (Larco Hoyle) that they form a rudimentary written language can be rejected. Their true role was detected in combining most stories with beans told on Moche fineline vessels. Messengers collected information about warrior contingents from outlying Moche settlements. The information from different such places was likely encoded in different bean patterns and its numbers. The messengers presented the beans to their rulers, where they were decoded. Beans there were discussed or drawn lots with, to determine which warriors had to form duos in ritual combats. In a parallel scene, beans were also presented to the gods, which discussed alike, in a bean notifying scene with foxes. The warriors are shown with their specific bean token under their helmet, waiting for or undertaking ritual combat. This was the final proof for interpreting the bean message correctly. Consistently the pictograms on beans are nothing but a mnemonic counting help for the messenger about numbers of warriors.

Resumen. Los pallares con pictogramas fueron usados como un sistema de información en la cultura Moche. Discrepamos con la hipótesis de Larco Hoyle que ellos representen una forma de escritura. Detectamos su verdadero papel combinando todas las narraciones sobre pallares finamente pintados en la cerámica Moche.

Los chasquis supuestamente recolectaban información sobre contingentes de guerreros en pueblos de Moche alejados del centro urbano. La información sobre su respectivo número se codificaba probablemente a un número igual de pallares con el mismo pictograma. Los chasquis llevaban esta información a su rey. El rey y/o el sacerdote elegían y discutían sobre los diferentes pallares, para determinar quienes tenían que batirse en un duelo ritual. Paralelamente se ve también dioses discutiendo sobre pallares por mediación de zorros sagrados. En los dibujos enseñando parejas de guerreros en forma de haba, listos para el combate, unos tenían pallares pintados encima de su cabeza, cada uno con su pictograma especial. Esto fue la prueba final para dar con la decodificación correcta. Entonces los pictogramas en pallares son nada más que una ayuda mnemotécnica para saber cuántos guerreros estaban disponibles de cada pueblo para el combate ritual.

Key words: Lima beans, bean runner, pictograms, codification, Moche warrior, ritual combat.

Introduction

The Moche, living on the northern Peruvian coast from A.D. 100-800, had the unique capability to inform about their cultural and ritual life and environment on elaborately painted and sculpted ceramic vessels. In some of them appear Lima beans (*Phaseolus lunatus*) with characteristic designs, each repeated a few times on a single vessel (Figure 1; Berrin 1997: 142). From the first published vessels, these beans were thought to be the carriers of some information, and since 90 years the hypothesis was spread that they convey a secret language (Larco Hoyle 1942, Ibarra 1970). Beans with these special but simple designs were shown in three contexts: 1) bean transport by runners or messengers (Earle 2010; Larco Hoyle 1944; Melka 2010), 2) a discussion scene over beans presented to a ruler or god, from now on called by me the "bean notifying scene" (see Berrin 1997: 143; Donnan 1978; Kutschner 1983), and 3) beans shown in the context of duelling warriors (Hocquenghem 1984; Ryser 2008).

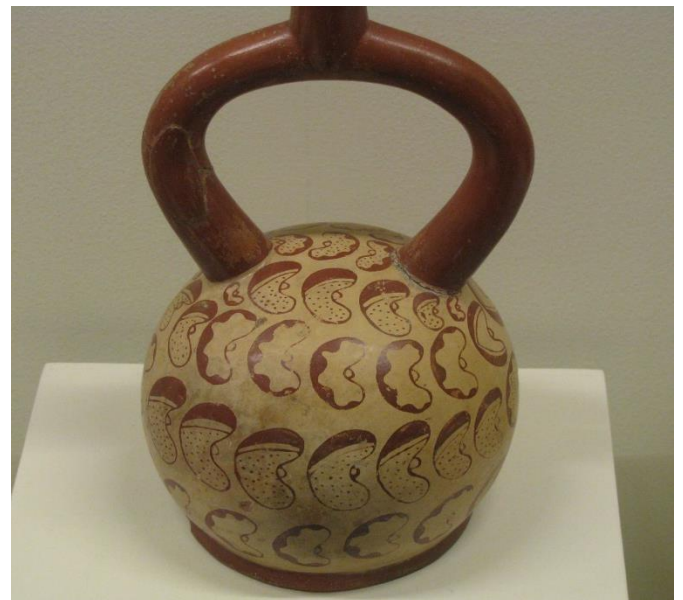


Fig. 1. Lima beans with four different pictograms on a Moche vessel. Courtesy of Museo de la Nación, Lima.

Why and from where had these painted beans been carried? What meant the discussion about the beans going on at highest level? The meaning of these scenes was hitherto subject to good guesses of scholars, but no definite answers were yet achieved (Melka 2010). This paper is intended to shed more light on the Moche's reasons to ritualize and formalize the bean issue. It unravels the meaning of the different pictograms in offering some plausible interpretations obtained from iconographic comparison.

The Problem

What is really behind Moche vessels showing painted beans? It was unclear, if the many but repeatedly appearing patterns (pictograms) on the beans transmit an information and if so, which. From the literature (Imbelloni 1942, Melka 2010) it was postulated several times that they do not constitute what was one of Larco Hoyle's (1942, 1944) favoured theories: They are *not* a form of written language (see discussion). His idea dates back as early as 1934 (Larco Hoyle 1934).

Alternatively, they were believed to be part of a ritual game, where beans were tossed about (Vivante 1942; Hocquenghem 1979). However, we will see that it has a more serious background, and therefore I will call according scenes more cautiously the "bean notifying theme".

On the other hand, it cannot be denied that the beans with regular patterns transmit information. This pictographic system was set up to transport meaning. I concur with Jackson (2008) and Melka (2010) in the favoured hypothesis that "beans are a tactile counting device for recalling mnemonically series of data". What really was counted I found out by following the working hypothesis (Lieske 2001) that scenes depicted on Moche vessels form short sections of more extensive narrations. By putting all single scenes with beans into a logic and chronological order, the whole scenario appeared.

Analysis

1. The beans

Lima beans (*Phaseolus lunatus*), in Peru called pallares, with their large-seeded variety (Lima type), were grown in northern coastal Peru since thousands of years. Archaeologically they were found in kitchens and offerings as diet remains, but only up to 1 % as compared to 99 % of Common Bean (*Ph. vulgaris*), probably because of their high cyanuric acid contents (Ryser 2008). They have a sickle-moon shape, are durable, storable and whitish. They are a familiar agricultural produce of the Moche, convenient for transport as well as dying in offering a flat and smooth surface.

The Lima beans depicted on Moche vessels (Figure 1) are always carrying characteristic patterns on them. A few show complicated drawings with many fine lines, the majority,

however, show extended areas just in black, often on marginal ends, the separating line horizontal or diagonal, sometimes the white areas dotted or spotted (small rings) in a simple way (Melka 2010, his figures 5 to 7). In most depictions two to six different patterns are shown simultaneously.

2. Bean transport by runners (Figure 2)

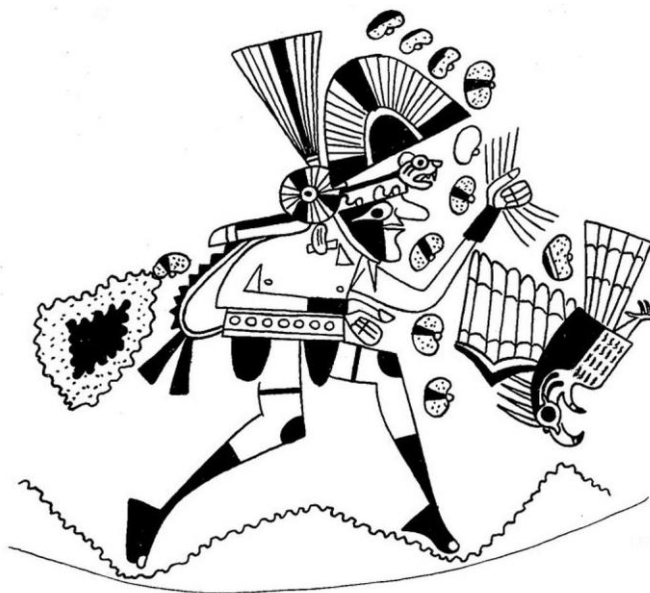


Fig. 2. Runner with Lima beans. Reproduction from Kutscher 1983, figure 139. Fineline painting on Moche vessel V A62 193, Museum für Völkerkunde, Berlin.

Description. A human messenger is running over rocky terrain. He wears the headdress of a ruler: semicircular helmet, jaguar frontal band, round large ear plugs and a wavy feather bunch at the back, tied with strings below the neck. His left hand carries a stick bundle. Around him float painted Lima beans with a total of five different patterns. Two patterns are repeated more than others. A falcon seems to precipitate quickly from a near-by hill.

Interpretation. As the figure wears a ruler's headdress, but obviously only is a runner, clad in a simple loincloth, the headwear might symbolically stand for the person who sent him out. His goal is to obtain somewhere across the desert the painted beans, perhaps from some settlement, and transport them back to his ruler. The beans might carry a message linked to numbers. As two bean patterns are depicted much more frequently than others, the items they represent may have been counted in higher numbers. To help counting he has a bundle of several sticks. The falcon underlines only additionally the speed at which the runner is performing.

Variants of bean transport.

As for the runner's complicated headdresses, four different types have been found up to now: ruler's, priest's

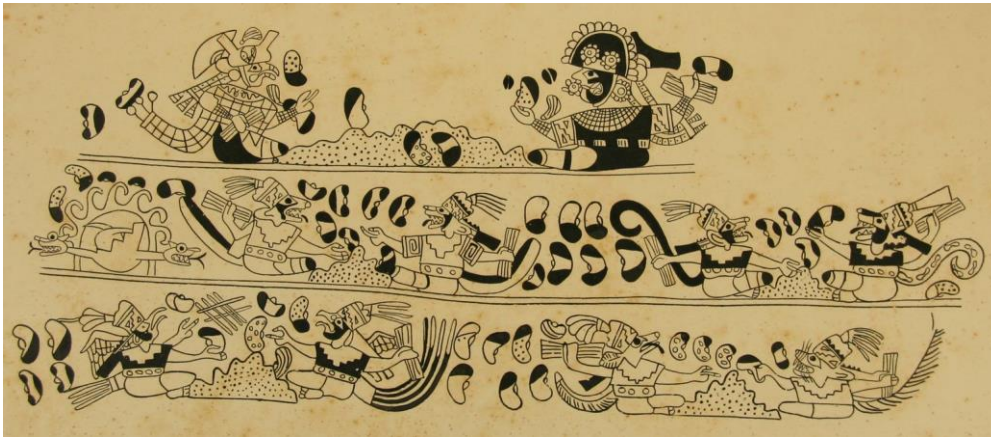


Fig. 3. Discussion over painted beans in three tiers. Reproduction from Moche vessel ML 01 3623. Moche IV, A.D. 450-550, courtesy of Museo Larco, Lima.

(Figure 4), warrior's and civil headdress (Melka 2010). The runner's right hand in most cases holds a slender leather bag with two long drawn-out corners, containing the beans, which is very often illustrated by some beans spilling out of the bag. The runner himself can appear in an anthropomorphized form, legs and arms remaining human, but faces and appendices representing animals like a fox, a falcon, a hummingbird (Kutscher 1983: figure 284), even a centipede (Figure 5; Earle 2010). He usually runs over desert, rendered by sand, tillandsias and cacti, the natural habitat between the Moche valleys.

As for the variants' interpretation, the different headdresses might stand for the mission the runners were sent out for, e.g., religious or warfare purposes. Different animals which can be anthropomorphized runners are a symbol for the great speed at which the mission has to be performed and for the divine quality involved. The desert landscape emphasizes that the runner had to cross extensively hostile terrain in order to reach the next fertile valleys.

3. Bean notifying scene (Figure 3)

This scene is well rendered in Berrin (1997: 143) with two colour photographs of the vessel and a roll-out drawing, commented in detail by E. Benson, therefore my brevity.

Description. In the lower two tiers, separated by a double line, we see pairs of anthropomorphized animals (birds, deer and possum, foxes, monkey and jaguar) discussing over painted beans with a few different patterns each, which float between them or are held in one hand to make a specific argument. On the lower left the stick bundle is removed from the left bird and spread out loosely, crossed in numbers 4 and 2, the latter in black. On one end in the second tier a litter with a bean bag is resting. In the upper tier, a hawk-like anthropomorph with a pronged owl headdress and a *ulluchu* on top, a fruit with anticoagulating properties, opposes a major god with a fanged mouth, nose rings and ear-rings and a luxurious semicircular headdress, with another *ulluchu* floating in front of him. Both hold stick bundles in one hand and point to or hold differently painted beans.

Interpretation. The two lower tiers represent our earthly world, the upper one heaven. Vivid gesticulations of all participants show probable discrepancies or an exchange of information about each bean pattern. Different patterns are at stake. Seemingly all have to be discussed. Perhaps the spread-out stick bundle helps to decide which numbers of beans should be united. The litter is obviously waiting for transport, standing for the connection between earth and heaven, with heavenly attributes like sun radiation and double-headed firmament dragon. The heavenly hawk anthropomorph has some outfit of the priestess in the Presentation Theme (Donnan et al. 1999): owl headdress and the *ulluchu*, which can replace symbolically running blood (Wassén 1985). As the main god has the same fruit in front of him, the discussion is probably transferred to sacrifice. It seems to be clear that the animals only prepare in discussion what later has to be transmitted to the skies, where the matter is taken up on a higher level.

Variants of the bean notifying scene.

In a similar scene on vessel ML 002362 (Museo Larco, Lima, shown in Berrin 1997: 142, figure 82), the major Moche god "Wrinkle Face" discusses the beans with a mortal, who displays a fanged mouth and wears open hair. Again, six sticks, this time provided by "Wrinkle Face", are displayed in front of the former in form of three crossed pairs. This is important, because here we have the only vessel (except Figure 3) showing the use of sticks at greater detail. On the back side of the vessel with the identical duo, only the arrangement of sticks is changed (Berrin 1997:143, see both sides in Kaufmann Doig 1980: 371). It seems to be an issue which sticks have to be brought together. Both seem to argue with equal fervour about their lay-out.

Interpretation. The mortal is likely an already sacrificed warrior, who is normally shown deprived of his helmet and with open hair to prove that he was defeated. He is elevated to a heavenly status, shown by his fanged mouth and several attributes of his dress mirrored from the main god. As E. Benson (in Berrin 1997: 144) interprets: "The bare-headed figure might be a human captive sacralised by the ritual and/or the presence of the god." The god seems to explain

to him, why and by which means he was honoured to be sacrificed. For this reason he lifts a bean with an almost identical pattern the sacrificed holds in his hand. The conclusion is that this bean pictogram, selected by the god, represents the (defeated) warrior (see Discussion, no. 4). One stick of the three crossed pairs, the only one left white, points to the latter's face and personal bean. One crossed stick pair might therefore represent a pair of warriors selected for ritual combat.

There are nine further published bean notifying scenes, i.e., pairs of seated beings discussing with formally held sticks over a variety of bean patterns: A. Another "god plus mortal" (Donnan & McClelland 1999: 116, fig. 4.76). B. Four times a supreme god versus iguana god. In Lavalle (1985: 86-87, "bottella Moche IV"), both argue about beans with altogether eight different pictograms, three of which have *faces* instead of an abstract pattern; further Donnan & McClelland (1999: 115, 274, 275; all copied in Golte 2009: 218-221). C. God vs. jaguar (Donnan & McClelland 1999: 115, 172, figs. 4.74 and 5.56). D. Two bean warriors discussing (Golte 2009: 222, fig. 9.18; Vergara & Sánchez 1996, plate 72, equals Kutscher 1983: fig. 212, from vessel 3395 [U.500], Museo de Arqueología, Trujillo University). E. Two scenes where deer vs. jaguar and deer vs. fox, all bean-shaped, discuss (part of which is my Figure 6; vessel ML 013609, Museo Larco, rendered in Larco Hoyle 1944: figs. 8, 9, 10; Donnan & McClelland 1999: 116, fig. 4.75).

4. Bean warriors and warriors with beans

As a third theme in drawings, beans are sometimes connected with combatants. However, a closer look reveals that there are two different contexts for combat scenes:

1) Warfare combat: Moche warriors are shown hitting foreign enemies, discerned by different armament and other clothing, mostly out in the countryside (Castillo Butters 2014). Often more than two combatants are shown, beans never. Prisoners are made, shown by gripping them on their hair. Afterwards they are shown naked, with bleeding noses and a rope tied around their neck, and then dragged in a line towards sacrifice.

2) Ritual combat: Only two Moche warriors are shown in a ritual duel, in formal clothing (e.g., helmet like a *tumi*, copper back flop), sometimes on temple platforms (Figure 8). No prisoners who are carried away are shown. This is the only warrior scene where painted beans are frequently shown, being draped around the combatants. Often these two warriors are not shown as humans, but fabamorph (bean-like) with tiny human arms and legs, or as fabamorph animals, ready to fight with human arms. In my context, it is sufficient to examine only the second type of combat.

On the bottleneck belonging to the vessel shown in Figure 8, a painted bean (Figure 9, annex drawing to Kutscher 1983: figure 208) with tiny legs attacks with shield and club. Many animals in fabamorph stature are seen ritually fighting (Earle 2010: figure 53). As well, fabamorph human warriors

duel against deer with human arms and legs, a scene interpreted by Donnan (1997: figure 14). Further such bean warriors, importantly with only one type of pictogram on several beans floating around them, are shown in Kutscher (1983: figures 204, 205, 207; as well on vessel ML 002450, Museo Larco; Lieske 2001 finds 18 different). In Kutscher's figure 211 (vessel 1/1536 [3729], Museo de la Nación, Lima) a bean warrior with fanged mouth holds an open leather bag, normally seen carried by runners. A wealth of vessels (for example, vessel ML 002459, www.museo-larco.org – búsqueda – *palares*, page 3) shows a sculpted Lima bean with an anxious face of a warrior inside.

In Figure 7 two seated fabamorph warriors obviously are waiting to be called up for ritual combat, as their anxious faces indicate, with their weapons bundle fixed in front of them. For our riddle it is very important to note that under their *tumi* helmets are two painted beans depicted each, and that each warrior has his individual bean pattern only. In another ritual combat scene (Figure 8), two fabamorph warriors fight against each other with slingshot and war club, obviously on temple platforms. Note that their bean bodies are patterned different. Floating beans above them show only one type of bean pictogram per person, each congruent to their body pattern.

Discussion

To 1. The role of the beans

It was Larco Hoyle (1934, 1942, 1944) who 90 years ago proposed the Moche beans as a means of written language, and in the uprising scientific discussion Imbelloni (1942) was the first to reject it. Where would the Moche people have shown such a "language"? Of course, on their stirrup vessels, which they used for more than 99% to express their ritual life and other scenes, much less so on murals. Larco Hoyle (1942) claimed to have counted "over 300 different patterns", however, only a few of these were used at a time. Beans with more complicated patterns are sometimes found if one single bean is depicted at a larger scale, e.g., bodies of bean warriors, where they have an additional adorning function. The majority of beans show simple clear patterns in connection with runners and the bean notifying scene, thus underlining their mnemonic purposes. To reject their property as a means of written language, I add the following to Melka (2010). First, there are not enough different symbols found together which would eventually correspond to letters, words, etc. A maximum of 14 different bean pictograms rarely were found on one vessel (Melka 2010), but normally fewer. If only beans are depicted over the whole surface of one vessel, they show only one or few pictograms (Figure 1). Second, their arrangement on vessels together with persons is random, as if spilled, so there is no obvious structuring into a sequence, no syntax. Third, the marks on the beans are not sufficiently diverse to memorize them as a meaningful unit, but rather as an optically recognizable unit in case of counting. Thus, the bean pictograms definitely represent no written language.



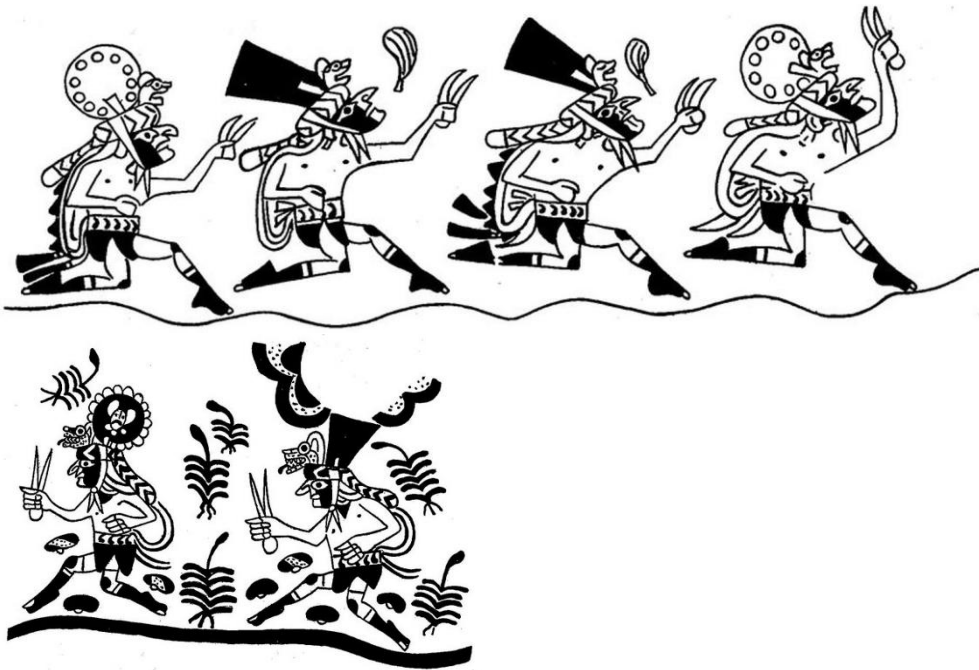


Fig. 4. Four plus two runners with two different headdress types, with *ulluchus* and lima beans. Reproduction from Kutscher 1983, figure 143, 144. Fineline painting on Moche vessels L.44.19-6, Brooklyn Museum, New York (above) and 1909.12-18.96, British Museum, London (below).

From the palaeobotanic record, lima beans disappear as a nutrient after Moche phase I (Ryser 2008). In phase IV they reappear, depicted frequently on the fineline vessels. They changed their role to a ceremonial information instrument (Ryser 2008). Clearly discernible patterns, some of them multiplied on the same vessel (Figure 1), represent now pictograms. The goal: to show countable quantities of one type, discernible from other such types by unequivocal patterns.

To 2. The role of the runner

Up to date no author could present a conclusive answer, why bean runners were so often repeated on Moche vessels,

nor in which context they were supposed to act. I propose that the role of the runner originally was to connect his ruler or priest with the local administrators in the provinces further away and to brief the former about the situation there. Here he has a special formal task to bring the information content of painted beans to their knowledge. Presumably the runner had to do the following: a) bring out the order, demand information from the locals, b) watch or induce the encoding process on beans (this is not found on fineline vessels, probably because it was not ritualized), c) link each pattern with the specific information and memorize it, d) carry the beans home rapidly and recall mnemonically with the pictograms the demanded information on the way.



Fig. 5. Gods receive animal runners. Partial reproduction from Kutscher 1983, figure 295. Fineline painting on Moche vessel V A12 004, Museum für Völkerkunde, Berlin.

Similar processes are illustrated humorously on a vessel (Kutscher 1954: figure 29), where the state of the beans from germination up to being welcomed by the rulers is shown all in one fineline drawing. After growing, the beans obtain a special symbol, get feet, start running, turn into 28 runners with bean bags, the first two with different headdress, and are welcomed by the rulers.

The last steps, approaching the ruler's residence, were the most important and were ritualized. The runner had to wear the respective unwieldy headdress, approach the throne decently and formally hand over the bag with the encoded beans together with the secret message. In Figure 5 there is a cloth waiting to receive the beans, and a priestess in godly owl disguise, with a whip, helps to spread beans on it.

To 3. The role of foxes and gods

The Moche, keen nature observers, knew that the fox was able to run at great speed and to keep worthwhile places in mind. For that reason they choose him as the mediator between the earthly and the gods. Melka (2010: figure 14) depicts a Moche vessel sculpted as an excellent fox head, with a tight-fitting human headdress, with all the brain area dotted with painted lima beans. Does this not simply mean that the fox has in mind the message of the beans? And yes, in the two lower tiers of Figure 3 foxes seem to handle that information well. Even other animals trying likewise get a fox-like expression during that process (Figure 3, tier 2). Foxes are shown as runners (Figure 5, below) and even a "fabamorph" (bean-like) fox is discussing beans of different patterns in Larco Hoyle (1944; Figure 6).



Fig. 6. Fabamorph fox with beans. Reproduction from Larco Hoyle 1944, lámina V. Partial reproduction from a bean notifying scene with fabamorph animals on Moche fineline vessel ML 01 3609, Museo Larco, Lima.

In Lavalle (1985: 113) a sculpted kneeling anthropomorph fox with war club (!) has again two pictograms on many beans on his turban and different pictograms on beans painted on his clothing. So the fox is the notifier, messenger and decipherer for the godly sphere concerning the *Ph. lunatus* (i.e., moon-shaped) beans.

When anthropomorph animals are shown as runners, which is frequently the case, they present beans only to the gods. The same scene with human runners, fabamorph humans and presentation to ruler and priestess, relies to the worldly sphere, a dual mode of narration.

The gods are seen as the last authority judging about sacrifices, because it is them who have to receive the donation and in turn granting fertility and benevolence. They play the major role in selecting the victims, which is mirrored in the actions of ruler and priest(ess) on the Moche world stage.

To 4. The message of the beans

What is the message of the beans? All warrior beans and bean warriors convey one message to us: The beans are taking part in a decision process, which warriors later must fight. As many warriors, even ritually fighting animals, are shown in fabamorph stature, it underlines the role of the painted beans as codifiers and abstract representation units for ritual combatants. In one bean notifying scene (Lavalle 1985: 86) the artist betrayed the hidden meaning: beans with human faces are shown. They resemble very much the drawn-in warrior faces shown encased on a few vessels sculpted as a bean (e.g., vessel ML 002456, Museo Larco).

The fact that their respective bean pictogram is shown right under their helmets in Figure 7, is strong evidence that a special pictogram codifies for a special warrior. The five transitional stages, from warrior with beans, bean (body) warrior, warrior bean (Figure 9), warrior face inside bean, to a face painted on a bean, all many times depicted, underline the importance the Moche gave to the codification and determination of warriors through beans of a certain pattern.

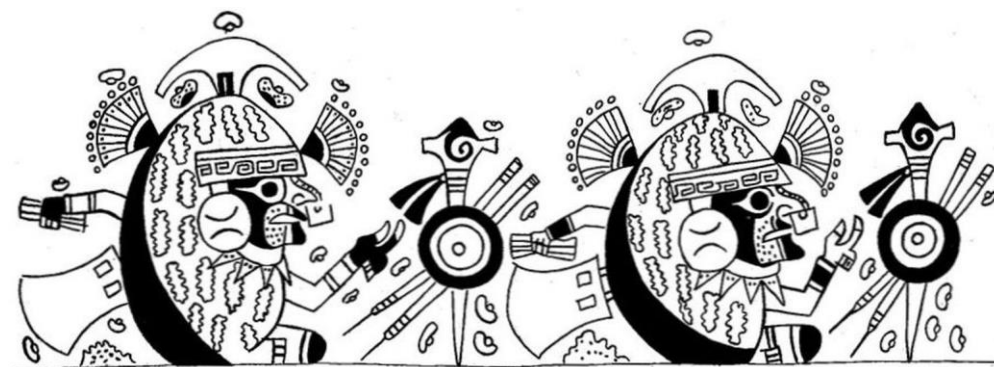


Fig. 7. Two seated fabamorph warriors. Reproduction from Kutscher 1983, figure 210. Fine-line painting on Moche vessel 39-20-51, University Museum, Philadelphia.



Fig. 8. Two fighting fabamorph warriors. Reproduction from Kutscher 1983, figure 208. Fine-line painting on Moche vessel 1/545 [3737], Museo Nacional, Lima.

Arranging all respective narrations on Moche vessels in correct chronological order allows us to outline a most plausible scenario of the bean issue: Messengers are sent out to recruit information about warrior numbers in various neighbouring valleys. This can be concluded from the fact that the runner is mostly shown crossing the desert, which separates in stretches of 20 to 30 km width the coastal river oases settled by the Moche. Most likely beans were codified with one special pattern for a number of warriors from the same provenance. The runner brings this information back to his rulers. These await the messengers eagerly (Figure 5), because rituals have to be performed following an annual timetable (see below). The information on beans, i.e. how many different contingents are available from different sites delivering warriors, is "discussed" among priest and ruler. Then it is subjected to a kind of lottery game (insofar Vivante [1942] was not completely wrong). The two superiors display several bean patterns, and it is decided, probably with the help of counting sticks, which group has to fight against which other. This is symbolically repeated on a godly stage (bean notifying scene). On the ritual combat day, probably combatant groups from all polities had to align. This is very likely shown in Larco Hoyle (1939: figure XXV, and on Moche vessel ML 002333, Museo Larco, Lima), where six bean warriors, all with different pictograms on their bodies, are marching in with their club weapons. Then pairs of waiting warriors (Figure 7), identified by two selected bean patterns, were called up by the ruler. Here is shown clearly the meaning of one pictogram: it represents one special warrior! The fight (Figure 8) then had a bloody end for each loser.

Most likely the combat in the temple patio was watched by the people. This scenario resembles the Roman "circus", where gladiators were sacrificed in dual combat in front of the bawling crowd. The bloody Moche sacrifice was done



Fig. 9. Warrior bean, depicted on stirrup of vessel from Figure 8.

later on the priest's platform (mass grave behind platform 3a on Huaca de la Luna; Hocquenghem 2008), the blood presented to the warrior priest (Presentation Theme, Donnan & McClelland 1999). A gourd (*Lagenaria*) bowl from the grave contents of the priestess of El Brujo (held in the "Señora de Cao" museum) shows different bean pictograms on the outer rim. Could this mean that this bowl served as a recipient of blood from sacrificed warriors?

The beans in Moche cultural context

"The custom of visual record keeping was probably widespread and existed before the Incas' time" (Strong 2012). This is shown in the *adobe* marks, pressed in fresh clay with fingers. Groups from all parts of the kingdom had to do compulsory labour to erect the huge sun pyramid of the Moche capital (Shimada *et al.* 1985: 66). The overseer knew by looking at their individual mark on the adobe piles, how much a certain guest division contributed to the whole work.

Beans were marked likewise with identical patterns, most probably to encode numbers of warriors of the same

provenance, different populations getting different patterns. The runners in Moche times transported these specifically marked beans. *Chasquis* in Inca times brought information in form of quipus, which used a similar system. Numbers were codified by knots and different items by differently coloured strings. They were read by the *quipucamayoc*, a knowledgeable administrator briefing the Inca about his provinces.

Figure 4 shows the runners going out in a flock with both headdresses, which might mean that information for both, religious and governmental purposes, had to be collected. Some runners with the priest's headdress show an *ulluchu* fruit over their heads (Figure 4, top middle), which in Moche iconography stands for sacrifice due to its anti-coagulating properties (Wassén 1985). Therefore these runners had a task connected with sacrifice, in this context, to assure that enough warriors were found (and encoded) for future ritual combat. The priest welcomes the bean-bringing runner with the *ulluchu* in front of him (Figure 5), and in the end presents blood to the ruler, again accompanied by an *ulluchu*. Therefore the *ulluchus*, which at first glance seem to have nothing to do with runners, are another indirect proof that the beans were connected with warriors to be sacrificed.

The supervision of the messages and the ritual duel was the task of both the major Moche ruler and his priest or priestess. As they were the only ones to decipher the message of the beans with the runner's help, their decision "who against whom" was kept secret. According to that, artists often depicted patterned beans randomly over the vessel, or only showed that the bag contained a diversity of bean patterns. But some artists caught up with the idea that certain patterns belonged to certain individuals and arranged beans with only one special pattern around them.

Runners were presumably sent out when the beans were available after harvest. Later it was time for the festivities asking for new fertility. "In the first new moon following the summer solstice [December/January], they would have undertaken a ritual combat. [...] In the following moon, the month preceding the equinox of the humid season, the defeated warriors would have been consecrated as sacrificed victims" (Hocquenghem 2008: 37). Reason for quoting just this season: The dead warriors were twice found in a humid mud layer [rainy season January!] behind platform 3a, Huaca de la Luna (Hocquenghem 2008: 39). "Sacrificed warriors originated from competing non-local Moche polities" (Taggart 2010: 8). This explains why only *in ritual* combat scenes beans are depicted and why the warriors were shown so many times in bean shape. Sutter & Cortez (2005) found that the sacrificed were not part of the local population but still genetically belonged to the Moche people. More evidence that duelling warriors were from next val-

ley's settlements of their same ethnicity gives Franco (2016, 2019), who, by interpreting the clay friezes at Huaca Cao Viejo and Huaca de la Luna, independently comes to the same conclusion. His fig. 22 (Franco 2016: 25) shows separated pairs of combatants with only two different types of armament, stereotypically repeated. He muses about a rivalry between Chicama and Moche valley; for the ritual combat the task of the runner then was to communicate sufficient warrior numbers, memorized by bean numbers. My finding thus puts the bean bag carrier as first keystone before Combat and Presentation Theme.

Up to our days, south Peruvian Andean twin villages perform a milder blood sacrifice, where villagers with slingshots and stones try to violate members of the other party until blood flows. Then everybody returns happily home, because tribute was given to "*pachamama*" for achieving a next year's prosperous harvest (Hocquenghem 2008).

The beans stand generally for germinating life. The warrior face looking right out of the germination pole of a sculpted bean reveals part of the Moche annual life cycle: Ritual combat → blood sacrifice → appeases god → grants new fertility → beans grow → determine next combatants. "Beans are a metaphor for life itself, symbolizing the warrior's perpetuation of the life cycle through participation in ritual and warfare" (Nieves 1996: 65). Larco Hoyle (1939) was close to find the solution of the riddle presented herein, because at the end of his bean chapter he presents a photo of a local, texting: "Until nowadays locals on the coast keep numbers of their harvest by storing painted maize grains in a bag for counting". But his eagerness of discovering an old written language kept him away from finding the truth.

Legend to figures on title cover.

Above: Discussion over differently painted beans by god and iguana, fox and jaguar.

Below: bean-shaped warriors of equal provenance are waiting in front of their weapon's bundles. Moche fineline painting (200-600 a.d.), Peru. Drawings by Donna McClelland. Courtesy of Moche archive, Dumbarton Oaks, Trustees for Harvard Univ., Wash. D.C.

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Literatur

Berrin, K. (Hrsg.)

1997 *The Spirit of Ancient Peru. Treasures from the Museo Arqueológico Rafael Larco Herrera*. London.

Castillo Butters, L.J.

2014 Taming the Moche. S. 266 in: Andrew K. Scherer & John W. Verano (Hrsg.): *Embattled bodies, embattled places: War in pre-Columbian Mesoamerica and the Andes*. Dumbarton Oaks, Washington D.C.

Donnan, C.

1978 *Moche Art of Peru: Pre-columbian Symbolic Communication*. Los Angeles, Univ. of California.

1997 Deer Hunting and Combat. Parallel Activities in the Moche World. In: Berrin, Kathleen (Hrsg.): *The Spirit of Ancient Peru*. London 1997: 50-59.

Donnan, C. & D. McClelland

1999 *Moche Fineline Painting: Its Evolution and its Artists*. Los Angeles, UCLA Fowler Mus. of Cultural History.

Earle, W. R.

2010 *The Iconography of Moche Winged Figures*. Thesis. Austin, Univ. of Texas.

Franco Jordán, R.

2016 Aproximaciones al significado de las representaciones murales Mochica de la fachada principal y el patio superior de la huaca Cao Viejo, Complejo El Brujo, costa norte del Perú. [Approaches to the meaning of the Mochica mural depictions of the main facade and upper courtyard of Huaca Cao Viejo, El Brujo Complex, North Coast of Peru.] *Quingnam* 2: 23-26.

2019 Sacrificios humanos en el mundo Moche: una nueva mirada a la iconografía y a los hallazgos arqueológicos. [Human sacrifices in the Moche world: A new look at iconography and archaeological findings.] *Quingnam* 5: 99 & Abb. 13.

Golte, J.

2009 *Moche. Cosmología y sociedad. Una interpretación iconográfica*. Lima: Instituto de estudios peruanos.

Hocquenghem, A.M.

1979 Le jeu et l'iconographie Mochica. *Baessler-Archiv* 27 (2): 325-346.

1984 El hombre y el pallar en la iconografía Moche. *Antropología* II: 403-411.

2008 Sacrifices and Ceremonial Calendars in Societies of the Central Andes. A Reconsideration. In: Bourget, Steve & K.L. Jones (eds.): *The Art and Archaeology of the Moche*. Austin, Univ. of Texas, 23-42.

Ibarra Grasso, D.

1970 La escritura precolombina de los antiguos Mochicas sobre pallares o porotos. *Zeitschr. f. Ethnologie* 95 (1): 98-103.

Imbelloni, J.

1942 Escritura mochica y escrituras americanas. *Rev. Geograf. Americana* 9 (101): 212-226.

Jackson, M.A.

2008 *Moche Art and Visual Culture in Ancient Peru*. Albuquerque, Univ. of New Mexico.

Kauffmann Doig, F.

1980 *Manual de Arqueología Peruana*. 7. Aufl., Lima.

Kutscher, G.

1954 *Nordperuanische Keramik. Figürlich verzierte Gefäße der Früh-Chimu*. Berlin.

1983 *Nordperuanische Gefäßmalereien des Moche-Stils*. Materialien zur Allgemeinen u. Vergl. Archäologie 18 (U. Bankmann, Hrsg.). München.

Larco Hoyle, R.

1934 ¿Tuvieron escritura los antiguos mochicas? *La Crónica*, 28. Juli 1934, Lima.

1939 *Los Mochicas*. Bd. II. Lima.

1942 La escritura Mochica sobre pallares. *Revista Geográfica Americana* 18: 93-103.

1944 La escritura peruana sobre pallares. *Relaciones de la Sociedad Argentina de Antropología* IV: 57-63 + XIII Tafeln.

Lavalle, J.A. (Hrsg.)

1985 *Culturas precolombicas: Moche. Colección arte y tesoros del Perú*. Lima.

Lieske, B.

2001 *Göttergestalten der altperuanischen Moche-Kultur*. Bd.I. Projektgruppe Ikonographie am Lateinamerika-Institut der Freien Universität Berlin: S. 15 & 193-195.

Melka, T.S.

2010 The Moche Lima Beans Recording System, Revisited. *Electronic Journal of Folklore, eelfolklore/vol.45/melka.pdf*, 45: 90-136, (besucht 1. Juli 2019).

Nieves, A.

1996 *The Mochica Bean Warrior: An Iconographic Context for Mochica Ceramics*. Tesis. Charlottesville, Virginia Commonwealth University.

Ryser, G.

2008 Moche Bean Warriors and the Paleobotanic Record: Why Privilege Beans? In: Castillo, Luis, H. Bernier, G. Lockard & J. Rucabado (Hrsg.): *Arqueología Mochica. Nuevos enfoques*. Lima: 397-409.

Shimada, I. & R. Cavallaro

1985 Monumental Adobe Architecture of the Late Prehispanic Northern North Coast of Peru. *J. Société des Américanistes* 71: 41-78.

Sutter, R.C. & R.J. Cortez

2005 The Nature of Moche Human Sacrifice. A Bioarchaeological Perspective. *Current Anthropology* 46 (4): 521-549.

Strong, M.

2012 *Art, Nature and Religion in the Central Andes. Themes and Variations from Prehistory to the Present*. Arizona, Univ. of Texas Press.

Taggart, C.

2010 Moche Human Sacrifice: The Role of Funerary and Warrior Sacrifice in Moche Ritual Organization. *Totem (Univ. of Western Ontario J. of Anthropology)* 18, Ausgabe 1, Artikel 10.

Vergara M., E. & M. Sánchez V.

1996 *Mitografía Mochica*. Univ. Nacional de Trujillo: Museo de Arqueología, Antropología e Historia.

Vivante, A.

1942 El juego mochica con pallares. *Revista Geográfica Americana* 110: 275-280.

Wassén, H.

1985/86 Ulluchu in Moche Iconography and Blood Ceremonies: The Search for Identification. *Etnografiska Museum Arstryck Annuals* (Göteborg): 59-85.

The German version of this publication is found in this edition of Amerindian Research 19/3, No. 73, on pages 45-53, under the title:

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