

# CERAMICS TURNING INTO HUMANS



## THE MEANING AND USE OF MOCHE PORTRAIT VESSELS OF NORTHERN PERU (100 – 800 AD)

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(100 – 800 AD)

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Research Master Thesis - 1046WTY

s1054155

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Leiden, 15 June 2012

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Figure: ML001567 – Am.7424 (British Museum, London United Kingdom)

ML001598 – ML002043 (Museo Larco, Lima Perú)



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## PREFACE

The interest in this subject arose while reading Professor Christopher Donnan's book "Moche portrait vessels from ancient Peru", written in 1994. He studied the portrait vessels in close detail. He only briefly mentioned another type often called the full bodied vessels. They were less carefully studied and I got intrigued by their use and meaning, but most of all by their beauty.

For this thesis I studied vessels in various museums around the world, therefore I would like to thank the people of these different museums for their cooperation and support.

Misses Ana Verde and misses Elena Delgado of the Museo de Américas in Madrid, Spain.

Misses Isabel Collazos Ticona of the Museo Larco, in Lima, Peru.

Mister Jim Hamill and Misses Leonora Duncan of the British Museum in London, United Kingdom.

Furthermore I would like to thank my supervisor, Professor Maarten Jansen and Miss Araceli Rojas Martinez Gracida for their support and their interest in my topic, giving me the opportunity to study this culture.

As last I would like to thank my family and friends who helped to make this an interesting work.



# I. INTRODUCTION

You thought only the Romans had a portrait culture? Most certainly not. In this research Moche portrait vessels are studied in close detail and they are definitely as unique and beautiful. The Moche or Mochica culture could be found in north Peru between 100 and 800 AD. No traces have been found of a written language but an enormous amount of artefacts and architectural remains appear, showing the vivid performances of their culture. Generally ceramics are seen as the Moche language. There are basically two types of ceramics: the painted and the modelled vessels. The Moche had a long tradition of depicting and modelling people on vessels.

Christopher Donnan (2004) who studied these modelled vessels was one of the first to believe these were portraits of Moche elite. The portrait vessels he studied only had the form of a head. His book, "Moche portraits from ancient Peru", increased my interest in another type of portrait vessels, namely the full bodied portrait vessels. These will be studied in close detail in this research. The museums define the full bodied vessels based on their general characteristics, by doing so the vessels are placed in different categories. These categories are for example: elite, warriors, prisoners and coca carriers. They are based on the attributes they carry, for example a warrior holds a shield and club. But also their clothing or nakedness is seen as a characteristic. The prisoners are almost always naked.

The main research question is if the depiction or modulation was connected with meaning, form and function. The form of the vessels is not always the same, therefore the question arose if for each category the relation form – meaning/function is the same. Therefore it is first of all necessary to understand what defines a category. A selection was made from the collections of three important museums: Museo Larco Herrera in Lima, Peru – Museo de América in Madrid, Spain – The British Museum in London, United Kingdom. In every museum I studied several examples of each category. In total 64 vessels were studied, pictures of them can be seen in appendix A, B and C. All these vessels were placed in a database presenting all the characteristics, based on my own visual interpretation and the basic aspects of the vessel: form, colour, material and also the category they belong to.

In the portrait vessels different forms were noticed. Is there a connection between form and category? Rice's (1987) method was used to assess the possibilities of the form. Probably open-neck vessels were used for different goals than the stirrup spout vessels.

Rice states that it is important to realise that form and function don't have a unique relationship. Is this also the case for the Moche portrait vessels? Assumptions can be made about the content of the vessels but different hard science techniques will be needed to gain proof.

As mentioned before I also focused on the meaning of these portrait vessels: what was their place in the Moche culture? It is often believed that they were connected with the ceremonial activities. This has been studied by Donnan (2004), de Bock (2005), Bourget (2006) and Chapdelaine (2011). Other important research was carried out by Quilter (2010) who was interested in the messages the Moche stored in their material culture. The message stored in the portrait vessels will give ideas on their value. Some hypotheses exist on how these vessels were used and they will be assessed on their plausibility. As said it is often assumed that the meaning of these vessels was connected with ritual beliefs. This will be further assessed and also new ideas will be formed, based on descriptive and analytic methods.

Different theories are used to study influence. First of all function studies made in archaeology are assessed. These theories show archaeologists can use ceramics for more reasons than only dating. Ceramics are often connected with different persons and different aspects of life, therefore also the cultural aspect has to be studied. The theory of Shott and Orton will be explained in the chapter "Theoretical framework" and furthermore also Rice's theory will be used in this study and will be applied on the database. His study focuses on the form and strength of vessels and both aspects have an influence on the use.

As mentioned earlier ceramics also have an influence on the social aspect of life and as a result a study is made on social memory. In this research an assessment will be made of the statements, intentional or unconsciously, material culture can make. It is interesting to look at the different ethnohistorians and anthropologists who studied the influence of social memory and social biography of objects.

Looking into the Moche culture a special interest is given to the sacrificial rituals because many researchers connect the portrait vessels with these rituals. Focussing on the different phases, involved in the use of the vessels, an analyse will be made of the material, function and use. Different hypotheses will be presented showing the need of further research.

A problem which occurred during this study is, we don't have a clear context. Today the vessels are found in museums all around the world but we don't know where they came from. Since the arrival of the Spaniards looting occurred in the Moche area, destroying the original context. If we would know where the Moche portrait vessels were produced, used and found this would lead to more information about their function. But this will need more investigations and take lots of time.

Exceptional cases are the wooden portrait vessels from Macabi Island. They look similar to the ones in ceramic. The difference is that these wooden vessels have a base and all belong to the "prisoners' category" except one. Therefore they were included in this study, but about them little information is available. Knowing the social and political relation between Macabi Island and the Moche area would lead to new insights.

In this research mainly a descriptive method was used, combined with a literature study. Objects of the different museums were studied in close detail, descriptions and photos were made and used in a database. The description is based on the form found in appendix D, in this form the details of the vessels and also the general aspects (material, state, height, dept, wide,...) are described. All the characteristics were placed in a binary database. This means that for each characteristic a value of 1 or 0 was used. One means that the characteristic is present, while zero means it was absent. Descriptive analytic tests were carried out on this database. The results will be used to study the characteristics and to develop a "decision tree learning model" which can lead to a way to define the different categories based on the main characteristics. In total 64 complete vessels were studied.

The second chapter gives an overview of who the Moche were. It looks into the different theories of their organisation and the possible reasons why their culture collapsed. The different aspects of the culture are briefly touched. In this chapter also an overview is given of the enormous interest archaeologists take in this culture. Nowadays we understand many aspects of Moche life but with each answered question a new one arose.

The next chapter, "Material culture of the Moche" assesses the different types of objects found during excavations. The Moche had a vivid expression on their material culture, even without a written language many aspects of their live can be understood. Special attention is given to the ceramics, these objects are often seen as the Moche

language. The production process and the differences in production are carefully explained. The last part completely focuses on the Moche portrait vessels.

It is often said that the Moche portrait vessels are connected with the rituals the Moche performed. Therefore the different rituals are assessed in the next chapter, mainly focusing on the sacrificial rituals. A short overview is given of the different researchers who showed particular interest in the Moche rituals.

In the fifth chapter the theoretical framework is explained. Here an overview is given of the different ideas which arose in function studies and the way they could be useful in archaeology. Social memory was also studied. In this research one of the main questions is to understand wherefore the Moche portrait vessels were used. It is necessary to understand how people think and act because material culture is often used to assist communities to express their ideas and messages. A last theory which is interesting for this research is the studies involving social biography, in these studies the different phases of “use” are assessed. An object is influenced by many aspects and each of them will leave certain traces on the object. Furthermore Mauss’ theory of gift and exchange is assessed.

The next chapter explains the methodology and the database made for this research. Descriptive statistical tests were used to create a couple of categories, based on similar characteristics. The results of the descriptive tests are explained and for each group examples are given, showing the diversity which can be seen among the amount of Moche portrait vessels. Based on the database study a “decision tree learning model” was made. This is a statistical model used to assess observations. By answering a couple yes or no questions the category in which the vessel could be placed was found. It is important to understand that the database is based on my own observations.

In the last chapter the theoretical ideas will be connected with the results from the database, leading to new hypotheses. But also the previous ideas on the meaning and use of Moche portrait vessels will be assessed. Jeffrey Quilter’s ideas are shortly explained to understand how the Moche used material culture and rituals to express their ideas and messages.

In the conclusion, the different hypotheses are assessed and it became clear that further study is necessary. It would be interesting to do residue and surface treatment analyses to see if any of the plausible hypotheses fit. A second aspect that needs special attention are the wooden vessels because their connection with ceramic portrait vessels



is unknown. A study of the political and social organization of the Moche would possibly bring new insights.



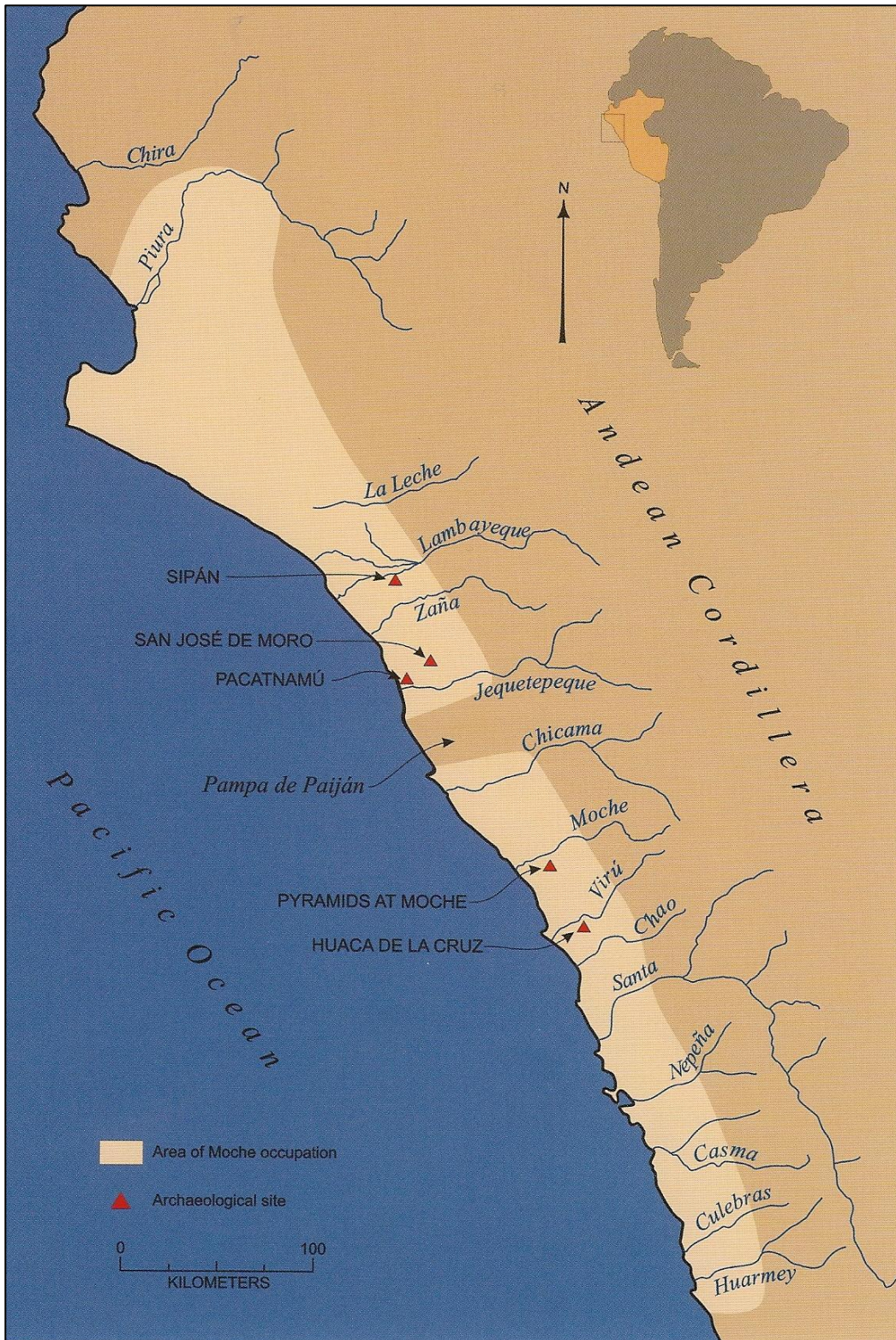


FIG. 1.1: MAP MOCHE CIVILIZATION (DONNAN 2004, 2)



## II. WHO WERE THE MOCHE

The Moche also called Mochica were a society connected through lineages and clans who ruled over a large population (Chapdelaine 2011, 208). Their culture flourished between 100 and 800 AD at the northern coast of Peru (Alva and Donnan 1993, 13; Bourget 2005, 73; Castillo and Uceda 2008, 707).

Peru is the core of the central Andean area and consists mainly of highlands and coastal lowlands. The coast is also known for its hyper arid desert climate (de Bock 2005, 1) and during the summer season (from November to May) it is really hot but the dry heat is tempered by the sea breeze. In the winter season (June to October) the sky is overcast and sea fogs are common at the coast (Donnan 1978, 2). Combining maritime resources and advanced agriculture techniques, like irrigation, the Moche succeeded living in this climate (Bawden 2004, 116; Castillo and Uceda 2008, 707-709; de Bock 1992, 52; Donnan 1978, 2; Donnan 2004, 4).

The Moche civilisation was situated in different valleys from the Lambayeque valley all the way to the Nepeña valley (fig 1.1) The Southern region was separated from the Northern region by the Paijan desert (Castillo and Uceda 2008, 708/715; de Bock 1992, 52). The centre of the Moche civilisation was situated around the Moche River in the Moche valley and around its tributaries (Bawden 2004, 116). In total it was two hundred fifty kilometres long, with its centre in the Moche valley (de Bock 2005, 1). At its greatest moment the civilisation reached till the Piura valley and the Huarmey valley, a distance of five hundred fifty kilometres going from north to south (Alva and Donnan 1993, 13; Donnan 2004, 4). In the Moche valley, close to the modern town Trujillo, an important religious centre was situated, consisting of two large pyramids: "*Huaca de la Luna*" and "*Huaca del Sol*" (Castillo and Uceda 2008, 716; de Bock 2005, 1). These "*Huacas*" formed the central places but at the end their central role was overtaken by Pampa Grande in the Lambayeque valley (Chapdelaine 2011, 206; de Bock 2005, 1; Shimada 1994). Researchers had some questions regarding the hierarchy of the Moche: was it a kingdom or were there different polities with a similar culture? Some researchers defined them as chiefdoms, kingdoms or incipient or inchoate states (Bawden 2004, 116-118; Chapdelaine 2011, 206). It is usually agreed upon the Moche culture was a state level society (Bourget 2005, 73). Bawden (2004, 119) stresses the paradox in the social-political Moche situation, on one side a broad social cohesion is witnessed while on the other side intra-social differences lead to competition. The Moche elite of the

Southern and the Northern region both had contact with other various cultures or ethnic groups (Donnan 2004, 4-5). They interacted with societies like the Recuay in Callejón de Huaylas, but also with the Cajamarca and Chachapoyas in the north and the Vicús on the far north coast (Castillo and Uceda 2008, 708; Donnan 2004, 4-5) and these were mainly trade relationships (Alva & Donnan 1993, 13; Chapdelaine 2011, 202). Probably they also inherited their art, technology and social organization from previous or neighbourly civilizations (fig 2.1) (Alva & Donnan 1993, 13). They probably overtook part of their art and technology from the Chavín culture, which ended during the last centuries before Christ (de Bock 2005, 1-2; Donnan 1978, 2) and in many ways the Moche culture is a continuation of this culture. In various areas of Peru distinctive art styles developed and during this time the Moche style started dominating the north coast (Donnan 1978, 2-3; Larco Hoyle 1978, 104).

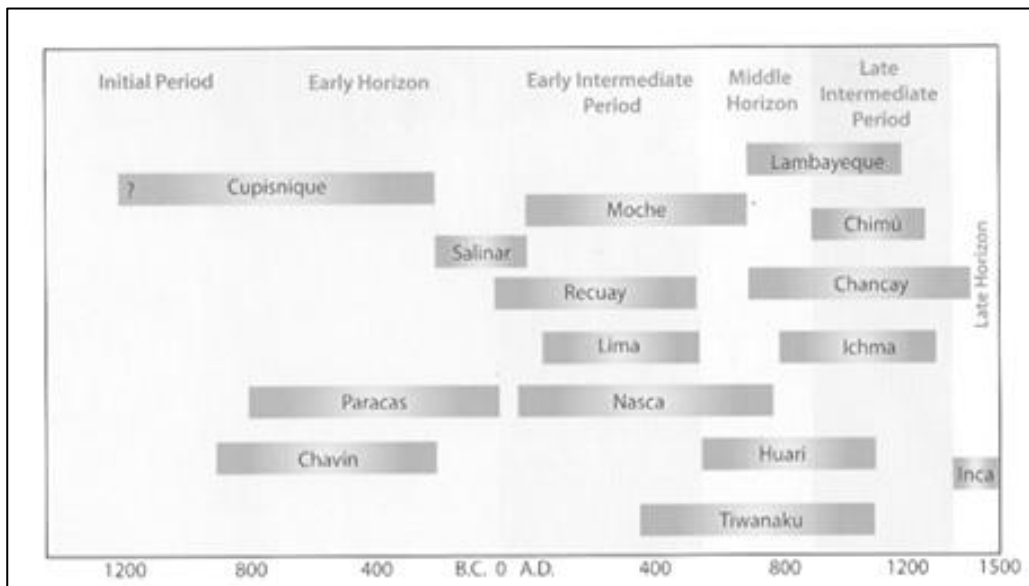


FIG. 2.1: TIME SPANS OF PREHISTORIC PERUVIAN CULTURES (QUILTER 2010, 22)

As mentioned above the people lived in the valleys and at the coast, using irrigation systems to survive. The variety in the environment made this culture diverse, using agriculture and fishing to survive (de Bock 1992, 52-53; Donnan 2004, 4). Domestic architecture was found in the different valleys, close to the rivers and the irrigation canals. The compounds were more than just houses, they had also a storage function and they were probably also used as workshops. The Moche used an economic system of redistribution, the created surplus was used to support a corps of full-time artisans (Alva & Donnan 1993, 13 -15; Chapdelaine 2011, 207-208; Donnan 2004, 5).



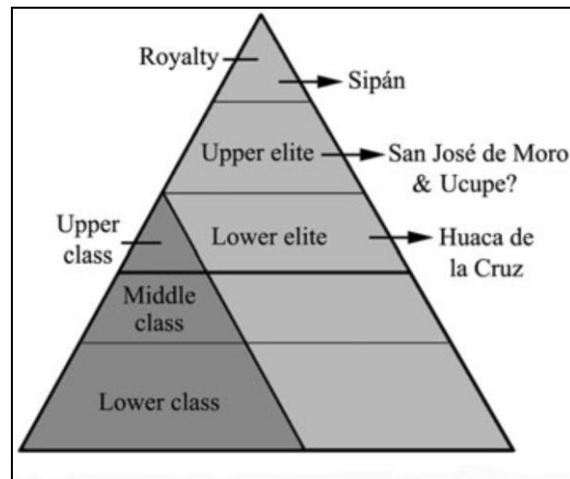


FIG. 2.2: SOCIAL PYRAMID OF THE MOCHE (CHAPDELAINE 2011, 203)

Information about their socio-political organisation is mostly derived from presentations on the ceramics. Due to the presence of different status symbols and decorations it is suggested that this organisation was complex. At the top of this culture there was an elite, divided in subgroups (fig 2.2). The upper class of Castillo (2008) is the lower elite following the adapted drawing of Chapdelaine (2011, 202). Chapdelaine divides the elite into three groups: the lower elite contained the provincial leaders, the upper elite were the priests and priestesses and on top there was the king. The lower and middle elite ruled public life and were only accountable to the king. Recent studies (Castillo and Uceda 2008, 722-723; Chapdelaine 2011, 202-203; de Bock 1992, 53) reconstruct the Moche society as followed: the elite supported the artisan's class, who made textiles, stone, wooden or metal products and ceramics. Artisans, warriors and bureaucrats formed the middle class, while the commoners, peasants, herdsman and workers formed the lowest socio-political rang. Social movement between the lower classes was possible. These studies pointed out that the social organization was split into economic categories but also function, age and gender were important.

The public architecture of the Moche was dominated by large plazas combined with great platforms (Bourget 2005, 73; Donnan 1973, 12). Most of them were built in adobe bricks. There were regional differences between the Northern region and the Southern one. The discovered ceremonial architecture were mainly mountains: massive constructions of solidly piled adobes (Bourget 2005, 73-75; de Bock 1992, 53) and social organization was necessary for this labour process. Rebuilding occurred: new monuments were placed on top of old ones and this likely happened when a new leader was chosen or in special periods of the religious and astronomical cycles (Chapdelaine 2011, 199). The reason why researchers believe these pyramids had something to do

with religion is because only privileged people had access to the upper platform and signs of ritual violence were discovered, which were part of various ceremonies (Benson 1972; Chapdelaine 2011, 200).

Wiley distinguished three types of public buildings: pyramids, palaces and fortifications. The first two are often associated with each other. "*Huaca del Sol*" is seen as a pyramid (fig 2.3), while "*Huaca de la Luna*" is called a palace, probably used for religious or governmental actions. Facalá is an example of a fortification (Benson 1972).

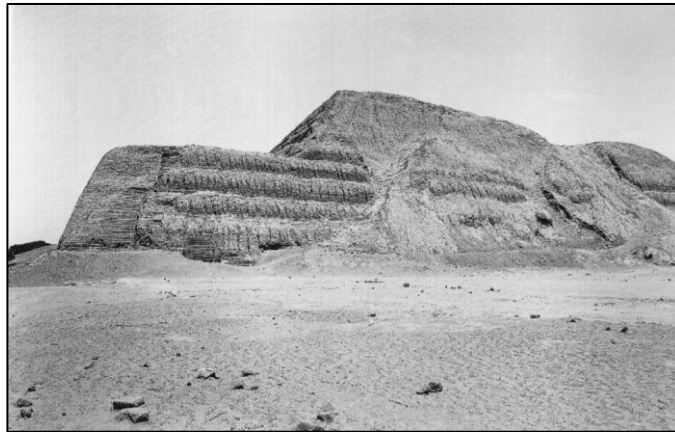


FIG. 2.3: PICTURE OF HUACA DEL SOL (UCEDA 2001, 50)

Close to the religious centres many burials were found (Donnan 1973, 50-52). In burial traditions differences were noticed, it is remarkable that the middle and upper classes shared several features. The simplest burials were pit burials and here the body was wrapped in cotton (Alva and Donnan 1993, 25; Donnan 1973, 52). Donnan (1973) and Bourget (2005) also described the more elaborate burials, which used a twined cane matting or a cane coffin. But the most elaborated graves had a rectangular chamber covered by a pyramid structure (Donnan 1973, 51). Donnan gave two examples of this last type, the royal tombs of Sipán and a grave at Pampa Blanca (Alva and Donnan 1993, 25). Typical in this grave culture is the manipulation of the human remains after reopening the graves. To accompany an earlier deceased person, often part of the elite, the grave was reopened and bodies were placed in an unusual position while other body parts were spread all over the grave (Alva & Donnan 1993, 138-139). Another process was the re-entry of the tomb to add new burial gifts (Chapdelaine 2011, 202-204; Millaire 2002). The orientation of the graves is especially east – west with the head oriented to the west (Donnan 1973, 51). The graves of the persons, who are generally believed to have been elite, were really wealthy and those of the men were wealthier than those of the women and all the graves contained many different types of ceramics.



Religion was very important and, as we can see on the ceramic vessels, sun symbols had a central role (Chapdelaine 2011, 209). The three main gods were the Benito-monster, the Mountain God and the Crab God (de Bock 1992, 53). The material culture often showed elements from the mythology, which explains the value the Moche attached to religion and the deities. The Moche deities were often connected with elements of nature and when they were depicted on pottery they were sometimes associated with astronomical features (Benson 1972; Benson and Cook 2001, 11; Bourget 1-5).

The pottery making process was very complex and divided into different phases. The Moche potters had many different skills, described by Alva and Donnan (1993, 14-19). First of all the potters were masters in making three-dimensional sculptures like animals, deities, objects... . They also depicted different kinds of activities, ritual combats, fishing and elaborated ceremonies and successful captured specific facial features, so each human portrait had a lifelike quality. Low relief designs also often occurred in their work. The use of moulds and stamps made the process more efficient and the potters developed a technique for painting complex scenes on the ceramic.

Their ceramics were of high quality and the Moche civilization is well known for the density of pottery (de Bock 1992, 54). The massive production was probably used for political means, mainly for spreading ideological messages but also for the communication between the world of the living and the underworld. This communication was performed by using human offers (Chapdelaine 2011, 202; de Bock 1992, 55-56). It is not clear what was depicted on the vessels. Many divergent opinions arose. I believe that there are multiple scenes with different meanings. We cannot state that the Moche only depicted ritual aspects or only social aspects. The social life of the Moche is clearly connected with the ritual aspect of their lives. In the earlier years it was believed that most of the stories depicted in Moche iconography were religious or ritual, but also figurative motives occur (de Bock 2005, 2-4). On the pottery different types of pictures were found, geometrical ones and anthropomorphic. Other researchers believe that the idea of Benson (1972) is still valid and that it is the social life of the Moche culture which was portrayed on their pottery. Benson (1972) also states that death was of great importance, therefore skulls and skeletons were often seen in scenes with sexual activities. Many potters painted one-to-one battles, picturing the moment the decision fell who won and who lost. Due to the fact that we find this type of scenes not only on pottery but also on wall paintings and that these are depicted multiple times, researchers nowadays accept them as legends or as memories. The whole process of

ritual battles can be found on ceramics (Donnan and McClelland 1999): the parade, the combat, the stripping of the prisoners by the victors, who tied the cloths and weapons of the prisoners to their own war clubs and the march of the prisoners with their hands tied and a rope around the neck (Donnan 2004). The Moche didn't fight to kill but to take prisoners who later will be offered. In many pictures the winner is drinking from a vessel but what he is drinking is not clear. Christopher Donnan believes the winning warriors were celebrating and drinking "*Chicha*" (Donnan 2004), but other researchers, like Edward de Bock, believe they drunk blood during the sacrificial process (de Bock 1992, 55). It is also possible both versions are true but all these actions were performed to keep the cosmos in balance. The rest of the captive's blood was stored in vessels, which have a rope around their neck and the blood was also offered to the underworld (de Bock 1992, 55). Which of these theories is correct is not clear, but in my opinion further research is needed on both theories. It is not because it is assumed that "*Chicha*" was often used that it was also here the case. On the other side, we see that the throat of the prisoners was cut and the blood was collected in a cup, which later was presented to the priests. This scene is often painted on the vessels. By performing residue analyses on the vessels it would be possible to exclude one or even both theories.

Many other scenes were found on painted ceramics (Benson 1972). In contradiction to the painted scenes the modelled vessels, showing portraits, are believed to be historical figures (de Bock 2005, 2-3; Donnan 2004). The individuals on the painted vessels don't show specific facial characteristics and were depicted to show/explain in what way certain activities, important in Moche life, happened and sometimes the individuals are assumed to be mythical. Even then it is still important to study them, because even on the painted vessels there are differences in cloths, ornaments and weapons and they can help to identify status and function of the depicted people (de Bock 2005, 2). De Bock (1992, 52) describes the diversity of their ornaments. There is a hierarchy where the highest in rank had ear discs, followed by figures with earrings, followed by people with ear bars and as last there were people without ear decorations. But even then gradations are possible (de Bock 1992, 52).

Many times the topic of warfare was studied and there are two opinions. Alva and Donnan, but also Bourget believe the Moche warfare was ritual (Alva and Donnan 1993, Bourget 2001, Chapdelaine 2011, 212). But others, for example Quilter and Verano, see warfare as obligatory, because this way the Moche could expand their land and develop

power (Chapdelaine 2011, 212; Verano 2001, 117). But probably it is not mutually exclusive.

The Moche civilization which consisted of different polities, collapsed over a long period and probably ended due to internal and external factors. Different sets of factors help to explain the decline of the polities. Among the external factors the catastrophic weather circumstances like the El Niño wind were probably linked to the expansion of the Huari and the Pachacamac cultures (Alva and Donnan 1993, 23; Bawden 2004, 116; de Bock 2005, 1). These external influences may have had impact on ideological or commercial interactions. Bawden (2004, 127) stresses there are no indications the decline was the consequence of an invasion. But there were also internal factors which played a role in the collapse of the Moche culture. The collapse of the southern part was probably due to internal factors and not to cultural or environmental ones (Bawden 2004, 127-128; Chapdelaine 2011, 210-211; de Bock 1992, 52; Castillo and Uceda 2008, 709/723-725). The decline occurred rapidly in the south, while elsewhere it was less drastic but clearly substantial. Bawden (2004, 128) describes the local innovations which occurred in the north of the Moche region. Researchers agree on a change in discourse of power (Bawden 2004, 129). Bawden states that the discourse came to rely on locally modified tenets and symbols of the Wari ideology. The Northern region was not abandoned after the Moche left because the irrigation techniques, the technologies for copper processing were overtaken by the following cultures (Castillo and Uceda 2008, 725).

## A. ARCHAEOLOGICAL INTEREST IN THE MOCHE

Due to the arid climate perishable materials are well preserved, therefore the archaeological research is particularly instructive (Donnan 1978, 3). The first archaeologists, who researched this area, didn't make any difference between the Chimú and the Moche. The Moche were called pre-Chimú or early-Chimú, although the term Mochica already occurred and was used to determine the language spoken on the north coast of Peru (de Bock 1992). It was Max Uhle (1856-1944), a German archaeologist, who recognized the Moche, or Mochica culture, as an independent culture (Alva and Donnan 1993, 24; Chapdelaine 2011, 192; Reycraft 2005, 2). He visited Peru and did research in the Moche valley and dated artefacts, based on the sequential position of Inca ceramic styles. He came to the conclusion this culture predates the Chimú and his findings were confirmed by Alfred Kroeber (1876-1960). Gerdt Kutschner (1913-1979) studied the Chimú and also had interest in the Moche. He wrote the book: "*Chimú: eine altindianische Hochkultur*" (1950), this book concerns the military and

ritual leadership through study of the iconography on ceramic figures and vessels. Afterwards many other researchers became fascinated by the region (Chapdelaine 2011, 192; Donnan 1973; Lavallee 1970, 7).

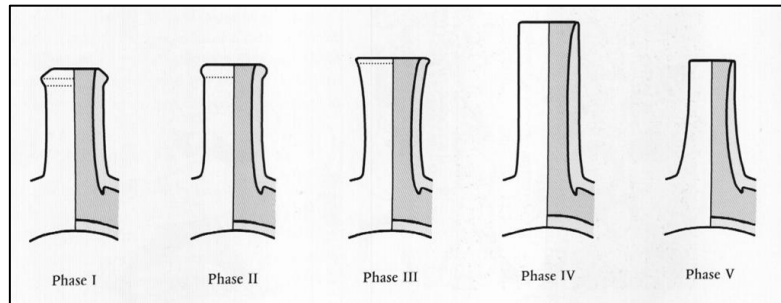


FIG. 2.4: FIVE MOCHE PHASES (DONNAN AND MCCLELLAND 1999, 21)

Important research in the first half of the 20<sup>th</sup> century was carried out by Rafael Larco Hoyle (Alva and Donnan 1993, 24). He amassed a collection of ceramics from the southern Moche valleys, but only studied rough assemblages (Reycraft 2005, 3). He proposed the first relative chronology based on Moche ceramics (Alva & Donnan 1993, 24; Castillo and Uceda 2008, 710; Chapdelaine 2011, 192). The Moche period was divided in five phases based on style developments (fig 2.4) and the Moche civilization flourished during phase III and IV (de Bock 1992; Donnan 1973, 192; Castillo and Uceda 2008, 712). The last decades the field- and laboratory work attained more efficiency on methodology. There was a lot of discussion on the composition of the Moche society, but now researchers believe the Moche polity was divided in a northern and a southern sphere, separated by the Paijan Dessert (fig 1.1) (Donnan 2004). This division probably occurred in Phase III, also called the Middle Moche Period (Chapdelaine 2011, 195). This split of the Moche environment has consequences for Larco Hoyle's stylistic chronology. Recently more researchers do no longer agree on this stylistic separation. The Hoyle sequence was created based on found artefacts from the Southern region. The Southern region, the Chicama, Moche and Santa valleys produced the most portrait -, stirrup-spout vessels and flaring bowls, but this was not representative for the Northern region. A new sequence was made for the Jequetepeque valley (fig 2.5).

Chapdelaine (2011, 195-196) describes the new sequence as four periods, the Early, Middle, and Late Moche period, followed by the Transitional period. For the Lambayeque region no sequence is available, but it is assumed the Jequetepeque sequence is representative for all the northern valleys. It's difficult to place the Hoyle

sequence next to the northern sequence. The Northern region knew many regional influences.

| DATE AD calibrated* | Chronological Period | Northern Moche                    | Southern Moche                  |
|---------------------|----------------------|-----------------------------------|---------------------------------|
|                     |                      | LAMBAYEQUE & JEQUETEPEQUE Valleys | CHICAMA, MOCHE, & SANTA Valleys |
| 1000                | Late Intermediate    | Sican                             | Chimu                           |
| 800                 | Middle Horizon       | Transitional Late Moche C         | Pre-Chimu/Casma                 |
| 700                 |                      | Late Moche B                      | Moche Phase V                   |
| 600                 |                      | Late Moche A                      | Moche Phase IV                  |
| 500                 | Early                | Middle Moche                      |                                 |
| 400                 |                      |                                   | Moche Phase III                 |
| 300                 | Intermediate         | Early Moche                       |                                 |
| 200                 |                      |                                   | Moche Phase II                  |
| 100                 |                      |                                   | Moche Phase I                   |

FIG.2.5: RELATIVE CHRONOLOGY (CHAPDELAINE 2011, 196)

Today the Moche culture is no longer seen as a unified culture. It is better to address it as a multitude of cultural entities sharing basic cultural elements (Chapdelaine 2011, 195; Donnan 2010).

Larco Hoyle's idea that the Moche were the heirs to the old and prestigious Cupisnique tradition was logic if it would have been an unified society. But since we know this is incorrect we can try to look where the influence came from (Castillo and Uceda 2008, 718; Makowski et al. 1994). Proof there was more than one kingdom was found in the three northern regions, the Piura-, Lambayeque- and Jequetepeque valley, because here evidence for royal houses was found. During the Early and Middle Moche time royal families/lineages existed on different locations (Castillo and Uceda 2008, 720).

The Hoyle sequence still is used by many researchers. Not only stylistic differences can be found in the different phases but also different types of scenes. Phase III and IV are known as the climax period (Castillo and Uceda 2008, 716) and during these phases ceremonial pottery was painted with complex scenes but also decorated with detailed

modelled images. The first two phases were simpler and less diverse. After two phases of height, phase V again became less complex (de Bock 2005, 2; Donnan 2004, 13-14).

The last decade some researchers, like Donnan, Castillo, Millaire and Tello, showed interest in the socio-political organisation of the Moche (Chapdelaine 2011, 202). To understand social complexity funerary practices were studied and iconographical studies were carried out. The structure is well stratified and Chapdelaine calls it a pyramidal structure. The commoners are followed by a large middle class and then there is the upper echelon, which is divided into three subgroups. Research showed that social movement was possible (Chapdelaine 2011, 202). The head of the Moche structure was probably a king, like the one living in Sipán. The second subgroup, also called the upper elite, mostly lived around San José de Moro and Ucupe. While the lower elite, who also could be seen as the upper class of the population lived in Huaca de la Cruz (Castillo and Uceda 2008, 722-724; Chapdelaine 2011, 204). The Southern region knew periods with less or more centralization and fragmentation. During these times the social, political and economical developments would have been different for each locality. The idea is suggested that during the Early Moche period only the upper levels were seen as the Mochica and the rest of the population was part of the Virú and Gallinazo tradition (Castillo and Uceda 2008, 719-720).

The Southern region, originally the Chicama and Moche valleys, expanded in southern direction, incorporating the Virú, Chao, Santa and Nepeña valleys, probably during Moche III, having "*Huaca de la Luna*" and "*Huaca del Sol*" (located in the Moche valley) as capital (Castillo and Uceda 2008, 716). The Northern region included the upper Piura valley, the lower Lambayeque valley and the lower Jequetepeque valley. After the collapse, life continued at the north coast and the irrigation system continued functioning (Castillo and Uceda 2008, 720).

Quilter (2002, 160-161) also did research on the political organisation of the Moche, summarizing everything in four models. The first one, saying it would be a single state, is proven wrong because researchers agreed on the separation in the Middle Moche period. A second idea: the dual kingdom, one for each region, is asymmetrical regarding the centralization on the political level and the Northern regions were probably never united in a kingdom. The third and fourth model are very similar. The third model sees the political organisation as valley states with no centralized authority, while in the fourth model it is called a confederation of Moche centres. The third model works for the northern Moche sphere but is less convincing for the southern sphere. Most scholars

agree on the socio-political diversity bound by an overarching presupposition of cultural unity (Chapdelaine 2011, 201-205; Quilter 2002, 160-161).

Christopher Donnan researched the Moche culture for a long time. The last decade he focused on the Moche portrait vessels (Donnan 2004) and developed a thematic approach where he concentrated on the descriptions of the various themes. He believes portrait vessels are connected with the sacrificing ritual of the Moche and to be sacrificed could have been the ultimate purpose of high ranking warriors. This is kind of the same Edward de Bock mentions in his conclusions: “the *goal of a Moche warrior would have been similar to that of a Tupinamba one in eastern Brazil in the sixteenth century*” (de Bock 2005, iii). Edward de Bock tried to find a connection between the narratives, on the pottery, and the rituals and myths of the Andes, recorded by the Spanish conquerors. His goal was to find a methodology to unravel the underlying social structures in iconography. In his studies he uses the outlines of fineline paintings to demonstrate that Moche iconography is filled with quadripartition (de Bock 2005, 38). He thinks each depiction can be divided in four parts, which is also true for the social classes. An example is given below where the scene can be divided in two groups based on the size and decoration and de Bock sees this as the division between elite and commoners. Each group can, again, be divided into two subgroups based on their cloths and in doing so we end up with a quadrant. In each part of the quadrant a hierarchy can be made (de Bock 2005, 30).

He defines his system of quadripartition (fig 2.6 and fig 2.7) as the basic model for social organisation in the Moche culture and in Moche paintings (de Bock 2005, 40). A division is made by de Bock into different social classes, which are also noticed by other researchers. Within a class a hierarchy can be made based on characteristics (de Bock 2005, 49).

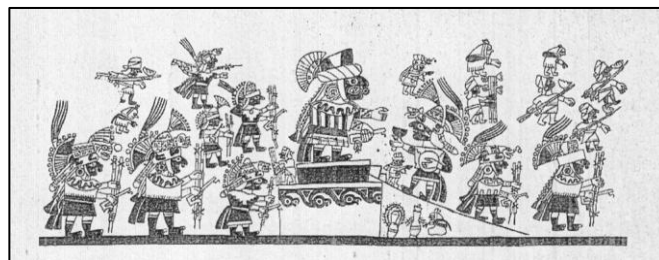


FIG. 2.6: EXAMPLE OF QUADRIPARTITION (DE BOCK 2005, 31)

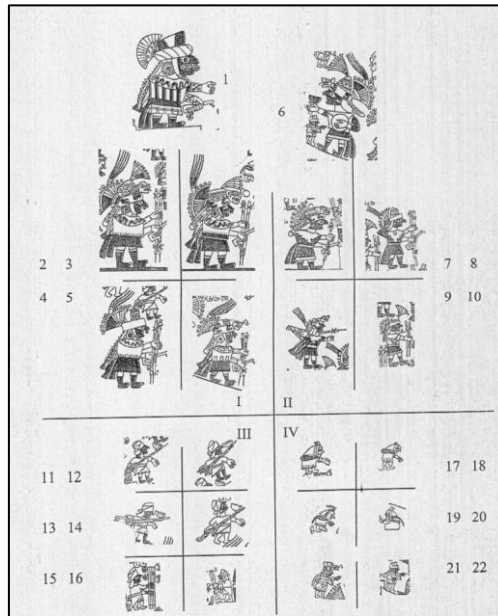


FIG. 2.7: EXAMPLE OF QUADRIPARTITION (DE BOCK 2005, 31)

We can conclude that the Moche culture, which flourished between 100-800 AD, is been studied by many researchers. Most of them focussed on the socio-political organisation, the material culture and lately also on the geographical situation in combination with the political organization. During the years of study much information was gained about the Moche culture and their complex society, but with every question we answer new questions arise.

In the next two chapters the material culture and the Moche rituals will be studied in close detail. Together they form the core of the Moche culture.



### III. MATERIAL CULTURE OF THE MOCHE

To better understand the society of the Moche an overview of their material culture is relevant. Their culture, also known as Mochica, had no written sources (Chapdelaine 2011, 208; Donnan 2004, 5). Therefore it is important to understand the meaning behind the visual sources. Donnan (1978, 8) states that *“Moche art is a symbolic system that follows consistent rules of expression”*.

Moche art gives information on the different aspects of life, for example many scenes are connected with rituals and sacrifices (Benson and Cook 2001, 7) and others represent military scenes (Donnan 1973, 126). Material culture is often seen as a sign of adoration of the political, religious and military elite (Alva and Donnan 1993, 23). The Moche artists were exceptionally skilled, using different materials and techniques (Donnan 1973, 127-128). Chapdelaine (2011, 207) states that the Moche developed a large technological knowledge and learned to work with moulds, which led to mass production and repetition. The specialization in the Moche art took place in workshops and was controlled by the elite (Chapdelaine 2011, 207). As mentioned earlier the elite supported the artisans, through a system of redistribution. Even when there are clear signs of specialization and mass production, there is still a certain individuality to style (Donnan 1978, 9) which got modified through time.

It is important to understand who processed the material, in the first place there was the artisan, but other people had an influence, directly or indirectly. Much of the Moche material culture was painted. Donnan (1978, 44) points out the painter and the potter were not necessarily the same individual.

Iconographical studies are continuously shaping our view on the Moche society (Chapdelaine 2011, 209). The artists had an enormous knowledge of techniques. Most studies focus on ceramics because they are generally seen as the language of the Moche, this does not mean that the other materials are less important. Each of them tells a story in its own way. The following part is only meant as an overview. Because of the diversity and complexity of the Moche art we must be careful determining its meaning and use by looking at them from our western perspective. It is important to realise that each object is part of its own culture and by that carrying the identity of that culture.

## A. THE VIVID MATERIAL CULTURE: AN OVERVIEW

### 1. WALL PAINTINGS

Murals are often very colourful. Donnan (1978, 22) describes them as plastered surfaces with incised stripes or lines and polychrome pigments. De Bock (2005, 97) describes four colours: black, white, yellow and red. Examples are the mural of Pañamarca and Huaca de la Luna (fig 3.1), which shows a sacrifice ceremony (Alva and Donnan 1993, 226). On the north coast many other examples were found (Donnan 1978, 22). At Huaca de la Luna several murals depicting the Moche sacrificing ritual were found (de Bock 2005, 95).

The designs could be geometrical but also zoomorphic forms in low relief were often found (Donnan 1978, 22; de Bock 2005, 97).

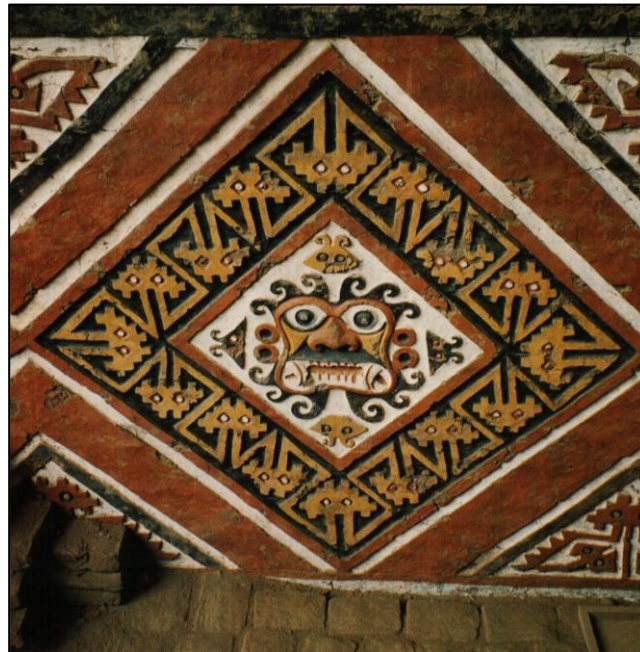


FIG. 3.1: PAINTED RELIEFS OF HUACA DE LA LUNA (QUILTER 2001,21)

### 2. STONE ARTEFACTS

There are different types of stone artefacts. Mostly cobbles of very fine grained igneous rocks were used. Donnan (1973, 117) describes these stones as dark green or black coloured. Some stones were used as hammer stones (Donnan 1973, 117). The stones were not always altered but often flakes, left unused, were removed. The core tools were often retouched and could have different forms (Donnan 1973, 118). Donnan describes some flake tools and also gives examples of the different ways these tools could possibly have been used. Most stone tools were used for scraping, drilling or

incising. Donnan (1973, 118) stresses that most tools were very rough and only minimal retouched.

### 3. GOLD AND METAL OBJECTS

Metal objects were rather small (Donnan 1973, 119) and were found in habitable refuges but also in cemeteries. Donnan (1973, 119) stresses that many cemeteries were looted and because metal corrodes we don't find that many metal objects. The most common metal used was copper (fig 3.2) and the technique used was often hammering (Donnan 1973, 119-120). The metalworkers also knew the skill of lost wax casting which led to beautiful three-dimensional objects (Alva and Donnan 1993, 20).



FIG. 3.2: OBJECT OF COPPER-LEAD ALLOY (QUILTER 2010, 108)

To make objects look like gold the metalworkers invented remarkable techniques. Alva and Donnan (1993, 20-22) explained the method where they were using alloys. The alloy consisted of gold and copper and in some cases silver was added (Donnan 1978, 12). With a chemical surface treatment the copper and silver were removed leaving only the gold behind (Alva and Donnan 1993, 20). Another technique was heating gold and the melted gold left a golden layer on the surface of the object, originally made in any other material (Alva and Donnan 1993, 20). Also gilding was often used as technique on copper objects.

Because of their small form researchers believe the metal objects rather had a decorative function (fig 3.3) than a utilitarian one (Donnan 1978, 67). We can find important exceptions in the Moche weapons. First of all there are the "Tumi" knives, made of copper and other objects are the star-shaped club heads (Donnan 1978, 68). This type of war clubs is different from the more common club heads with the mushroom form.



FIG. 3.3: EAR ORNAMENT (ALVA 2001, 223)

#### 4. TEXTILES

Textile fragments were most of the time found in a residential context and were not found in graves but it could be they decomposed through time (Donnan 1973, 107). Textiles are difficult to preserve (Alva and Donnan 1993, 22).

The most common type were the woven textiles (fig 3.4). Donnan (1973, 108-110) describes different types of weaves where two types of fibres were used. The most common fibre was cotton and the other one was wool (Donnan 1973, 108). Alva and Donnan (1993, 22) explain that cotton grew locally, while wool came from “non-Moche people”. These people could be herdsman living in the highland, tending llamas and alpacas. Wool was mostly used for embroidered textiles and when they wanted a red colour because each red yarn used in the textiles was made of wool even when the rest of the textile was made of cotton (Donnan 1973, 111). Donnan (1973, 111-112) describes different techniques for decoration and most of them were simple techniques like colour patterning. There is no evidence textiles were dyed or painted after been woven. Embroidery was also used as decoration technique (Donnan 1973, 112).



FIG. 3.4: MANTLE BORDER (QUILTER 2010, 111)

Less common types of textiles are basketry, mats, cordage, needlework and knotted nets. Sewing was not often done and, Donnan (1973, 113) mentions three reasons why

it was used: to stop the unravelling or to reinforce, to connect different textiles and to mend tears. Only cotton was used for sewing and two techniques were detected, each using a different stitch. The first one is the running stitch and the other is the overcast stitch (Donnan 1973, 113). This last one was used to sew two textiles together. The netting technique was used when making fishing and hunting nets but also to make baskets (Donnan 1973, 113). In these cases a non coloured cotton yarn was used. For knotted nets there were also two techniques, linking and looping. Cordage was always made of sedge, coming from “*Totora*” or “*Junco grass*” (Donnan 1973, 114). There were no complete mats found and the different fragments Donnan found during excavations in the Santa Valley were made of “*Junco grass*”, while for basketry always “*Totora*” was used. Donnan (1973, 115) considers that basketry could be a rarity in the Moche culture because almost no traces were found.

## 5. BONE AND WOODEN OBJECTS

Bones were often adjusted to become functional tools (Donnan 1973, 115). Many of them were pointed and used for piercing or as needles and often needed to be sharpened again. Striations are visible at the ends because they were reused multiple times. Donnan (1973, 115) stresses that they could also be smoothed as a result of their use. Generally the cannon bone or ribs of cameloids were used (Donnan 1973, 115/123). It is not always clear which type of bones was used (lama, alpaca, vicuna or guanaco) but the strength of lama bone is remarkable because it seldom shows traces of weathering. Other types of bones came from sea lions and from depictions on ceramics we know they were hunted by men. Skeletons of rodents were often found completely which indicates that these animals were not eaten (Donnan 1973, 124). Furthermore also bird and fish bones were found.



FIG. 3.5: WOODEN STATUE (QUILTER 2010, 57)

Wooden objects were sometimes carefully finished (fig 3.5) but in many cases the wood was very raw. One type, often used, was the “*Algarrobo*” wood (Donnan 1973, 120). Wood was also used for needles but also to make different carvings into objects. Donnan (1978, 23) mentions that these carvings could also occur on bone. The Moche often used an inlaying technique and this can be seen on wooden, bone and stone objects (Alva and Donnan 1993, 23; Donnan 1978, 23). Donnan (1973, 121) stresses that because of the scarcity the wood is not commonly used for tools.

## 6. CERAMICS

Christopher Donnan (1973, 54) describes ceramics as the most common artefacts in the Moche material culture, at least as the ones archaeologically preserved. Clay was not only used to make ceramic vessels and figurines are one other type of objects often made of clay (Donnan 1973, 97). The Moche knew different types of ceramic vessels, generally divided in two categories: the modelled and the painted vessels and both types had different forms (Donnan 1973, 55; Donnan 2004, 5). An important vessel type was the stirrup spout vessel. Donnan (1973, 55) describes them as vessels with a closed chamber and a hollow tubular spout in the form of a stirrup. As mentioned earlier Larco Hoyle made a classification (fig 2.4) based on the form or the stirrup. The main differences in the form depend on the rim and the length of the stirrup spout (Donnan 1973, 55). This type of vessel is common for the painted vessels as well as for the modelled vessels (fig 3.6).



FIG. 3.6 EXAMPLES OF STIRRUP SPOUT VESSELS (QUILTER 2010 AND DONNAN 2004)

Not only can we see an evolution in the form of the stirrup spout but Donnan (2004, 16-18) describes there are also changes in what was depicted on the vessels. He stated that the heads, modelled in phase I and II, were mostly generic. In phase III all the human heads became more vivid and characteristic and they received, for example, great



headdresses. At the end of phase III, the faces were very natural, representing particular individuals. The portrait culture flourished in phase IV but for an unknown reason the artisans stopped producing these beautiful portrait vessels around the end of phase IV and none were made during phase V. From phase V only standard generic heads were found.

The artisans knew lots of techniques: “*direct modelling, coiling, stamping, and mould making*” (Donnan 1978, 10) and the production technique had an influence on the form of the chamber. Donnan (1973, 60-74) describes the different types of chambers. There are the dippers, which are oblate and without neck and there are the flaring bowls, which are deep and flare outwards and there are also the symmetrical chambers. These last ones are often divided into four groups. Donnan (1973, 69) describes them as: spherical chambers, at the top less incurved chambers, chambers with no round contours and chambers with a distinct gambrel. All these types occur with a variety of decorations.

Often the chamber was modelled into a descriptive form, for instance into animals (seals, snails, birds,...), humans (with a high degree of realism), naturalistic landscapes, architectural elements and transportation methods (Donnan 1973, 72-74). Modelled vessels were often fired in an oxidizing atmosphere, ending up with a base colour which varies from reddish-orange to reddish-brown (Donnan 1973, 73). Important types of human modelled vessels are the so called portrait vessels (Donnan 2004, 9). They all show male figures, mostly adults but in some cases children. Donnan (2004, 9) described the characteristics of these vessels and important are the, sometimes, present faults because this means the persons were modelled as realistic as possible. The portrait vessels Donnan (2004) describes are heads and he concludes these people had a high status in the Moche culture. Looking at the painted Moche vessels only a few examples of these portraits were found (fig 3.7).



FIG. 3.7: ROLL-OUT PAINTING OF A RITUAL SCENE (DONNAN 2004, 11)

There are two different methods to create representations: the painted vessels and the vessels made in a mould (Larco Hoyle 1978; Lavallee 1970, 17). There are two types of moulds, one for the pieces in low relief and one for the complete modulation. For the painted vessels different colours were used: a dark reddish-brown vessel was decorated in beige and a beige vessel received a reddish-brown decoration (Lavallee 1970, 21-23). Each type knew its own moment of glory. The modelled vessels existed during the Moche I till the Moche IV phase. They were rarely found in phase number V. The appearance of the low relief vessels started during the Moche II phase and disappeared in Moche IV phase. For the painted vessels, the light vessels with dark decoration existed in Moche I phase until the end of the Moche period. The dark vessels with light decoration were only found in the early Moche period (Moche I and II phase) (Lavallee 1970, 22).

A problem with the ceramic vessels is that we don't know their context. Donnan (2004, 10-11) points out that many sites in Peru were looted since the arrival of the Spaniards. No evidence was found that the portrait vessels were placed in the graves of the persons they represented (Donnan 2004, 10) because they were also found in female graves.



## B. CERAMICS AS EXAMPLES OF MOCHE LANGUAGE

### 1. SCENES ON MOCHE CERAMICS

Why should we study ceramics? Because they can reveal a lot of information about their form and use, their production and the people who used them. We are especially interested in the vessels that were distributed over large areas. We must start our study looking at the production process and at the organization of the workshops. Were they specialists, local households or clustered households (Chávez 1992, 84 -85)?

Communication is important, in art it occurs between the artist and the viewer and the conveyed information is called artistic nouns. A set of modifiers, artistic adjectives, are used to describe these nouns and for representations often specific combinations were used. When actions were modified the artist uses artistic adverbs. By using these elements correctly it's possible to add various details (Donnan 1978, 8).

Moche art can be seen as a symbolic system that follows rules of expression. The Moche iconography represents elements of a symbolic system, showing the supernatural and ceremonial aspects of the Moche culture. Secular and non-secular aspects were often intertwined. The separation of both categories is not always in favour of the interpretation (Donnan 1978, 65). The interpretations were made by observing patterns which result from artists working according to these rules. The correlations between the details help to decipher the message behind the art. Meaning can be revealed by looking at the engaged activities and the represented setting and each artist's unique style, which can change during their life, is important (Donnan 1978, 8-10). It's often said that the Moche iconography shows all the topics involved in daily life, but in practice we can only see a certain range of topics (Donnan 1978, 10). Many of the daily life common aspects are not represented in the Moche art. The erotic activities, shown in the art, are important because they show parts of a ritual and not the everyday life sexual practice (Donnan 1978, 34).

Headdresses and ornaments were important elements in the Moche iconography and they had different forms and were elaborated in a different way. The ornaments were often made using different types of materials. These ornaments and headdresses reflected the status of the person wearing them (de Bock 2005). They are important to define who was represented in these iconographical scenes.

In the material culture of the Moche we can find different iconographical themes. Four groups can be distinguished, the first ones are naturalistic representations of the fauna.

Secondly we have scenes showing human activities. The third kind have geometric forms with an animal inspiration and monstrous creations form the last group.

Many warrior activities were depicted by the Moche artists. The fineline drawings, which can be studied thanks to the roll-out technique, show the different aspects of combat (Donnan & McClelland 1999, 297-299). We can see warriors marching to the battlefield and warriors engaged in combat, most of the time these are one-to-one battles. Never scenes were found where they were attacking buildings or fortifications. At the end of a battle the emphasis lies on the defeated and not on the victor. The defeated received a blow in the face, indicated by the bleeding nose and he is stripped till he is naked and is grasped by his hair. His ornaments, cloths and weapons are gathered into a weapon bundle which hangs on the victor's war club. The defeated's hands were tied on his back and a rope was placed around his neck. Then there was the parade towards the Moche ceremonial places. The ceremony is vividly expressed and different representations of Moche sacrificial ceremonies were found. This shows it was an important aspect of the Moche society (Alva & Donnan 1993; Donnan 2004; Quilter 2008).

The depicted Moche ceramics knew strict rules and are between one and thirty centimetres high, but most of them are between five and twenty centimetres high. Exceptions occur if size was used to express status, which is the case in ceremonial scenes (Donnan 1978, 30). Here priests are taller than prisoners.



FIG.3.8: TWO SIMILAR PORTRAIT VESSELS (MUSEO LARCO – LIMA, PERÚ)

There are two major players in the production of Moche ceramics, the potter and the painter. It's impossible to state they were the same person because it is also possible that two persons or even more were working together in one shop. Different ceramics were made by the same potter, but they were not necessarily painted the same way (fig 3.8). Moche people were probably able to recognize the work of specific artists.

## 2. PRODUCTION PROCESS OF MOCHE CERAMIC

### a) CHAÎNE OPÉRATOIRE

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Sillar and Tite (2000, 3-9) used the “*chaîne opératoire*” as basis for their approach to study ceramics. This “*chaîne opératoire*” is a series of operations which transforms the raw material into a final product and their approach was based on the reconstruction of the different operations. Any action a person performed in the past will have an effect and must be brought into consideration if we want to study material culture. Reconstruction and hypothetical thinking are necessary but must be backed up by solid results from different analytic techniques. Specific technologies are embedded with wider technical and social practices (Sillar and Tite 2000, 11). Tite (1999, 182) describes the “*chaîne opératoire*” in detail as a life-cycle with three mayor stages: production - distribution – consumption.

After formation a vessel undergoes different steps to become a finished pot. Rice (1987, 136) describes these techniques: “*The most important of these finishing techniques are beating, scraping, and trimming, which essentially complete the forming process, and smoothing and texturing, which finish the surfaces*”. Often the vessel is smoothed, with a soft tool, to gain a more regular or finer surface (Rice 1987, 138). Rice states that these techniques are often carried out before the vessel has completely dried.

The drying process of a ceramic vessel could acquire several days or even weeks (Rice 1987, 152). Rice stresses an incomplete drying process would lead to faults. Before decoration pots are often dried in the sun and this depends on the weather conditions (Rice 1987, 152). Pots can be fired in or without a kiln and sometimes pots are preheated. The difference lies in the temperature (Rice 1987, 153). If no kiln was used, vessels were placed directly into the fire, which could leave marks on the pot (Rice 1987, 154). Rice stresses that each method has its own disadvantages, for example the time needed for firing or the changes in temperature.

### b) DIFFERENCE IN COLOUR AND FIRING PROCESS

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The Moche mainly used earth colours on their vessels (Benson 1972). After firing, most of the time in an oxidizing atmosphere which led to a reddish brown or beige paste colour, they were slip painted in white or red. Sometimes organic black pigments were applied after the firing process (Donnan 1978, 10), they were painted or scorched onto the exterior of the vessel. This technique was used to add details to the object like face

painting or a moustache. This colouring can become vague or even disappear do to weathering (Donnan 1978, 10; Rice 1987, 152).

Lately colour is also used as a classification criterion for ceramics. The colour is not only determined by the raw material. Generally there are two types of firing: oxidizing and reductive firing (Rice 1987, 51-54). The difference lies in the atmosphere and the temperature reached. The choice of firing technique has an effect on the colour and it will become grey or black in a reductive firing process, while reddish or brown in an oxidizing atmosphere. If a lot of iron is present the result will also be more reddish. Often minerals were combined and the amount and the spreading of these minerals have their own effect (Jacobs 1987, 49).

A problem is formed by the “scum-layer”. This is a bleaching of the ceramic due to the presence of  $\text{CaCO}_3$  (calcium carbonate) and NaCl (stone salt) in the clay and often occurs with iron holding ceramics. It is difficult to distinguish the scum layer from slip. Decoration, placed on the vessel before the firing process, can disappear because the scum-layer affects the surface and sometimes leads to the detachment of the enamel (Jacobs 1987, 52-53).

For the firing of a stirrup spout an oxidizing atmosphere was used (Donnan 1973, 57), because that way it can better be controlled.

### 3. PORTRAIT VESSELS OF THE MOCHE

Ceramic can be hand modelled or made in a mould. The Moche artisans used concave moulds which were joined vertically (Donnan 2004, 21-24). In fact two types of moulds existed often called convex and concave (Rice 1987, 125), in the first type the clay was placed over the exterior, while in the second, the concave type, the clay is pushed against the interior. Often a mould exists of two sides, who can be joined horizontally or vertically (Rice 1987, 125). Moulds can be made from different materials, mostly fired clay or plaster. Rice (1987, 125) concludes that concave moulds are easier to handle than the convex types. Because clay shrinks during the firing process, using a concave mould makes it easier to remove the pot from the mould. When we consider applying decoration the use of a concave mould is also favourable. Carvings in the mould later facilitate the application of decoration because it appears in relief on the pot (Rice 1987, 126). Moulding is often used for decoration and shaping functional additions, like handles or spouts (Rice 1987, 129). Sometimes two moulds were used for one modelled human-like vessel (Donnan 2004, 24).

The potters used a good type of clay, which led to fine ceramics. This clay consists of iron and becomes terra cotta after firing. Donnan (2004, 21) also defines a second type of clay, a white one. This clay is often used to create the white slip paintings on the portrait vessels. For all the pottery a fine-textured paste with fine-grained sand, as temper, was used (Donnan 1973, 57).

As mentioned earlier the Moche often used moulds for the production of ceramics, but this was not always the case, because in phase I and II the modelled vessels were hand formed. The use of moulds started in phase III (Donnan 2004, 21).

Donnan (2004, 21-40) describes the manufacturing process of portrait vessels. The first step was the production of a mould matrix. The form was identical to the intended vessel and all the details were already made in the matrix (fig 3.9). The difference between a vessel and a matrix is mainly the thickness of the clay and the matrix is not finished the same way.

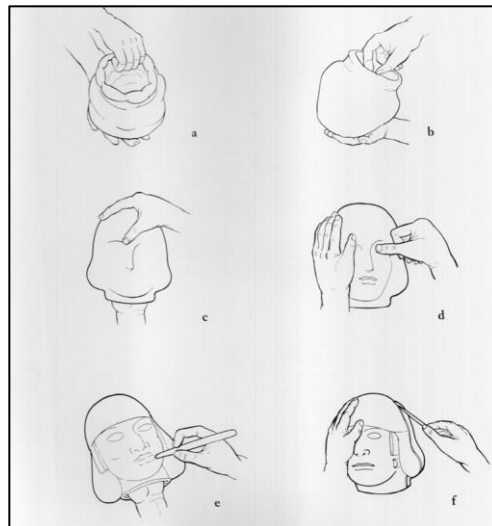


FIG. 3.9: FORMATION OF A MATRIX (DONNAN 2004, 22)

The matrix was completely shaped by hand and asked for a high skill level. Before it was dried a groove was made in the matrix, which helps in the rest of the process making the mould. The matrix was finished after it was dried and fired. The second step in the process is the production of a mould and a layer of clay was pressed around the matrix (fig 3.10). A same type of groove was carved in the mould and will later help to separate both halves of the mould. When the clay started to dry the mould brook in two halves and they were further dried separately. When completely dried, the mould was also fired.

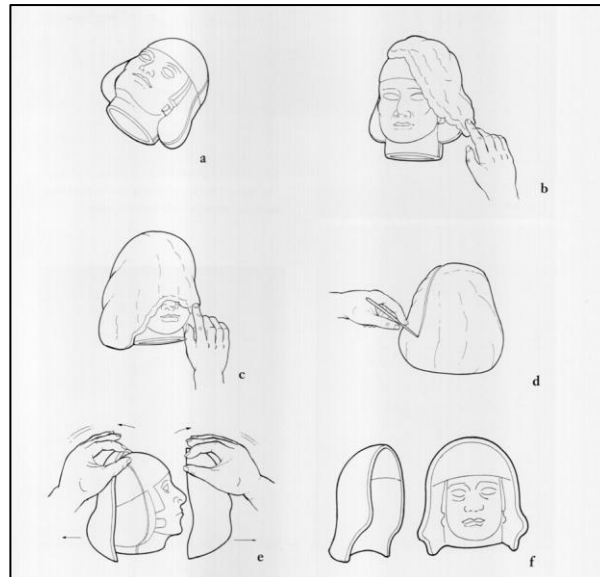


FIG. 3.10: FORMATION OF A MOULD (DONNAN 2004, 26)

Afterwards the process of forming a portrait could start (fig 3.11). On both halves of the mould clay was pushed against the sides and the two parts were joined together and the bottom was closed with ropes of clay.

Due to the drying the clay shrunk, making it easy to remove the mould. The last step was adjusting details and smoothening the exterior. Before the pot could be baked, the stirrup spout had to be attached. A stirrup spout was formed with three pieces of wood and a chunk of clay (fig 3.12). The clay was wrapped around the wooden pieces of clay and a T was formed (Donnan 2004, 28-29) and the long sides of the T were bent. To join the chamber and the spout together, two holes were made in the chamber. The surface was smoothed around the joints and with a small incision the passageway was cleared.

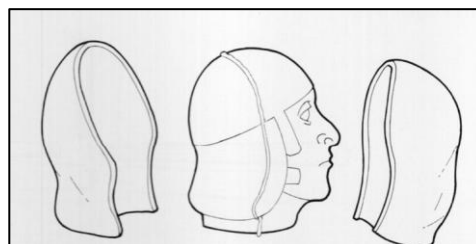


FIG. 3.11: FINISHED PORTRAIT VESSEL (DONNAN 2004, 27)

The stirrup spout form derived from a double spout or bridge bottle, developed in the Machalilla culture and which came to Peru in three variants (de Bock 2005, 4). The form of this spout probably had a great symbolic value (de Bock 2005, 4). It is remarkable that the spout is often made with a different paste. Donnan (1973, 57) describes the paste as a fine one with varying quantities of sand.

In case of an open-neck vessel, a large hole was made in the chamber and the neck was attached the same way as a stirrup spout.

In a third step the vessel was sometimes painted but this was not always the case and then the pot stayed undecorated. Slip, in one or more colours, was used for the painting and often red and white were used (Donnan 2004, 36). On the spout also slip was often applied and could have different colours. Donnan (1973, 57) says it could be orange, reddish brown or dark brown. Before the final step most of the vessels were burnished and this process was carried out with a bone or a stone and this smoothing process was best done while the pot was still moist. Not all the vessels were burnished, sometimes certain parts were left unburnished. The firing often happened in pits, in these cases the vessels came in direct contact with the fuel. Most of the vessels were fired in an oxidizing atmosphere. This makes the vessel look orange to buff and the white slip becomes cream coloured (Donnan 2004, 36-37).

Mainly in later phases we sometimes find grey or black coloured portrait vessels and this happened because a different firing technique was used. Donnan (2004, 38) calls this technique smudge firing and explains this as followed. When the oxidizing atmosphere reaches its temperature peak more fuel was added while the pit was closed with sand.

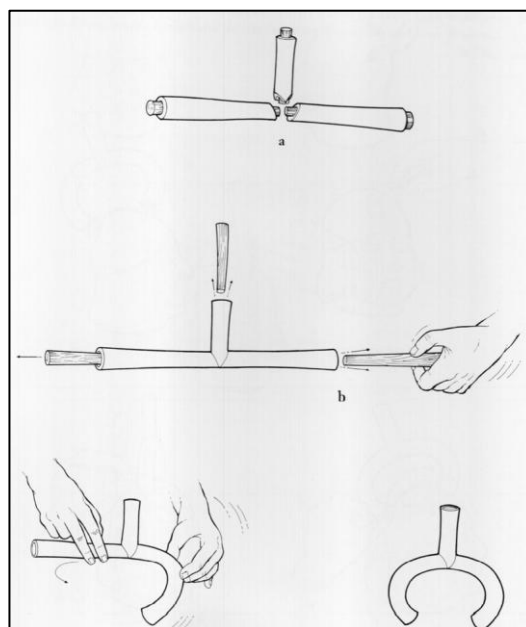


FIG. 3.12: FORMATION OF A STIRRUP SPOUT (DONNAN 2004, 29)

This created smoke which came in direct contact with the vessels and led to a metallic look. It is interesting to know this type of vessel was not painted with slip.

Some portrait vessels have an almost identical twin vessel and they only differ in the decoration (fig 3.8). The ornaments, the face paintings and the headdresses were altered. This could suggest the painter and the potter were two different persons. Donnan (2004, 110) states that there are no characteristics for an official portrait. Extra ornaments could be added to the pieces after it left the mould but it was almost impossible to change prominent features. The most common variations occur in the colours and the geometric decorations (Donnan 2004, 111).

As we can see not all the modelled portrait vessels had a stirrup spout. This will be described in detail in the database chapter where several examples of the full bodied portrait vessels with an open-neck are listed. Donnan (1973, 65) also describes these vessels and he calls them neck bowls. They are also called open vessels and they have lots of different sizes and finishing techniques (Donnan 1973, 65). As mentioned above the rim of the stirrup spout is characteristic and this is also true for the open vessels because the form of their rim can also change (Donnan 1973, 66).



## IV. MOCHE RITUALS

Ritual scenes were often depicted on material culture (Patton 2009, 57-59). Patton focuses on the fact that we can gain information about the rituals by interpreting the different elements in the pictures. One example she gave is that divine figures were often depicted taller compared to the persons who offered or were offered. Patton developed a format to understand and identify the scenes on material culture. The first step is identifying the different depicted peoples, using shape to determine their status and secondly attributes need to be defined. This method was also used by researchers like Donnan and McClelland (1999) and de Bock (2005). The Moche depicted many ritual scenes and evidence was found on wall paintings and on ceramics but also other material remains gave clues about rituals (Benson 2001, 7) Thanks to Donna McClelland (1999) who developed the roll-out technique to study the paintings on the ceramic vessels, many sacrificial scenes are now studied in close detail. Combining the information, received through material culture and the knowledge of rituals, could help to gain a more complete image of the Moche culture. Benson and Cook (2001, ix) see rituals as the means to understand a culture. Rituals help to understand the changes in life but also the meaning of a ritual can change through time (Benson and Cook 2001, 1).

The social dimension is the general accepted explanation for rituals, but this doesn't explain the meaning of symbols and rites (Bourdillon 1980, 1-4). Durkheim focuses on rituals and religion as communal activities that need maintaining (Bourdillon 1980, 6). Even with the interest of many previous researchers a clear definition for rituals is still not available. Many definitions were given to rituals, for example it is often seen as a way to communicate between our world and the sacred one (Bourdillon 1980, 8; Read 1998, 187). Another explanation is that rituals were used to express power (Bourdillon 1980, 8-10). Bourdillon stresses that many human actions are seen as ritual sacrifices. Catherine Bell (1997) doesn't believe ritual is definable in one single definition, instead she focuses on its role as a complex social medium. Rappaport's definition is rather short but under this umbrella more than religious acts can be placed.

*"The performance of more or less invariant sequences of formal acts and utterances not entirely encoded by the performances"*

*(Rappaport 1999, 24)*

Defining rituals is difficult, as said above. In the Encyclopaedia Britannica this term is described as followed:

*Ritual: the performance of ceremonial acts prescribed by tradition or by sacerdotal decree. Ritual is a specific, observable mode of behaviour exhibited by all known societies. It is thus possible to view ritual as a way of defining or describing humans.*

This last definition follows partly the idea of Rappaport and only focuses more specific on the involvement of human behaviour.

Benson (2001, 3-5) studied several Andean societies where war was often used as a rite and was regularly scheduled. This was also the case in the Moche Culture where they fought to gain captives for their sacrifices. Benson states that these wars were often connected with agricultural or astronomical events (Benson 2001, 3).

The reconstruction of sacred activities is not always simple, archaeologists use indirect but also direct resources (Verano 2008, 1047). Verano sees historic accounts and descriptions of sacrificial practices of the sixteenth century but also depictions in art as indirect information while archaeological evidence from burials and isolated body parts are direct evidence.

The Moche knew different types of rituals, involving human or animal sacrifices. Sacrifices received great importance in honouring gods, ancestors and in the process of asking for favours or help. Many researchers showed interest in the different aspects of this process and in its meaning.

## A. INTEREST IN MOCHE HUMAN SACRIFICES

Important research was recently carried out by Steve Bourget (2006). He studied the relationships between the sacrificial victims through archaeological excavations and iconographical studies. Who these persons were is unknown and three possible solutions were presented. The first one was these victims came from different valleys, controlled by the Moche. Another possibility was that the victims were taken from communities in the Moche Valley and the last one said that the victims were non-Moche, captured during expansion wars. MtDNA has shown that the sacrificers and the sacrificial victims came from the same ethnic group. Probably they were men belonging

to the local elite who lost the ritual battles (Chapdelaine 2011). Also dental studies, carried out by Sutter and Cortez, delivered the same result (Sutter and Cortez 2005).

Evidences for human sacrifices can be found, as mentioned above, through indirect and direct sources (Verano 2008, 1047). These sacrifices were just one type of rituals common in the Andes. Earlier archaeological evidence was seen as direct evidence and looking into bone studies will also lead to direct information. Cut marks and fracture patterns on bones, are seen as signs of intended dismembering, something which often occurred during the sacrificial rituals (Verano 2008, 1048).

How the execution of the captives went on in the Moche civilization is most interesting to study, because later on the Inca's also carried out these executions where they took trophies like skulls, teeth and long bones (Verano 2008, 1052). Verano studied this practice and stated that these Moche captives were carefully buried, supplied with sumptuary goods. This way their meaning changed and they became valued sacrifices (Verano 2008, 1052). To be sacrificed to the gods was seen as an honour and respect was offered to those who were sacrificed. Human sacrifices were studied by multiple researchers and for example Benson and Cook (2001) studied the Moche rituals in detail, especially their social meaning.

Jeffery Quilter and Steve Bourget studied child burials and these were often elaborated burials. Steve Bourget also focussed on the children's sacrificial ceremony and today we still find traces of this kind of ceremony in the animal fetuses sacrifices (Benson and Cook 2001, 2). Benson states that child sacrifices were a part of building-dedication rituals.

Max Uhle performed some of the earliest excavations in the Moche region. Based on his findings and other information he, later on, developed a theory on child sacrifices in the Inca period (Benson and Cook 2001, 15; Verano 2001, 165). Many researchers, for example Pierre Duviols (1976, 13), also see some connections between Moche sacrifices and the procession and sacrifice of children in the Inca culture where this ritual was called "*Capa Hucha*" (Benson and Cook 2001, 17). In the mid-twentieth century evidence was found for human sacrifices and this was archaeological but also ethnohistorical evidence (Benson and Cook 2001, 167). Verano (2001, 167-171) stresses that it is difficult to find archaeological evidence for these sacrifices because skeletal and soft-tissue evidence are the only traces which can also be used by archaeologists. Verano continues that the presence of trauma and cut marks is the clearest example of

evidence to be found in archaeology. To identify the victims the preservation conditions have to be explicit. They can be studied thanks to forensic studies and osteology and they reveal important information.

Many excavations occurred on ceremonial and burial sites (Castillo and Uceda 2008; Chapdelaine 2011; Donnan 1978). The excavations in Sipán and in San José de Morro gave new insights of the ritual of re-entering. The tombs in Sipán probably belonged to a member of the elite. The graves date to complete different times, what could be a sign that this ritual was practiced during a long time and in different places. In Pañamarca there is a mural which shows this ceremony and indicates the ritual was part of the state religion. The participants were buried next to the temple where the ceremony was held. The objects and cloths used during the ceremony were also placed in the graves (Alva & Donnan 1993, 127-129).

Another important excavation was the one Steve Bourget carried out at Huaca de la Luna (Verano 2001, 176-178). Here a sacrificial site was found at one of the plazas, containing the remains of seventy persons.

## B. MOCHE SACRIFICING RITUAL

Bourdillon (1980, 11-17) describes two types of human sacrifice: the prestigious killings and the executions of delinquents. The first type involves people of high status, while in the second one a person is sacrificed to purify the culture or to state an example. The Moche human sacrifice ritual could fall under the title of prestigious killings. Looking at the actions prior to the sacrifice it becomes clear that the one-to-one battles (fig 4.1) occur between people of the elite. This is visible in their clothing and decoration. Each type of ritual has its own participants, goals and actions. This last aspect is seen as the ceremony itself (Bourdillon 1980, 11; Read 1998, 187). Valeri (1985, 37-39) explained who participates in a sacrifice. The person on whose behalf it is, is the “sacrifier”, while the “sacrificer” is the person who performs the actual sacrifice. In the case of the Moche society the sacrifice was performed by priests and priestesses.

How can we interpret these different types of sacrifices? Valeri (1985, 62) proposed some suggestions on their meaning. They could be a donation, a communion, a representation or a cathartic act. Bourdillon (1980, 17-21) gave also other possibilities. One is that sacrifice can be seen as a gift to the deity and this could for example happen

through libation offers. Bourdillon describes two types of exchange: the open or the closed form. In the last one people expect a defined benefit, while in the first one only protection is expected. Van Baal (2003 [1909], 282) follows the theory of Mauss and states that gifts contain messages, intended for the receiver, the person for whom the ritual was held. Van Baal (2003 [1909], 285) sees gift giving as a symbolic way of communication. Rituals are also held to have a certain control over death. Other possibilities why sacrifices were performed according to Bourdillon (1980, 17) are: for substitution, for food or for power. Substitution, often seen as an important symbol, means the sacrifice was used to restore a problem. In some rituals food was shared and this unifies the contributors and also brings them closer to the deities. As mentioned above sometimes rituals were used as political power to stress the goodness of the ruler. Valeri (1985, 38) sees sacrifice in function of the occasion, the deity for whom it is performed, the offering and its value and the type of ritual. It is important to understand the different aspects of a ritual or sacrifice to form hypotheses of their meaning for a culture. Each ritual is devoted to different social ends (McCracken 1990, 80). It's important to understand that rituals go beyond their connection with religion. Therefore it is necessary to study a culture in its own perspective (Benson and Cook 2001, ix; Bourdillon 1980, 21). Western societies see sacrificing often as cruel and without benefits, "*sacrifice means either giving without receiving or giving up something valuable for a reason*" (Benson and Cook 2001, ix). But Benson and Cook continue that in many societies, today and earlier, offerings and sacrifices were made for the greater good and besides animals many other types of valuable objects were given to the gods. A last type of common sacrifices are the human sacrifices and these were often performed by the Moche. Benson and Cook (2001, ix) state that blood was the symbol of life and therefore often seen as the most valuable object someone could give. For members of the Moche society to be sacrificed was an honour, they could give their precious life to help their society. Decapitation was a common ritual in the Andean region (Benson 2001, 5-6). Many researchers studied who was sacrificed and two general ideas arose; the victim could be a member of the own society or from a defeated society (Benson 2001, 4-5). It would be interesting to look at the demographic characteristics and Verano (2001, 171) states that the victim's characteristics in combination with the treatment of the remains could provide knowledge about the drive and significance of the rituals. Violence probably played an important role in many sacrifices (Girard 2003 [1923], 242).

Especially when members of the own society were sacrificed this sacrificial ritual received important value (de Bock 2005, 95). Human sacrifice is described as followed by the Encyclopaedia Britannica:

*Human sacrifice, the offering of the life of a human being to a deity. The occurrence of human sacrifice can usually be related to the recognition of human blood as the sacred life force. Bloodless forms of killing, however, such as strangulation and drowning, have been used in some cultures. The killing of a human being, or the substitution of an animal for a person, has often been part of an attempt to commune with a god and to participate in divine life. Human life, as the most valuable material for sacrifice, has also been offered in an attempt at expiation.*

The sacrificial site at Huaca de la Luna was of great importance for our knowledge about the sacrificial rituals of the Moche. In total seventy persons were sacrificed at a special plaza (Bourget 2005, 74). Bourget (2001, 91) states that these sacrifices occurred during several periods, probably in five or more episodes. Verano (2001, 177-183) divided the skeletal remains in four categories. The first category contains the complete skeletons and in the second one Verano describes the partial skeletons where often the skull and limbs were missing. Sometimes only limbs were found and this became the third category whereas isolated bones formed the fourth category. All these bodies and body parts were male, with an age range from adolescent to young adult and an average age of twenty three (Bourget 2005, 76; Verano 2001, 177-178). It is remarkable that no female body parts were found. Studies on the bones revealed traces of interpersonal violence and these traces are similar to those in Moche art where the procession and the treatment of the captives is depicted (Verano 2001, 178). On the bones also healed fractures were found, which indicates that they were warriors (Bourget 2005, 76). The skull fractures are the results of a blow with a blunt object like a warrior club, often depicted on the painted scenes and one of the attributes of modelled warriors.

But what happened during these sacrifices and what activities occurred prior to these rituals? It is clear that the treatment the captives received played an important role (Verano 2001, 182). Alva and Donnan (1993) have studied the ceremonial ritual in close detail and they believe that the one-to-one battles were not meant to kill but to imprison the opponents (Bourget 2005, 73). While studying these battles it became clear that both parties belonged to the same ethnic group (Bourget 2005, 77). Bourget

describes the cloths and the equipment. Both parties wore conical hats or even more elaborated headdresses and they also wore a tunic, often with a protective backflap, while holding a warrior club and a shield. The stylistic variations show a symbolic duality (Bourget 2005, 77) and looking at the details it is clear that this is ritualized warfare because both attributes would serve zero protection in a real fight (Bourget 2005, 77). The person who lost the one-to-one battle received a blow on his nose, which caused a heavy bleeding. Alva and Donnan describe what happens after the fight ended.

*Once an enemy was defeated, some or all of his clothing was removed, a rope was placed around his neck and his hands were sometimes tied behind his back. The prisoner's clothing and weapons were made into a weapon bundle, which was tied to the victor's war club and slung over his shoulder. The victor held the rope tied to the prisoner's neck and forced the prisoner to walk in front of him.... The prisoners were ultimately taken to a place where they were formally arraigned before a high status individual.*

(Alva and Donnan 1993, 131)

In some depictions we see that the victor pulls the hair of the defeated or even hits him in the face (fig 4.1 and fig 7.2) (Alva and Donnan 1993, 129). In a parade the prisoners were guided to the ceremonial area (Alva and Donnan, 1993, 131).



Fig. 4.1: Taking prisoners (Donnan 2004; 114)

Many symbolic elements were combined to create variations in the different rituals. The “presentation theme”, is sometimes seen as a separated ritual but also as the ritual which precedes the sacrificial ritual. This is what Alva and Donnan (1993, 131) call the parade and this is the moment where the prisoners were guided to the ceremonial site (fig 4.2 and fig 4.3). The victors also marched in this parade and all had elaborated decoration. Other researchers see the “presentation theme” as the parade of all warriors marching to the battle field (Bourget 2006, 11-20). In different fineline paintings of this topic we find different figures, each with symbolic attributes which

make them recognizable. Knowing the different aspects of the parade makes it possible to reconstruct broken illustrations (Donnan 1978, 158-163).



Fig. 4.2: The prisoners' parade (Donnan 2004, 115)

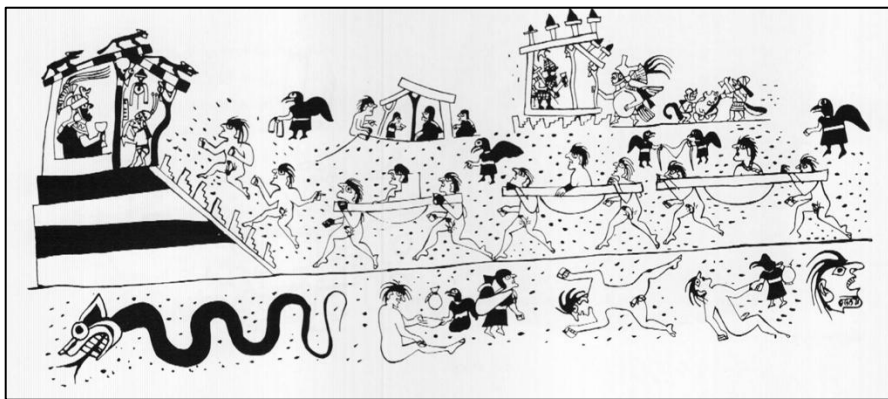


Fig. 4.3: Arrival at the ceremonial centre (Donnan 2004, 115)

The prisoners were sacrificed during a ceremony wherein their throats were slashed and a part of the blood was consumed by the priests and the entourage (fig 4.4) (Alva and Donnan 1993, 132) and whereas the rest of the blood was offered. Later the bodies were dismembered and ropes were tied around the different body parts (Alva & Donnan 1993, 132; Verano 2008). This way heads, feet, arms and legs became trophies (fig 4.5) (Benson 2001, 5; Donnan 1978, 189).

The whole cycle, starting with the one-to-one battle and ending with the trophy taking, probably always took place the same way, but how often and for what reason is unknown.

In this ceremony four important persons were present. Alva and Donnan (1993, 133) describe them detailed and each of them is clearly recognizable due to their cloths and attributes. The "Warrior Priest" was the most important figure, he wears a conical hat with a crescent-shaped ornament, often seen as a "Tumi", and his nose ornament has



the same form. His earrings and his dress were also elaborated. Remarkable is that there is always a dog depicted next to him and in front of him stood the “*Bird Priest*”. This person can be recognized because of his headdress, made of feathers and his hair, coming from underneath his headdress, is visible and ends in snake heads. Furthermore there are two other persons, a priest and a priestess. The priestess has two feathers on her headdress and she has the same type of hair as the “*Bird Priest*”, while the priest has a headdress with a feline head on it, often seen in the depictions of elite and priests.



Fig. 4.4: The sacrifice of different prisoners (Donnan 2004, 116)

The secondary objects and figures, part of this ceremony were also important (Alva and Donnan 1993, 134). For example the paisley-shaped fruit, “*Ulluchus*”, was important because it was used to keep the blood from coagulating. And of course there were the attributes of the different priests, like the sceptre and the goblets and the “*Tumi*”, or crescent-bladed knife, used to decapitate the prisoners. This type of knife was only used for ceremonial activities (Alva and Donnan 1993, 139).

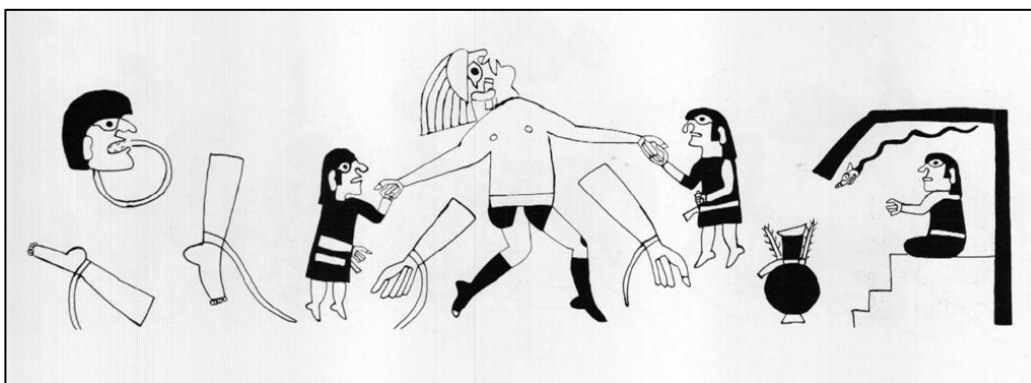


Fig. 4.5: Dismembering and trophy taking (Donnan and McClelland 1999, 121)

This ritual was depicted many times and on different types of materials, which means that it was of great importance for the Moche religion (Alva and Donnan 1993, 137). The secondary objects and the attributes of the priests were found in the graves and they

helped to identify the deceased, but this also means the rituals really occurred and where not only mythical representations (Alva and Donnan 1993, 138).

### C. ANCESTOR VENERATION

Lisa DeLeonardis and George Lau (2004, 78) describe ancestor veneration as all the sacred practices and principles concerning the deceased members of the kinship. This bond is connected with memory, which is intensified by the rituals of commemoration. DeLeonardis and Lau (2004, 78) stress that this goes beyond the formal funerary rites, and both are connected to each other.

The veneration is based on the authority of the elders and is used to strengthen the established socio-political arrangements, for example to deal with succession (DeLeonardis and Lau 2004, 79). This practice is important for the Andean region, because most of these cultures don't believe death is the end of life. In the Andean cultures dead people also have an active social life (DeLeonardis and Lau 2004, 79). The ancestors possess great supremacy and can use their influence. For example in connection with agriculture the soil is the provider of life and to have a successful harvest the ancestors had to be pleased (DeLeonardis and Lau 2004, 79). Because of the ancestors' active life, the descendants were obliged to perform cooperative endeavours (DeLeonardis and Lau 2004, 112) and this led to competition because each lineage or social group wanted to maintain the best care for their deceased and also claimed their rights and properties (DeLeonardis and Lau 2004, 113).

In archaeology adoration can be traced in several ways. DeLeonardis and Lau (2004, 81) illustrate this idea with a number of examples, like shrines and sacrifices. Shrines can have different forms and are not necessarily connected with the graves, "*the two have a disjunctive spatial relationship*" (DeLeonardis and Lau 2004, 81). In the Andean region caching of extraordinary items often happened and this could have been in a grave but also on locations with a special value (DeLeonardis and Lau 2004, 81). Also iconography and public display were of great value in veneration and was often connected with feasts and celebrations (DeLeonardis and Lau 2004, 82).

Ancestor adoration is seen as the nurturing of the deceased (DeLeonardis and Lau 2004, 113). DeLeonardis and Lau (2004, 113-114) described it as the renewal of grave goods after re-entering the tomb. This will be explained below.

#### D. MOCHE BURIAL RITUAL

When looking into Moche burials the graves are a source of information and it is often seen that there were multiple bodies found in one grave. Investigations showed that not all these persons died at the same time (Cordy-Collins 2009, 181) and the oldest persons in the graves were always females. Alana Cordy-Collins (2009, 181) stresses that these women were curated and later “reused” as offering. “Curated” means the body first was temporarily buried. Cordy-Collins (2009, 185) makes a distinction between curated bodies and scattered skeletons and explains that the anomalies in the curated bodies are the result of transport, while scattered skeletons were never complete. DeLeonardis and Lau (2004, 114) named this funerary displacement, which was an effective method to change ancestral order. These “extra” bodies received many names, depending on the researcher, for example Verano (2008, 1050-1051) calls them retainers. We can recognize them because of the unusual position of the bones or because of their place in the graves.

This process of re-entering the tomb to add new “grave goods” was carried out during the whole Moche period. Cordy-Collins (2009, 189) blames the lack of evidence regarding this practice on insufficient research. Only with the knowledge and help of osteology it will become possible to find more evidence of this ritual. A second problem, she mentions, is the looting of the graves, which happened since the arrival of the Spaniards.

We don't know what function the curated persons had in the Moche society, but it is remarkable they were all women (Cordy-Collins 2009, 190-192). Another question is why this ritual was found in these specific graves and not in others? Cordy-Collins (2009, 190-192) states that this ritual only occurred in the graves of the nobility and one of the plausible ideas of Cordy-Collins is the one of reciprocal honour. This would mean that extra bones were offered for the veneration of nobilities. As mentioned above also scattered bones were found and these were also defined as offerings. But where did these bones come from? It could be the Moche used older graves to supply the bones (Cordy-Collins 2009, 192). On the other hand also the “trophy” tradition must be taken into consideration. Verano (2008) describes the trophy taking tradition after the death of a sacrificed person (fig 4.5).

The extra bodies and bones in a grave could be defined as relic, meaning the Moche attached great importance to death. Being buried was probably not the end for the members of this society (Cordy-Collins 2009, 192).

## E. ANIMAL SACRIFICES

In many cultures animals were offered because they are symbolizing humans (Beattie 1980, 30). Different types of animal sacrifices were performed in the Moche culture. After the hunt a deer was the most widely used animal to be sacrificed and this ritual was performed to ask for fertility or a good harvest (Benson and Cook 2001, 10-11). Next to the deer also sea-lions were hunted frequently (Benson and Cook 2001, 10-11). Cobo (1990, 113-116) states that the Moche sacrificed wild as well as domesticated animals. This is different than in most cultures of the region and the Inca also only offered domesticated animals. An often sacrificed domesticated animal was the llama and less frequent dogs were used.

## V. THEORETICAL FRAMEWORK

The main research questions concern the relation between the object and its meaning and use/function. Therefore three main theories are studied. The first one concerns functional studies in archaeology. This will help to understand how the function of a vessel can be determined without doing expensive tests, mainly focussing on the relation between the form and the function. The results are mainly hypothetical and to receive certainties, scientific tests need to be performed.

The second part of this theoretical framework considers the role of the object in the Moche culture. This is studied through the theory of social memory. Objects store information about a certain moment or occasion. This is the value or meaning an object receives. Two other aspects are connected to the meaning, first of all the object's social biography and secondly exchange. The first one looks into the life of an object, starting with its production and ending with its disposal. For the Moche portrait vessels this is rather difficult because, as mentioned before, only one production centre is known and the place of disposal also is not always clear. Some vessels were found in graves, other at the ceremonial centres. But most of the time, context is unknown due to looting in the area.

A third aspect of the theoretical framework considers exchange. The most important exchange theory came from Marcel Mauss. He studied gift giving in great detail. This theory is important because it can be seen as a hypothesis for the Moche portrait vessels. It could be that the vessels were made at only a couple locations and from there went to other valleys or areas like Macabi Island probably by trade or as a gift. On Macabi Island the same type of vessels was found but these ones were made of wood. Was there an exchange of knowledge? Pottery moves around over a short but also over a large distance (Orton et al. 1993, 26). But before trade can be studied the production and the technology concerning pottery must be understood. Provenance studies, which study the inclusions in the clay, help to determine exchange systems (Riley 1984, 57; Orton et al. 1993, 26). Many techniques from hard sciences are used to understand the mineral composition of ceramics. Riley (1984, 63-66) considers this as an important aspect because it is connected with the geological surroundings. Chemical methods are used to identify and interpret the elements. This, as Riley addresses, can be complicated because sometimes different clay types were used in one pot. Prudence Rice (1987, 118) stresses that clay has to be processed before it can be used. Often a temper is added,

another sort of clay or another material and on the other hand sometimes part of the material has to be removed. Both processes make it difficult to identify the clay components.

The objects of interest are mainly ceramic. Most portrait vessels were made of modelled clay, the wooden vessels from Macabi Island are seen as exceptions. Ceramic is been studied multiple times in archaeology and is used to retrieve different kinds of information on past societies. Riley (1984, 58-60) stresses that in archaeology pottery assemblages, which consist of a wide variety, are studied. Ceramics are often used as dating evidence (Orton et al. 1993, 24), but from ceramic wares we can retrieve a lot of information about the different aspects of a culture, not only economical but also socio-political information. Shott (2005 [1966], 351) stresses that wares are indicators for a time but also for social processes and components and this on different scales. He also states ceramics can show signs of behaviour connected with their producers and their different users.

The most intriguing question is also the most difficult to answer: what was the use of the ceramic vessels and how can we prove this? The idea is that morphology, physical and technological attributes are optimized to suit a particular use (Oudemans 2007, 6).

Technological studies, which study paste, temper but also construction and composition are used to obtain objective information through hard sciences (Van der Leeuw and Pritchard 1984, 14). Sander van der Leeuw and Alison Pritchard (1984, 4-6) stress the changes in the focal point of ceramic studies. Nowadays more attention is given to the background and context and therefore contributions are made by different fields of study. These last decades more attention is given to the social aspect, which is studied through ethnographical or ethno-archaeological studies. The problem is, many of these studies didn't have an archaeological purpose and were carried out without any ceramic knowledge (Rice 1987, 286; Van der Leeuw & Pritchard 1984, 11).

As said before ceramic is often used for dating, but also to make classifications. Rice (1987, 275) states that this is not the goal but a way to access information. The researchers of the Moche culture used ceramic to make a sequence of the time period. There is the Hoyle sequence, which divides the time period in five phases and nowadays there is also a sequence based on the Lambayeque and Jequetepeque valleys (fig 2.5). Dragendorff and Gardin both created a system to classify pottery but not all typologies were used correctly through the years (Orton et al. 1993, 153). The classification of

Southern Moche region (Hoyle sequence) is based on the form of the vessel, more specific on the form of the stirrup spout, where the rim and the form of the spout changed through time. The most general approach uses geometric characteristics to form the classification (Shepard 1956, 225).

Since the 1960's a more systematic approach was used to study fabric analyses of pottery and other materials (Orton et al. 1993, 132). Change came after scholars started believing in the active role material culture played in the construction and the reproduction of social relations and cultural values (Sillar and Tite 2000, 2). Lately there have been some attempts to use information from cognitive anthropology and take them into archaeological consideration, one of them is the emic/ethic approach described by Arnold (1971, 21-26). Abbink (1999, 43) defines ethnographic sources as the main source of information about function and use. This will help to determine categories of raw material and try to reveal what these materials did mean to the potters and on what behaviour they did select these raw materials. This will also give a representative image of an entire community (Arnold 1997, 26). The problem is that ethnographic information is not accessible for each culture and when we use anthropological information we need to consider the change of meaning since its original use.

## A. FUNCTION AND USE STUDIES

It is difficult to study the function of pottery (Orton et al. 1993, 28) but it gives us information about the routines and practices of the people who used them (Shepard 1956, 224). Furthermore thinking about the function of pottery can help in explaining the occupation of a site (Orton et al. 1993, 29). For the Moche portrait vessels the excavation of the ceremonial centre of "Huaca de la Luna" brought a sacrifice site to light, where many decapitated bodies were found together with unfired portrait vessels in the form of a prisoner (Donnan 2004, 134-137). This led to the believe that the vessels played an important role in this sacrifice. But this doesn't mean that all the portrait vessels played that same role. Various aspects determine the use of an object, first of all the production and some technical factors have their influence (Shott 2005 [1966], 352), but also the environment and social factors will affect the final object (Oudemans 2007, 7). Secondly Shott points out the amount of times an object was used also has its effect (fig 5.1). Often neglected are the climatic circumstances, they can shorten the time an

object can be used (Shott 2005 [1966], 353). For the Moche culture all these aspects are not really clear. The production of these object is well know, thanks to the study of Donnan (2004). The effect of the environment and social factors are not known. There are not many studies focussing on these aspects, mostly interest is shown in the social life of the Moche, without a connection with the material culture. Donnan and McClelland (1999) studied in close detail the painted vessels and the ceremonies which were depicted on it, but the use of these painted vessels is also unknown. What we do know is the climatic circumstances. Peru had an arid climate in which perishable material was well preserved.

| CATEGORY OF USE                                     | CONTENT OF VESSEL                               | EXPECTED USE FREQUENCY              | MAIN TYPE OF STRESS        | EXPECTED BREAK FREQUENCY |
|---|---|-------------------------------------|----------------------------|--------------------------|
| FIRE- RELATED:<br><br>COOKING<br>HEATING<br>BOILING | Food  | Daily                               | Thermal<br>+<br>Mechanical | High                     |
|   | Potable liquids                                 | Daily to Periodical                 |                            | Variable<br>High         |
|   | Non-potable substances                          |                                     |                            |                          |
| SHORT TERM STORAGE                                  | Potable/<br>Consumption goods<br>(Dry)/ Liquids | Regular                             | Mechanical                 | Variable<br>Low          |
|   | Other substances                                | Regular                             | Mechanical                 | Variable<br>Low          |
| LONG TERM STORAGE                                   | Potable/<br>Consumption goods                   | Periodical                          | Mechanical                 | Low                      |
|   | Non-potable goods                               | Periodical                          | Mechanical                 | Low                      |
| SERVING/ CONSUMING                                  | Food<br>Dry/Liquid<br>Cooked/<br>Uncooked       | Daily to<br>Incidental<br>(Rituals) | Mechanical<br>(+Thermal?)  | High to<br>Low           |
| SPECIAL USES<br>+ RITUAL USES                       | Potable/<br>Non-potable<br>goods                | Variable?                           | Mechanical                 | Variable                 |
| TRANSPORT<br>(OUTSIDE<br>SETTLEMENT)                | All types<br>of goods                           | Incidental?                         | Mechanical                 | Low to<br>High           |

FIG. 5.1: USE CATEGORIES (ABBINK 1999,44)

Abbink (1999, 163) focuses on functional differentiation, this is what she calls the amount of functions a community gives to an object and this is the outcome of many features. Abbink sees cultural traditions, types of food, preparation and storage methods, skills and technology as the most effective on function diversification (fig 5.1). This statement makes us realize that it is possible that the Moche portrait vessels received multiple functions. It could also be that each category of portrait vessels had its own function, because the type of storage can be different depending on the form. The type of food or liquid you could store in an open vessel is more likely different from the one you store in a stirrup spout vessel.



In the study of function and use a lot of value is given to the shape of a vessel. Numerous studies have considered the relationship between function and shape (Steponaitis 1984, 81). A pot can be described as three separate elements: orifice, body and base (Rice 1987, 212). Rice defines the body as the belly, the part of the vessel with the maximum diameter and he stresses the importance of the orifice, because of its functional aspect. As third aspect Rice (1987, 213) defines the base or foot as the underside of the vessel. Extra parts can be added to the vessel, for example handles, collar, neck and spouts (Rice 1987, 214). We define these as vessel components.

Shepard (1956, 224) and Rice (1987, 211/224) stress that the relation between form and function is hardly ever exclusive, a same form can have multiple uses. But also the other way around is possible, different forms can be used for the same function. Shape is one of the basic characteristic to define categories of Moche portrait vessels and as stated above important for classification. A vessel can also be used for a not suited or intended function (Abbink 1999, 47; Shepard 1956, 228). Orton (1993, 76) also stresses vessels can be reused or used for an unintended purpose. Abbink (1999, 46) goes even further stressing it is important to make a separation between primary and secondary use (fig 5.2). Secondary use is in many cases equal to ritual use (Abbink 1999, 49). These multiple uses make it difficult for archaeologists and ceramicists to establish the original use. Determining the use of ceramics is hard to do because they could have one specific use or several daily uses. Secondly, during one specific phase, the use of the ceramic can also change (Oudemans 2007, 10). Therefore it's important to look into the transformation process, which shows the different processes which affect the vessel from its production until its excavation (Oudemans 2007, 13).

| A: PRIMARY USE                           |              |                                      | RESIDUE   | ALTERATION of surfaces                 |
|--|--------------|--------------------------------------|---|--|
| LIQUIDS<br>DRY GOODS<br>COMBINATIONS     | FIRE-RELATED | COOKING POTS (FOOD)                  | soot + charred food residues                            | cracked<br>burned<br>scratched<br>worn |
|  |              | OTHER (NON-FOOD)                     | soot + charred residues                                 |  |
|  | OTHER        | STORAGE + STOCK                      | dry residues<br>liquid residues in/on wall              | variable degree of alteration          |
|  |              | SERVING/ EATING / DRINKING           | uncharred residues (chars possible)                     | scratched worn                         |
| NON-EXCHANGEABLE USE<br>EXCHANGEABLE USE |              |                                      | primary use residues<br>mixed residues                  |  |
| B: SECONDARY USE                         |              |                                      | ALTERATION / EFFECT                                     |  |
|  | SELECTION    | HEARTHES<br>FLOORS<br>RAISING LAYERS | secondary oxidation or burning<br>fragmentation<br>wear |  |
|  |              | RITUALS                              | well preserved + (nearly) complete vessels              |  |

FIG. 5.2: USE AND REUSE (ABBINK 1999, 46)

Rice (1987, 208) asks a couple questions to determine the function of a vessel (fig 5.3), for example: was it used for liquid or dry substances, for hot or cold ones. He also looks into the duration and the frequency of a specific vessel. Orton (1993, 217) distinguishes the objects based on functional categories, he mainly looks at storage, processing and transfer. Of course a vessel can fit more than one category, an overlap is possible and some situations are vague, therefore it is necessary to stress the inextricable relation (Rice 1987, 210).

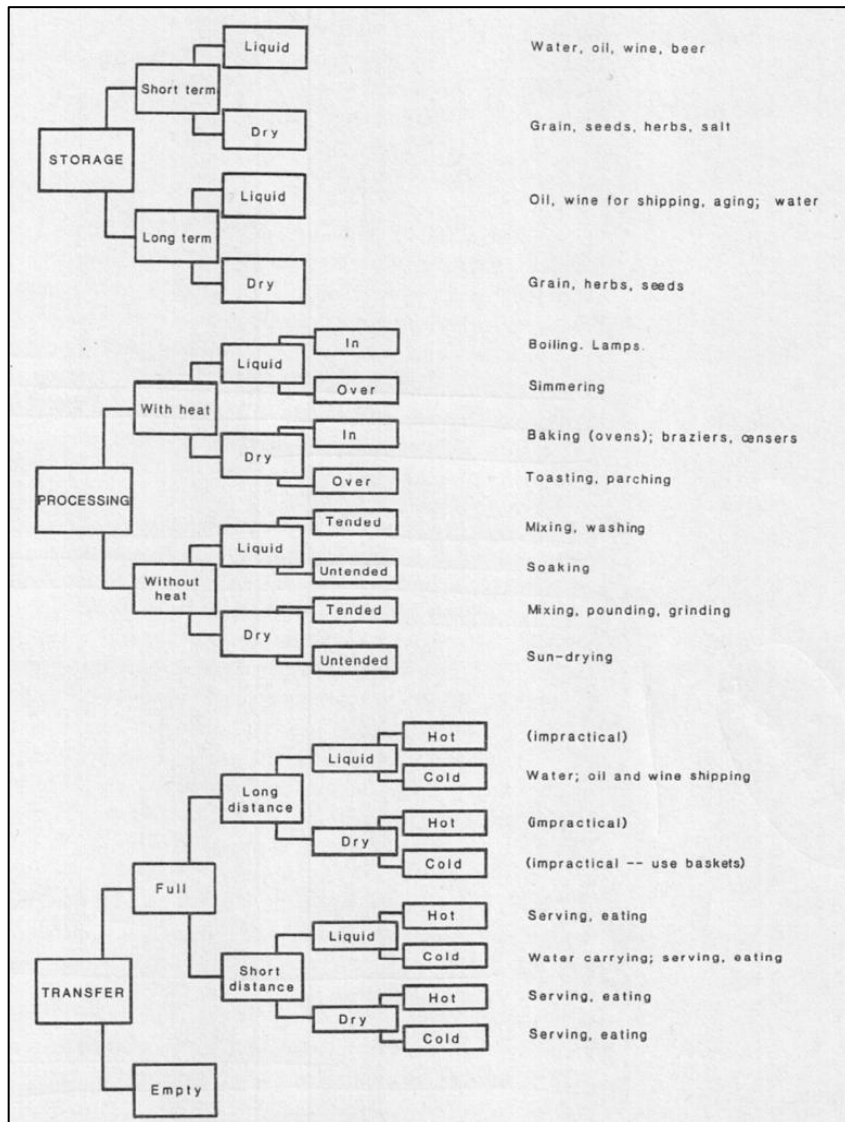


FIG. 5.3: DEFINING FUNCTION (RICE 1987, 209)

Rice (1987, 225) defines four major properties related to use: capacity, stability, accessibility and transportability and two less important properties are weight and security. As mentioned earlier size and shape are important and Rice defines them as the capacity. As we can see in the image above it is clear capacity is connected with content. Secondly Rice (1987, 225) defines stability as the resistance and constancy of

the vessels but the problem is, this aspect is difficult to measure. Accessibility looks into the size of the orifice (Rice 1987, 225) and we can imagine some shapes would hinder access. If something can easily be moved or not, is what Rice (1987, 226) sees as transportability. It does not only depend on quality but also on size and weight. Rice says the last one is important because of its connection with the size and the thickness of the vessels wall. The last property in Rice's list (1987, 226) is security, which defines if an object can be sealed what is important for transport. It becomes clear that the different properties are closely connected to each other. The surface of a vessel also has to be assessed (Rice 1987, 227-228) and this is important for the information we gather about mechanical stress and thermal behaviour. This research also gives us information about density and porosity (Rice 1987, 230).

Most of the choices made by the potter can be altered by the firing conditions where the oxidizing or reducing conditions play their role. Orton (1993, 83) points out that firing conditions lead to different colours but also the basic characteristics of a pot can change. The Moche used oxidizing firing conditions, leading to a reddish earth colour. The black ceramics of the Moche are not the result of a reducing atmosphere but of a specific manner of oxidizing firing, which is explained earlier. Next to the decisions of the potter, the tools, but also the materials and the skills of the potter will have a certain effect on the end result of the vessel (Orton 1993, 152).

Rice (1987, 210-212) and Orton et al. (1993, 217-218) mention the different information sources which are used to make a choice of category. First of all there are written sources and pictures which can give clues about the use (Orton et al. 1993, 218; Rice 1987, 210). Orton thinks references on murals or in books are of great value while Rice (1987, 210) points out to the importance of painted and sculptural art. For example figurative art is in this study of the Moche culture important, on one drawing we see the depiction of a portrait vessel given to the priest or deity. The Moche knew a long tradition of retrieving information from the painted vessels. But also today these painted vessels are important for our understanding of the Moche culture. Rice (1987, 211) strongly believes in a third approach, namely experimental archaeological studies and ethnographic analogy.

| Components of use activity | Use-alteration traces |                 |          |           |          |
|----------------------------|-----------------------|-----------------|----------|-----------|----------|
|                            | Organic residue       | Carbon deposits |          | Attrition |          |
|                            |                       | Interior        | Exterior | Interior  | Exterior |
| <b>Cooking</b>             |                       |                 |          |           |          |
| User characteristics       | -                     | -               | -        | +         | +        |
| Context                    | -                     | +               | +        | +         | +        |
| Actions                    | -                     | +               | +        | +         | +        |
| Time/ frequency            | +                     | +               | +        | +         | +        |
| Contents                   | +                     | +               | -        | +         | +        |
| <b>Pottery cleaning</b>    |                       |                 |          |           |          |
| User characteristics       | -                     | -               | -        | +         | +        |
| Context                    | -                     | -               | -        | +         | +        |
| Actions                    | -                     | -               | -        | +         | +        |
| Time/ frequency            | -                     | -               | -        | +         | +        |
| Contents                   | NA                    | NA              |          | NA        |          |
| <b>Pottery storage</b>     |                       |                 |          |           |          |
| User characteristics       | -                     | -               | -        | +         | +        |
| Context                    | -                     | -               | -        | -         | +        |
| Actions                    | -                     | -               | -        | +         | +        |
| Time/ frequency            | +                     | -               | -        | +         | +        |
| Contents                   | +                     | -               | -        | +         | +        |
| <b>Pottery transport</b>   |                       |                 |          |           |          |
| User characteristics       | -                     | -               | -        | +         | +        |
| Context                    | -                     | -               | -        | +         | +        |
| Actions                    | -                     | -               | -        | +         | +        |
| Time/ frequency            | -                     | -               | -        | +         | +        |
| Contents                   | NA                    | NA              |          | NA        |          |

FIG. 5.4: USE-ALTERATIONS (ABBINK 1999, 48)

Further context of recovery, as Rice (1987, 232) calls the archaeological site, is important to understand the multiple uses one object can have during its life. This is often missing for the Moche vessels, they come from a looted context and it is nowadays unclear how they came to the museums. As mentioned earlier physical properties are also a source of information (Orton et al. 1993, 78-79/220), because they can give information on the strength and resistance of the pot. Strength is certainly important because this aspect has influence on the production process but also on the final product (Orton et al. 1993, 221). A last source of information, are the possible traces (Orton et al. 1993, 222).

Many types of use will leave a physical trace (fig 5.4) and Orton (1993, 222-224) points out these traces are difficult to understand. During production contact with fire is possible leaving certain traces, for example “*fire-clouds*” or cracks, but the same types of traces can come from use in a fire after production. Stress on a vessel will also leave cracks (Orton et al. 1993, 223). The traces can also be organic, in a best case scenario a vessel is found with its original content but even in other situations residues can be studied (Orton et al. 1993, 224; Rice 1987, 233-234).

On some of the Moche portrait vessels “*fire-clouds*” are visible, often combined with cracks, which are the result of sudden heat. All the vessels show signs of weathering but it is not clear if this occurred after disposal or as a result of frequent use.

## 1. TECHNIQUES FOR STUDIES ON CERAMIC

For ceramic production raw materials are carefully selected. The different minerals have each their own characteristics: colour, fracture, lustre, hardness and gravity. Each one of them is important depending on the function and needs of the pottery (Henderson 2000, 110). Due to a variety of combinations in the chemical composition of clay, it's also possible to define it in different ways. We can define clay depending on the depositional situation, or on the chemical combination, but also by looking at the mineralogical definition (Henderson 2000, 112-114). During the manufacturing process the clay composition can be altered, depending on the needs. For example two kinds of clay can be mixed or minerals can be added as a temper, to improve the workability of the clay (Henderson 2000, 115) and also ceramic colouring pigments can be added. The same is true for glazes specially made for the attachment on clay surfaces (Henderson 2000, 123-124). The problem is the clay drying process can affect many of the, previously mentioned, alterations of the clay. The environment, the temperature and the duration of the drying, are three of the main elements which can change the clay composition (Henderson 2000, 127-130). To study this process, differential thermal analyses and X-ray diffraction are the best ways to receive clear answers, because they look into the mineralogical transitions (Henderson 2000, 132). For each research question there is a more suitable analytical technique, for example Scanning Electron Microscope (SEM) is good to study polished ceramic fragments. SEM is also used to study the surface treatment (Tite 1999, 187).

Particle-Induced X-ray Emission (PIXE) is a technique which is often used to study provenience, exchange and use of artefacts (Summerhayes et al. 1998, 134). The technique is not often used because of its cost and the need of large equipment. But it can detect lower concentrations of substances. The test generally studies the composition of the vessels and uses an X-ray detector and beams of energy with different power strengths. In some cases a filter is placed before the detector. Measurements are made on different spots of the vessel to cover the whole vessel.

This test gives a similar result as SEM, which will be discussed later. The PIXE test was used on six Moche ceramic vessels, defining the clay matrix and the slips. The difference in results showed that one vessel is from another period and/or a different site (Swann et al. 1999, 575). Swann et al. (1999, 575) compare the results with the Alvarez et al.

study of Shipibo/Cumancaya pottery and he concludes that there is no evidence of any kind of contact or trade between the different societies.

In my opinion six vessels are a very small amount to base a statement on. Furthermore I believe it would be of greater value to first focus on trade in the Moche area itself. As stated in the first chapter the Moche area existed of different valleys which adopted the same material culture. Only at the site of “*Huaca de la Luna*” and “*Huaca del Sol*” a workshop was found (Donnan 2004). But not all the vessels came from the same valley. We have knowledge of findings from at least four valleys, but due to looting the context is often missing.

By performing hard science techniques, as PIXE, we could come to more concrete ideas on provenience, exchange and use. There exist three types of techniques: destructive, semi-destructive and non-destructive techniques. At the beginning of this type of study, scholars used mainly destructive techniques, a sample was taken by destroying the artefact. One of the earliest techniques used was spectrometry (Henderson 2000, 8). Later new technologies and insights led to the development of semi- and eventually non-destructive techniques. For the study on ceramics an overview of the most used techniques is given below.

- X-RAY DIFFRACTION SPECTROMETRY

This technique (XRD) is mainly used for identifying crystalline materials and for the assessment of the crystalline degree. The technique is used on different materials: stones, metals, ceramics, glasses and opaque glazes (Henderson 2000, 10). The interaction with radiation creates an X-ray pattern characteristic for the structure of the crystal. The size and spacing between is unique and so it is possible to identify the element (Henderson 2000, 11).

- THIN-SECTION PETROLOGY /PETROGRAPHY

Like the word says a thin slice is taken from the material artefact (Orton et al. 1993, 140) and this technique is used, mainly on pottery and other ceramic materials, to identify the mono-mineralic or rock fragment inclusions and the texture (Druc 1998, 24, Henderson 2000, 11; Tite 1999, 195). The cut off section is examined with a petrographic microscope. Two types of filters are used, one above and the other beneath the sample, each transmitting a light in a specific direction. The filter above is the analyzer and is the important one (Druc 1998, 46). This technique looks at the interaction between the polarized light and the sample (Druc 1998, 25; Henderson 2000, 11). This technique is

very effective and also cheap. It is used as preparation for chemical tests. It is often the first step in the interpretation of later analyses and lately it is combined with XRD. Together they provide identification of the crystals and measure the distribution of the crystals (Druc 1998, 25/46; Henderson 2000, 12). The minerals give valuable clues about the origin. Some combinations can derive from a specific type of geology (Druc 1998, 46; Orton et al. 1993, 140).

- NEUTRON ACTIVATION ANALYSIS

NAA is a fully instrumental technique offering high sensitivity, precision and accuracy. Also important is it only needs small samples and can measure different elements simultaneously (Glascok 1992, 12; Rice 1987, 420). This technique, especially used on ceramic can be destructive but also non-destructive, depending on the sample size (Henderson 2000, 13).

- X-RAY FLUORESCENCE SPECTROMETRY

This is a non-destructive technique, mainly used as a surface technique. Different versions of this technique exist but most often an X-ray tube is used. There are two principal types of X-ray fluorescence. First we have the energy-dispersive one, which operates by collecting data from the detector. Secondly we have wavelength-dispersive spectrometry, relying on the presence of crystals. This last one is slower and is used to analyze powdered material and is micro destructive, while the energy-dispersive one is completely non-destructive (Caple 2006, 155; Henderson 2000, 16). The interaction between the X-rays and the sample surface leads to secondary X-rays, which are detected by a silicon detector. After conversion and analyzing, they show a number of peaks (Druc 1998, 51; Henderson 2000, 15; Rice 1987, 421). The technique measures the trace element composition and is often used to classify ceramics or to determine the provenance (Druc 1998, 25).

- SCANNING ELECTRON MICROSCOPY

SEM is a microscopic technique used for imaging structurally or compositionally heterogeneous materials (Henderson 2000, 18). This technique uses an electron gun as energy source and the results are differences in a grey level. This depends on the reflection of the angle of the surface to the detector (Caple 2006, 195; Henderson 2000, 18). Only dried material can be analysed with SEM, so organic material is desiccated by freeze-drying or critical-point drying, coated and examined (Caple 2006, 198).

On pottery it is possible to do different types of analyses. A first technique is a statistical evolution, where we look for statistically significant differentiation between two sources but it's difficult to visualize more than three elements during one analysis (Druc 1998, 54; Glascock et al. 1998, 24). The procedure is computer-based, using databases to assemble all the descriptive and analytical data. Differences between sites become clear through comparing the dispersion and looking at histograms (Druc 1998, 54; Glascock et al. 1998, 36).

Provenance studies, explained by Orton (1993, 135-149) and Rice (1987, 413) are used to identify groupings, because they reflect origin. This technique has three examination stages: visual examination, petrological analysis and compositional analysis. The first step is describing the basic elements using standard categories: colour, hardness, inclusions (Rice 1987, 414). This is very subjective, therefore a second step is necessary, the petrological analysis. It consists of thin-sectioning, textural analyses and heavy material analyses, mainly focusing on the inclusions and the minerals (Rice 1987, 415). During the compositional analyses, the elemental composition is studied by using different techniques (mentioned earlier). Provenance studies are often part of a larger question, for example about trade and exchange patterns (Rice 1987, 415-417). By examining the excavated workshops also more information about provenance can be gained. The mineral composition is geologic specific, defining the minerals origin will help to understand the environment (Rice 1987, 417). Ceramics have their own chemical and mineral composition, which leads to specific regions of origin. Often it is also possible to say something about the origin by studying the firing. Local ceramics are of lesser quality than non-local ceramics and Druc stresses non-local types are often more abundant (Druc 1998, 17-24)

To understand the use of ceramics residue analyses can be carried out. Depending on the residue several types of techniques are used. A good start is to study a sample under a stereomicroscope or an incident light microscope. Residues can be the remains of plants or animals. On its own maybe this is less interesting but in combination with ware trace analyses it can explain the function of the artefact, but also give information about the depositional conditions.

In my opinion tests like "Thin Section Petrology" and other provenience tests would create new insights in the movements of the Moche culture. To understand function and



meaning of the Moche portrait vessels it is important to understand the content of the vessels we need to perform surface studies and residue analyses.

## B. SOCIAL MEANING

Ceramics and material culture could be used as an artefact of social memory. Vincas Steponaitis (1984, 81) states that pottery reflects the “cultural norms” of their producers. Also Van der Leeuw and Pritchard (1984, 9) wonder which role is played by the natural and social surrounding in the production and the utilization of pottery. They state nowadays more non-technological features are studied in ceramic studies. Lately the context has been studied in the broadest possible way (Van der Leeuw and Pritchard 1984, 14). Orton, Tyers and Vince (1993, 23) stress that interest in the social aspect mainly studies status. Ceramic is the confirmation of a certain purpose or function (Orton et al. 1993, 23).

As mentioned above a vessel can say a lot about the culture it belongs to. Not only it gives information about the user/owner but also about the producer (Orton et al. 1993, 227). Orton calls this “material culture language” as artefacts are used to communicate among people inside one culture but also to communicate between different groups. This is certainly the case for the Moche material culture, as stated before they didn’t use a written language. There was most likely no other possibility than to communicate through material objects. For example material culture is often used as a gift, and that way a relation between the two groups was established. This will be further studied in the third part of this theoretical framework. Pottery is seen as a manner to separate “them” from “us” (Orton et al. 1993, 227). We always place a part of our own identity in an object, but this will be different for each group or culture. We will not associate ourselves with the material cultures of a stranger.

Distinctions are made between history and memory (Wertsch 2009, 124-125). Wertsch (2009, 125) believes history is an objective story, produced in an intellectual and secular manner. It reports the past to confirm our way of thinking. Memory is the complete opposite of history. Memory is subjective because it occurs unconscious and is in permanent evolution. But even when we have information about social memory we still need to reconstruct history (Goethals and Solomon 1989, 14-15). Assman (2003, 171) sees the relationship between history and memory as one of succession.

Olick and Robbins (1998, 105-107) gave an overview of the different fields which studied social memory. Goethals and Solomon (1989, 1) believe this study can only occur through an interdisciplinary approach with as base psychology and sociology. Most interest goes to defining which part of our brain effects memory and stores it. A few studies focussed on what memory means to people and how we are affected by memory. What makes humans special? In general it is accepted that culture, memory and language make us different. These three aspects are connected with human existence and with everything we experience (Goethals and Solomon 1989, 1-3; Thompson 1989, 17)). Memory makes it possible to engage (Goethals and Solomon 1989, 1-3). Goethals and Solomon state that it is because of memory that we can entirely be human. Memory is part of our identity (Wertsch 2009, 122-124).

Often it is stated that we remember something because it is noteworthy or important for us personally or socially (Goethals and Solomon 1989, 3). But is this always the case? Therefore it is important to know what influences us, often called context. For the Moche, this is all very complicated. It is unknown if the portrait vessels played a role in the private or public life of the people. Starting from the point that the vessels played a role in the Moche sacrifice ceremony, we could state that they played a role in the public life. But we are mainly guessing about the context. What is the context of the Moche portrait vessels? To understand the meaning of these vessels, we first need to know what their role was. This means we are interested in the life of the Moche and in what they believed was important. Many studies made it clear that the ceremonial or ritual aspects of life were connected with daily life. Context can be defined as the internal and external factors in our environment (Goethals and Solomon 1989, 9). Secondly we need to understand why we remember something and forget the rest (Treacher 2000, 136-139). One of the important questions is if it is possible to understand this for the Moche society, if we don't have written sources or anthropological information. Not everything is archaeological preserved and secondly it is not necessarily because something seems important today that this was the case for the Moche society. We need to be careful not to use our western perspective while studying the Moche culture or any other pre-colonial culture. Olick and Robbins (1998, 122-133) define memory as a process used to make identity, but it also has the function of orientation and contestation. Treacher (2000, 147) stresses that it is important to look for proof of what we experience and this is what he calls the "artefacts of memory". These artefacts can be different types of objects, telling us what happened at that

specific time and place (Treacher 2000, 147), for example, the painted Moche vessels which depicted the one-to-one battles and the sacrificial ceremony.

This means material culture is important for researchers in archaeology because it stores information about function and importance of their users. But here Treacher (2000; 136-139) points out, it is important to know whose story is told. If we study the “artefacts of memory” we need to know who it belongs to and this is also unknown for the Moche culture. The question is for who were the portrait vessels made and to whom did they belong. Are they made for the people, modelled on the vessels and their family or for the gods or priests? Donnan (2004) studied the facial portraits of “*Cut Lip*”, whose portrait was made at different moments of his life. As mentioned above people are affected by everything that surrounds them and people are no real individuals, they always belong to groups (Wertsch 2009, 117-119). Wertsch studied the social context in which people function to understand their personal memory. Humans are also identified by their social and political sphere and this also defines their collective memory.

There are different types of memory but for this study the collective memory is the most important, because it connects people from the same society. The main question is how is this done? Lambert et al. (2009, 194-195) stress the importance of feeling connected with people. Social identity is seen as a special type of kinship. Emotion and stress are two of the factors that affect the collective memory (Lambert et al. 2009, 197; Thompson 2009, 355). During interaction with others, memories are shared, therefore objects can help to bring over the intended message (Blatz and Ross 2009, 223; Lambert et al. 2009, 199). People cannot recollect without the context they receive from their culture. Assman (2003, 163) points out that recollections are always individual but we experience these recollections as a group and so memory is created collectively. Memory can only survive through communication (Assman 2003, 164).

On the question: what do people remember and what not, many researchers wonder why we would preserve memories of a bad thing that happened (Blatz and Ross 2009, 230). This is an interesting point for the Moche. Why do they paint the ceremony of human sacrifices? Maybe we interpret them incorrect. It could be that the Moche thought it was an honour and not a cruel act. The portrait vessels can also be seen as a way to remember those who got offered. It is generally accepted this enhances the solidarity in a group. Michael Rowlinson et al. (2012, 74-75) researched the organizational memory studies and here memory is composed of storage bins, consisting of individuals, culture, structures, ecology and transformations. Memory is an

archive we can consult and we only remember what is important and forget the redundant information. Therefore memories are not always correct compared to reality. It is often said language guides people in their memory (Pennebaker and Banasik 1997, 4), but it is also important to focus on material culture. Language as much as material culture is a social act (Pennebaker and Banasik 1997, 7). Graesser and Ottati (1995, 128-129) argue that stories and objects are functional representations, which were used for different goals. They both maintain much information, organized in a certain way so that the information can be accessed later on (Read and Miller 1995, 141).

To understand the role of material aspects, we need to understand where they came from, who made them and for what reason? It is necessary to know all who came in contact with the objects. As much as people, objects have a "life". This is seen as the period from the moment it was assembled until it was disposed. Another important question is: can objects exist on themselves and what effect do they have on our world. This has been studied by Tilley (2006).

## 1. THE SOCIAL BIOGRAPHY

Material culture is of great importance to understand memory and seeing objects will help to bring stories back to life. Material culture can be seen as the medium for specific memories or stories. But the production of objects is also complex and involves different processes. These processes and the choices of a culture are determined by the cultural values and ideas and memory had its influence. Therefore it is important to understand the choices made during the use life of an object. Important studies in this field were those of Pauketat, Farbstein and Dobres.

Pauketat's interest lies in the physicality of human agency. Pauketat and Alt (2005, 212-213) describe the fundamental physicality as a broad concept, involving different constructions, for example: spatiality, corporeality and temporality. The construction process is variable, and people can change this whenever they want. Our experiences shape us into who we are, what we think and what we use. That is why, for Pauketat, the constructions need to be seen as cultural and everything we do is culturally influenced (Pauketat and Alt 2005, 213). The focus in Pauketat's study lies on the "chaîne opératoire". Pauketat sees this as cultural knowledge, involved in the complete process of material culture, which is based on the various experiences people have.

The "chaîne opératoire" methodology has been used since the 1960's and was meant to reconstruct the different stages involved in the production of prehistoric artefacts

(Farbstein 2011, 404). Today we not only look back on the production process but also on the different stages of the artefact's life and the way it was abandoned. Dobres (2000, 127-130) points out that developments are material but also social choices, a point also made by Farbstein and Pauketat. The social biography studies have the possibility to reconstruct the technological sequence (Dobres 2000, 127–130; Farbstein 2011, 404). The first stage in the production process is the choice of the material, which is influenced by the environment and the wishes of the culture. The selection of the material reflects social actions and individual choices. Symbolic or social reasons often motivate artisans in making a specific choice (Farbstein 2011, 406). To make Moche portrait vessels from clay had probably multiple reasons. First of all clay is a mineral which was present in an enormous amount in the region. But it also lends itself very well to model the small details of a person, for example a smile or a certain facial expression. Once the material is chosen artists are free to make other choices. They can choose between the different methods to create an object but their choices are linked to the kind of material (Farbstein 2011, 405-407). Dobres sees restrictions as experiences and gestures rooted in the social structure, often called the social habitus or behaviour. This is based on education and social environment (Bourdieu 1977; Dobres 1999, 135-140; Dobres 2000, 130; Farbstein 2011, 412).

## 2. INFLUENCES ON OBJECTS

As seen in the previous part on social biography, it is clear that objects are influenced by different persons and factors. This part goes deeper into the different types of influence on objects. Therefore the ideas of Tilley (2006) are interesting.

Tilley (2006, 59-61) focused on two central questions: what are things and what do things do in the social world. The last one focuses on how material forms are embedded in the lives of individuals, groups or institutions. Humans will always leave behind a variety of objects, which were used during their life on different occasions and in several places. People alter the world and use artefacts to help them (Tilley 2006, 60). For example this means that the Moche could use the portrait vessels, as said earlier, to remember the depicted or modelled actions. Archaeologists study these objects and will try to recover their use and the history of the community.

Tilley (2006, 61-62) looks into the way things come to life. In his opinion there first is an idea which is transformed into an object. Changes in artefacts are the result of differentiating ideas. Objects and their relationships with people are not static and changes can occur during their life cycle and during their use. Artefacts play a role in the

interaction between people and help to construct identity. The general idea of Tilley's theory is that the biography of people and the biography of things are intertwined. To quote Tilley (2005, 63): "*The thing is the person and the person is the thing*". The identification of humans occurs through gift giving. This will be further discussed in part C of the theoretical framework. Tilley follows the statements of Keane (1997, 68) and Simmel (1990, 66-67) saying that things can extend agency and identity of the transactors (Tilley 2006, 65). Culture and material culture are related dialectically (Tilley 2006, 61). Therefore we need to understand the object to understand the identity of the culture. In Tilley's opinion (2006, 59-62) ideas, values and social relations don't exist prior to a culture. Material objects are the used medium to express these cultural aspects. Tilley (2006, 59-62) stresses that it is through objects that we can understand the different communities. In everything we do, we are connected with objects (Tilley 2006, 71). This medium can be a powerful metaphor, it tells what cannot be written or spoken (Tilley 2006, 61-62). Tilley studied gender relations, these are often constructed through artefacts (Tilley 2006, 63). We should consider if there is a reason why only portraits of male figures were found of the Moche culture. This could be an indication for a gender based activity but it doesn't explain why the portrait vessels were also found in the graves of women.

Tilley's general idea is that we identify ourselves with the objects we use. Both the extraordinary and everyday life have an influence on our lives and we cannot exclude one if we want to receive a complete idea about the two way stream of influences (Tilley 2006, 70). The everyday knowledge finally extends to the ideological, religious, social, and cultural norms and values. It shows the attitudes and basic assumptions of which the objects are imbued. They can differ greatly between cultures. The meaning of objects can vary regionally and from one social class to another, and it can change in time (Roth 2001, 576-577).

Many traditions are based on material culture, which indirectly means that material culture has a certain power over the culture. Material culture led to a certain consistency and continuity through time and helps to understand and define the different traditions of a culture (Lightfoot 2001, 240). Question is if material culture was always used the same way in that particular tradition? Cultural change occurs during the intersections of two periods. Nowadays it is believed that cultural change can also occur on other moments in time. In the definition of Lightfoot (2001, 238-242), change

becomes a continuous flow in time and is connected with the personal or individual life of a person.

Due to the changes in culture it is not certain if the meaning of the objects was always the same. The Moche portrait vessels were produced during phase III and IV. This is longer than one generation which means that even within the period these vessels could have had multiple meanings and functions.

### 3. USE OF OBJECTS

If we look at possibilities to communicate there are similarities between the verbal and visual mode (Read 1998, 16-18). Researchers have learnt to read images. Read (1998, 16) stresses that both types of communication were created by people who belonged to a specific culture and he points out that both types were communal (Read 1998, 19). Therefore they have to be studied each in their own context, the modes of communication explain the realities in which life happens but will also help researchers to understand possible change. Material culture is used to “*order, reorder, and communicate*” (Read 1998, 17).

To quote Roth (2001, 566): “*all artefacts are products of complex transaction and communication processes and that a lot of cultural knowledge and experience is “built” into them*”. This is important to keep in mind if we want to understand the meaning artefacts have on communication. From the production process till the moment they were thrown away artefacts influenced many communicative processes. These processes do not all occur inside the “original” culture and are affected by other processes, which increases the complexity. For Roth the relationship between material culture and the intercultural communication result from seven points:

*(1) From the simple fact that material culture is an everyday topic or theme of (intercultural) communication and that (2) as a material context it “wraps” each act of communication. In the form of technical instruments it can (3) be a medium for intercultural communication. Also, the objects themselves are (4) transferred or “communicated” across cultural boundaries, e.g., as merchandise. Probably the most important aspects, however, are (5) the various relationships between humans and objects, particularly the culture specific uses of things and (6) their symbolic uses. Finally, it is (7) a very important precondition for the understanding of, and the adequate behaviour in, foreign cultures to be able to ‘read’ the material environment adequately.*

(Roth 2001, 566-567)

“Things” are the language that everyone understands and if you want to explain something to someone who doesn’t speak the same language you can use pictures (Roth 2001, 565-568). There is also a certain internationalization of production. But objects can also help to identify a certain region, for example when we recognize the typical clothing of a culture (Roth 2001, 566-567). The second point of Roth about material culture as context becomes clear when we see material environment as something that affects our lives every day (Roth 2001, 569). Then there is the use of objects as media and many types of media cross different social boundaries. Things can also communicate and in many cultures people communicated by exchanging objects. Doing so, people influenced other cultures directly but also indirectly. Interaction leads to cross-cultural objects (Roth 2001, 570). Due to this phenomenon cultures will lose a part of their original identity and become more universal. The relationship between objects and people is mainly cultural specific. People give a lot of emotional value to an object, next to the functional value (Mauss 1954, 63-65; Roth 2001, 572).

Objects can also be signs through which we can communicate. This happens when we use objects as symbols which will help the relationship between two or more people. Every artefact can become a symbol or signal. These encoded messages are cultural specific and can lead to problems when cultures interact. Objects can be used as direct messages, verbal communication which demands a reaction while symbols are often taken for granted and known in every culture (Roth 2001, 572-575). Roth’s quote also speaks of objects as indicators. This means understanding and learning through experience but also through imitation or instruction. Indicators can be found in the objects themselves, in their form, material or decoration, or in their number, order or position in space (Roth 2001, 576).

A product is always made on request of a person (McCracken 1990, 71). The producer, when making it, has his own idea about the design or he follows previous designs, which again can be influenced by others. As last there is the “consumer”, who has to buy or receive the product. There is one extra element of influence, this is often called market or fashion (McCracken 1990, 71). It is also important to know that culture has an influence on people and objects. Culture can be seen as the blueprint of human activity, because it tells people how to interact and how to react (McCracken 1990, 71-74). The culture constitutes the world by supplying it with meaning. Meaning and power doesn’t have to be the same for all people and even within a community value can change or in time value can change (Mauss 1954, 70-75). We have to see objects as a part of larger



social phenomena. A lot of information can be found in the artefacts, because they are used to express experiences and activities (Mauss 1954, 79-80). This is important in this study of Moche portrait vessels. They are difficult to study because of the lack of knowledge on their context. The portrait vessels are part of a social act or ceremony. Material culture is long lasting and people are socialized into a particular material world that existed prior to their birth (Godsen 2005, 197). In McCracken's theory the culture determines the material objects and also determines how people interact.

### C. GIFT GIVING

Some researchers, for example Tyler (2008) believe that the portrait vessels have to be seen as gifts. Therefore it is interesting to look deeper into the process of gifts and exchange. Marcel Mauss (1954, 36-38) formed a theory about gift giving in which he defines three stages. First there is the obligation to give, second the obligation to receive and third the obligation to repay. This means that gift giving occurs between two parties, the giver and the receiver. These roles change, due to the reciprocity. Giving is seen as the public recognition or acknowledgment in all spheres (Mauss 1954, 36-38). On the other side a person cannot refuse a gift because this would mean you don't respect the other person or party. If you fail to give or to receive this would mean a loss of dignity (Mauss 1954, 40). Marcel Mauss stresses the importance of repaying the gift, in his opinion this is the most important element in the relationship (Mauss 194, 40). The repayment has to have the same or even a higher value than the received gift. It is discussed if gift exchange has to be seen as obligatory. Blau (1964, 7-9) sees gift exchange as a voluntary action motivated by the return they are expected to bring. This means that social exchange entails unspecified obligations, mainly an expectation of return after a favour, but when and what is not clear (Carrier 1991, 124-127). Wayne et al. go one step further: a recipient is indebted to a donor until the obligation is repaid and he may not harm the donor while under such obligation. He sets value on the quality of exchange because this will influence the later relationship (Wayne et al. 1997, 106-108). Carrier (1991, 123) states that gift transactions are obligatory and by that not free or pure, but he makes an exception about family. In his opinion family and household members are expected to do things willingly for other members.

Mauss sees two types of exchange, the first one takes place in societies dominated by kinship and the second one in societies dominated by class and labour division. In the first one gift transactions occur. Mauss' conclusive definition is that "*gift exchange is the obligatory transfer of inalienable objects or services between related and mutually obligated transactors*" (Carrier 1991, 123). Mauss says, gifts are multi-faced, and this means we cannot always identify the gift, the giver or the receiver (Manolopoulos 2005, 110-116). This makes context important because the intended meaning can change due to the involved parties. Giving to a known person is different than giving to a stranger. Godbout (1998, 24-26) makes a distinction between primary and secondary social relationships and exchange. In the first one we act out of desire and everything we do is for our own sake, but in the second one exchange is a means to an end. The relation is the bond between the different parties. The meaning given to the relation and the object is important but variable. One object can have multiple meanings (Godbout 1998, 25) and this follows the idea of Manolopoulos (2005, 116). He believes that the relation will always have an influence on all the parties involved in this action, and will be different for everyone in this relationship. The receiver on the other hand has to recognize the gift, which leads to a counter gift he thinks is appropriate and the giving is concluded when the gift-giver is satisfied with the counter gift.

The object gets identified as a gift and is no longer a simple object, it is a bond between two people (Manolopoulos 2005, 110-116). Parry goes deeper into the bond, created by the gift and says, it contains some part of the spiritual essence of the donor (Parry 1986, 460-462). In the Hindu believe system, the gift contains the person and for the person the gift is a kind of sacrifice. For Mauss gifts are inalienable, they are to some extent part of the person. The gift generates and regenerates the relationship between the giver and the receiver. As objects carry the identity of the giver, rejecting the gift would mean that you also reject the relationship with the giver (Carrier 1991, 124-125).

This could be the reason why the Moche made these portrait vessels. Gifts are part of the person, by modelling the gift in the form of the giver, it will always be clear who gave this gift. This follows the theory of Tyler (2008) who believes that the portrait vessels were donated to the gods. In that case the gods are the receivers and then the returned gift is not necessarily material but rather an answer to the question asked by the giver. The gift is a manner to please the receiver.

To conclude, the information we can receive from artefacts, like ceramics, is very large. They can answer general archaeological questions about dates, origin and production

techniques. This information can be accessed through visual observation or the use of hard science techniques. In combining archaeology with ethnography or anthropology more information about meaning and use becomes available. The interest in the objects function only came these last decades, while studying functional differentiation. Shape was often seen as the way to access information about use. Observational techniques are used to place artefacts in a certain functional category.

But the characteristics of a vessel and the function do not have a unique relation and use can change through time. A certain use is influenced by many factors, for example the social aspect. Artefacts reflect cultural norms as they are part of memory and they are often used as medium to tell a story or remember an activity. Therefore it is important to study how memory affects a culture and what effect memory has on the choices a culture makes.

Social biography is a rather recent point of interest and focuses on the different stages of an artefacts life and how it gets affected and changed through time and space.

Knowing the ideas of a culture will help to understand how artefacts were used and what role they played in a culture. Combining this with the information on gift exchange will lead to better understand how people, in or between cultures, interact and how material objects help.



## VI. DATABASE

### A. METHODOLOGY

Recently a more methodological efficiency has been reached in Moche field and laboratory based archaeology. The last decades international projects worked together with Peruvian archaeologists, for example in the excavation of Huaca de la Luna in the early 1990's by Uceda and Mujica. Therefore today joint databases, multidisciplinary efforts and a greater reliance on new technologies are used. Lately the focus lies on the restoration of large monumental buildings. This is done to understand their original meaning. Combining this with studies on material culture will lead to a better understanding of the complex political and military system, but also of the religion of the Moche (Chapdelaine 2011; Castillo and Uceda 2008; Quilter and Castillo 2010).

In this research a descriptive approach was used. This will be "supported" with statistical results. The portrait vessels are easy to identify, but still there are differences among them. Therefore the museums divide them into categories. But what are these categories based on? Different museums were consulted and an overview was made of some of the Moche full bodied vessels. The different types of full bodied vessels were the point of interest. A protocol was made to do this research and in this document the accessibility, similarity and exclusivity of the pieces were analysed. Later on the curators of the different museums were contacted to receive access to their catalogues and a list was made of all the Moche full bodied portrait vessels in their collection. Secondly the ones that looked similar were placed on the list of interest and in a following step the catalogue was studied a third time looking for exceptional pieces, based on their colour, ornaments, decoration, simplicity, form,... . Another question was: how much time would I need to study the pieces and were they accessible? After discussing with the different curators a final list of pieces was made. In total 64 pieces were studied, of which 6 wooden and 58 ceramic vessels.

For each museum a list with all the studied vessels is available in appendix A till C.

During the research each piece was studied in detail and different pictures were taken with a Sony DSLR A390 camera. First these pictures were used for a comparative study and secondly a description was made of several details. To do so a form was used (appendix D), which helped describe the general aspects and the characteristics of the

vessel. On this form the measurements, colour, material and the characteristics were described.

Afterwards the vessels were placed in a database made with the program STATISTICA, an analytical and statistical software developed by Statsoft. This program was developed in the mid 1980's and consists of techniques for analyses and management of data but also for data mining and visualisation. Through describing the objects and placing the general characteristics in a database, a more objective base will be made for the categories, which will help to identify meaning and use of these types of vessels. We start with the assumption that each category has its own meaning and use. The two largest categories are the prisoners and the elite and they each have a certain form. Due to this specific form, an open vessel or a stirrup spout vessel, the content of the vessels will probably have been different. The database consists of the general characteristics of the described person, but also includes the material the vessel is made of, wood or ceramic, and its colour, red or black, which is only important for the ceramic vessels, and the form. They are called variables and other examples are: clothing or naked, penis, attributes, decoration...For each case/vessel the database was filled in with 1 and 0. One stands for yes or available, while zero states this characteristic is not present on this vase. The performed statistical analyses look at the possible patterns between the different characteristics, for example, which characteristics always exist together. This is done by means of some basic analytic tests concerning frequency. The different tests which were used are explained below.

## 1. STATISTICAL ANALYSES

- Frequency tables

Frequency means the amount of times something is present (Slotboom 1996, 104). A frequency table shows the number of cases that have a certain characteristic. In these table also the missing cases are summed up and the total number of cases which can be read by using the cumulative count. Slotboom (1996, 104) stresses the importance of working with percentages. Percentages are better to make general statements. In this case frequency tables were made for each variable and the most important ones are described in the conclusion part (6C). Cases with missing data are those where it is not clear whether the variable should receive the value 0 or 1.

- Histogram

Slotboom (1996, 128-129) describes a histogram as a “table” on two axes: the x-axis shows the characteristic while on the y-axis the frequency is shown. In a histogram it is possible to place multiple variables next to each other to understand their connection in different cases (Fletcher and Lock 1991, 18). In this case only simple histograms are used and the bars give a visual confirmation about the amount. They show a more clear relation and which object is an exception and which are the more general objects.

- Multiple response table

This is used to assess the relation between two variables (Slotboom 1996, 186-189). In general a contingency table or 2-Way Table is the first outcome (Fletcher and Lock, 1991, 115). In these tables two variables, of which one has to be categorical, are placed against each other. In this case the variable ‘function’, which contains the different categories, was placed against the other variables to understand their relation. From these tables it is possible to understand which characteristics define a category.

A result coming from statistical analyses is a decision tree. This model is based on yes-or-no questions. Excluding characteristics one by one, it is possible to reach the category to which, the vessel you study, belongs.

This will be helpful to study the relation between use and function, but also to study the social meaning of an object. Based on the analyses the vessels were divided into the categories: elite, warriors, prisoners, musicians, coca carriers and exceptions. A category has at least three shared characteristics and will be described in detail. One of the research questions is if category and form were connected. Could it be that the use and function of the objects depend on the category they were placed in?

## B. CATEGORIES

### 1. ELITE

- 01139 – Museo de América (Madrid –Spain)

The museum describes this vessel as a seated person with elaborated decoration (fig 6.1). It is clear the person is in an easy pose with his hands on his knees and his legs crossed. His right leg shows a slightly painted, carved foot, where his left foot is less elaborated. In most cases the feet on the vessels are painted in a black colour but here they are weathered. Around the wrists and on the body we can see some decoration, applied with a different technique. On the chest a high relief pattern is visible, a sort of waves with the space in between painted in a white or beige colour. In the middle of his chest a belt, decorated with dots, is visible and below it some carved zigzag lines but there are no visible signs the lower part ever was painted. On this kind of vessels the white or beige colour often was used for decoration and here the white colour was also used on the earrings, the eyes and the conical hat.



Fig. 6.1: 01139 – Museo de América (Madrid – Spain)

This remarkable hat, also in relief and painted, with a kind of “*Tumi*” on top (fig 6.2), is kept on the head with a ribbon tied under the chin. Due to the large ear discs, three circles partly painted, the ears are not visible. The expression on the face is firm and the eyes are exceptional because it doesn’t often occur the pupils are still visible.

We also have to pay attention to the back of this piece where the decoration, visible on the front, also carries on. On the backside the hat ends in a kind of flap with ribbons.



Although the vessel lacks its stirrup spout and in some parts the paint is weathered the general state of the piece is remarkable.



Fig. 6.2: Details of face and side view of 01139 – Museo de América (Madrid – Spain)

The person, represented in this vessel, is defined as a warrior because of the decoration pattern on the chest and the form of the hat (fig 6.2). I choose not to place the vessel in this category because it lacks the specific attributes necessary to be a warrior, namely a club and a shield.

ML000834 – Museo Larco (Lima – Perú) is similar because this piece also has a conical hat and the same type of ear discs (fig 6.3). The difference here is, during its formation, most of the decoration was painted and not modelled in relief, with the exception of some kind of necklace. On this vessel the stirrup spout is still attached and the decoration on the backside is more elaborated.



Fig. 6.3: ML000834 – Museo Larco (Lima – Perú)

- ML000685 – Museo Larco (Lima – Perú)

This piece represents a person kneeling down and the figure has different elements of decoration (fig 6.4). First of all there is the headdress, which is an outstanding piece with beautiful painted snails on it and some kind of disc on the front, which sadly enough is broken and therefore it is not clear what was depicted here. A red paint was used on a beige background. On the back the decoration is also elaborated. The ear decoration is different from the previous pieces because there are no discs but here a bar was put through each ear.



FIG. 6.4: ML000685 – MUSEO LARCO (LIMA – PERÚ)

Another remarkable element is the face painting (fig 6.5). The face is divided into three parts and the middle part has an earth brown colour but the two exterior parts are reddish brown. The same reddish colour is visible on the body of the vessel and is used for the decoration on the wrists, whereas the hands are also earth brown. Around the neck we can see a necklace in relief and we also see some little flaps pending from his ears. The person is wearing a large cape, which also covers his knees. A thick flap, coming from under the headdress, falls on his back and probably hides his hair.



FIG. 6.5: DETAIL OF THE FACE, BACK AND HEADRESS – ML00685 – MUSEO LARCO (LIMA – PERÚ)

Here the stirrup spout is also missing (fig 6.5) but it is clear the vessel had one because of the two holes, with cracks around, visible on the back.

- ML002849 – Museo Larco (Lima – Perú)

This vessel is in fact a very simple one but it deserves some special attention because of its form and the unique piece of decoration (fig 6.6).

Most of the elaborated vessels with a headdress and earrings and other decorative elements have a stirrup spout but this one has a rather unusual open form. This vessel represents a seated person with his hands placed on the knees. A cape is painted in a beige paint on the back and partly on the front.



FIG. 6.6: ML002849 – MUSEO LARCO (LIMA – PERÚ)

The headdress, modelled around the neck of the vessel, has the form of a turban, decorated with several elements (fig 6.7). On the front we see the head of an animal while above the person's ears claws are visible. The ring is kept in place with a ribbon tied under the chin and at the backside a large ribbon falls down from this ring. Here we can also see two small tresses and some hair in a dark or black paint. As mentioned above there is a unique decorative element visible. A sort of disc, we call it a nose ring, is attached on his nose (fig 6.7). It is not clear if other vessels had nose rings made of other materials. In some cases the nose holes are open indicating that something was placed there. The earrings, large discs covering the ears, have the same type as described in the previous pieces.



FIG. 6.7: DETAIL OF THE HEADDRESS AND FACE OF ML002849 – MUSEO LARCO (LIMA – PERÚ)

The state of this piece is not perfect, it is clearly very weathered and this is mainly visible at the neck of the vessel, the nose disc and at the back of the piece. Here we can also see a small hole. It is not clear when this occurred, this could be during the production but in that case this vessel would not be able to carry liquids, assuming this was the goal.

- ML002860 – Museo Larco (Lima – Perú)

This vessel is almost complete, only at the front a part of the bottom is missing. It was clearly broken and was restored where possible, which is visible due to reparation marks at the front and at the lowest curve of the stirrup spout. The last one also shows signs of weathering, where the reddish brown paint, used on the orange brown clay, disappeared.

The person represented is seated, and instead of holding his hands on his knees he is holding them together (fig 6.8). We could define this as a praying pose because he is clearly not holding something.

The person is wearing a tunic, decorated with different geometric motives and colours and a kind of cape is running over one shoulder. The cape is reddish/brown with white painted crosses, while the tunic is beige with dark motives, a sort of triangles with steps at one side, accompanied by two little rings. On the backside we can discover the same decoration and another detail at the border of the cape (fig 6.9).



FIG. 6.8: ML002860 – MUSEO LARCO (LIMA – PERÚ)

If we look at the head, we can see a lot of decoration (fig 6.9), there are a headdress, earrings and face painting. The face is covered with the same reddish brown colour, which is used for the stirrup spout and the cape. This is clearly visible because the ears, the neck, the hands and legs are orange brown which probably was the colour of the pot. The person has big eyes and a large, sharp nose compared with previous vessels and here we see a third type of ear decoration, earrings hanging below the ears, so details of the ears can be observed. The earrings are circular and have two colours: beige and reddish brown. The very elaborated headdress (fig 6.9) is nicely modelled and we can clearly see the head and paws of a feline creature. Looking at the feline head we see a small opening in the mouth. There are also s-formed decorations painted in a reddish brown colour on the headdress, the same colour used on the feline head and

the paws. The nails of the person are another eye catcher, they were painted in a light beige to distinct them from the rest of the hands.



FIG. 6.9: DETAIL OF HEADRESS AND BACK OF ML002860 – MUSEO LARCO (LIMA – PERÚ)

- ML000671 – Museo Larco (Lima – Perú)

This piece is different from the previous ones because the body is less modelled (fig 6.10). There is no clear distinction of legs and the hands probably lie on what we should call the knees. The body and face have the same brown colour, but on the body signs of weathering are visible. The modelled hands are painted over with a darker brown and here also the nails are visible but they were painted less precisely. Over one shoulder a beige cape, decorated with brown dots, is draped and it covers the whole back of the person/vessel (fig 6.11). Around his neck we can see a beige necklace divided in



FIG. 6.10: ML000671 – MUSEO LARCO (LIMA – PERÚ)



quadrants by the use of carved stripes, and he wears a simple flat hat decorated with geometrical motives. The colours and decorations are similar to those of the body and cape. Beneath each ear small round dots are noticed, defined as earrings.

At the back of the vessel there is a brown part in relief coming from under the hat, which we could define as hair (fig 6.11).



FIG. 6.11: DETAIL OF HEAD, BACK AND HAND OF ML000671 – MUSEO LARCO (LIMA – PERÚ)

There are several black lines painted on the person's face (fig 6.11), a triangle around the mouth which could be interpreted as a moustache and a beard and on each cheek four black diagonal lines, with an unknown meaning.

The beige stirrup spout of this vessel is complete and there are no cracks or pieces missing on the body but the coloured part shows weathering marks.

## 2. WARRIORS

- ML001596 – Museo Larco (Lima – Perú)

Seen from the side, the person on this vessel is in a squatting position. Because he has a small, round shield decorated with white dots, on his right arm (fig 6.13), he is called a warrior. The other hand is placed on his knee which is covered by a brown tunic. There are different brown shades on the tunic which has a big beige collar and an edge decorated with beige geometric motives (fig 6.12). On the back the tunic is much longer and beige horizontal stripes were painted on it as decoration. The brown colour on the back is much brighter compared to the brown on the front.



FIG. 6.12: ML001596 – MUSEO LARCO (LIMA – PERÚ)



FIG. 6.13: DETAIL OF SHIELD AND SIDE VIEW OF ML001596 – MUSEO LARCO (LIMA – PERÚ)

The headdress is tied under the head with a black ribbon and on the backside of the figure a decorated flap covers the back of the head. Geometrical motives, described as waves or curls were painted in beige upon the headdress, but the basic brown colour of the hat is, on the left side, not the same as the one on the right side. We don't see any ears or earrings and there is no indication of hair. The figure has a rather sharp nose and eyes with big pupils, whereas his mouth gives him a disappointed expression.

The vessel and the stirrup spout are in good condition. On the top of the headdress and on the back we see signs of weathering but no cracks. The dark stain on the face could be a firing cloud.

- 01030 – Museo de América (Madrid – Spain)

This person is described as a warrior because of the shield in his left hand and the club in his right one (fig 6.14). The shield differs from the previous one because this one is



square. The upper part of the club is missing, probably broken off (fig 6.15). In most cases where this part of a club is depicted or modelled, it has a mushroom form but here we cannot be sure if this was the case.



FIG. 6.14: 01030 – MUSEO DE AMÉRICA (MADRID –SPAIN)

As seen in some previous described pieces there is also face painting. Here a dark red colour was used whereas the moustache and the goatee were painted in beige or white. The ears and neck are beige and under the eyes there are some small beige lines. At his right side an earring is visible but at the other side it is missing, a trace on the shoulder indicates it was once present. The remaining earring is a round white disc with a red border, hanging from the ear. On the face different signs of weathering can be seen and a piece of the nose is broken off. The face shows a firm expression.

The person wears a tunic with a big collar or necklace (fig 6.14). The upper part is beige with reddish brown decorative dots while the lower part is reddish brown with white dots. The same decoration is to be found on the backside. It is not clear if the person is standing, kneeling or squatting. Although the stirrup spout is present it seems, like the vessel, to have lost some of his colour due to weathering.



FIG. 6.15: DETAIL OF HEAD, HEADDRESS AND ATTRIBUTES OF 01030 – MUSEO DE AMÉRICA (MADRID – SPAIN)

The headdress is similar to the one of ML002860 – Museo Larco (Lima – Perú) (fig 6.9) which is also very elaborated because the head and paws of a feline creature were modelled on the outside. The feline head also has a small opening and a reddish/brown decoration. The same colour was used to decorate the headdress with strings of dots and the paws with stripes. But here only one paw is still visible, the other one (at the same side as the missing earring) has broken off (fig 6.15).

Looking at the square shield only part of the decoration is still visible. The colour of the hand with the white nails is a bit darker, so it can clearly be distinct from the arm and the tunic. In this case also the feet of the person were modelled, showing the toes.

- 01266 - Museo de América (Madrid – Spain)

This next figure is kneeling down, while holding a round shield in one, not visible, hand and a club in the other one (fig 6.16). The shield is decorated with reddish brown dots placed in a circle at the edge. In this case the club is complete and the top has a mushroom form.

The warrior wears a tunic decorated with reddish brown geometric motives, dots and triangles. The decoration on the back is different from the front because it is only situated in one corner. Two slabs are hanging down from the headdress and we also see

an almost complete stirrup spout where only the top is damaged. The spout is dark reddish brown and seems slightly polished.

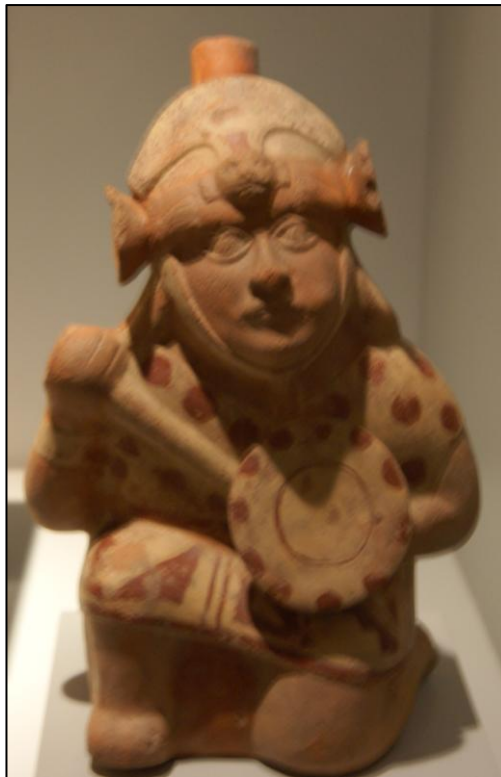


FIG. 6.16: 01266 – MUSEO DE AMÉRICA (MADRID – SPAIN)

The headdress has two parts, a turban with a feline head on it and in the middle we see something in the form of a “*Tumi*” (6.17). There is a difference with previous feline headdresses because in this case there are no paws. What is modelled here is not clear but the museum described them as two lateral appendages. On one side this part is broken, looks rough and on the inside we see two stripes. I wonder what it means, mushrooms or totally different objects? A ribbon, tied around the head and under the chin, keeps the headdress in place. The warrior has a very simple face without decoration.

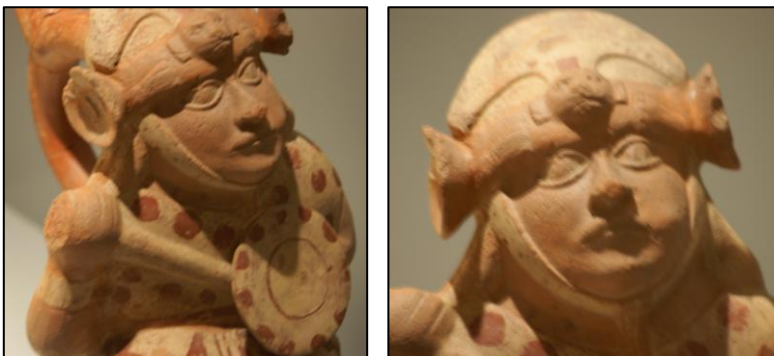


FIG. 6.17: DETAILS OF ATTRIBUTES AND FACE OF 01266 MUSEO DE AMÉRICA (MADRID – SPAIN)

We can conclude that the vessel is in rather good shape, only the headdress and the stirrup spout show small signs of weathering and use.

- 01417 – Museo de América (Madrid – Spain)

This vessel is different from previous ones, first of all because it has no stirrup spout but an open-neck and secondly because it is, except for the head, less modelled (fig 6.18). The headdress in the form of a turban, decorated with two waves or curls in relief, is placed around the neck of the vessel. A ribbon tied under the chin connects the headdress with the face. On the backside a flap, decorated with a couple of beige stripes and partly in relief, covers part of his back and what we see on the sides may be his hair (fig 6.20). The face is rather simple and round ear discs cover the ears. The core of these discs is dark grey brown and is surrounded by a beige ring. The whole vessel is dark grey brown with beige decorations. On the body only the arms are in relief and one hand is holding a round shield, decorated with white beige dots (fig 6.19). The other hand is holding a beige warrior club with a grey brown top in the form of a mushroom (fig 6.19). The wrists have beige decoration ribbons and a strange element is formed by the number of fingers. If we count the white finger nails, we see seven fingers. With exception of the white collar painted around the neck, there is no further decoration.



FIG. 6.18: 01417 – MUSEO DE AMÉRICA (MADRID – SPAIN)

More important is the firing cloud at the bottom of the vessel, around which also cracks are visible. As mentioned in an earlier chapter a firing cloud occurs through contact with fire during the production process.



FIG. 6.19: CLUB AND SHIELD OF 01417 – MUSEO DE AMÉRICA (MADRID – SPAIN)



FIG. 6.20: FRONT AND BACK OF THE HEADDRESS OF 01417 – MUSEO DE AMÉRICA (MADRID – SPAIN)



FIG. 6.21: ML000767 – MUSEO LARCO (LIMA – PERÚ)

A similar one is ML000767 – Museo Larco (Lima – Perú) (fig 6.21). Both of them were less modelled compared to the full bodied vessels. On this one we see legs, hands and attributes modelled in relief but this vessel is a stirrup spout, painted in two colours. The attributes are clearly the same as in the previous one, but were placed the other way

around. The condition of this vessel is not very good, it is more weathered than previous examples and this is mainly visible on the reddish brown painted parts.

### 3. PRISONERS

- ML002100 – Museo Larco (Lima – Perú)

This vessel shows a completely naked man in seated position, which becomes clear seeing the penis, between his crossed legs (fig 6.22). The vessel has a pale grey colour and shows many signs of weathering. Important is however that we have an open vessel where we don't see an elaborated headdress but instead we can see a simple divided flap at the back of the head, which some researchers define as the hair of the person. This person has a simple face, without any decoration and even the eyes and ears look humble. Around the neck a rope is tied, which runs over the front disappearing behind the knee. Looking at the backside of the vessel we see the person's hands, with an indication of nails, also tied together with a piece of rope. Compared to the rest of the vessel the hands are out of proportion.



FIG. 6.22: ML002100 – MUSEO LARCO (LIMA – PERÚ)

The general characteristics defining this person as a prisoner are the rope around the neck, the nakedness and the hands tied together on the back (fig 6.23).





FIG. 6.23: BACK AND SIDE VIEW OF ML002100 – MUSEO LARCO (LIMA- PERÚ)

The neck of the vessel and the right ear of the person have a slightly different colour. It's a kind of beige where the rest of the vessel look pale grey and weathered. The original colour of the vessel becomes visible when we look inside the vase.

As mentioned above the vessel is pretty weathered but it is also restored. In front, above the rope around the prisoner's neck, we can see an enormous crack covering the full front.

- 01425 – Museo de América (Madrid – Spain)

This vessel also shows us a naked prisoner, seated with his legs crossed (fig 6.24). One of the differences with the previous described piece is this person still has face painting. The face is divided in three parts and the exterior parts are of a darker colour compared to the middle one (fig 6.25). Another difference with the previous vessel is the rope, it is also tied around his neck, but here the rope ends at the backside of the piece on the prisoner's right shoulder. There is no connection with the rope used to tie his hands together behind his back and a kind of flap, or hair, covers the rest of the rope placed around his neck. Again the hands are pretty large and the nails are visible because they were painted.

The ears show an indication of holes where the ear ornaments must have been but now are stripped off (fig 6.25). The body of the person is pale and naked because we can see the nipples, the penis and the pubic hair, painted in a reddish brown colour above the penis.



FIG. 6.24: 01425 – MUSEO DE AMÉRICA (MADRID – SPAIN)

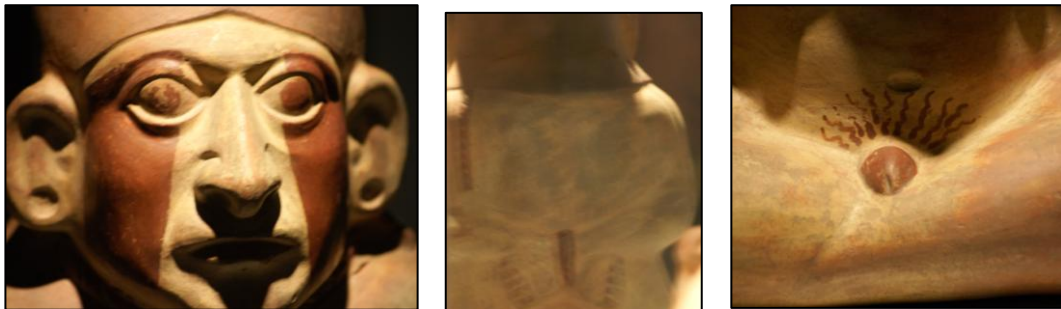


FIG. 6.25: DETAIL OF THE FACE, BACK AND PENIS OF 01425 – MUSEO DE AMÉRICA (MADRID – SPAIN)

The vessel has an open form with a long neck, painted in a reddish brown colour, almost the same as used for the face painting. This vessel is in good condition, only a small crack is to be seen under the chin and at the back of the vessel a crack runs through the flap. On the neck of the vessel we can see signs of weathering.



- ML002043 – Museo Larco (Lima- Perú)

This vessel shows a man with the characteristics of a prisoner (fig 6.26). Here, the eye catching elements are the ear discs, because on both sides a double row is visible. We could state the person was imprisoned and was now in the phase of being stripped from his cloths and ornaments.



FIG. 6.26: ML002043 – MUSEO LARCO (LIMA – PERÚ)

The person is completely naked: his nipples were coloured dark brown, and the same is true for his penis and pubic hair (fig 6.26). The person is seated with his legs not completely crossed, his knees high in front of his stomach. On the feet signs of toes and nails are visible. A thick rope is tied around his neck and is running over his front, again disappearing behind his knee. This time we can also see the rope on the backside but there is no connection between this rope and the one which ties the hands together. Here only the knot or a short piece of rope is painted in a dark reddish brown. The hands are not very elaborated and, in a dark colour, only the nails were painted.

The vessel is very pale but the discs of the ear ornaments are painted in a dark brown colour. Also on the face elements are painted in a darker colour, for instance on the front we see one tuft of hair and the back of the head is also painted dark, indicating more hair. We see a clear moustache and also a goatee and above the eyes small dots, indicating the eyebrows (fig 6.27). The pupils of his big open eyes are also painted in

this dark colour, giving this person a vivid, somewhat angry expression. This person's face is also found as a single modelled head which, by many researchers, is called "Bigote", the Spanish word for moustache (fig 7.1).

This vessel is rather unique because it has a stirrup spout (fig 6.27) where almost all the others in the "prisoners' category" are open vessels. In this case the stirrup spout is in good condition but all over the vessel signs of weathering are visible.



FIG. 6.27: DETAIL OF THE FACE, STIRRUP SPOUT AND HANDS OF ML002043 – MUSEO LARCO (LIMA – PERÚ)

The vessel is similar to ML002045 – Museo Larco (Lima – Perú) (fig 6.28) but this one is completely brown with some beige details like for example the rope and the identical modelled ear discs and this vessel is less elaborated, the details like the goatee, the rope and the pubic hair, are less clear. The hands of this person are also tied together but here the piece of rope is indicated through carved beige coloured lines. The stirrup spout is also beige and partly broken off.



FIG. 6.28: ML002045 – MUSEO LARCO (LIMA – PERÚ)

- 01065 – Museo de América (Madrid – Spain)

This vessel also shows a prisoner, although we can see his penis he is not completely naked (fig 6.29). The prisoner is clearly in the phase where he is stripped from his clothes and ornaments, which doesn't always seem to happen in the same sequence! Here the ornaments, his ear decoration has already disappeared, but he still wears a tunic decorated with quadrants, ending in peaks and a simple turban with a divided flap covering the back of his head. The figure is orange brown, except for the eyes, the tunic and the turban.

The person is seated, with his legs crossed but no feet can be distinguished and only his penis is visible. He has a rope tied around his neck running over his front and ending somewhere on his thigh. His hands are tied behind his back with a piece of rope and we can distinctly see the fingernails, because they have a brighter colour.



FIG. 6.29: 01065 – MUSEO DE AMÉRICA (MADRID – SPAIN)

In the front, the tunic shows two different colours, at the person's right side the white paint preserved better, whereas at his left side it almost disappeared, or was it intended this way? On the back of the vessel the quadrants are less visible and the white paint also vanished.

The person has a simple face without any decoration and the expression indicates he accepts his fate. His eyes are remarkably dark and in the ears we see indications of

holes where in a previous phase he was wearing earrings. The vessel has an open form and is in good condition, there are almost no signs of weathering.

Vessel 01064 – Museo de América (Madrid – Spain) (fig 6.30) is very similar, but in this case the quadrants of the tunic are carved into the body of the vessel. The details are less elaborated and the rope runs the other way, this time towards the person's right thigh. The headdress forms an exception because here we see something which probably represented a feline head with some decoration but it is broken off. There are no colours used on this vessel and it shows different signs of weathering.



FIG. 6.30: 01064 – MUSEO DE AMÉRICA (MADRID – SPAIN)

- ML002078 – Museo Larco (Lima – Perú)

This vessel is also defined as a prisoner because of the rope around the neck and the hands tied to the back (fig 6.31). But this vessel shows a clearly modelled headdress and the stripes on the body could be the representation of a tunic.

The person is seated with his legs crossed (fig 6.31), but there are no indications of feet. On his supposed tunic we see two colours, dark stripes alternate with light beige ones. These decorative paintings are not very precise, rather roughly or carelessly painted. We can also see them on the backside of the vessel. Over this tunic runs a beige rope, which is tied around his neck and ends somewhere on his left thigh. On the back, in this case rather small, hands are tied together with a piece of rope (fig 6.32), but the arms are almost non-existing.



FIG. 6.31: ML002078 – MUSEO LARCO (LIMA – PERÚ)

The headdress is a beige or white turban with a feline head and a paw on each side (fig 6.32). He is placed over the neck of the open vessel and is attached under the persons chin with a beige ribbon. This vessels neck has an orange brown colour, so a clear contrast is made with the turban and the vessel shows different signs of weathering.

This person doesn't wear earrings but on the face we see some black stripes (fig 6.32), which indicate face painting. Two of them are visible next to the nose and it seems once a goatee was painted on the face. Around the eyes also traces of black paint are visible, perhaps to enhance them.

This vessel gives a weathered impression and in different parts the colours are vague.



FIG. 6.32: DETAIL OF FACE, HEADDRESS AND BACK OF ML002078 – MUSEO LARCO (LIMA – PERÚ)

Vessel ML002059 – Museo Larco (Lima – Perú) is almost the same (fig 6.33). The difference with the previous piece is this one has less paint on the body. The person is seated, with his legs crossed and this part of the vessel was painted in beige, while the rest has a brownish colour, without decoration. It is possible both vessels came from the same mould but afterwards were decorated by different painters.



FIG. 6.33: ML002059 – MUSEO LARCO (LIMA – PERÚ)

- ML002020 – Museo Larco (Lima – Perú)

This vessel also represents a prisoner (fig 6.34). The main characteristics are present: the hands tied on the back, the rope around the neck and a visible penis. But this piece again represents a not yet totally naked prisoner. The person was certainly captured but now remains in the phase where he is partly stripped and in this case is still wearing his tunic and headdress.



FIG. 6.34: ML002020 – MUSEO LARCO (LIMA – PERÚ)

On the front the short shouldered tunic is divided in quadrants, carved in the vessel but these quadrants are not visible on the back. The tunic has a simple beige colour like the rest of the vessel and it looks as if no other colours were used but in some parts we see darker shades. The person is seated with his legs crossed and in between his penis is visible. Around the neck a rope is tied which runs around the knee and ends up in a snakes head which bites the penis (fig 6.36). It is not clear what function the snake has, but this element shows up a couple of times while studying these vessels. On the back his hands are tied together with a piece of rope and the arms are clearly visible.

The headdress is a turban with a feline head on it where next to two horns were modelled (fig 6.35). One of them broke off and was repaired. The paws on this turban are not elaborated. The face of this vessel shows no face painting, has a rather angry expression and there are no ear decorations.





FIG. 6.35: DETAIL OF THE BACK, THE SNACK AND THE HEADDRESS OF ML002020 – MUSEO LARCO (LIMA – PERÚ)

This open vase is in good condition, except for the repaired horn. There are signs of weathering and most of the colours are vague.

A similar piece is ML002074 – Museo Larco (Lima – Perú). This one is a simple, grey brown open vase with no decorations and a part of the neck has broken off (fig 6.36). In the ears we see holes, they are an indication for earrings. The person is seated with his legs crossed and the rope, tied around his neck, also ends up in a snake's head which bites his penis. Looking at the back we see the hands with dark lines indicating the fingers, tied together with a piece of rope. This vessel is in a bad shape, the colour is vague due to weathering.





FIG. 6.36: ML002074 – MUSEO LARCO (LIMA – PERÚ)

- ML002062 – Museo Larco (Lima – Perú)

Even though the person represented here (fig 6.37) doesn't have his hands tied on his back en there is no visible penis, it is most certain a prisoner. His hands seem to be tied to a beam and there is a rope around his neck and his feet. The vessel has an orange brown colour and is a typical open vessel. The difference here is the neck of the vessel is the persons head and cap.

The person has his arms horizontally stretched out and if we look carefully at the wrists we see they are attached with ropes to a beam which is lying in the person's neck (fig 6.38), which can be seen on the backside of the vessel. The nipples are placed in a strange place, almost in the armpits. The braided or double rope around his neck runs in



FIG. 6.37: ML002062 – MUSEO LARCO (LIMA – PERÚ)

front of his body and also ties his feet together. This obliges him to sit with raised knees, most certainly an uncomfortable pose. The expression on his face is one of shock or fear. The vessel has suffered from advanced weathering and on the back it is broken. The left and right side of the vessel each give a different impression when we look at the colours and the damage to the back probably occurred during use or after disposal.



FIG. 6.38: THE BACK OF ML002062 – MUSEO LARCO (LIMA – PERÚ)

- ML001800 – Museo Larco ( Lima – Perú)

This brown convex vessel is not fully modelled (fig 6.39), only the upper part is. The head is mainly elaborated and the neck of the open vase forms the person's turban. There is no clear distinction made between the body and the crossed legs, because the only sign of transition is formed by the penis.



FIG. 6.39: ML001800 – MUSEO LARCO (LIMA – PERÚ)

It is clearly a prisoner because a rope is tied around his neck but strange enough ends abruptly on his chest (fig 6.39). His face is very simple without decoration, but he has a gruffly face expression. On the back we see the hands with clearly recognizable fingers tied together with a piece of rope (fig 6.40). The arms on the contrary are less visible and furthermore there is no flap coming from under the turban.



FIG. 6.40: BACK OF ML001800 – MUSEO LARCO (LIMA – PERÚ)

The vessel shows different signs of use and weathering. At the back a part of the vessel neck is missing (fig 6.40). On both sides of the body there are different black spots, probably due to contact with fire or as a reaction to a certain material. Some vague white lines are to be seen on the vessel but it is not clear what they mean.

#### 4. COCA CARRIERS

- ML001064 - Museo Larco (Lima – Perú)

The small jar and the stick this person carries are the typical attributes of a coca carrier (fig 6.41). Most of the vessels in this category are like this one very elaborated. On this vessel multiple colours were used.

On the front and the back of this vessel the body is divided in quadrants, painted in two colours, forming a checkerboard pattern. The colours of this tunic are beige and dark reddish brown and on the back one of the dark quadrants is damaged, bringing a white colour to light. Other decorations are the s-patterns at the wrists and at the lower end of the tunic, just above the feet.



FIG. 6.41: ML001064 – MUSEO LARCO (LIMA – PERÚ)

We can say this person is standing straight because two small feet with white nails are visible, coming from underneath his tunic. The hands also have visible white nails and the hand holding the stick has black stains. While the neck and ears received a more orange colour, this person's face was painted in a darker colour and shows white face painting to create a goatee and a moustache but also a big white cross was painted over his nose and cheeks. The person wears earrings, these are beige coloured discs hanging from the ears.



FIG. 6.42: DETAIL OF THE FACE, THE ATTRIBUTES AND THE BACK OF ML001064 – MUSEO LARCO (LIMA – PERÚ)

His turban is simply decorated with white dots and with two wings or paws modelled at the sides, also decorated with white dots. On the backside the headdress is simple, only the tips of the wings are marked with white paint. Coming from under the turban we can see a dark brown black colour, interpreted as hair (fig 6.42).

The vessel has a white beige stirrup spout, which broke off in two places but is completely reattached. On the spout and on the body signs of weathering are visible.

The piece is almost identical to ML001056 – Museo Larco (Lima – Perú). This one is a bit darker and also one part of the headdress has broken off (fig 6.43). Furthermore the decoration is different: at the lower end of the tunic a repeated geometrical motif is presented and the quadrants on the tunic were painted in opposite colours. The stirrup spout is damaged in different places and not completely repaired.



FIG. 6.43: ML001056 – MUSEO LARCO (LIMA – PERÚ)

- ML000961 – Museo Larco (Lima –Perú)

This piece is larger than most other vessels. Except for the general weathering signs and the broken part at the headdress, this piece is in a good condition. The vessel has an orange brown colour and shows a white beige decoration.

This person is holding a small jar in one hand and a little stick in the other (fig 6.45). Even though this last one seems complete it is not sure this attribute is a stick. The person is standing up and his, close together, feet are coming from under his tunic which has a white collar and a white border. On the backside this border has a slip and we can also see the person is wearing a little decorated sack over his left shoulder.

The face is painted with a dark reddish brown paint (fig. 6.45). The expression seems the one of an angry man and the figure shows his feline type of teeth, an image which

does not often occur in Moche pictures. It looks like a little beard was modelled, or this person has a very pronounced chin and above the mouth we can also see a modelled moustache. From his ears very simple, round and completely beige earrings are hanging.



FIG. 6.44: ML000961 – MUSEO LARCO (LIMA – PERÚ)



FIG. 6.45: DETAIL OF THE FACE, BACK AND ATTRIBUTES OF ML000961  
MUSEO LARCO (LIMA – PERÚ)

A simple turban covers his head but on his left side pieces are missing. The headdress is the most weathered part of the vessel, while the stirrup spout is remarkably complete.



FIG. 6.46: ML001058 – MUSEO LARCO (LIMA – PERÚ)

The previous described pieces have certain similarities with ML001058 – Museo Larco (Lima – Perú). This piece has an elaborated headdress (fig 6.46), with a feline head and wings or paws. The earrings are very simple and hanging down from the ears. The white paint applied to the face is similar to the first vessel in this category, but this person is seated and holding on to his cape with one hand, while holding a little jar in the other. The stirrup spout of this vessel is badly damaged.

- ML001024 – Museo Larco (Lima – Perú)

This vessel representing a person, seated in a squatting position, is very colourful. His legs, wrists and the underlying layer of the head are orange brown, while the body is white beige and the decoration is applied in a dark reddish brown colour.

With both his hands the person holds his little cape or shawl which is tied around his shoulders and on his right arm hangs a little decorated bag (fig 6.47), which receives the same meaning as the little jar in the previous pieces and is used to storage coca.





FIG. 6.47: ML001024 – MUSEO LARCO (LIMA – PERÚ)

The face covered with the darker paint gives the person a firm expression (fig 6.47). He wears simple round earrings hanging from his ears and a turban decorated with two lunar forms and defined as an Inca crown.

On the back we can see the small shawl, but also another brown line interrupted by a hole (fig 6.48). This hole could be the effect of some contact with fire. The stirrup spout was reattached after being completely broken off.



FIG. 6.48: DETAIL OF THE COCA BAG AND THE BACK OF ML001024 – MUSEO LARCO (LIMA – PERÚ)



## 5. MUSICIANS

- ML002210 – Museo Larco (Lima – Perú)

This person is a musician because of the attribute he is holding (fig 6.49) and looking at the way his fingers are placed, this must be a flute. The person is seated, wearing a tunic, a cape and earrings. Furthermore he also has face painting.



FIG. 6.49: ML002210 – MUSEO LARCO (LIMA – PERÚ)

The position of his head indicates he is blowing on his flute and we can observe two colours on his face, as seen on previous vessels: the two exterior parts were painted brown, while the middle part beige. His brown earrings are very simple and his headdress is a beige bandana (fig 6.50), tied at the back. The musician is wearing a brown tunic covering his knees but his feet can clearly be distinguished. On his right side the border of his beige cape was painted with brown geometrical decorations (fig 6.50) and the cape completely covers the back of the vessel.

The stirrup spout, connected with the cape and the bandana, was repaired at the top. The back of the vessel has many stains and on the front signs of weathering are visible.



FIG. 6.50: DETAIL OF THE BANDANA, THE DECORATION AND THE HANDS OF ML002210 MUSEO LARCO (LIMA – PERÚ)

Maybe ML002211 (Museo Larco – Lima Perú) should also fall under this category (fig 6.51). The modelled person is also looking up and it seems like he would have held something in his hands, unfortunately the hands are missing. This person has more detailed face painting.



FIG. 6.51: ML002211 – MUSEO LARCO (LIMA – PERÚ)

- 7430 - British Museum (London – United Kingdom)

This is an exceptional object because of its material, namely wood (fig 6.52). It is also a musician but here the instrument is a beautiful carved pan flute. It is not clear if the carved figure should be seen as a person because on the back of the object clear wings were carved in relief on the wood.



FIG. 6.52: 7430 – BRITISH MUSEUM (LONDON – UNITED KINGDOM)

This piece is probably part of a staff but the lower part has broken off. Is this figure a person or was something else meant? The deep lying eyes and the rather sharp nose (a hawk's nose?) are pointing towards an animal, more specific a bird. The original description states that this object has the face of an owl. In the wood also a headdress was carved and as mentioned above on the back a pair of beautifully formed wings (fig 6.53). This would support the theory an owl was meant and no human figure. But the lotus pose, the headdress and playing an instrument doesn't fit the animal theory.



FIG. 6.53: DETAIL OF THE FRONT AND BACK OF 7430 – BRITISH MUSEUM (LONDON – UNITED KINGDOM)

## 6. EXCEPTIONS

### a) WOODEN VESSELS

All these pieces were found on Macabi Island, Peru. After being excavated in 1871, they were donated to the British Museum. They were found in the “Guano” and are rather well preserved. They either belong to the Newell collection or to J.D. Harris father’s collection. Sadly enough little is known about their connection with the Moche or about the circumstances in which they were found and the way they came to the British Museum.

- 7421 – British Museum (London – United Kingdom)

This piece is in a rather good condition but a great part of the statue is missing and there are clear signs of weathering (fig 6.54). The object is a hollow statue on a, broken off, pole and represents a person seated in lotus pose. It is difficult to get an idea which kind



FIG. 6.54: 7421 – BRITISH MUSEUM (LONDON – UNITED KINGDOM)

of figure was created because important pieces are missing, but it is rather clear his hands were not tied together and were probably resting on his knees.

On the back and on the shoulder we see quadrants carved into the wood, giving the impression of a tunic, almost the same like we saw on the ceramic vessels. Around the neck a rope was carved, running over the front of the body (fig 6.55). This defines the figure as part of the “prisoners' category”. The headdress is some kind of turban with a half circular front wherein the face of an animal, maybe an owl, was carved in relief. The persons face is almost complete, as we can recognise his eyes, nose, mouth and one ear (fig 6.55). On the lower part of the statue the hand and the foot of this preserved part are also missing.



FIG. 6.55: DETAIL OF THE HEAD, BACK AND FRONT OF 7421 – BRITISH MUSEUM (LONDON – UNITED KINGDOM)

It is not clear what was the originally colour of this wooden piece, but the person who has found it described it in his notes as red wood. Today the carved tunic, the downside of his chin and the arm are looking lighter than the rest of the statue. It is not known what type of opening this vessel or statue had. Probably it was a type of open-neck vessel.

- 7420 – British Museum (London – United Kingdom)

This piece has a somewhat better condition compared with the previous one but the wood is also weathered (fig 6.56). The statue is hollow and here the carved person is also seated in a lotus pose with his hands on his knees, only his right hand is missing. The headdress is almost complete, again with a carved head in relief but this one is not so well preserved. The persons face is less elaborated with a vaguely visible mouth and eyes and it is partly abraded. There is also a rope tied around his neck and on his tunic we can see carved quadrants, but the pattern is only visible on the back, and partly on the shoulder. There is a big vertical split in the wood next to the rope and the nose.



FIG. 6.56: FRONT AND BACK OF 7420 – BRITISH MUSEUM (LONDON – UNITED KINGDOM)

- 7422 – British Museum (London – United Kingdom)

This piece is also a hollow statue with almost all the characteristics of a prisoner (fig 6.57), as stated in the description of the ceramic vessels. The person is seated in lotus pose, with his hands tied on his back, a rope around his neck and a visible penis, indicating the person was naked.



FIG. 6.57: 7422 – BRITISH MUSEUM (LONDON – UNITED KINGDOM)



The person still has his headdress (fig 6.58), it is the same as in the previous described wooden statues, but here a part is missing. On his face both eyes are visible and the nose is broken, the mouth is completely eroded and there are no ears.

Looking at the bottom of the piece we find it almost completely eroded but one foot with toes is visible while the other foot is abraded.

The rope around his neck runs over the back and also ties the hands, with clearly visible fingers, together (fig 6.58).

The condition of the piece is reasonably well but due to a big split the front and the back of the statue are no longer completely attached. Also the back of the head is missing.



FIG. 6.58: DETAIL OF THE BACK AND THE FACE OF 7422 – BRITISH MUSEUM (LONDON – UNITED KINGDOM)

- 7423 – British Museum (London – United Kingdom)

This statue is very badly damaged because part of the head and the back are missing (fig 6.59 and fig 6.60). Again it is a statue of a person seated in lotus pose. Others signs of a prisoner are: the rope around his neck, the hands tied together and the visible penis. We can say little about his face because it is completely eroded, only a very small part of the mouth and nose and one ear are visible. On the back we vaguely see the rather big hands tied together with a piece of rope (fig 6.60). There are two big splits on the back and the upper part is missing. The rope tied around his neck runs over the front of the body and ends in a snake's head which bites the penis, the same way as we have seen a couple times on the ceramic vessels.



FIG. 6.59: 7423 – BRITISH MUSEUM (LONDON – UNITED KINGDOM)



FIG. 6.60: DETAILS OF THE BACK AND THE FACE OF 7423 – BRITISH MUSEUM (LONDON – UNITED KINGDOM)



- 7424 – British Museum (London – United Kingdom)

This piece has a different form, it is a vessel and not a statue on a pole. It is in a rather good state (fig 6.61). The bottom is flat and on the inside part of the wood was removed to form the vessel. Parts of the back and one arm are missing and the “neck” of the vessel is damaged.

This person carved in the wood is a naked and belongs to the “prisoners’ category”. He is seated in lotus pose with his hands tied on the back. The figure has no headdress but there are indications of hair. The large nose, deep lying eyes and vague mouth give him a firm expression.



FIG. 6.61: 7424 – BRITISH MUSEUM (LONDON – UNITED KINGDOM)

A rope is tied around his neck but because only a part of the back is still present it is not clear if the rope runs down the back to tie the hands together. On the back we see the impression of one arm (fig 6.62), placed in the correct position to be tied to the missing arm. At the front we see the penis but it is not clear why an opening was made between the two legs.

This piece is different compared to the other wooden statues because the wood feels much smoother, maybe it received some extra treatment.



FIG. 6.62: DETAIL OF THE FACE AND THE BACK OF 7424 – BRITISH MUSEUM (LONDON – UNITED KINGDOM)

### **b) ANIMAL LOOKING**

- ML002352 – Museo Larco (Lima – Perú)

This vessel shows a figure standing straight, who seems to tie something around his head (fig 6.63). As seen in other pieces a ribbon is tied under the chin, but in this case the figure is occupied doing so. The vessel has a stirrup spout which was reattached after it completely broke off. The vessel is mainly beige with brown decorations.

The face, which is divided in three parts, doesn't look completely human. The exterior parts were coloured in a brown colour. Because of the long and sharp nose, the head is defined as the one of a hawk. The headdress is very elaborated because two feline heads above each other are visible (fig 6.64), the lower one is in relief and the other one is painted. There are also dots painted on the headdress and different geometrical motives on his tunic. On the back of the figure several fine brown lines were painted in



FIG. 6.63: ML002352 – MUSEO LARCO (LIMA – PERÚ)

the form of folded wings and feathers. This reinforces the theory this figure is a bird.



FIG. 6.64: DETAILS OF THE BACK, THE FACE AND THE HEADDRESS OF ML002352 – MUSEO LARCO (LIMA – PERÚ)

In general this vessel is in good condition, the beige colour suffered some weathering and stains are also visible.

- ML003203 – Museo Larco (Lima – Perú)

It is not easy to describe this vessel but the choice to classify it in this category is based upon its face and some of the attributes. The vessel has a dark brown greyish colour and a stirrup spout in a dark colour (fig 6.65). On the whole vessel different shades of the basic colour are present.



FIG. 6.65: ML003203 – MUSEO LARCO (LIMA – PERÚ)

The headdress was damaged and glued back together. On the circular plate, attached to the turban, a feline head in relief was modelled. Looking at the face we see sharp teeth coming out of his mouth and also a kind of disc sticks out (fig 6.66). The figure wears

earrings in the form of feline heads with sharp teeth, hanging down on his shoulders and the person is also wearing a necklace.



FIG. 6.66: DETAIL OF THE FACE, THE ATTRIBUTES AND THE BACK OF ML003203 – MUSEO LARCO (LIMA – PERÚ)

He is standing straight and holds a fish in his left hand and a pelican in the right one (fig 6.66). Looking at the back of the vessel we can see more depicted animals because three feline heads are hanging from his hair or from ribbons attached to the headdress.

c) BLACK CERAMIC

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- ML001598 - Museo Larco (Lima –Perú)

This is a black portrait vessel, which can be placed in the “warriors’ category”. The person depicted is kneeling on one knee while holding the two attributes of a warrior: a club and a shield.



FIG. 6.67: ML001598 – MUSEO LARCO (LIMA – PERÚ)

The square shield he is holding has geometrical decoration with carved lines and dots (fig 6.67). The end of the warrior club has a mushroom form as we have seen before. The wrist of his right hand and the bottom side of his tunic also show some decoration.

The warrior has a simple face but he wears special ear decorations, discs hanging next to his cheeks also decorated with carved lines and dots. He has an elaborated headdress but a part is missing and another part was repaired. In relief a feline head was modelled on the headdress and the upper part looks like a crown (fig 6.68). On the backside we see some kind of flap, or is this hair, and ribbons at both sides of the stirrup spout. The spout is slightly damaged. We can see signs of weathering all over the vessel and remarkable is this vessel is smaller than the average red ceramic vessel.



FIG. 6.68: DETAIL OF THE HEADDRESS AND THE FACE OF ML001598 – MUSEO LARCO (LIMA – PERÚ)

Very similar to ML001597 – Museo Larco (Lima – Perú). This piece shows a warrior with high crossed legs, holding a shield and a club. The shield shows little quadrants. The end of this club looks different, more like a little pumpkin. The person has very fine hands, a goatee and a moustache and he seems angry. On his tunic we see carved quadrants and he is wearing a necklace, composed of small feline heads, and an even more elaborated headdress. In this case on the front there is no feline head modelled but instead a lot of paws and a mushroom in the rear.



FIG. 6.69: ML001597 – MUSEO LARCO (LIMA – PERÚ)

- ML000962 – Museo Larco (Lima – Perú)

A second example in black ceramic is rather small and very light compared with the red ceramic vessels (fig 6.70). What kind of person is modelled here is less clear, remarkable is his long beard which is not often seen on these vessels.

There is almost no decoration, except for the headdress and the bracelets on his wrists and some incisions or carvings. His hands lie on his knees and probably the person is in a lotus pose, but little is seen of his legs. His face has an odd expression and the ears are standing in a rather strange place (fig 6.70). The person has a moustache and a long beard, which is often associated with priests. The headdress is a simple turban decorated with paws and on the top and the back of his head carved lines indicate the presence of hair. The vessel and his stirrup spout are in good condition but the shiny black ceramic is full of marks and it is difficult to determine what is decoration and what



are traces of use and deposit. There is also a small hole on the left side of the body next to the beard.



FIG. 6.70: FRONT AND SIDE VIEW OF ML000962 – MUSEO LARCO (LIMA – PERU)

- ML000784 – Museo Larco (Lima – Perú)

The person represented in this black piece belongs to the elite class. He is seated in lotus pose, with his hands resting on his knees (fig 6.71). On the body there is little decoration but on the wrists we can see large bracelets. This man wears simple ear discs and an elaborated headdress, tied under the chin with a ribbon. It is a turban with carved V-motives and on both sides a mushroom, while on top we see a “Tumi” with two little holes.



FIG. 6.71: ML000784 – MUSEO LARCO (LIMA – PERÚ)

Again this piece is smaller and lighter than the red ceramic pieces. The vessel is in good condition, except for some damage on the stirrup spout and a part of the headdress. There are different shades in the colour, this could be the effect of an extensive use or weathering (fig 6.72).



FIG. 6.72: SIDE VIEW OF ML000784 – MUSEO LARCO (LIMA – PERÚ)

The other pictures of the studied vessels can be found on the DVD.

## C. GENERAL CONCLUSIONS FROM THE STATISTICAL ANALYSES

### 1. HISTOGRAMS

The first histogram (fig 6.73) clearly shows that there is a distinction between the ceramic vessels and the wooden vessels. Only 9 % of the cases that were studied were made of wood. Of the 91 % ceramic vessels the largest part (95 %) had a reddish brown colour, while 5 % was black ceramic.

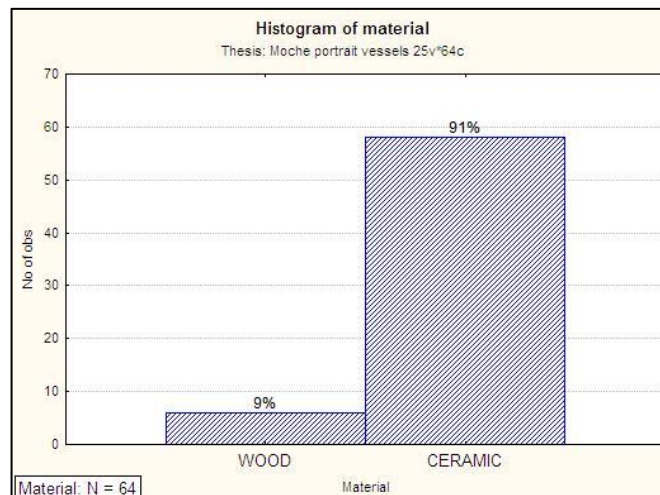


Fig. 6.73: Histogram of material



This indicates that the primary material used for the production of Moche portrait vessels was earth-coloured ceramic, while wood and black ceramic, the result of smudge firing, were less common.

The form histogram shows that of the sixty four cases the diffusion between stirrup spout vessel and open-neck vessel is almost equal. In the database 42 % of the vessels belong to open-neck category and 58 % to the stirrup spout category.

Two other important histograms are those who show the differentiation in function and attributes. The first one shows the vessels divided in categories following the descriptions (fig 6.74). These categories are: warriors, prisoners, coca carriers, musicians, elite and those who weren't defined. In many cases the differentiation between the warriors and the elite was solely based on the presence of attributes, therefore it is necessary to state that we should probably define the warriors as a subcategory of the elite. Counting the 19 % 'elite – vessels' together with the 16 % warrior – vessels, would lead to a total of 35 % elite – vessels. They stand opposite to the 41 % vessels defined as prisoners. Another important category is the group of coca carriers and includes 14 % of the total amount.

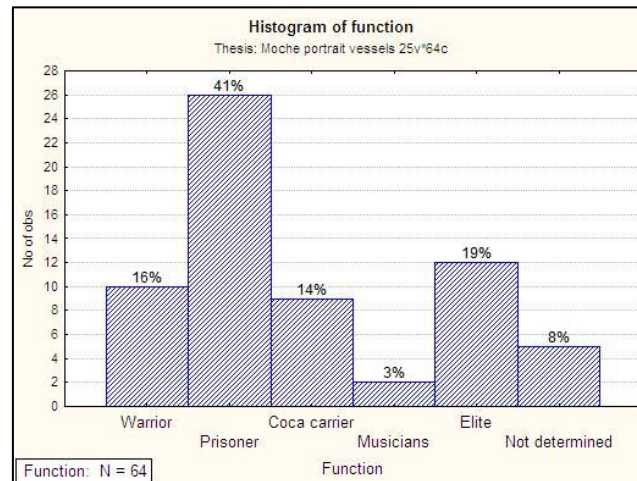


FIG. 6.74: HISTOGRAM OF FUNCTION

In total 34 % of the studied vessels, which means twenty two cases, had some type of attribute. Therefore it is interesting to look at the different types of attributes (fig 6.75). The attributes are connected with the mentioned functions of the modelled persons. The two most important groups are: the shield and club group and the jar and stick group. The first ones are the attributes carried by the warriors. Of the twenty two cases 32 % carries a shield and a club, and 14 % carries only a shield and both groups are connected with the function group warriors. The function group coca carriers also exists

of two subgroups and 41 % of the attributes belong to this function group: 32 % carry a jar and a stick, while 9 % only carry some type of jar.

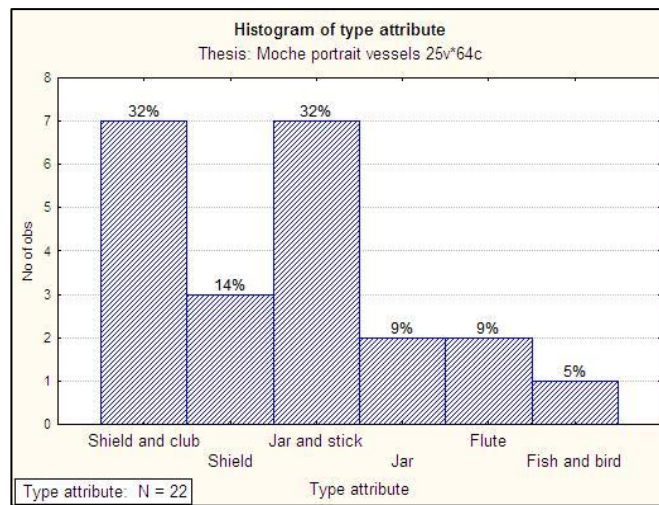


FIG. 6.75: HISTOGRAM OF ATTRIBUTES

Another important histogram, which is also connected with function, is the clothing's histogram. This histogram shows if the modelled people wear clothes or don't and there are three categories: the naked ones, the people who wear only a blouse and those wearing pants and blouse. If we count the naked ones, 23 %, and those who only wear a blouse, 8 %, together we come to a total of 31 % and because we know that 41 % received the function prisoner, there are 10 %, or six cases, of the prisoners who still wears their cloths.

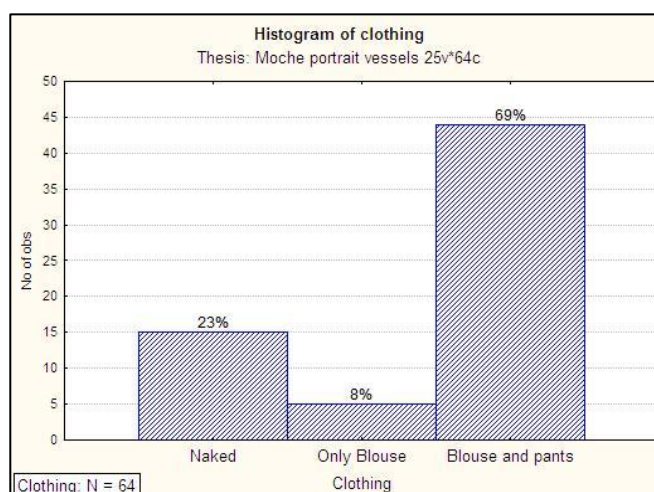


FIG. 6.76: HISTOGRAM OF CLOTHING

The other histograms can be found in Appendix E.

## 2. FREQUENCY TABLES

In the frequency tables the same information as the one of the histograms is available. The difference is that here the information is compared to the total amount of cases. In the frequency tables also the cumulative count and cumulative percent is given, meaning that always the total amount of cases is assessed.

In most of the analyses all the 64 cases are assessed. Only in the category attributes, colour and penis we see data is missing. The different frequency tables can be found in appendix F.

| Frequency table: penis |       |                  |         |                    |
|------------------------|-------|------------------|---------|--------------------|
| Category               | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                     | 47    | 47               | 73,4    | 73,4               |
| YES                    | 16    | 63               | 25,0    | 98,4               |
| Missing                | 1     | 64               | 1,6     | 100,0              |

FIG. 6.77: FREQUENCY TABLE – PENIS

Sixteen of the total amount of cases have a penis modelled, which is 25 % or  $\frac{1}{4}$  of the total amount. The missing object is number 7421 of the British Museum – London (United Kingdom). This object probably belongs to the “prisoners’ category”, but because half of the object is missing it is impossible to assess if the penis was visible. It is generally accepted that one of the characteristics of a prisoner was a modelled penis. But if we look at the frequency table of function, we see that 41 % or 26 cases are defined in the “prisoners’ category”. In combination with the frequency table - penis (26-16-1) leaves nine cases of prisoners who don’t show a penis. This information can also be combined with the six cases still wearing cloths so three cases are missing, namely ML001723, ML002087 and ML002062 all from the Museo Larco – Lima Perú.

| Frequency table: Function |       |                  |         |                    |
|---------------------------|-------|------------------|---------|--------------------|
| Category                  | Count | Cumulative Count | Percent | Cumulative Percent |
| Warrior                   | 10    | 10               | 15,6    | 15,6               |
| Prisoner                  | 26    | 36               | 40,6    | 56,3               |
| Coca carrier              | 9     | 45               | 14,1    | 70,3               |
| Musicians                 | 2     | 47               | 3,1     | 73,4               |
| Elite                     | 12    | 59               | 18,8    | 92,2               |
| Not determined            | 5     | 64               | 7,8     | 100,0              |
| Missing                   | 0     | 64               | 0,0     | 100,0              |

FIG. 6.78: FREQUENCY TABLE - FUNCTION

They are exceptions to the “rule”: naked = penis. ML002062 – Museo Larco, Lima Perú misses also another basic prisoner’s characteristic because his hands are not tied behind his back. In total there are five prisoners without their hands tied on their back.

| Category      | Frequency table: Form |                  |         |                    |
|---------------|-----------------------|------------------|---------|--------------------|
|               | Count                 | Cumulative Count | Percent | Cumulative Percent |
| OPEN VASE     | 27                    | 27               | 42,2    | 42,2               |
| STIRRUP SPOUT | 37                    | 64               | 57,8    | 100,0              |
| Missing       | 0                     | 64               | 0,0     | 100,0              |

FIG. 6.79: FREQUENCY TABLE – FORM

Another criterion which often defines function is the form of the vessel. Of the total amount of cases 27 have an open-neck and 37 cases have a stirrup spout. From the 27 vessels with an open-neck 25 cases are defined as prisoners, while one is defined as a warrior because of his shield and club and one as elite because of his headdress, earrings and nose ring. But more interesting are cases 42 and 59 of the database corresponding with ML002045 and ML002043 – Museo Larco (Lima, Perú), because both represent a prisoner, called “Bigote” and both have a stirrup spout.

### 3. MULTIPLE RESPONSE TABLES

The previous analyses showed that two prisoners form exceptions and in the 2-Way response tables this is confirmed. In most cases the function category prisoners are open vessels and all the other function categories have a stirrup spout, but even then there are a couple exceptions, one in the group of the warriors and elite, as mentioned above and one in the category musicians. Looking at the total amount in the table we see one case is missing and this is a wooden object (Am. 7430 – British Museum, London, United Kingdom) because this piece is described as a staff. From this 2-Way Table Form and Function it is clear that, in general, the open-neck vessels were used to model prisoners and the stirrup spout form was used in case of the more elaborated pieces.

| Function:      | 2-Way Table Summary            |                    |            |
|----------------|--------------------------------|--------------------|------------|
|                | Thesis: Moche portrait vessels |                    | Row Totals |
|                | Form OPEN VASE                 | Form STIRRUP SPOUT |            |
| Prisoner       | 24                             | 2                  | 26         |
| Warrior        | 1                              | 9                  | 10         |
| Elite          | 1                              | 11                 | 12         |
| Coca carrier   | 0                              | 9                  | 9          |
| Musicians      | 0                              | 1                  | 1          |
| Not determined | 0                              | 5                  | 5          |
| Totals         | 26                             | 37                 | 63         |

FIG. 6.80: 2-WAY TABLE FORM - FUNCTION

These types of analyses are useful to determine the characteristics of a function. The results in the “prisoners’ category” are always very distinctive. In the 2-Way Table Rope and Function we see that all 26 prisoners have a rope tied around their neck. Remarkable exception is number 01432 of the Museo de América (Madrid, Spain) because this is a warrior with a shield in one hand but also a rope around his neck.

| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |         |            |
|----------------|---|---------|------------|
|                | Rope YES  | Rope NO | Row Totals |
| Prisoner       | 26  | 0       | 26         |
| Warrior        | 1   | 9       | 10         |
| Elite          | 0   | 12      | 12         |
| Coca carrier   | 0   | 9       | 9          |
| Musicians      | 0   | 2       | 2          |
| Not determined | 0   | 5       | 5          |
| Totals         | 27  | 37      | 64         |

FIG. 6.81: 2-WAY TABLE ROPE - FUNCTION

| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |          |            |
|----------------|---|----------|------------|
|                | Penis YES   | Penis NO | Row Totals |
| Prisoner       | 16  | 9        | 25         |
| Warrior        | 0   | 10       | 10         |
| Elite          | 0   | 12       | 12         |
| Coca carrier   | 0   | 9        | 9          |
| Musicians      | 0   | 2        | 2          |
| Not determined | 0   | 5        | 5          |
| Totals         | 16  | 47       | 63         |

FIG. 6.82: 2-WAY TABLE PENIS - FUNCTION

Looking at other characteristics we see that almost 2/3 of the prisoners have their hands tied on their back. In the 2-Way Table Snake and Function, we see that only three of the prisoners showed a snake and one of them is a wooden vessel. In the 2-Way Table Material and Function we see that all the wooden vessels are prisoners, this is true because we defined the wooden musician as top of a staff and not as a vessel. The 2-Way Table Penis and Function shows that almost 2/3 of the prisoners have a visible penis and this doesn’t occur in any other category.

| 2-Way Table Summary<br>Thesis: Moche portrait vessels |                     |                  |               |
|---|---------------------|------------------|---------------|
| Function:   | Material<br>CERAMIC | Material<br>WOOD | Row<br>Totals |
| Prisoner  | 21                  | 5                | 26            |
| Warrior   | 10                  | 0                | 10            |
| Elite   | 12                  | 0                | 12            |
| Coca carrier  | 9                   | 0                | 9             |
| Musicians   | 1                   | 1                | 2             |
| Not determined  | 5                   | 0                | 5             |
| Totals  | 58                  | 6                | 64            |

FIG. 6.83: 2 WAY TABLE MATERIAL - FUNCTION

Furthermore it is also clear that most of the prisoners no longer have any decoration, headdress or face painting. The differences between members of the other function categories are much more difficult to make because there is less variation in their characteristics. If we are sure the person is no prisoner, an attribute is the characteristic to study to know in which function group the person belongs. If the person has an elaborated look and no attributes it is most likely a member of the elite. The type of attribute will define the function group. All these 2-Way Tables can be seen in appendix G.

#### 4. DECISION TREE LEARNING – MODEL

This model is used to assign a category to the vessels, based on a couple simple yes-or-no questions. In this hierarchical model the function category to which a vessel belongs can be defined through elimination. The previous analyses showed that some types of variables occurred together. Of course exceptions do occur and it is not always possible to give a name to the category.

Because of the different possibilities the “decision tree” is divided in four parts (fig 6.83), based on form and material. The first two help to define categories of modelled ceramic vessels (appendix I and J), while the second couple is used for the definition of wooden vessels (appendix K and L).

The unclear categories receive the status undefined. Further research must fill in these blanks. This model also gives an idea of what kind of vessels could be found. There are not yet examples available for every (undefined) category. The model should be modified constantly after new findings or archaeological evidence.

The tree can be used to define vessels into their exact category, which will help to define possible use and meaning. For example, the “coca carriers’ category” is connected with the coca ceremony and musicians holding an instrument are probably playing during a

ceremony. It is not a unique relation and we only have a couple possible hypotheses. With the data from the database, the descriptions and the statistical analyses it must be possible to confirm or dismiss certain hypotheses.

But still hard evidence from scientifically tests is needed to understand the use. Tests like PIXE (Particle-Induced X-ray Emission) and residue analyses are urgently needed to stop the guessing and better understand Moche life and their habits.

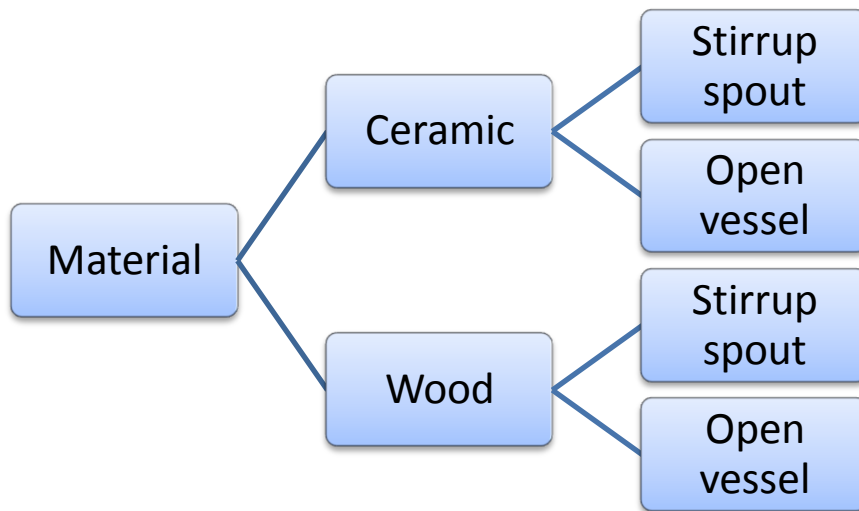


FIG. 6.83: DECISION TREE MODEL





## VII. HYPOTHESES ON MOCHE PORTRAIT VESSELS

In Moche iconography we find many depictions of the warriors and their activities. Donnan (2004, 113) calls it the “Warrior narrative”. In these scenes the warriors are depicted in full ornament and the whole course of the one-to-one battles is depicted (fig 7.2 and 4.1-4.4). In these battles the goal was to capture the opponent and not to kill him. It is remarkable that the prisoners are always depicted smaller than the victors. If this would mean that they were of lesser value is unclear. Looking at the clothing they are both elaborated.

In the database 64 vessels were studied. The most important ones and examples of each category are described in chapter VI the statistical analyses showed which characteristics define the different categories. It became clear that the Moche portrait vessels played an important role in their society. But which role? The production process of these vessels took several weeks (Donnan 2004, 21-24). The vessels show similarities with the painted vessels and the main difference is that the modelled vessels show special characteristics, for example a scar or a moustache, these can be seen in chapter VI. These characteristics can possibly help to recognize the modelled person. For us, nowadays, this is not clear anymore but the Moche society knew these people. Examples are “*Cut Lip*” and “*Bigote*”, which were both studied by Donnan (2004). Donnan (2004) describes one “person” with great detail and calls him “*Bigote*” (fig 7.1), which means moustache in Spanish and this man is always depicted with a big moustache and a goatee.



FIG. 7.1: BIGOTE (DONNAN 2004, 117 – ML002043 – ML001597 (MUSEO LARCO, LIMA – PERÚ)

Here, in this study, a couple examples of “*Bigote*” as a full bodied vessel will be presented, one where he is depicted as a warrior but also one as a captive. Agreeing with Donnan (2004) it seems sometimes rather big quantities of a certain representation exist and for “*Bigote*” there are more than ten different representations.

This could be an indication that he had a high status but also that these vessels played an important role in the Moche civilization. Which social position the different actors had is unknown (Bourget 2005, 80).

The persons which were modelled probably had a high status and played an important role, Donnan mainly focuses on their ceremonial role (2004, 113). Quoting Chapdelaine (2011, 209): “*The detailed analysis carried out on Moche portrait vessels is instrumental in identifying the sacrificial victims of the central sacrifice ceremony as high-ranking members of the Moche elite*”. Looking at the database and the description, we can see that the coca carriers and the musicians were less elaborated regarding their dresses compared to the highly decorated elite or warriors. The role of the prisoner was probably connected with the sacrificial ceremony. This is known thanks to the site at “*Huaca de la Luna*” where unfired vessels were found in combination with sacrificed bodies (Donnan 2004, 137-138). The role of the elite and warriors could be derived from the scenes on the painted vessels like figure 7.2.



FIG. 7.2: ONE-TO-ONE BATTLE (DONNAN 2004, 114)

In total five categories are defined, based on the statistical analyses of the database. The categories contain similar characteristics. For the “*prisoners’ category*” the following characteristics are present: the modelled person is naked, shows his genitals and does not wear ear decorations and other decorations. Important is the rope around his neck and the hands tied behind his back. The second category received the name “*elite*”. They are defined by their elaborated decorations: earrings, nose ring or necklace, but also because of their face painting and body decoration. Almost all of them have an elaborated headdress. These modelled persons don’t carry any type of attributes. This is

the main difference with the next category, which received the name “warriors’ category” due to their attributes. In one hand they carry a warrior club while in the other one a shield. Both attributes are also visible in the drawings (Donnan 2004, 114) but can have different forms. Further they have the same decorations as the “elite”. Donnan (2004) suggests that the modelled vessels are representations of the painted ones. Two categories which are less common, only 11 examples in the database, are the “musicians” and the “coca carriers”. The “musicians” are quite simple vessels, with less decoration compared to the “elite”. They often have face painting, in these cases the face is divided in three parts and the person wears a simple headdress, like a bandana. Important here is the attribute, in the versions I saw the “musicians” were holding some type of flute. The “coca carriers” also have little decoration, but hold two attributes: a jar and a stick. In some cases these attributes are missing but then the person carries a large bag over his shoulder.

There are also exceptions, which are difficult to determine and they received the name “undetermined”. An example of this category is the animal looking portrait vessel. The animals that occur the most are birds (owl or hawk) and feline creatures.

In the statistics it is clearly shown that the vessels are most of the time connected with a certain form, we see open vessels for the prisoners and stirrup spouts for the other categories. Furthermore there are the exceptions of Macabi Island. They are all made of a different material, namely wood. It is interesting to see that only vessels of the “prisoners’ category” were found on this island. They are rather statues than vessels, but they are hollow.

Sadly, after years of research, only little is known about the use and meaning of these vessels (Donnan 2004, 139). Looking at the suggestions regarding the use in the theoretical framework, new ideas can be formed on meaning and use of the portrait vessels and we will agree or disagree with previous hypotheses. Many researchers have suggested hypotheses on what the function could be. Donnan (2004, 139) states that the portraits of the captives were probably made to honour and remember them. They were sacrificed for the common good, which means it was not an insult to be captured and offered. The question is what would be the common good, wherefore a society would offer members of their own society. Benson (2001, 3) states that the sacrifices occurred in relation with harvest, rain or solstice. Sacrifices were an important element of the Moche culture and need to be seen in its own perspective. It is dangerous to use our western ideas to define these sacrifices. Donnan (1978, 8) also states that to

understand the meaning of an object, we have to understand the circumstances and activities wherein they were used. Understanding the context is the first step in the process of understanding function and meaning, which is difficult in Peru because looting destroyed many original contexts. As mentioned before we know that portrait vessels were not meant as grave gifts for the modelled person, because some were found in female graves (Donnan 2004, 10). Until today no portrait vessels were found of female persons. Tilley studied the relation between gender and material culture. In the Moche culture men and women had each their own role. For example it is also known that women acted upon the role of priestesses in the human sacrifice ritual. Therefore it could be that the portrait vessels were placed in the graves of priests and priestesses to remind or thank them for their role at the offer ceremonies. Excavations of the graves of high-ranked individuals brought more information. The investigation of the graves at San José de Moro in the Jequetepeque Valley, led to the identification of priestesses who were depicted on painted vessels (Bourget 2005, 80). In the graves also ceremonial goblets and other decorative elements were found, which showed similarities with fineline paintings.

We could assume that the vessels were used to commemorate but then why would the Moche society have used vessels and not simple statues? This means probably a specific function was given to these vessels, maybe to contain some kind of liquid. There are two different opinions concerning the content of the vessels, the first ones believes the vessels were used to carry "*Chicha*", the others think they were used to store blood. In the Inca period often lammas were offered and there are stone vessels in a lama form, used to conserve the blood and fat of the lama (Benson and Cook 2001, 10). This sounds similar to the human sacrificing and the collecting of the blood, which we can see on the painted vessels. De Bock (1992 and 2005) states that a portrait vessel, featuring the face or the body of a prisoner, could have been used to hold the blood of the person who was going to be sacrificed. As an example he mentions a modelled vessel with an opening on the exact place where normally the throat is sliced. He sees this as a sign that blood or a liquid, symbolizing blood, was stored in these type of vessel (de Bock 2005, 91-92). It is clear blood played an important role in the sacrificial ceremony, therefore it would be logic to assume that it was stored in a special vessel, but little hard evidence is present for this theory.

Paul Tyler (2008) has a similar idea. He studied the variations in the Moche stirrup spout vessels and wondered about their purpose. From colonial documents Tyler (2008, 146)

concluded that the Moche brought libations to their gods and the vessels could have been used for transport. The small opening of the stirrup spout would have made it easy to transport liquids over the mountains. This is one of the most important aspects of function in Rice's theory where four major properties are related to use: capacity, stability, accessibility and transportability and two less important ones, weight and security.

Tyler describes four elements in a ritual, there are the receiver, the giver, the gift and the blessing. With his theory he follows the ideas of Mauss (1954), who talks about giver, gift, receiver and counter gift. Tyler believes that the portrait vessels are depictions of the donors (Tyler 2008, 148) and this way the spiritual creature would know who made the offer. This way modelled vessels in the form of objects would be symbolic for the offer (Tyler 2008, 149). It is known that the Moche society brought real fruit as offers to their gods. But why then would a person offer a vessel in the form of a fruit, if he could also offer the fruit itself? The same question is asked in case of the "textile seller" (fig 7.3). Would it not have been easier to choose one of his textiles to offer instead of going to a potter and ask for a pot in the form of an offering textile seller? There is no hard evidence to assume these vessels were used as representations of gifts or of donors. Only one painted vessel with a story shows the presence of a modelled vase, standing next to a priest or a god. Was it a donation to the priest or god (fig 3.7) (Donnan and McClelland 1999)? But even if these vessels were representations, still their content is unknown.



FIG. 7.3: TEXTILE SELLER – ML012872 (MUSEO LARCO, LIMA PERÚ)

On one known, painted vessel, there is a vessel depicted standing next to the priest but it is not clear why. It would be interesting to find more drawings concerning the use of portrait vessels. Nowadays researchers have learned to read the stories on the painted vessels. The question remains if, even when the story seems plausible, we read the story like the Moche meant it.

Another problem with Tyler's theory is that he doesn't make any distinction between the different categories of portrait vessels. He only showed interest in stirrup spout vessels, almost dismissing the existence of "prisoners' portrait vessels". About these last ones Tyler (2008, 150) wrote that, in Moche iconography, prisoners were offered to the gods and in these cases the vessels would be depictions of the victims. But then, what would be the content of these vessels, what would be their use, why were they used and during which event? Secondly why did they have a different form compared to the "elite" portrait vessels? Maybe this would indicate that there was a significant difference in the use of these vessels. Otherwise there is no reason to make an extra effort to establish the stirrup spout. An open-neck vessel is, as the word says, open and therefore less suitable to carry liquids over rough paths. The liquids could also be different. But did they even contain liquids? This brings us once more to the theory of Rice. An open vessel is better accessible, which is not the case with a stirrup spout. This last one is better for transport and security. It is almost closed, so less chance on spilling. Both have a similar stability, depending also on the frequency they were used. If the vessels were often used, new ones were needed much sooner. But we don't know if they were used more than once.

Tyler's idea seems plausible but should be studied more detailed before assuming this is the solution to the unknown function of the vessels. The production process is complex, it demands planning and skill to make these vessels. It would be surprising if they just had a simple function. On the other hand what would be the difference between the modelled and the painted vessels? If they would only have as function to represent the donor it would be much easier to paint his face on the vessel or use a statue instead of modelling his detailed face. Tyler critiques Christopher Donnan for assuming without proving, but Tyler also assumes without hard evidence. In the painted scenes on the Moche ceramic vessels we often see sacrificial rituals and the giving of objects to priests or deities. Therefore it is necessary to understand the meaning of the scenes and the use of the painted vessels. It seems that they had a narrative function. This again leads to discussion: are the figures identifiable or are they rather general figures performing some type of action the Moche society used to perform.

Another way to determine the use of portrait vessels is its form. Most of them had a stirrup spout, as said before, but this is not true for the prisoners because in most cases they have an open-neck. Therefore it is interesting to look into possible functions of these vessels. The earliest evidence of stirrup spouts on the north coast of Peru dates to

the Early Horizon (Donnan 1973, 58). Some studies imply that the stirrup spout vessel was especially developed for burials (Ford and Willey 1949, 66) but excavations of domestic units showed that the vessels also had a household function (Donnan 1973, 58). It could be some of them were reused or that, depending on the vessels topic, they were made for a specific function. Abbink (1999) stated that secondary use is in many cases equal to ritual use. Many of the Moche portrait vessels show signs of weathering, so it could be that these vessels were used during a long period or that they received a secondary use.

The vivid material culture of the Moche contained many messages. Quilter (2010, 39) stated that everything in a culture has to be seen as a medium to send messages. He strongly critiques the fact that many researchers only focus on the fine ware ceramics when there is so much more material that could tell stories about the Moche. In my opinion we should combine these stories to come to the full story. In the overview of the material culture in chapter III, it became clear that all the different types of material culture received a lot of attention from the artisans, for example the techniques for using gold or making an object look like gold were progressive.

An important medium of the Moche were the "*Huacas*" and they consisted of different terraces with most of the times brightly painted walls (Quilter 2010, 45). During ceremonies people gathered at the plazas, where they could see the beautiful murals. From the different excavations at "*Huaca de la Luna*" we know that the inside courts were also decorated (Quilter 2010, 45-47). Most studies still focus on the religion and the supernatural, but Quilter (2010, 67) wondered if we could gain information about their political organisation. The study of the "*Huacas*" is important for our knowledge about the political organisation, states Quilter (2010, 72). The "*Huacas*" were placed at the lowest places of the valleys and were not surrounded by walls or other fortifications to defend them. Quilter concludes there is a possibility that the different valleys were allies and didn't need to be protected against each other (Quilter 2010, 72-73).

For a long time a discussion was going on between researchers what could have been the function of material culture (Quilter 2010, 49). One of the earliest researchers was Alfred Kroeber, he stated that Moche ceramics were secular (Kroeber 1951, 207-215). Donnan reacted in stating that the simple depictions were highly charged symbols. This idea led to new insights in the Moche religion (Quilter 2010, 50).

Combining different studies led to a more complete insight. Today it is accepted that the drawings on the vessels represented real actions of priests and priestess and proof was found at San José de Morro (Quilter 2010, 52). The themes represented in the Moche art seem to cover life in all its aspects, the human and the supernatural ones. Moche religion was the medium for political power. In the Moche culture religion and rituals were seen as the way to keep stability (Quilter 2010, 85). Maybe the different groups within the Moche culture grew into different customs, but they had common roots and therefore Quilter (2010, 85) chooses to call the Moche society: "The many Moches". Quilter (2010, 76-77) concludes that the different artistic styles used the same ideas and artistic conventions but the small differences in style corresponded with the different political organizations in the Moche culture (Quilter 2010, 73).

On the pottery many symbolic signs were found and they were probably the principal medium for religious messages (Quilter 2010, 43). Quilter also states that these objects didn't necessarily need a practical use but possibly only had an exceedingly value. Because they were used as status objects or reminders of certain ideas or activities. This suggests that the vessels weren't used to store any type of food or liquid. This brings us again to the question why make vessels if they were not used as a vessel? If they only received a high value and didn't have any particular use, the producer would not have chosen to make these vessels, because than a statue would have been a better, more convenient choice. Residue analyses are the only possible option to gain concrete information about their use. The PIXE study and other provenance tests will help to define the origin of these vessels and if they were traded. This last aspect can only be studied if we do research on origin/production places and the places where they were or could have been found. But still both remain often a mystery.



## VIII. CONCLUSION

### A. ANSWERS LEADING TO MORE QUESTIONS

The Moche society, who flourished from 100 till 800 AD, clearly had a complex social and political organisation. Years of studies have answered many questions but also many more arose. Nowadays it is accepted that the Moche culture flourished in different valleys each with their own organisation but with the same ideas about material culture. Regional differences were found in the Moche material culture, first of all between the Northern and the Southern Regions. These regions were separated by the large Paijan desert (fig 1.1) and they probably had exchange relationships with their neighbouring areas. Many researchers have tried to understand and connect the regional differences in material culture with the socio-political organisation. The life of the Moche society revolved around the “*Huacas*”, which were large ceremonial centres where rituals were performed but they were also associated with the economical life of the Moche society.

A redistribution system supported the artisans and led to a high quality level of material culture. The artefacts produced by the Moche society received more than a functional role. Research has shown that the Moche society didn't have a written language but they used material culture to communicate. This communication included not only information about the daily life but was also used to communicate with the deities and the deceased. The material culture received an extra symbolic meaning. A central role is given to the Moche ceramics by many researchers, but we must state that the same repertoire of images was also found on murals and other objects. The preservation conditions of ceramic are very high and secondly they are suited to portray stories. We still need to consider that the Moche society didn't see their ceramics as extraordinary as we nowadays believe. The portrait vessels are quite unique and well identifiable, therefore they were studied by many researchers, like Larco Hoyle, Donnan and de Bock. They used ceramics, for example, to create a sequence of the changes in the Moche culture. The Moche society made two types of ceramics, the painted and the modelled vessels. Most studies involve the painted vessels because whole narratives were depicted. An important acquisition here is the work of Donna McClelland who developed a technique, called the roll-out technique, which facilitates the study of these painted vessels.

Four questions were asked at the beginning of this work: what is the meaning of these portrait vessels? What was their place in the Moche culture? How were they used? And is this the same for all the different categories? Use and meaning are connected with each other. If we want to understand why a vessel was used, we first of all need to understand the context in which it was used. This is not an easy task and in many cases we don't know the context of the Moche portrait vessels because since the arrival of the Spaniards looting occurred in the Moche regions. But we assume that they were made and used in all the different valleys.

It is also assumed that the Moche portrait vessels played a role in the sacrificial ritual. Therefore a detailed description of the Moche sacrificial ritual is given where the different phases and the participants are explained in detail. Before the real sacrifice occurred, a one-to-one battle was held between two groups, who belonged to the elite. These warriors are connected with the "warriors' category" of the portrait vessels.

The rest of the ritual involves the capture of the persons who lost the battle and later on they were sacrificed through decapitation. Also similarities can be seen between the defeated and the "prisoners' category". In the "prisoners' category" we can recognize a part of the ritual. There are multiple signs that the portrait vessels had some type of connection with the sacrificial ritual. Only the exact connection is still unknown. Each category contained its own story. Therefore I believe it is necessary to study each category on itself because the function and meaning doesn't have to be the same for each type of vessel.

A question arose: who were the modelled persons? Research showed they probably belonged to the same culture but came from different families or clans which fought against each other. In the description of the studied vessels, chapter VI, it became clear that there were different groups: some warriors carried a round shield while others a square one. The same types of shields were also depicted on the painted vessels.

To learn who was modelled, an overview of who the Moche society was, is given in the first part of this research: their life, material culture and their beliefs. To answer the question of meaning and use a theoretical framework was made, looking into function studies as a method to understand use and studies of social meaning and gift theories were used to form ideas on meaning. Also detailed descriptions were made of the studied vessels and formed a database, which was needed to define the different categories. Statistical tests delivered evidence for these categories and also explained

their frequency. The use or function of a vessel can be studied through visual interpretation, therefore Rice's theory was used. In his opinion four major properties are related to use: capacity, stability, accessibility and transportability and two less important ones, weight and security. If we look at the Moche full bodied portrait vessels we find two types: the stirrup spout vessels and the open-neck vessels. It seems logic to assume they received a different content. If not there is no reason why the potter would make two different openings which were meant for different contents. As explained in chapter VII, a stirrup spout is easier to transport, but an open-neck vessel has an easier accessibility and possible also a larger capacity. Form and other visual characteristics don't have an unique relation with the use of an object. Therefore these objects can have had multiple uses and meanings.

As said social meaning is studied. An object is influenced by many factors and reflects the choices of a culture. Artefacts are part of the cultures memory and were used as medium to tell a story or to remember an activity. One of the hypotheses is that the portrait vessels were used as memory artefacts.

But many other hypotheses exist about the function and meaning of the Moche portrait vessels, most of them involve rituals. The problem with these previous hypotheses is the lack of hard evidence. Another problem with the previous hypotheses is that most of them focus on the "elite category" of the full bodied portrait vessels. Quilter believes that these objects didn't necessarily had a practical use but possibly only an exceedingly value, used as status objects. If this would be the case it would have been easier to model a statue.

Tyler's idea is important and states that the modelled vessels were a depiction of the gift or the person who offered. Donnan states the same and says that the portrait vessels probably contained "*Chicha*", which was offered to the deities or was drunk by the priests and priestesses during the sacrificial ceremony. This is supported by the drawing where a portrait vessels stands in front of a priest or deity.

Visually it became clear that the prisoners most of the time were modelled with an open-neck while the other categories mainly occurred with a stirrup spout. Bringing an open-neck vessel to a sacred place would be difficult because of its open form the content would easily spill. De Bock considers that the portrait vessels, modelled as a prisoner, were used for the storage of the offered blood. In some drawings we can see vessels with a rope around their neck, but these don't have the shape of a person.

For both hypotheses there are no reasons not to assume they are correct. The “elite” or “warriors’ category” as gift for the deities and the “prisoners’ category” as an element in the ceremonial rite. But today they are still nothing more than hypotheses.

The statistical analyses have confirmed that most of the vessels were made in red ceramic, but there are exceptions, mainly the black ceramics made by the smudge firing technique, but also the wooden portrait vessels from Macabi Island. Finding these similar vessels led to new questions. Which is the “most common” material and why did the potter or wood carver chose this material? Was the normal material not available or is there a symbolic or ritual reason why another material was used? It could be that there were also wooden vessels on different locations but they didn’t preserve. Another question is if these wooden vessels received the same meaning and use as the ceramic vessels. The black coloured vessels are from a later period, this could also be the case for the wooden objects. Performing C14 analyses on the wood would give an indication of the period.

To facilitate the way to define the categories and to understand the differentiations a “decision tree learning model” was made. This model showed that there are certain cases of coinciding characteristics which we cannot define. It is not necessary that these types exist but it is possible. The decision tree could be used for all the full bodied portrait vessels to assign them to the correct category.

On the painted vessels narrative scenes are shown, but these figures are not recognizable as individuals or unique persons. Why don’t the paintings depict individual characteristics as the ones used in the modelled full bodied portrait vessels? The question is, are they not recognisable to us or to the people from the Moche society? These two types of vessels probably received a different kind of meaning and a different use. The painted vessels where probably just used to tell the story where the modelled ones were made to remember a person.

During this research many questions arose and they did not all receive an answer. More research is necessary to solve some of the problems that arose during this study and this way a more complete knowledge of the role of the Moche portrait vessels will become available.

## B. FURTHER RESEARCH

To understand the function of the Moche portrait vessels, it will be necessary to perform residue analyses and surface treatments analyses. Each type of use will leave certain traces, sometimes these are not visible for the naked eye but can be studied with a microscope. Next to residue analyses also the paste of the ceramics should be studied to help find the production areas. The PIXE tests performed by Swann et al. on the six stirrup spouts was a start, but should be performed on a larger amount of vessels to receive correct and interesting results.

Today only one workshop close to a ceremonial centre is known. If other workshops would be found near ceremonial centres, this would benefit the idea that the Moche portrait vessels were connected with ceremonial activity.

To understand the context in which the Moche portrait vessels were used it is also necessary to perform more detailed studies on the socio-political organisation of the Moche society. How were the valleys connected with each other? It is known that the Moche ceremonial centres were no fortifications which indicate that there were no general treats and that the different valleys were probably alleys. This would support the theory that the one-to-one battles were held between clans or families from the same group.

Understanding how the socio-political organization worked would lead to new insights on the exchanges of material culture. It is assumed that the different Moche valleys exchanged objects but it is not known what the reason for this exchange was. It could be to show power or give respect. This makes us wonder if the portrait vessels were maybe used in exchange relations.

As mentioned before the wooden portrait vessels are rare. We don't know if they preserve badly and therefore just a few were found, in the "Guano" on Macabi Island or if they were already exceptions during the time they were used. Therefore it would be interesting to further study the "Guano" area and previous archaeological work in this area. Little is known about the conditions in which these portrait vessels were found.

The research in the Moche area started in the nineteenth century with the work of Max Uhle and Alfred Kroeber. Since then we have gained a lot of knowledge about the Moche material culture and about the life in the Moche society. But it will take many more years of research to have a more complete image.



## ABSTRACT

### English:

This research involves the Moche full bodied portrait vessels. The Moche flourished from 100 till 800 AD and all that was left of the Moche society was their material culture. Today it is generally accepted that ceramic was the Moche language. The main research question focuses on the function and meaning of these artefacts. What was their place in the Moche culture? A study is made of social meaning, social biography and of the different statements an object can give. Objects function as memory, they tell stories and are used to remember certain occasions or activities. Furthermore, instead of using expensive tests here a descriptive approach, in combination with statistical analyses, was used to understand the function of these objects. The form and function of these vessels is connected, but the exact role of the portrait vessels is not known. It is clear that they played an important role in the life of the Moche society and were almost certainly connected with the ceremonial sacrifice. This is assumed based on the characteristics of the people modelled on the vessels. Using statistical analyses will help to understand the relation between depictions and form and will also give ideas about how and wherefore these vessels were used. Based on the different analyses a decision tree learning model was made, creating the possibility to define and understand the different categories of Moche full bodied portrait vessels.

### Nederlands:

Deze studie focust op de Moche portret vazen die een volledige persoon voorstellen. De bloeiperiode van de Moche wordt gesitueerd van 100 tot 800 na Christus en vandaag de dag vinden we nog veel van hun materiële cultuur terug. De Moche keramiek wordt algemeen aanvaard als de Moche taal want tot op heden zijn er geen sporen van een geschreven taal gevonden. De belangrijkste onderzoeksvraag richt zich op de functie en betekenis van deze artefacten. Wat was hun plaats in de Moche cultuur? Er wordt een analyse gemaakt van studies over sociale betekenis, sociale biografie en van de verschillende betekenissen die een object kan weergeven. Objecten functioneren ook als ons geheugen, ze vertellen verhalen en worden gebruikt om bepaalde momenten of activiteiten te onthouden. In plaats van dure testen uit te voeren om het gebruik te achterhalen, wordt hier gewerkt met een beschrijvende methode in combinatie met statistische analyses. De vorm en functie van deze vazen zijn sterk met elkaar verbonden. Wat de precieze rol van de portret vazen was, is niet geweten, maar het is

wel duidelijk dat ze een belangrijke rol speelden in het leven van de Moche gemeenschap, ze stonden vrijwel zeker in verband met de ceremoniële offers. Dit wordt aangenomen op basis van de eigenschappen van de gemodelleerde personen. Met behulp van statistische analyses wordt de relatie tussen de voorstellingen en de vorm duidelijk. Het geeft ook inzichten over hoe en waarom deze vazen gebruikt werden. Uit de verschillende analyses werd een beslissingsboom gemaakt die de mogelijkheid geeft de vazen te begrijpen en te definiëren.

#### Français:

Cette recherche étudie les Moche vases portraits, celles qui représentent une personne complète. Les Moche se sont développés à partir de 100 jusqu'à 800 après JC et tout ce qui nous reste de la société Moche est leur culture matérielle. Aujourd'hui, il est généralement accepté que la céramique était le langage du peuple Moche. Le principal objectif de cette recherche questionne la fonction et la signification de ces objets. Quels était leur place dans la culture Moche? Une étude est faite sûr base de la sociologie, la biographie sociale et des différentes significations de l'objet. Objets fonctionnent aussi comme une mémoire, ils racontent des histoires et sont utilisés pour mémoriser certaines occasions ou des activités. Au lieu d'utiliser des tests chers, j'utilise une analyse descriptive en combinaison avec des analyses statistiques pour comprendre la fonction de ces objets. La forme est liée à la fonction. Le rôle exact de ces vases portraits n'est pas connu, mais il est clair qu'ils ont joué un rôle important dans la vie de la société Moche et presque certainement étaient connectés aux sacrifices cérémoniaux. Ceci est basé sur les caractéristiques des personnes modelées. A l'aide d'analyses statistiques la relation entre les représentations et la forme a pu être compris et ils ont aussi donné des idées sur le comment et le pourquoi ces vases portraits ont été utilisés. Plusieurs analyses ont aidé à créer un modèle d'arbre de décision qui donne la possibilité de définir et de comprendre les différentes catégories des vases modelés.

#### Español:

Dicha investigación estudia las vasijas retratas Moche en las cuales se representa una persona completa. El período de floración de los Moche corre desde el 100 hasta el 800 d.C.. Actualmente se encuentra abundante material Moche, por lo cual nos han dejado una rica cultura material. Por lo general se acepta que la cerámica Moche representa la lengua Moche, puesto que hasta el presente no se han encontrado huellas de una



lengua escrita. La pregunta principal de la investigación se centra en el función y el significado de estos artefactos: ¿Cuál ha sido su lugar en la cultura Moche?

Se ha realizado un análisis de la sociología, la biografía social y las diferentes significados que un objeto puede ofrecernos. Los objetos funcionan como la memoria, cuentan historias y se utiliza para recordar ciertas ocasiones o actividades. En vez de utilizar exámenes costosos para descubrir el uso de estos objetos, se ha utilizado un método descriptivo en combinación con unos análisis estadísticos, para comprender la función de los mismos objetos. La forma y la función de estas vasijas están fuertemente interconectadas (las unas con las otras). No se conoce el significado exacto de las vasijas-retratas, pero está claro que desempeñó un papel importante en la vida de los Moche, siendo casi seguro que guardan una conexión con el sacrificio ceremonial. Dicha hipótesis se basa en las características de las personas modeladas. El uso de los análisis estadísticos ayudará a entender la relación entre las representaciones y la forma, proporcionando ideas acerca de cómo y por qué estas vasijas se utilizaron. Con los datos que se obtuvieron de los diferentes análisis, se realizó un modelo de árbol de decisión, lo cual da la posibilidad de definir y comprender las diferentes categorías de las vasijas-retratas Moche.



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## BIBLIOGRAPHY

- Abbink, A.A., 1999. Make it and Break it: The Cycles of Pottery: a study of the technology, form, function, and use of pottery from the settlements at Uitgeest-Groot Dorregeest and Schagen-Muggenburg 1, Roman period, North-Holland, the Netherlands. Leiden: Faculty of Archaeology, Leiden University (=Archeological studies Leiden University 5).
- Adams, S., 2006. Ornaments: a modern perspective: Rethinking decoration: pleasure and ideology in the visual arts. *Journal of Design History* 19, 1, 88-90.
- Alva, W. and C.B. Donnan, 1993. Royal tombs of Sipán. Los Angeles: Fowler Museum of Cultural History, University of California.
- Alva, W., 2001. The Royal Tombs of Sipán: Art and Power in Moche Society: J. Phillipsbury (ed.), *Moche Art and Archaeology in Ancient Peru*. Washington: National Gallery of Art (= Studies in the History of Art 63), 223-246.
- Appadurai, A. (ed.), 1986. *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press.
- Arnold, D.E., 2005. Linking Society with the Compositional Analyses of Pottery: A Model from Comparative Ethnography. In: A. Livingstone-Smith, D. Bosquet and R. Martineau (eds), *Pottery Manufacturing Processes: Reconstitution and Interpretation*. Oxford: Archaeopress (=BAR International Series 1349), 15-21.
- Arnold, D.E. and A.L. Nieves, 1992. Factors Affecting Ceramic Standardization. In: G.J. Bey III and C. A. Pool (eds), *Ceramic Production and Distribution: an Integrated Approach*. Boulder: Westview Press (=Westview special studies in archaeological research), 93- 113.
- Assman, J., 2003. Cultural Memory: Script, Recollection, and Political Identity in Early Civilizations. *Historiography East and West* 1, 2, 154-177.
- Assman, J. and J. Czaplicka, 1995. Collective Memory and Cultural Identity. *New German Critique* 65, 125-133.

- Alva, W., 1886. *-Tal, Nordperu*. München: Beck (= Materialien zur allgemeinen und vergleichenden Archäologie Bd 32).
- Alva, W. and C.B. Donnan, 1993. *Royal Tombs of Sipán*. Los Angeles: Fowler Museum of Cultural History, University of California.
- Bawden, G., 2004. The Art of Moche politics. In H. Silverman (ed.), *Andean Archaeology*. Malden: Blackwell Publishing (=Blackwell Studies in Global Archaeology 2), 116–129.
- Baxter, M., 2003. *Statistics in Archaeology*. London: Hodder Arnold.
- Beattie, J.H.M., 1980. On Understanding Sacrifice. In: M.F.C. Bourdillon and M. Fortes (eds), *Sacrifice*. London: Academic Press, 29-44.
- Bell, C.M., 1997. *Ritual: Perspectives and Dimensions*. Oxford: Oxford University Press.
- Benson, E. P., 1972. *The Mochica: A Culture of Peru*. London: Thames and Hudson (= Art and civilization of Indian America).
- Benson, E. P., 2001. Why Sacrifice? In: E. P. Benson and A. G. Cook (eds), *Ritual Sacrifice in Ancient Peru*. Austin: University of Texas Press, 1-20.
- Benson, E.P. and A. G. Cook (eds), 2001. *Ritual Sacrifice in Ancient Peru*. Austin: University of Texas Press.
- Blatz, C. W. and M. Ross, 2009. Historical Memories. In: P. Boyer and J.V. Wertsch (eds), *Memory in Mind and Culture*. New York: Cambridge University Press, 223-240.
- Blau, P.M., 1964. *Exchange and Power in Social Life*. New York: Wiley.
- Bourdieu, P., 1977. *Outline of a theory of practice*. Translated by R. Nice. Cambridge: Cambridge University Press (=Cambridge studies in social anthropology 16).
- Bourdillon, M.F.C., 1980. Introduction. In: M.F.C. Bourdillon and M. Fortes (eds), *Sacrifice*. London: Academic Press, 1-28.

- Bourget, S., 2001. Rituals of Sacrifice: Its Practice at Huaca de la Luna and Its Representation in Moche Iconography. In: J. Phillipsbury (ed.), *Moche Art and Archaeology in Ancient Peru*. Washington: National Gallery of Art (= Studies in the History of Art 63), 89-110.
- Bourget, S., 2005. Who Were the Priests, the Warriors, and the Prisoners? A Peculiar Problem of Identity in Moche Culture and Iconography, north coast of Peru. In: R.M. Reycraft (ed.), *Us and Them: Archaeology and Ethnicity in the Andes*. Los Angeles: Cotsen Institute of Archaeology, University of California (= Monograph 53), 73-85.
- Bourget, S., 2006. *Sex, Death, and Sacrifice in Moche Religion and Visual Culture*. Austin: University of Texas Press.
- Bourget, S. and K.L. Jones (eds), 2008. *The Art and Archaeology of the Moche: An Ancient Andean Society of the Peruvian North Coast*. Austin: University of Texas Press.
- Bradley, P.T. and D. Cahill, 2000. *Habsburg Peru: Images, Imagination and Memory*. Liverpool: Liverpool University Press (=Liverpool Latin American studies 2).
- Brett, D., 2005. *Rethinking decoration: pleasure & ideology in the visual arts*. Cambridge: Cambridge University Press.
- Caple, C., 2006. *Objects: Reluctant witnesses to the past*. London: Routledge.
- Carrier, J., 1991. Gifts, Commodities, and Social Relations: A Maussian View of Exchange. *Sociological Forum* 6, 1, 119-136.
- Carter, J. (ed.), 2003. *Understanding Religious Sacrifice: A Reader*. London: Continuum (= Controversies in the Study of Religion).
- Castillo, L. J., 2008. *Highland-coastal interactions as factors in the collapse and reconfiguration of the Moche from Jequetepeque, north coast of Peru*. (Paper presented at the 73rd Annual Meeting of the Society for American Archaeology) Vancouver: Society for American Archaeology.

- Castillo, L.J. and S. Uceda, 2008. The Mochicas. In: H. Silverman and W.H. Isbell (eds), *Handbook of South American Archaeology*. New York: Springer, 707-729.
- Chapdelaine, C., 2011. Recent Advances in Moche Archaeology. *Journal of Archaeological Research* 19, 191-231.
- Cobo, B., 1990. *Inca religion and customs*. Translated and edited by R. Hamilton. Austin: University of Texas Press.
- Connerton, P., 1989. *How Societies Remember*. Cambridge: Cambridge University Press (=Themes in the social sciences).
- Cordy-Collins, A. (ed.), 1982. *Pre-Columbian Art History: Selected Readings*. Palo Alto: Peek Publications.
- Cordy-Collins, A., 2001. Decapitation in Cupisnique and Early Moche Societies. In: E. P. Benson and A. G. Cook (eds), *Ritual Sacrifice in Ancient Peru*. Austin: University of Texas Press, 21-33.
- Cordy-Collins, A., 2009. Curated Corpses and Scattered Skeletons: New Data and New Questions Concerning the Moche Dead. In: J. Marcus and P.R. Williams (eds), *Andean Civilization: A Tribute to Michael E. Moseley*. Los Angeles: Cotsen Institute of Archaeology, University of California (= Monograph 63), 181-194.
- Cumberpatch, C.G. and P.W. Blinkhorn (eds), 1997. *Not so Much a Pot More a Way of Life: Current Approaches to Artefact Analysis in Archaeology*. Oxford: Oxbow (=Oxbow monograph 83).
- de Bock, E. K., 1992. *De erfenis van de Inca's: zonen van de zon & dochters van de maan: Museum voor Volkenkunde Rotterdam & Rotterdamse -collecties*. Gent: Snoeck-Ducaju.
- de Bock, E. K., 2005. *Human sacrifices for Cosmic Order and Regeneration: Structure and Meaning in Moche Iconography, Peru, AD 100-1800*. Oxford: John and Erica Hedges (=BAR International series 1429).

- DeLeonardis, L. And G.F. Lau, 2004. Life, Death, and Ancestors. In: H. Silverman (ed.), *Andean Archaeology*. Malden: Blackwell Publishing (=Blackwell Studies in Global Archaeology 2), 77-115.
- Dietler M. and I. Herbich, 1998. Habitus, techniques, and style: An integrated approach to the social understanding of material culture and boundaries. In: M. T. Stark (ed.), *The Archaeology of Social Boundaries*. Washington: Smithsonian Institution Press (= Smithsonian series in archaeological inquiry), 232-263.
- Dobres, M.A., 1999. Technology's Links and Chaînes: The Processual Unfolding of Technique and Technician. In: M. A. Dobres and C. R. Hoffman (eds), *The social Dynamics of Technology: Practice, Politics, and World Views*. Washington, D.C.: Smithsonian Institution Press. 124–146.
- Dobres, M.A., 2000. *Technology and social agency: Outlining a Practice Framework for Archaeology*. Oxford: Blackwell.
- Dobres, M.A., 2010. Archaeologies of Technology. *Cambridge Journal of Economics* 34, 103-114.
- Donnan, C.B., 1973. *Moche occupation of the Santa Valley*. Berkeley: University of California Press (=University of California publications in anthropology 8).
- Donnan, C.B., 1978, *Moche art of Peru: Pre-Columbian symbolic communication*. Los Angeles: Museum of Cultural History, University of California.
- Donnan, C.B., 2001. Moche Ceramic Portraits. In: J. Phillsbury (ed.), *Moche Art and Archaeology in Ancient Peru*. Washington: National Gallery of Art (= Studies in the History of Art 63), 127-140.
- Donnan, C.B., 2004. *Moche Portraits from Ancient Peru*. Austin: University of Texas Press.
- Donnan, C.B., 2009. The Moche Use of Numbers and Number Sets. In: J. Marcus and P.R. Williams (Eds), *Andean Civilization: A Tribute to Michael E. Moseley*. Los Angeles: Cotsen Institute of Archaeology, University of California (= Monography 63), 165-180.

- Donnan, C.B. and D. McClelland, 1999. *Moche Fineline Painting: Its Evolution and Its Artists*. Los Angeles: UCLA Fowler Museum of Cultural History.
- Druc, I. C., 1998. *Ceramic Production and Distribution in the Chávin Sphere of Influence*. Oxford: Hedges (BAR. International series 731).
- Duviols, P., 1976. La Capacocha. *Revista Allpanchis* 9, 11-57.
- Ewers, J.C., 1981. The Use of Artefacts and Pictures in the Study of Plains Indian History, Art, and Religion. *Annals of the New York Academy of Sciences* 376, 247–266.
- Farbstein, R., 2011. Technologies of Art: A Critical Reassessment of Pavlovian Art and Society, Using Chaîne Opératoire Method and Theory. *Current Anthropology* 52, 3, 401-432.
- Fletcher, M. and G.R. Lock, 1991. *Digging Numbers Elementary Statistics for Archaeologists*. Oxford: Oxford University Press (= Oxford University Committee for Archaeology Monograph 33).
- Ford, J.A. and G.R. Willey, 1949. A surface survey of the Virú valley, Peru. *Anthropological papers of the American Museum of Natural History* 43, 1.
- Fournier, R. L., 1981. *Illustrated Dictionary of Pottery Form*. New York: Van Nostrand Reinhold Co.
- Girard, R., 2003 [1923]. Violence and the Sacred. In: J. Carter (ed.), *Understanding Religious Sacrifice: A Reader*. London: Continuum (= Controversies in the Study of Religion), 242-275.
- Glascock, M.D., 1992. Characterization of Archaeological Ceramics at MURR by Neutron Activation Analysis and Multivariate Statistics. In: H. Neff (ed.), *Chemical Characterization of Ceramic Pastes in Archaeology*. Madison: Prehistory Press (= Monographs in world archaeology 7), 11-26.
- Godbout, J., A. Caillé and D. Winkler, 1998. *The World of the Gift*. Montreal: McGill-Queen's University Press.

- Godsen, C., 2005. What do Objects Want? *Journal of Archaeological Method and Theory* 12, 3, 193-212.
- Goethals, G. R. and P. R. Solomon, 1989. Interdisciplinary Perspectives on the Study of Memory. In: P. R. Solomon, G.R. Goethals, C.M. Kelley and B. R. Stephens (eds), *Memory: Interdisciplinary Approaches*. New York: Springer, 1-11.
- Gosselain, O. P., 1998. Social and Technical Identity in a Clay Crystal Ball. In: M. T. Stark (ed.), *The Archaeology of Social Boundaries*. Washington: Smithsonian Institution Press (= Smithsonian series in archaeological inquiry), 78-106.
- Graesser, A.C. and V. Ottati, 1995. Why stories? Some evidence, questions, and challenges. In R.S. Wyer (Ed), *Knowledge and Memory: The Real Story*. Hillsdale: Lawrence Erlbaum (= Advances in social cognition 8), 121-132.
- Henderson, J., 2000. *The science and archaeology of materials: an investigation of inorganic materials*. London: Routledge.
- Hubert, H. and M. Mauss, 1964. *Sacrifice: Its Nature and Function*. Translated by W.D. Halls. London: Cohen and West.
- Hubert, H. and M. Mauss, 2003 [1872]. *Sacrifice: Its Nature and Function*. In: J. Carter (ed.), *Understanding Religious Sacrifice: A Reader*. London: Continuum (= Controversies in the Study of Religion), 90-99.
- Jacobs, L., 1987. Oorzaken van kleurverbleking bij ijzerhoudend aardewerk. In: A. Van As, R.M.A. Bedaux, G. Bronitsky, H.J. Franken, L. Jacobs and G.A. Lodon (eds), *Bijdragen tot de technologische studie van het aardewerk*. Tongeren: Provinciaal Gallo-Romeins Museum (=Publicaties van het Provinciaal Gallo-Romeins Museum te Tongeren 34), 49-57.
- Jackson, M.A. (ed.), 2008. *Moche art and visual culture in ancient Peru*. Albuquerque: University of New Mexico Press.
- Jennings, J. and B. J. Bowser (eds), 2009. *Drink, Power, and Society in the Andes*. Gainesville: University press of Florida.

- Keane, W., 1997 *Signs of Recognition: Powers and Hazards of Representation in an Indonesian Society*. Berkeley: University of California Press.
- Kroeber, A.L., 1951. Great Art Styles of Ancient South America. In: S. Tax (ed.), *The Civilizations of Ancient America*. Chicago: University of Chicago Press, 207-215.
- Lambert, A. J., L. N. Scherer, C. Rogers and L. Jacoby, 2009. How Does Collective Memory Create a Sense of the Collective? In: P. Boyer and J.V. Wertsch (eds), *Memory in Mind and Culture*. New York: Cambridge University Press, 194-221.
- Larco Hoyle, R., 1978. *Peru*. Translated by R. Streiff. München: Wilhelm Heyne (= Archaeologia Mundi).
- Lavalley, D., 1970. Les représentations animales dans la céramique Mochica. Paris : Institut D'Ethnologie.
- Lightfoot, K. G., 2001. Traditions as Cultural Production. In: T.R. Pauketat (ed.), *The Archaeology of Traditions: Agency and History Before and After Columbus*. Gainesville: University Press of Florida (=The Ripley P. Bullen series), 237-252.
- Makowski, K., et al., 1994. *Vicús: Colección arte y tesoros del Perú*. Lima: Banco de Crédito del Perú.
- Manolopoulos, M., 2005. If Creation is a gift: From Derrida to the Earth (An Introduction). *Colloquy* 9, 108-122.
- Mauss, M., 1954. *The Gift: Forms and Functions of Exchange in Archaic Societies*. Translated by I. Cunnison. London: Cohen & West.
- McCracken, G., 1990. *Culture and Consumption: a Theoretical Account of the Structure and Movement of the Cultural Meaning of the Consumer Goods*. Bloomington: Indiana University Press.
- Menzel, D., 1976. *Pottery Style and Society in Ancient Peru: art as a mirror of history in the Ica Valley, 1350-1570*. Berkeley: University of California Press.



- Millaire, J.F., 2002. *Moche Burial Patterns: an Investigation into Prehispanic Social Structure*. Oxford: Archaeopress (=BAR International series 1066).
- Miller, D., 2005. Materiality: An introduction. In: D. Miller (ed.), *Materiality: Politics, History, and Culture*. Durham: Duke University Press, 1-50.
- Mohr Chávez, K.L., 1992. The Organization of Production and Distribution of Traditional Pottery in South Highland Peru. In: G.J. Bey III and C. A. Pool (eds), *Ceramic Production and Distribution: An Integrated Approach*. Boulder: Westview Press (=Westview special studies in archaeological research), 49- 92.
- Money-Kyrle, R. E., 1965. *The Meaning of Sacrifice*. New York: Johnson Reprint Corp (= The international psycho-analytical library 16).
- Neff, H., 1992. *Chemical Characterization of Ceramic Pastes in Archaeology*. Madison: Prehistory Press (= Monographs in world archaeology 7).
- Olick, J. K. and J. Robbins, 1998. Social Memory Studies: From "Collective Memory" to the Historical Sociology of Mnemonic Practices. *Annual Review of Sociology* 24, 105-140.
- Orton C., P. Tyers and A. Vince, 1993. *Pottery in Archaeology*. Cambridge: Cambridge University Press (= Cambridge manuals in archaeology).
- Oudemans, T.M.F.M., 2007. Applying organic residue analysis in ceramic studies - a functional approach. *Leiden Journal of Pottery Studies* 23, 5-20.
- Parry, J., 1986. The Gift, the Indian Gift and the 'Indian Gift'. *Man, New Series* 21, 3, 453-473.
- Patterson, T.C., 1966. *Pattern and Process in the Early Intermediate Period Pottery of the Central Coast of Peru*. Berkeley: University of California Press (=University of California publications in anthropology 3).
- Patton, K. C., 2009. *Religion of the Gods: Ritual, Paradox and Reflexivity*. Oxford: Oxford University Press.

- Pauketat, T. R. And S. M. Alt, 2005. Agency in a Postmold? Physicality and the Archaeology of Culture-Making. *Journal of Archaeological Method and Theory* 12, 3, 213-236.
- Pennebaker, J. W. and B. L. Banasik, 1997. On the Creation and Maintenance of Collective Memories: History as Social Psychology. In: J. W. Pennebaker, D. Paez and B. Rimé (eds), *Collective Memory of Political Events: Social Psychological Perspectives*. Mahwah: Lawrence Erlbaum Associates, 3-19.
- Purini, S. and A. Emmerich, 2006. *La sculpture en bois dans l'ancien Pérou*. Paris : Somogy éditions d'art.
- Quilter, J., 2002. Moche politics, religion, and warfare. *Journal of World Prehistory* 16, 145–195.
- Quilter, J., 2008. Arts and Moche martial arts. In S. Bourget and K.L Jones (eds.), *The Art and Archaeology of the Moche: An Ancient Andean Society of the Peruvian North Coast*. Austin: University of Texas Press, 215–228.
- Quilter, J., 2010. *The Moche of Ancient Peru: Media and Messages*. Cambridge: Peabody Museum Press, Harvard University.
- Quilter, J., and L. J. Castillo (eds.), 2010. *New Perspectives on Moche Political Organization*. Washington: Dumbarton Oaks.
- Rappaport, R. A., 1999. *Ritual and Religion in the making of humanity*. Cambridge: Cambridge University Press.
- Read, K. A., 1998. *Time and Sacrifice in the Aztec Cosmos*. Bloomington: Indiana University Press (= Religion in North America).
- Read, S. J. and L. C. Miller, 1995. Stories Are Fundamental to Meaning and Memory: For Social Creatures, Could it be otherwise? In: R. S. Wyer, Jr. (ed.), *Knowledge and Memory: The real Story*. Hillsdale: Lawrence Erlbaum (= Advances in social cognition 8), 139-155.

- Reycraft, R.M., 2005. Introduction: Us and Them: Archaeology and Ethnicity in the Andes. In: R.M. Reycraft (ed.), *Us and Them: Archaeology and Ethnicity in the Andes*. Los Angeles: Cotsen Institute of Archaeology, University of California (= Monograph 53), 1-11.
- Rice, P. M., 1987. *Pottery Analysis: A Sourcebook*. Chicago: University of Chicago Press.
- Reijnders, A., 2005. *The Ceramic Process: A Manual and Source of Inspiration for Ceramic Art and Design*. London: A & C Black.
- Roth, K., 2011. Material Culture and Intercultural communication. *International Journal of Intercultural Relations* 25, 563–580.
- Rowlinson, M., C. Booth, P. Clark, A. Delahaye and S. Procter, 2012. Social Remembering and Organizational Memory. *Organization Studies* 31, 1, 69-87.
- Rye, O. S., 1981. *Technology: Principles and Reconstruction*. Washington, D.C.: Taraxacum (=Manuals on Archaeology 4).
- Shepard, A. O., 1956. *Ceramics for the Archaeologist*. Washington, D.C.: Carnegie Institution of Washington (= Publications of the Carnegie Institution of Washington 609).
- Shimada, I., 1994. *Pampa Grande and the Mochica Culture*. Austin: University of Texas Press.
- Shott, M. J., 2005 [1966]. Mortal Pots: on Use Life and Vessel Size in the Formation of Ceramic Assemblages. In: H. Neff (ed.), *Ceramics in Archaeology: Readings from American Antiquity, 1936-2002*. Washington: Society for American Archaeology, 351-369.
- Sillar, B. (ed.), 2000. *Shaping culture: making pots and constructing households: an ethno-archaeological study of pottery production, trade and use in the Andes*. Oxford: Hedges (=BAR international series 883).

- Sillar, B. and M.S. Tite, 2000. The challenge of 'technological choices' for materials science approaches in archaeology. *Archaeometry* 42, 2-20.
- Simmel, G., 1990. *The Philosophy of Money*. London: Routledge
- Skibo, J. M., 1992. *Pottery Function: A Use-Alteration Perspective*. New York: Plenum Press (= Interdisciplinary Contributions to Archaeology).
- Slotboom, A., 1996. *Statistiek in woorden: een gebruikersvriendelijke beschrijving van de meest voorkomende statistische termen en technieken*. Groningen: Wolters-Noordhoff.
- Stark, B.L., 1995. Problems in Analysis of Standardization and Specialization in Pottery. In: B.J. Mills and P.L. Crown (eds), *Ceramic Production in the American Southwest*. Tucson: University of Arizona Press, 231-267.
- Steponaitis, V.P., 1984. Technological Studies of Prehistoric Pottery from Alabama: Physical Properties and Vessel Function. In: S.E. Van der Leeuw and A. C. Pritchard (eds), *The many Dimensions of Pottery: Ceramics in Archaeology and Anthropology*. Amsterdam: Universiteit van Amsterdam, 79-121.
- Summerhayes, G.R., J. R. Bird, R. Fullagar, C. Gosden, J. Specht and R. Torrence, 1998. Application of PIXE-PIGME to archaeological analysis of changing patterns of obsidian use in West New Britain, Papua New Guinea. In: M.S. Shackley (ed.), *Archaeological obsidian studies: Method and theory*. New York: Plenum Press, 129-158.
- Sutter, R.C. and R. J. Cortez, 2005. The Nature of Moche Human Sacrifice: A Bio-Archaeological Perspective. *Current Anthropology* 46, 4, 521-549.
- Swann C.P., S. Caspi, J. Carlson, 1999. Six stirrup handled Moche ceramic vessels from pre-Colombian Peru: a technical study applying PIXE spectrometry. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms* 150, 1-4, 571-575.

- Thompson, R. F., 1989. A Model System Approach to Memory. In: P. R. Solomon, G.R. Goethals, C.M. Kelley and B. R. Stephens (eds), *Memory: Interdisciplinary Approaches*. New York: Springer, 17-28.
- Tilley, C., 2006. Objectification. In: C. Tilley, W. Keane, S. Kuchler, M. Rowlands, and P. Spyer (eds), *Handbook of Material Culture*. London: Sage, 60-73.
- Tilley, C., 2006. Theoretical Perspectives: Introduction. In: C. Tilley, W. Keane, S. Kuchler, M. Rowlands, and P. Spyer (eds), *Handbook of Material Culture*. London: Sage, 7-11.
- Tite, M.S., 1999. Pottery Production, Distribution, and Consumption: The Contribution of the Physical Sciences. *Journal of Archaeological Method and Theory* 6, 3, 181-233.
- Treacher, A., 2000. Children: Memories, Fantasies and Narratives: From Dilemma to Complexity. In: S. Radstone (ed.), *Memory and Methodology*. Oxford: Berg, 133-153.
- Taylor, P. (ed.), 2008. *Iconography without texts*. London: The Warburg Institute, University of London (= Warburg Institute colloquia 13).
- Tyler, E.B., 2003 [1832] Primitive Culture: Researches in the Development of Mythology, Philosophy, Religion, Language, Arts, and Custom. In: J. Carter (ed.), *Understanding Religious Sacrifice: A Reader*. London: Continuum (= Controversies in the Study of Religion), 14-38.
- Uceda, S., 2001. Investigations at Huaca de la Luna, Moche Valley: An Example of Moche Religious Architecture. J. Phillipsbury (ed.), *Moche Art and Archaeology in Ancient Peru*. Washington: National Gallery of Art (= Studies in the History of Art 63), 47-68.
- Valeri, V., 1985. *Kingship and Sacrifice: Ritual and Society in Ancient Hawaii*. Translated by P. Wissing. Chicago: University of Chicago Press.
- Van As, A., 1987. Pottery Technology, Ethnoarchaeology and the Ecology of the Potter's Craft. In: A. Van As, R.M.A. Bedaux, G. Bronitsky, H.J. Franken, L. Jacobs and

G.A. Lodon (eds), *Bijdragen tot de technologische studie van het aardewerk*.  
Tongeren: Provinciaal Gallo-Romeins Museum (=Publicaties van het Provinciaal Gallo-Romeins Museum te Tongeren 34), 7-14.

- Van Baal, J., 2003 [1909]. Offering, Sacrifice and Gift. In: J. Carter (ed.), *Understanding Religious Sacrifice: A Reader*. London: Continuum (= Controversies in the Study of Religion), 277-291.
- Van der Leeuw, S. E. and A. C. Pritchard, 1984. *The many Dimensions of Pottery: Ceramics in Archaeology and Anthropology*. Amsterdam: Universiteit van Amsterdam.
- Verano, J. W., 2001. The Physical Evidence of Human Sacrifice in Ancient Peru. In: E. P. Benson and A. G. Cook (eds), *Ritual Sacrifice in Ancient Peru*. Austin: University of Texas Press, 165-184.
- Verano, J.W., 2001a. War and Death in the Moche World: Osteological Evidence and Visual Discourse. In: J. Phillipsbury (ed.), *Moche Art and Archaeology in Ancient Peru*. Washington: National Gallery of Art (= Studies in the History of Art 63), 111-126.
- Verano, J.W, 2008. Trophy Head-Taking and Human Sacrifice in Andean South America. In: H. Silverman and W.H. Isbell (eds), *Handbook of South American Archaeology*. New York: Springer: 1047-1060.
- Wagner-Hasel, B., 2003. Egoistic Exchange and Altruistic Gift: On the Roots of Marcel Mass's Theory. In: G. Algazi, V. Groebner and B. Jussen (eds), *Negotiating the gift: pre-modern figurations of exchange*.  
-Planck-Institut für Geschichte Bd. 188), 141-172.
- Wayne S. J., L.M. Shore and R.C. Linden, 1997. Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal* 40, 1, 82-111.
- Wertsch, J. V., 2009. Collective Memory. In: P. Boyer and J.V. Wertsch (eds), *Memory in Mind and Culture*. New York: Cambridge University Press, 117-138.

- Williams, H. (ed.), 2003. *Archaeologies of Remembrance: Death and Memory in Past Societies*. New York: Kluwer Academic/Plenum Publishers.
- Zelman, E. C., 1977. Reproduction, Ritual and Power. *American Ethnologist* 4, 4, 714-733.







ML000702



ML001056



ML001064



ML000767



ML001058



ML002211



ML000804



ML002210



ML002381



ML002352



ML002553



ML003203



ML002849



ML002860



## 2. PRISONERS



ML001723



ML002045



ML002043



ML002059



ML002078



ML002062



ML001800



ML002074



ML001801



ML001728



ML002107



ML002087



ML002020



ML002100



ML001724



ML001804

### 3. BLACK CERAMIC



ML000784



ML000962



ML001597



ML001598

## B. LIST OF MUSEO DE AMÉRICA – MADRID SPAIN

### 1. FULLY DECORATED



01266



01432



01030



01139

### 2. PRISONERS



01064



01425



01231



01337



01065

### 3. EXCEPTION



01417



C. LIST BRITISH MUSEUM – LONDON UNITED KINGDOM



Am. 7420



Am. 7421



Am. 7424



Am. 7423



Am. 7422



Am. 7430



Am. 7425

Possible other wooden Moche portrait vessels from Macabi Island Peru.



Am. 7424



Am. 7418



Am. 7419

Drawings made by Josiah Harris and A. M. Franks on the 15<sup>th</sup> of September 1857.

All the wooden pieces were donated to the British Museum, several belonged to the Newell Collection.

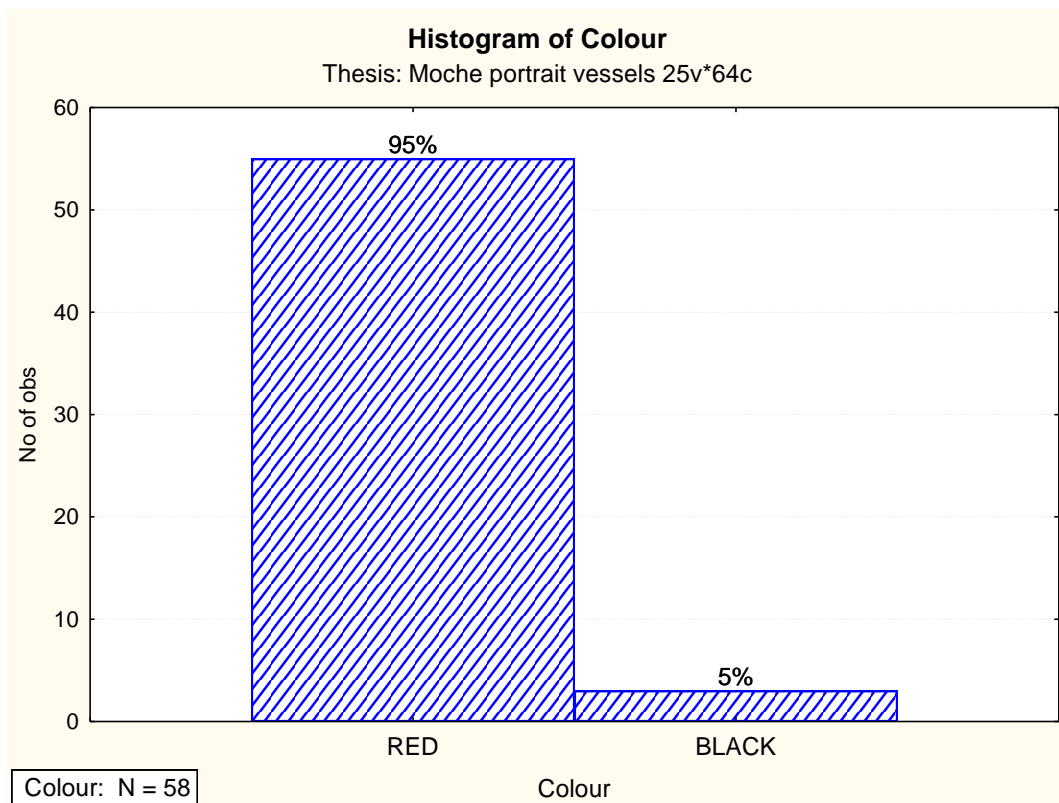
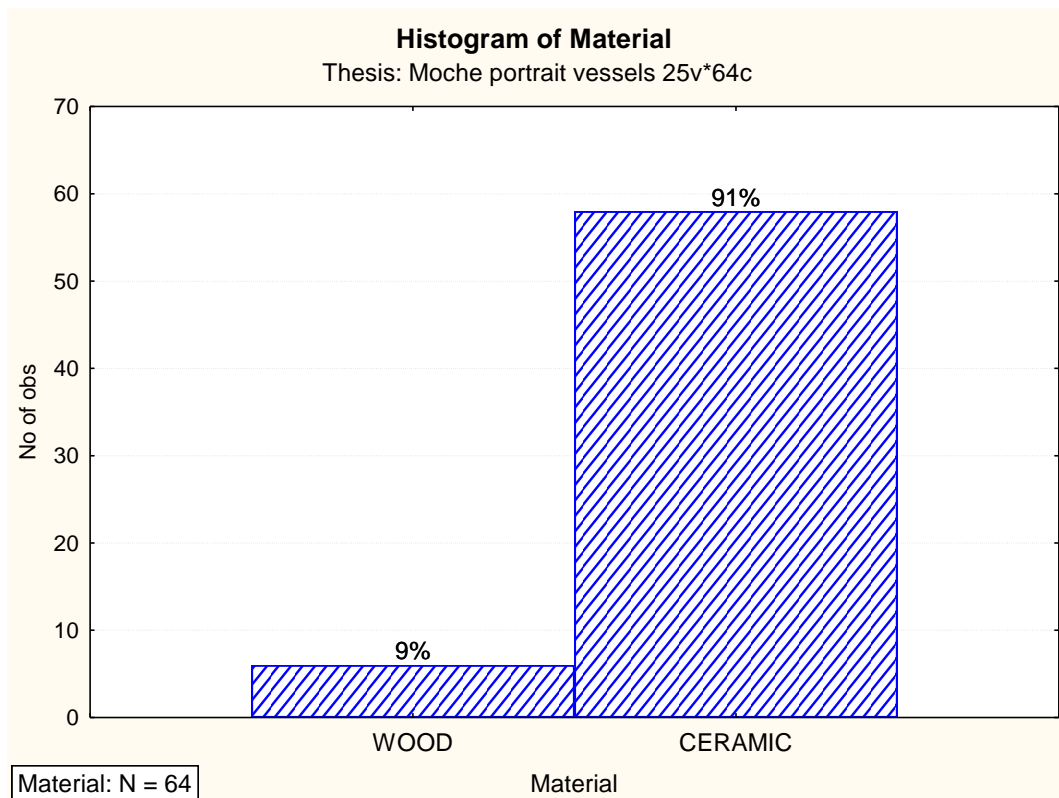


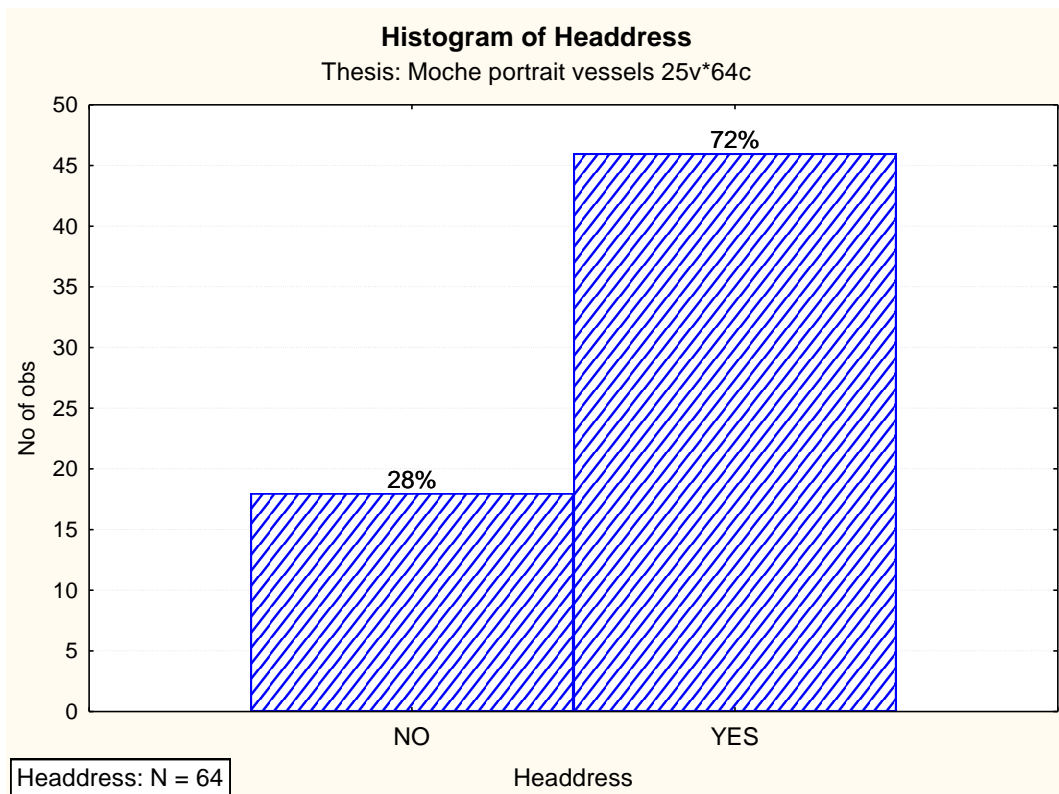
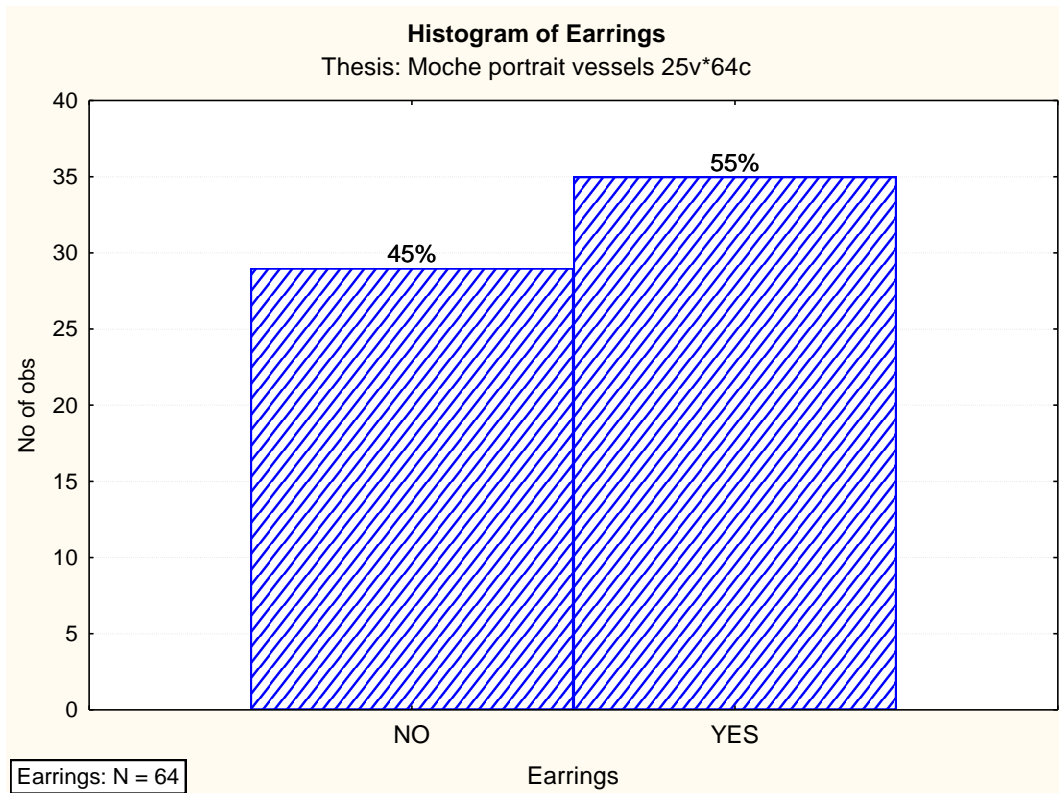


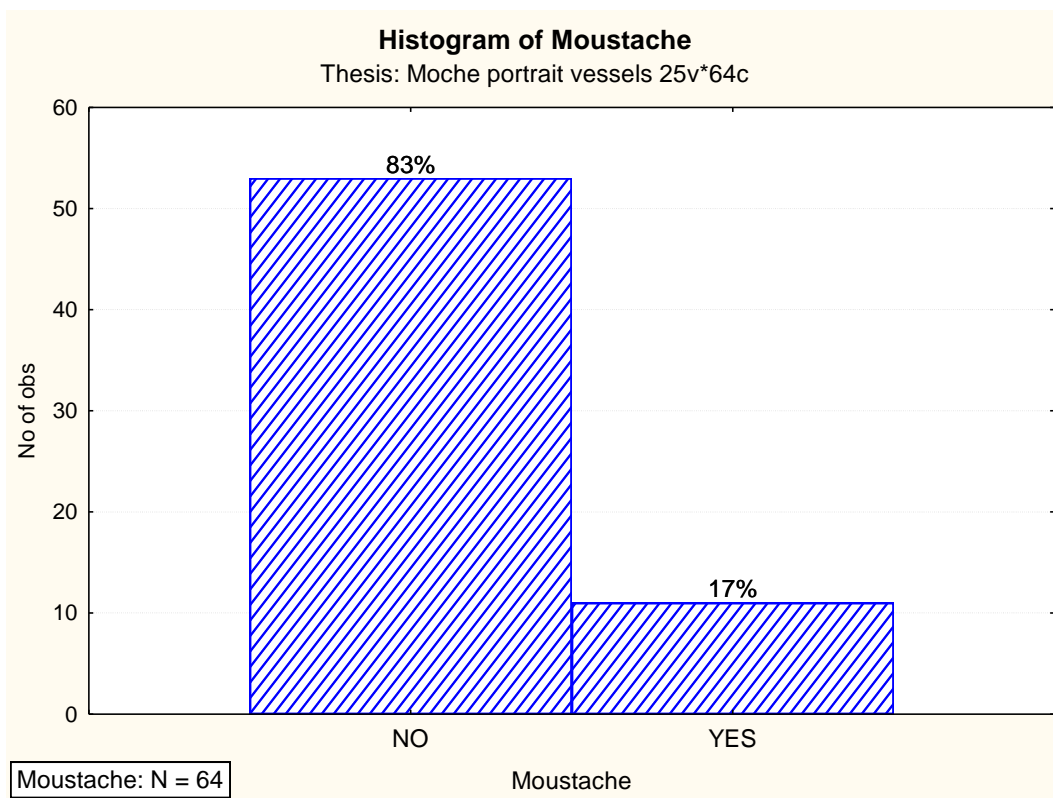
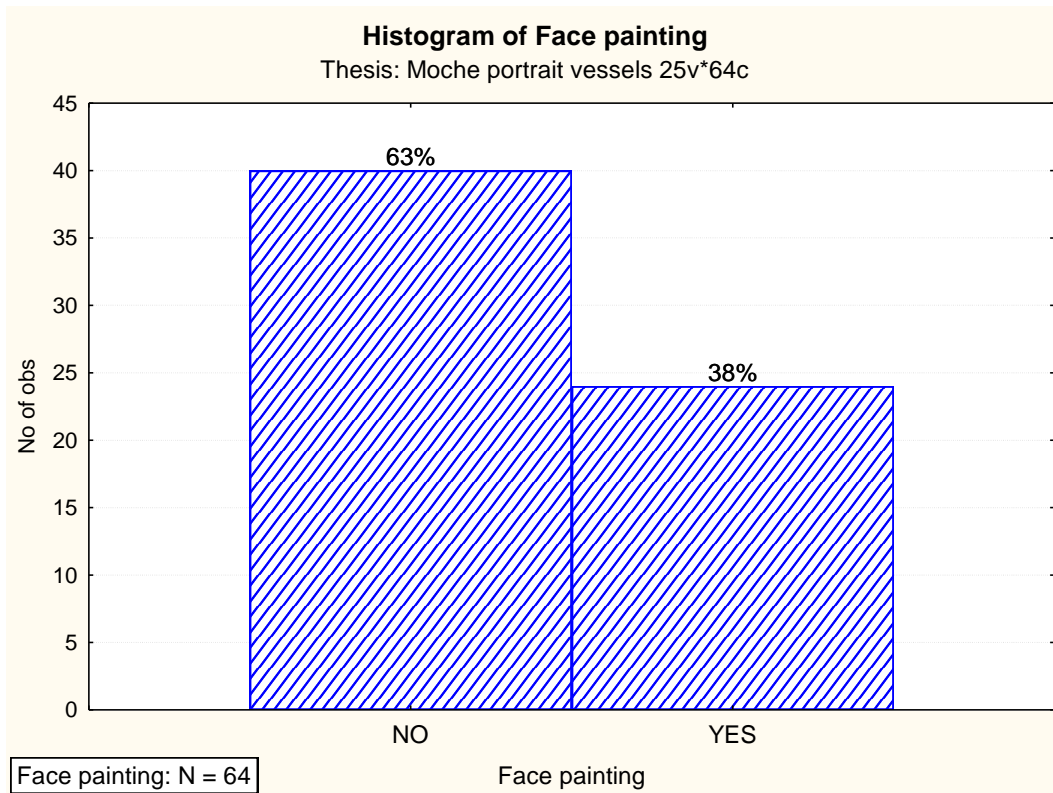


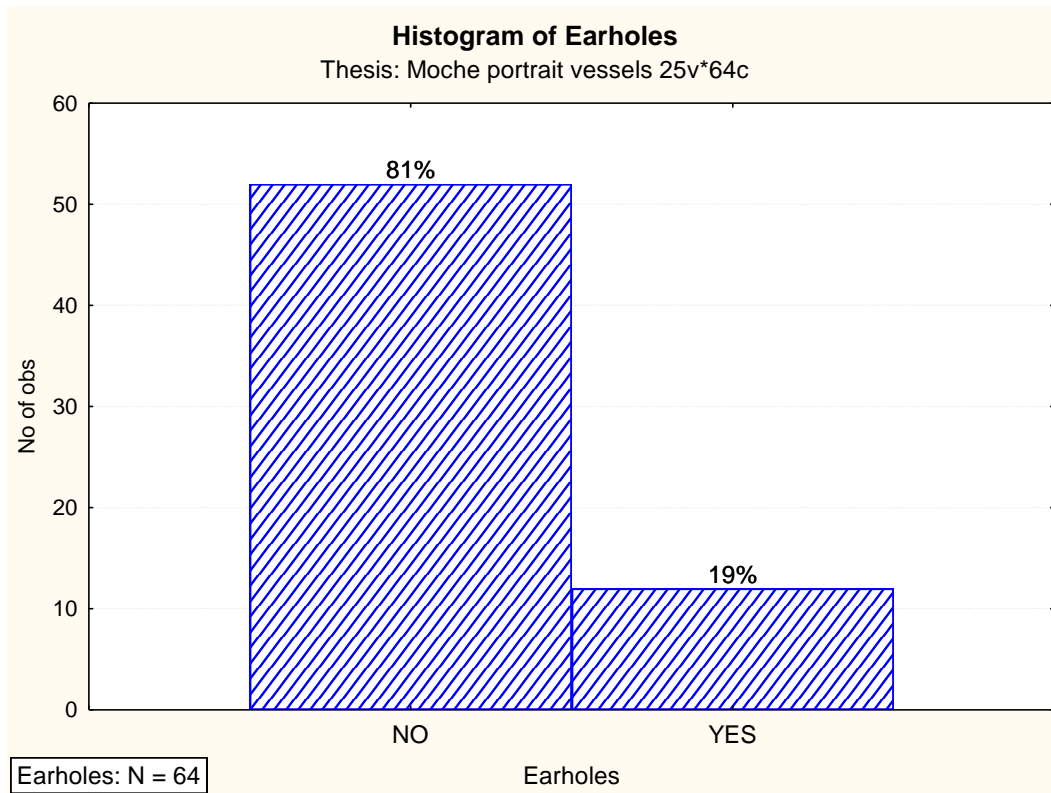
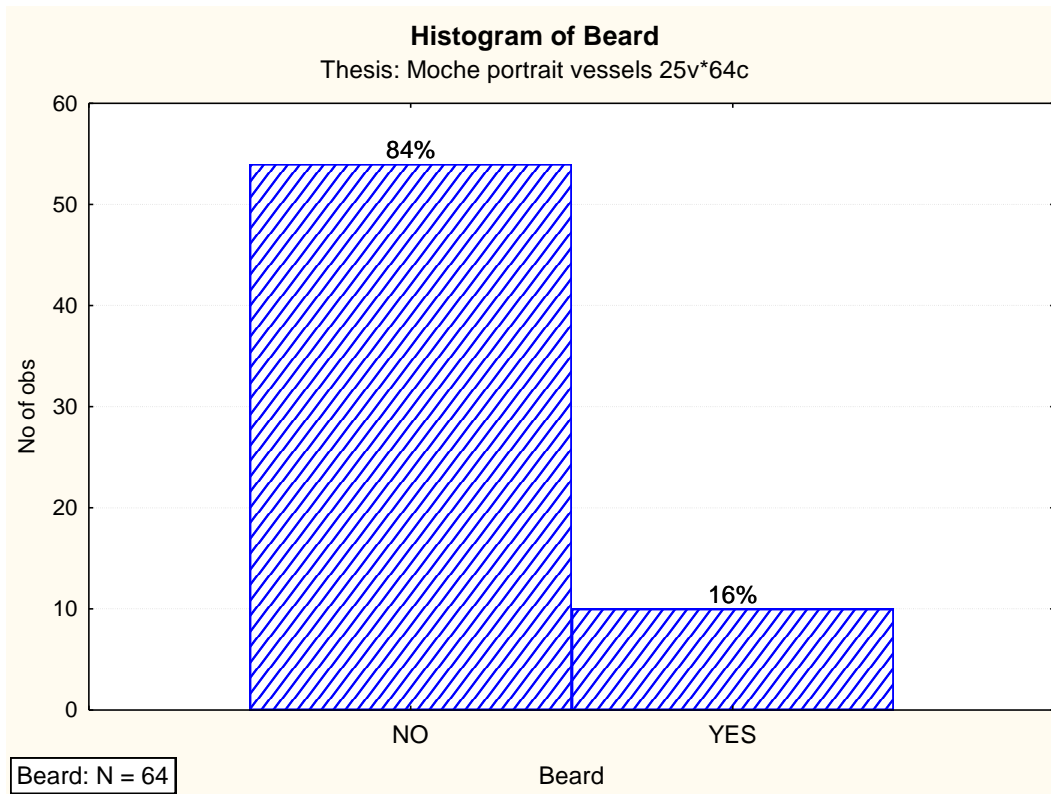


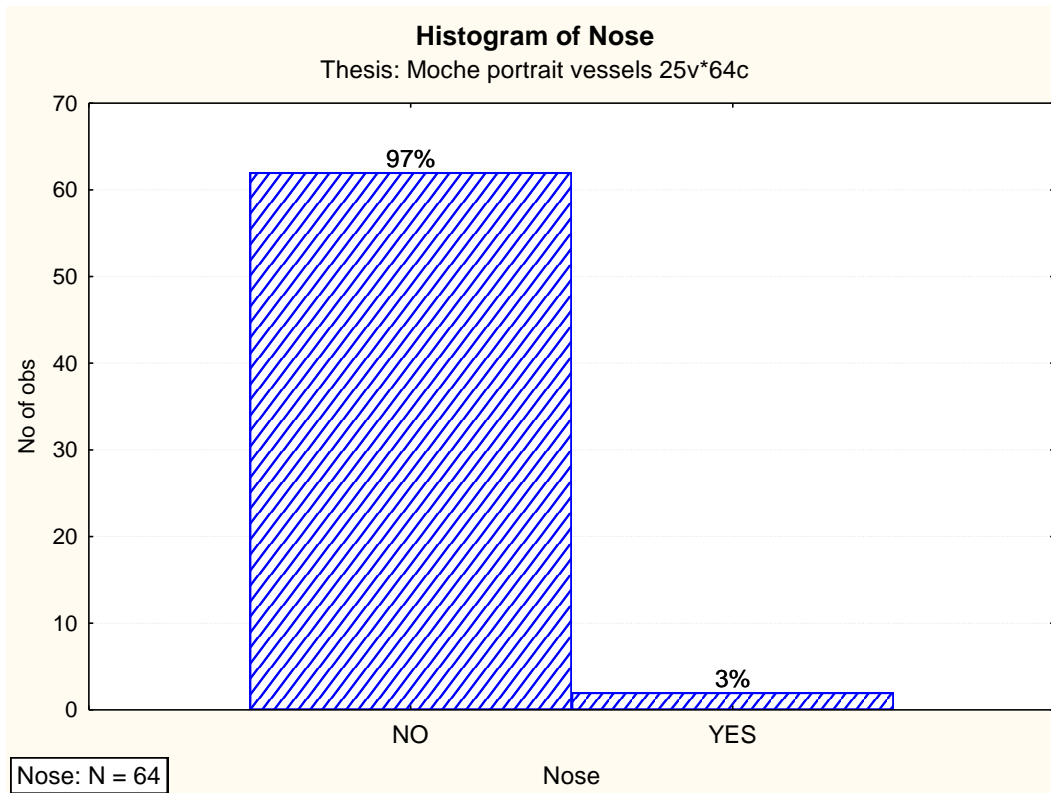
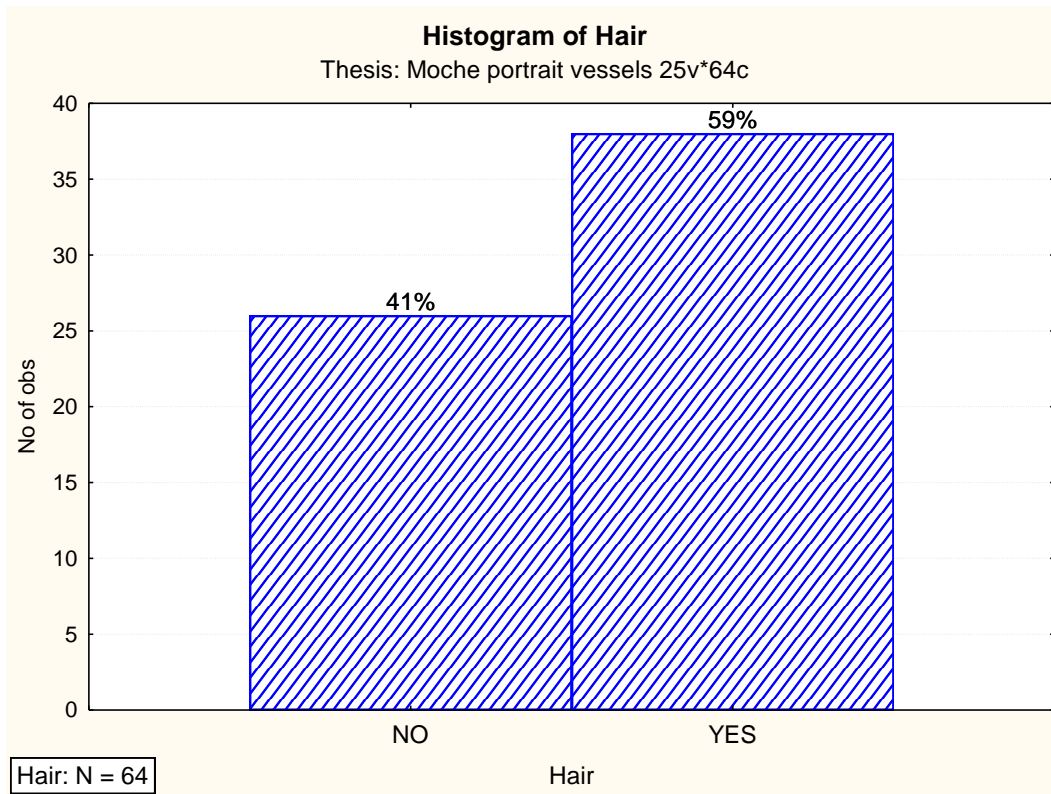
## E. STATISTICAL ANALYSES: HISTOGRAMS

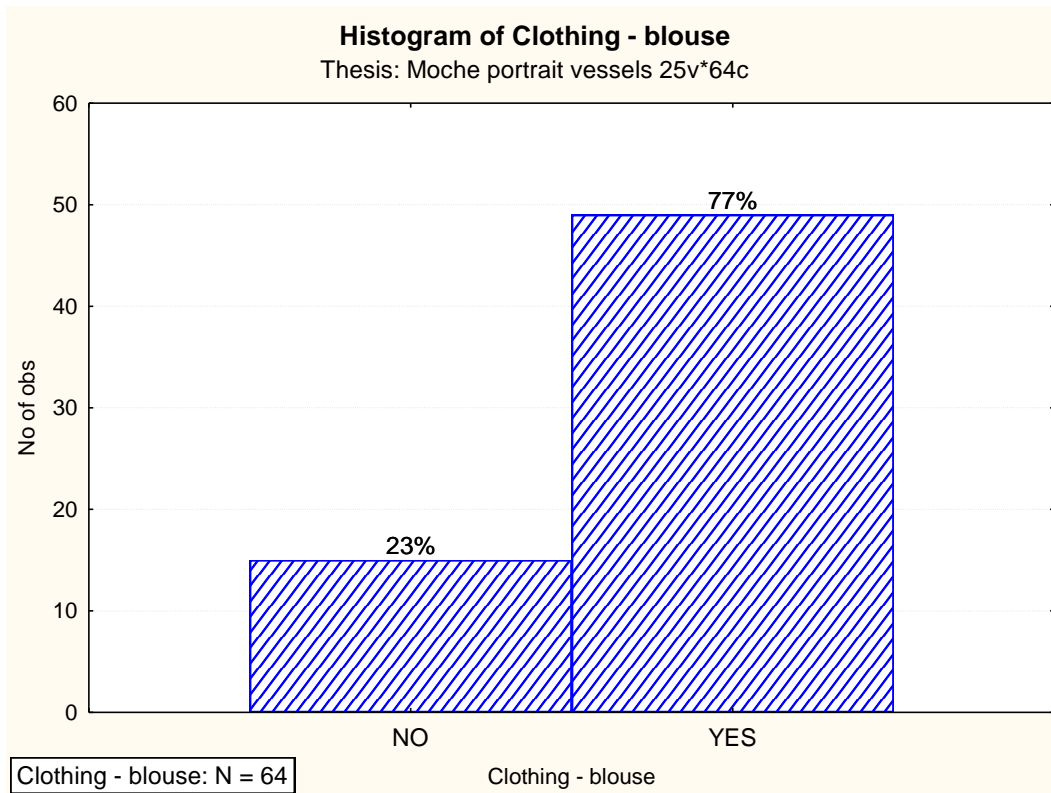
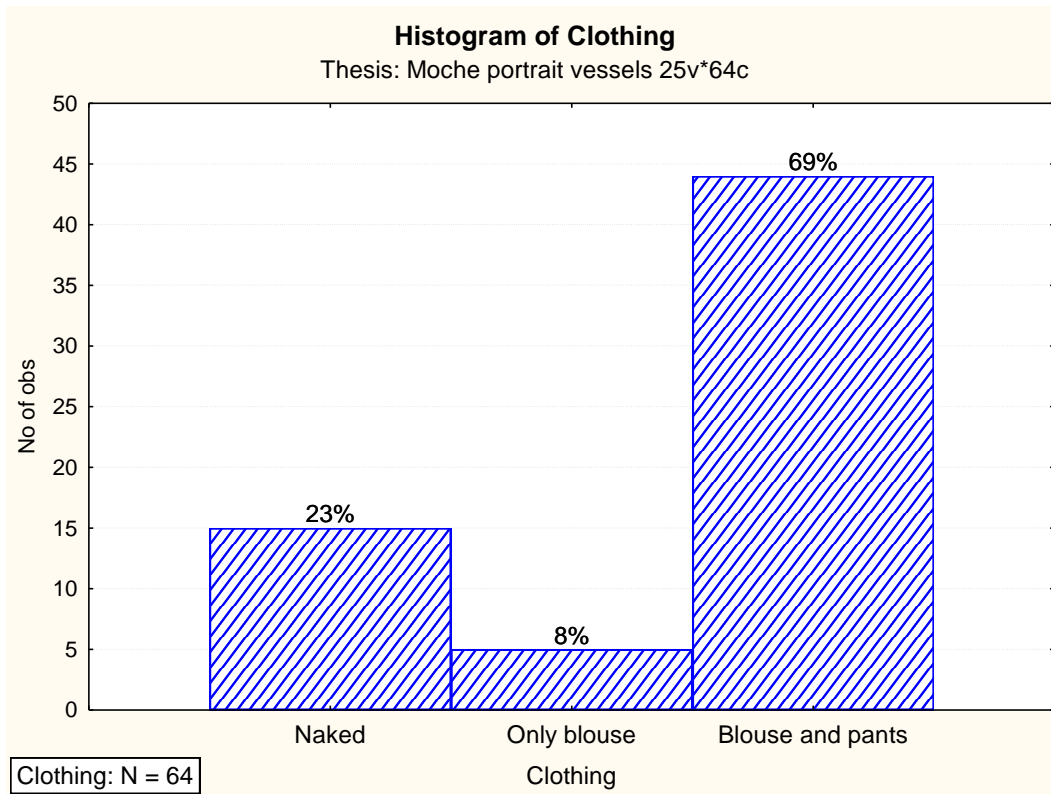




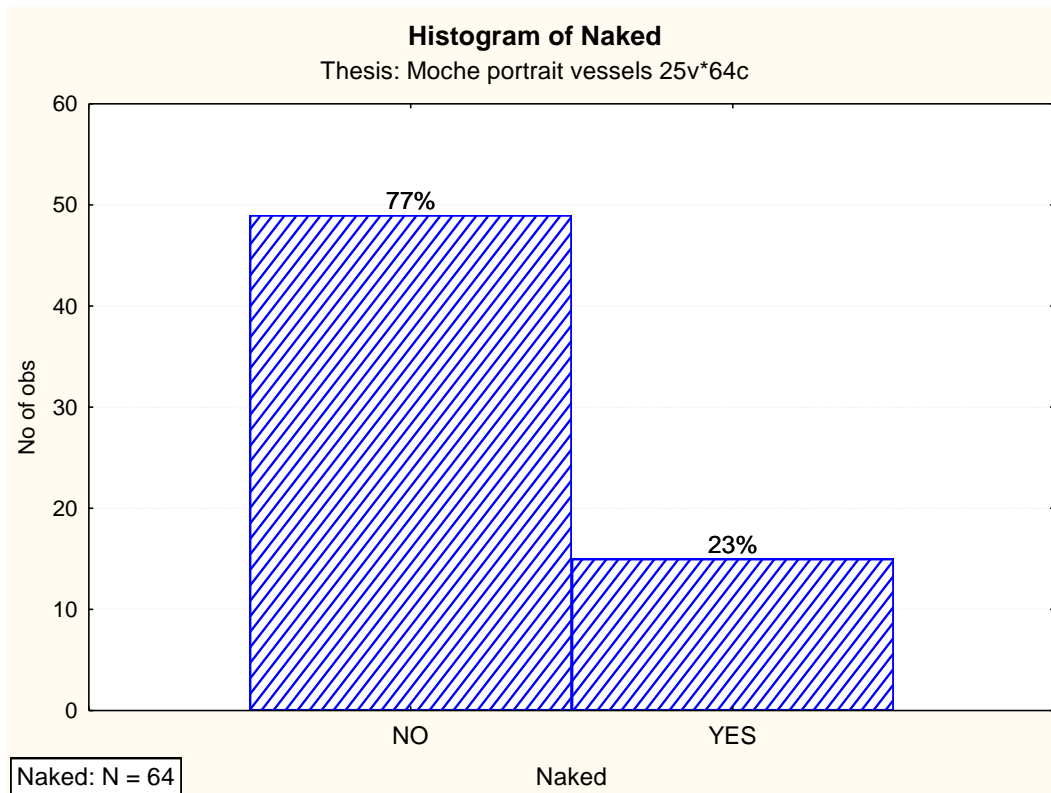


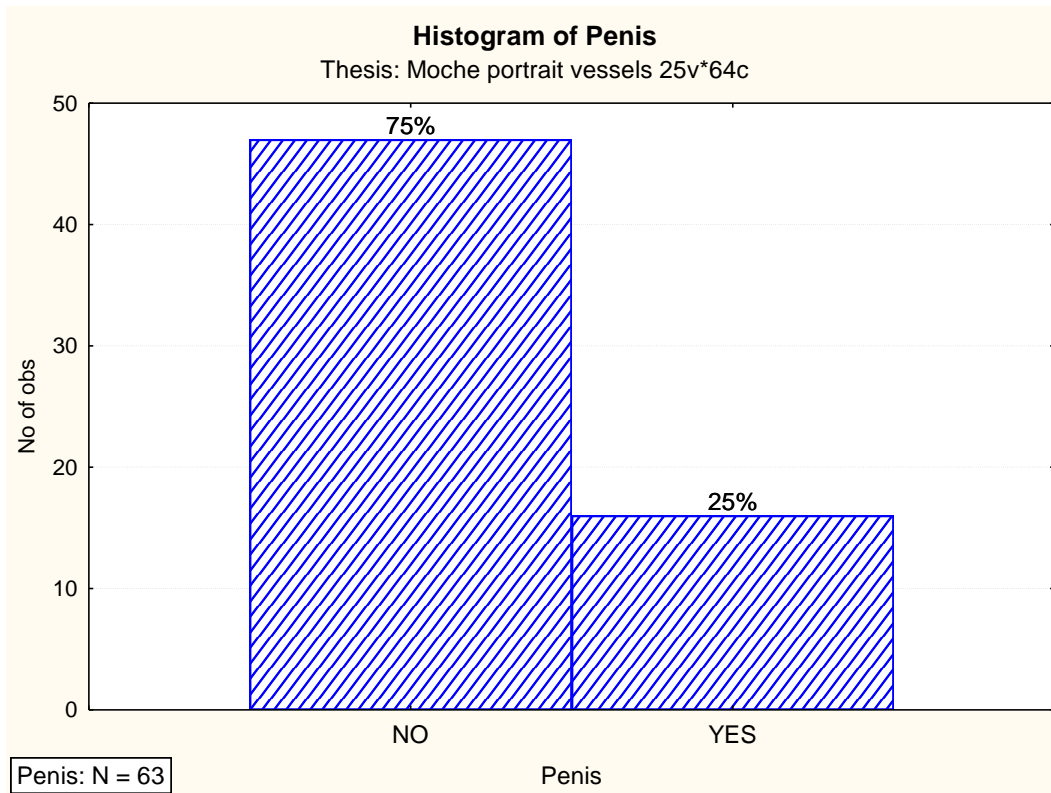
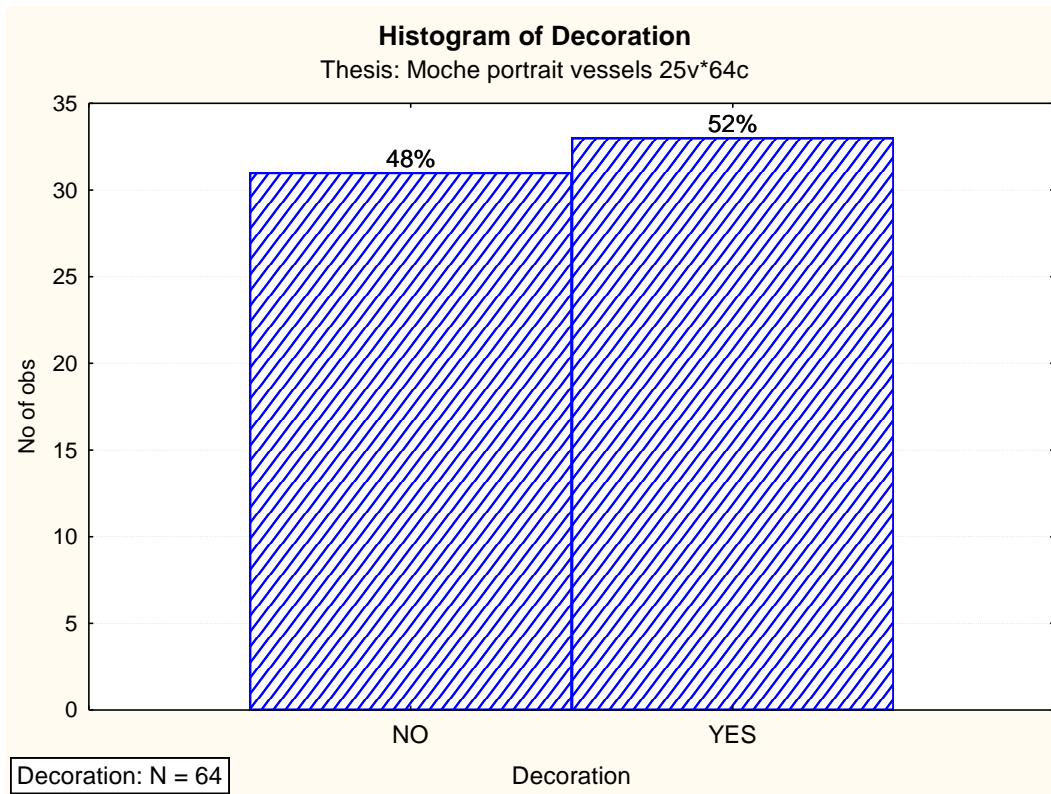


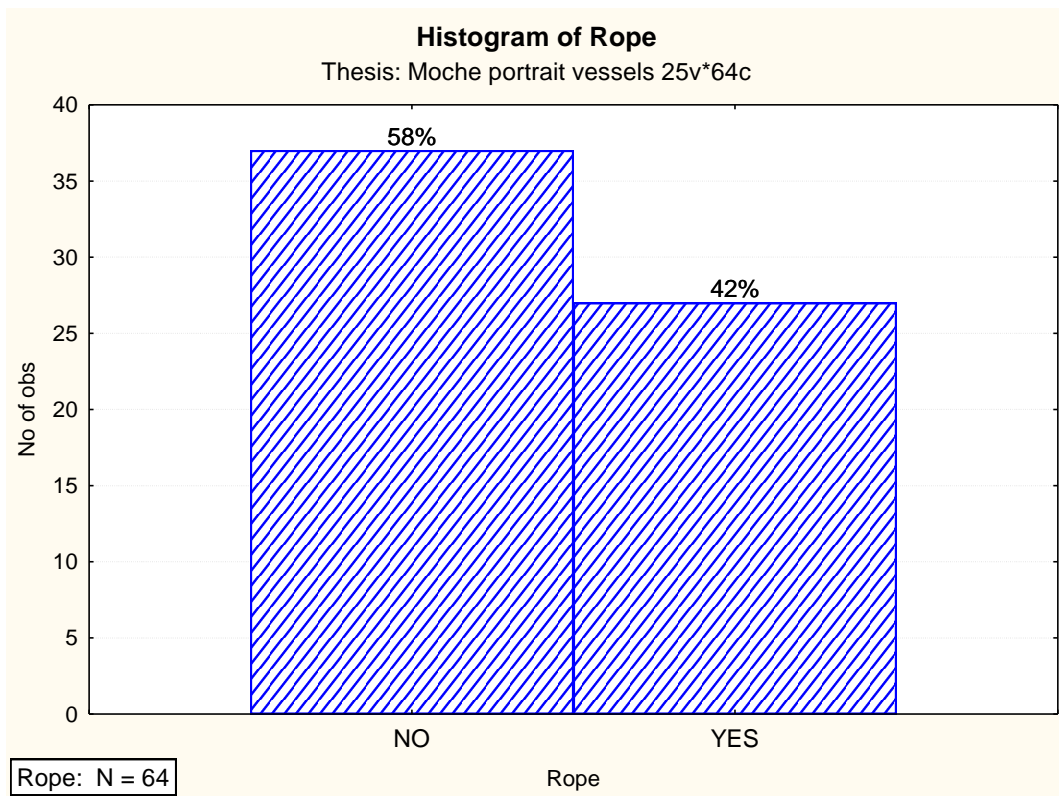
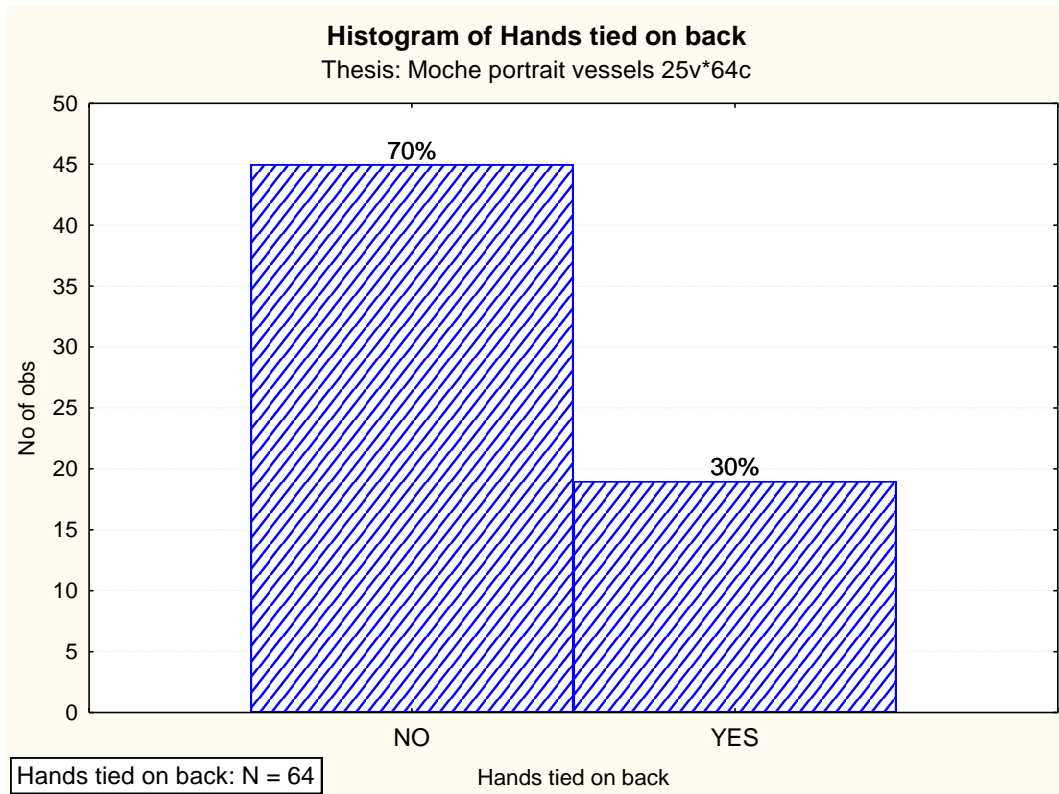


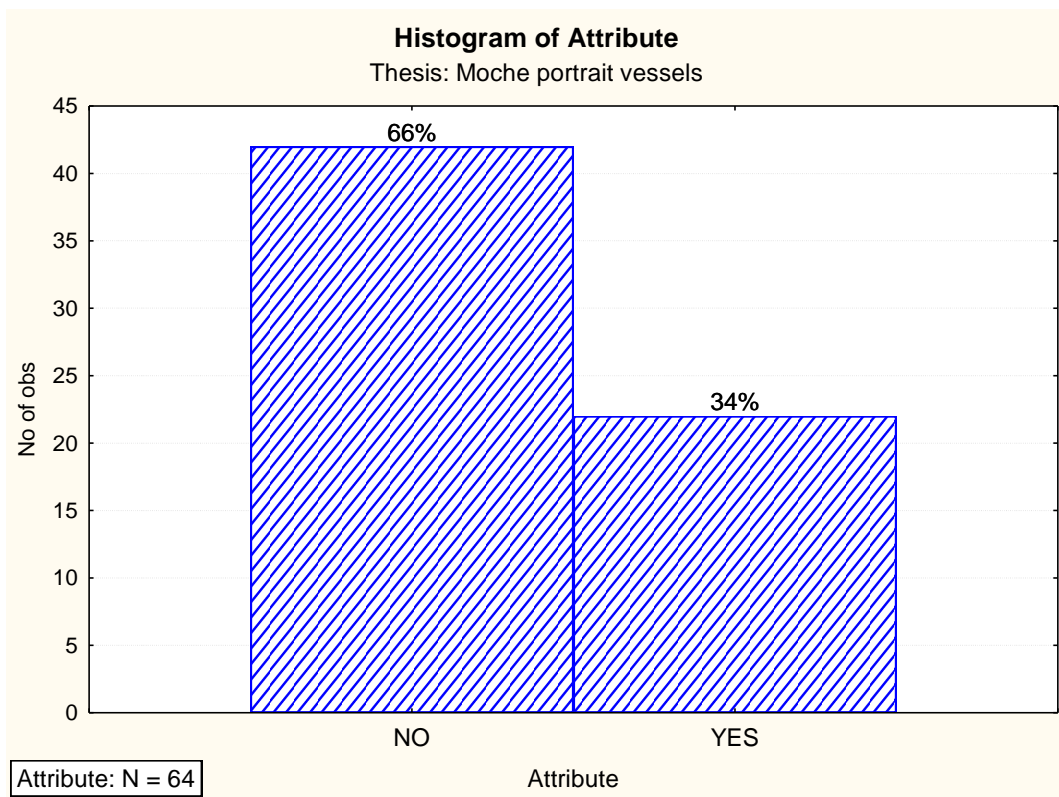
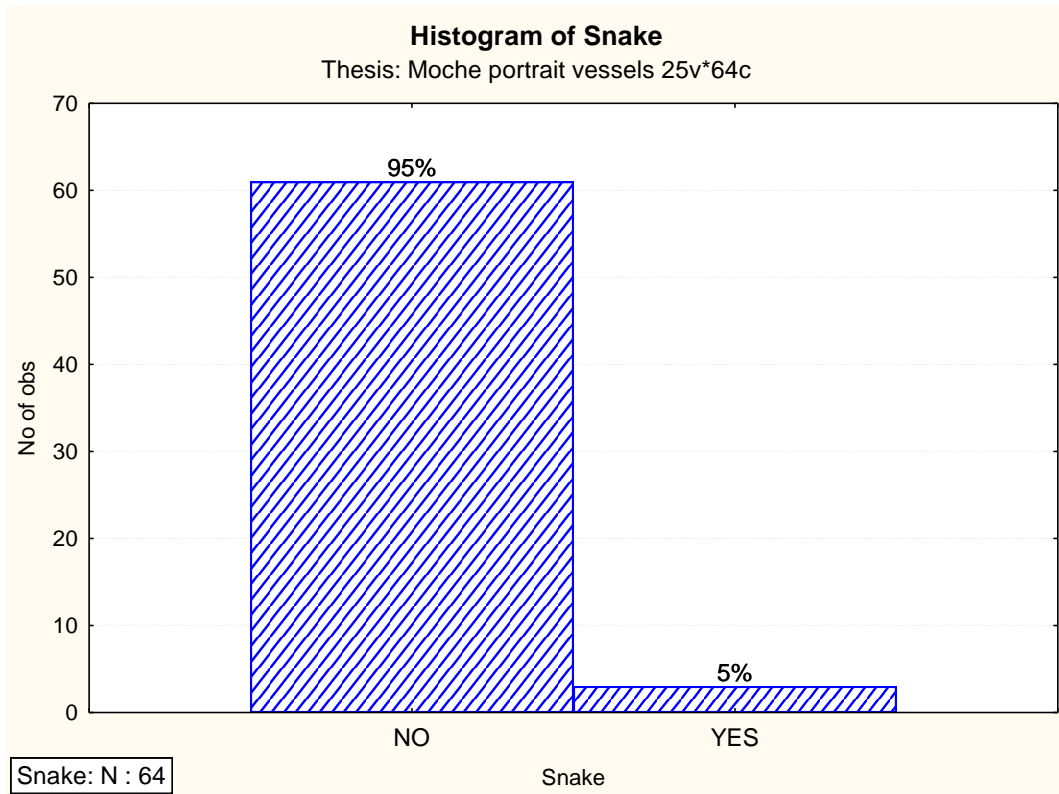


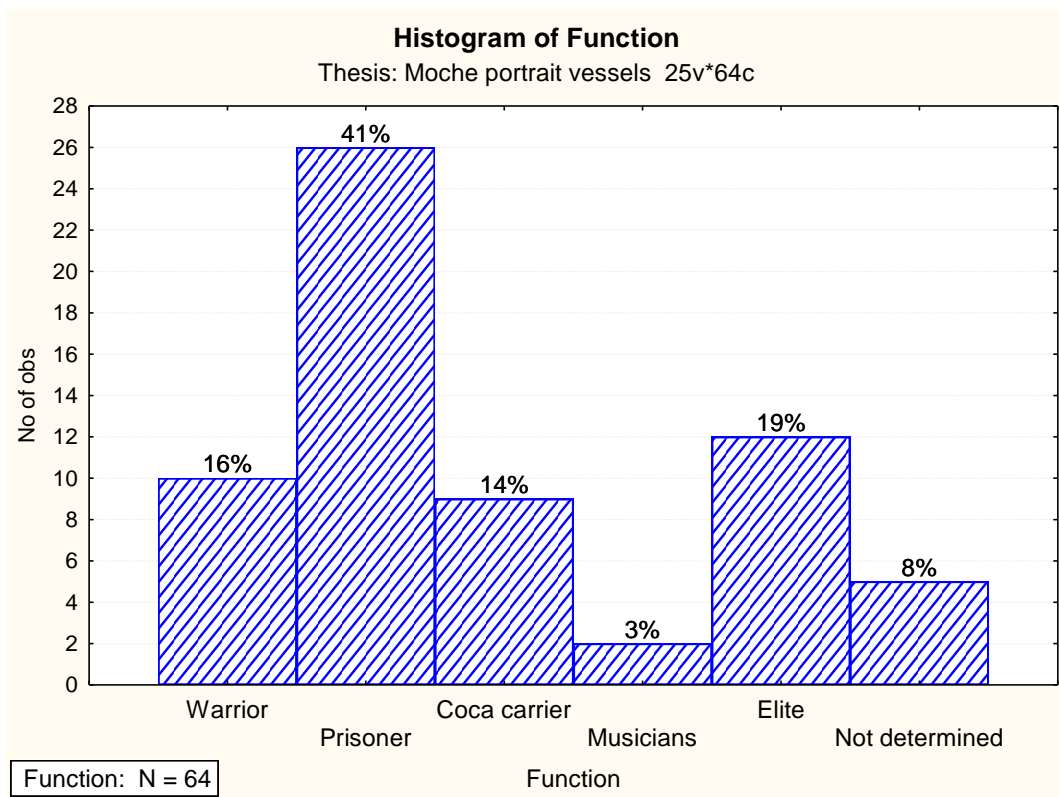
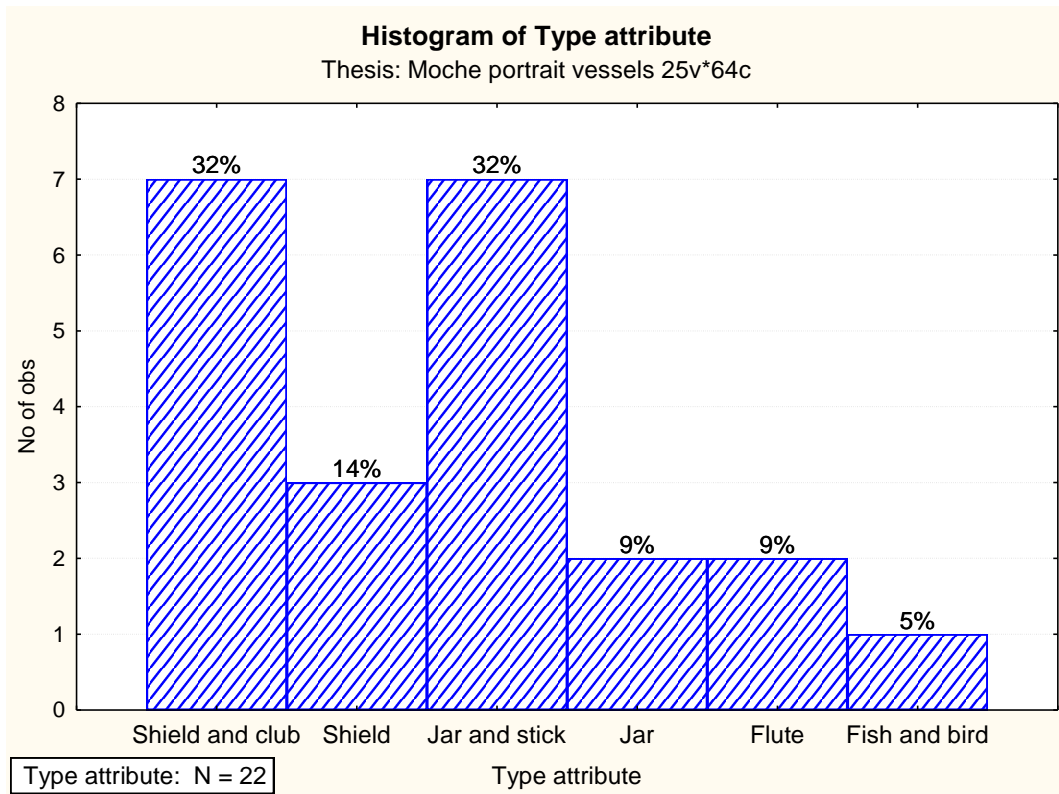


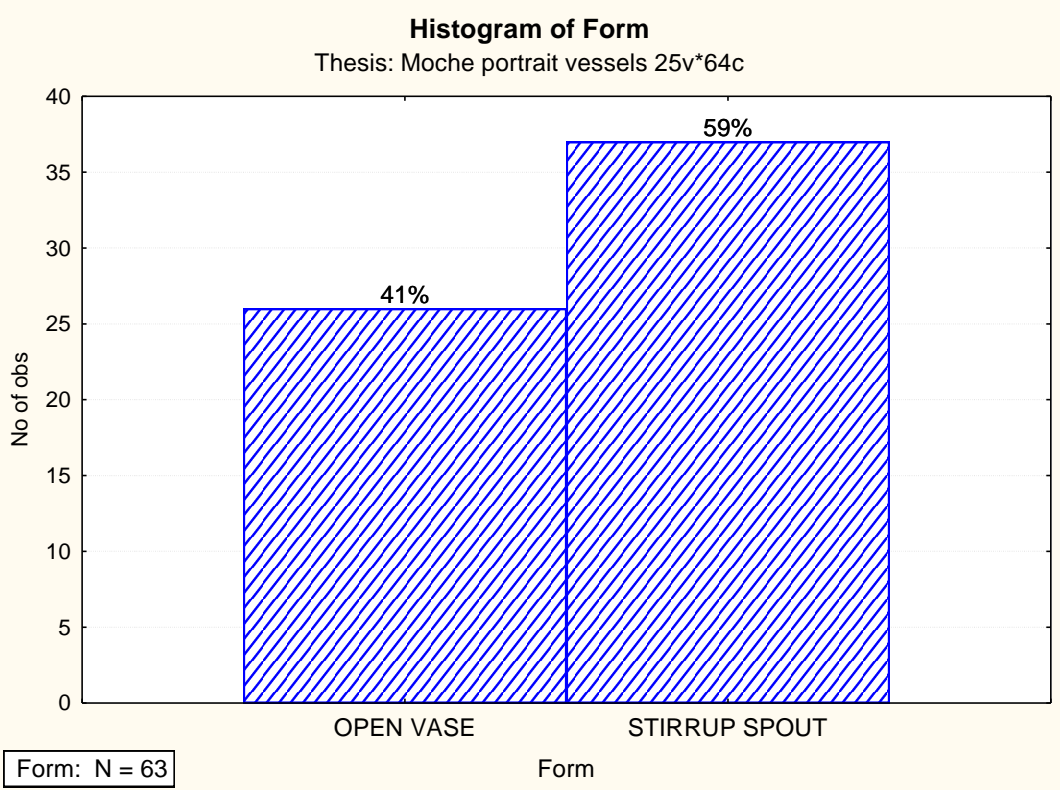












F. STATISTICAL ANALYSES: FREQUENCY TABLES

| Category | Frequency table: Material |                  |         |                    |
|----------|---------------------------|------------------|---------|--------------------|
|          | Count                     | Cumulative Count | Percent | Cumulative Percent |
| WOOD     | 6                         | 6                | 9.38    | 9.38               |
| CERAMIC  | 58                        | 64               | 90.63   | 100.00             |
| Missing  | 0                         | 64               | 0.00    | 100.00             |

| Category | Frequency table: Colour |                  |         |                    |
|----------|-------------------------|------------------|---------|--------------------|
|          | Count                   | Cumulative Count | Percent | Cumulative Percent |
| RED      | 55                      | 55               | 85.98   | 85.94              |
| BLACK    | 3                       | 58               | 4.69    | 90.63              |
| Missing  | 6                       | 64               | 9.38    | 100.00             |

| Category      | Frequency table: Form |                  |         |                    |
|---------------|-----------------------|------------------|---------|--------------------|
|               | Count                 | Cumulative Count | Percent | Cumulative Percent |
| OPEN VASE     | 27                    | 27               | 42.19   | 42.19              |
| STIRRUP SPOUT | 37                    | 64               | 57.81   | 100.00             |
| Missing       | 0                     | 64               | 0.00    | 100.00             |

| Category       | Frequency table: Function |                  |         |                    |
|----------------|---------------------------|------------------|---------|--------------------|
|                | Count                     | Cumulative Count | Percent | Cumulative Percent |
| Warrior        | 10                        | 10               | 15.63   | 15.63              |
| Prisoner       | 26                        | 36               | 40.63   | 56.25              |
| Coca carrier   | 9                         | 45               | 14.06   | 70.31              |
| Musicians      | 2                         | 47               | 3.13    | 73.44              |
| Elite          | 12                        | 59               | 18.75   | 92.19              |
| Not determined | 5                         | 64               | 7.81    | 100.00             |
| Missing        | 0                         | 64               | 0.00    | 100.00             |

| Frequency table: Moustache |       |                  |         |                    |
|----------------------------|-------|------------------|---------|--------------------|
| Category                   | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                         | 53    | 53               | 82.81   | 82.81              |
| YES                        | 11    | 64               | 17.19   | 100.00             |
| Missing                    | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Beard |       |                  |         |                    |
|------------------------|-------|------------------|---------|--------------------|
| Category               | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                     | 54    | 54               | 84.38   | 84.38              |
| YES                    | 10    | 64               | 15.63   | 100.00             |
| Missing                | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Nose ring |       |                  |         |                    |
|----------------------------|-------|------------------|---------|--------------------|
| Category                   | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                         | 62    | 62               | 96.88   | 96.88              |
| YES                        | 2     | 64               | 3.13    | 100.00             |
| Missing                    | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Facepainting |       |                  |         |                    |
|-------------------------------|-------|------------------|---------|--------------------|
| Category                      | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                            | 40    | 40               | 62.50   | 62.50              |
| YES                           | 24    | 64               | 37.50   | 100.00             |
| Missing                       | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Headdress |       |                  |         |                    |
|----------------------------|-------|------------------|---------|--------------------|
| Category                   | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                         | 18    | 18               | 28.13   | 28.13              |
| YES                        | 46    | 64               | 71.88   | 100.00             |
| Missing                    | 0     | 64               | 0.00    | 100.00             |



| Frequency table: Hair |       |                  |         |                    |
|-----------------------|-------|------------------|---------|--------------------|
| Category              | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                    | 26    | 26               | 40.63   | 40.63              |
| YES                   | 38    | 64               | 59.38   | 100.00             |
| Missing               | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Earrings |       |                  |         |                    |
|---------------------------|-------|------------------|---------|--------------------|
| Category                  | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                        | 29    | 29               | 45.31   | 45.31              |
| YES                       | 35    | 64               | 54.69   | 100.00             |
| Missing                   | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Earholes |       |                  |         |                    |
|---------------------------|-------|------------------|---------|--------------------|
| Category                  | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                        | 52    | 52               | 81.25   | 81.25              |
| YES                       | 12    | 64               | 18.75   | 100.00             |
| Missing                   | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Attribute |       |                  |         |                    |
|----------------------------|-------|------------------|---------|--------------------|
| Category                   | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                         | 42    | 42               | 65.63   | 65.63              |
| YES                        | 22    | 64               | 34.38   | 100.00             |
| Missing                    | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Type attribute |       |                  |         |                    |
|---------------------------------|-------|------------------|---------|--------------------|
| Category                        | Count | Cumulative Count | Percent | Cumulative Percent |
| Shield and club                 | 7     | 7                | 10.94   | 10.94              |
| Shield                          | 3     | 10               | 4.69    | 15.63              |
| Jar and stick                   | 7     | 17               | 10.94   | 26.56              |
| Jar                             | 2     | 19               | 3.13    | 29.69              |
| Flute                           | 2     | 21               | 3.13    | 32.81              |
| Fish and bird                   | 1     | 22               | 1.56    | 34.38              |
| Missing                         | 42    | 64               | 65.62   | 100.00             |

| Frequency table: Decoration |       |                  |         |                    |
|-----------------------------|-------|------------------|---------|--------------------|
| Category                    | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                          | 31    | 31               | 48.44   | 48.44              |
| YES                         | 33    | 64               | 51.56   | 100.00             |
| Missing                     | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Clothing |       |                  |         |                    |
|---------------------------|-------|------------------|---------|--------------------|
| Category                  | Count | Cumulative Count | Percent | Cumulative Percent |
| Naked                     | 15    | 15               | 23.44   | 23.44              |
| Only Blouse               | 5     | 20               | 7.81    | 31.25              |
| Blouse and pants          | 44    | 64               | 68.75   | 100.00             |
| Missing                   | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Clothing - blouse |       |                  |         |                    |
|------------------------------------|-------|------------------|---------|--------------------|
| Category                           | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                                 | 15    | 15               | 23.44   | 23.44              |
| YES                                | 49    | 64               | 76.56   | 100.00             |
| Missing                            | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Clothing - pants |       |                  |         |                    |
|-----------------------------------|-------|------------------|---------|--------------------|
| Category                          | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                                | 20    | 20               | 31.25   | 31.25              |
| YES                               | 44    | 64               | 68.75   | 100.00             |
| Missing                           | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Naked |       |                  |         |                    |
|------------------------|-------|------------------|---------|--------------------|
| Category               | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                     | 49    | 49               | 76.56   | 76.56              |
| YES                    | 15    | 64               | 23.44   | 100.00             |
| Missing                | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Hands tied on back |       |                  |         |                    |
|-------------------------------------|-------|------------------|---------|--------------------|
| Category                            | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                                  | 45    | 45               | 70.31   | 70.31              |
| YES                                 | 19    | 64               | 29.69   | 100.00             |
| Missing                             | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Rope |       |                  |         |                    |
|-----------------------|-------|------------------|---------|--------------------|
| Category              | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                    | 37    | 37               | 57.81   | 57.81              |
| YES                   | 27    | 64               | 42.19   | 100.00             |
| Missing               | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Snake |       |                  |         |                    |
|------------------------|-------|------------------|---------|--------------------|
| Category               | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                     | 61    | 61               | 95.31   | 95.31              |
| YES                    | 3     | 64               | 4.69    | 100.00             |
| Missing                | 0     | 64               | 0.00    | 100.00             |

| Frequency table: Penis |       |                  |         |                    |
|------------------------|-------|------------------|---------|--------------------|
| Category               | Count | Cumulative Count | Percent | Cumulative Percent |
| NO                     | 47    | 47               | 73.44   | 73.44              |
| YES                    | 16    | 63               | 25.00   | 98.44              |
| Missing                | 1     | 64               | 1.56    | 100.00             |



## G. STATISTICAL ANALYSES: MULTIPLE RESPONSE TABLES

| 2-Way Table Summary<br>Thesis: Moche portrait vessels |                     |                  |               |
|---|---------------------|------------------|---------------|
| Function:   | Material<br>CERAMIC | Material<br>WOOD | Row<br>Totals |
| Prisoner  | 21                  | 5                | 26            |
| Warrior   | 10                  | 0                | 10            |
| Elite   | 12                  | 0                | 12            |
| Coca carrier  | 9                   | 0                | 9             |
| Musicians   | 1                   | 1                | 2             |
| Not determined  | 5                   | 0                | 5             |
| Totals  | 58                  | 6                | 64            |

| 2-Way Table Summary<br>Thesis: Moche portrait vessels |               |                 |               |
|---|---------------|-----------------|---------------|
| Function:   | Colour<br>RED | Colour<br>BLACK | Row<br>Totals |
| Prisoner  | 21            | 0               | 21            |
| Warrior   | 9             | 1               | 10            |
| Elite   | 10            | 2               | 12            |
| Coca carrier  | 9             | 0               | 9             |
| Musicians   | 1             | 0               | 1             |
| Not determined  | 5             | 0               | 5             |
| Totals  | 55            | 3               | 58            |

| 2-Way Table Summary<br>Thesis: Moche portrait vessels |                   |                       |               |
|---|-------------------|-----------------------|---------------|
| Function:   | Form<br>OPEN VASE | Form<br>STIRRUP SPOUT | Row<br>Totals |
| Prisoner  | 24                | 2                     | 26            |
| Warrior   | 1                 | 9                     | 10            |
| Elite   | 1                 | 11                    | 12            |
| Coca carrier  | 0                 | 9                     | 9             |
| Musicians   | 0                 | 1                     | 1             |
| Not determined  | 0                 | 5                     | 5             |
| Totals  | 26                | 37                    | 63            |

| 2-Way Table Summary<br>Thesis: Moche portrait vessels |                  |                   |               |
|---|------------------|-------------------|---------------|
| Function:   | decoration<br>NO | decoration<br>YES | Row<br>Totals |
| Prisoner  | 21               | 5                 | 26            |
| Warrior   | 3                | 7                 | 10            |
| Elite   | 3                | 9                 | 12            |
| Coca carrier  | 1                | 8                 | 9             |
| Musicians   | 2                | 0                 | 2             |
| Not determined  | 1                | 4                 | 5             |
| Totals  | 31               | 33                | 64            |

| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |              |               |
|----------------|---|--------------|---------------|
|                | beard<br>NO   | beard<br>YES | Row<br>Totals |
| Prisoner       | 24  | 2            | 26            |
| Warrior        | 9   | 1            | 10            |
| Elite          | 11  | 1            | 12            |
| Coca carrier   | 3   | 6            | 9             |
| Musicians      | 2   | 0            | 2             |
| Not determined | 5   | 0            | 5             |
| Totals         | 54  | 10           | 64            |

| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |                |               |
|----------------|---|----------------|---------------|
|                | earholes<br>YES                                       | earholes<br>NO | Row<br>Totals |
| Prisoner       | 11  | 15             | 26            |
| Warrior        | 0   | 10             | 10            |
| Elite          | 0   | 12             | 12            |
| Coca carrier   | 1   | 8              | 9             |
| Musicians      | 0   | 2              | 2             |
| Not determined | 0   | 5              | 5             |
| Totals         | 12  | 52             | 64            |

| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |                 |               |
|----------------|---|-----------------|---------------|
|                | earrings<br>NO  | earrings<br>YES | Row<br>Totals |
| Prisoner       | 24  | 2               | 26            |
| Warrior        | 2   | 8               | 10            |
| Elite          | 1   | 11              | 12            |
| Coca carrier   | 1   | 8               | 9             |
| Musicians      | 1   | 1               | 2             |
| Not determined | 0   | 5               | 5             |
| Totals         | 29  | 35              | 64            |

| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |                    |               |
|----------------|---|--------------------|---------------|
|                | facepainting<br>YES                                   | facepainting<br>NO | Row<br>Totals |
| Prisoner       | 4   | 22                 | 26            |
| Warrior        | 3   | 7                  | 10            |
| Elite          | 5   | 7                  | 12            |
| Coca carrier   | 8   | 1                  | 9             |
| Musicians      | 1   | 1                  | 2             |
| Not determined | 3   | 2                  | 5             |
| Totals         | 24  | 40                 | 64            |

| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |            |               |
|----------------|---|------------|---------------|
|                | hair<br>YES   | hair<br>NO | Row<br>Totals |
| Prisoner       | 22  | 4          | 26            |
| Warrior        | 3   | 7          | 10            |
| Elite          | 5   | 7          | 12            |
| Coca carrier   | 6   | 3          | 9             |
| Musicians      | 0   | 2          | 2             |
| Not determined | 2   | 3          | 5             |
| Totals         | 38  | 26         | 64            |

| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |             |               |
|----------------|---|-------------|---------------|
|                | nose<br>NO  | nose<br>YES | Row<br>Totals |
| Prisoner       | 26  | 0           | 26            |
| Warrior        | 9   | 1           | 10            |
| Elite          | 11  | 1           | 12            |
| Coca carrier   | 9   | 0           | 9             |
| Musicians      | 2   | 0           | 2             |
| Not determined | 5   | 0           | 5             |
| Totals         | 62  | 2           | 64            |

| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |                  |               |
|----------------|---|------------------|---------------|
|                | headdress<br>NO                                       | headdress<br>YES | Row<br>Totals |
| Prisoner       | 17  | 9                | 26            |
| Warrior        | 1   | 9                | 10            |
| Elite          | 0   | 12               | 12            |
| Coca carrier   | 0   | 9                | 9             |
| Musicians      | 0   | 2                | 2             |
| Not determined | 0   | 5                | 5             |
| Totals         | 18  | 46               | 64            |

| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |                          |               |
|----------------|---|--------------------------|---------------|
|                | hands tied on back<br>YES                             | hands tied on back<br>NO | Row<br>Totals |
| Prisoner       | 19  | 7                        | 26            |
| Warrior        | 0   | 10                       | 10            |
| Elite          | 0   | 12                       | 12            |
| Coca carrier   | 0   | 9                        | 9             |
| Musicians      | 0   | 2                        | 2             |
| Not determined | 0   | 5                        | 5             |
| Totals         | 19  | 45                       | 64            |

| 2-Way Table Summary<br>Thesis: Moche portrait vessels |              |             |               |
|---|--------------|-------------|---------------|
| Function:   | Penis<br>YES | Penis<br>NO | Row<br>Totals |
| Prisoner  | 16           | 9           | 25            |
| Warrior   | 0            | 10          | 10            |
| Elite   | 0            | 12          | 12            |
| Coca carrier  | 0            | 9           | 9             |
| Musicians   | 0            | 2           | 2             |
| Not determined  | 0            | 5           | 5             |
| Totals  | 16           | 47          | 63            |

| 2-Way Table Summary<br>Thesis: Moche portrait vessels |             |            |               |
|---|-------------|------------|---------------|
| Function:   | Rope<br>YES | Rope<br>NO | Row<br>Totals |
| Prisoner  | 26          | 0          | 26            |
| Warrior   | 1           | 9          | 10            |
| Elite   | 0           | 12         | 12            |
| Coca carrier  | 0           | 9          | 9             |
| Musicians   | 0           | 2          | 2             |
| Not determined  | 0           | 5          | 5             |
| Totals  | 27          | 37         | 64            |

| 2-Way Table Summary<br>Thesis: Moche portrait vessels |             |              |               |
|---|-------------|--------------|---------------|
| Function:   | snake<br>NO | snake<br>YES | Row<br>Totals |
| Prisoner  | 23          | 3            | 26            |
| Warrior   | 10          | 0            | 10            |
| Elite   | 12          | 0            | 12            |
| Coca carrier  | 9           | 0            | 9             |
| Musicians   | 2           | 0            | 2             |
| Not determined  | 5           | 0            | 5             |
| Totals  | 61          | 3            | 64            |

| 2-Way Table Summary<br>Thesis: Moche portrait vessels |                   |                              |                         |               |
|---|-------------------|------------------------------|-------------------------|---------------|
| Function:   | clothing<br>Naked | clothing<br>Blouse and pants | clothing<br>Only Blouse | Row<br>Totals |
| Prisoner  | 15                | 6                            | 5                       | 26            |
| Warrior   | 0                 | 10                           | 0                       | 10            |
| Elite   | 0                 | 12                           | 0                       | 12            |
| Coca carrier  | 0                 | 9                            | 0                       | 9             |
| Musicians   | 0                 | 2                            | 0                       | 2             |
| Not determined  | 0                 | 5                            | 0                       | 5             |
| Totals  | 15                | 44                           | 5                       | 64            |

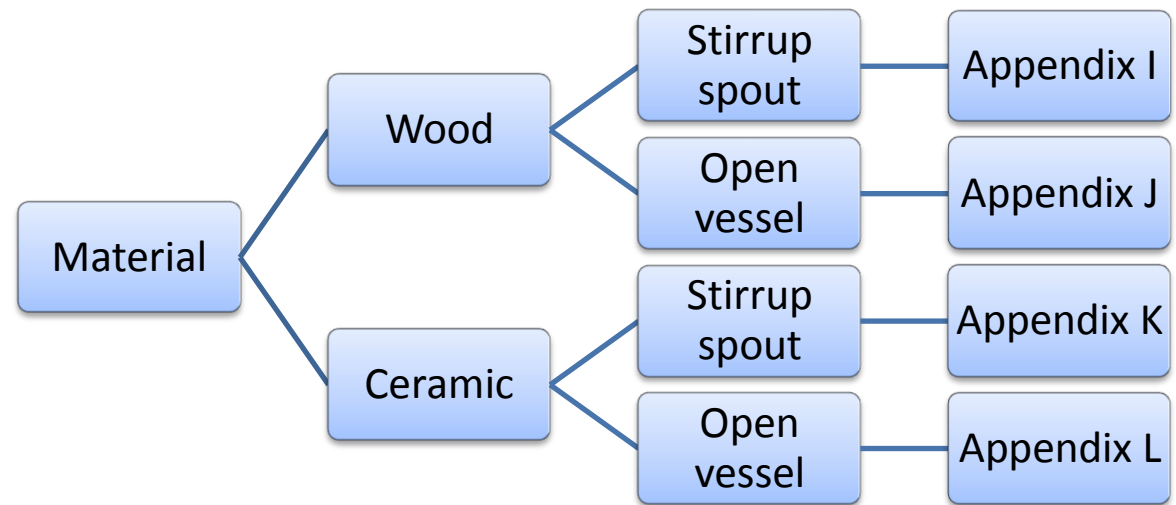


| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |                  |               |
|----------------|---|------------------|---------------|
|                | attribute<br>NO                                       | attribute<br>YES | Row<br>Totals |
| Prisoner       | 26  | 0                | 26            |
| Warrior        | 0   | 10               | 10            |
| Elite          | 12  | 0                | 12            |
| Coca carrier   | 0   | 9                | 9             |
| Musicians      | 0   | 2                | 2             |
| Not determined | 4   | 1                | 5             |
| Totals         | 42  | 22               | 64            |

| Function:      | 2-Way Table Summary<br>Thesis: Moche portrait vessels |                          |                                 |                         |                       |                                 |               |
|----------------|---|--------------------------|---------------------------------|-------------------------|-----------------------|---------------------------------|---------------|
|                | Type attribute<br>Shield and club                     | Type attribute<br>Shield | Type attribute<br>Jar and stick | Type attribute<br>Flute | Type attribute<br>Jar | Type attribute<br>Fish and bird | Row<br>Totals |
| Prisoner       | 0   | 0                        | 0                               | 0                       | 0                     | 0                               | 0             |
| Warrior        | 7   | 3                        | 0                               | 0                       | 0                     | 0                               | 10            |
| Elite          | 0   | 0                        | 0                               | 0                       | 0                     | 0                               | 0             |
| Coca carrier   | 0   | 0                        | 7                               | 0                       | 2                     | 0                               | 9             |
| Musicians      | 0   | 0                        | 0                               | 2                       | 0                     | 0                               | 2             |
| Not determined | 0   | 0                        | 0                               | 0                       | 0                     | 1                               | 1             |
| Totals         | 7   | 3                        | 7                               | 2                       | 2                     | 1                               | 22            |

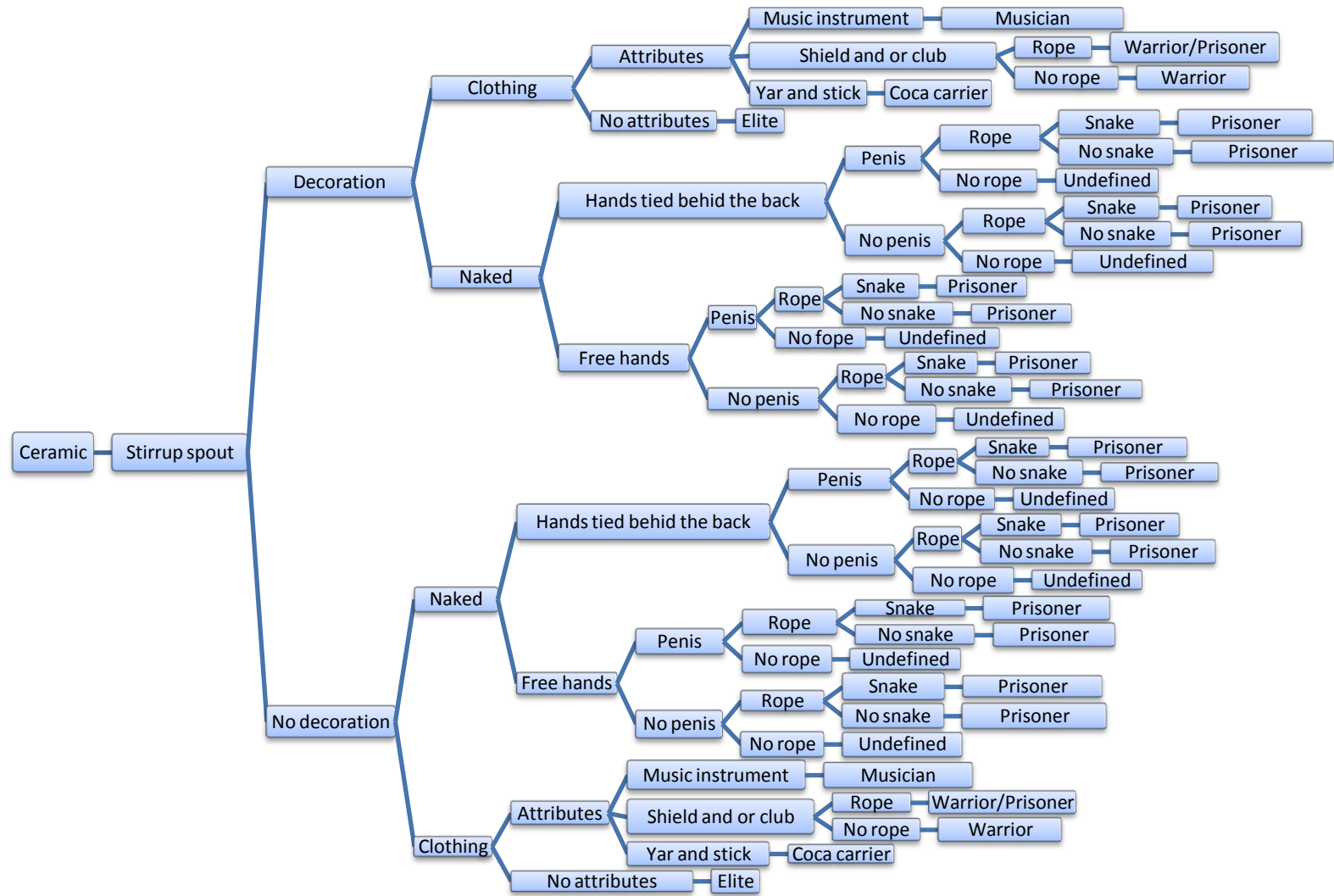


H. DECISION TREE LEARNING – MODEL



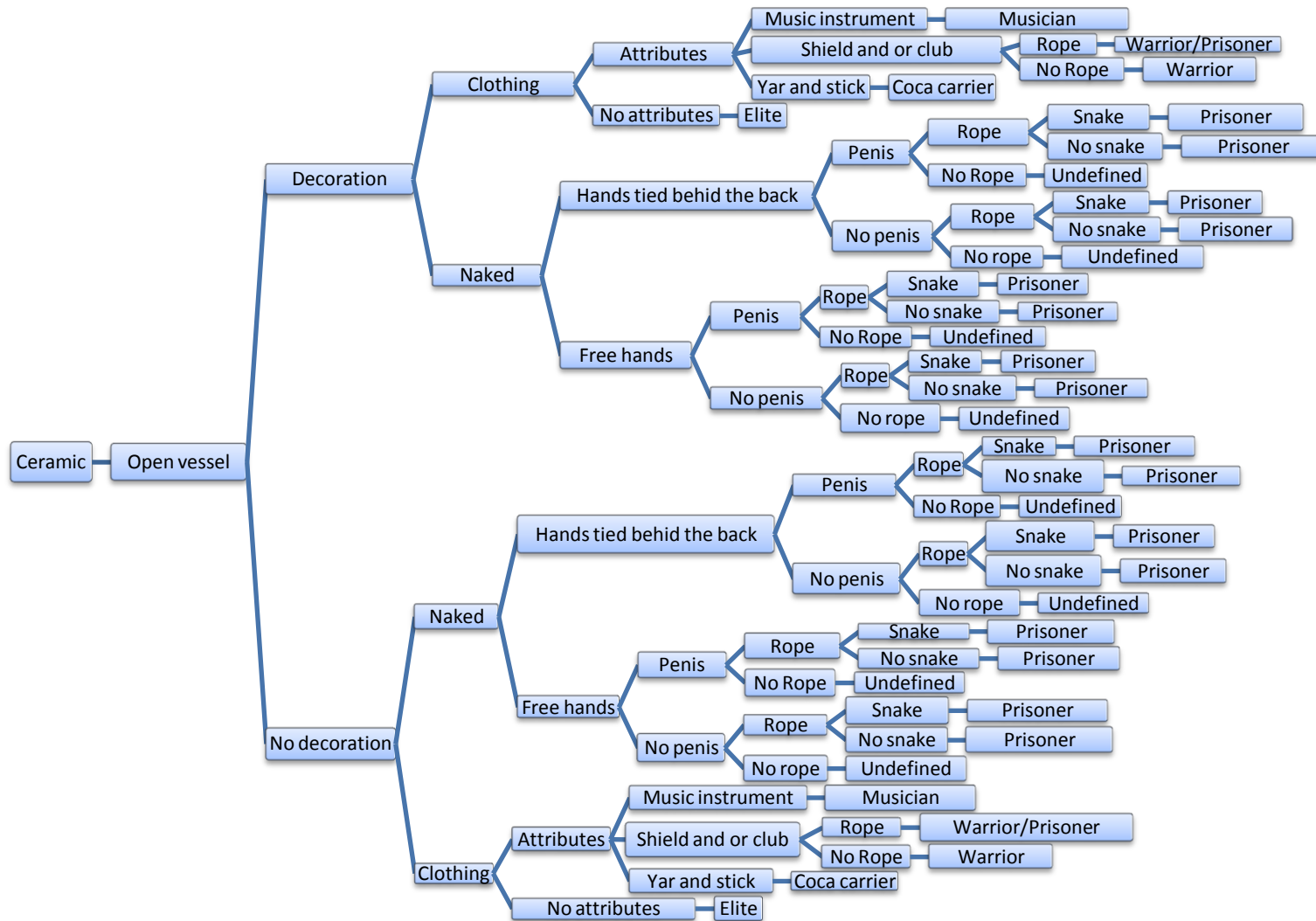


# I. DECISION TREE LEARNING - MODEL: CERAMIC STIRRUP SPOUT





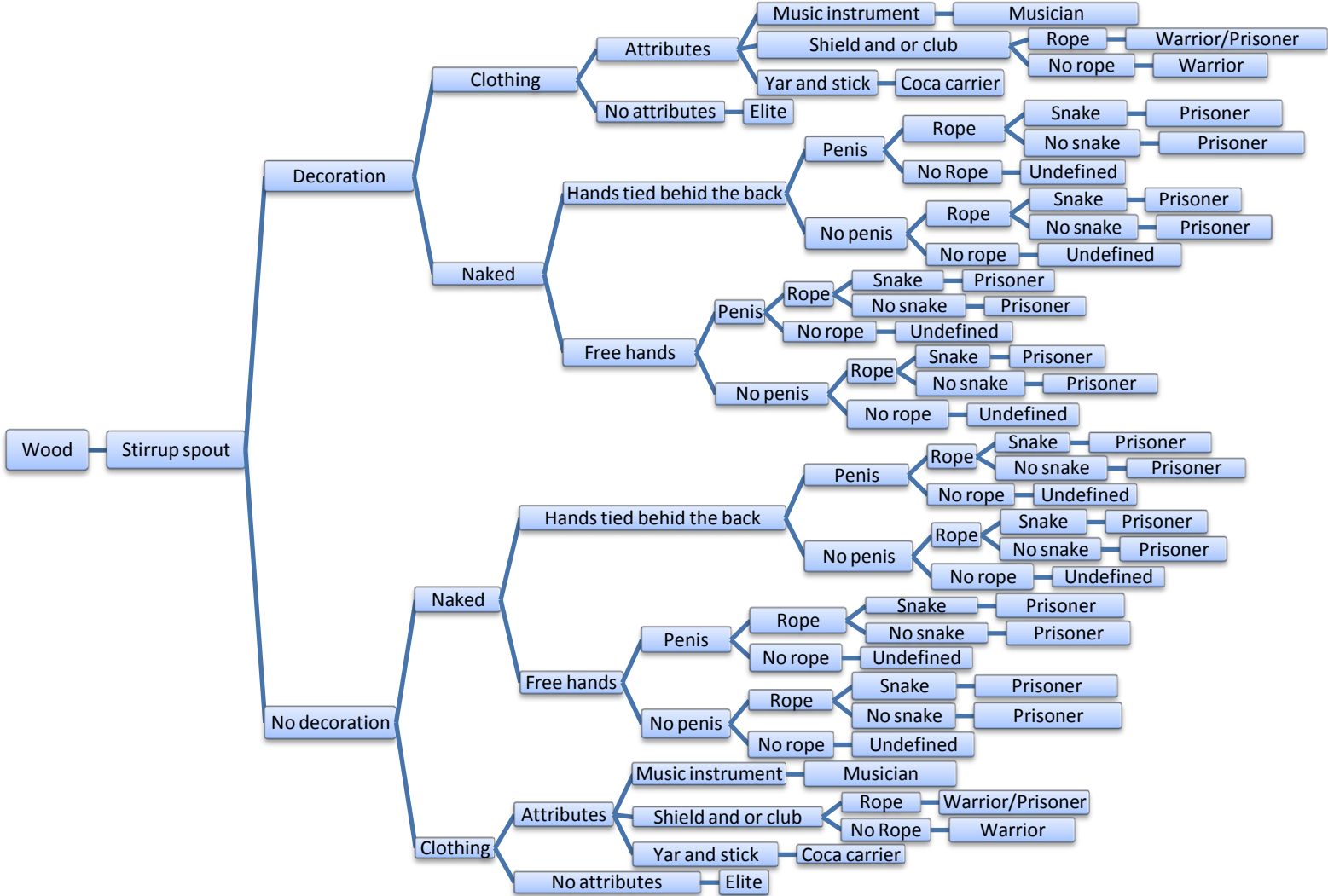
J. DECISION TREE LEARNING - MODEL: CERAMIC OPEN VESSEL







K. DECISION TREE LEARNING - MODEL: WOOD STIRRUP SPOUT





L. DECISION TREE LEARNING - MODEL: WOOD OPEN VESSEL

