

**Cupisnique, Tembladera, Chongoyape, Chavín?  
A Typology of Ceramic Styles from Formative  
Period Northern Peru, 1800-200 BC**

(Volume 1)

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Thesis submitted in fulfilment of requirements  
for the degree of Doctor of Philosophy

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November 2014

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## ABSTRACT

This thesis presents a typology for Formative Period ceramic styles from the Jequetepeque and adjacent valleys. The materials in question have historically been considered as Chavín or Coastal Chavín and more recently as Cupisnique, however, these terms remain vague and ill-defined. Other stylistic labels have also been applied (notably Chongoyape and Tembladera) but a lack of definition means that the use of these terms remains contradictory. Few attempts have been made to systematically consider let alone classify the artistic diversity of Formative Period North Peruvian ceramics. The first point raised in the course of this research is that not all these ceramics should be grouped under one monolithic label. There is a huge amount of diversity that can make generalised stylistic descriptions problematic. This research addressed this issue by using a quantitative multivariate approach. Statistical tests applied to the thesis dataset (c.900 ceramics) identified statistically significant combinations in the permutations used to classify variables such as chamber-shape, 3D-sculpting, handle-shape, spout-shape and spout-rim, the application of different kinds of paint, and the use of surface-texturing techniques, amongst others. The recurring of specific and mutually exclusive combinations of traits strongly indicates distinct manufacturing processes (*chaînes opératoires*) that in turn point to separate cultural traditions of ceramic-making. In particular, the identification and classification of two distinct handle-spout types and their consistent co-occurrence with other formal and decorative techniques are decisive in defining distinct ceramic styles. Within the Formative Period North Peruvian ceramic complex, two ceramic classes and seven types are thereby classified, plus a number of varieties. Through comparison with archaeological data, it was possible to assign some of these to geographical and/or chronological ranges, while also revealing a complex and fluctuating situation of ceramic-making and exchanging of techniques and motifs in the past.

## ACKNOWLEDGEMENTS

I gladly take this opportunity to thank the people whose support and counsel were absolutely fundamental in the successful completion of this thesis. I am grateful for their time, their views, their guidance, their patience and their criticism, as well as their humour, their companionship, and their empathy.

George Lau, my primary supervisor, for believing in me and never letting up on his maddening attention to detail, which I came to value enormously.

Andrew Mills, my second supervisor, for accepting the challenge of supervising a thesis in Ancient Americas and a student who was new to SPSS and statistics.

For financially supporting both my MA and PhD research, I thank the AHRC.

At the Sainsbury Research Unit I am indebted to Steven Hooper, for his unfaltering support in helping to make my academic goals come true; Anne Haour and Sandy Heslop, for seeing a sapling of potential in the tangled forest of my upgrade documents; Patricia Hewitt, Jeremy Bartholomew, and Matthew Sillence at the SRU library, for keeping the stream of resources – literary and technical – flowing smoothly; and Lisa Shayes and Lynne Crossland, for working their magic behind the scenes.

I wish to sincerely thank the institutions who opened their doors to a green PhD candidate and generously made their collections available for research. I hope this work is of some use to you:

- Werner Rutishauser (Museum zu Allerheiligen Schaffhausen)
- Doris Kurella (Lindencmuseum Stuttgart)
- Nancy Rossoff (Brooklyn Museum)
- Sumru Aricanli and Charles Spencer (American Museum of Natural History)
- Patricia Nietfeld (National Museum of the American Indian, Smithsonian Institution)
- Bryan Just (Princeton University Art Museum)
- Susan Haskell (Peabody Museum of Archaeology and Ethnology, Harvard University)
- Julie Jones and Heidi King (Metropolitan Museum of Art)
- Ulla Holmquist and Isabel Collazos (Museo Larco)
- Cecilia Pardo (Museo de Arte Lima)
- Doris Robles (Fundación Museo Amano)

For sending me digital excerpts of their collections databases (even if I couldn't add all to my database in the end) I am hugely thankful to:

- Gassia Armenian (Fowler Museum at UCLA)

- Fabien Ferrer-Joly (Musée des Jacobins, Auch)
- Patricia Thomlinson (Denver Art Museum)
- Manuela Fischer (Ethnologisches Museum Berlin)
- Sue Bergh (Cleveland Museum of Art)

In the field, I thank those who let me set foot on their sites, look at and squeal over sherds, and took time to share in their discoveries and expertise, in particular: Eisei Tsurumi, Yoshio Onuki, John Rick, and Matthew Helmer.

For sending me their unpublished manuscripts I am tremendously grateful to Isabelle Druc, Kimberly Jones, and Jason Nesbitt.

My thanks also go to Kevin Lane and Gabriel Ramón Joffre, for supporting and challenging me in the early stages of all this. Finally I thank Aileen Dennis, whose grasp of and ability to convey the wonders of SPSS were invaluable to me.

I cannot leave out my colleagues at the SRU, for providing the inspiration I needed and showing me how it is done. In particular I thank my SRU role-models Laura De-Becker and Mary-Katherine Scott, and my close friend Laurie Martiarena for being by my side for the journey. I also thank Eleanor Heans-Glogowska for countless caffeine-fuelled hours spent in the British Library. It wasn't only the coffee that was keeping me going.

I was not quite *past* my doctorate when I began my *post*-doctorate position at LACMA, and I will never forget the generosity and understanding with which my bosses Victoria Lyall and Diana Magaloni allowed me to finish the thesis alongside the job.

The gratefulness I feel toward my family cannot be adequately expressed on paper. My parents are my inspiration and foundation. I hope they realise the enormous significance of, and my deep gratitude for, the fact that they not only believed in me and supported me in my pursuit of Andean archaeology, but were also genuinely interested.

My final lines of thanks are reserved for my husband, who tolerated my frustration, my defeatism, and my chaotic drafts. Paul, you made it look so easy. I wish I could say that - with you by my side - it was.

It wasn't quite.

But with to you by my side it was imaginable, probable, and in the end; possible.

Thank you.

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# 1 INTRODUCTION AND SETTING

## 1.0 INTRODUCTION

### 1.0.A Introduction to the Research Problem

The ancient remains of northern Peru, an area today formed by the departments of La Libertad, Cajamarca, Lambayeque, and Piura, are commonly referred to as “Cupisnique”, named after a ravine on the coast between the Jequetepeque and Chicama Valleys. This name was first proposed as a cultural and stylistic term by Rafael Larco Hoyle in the 1930s. The most iconic materials are three-dimensionally sculpted stirrup-spout bottles. There is little doubt that some of the ceramics labelled as “Cupisnique” in collections around the world must be from the Cupisnique area, and still less doubt that the majority of them are not.

This thesis attempts to define the distinct stylistic groups making up the heterogeneous complex of ceramics that commonly fall under the term “Cupisnique”. The study is based on existing museum collections and publications, and hence is made doubly problematic: firstly because there were few if any archaeological associations preserved, the majority of pieces having no secure provenance, and secondly because any selection (for collection or publication) made for aesthetic reasons will be skewed in the direction of the most elaborate pieces.

Cupisnique material culture has enjoyed a long history of research, in part due to its contemporaneity and association with Chavín de Huántar. It also contains some of the first naturalistic figurative imagery in Peru. In time, this coincides with the proliferation of monumental centres and the development of social complexity, making the study of this material particularly pertinent for understanding the early history of northern Peru. This period has long been dominated by the Chavín phenomenon and although long a cause for debate, the relationship between “Cupisnique” and “Chavín” is not yet clearly understood nor defined.

The problem is further complicated by the lack of firm dating or of firm geographical boundaries for any of the ceramic types identified. The number of distinctive pieces and the variety of places at which they are known to have been found suggests close

contact and a fair amount of moving around, both of people and of goods. This is especially problematic given the influence that has been historically attributed to the Chavín phenomenon in this period, whose religion and iconography were said to have influenced the whole of North Peru and beyond during the Early Horizon. Indeed, Cupisnique was and continues to often be thought of as a coastal variant of Chavín. There is, however, only very little archaeological evidence for this connection and the stylistic resemblances, although close as far as a few specific motifs are concerned, are rather general. Even if both areas were better known, the problem of defining what is what would remain thorny simply because of what was undoubtedly a fluctuating cultural situation in the past.

That being said, “a homogeneous group [of ceramics] is merely one that has not yet attracted the attention of an investigator” (Benfer 1975:246, cited in Rice 1987:286). Without providing final answers, the present thesis aims to adequately record the status quo, which in this case appears to be diversity rather than the homogeneity previously emphasised for the Early Horizon. Using a statistical multivariate analysis, this thesis argues that the ceramic complex which has come to be called “Cupisnique” actually consists of several sub-groups or styles, distinguishable on the basis of form, technology, surface treatment, decoration, and iconography. It highlights the wide range of ceramic styles present in archaeological contexts of the Jequetepeque and neighbouring valleys during the Formative Period, and outlines evidence for both regional and temporal distinctions.

### **1.0.B Thesis Outline**

Following this introduction, the second part of **Chapter 1** sets the scene of the Formative Period in North Peru, describing the social, environmental, and material context for the ceramics that are the focus of this thesis. Of particular note and relevance is the existence of long-distance exchange networks between coast and highlands as well as along the Andean cordilleras, and the lack of one pre-eminent centre of monumental architecture; in other words, the undoubted existence of diverse and distinct societal groups.

**Chapter 2** outlines the historical background of research, demonstrating the issues that led up to the research problem. The first and foremost is a lack of context. During the mid-1960s, a drought in the Jequetepeque river system, combined with

the increasing popularity of fine Pre-Columbian ceramics in the world of art, led to the looting of Formative Period sites and cemeteries along the North Coast and inner valleys. The ceramics, brought out by clandestine activities, found their way to local private collections and the greater art market. In the resultant auctions and publications, the looted artefacts were variously labelled “Cupisnique”, “Tembladera,” “Chongoyape,” “Jequetepeque,” “Zaña,” and “Chavín” (see Lapiner 1976). The final label recalls the continued conception of these materials as indicative of the expansive Chavín style and horizon, seen as the cradle of Andean civilisation and source of all sophisticated cultural development in Peru. The former terms designate either the heavily looted Jequetepeque and Zaña river valleys, or specific sites within the region.

Chapter 2 demonstrates how the history of research led to a focus and (over-?) emphasis on finding similarity between material culture styles. This was conditioned by arguments for the Chavín phenomenon and the need for chronology-building through the linking of regional styles to the Chavín horizon, as well as by a scholarly interest in the development of large, complex societies and statehood, rather than small-scale regional groups. The scarcity of systematic archaeological investigations in the Jequetepeque and surrounding valleys makes it extremely difficult to position these objects in their correct archaeological frame and cultural context. To compound the problem, in the late 1970s, the Peruvian government commissioned a German engineering firm, Salzgitter Industriebau Gesellschaft MBH, to regulate water flow in the area by damming the Jequetepeque River and constructing the Gallito Ciego Dam 10km downstream of Tembladera. The resulting reservoir flooded a significant section of the middle Jequetepeque Valley, including 645 registered archaeological sites (Ravines 1982). Chapter 2 provides a brief summary of early archaeological work. It then focuses on the more recent investigations and new chronologies established for the Formative Period in North Peru, which provide the most up to date context for the ceramics in question.

**Chapter 3** provides a literature review of ceramic style definitions and seriations. The cultural and/or stylistic terms that are the most widely applied to the ceramics in question are “Cupisnique” and “Chavín”. These terms continue to be used by scholars and museums, but as detailed in Chapter 3, there is as yet little or no

consensus about what distinguishes them, nor whether any formal variation can be related to cultural boundaries, chronological or geographical. As Burger points out, "...it is now common to refer to almost all of the late Initial Period and Early Horizon cultural materials from the Virú Valley to the Lambayeque drainage as Cupisnique, regardless of differences in the local ceramic assemblages" (Burger 1992:91). Similarly Toshihara concludes: "It seems that he [Roe 1982] called these vessels 'Cupisnique' only because they had been found on the North Coast" (Toshihara 2002:75).

The situation in museums largely reflects the history of research and history of their collections. Perhaps unsurprisingly, the Museo Larco in Lima has a large collection (over 525 pieces) of "Cupisnique" ceramics, assigned a timeframe from 1250 BC - AD 1. A search for "Chavín" in their catalogue yields just 10 hits, not a single one of which is ceramic. By contrast, the American Museum of Natural History (New York), which acquired a large part of Frederick Landmann's collection, has a variety of cultural labels for its Formative Period ceramics, including Chavín, Cupisnique, and Tembladera. The Museum zu Allerheiligen (Schaffhausen, Switzerland) also has catalogue entries for Chavín, Cupisnique, Tembladera and Chongoyape, which reflect information attached to the objects when purchased by the original collector (Marcel Ebnöther). These may reflect information given directly by looters and thus could theoretically be indicative of the provenance of pieces, however, looters have also been known to deliberately obscure the sites of their clandestine activities (Bruhns & Kelker 2010; Eisei Tsurumi 2012 pers. comm.). It is also impossible to know if such labels were added later, perhaps by dealers, to please and encourage interested buyers.

Chapter 3 shows that academic scholarship has begun to acknowledge and attempt to define stylistic differences, as well as refine chronological phases for the Formative Period. Nonetheless stylistic and cultural labels remain confusing and ill-defined and more often than not scholars will refer to "Cupisnique style" ceramics without any description or definition whatsoever. Most ceramic typologies have been restricted to the local scale which, while making reference to similarities with other styles, often suffer from the lack of definition of these other styles. As noted by Kato; "There was a very intimate interaction between the site of Kuntur Wasi and the north coastal

zone. Unfortunately we still do not have sufficient comparable data on the 'Cupisnique culture' of the north coast" (Kato 1993:228, my translation). One aim of this thesis is thus to clarify this picture and to define what actually constitutes similarity and difference in terms of ceramic style and iconography.

The first part of **Chapter 4** outlines the theoretical concerns and methods of the present study. Although not the primary focus of this thesis, some of the key questions underlying the analysis of the data concern the concept of style. How does material culture originate in its social context? What structures and conditions the production and reproduction of material culture and style? What social and technical roles does material culture serve, and in what ways does style, in the performance of these roles, reciprocally affect social structures and processes? "Only in context of these larger questions can one begin to engage in the more specific attempt to understand the role of material culture in the formation, expression, and reproduction of identity and discuss the feasibility of using remnants of material culture to identify social groups and boundaries of the past" (Dietler & Herbich 1998:234). Such questions inform the methods and variables used, as well as any conclusions inferred on the basis of the quantitative analysis of Chapters 5 and 6.

Following a brief discussion of style in theoretical terms, Chapter 4 reviews how ceramics, specifically in Formative Period Peru, are made, and how cultural aspects such as the organisation of production might affect the finished product. The final part of Chapter 4 introduces the dataset, describing the methods applied to the material in terms of data collection, analysis and processing. As noted earlier, the present dataset of 900 pieces is biased towards those that were desirable for museum and private collections. The specific uses of these vessels are not known. Where acknowledged, all are said to have been found in graves or caches. As such they appear to have been utilitarian in a ritual or symbolic rather than a domestic sense, as well as iconographic expressions and carriers of ideological information.

Technically speaking, all of the ceramics from this period and area are similar, although there are great differences in form and decorative techniques. The paste of north Peruvian fineware ceramics is usually tempered with sand (Larco 1941; Druc 2014:8; Donnan 1992:13; Elera 1998). Construction techniques are also remarkably uniform over a large distance and over considerable periods of time: coil-built

vessels were scraped to eliminate the joins and most vessels were burnished. Some vessels are also painted using post-fire paint or slip-paint, or decorated using various kinds of surface alteration, and many are modelled as 3-dimensional figurative effigy vessels. As outlined in Chapters 2 and 3, scholars tended to (over-) emphasise iconographic similarities. Nonetheless this thesis clearly shows that there are specific and consistent groupings of traits (permutations) and these provide the basis for the typology presented here.

There is no one correct approach to classifying ceramics. “Approaches to ceramic typology are, and should be, varied” (Sinopoli 1991:43). How this is done and what is recorded depends on what the study aims to resolve, be it the technology, decoration, forms, sizes, or iconographic connections etc. As such it is impossible to do a ‘complete’ characterisation of vessels, and there are a potentially infinite number of variables or permutations that can be recorded. The selection of vessels and variables is addressed in Chapter 4, but the quantitative analysis follows in Chapters 5 (the analysis of form) and 6 (the analysis of decorative techniques).

**Chapters 5 and 6** follow and describe the *quantitative* data-processing that ultimately leads to the Typology discussed in Chapter 7. In particular, crosstabulations of different pairs of variables provide quantitative figures for common and uncommon trait-combinations, but wherever possible statistical tests of significant correlation and difference were run to discern patterns within the data. Chapter 5 deals with form or shape variables and Chapter 6 analyses the distribution of variables such as painting and surface texturing: decorative techniques. This separation of form and decoration is purely practical from an analytical viewpoint, in that these are all separately defined and recorded variables that try to capture the traits that characterise ceramics from Formative Period North Peru. It does not presuppose a conceptual separation between shape and surface treatment or decoration in the mind of the potter.

**Chapter 7** then draws together the strongest patterns or relationships that emerged from the quantitative analysis, and employs an *intuitive approach* to discuss the typology as it is understood on the basis of this study. Each of the identified ceramic groupings (Ceramic Classes, Types, and Varieties) is compared to archaeological findings and existing seriations, in order to make a start at identifying geographical



and chronological contexts for each of them. The results of this research will *in part* match what scholars have said before. Indeed, the fact that the present analysis leads to some of the same interpretations as scholars have reached previously, using purely intuitive approaches, is taken as validation of the statistical methods employed here. The key difference is that this study aims to be explicit and precise about the groupings that are presented, spelling out definitions for each of the identified Types or Styles, and acknowledging those vessels that do not fit any of our categories.

### **1.0.C Research Project in Sum**

The classifying and ordering of ceramics are imperative to get at meaningful information – a pile of sherds tells us nothing about their producers other than that they made pottery, and almost the same is true of a diverse but undifferentiated group of complete “Cupisnique” or “Chavín” vessels. Indeed, as with all classes of material culture, the technology, economy, and social importance of ceramic production and use allow us to do much more than simply document their presence or absence at a site or region. Nonetheless, as outlined in Chapter 4, this study focuses primarily on the first step of ceramic analysis – *classification*; the ordering of material into defined and described groups or styles based on form, technology and (to a limited extent) iconography. While every effort is made to find contextual ‘anchor points’ for each of the identified Types, the relationships between the different wares is not known precisely (see Chapter 7).

The obvious problem in trying to talk about intercultural relationships in Formative Period North Peru is that very few of the ancient cultures have been adequately defined or dated. It is fairly obvious in studying the early ceramics of the Jequetepeque and adjacent valleys, and Chavín de Huántar in North-Central Peru, that there are distant stylistic interconnections and influences at work, but it is difficult to pinpoint these in either direction (see Chapters 2 and 3). There is good evidence that there was substantial trade, including of ceramics, between the various ancient societies within the Jequetepeque region, where a great number of diverse styles were being made and used. Until more controlled excavations are carried out, however, it is relatively fruitless to try to delineate more closely the type of contact involved.

## 1.1 SETTING THE SCENE

### 1.1.A Environmental & Cultural Setting

The focus of this study is the ceramic material culture from the Jequetepeque and surrounding valleys in northern Peru, dating to between circa 1800 – 200 BC. This period is often termed the “Formative Period”, or it is divided into an “Initial Period (of ceramic use)” and an “Early Horizon” (Table 1.1). Explanations for my use of the term ‘Formative Period’ are outlined in Chapter 2.

**Table 1.1. Basic chronology**

Pre-ceramic Period		
		1800 BC
Formative Period	Initial Period of Ceramic Use	
	Early Horizon	900 BC
		200 BC
Early Intermediate Period		

Peruvian geography is dominated by the Andean mountains running roughly north-south along the western coast of South America. They rise steeply from the Pacific coast, reaching heights of more than 2500masl within less than 100km of the ocean. This leaves a very narrow coastal strip which (shielded by the Andes rising to a total height of over 6000m), is one of the driest deserts in the world. The Andean foothills and coastal desert are broken up by a series of rivers that run east to west into the Pacific Ocean. In the North of Peru these are the Virú-, Moche-, Chicama-, Jequetepeque-, Zaña- and Lambayeque-La Leche -Valleys (Map 1).

Driven by the Humboldt Current, the marine resources of Peru are some of the richest in the world. It has been convincingly argued that some of the earliest monumental architecture and sedentary societies in Peru – appearing as early as the late 3<sup>rd</sup> millennium BC during the Pre-ceramic period – seem to have been based on exploiting marine resources, in particular shellfish.<sup>1</sup> Moseley persuasively argued for

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<sup>1</sup> This was contrary to conventional models for the development of social complexity, which listed the need for ceramics and intensive agriculture in the development of social complexity (Childe 1951; Boserup 1965; Wittfogel 1957).

this in his “maritime hypothesis” (Moseley 1975, 1985, 1992), which has been supported by excavations at Áspero, Huaca Prieta, and other sites (Quilter & Stocker 1983; Wilson 1981). Nonetheless, evidence shows that most Pre-ceramic and Formative Period societies used both marine and terrestrial wild resources and (increasingly over time) cultivated foods and crops. Botanical and faunal materials from coastal sites such as Puémape and Huaca Prieta attest to a mixed subsistence base of agricultural goods and marine resources (Elera 1994; Quilter 1991; Bird 1985:239).

Moving inland beyond the littoral desert strip, the lower and middle sections of the river valleys are greener. The floodplains lend themselves to irrigation agriculture, practiced from at least 2000 BC (Quilter 1991), although there is evidence for, apparently, irrigation canals in the Zaña Valley as early as 3400 BC (Dillehay 2005). Domesticates include food-plants as well as cotton for spinning into fishing nets or weaving into textiles. The nature of the Peruvian geography creates a series of microclimates along altitude levels, each of which lends itself to the cultivation and exploitation of a particular crop or resource. Crops which can be grown in high-altitude conditions includes mainly frost resistant tubers, quinoa and potatoes, and at lower altitudes maize, beans, squash, chilli and peanuts. Coca is grown in the foothills and warmer valleys. This has prompted the term “vertical archipelago” (coined by John Murra in the 1960s) for the Andes, indicating that through intensive exchange up- or down-slope, societies were able to acquire a great variety of resources. Through a unique system of community organisation and exchange across different ecological niches, individual family groups (*ayllus*) had access to a wide variety of crops and goods and effectively achieved self-sufficiency.

Throughout the Formative Period wide-ranging exchange networks expanded and intensified. Shoreline resources and lower valley floor irrigation seemed to create a certain interdependency of coast and inland, and subsistence goods were exchanged between zones. For example, at Huaca Lucía-Chólope (Batán Grande, Lambayeque - La Leche drainage) fish and shellfish were the main source of protein, despite being situated some 50km inland (Shimada, Elera & Shimada 1983:142). Economic ties between the North Coast and Highlands also included quantities of exotic pottery and other non-subsistence items. For example, in the coastal cemeteries of Puémape

and Barbacoa it was not unusual to find several different types of ceramics in a single burial (see Elera 1998).

The apparent movement of finished ceramics is of particular interest in this thesis. Despite great differences in altitude, it is worth bearing in mind that distances between the coast and highlands are actually relatively short. The core of the Cajamarca Valley, at 2700 masl, for example, is less than 10km from the headwaters of the Jequetepeque river, and the Pacific coast is less than 100km away (Map 2). Dense occupations of the middle Jequetepeque valley suggests that the area around modern day Tembladera may have been an economically important component in the vertical archipelago, possibly as a source of chilli-peppers and perhaps coca, for highland societies (Burger 1995:98).

As well as between coast and highlands, there is evidence for trade along the entire length of Peru, indeed as far as Ecuador and Chile. *Spondylus* shell from the Ecuadorian coast becomes increasingly prevalent in the archaeological and iconographic record of the Peruvian Andes, and by the 1<sup>st</sup> millennium BC there is evidence for contact between the far North and South Coasts of Peru (Toshihara 2002:461; Elera 1993:252; Burger 1995; Roe 2008). Developments in the highlands parallel those on the coast. A *Spondylus* shell and lapis-lazuli bead necklace (probably from Chile) found in a shaft-tomb at Cerro Blanco make plain the long distance exchange networks operating already in the 2<sup>nd</sup> millennium BC (Burger 1995:113).

Throughout the Formative Period, both short- and long-distance trade networks, fuelled in part by heterogeneous ecological conditions, continued to expand and intensify. It is evident that not only goods but technologies and ideologies were also widely exchanged. This culminated in what scholars came to call the “Early Horizon” or “Chavín Horizon”. Although the exact nature of this phenomenon remains debated, it has been hugely influential in the discussion and interpretation of widely dispersed ceramic styles, and this is discussed further in Chapter 2.

### **1.1.B Social Setting**

Despite almost a century of archaeological research, our understanding of northern Peru in the final two millennia BC (2000 - 1 BC) remains fragmentary. There are no cultural terms for the earliest societies on the North Coast of Peru, unlike for

example, in Ecuador, where Valdivia is used as the term for a widespread cultural phenomenon between about 4400-1450 BC. Only from about 1500 BC do scholars use names for the cultures of North Peru: Cupisnique and Chavín. However, the relationship between them or boundaries that distinguish their material cultures remain debated, in fact, they were (and sometimes still are) considered to be variants of the same culture. This situation stems from the history of research and a lack of definitive typologising of material styles and features, which will be discussed in Chapters 2 and 3. This section synthesises basic information on the nature of the societies living in northern Peru during the Formative Period.

### ***1.1.B.1 Societies of the Late Pre-Ceramic Period***

Peru has been recognised as one of the regions of ‘pristine’ cultural development in the world; an area where agriculture, ceramic technology, and ‘statehood’ developed indigenously. Coastal Peru witnessed the emergence of the first non-egalitarian, “complex” societies in South America.<sup>2</sup> These developed by about 2500 BC during the late Pre-Ceramic period (Moseley 1975; Haas 1982; Feldman 1983, 1987; Donnan 1985; Haas, Pozorski & Pozorski 1987; Quilter 1991; Stanish 2001). As such, the development of social complexity became a key focus in Peruvian archaeology. While the appearance of social complexity during a pre-ceramic time and without a reliance on intensive agricultural practices upset conventional wisdom and definitions (Childe 1951; Boserup 1965; Wittfogel 1957), recent studies conclude that during the Pre-Ceramic Period, no one site was the centre of a regional polity. Rather, there were a series of autonomous settlements of varying complexity up and down the coast (Stanish 2001:47).

While the construction of these vast complexes undoubtedly required leaders to coordinate and plan, there is a conspicuous absence of elite tombs or palaces in the Pre-Ceramic and Early Formative Periods. Instead monumental architecture has been almost exclusively interpreted as being of a religious nature, designed and used for

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<sup>2</sup> Social complexity in this context is primarily indicated by monumental constructions with functions beyond residential or subsistence: platform pyramids, courtyards, walled plazas. The link between “corporate” architecture (Moseley 1975) and social complexity is based on the premise that these constructions were built by, and meant to be seen and used by a social group comprised of more than just a few families (Stanish 2001:45).

the performance of ritual and ceremony, around which social structure arranged itself (see especially Moore 2005; also Tellenbach 1986; Burger 1992; Quilter 1985; Pozorski 1987). These monumental structures and their social implications (i.e. the debate over the formation of complex society) provided a key focus for archaeological work in the Pre-Ceramic and Formative Periods.

### ***1.1.B.2 Societies of the Formative Period***

The start of the Formative Period is conventionally set at about 1800 BC, coinciding more or less with the first appearance of ceramics. Lasting over 1500 years, the Formative Period is characterised by a proliferation of ceremonial centres (in size and complexity), an intensification of agriculture and accompanying population growth, increased long distance exchange, and the emergence of elites, both on the coast and in the highlands. Figurative art emerges and quickly becomes widespread. The earliest ceramics develop into a highly sophisticated ceramic technology, and there is evidence for the beginnings of metallurgy (1400 BC at Mina Perdida – Burger & Gordon 1998).<sup>3</sup>

#### **1.1.B.2.1 Social Complexity**

During the Formative the archaeological record shows the development of what might be called ‘chiefdom-level societies’, not centralised nor highly stratified, but with increasing social inequality (for a debate on definitions and models see Earle 1987; Haas, Pozorski & Pozorski 1987; Feinman & Neitzel 1984; Feinman & Marcus 1998; Blanton et al. 1996; Flannery 1999; Johnson & Earle 2000; Yoffee 2005; Carneiro 1970; Drennan & Uribe 1987; Elson & Covey 2006, amongst others). Specifically considering social inequality as a criterion, the first line of evidence is in the material culture. As the Formative Period went on, there is increasing evidence for individuals able to accumulate a limited amount of wealth in the form of tombs containing uncommonly fine ceramics or personal adornments in shell and semi-precious stone. Aside from social inequality, one aspect of ‘social complexity’ that

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<sup>3</sup> Some scholars (e.g. Fux 2012) have argued for setting the start of the Formative Period as early as 3500 BC, with the appearance of the first complex societies (monumental architecture). However chronological frameworks with evolutionary connotations are not necessarily helpful, and in this thesis the term Formative Period is defined purely as a temporal range (see Chapter 2).

might be discerned from the material culture itself is in the organisation of production i.e. the emergence of specialisation and a co-dependence on others for subsistence needs. The technical and artistic sophistication of ceramics in the dataset certainly imply a high degree of skill, but whether this can be taken as evidence of craft specialisation is debatable. It is therefore discussed separately in Chapter 4.

A second line of evidence is the architecture. Little domestic architecture from the Formative Period has been uncovered and therefore arguments for social inequality rely strongly on public architecture (see for example Vega-Centeno 2007). Several scholars have argued that towards the later 2<sup>nd</sup> millennium BC, public architecture for rituals becomes more restricted (Williams 1980:100). For example at Huaca de los Reyes (Moche Valley) the spaces at the top of the structure are increasingly smaller, indicating that only a few ritual specialists or elites could participate directly (Pozorski & Pozorski 1993). The same development is noted at Huambacho in the Nepeña Valley from 1000 BC (Chicoine 2010). At Pampa de las Llamas Moxeke in the Casma Valley, scholars documented the systematic restriction of access by narrow entrances with wooden bar closures (Pozorski & Pozorski 1986, 1991). In the Jequetepeque Valley, the main complex at Montegrande was modified in construction Phase II, with a new ritual space built behind the Huaca Grande, designed for more intimate rituals with smaller numbers of participants (Toshihara 2002:456; Tellenbach 1986). That being said, it must be noted that other scholars debate the weight of such evidence. Speaking of the Casma Valley, Burger argues that “Casma has produced little concrete evidence of economic or social stratification during the Initial Period” (Burger 1992:87).

Specifically from the North Coast, in the cemeteries of Puémape and Chicama people were buried with a wide range of objects, in which personal adornments and elaborate fineware ceramics were common. Some individuals were buried with bone finger-rings on two, three, four, five of their fingers, bone earrings with turquoise and shell inlay, and skirts made of thousands of beads (Elera & Pinilla 1992; Elera 1998; Larco 1941). By the end of the 1<sup>st</sup> millennium BC social status seems to have become institutionalised to a certain extent, as indicated by rich child burials dated to around 1400-800 BC (Elera 1998:279; Toshihara 2002:456). Nonetheless, no truly elite tombs nor palaces have been uncovered from the Early and Middle Formative

Periods. Apparently, the political-economic strategy centred on the production and handling of spaces and places of prestige rather than goods. As such, it seems likely that long-distance trade focused on small amounts of prestige objects that distinguished certain individuals or groups, but this had a relatively small effect on overall economic or social organisation (Dillehay 2008).

By the Late Formative Period, burials containing increasing quantities of exotic goods as well as highly specialised items such as gold-jewellery indicate the existence of a small but established elite with exclusive access to certain material goods. A handful of burials from the Jequetepeque and Lambayeque valleys draw attention in particular for the gold objects recovered from them: Chongoyape (Lothrop 1941), Cerro Corbacho (Kauffmann-Doig 1981), and Kuntur Wasi (Onuki & Inokuchi 2011). The iconography associated with these objects appears closely linked to religious practices, leading scholars to conclude that any inequality and leadership that did emerge was closely linked to ceremonial centres and the performance of rituals (Burger 2008; Onuki 1995; Tellenbach 1986; Castillo 2009:40; Makowski 2008a, 2008b; Pozorski & Pozorski 1987). “Those individuals who possessed authority seem to have been tied intimately to the temples and their associated religious activities” (Burger 2008:13, my translation).<sup>4</sup> These religious activities appear to have been oriented towards shamanistic practices (however defined), including the use of hallucinogens (see for example Torres 1995, 2008; Burger 1992, 2011; Moore 2005; Cordy-Collins 1977).

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<sup>4</sup> Again, this depends on our understanding of how to recognise “individuals who possessed authority” in the archaeological record. Given that archaeologists identify elites or persons of high status by their association with rare or exotic material goods, it is almost impossible to get away from economically-based explanations: we identify leaders in the archaeological record pretty much exclusively by their wealth, and thereby invariably ascribe an economic dimension to their power. This has not been problematised enough (see Ucko 1969, who demonstrates that grave goods do not necessarily correlate with wealth/status in life). Archaeologists however cling to the established wisdom/teachings that the presence of wealth is synonymous with power and ‘eliteness’. But it is a circular argument: we identify elites by the presence of wealth, and use this to justify the assumption itself; that elites used wealth to signal their status (see e.g. Elera 1998). “Defining prestige by behaviour alone leads to a tautology: prestige is what is gained through the use of prestigious goods, and prestigious goods are those that give us prestige” (Robb 1999:6).



#### 1.1.B.2.2 Material Culture & Iconography

During the Late Pre-Ceramic and Early Formative Periods, commonly found items objects include beads made from various semi-precious stones or shell, carved stone pestles and mortars, bone snuff-tubes and spatulas, and carved marine-shells. As mentioned, figurative art emerges in the Formative Period and quickly becomes widespread. Recently uncovered painted murals at Ventarrón (Lambayeque valley) show scenes of fish and deer caught in nets, and these are dated as early as 2300-2000BC (Hearn 2007; Alva Meneses 2012:63).

The earliest ceramics appear around 2000 BC (Burger 1995:58), almost 1000 years later than in Ecuador or Colombia. Once adopted these very quickly develop into a highly sophisticated, artistic ceramic technology, with the iconic stirrup-spout bottles appearing in Peru from about 1500 BC. The most famous ceramic vessels from the Formative Period show figuratively sculpted humans, animals, and supernatural beings. As far as the archaeological record of Formative Period North Peru goes, ceramics are our most important source of cultural and iconographic expression. No doubt gourds, wood, and textiles also played a role, but the significance of these is hard to evaluate as very few examples in these media have survived the millennia. Iconography – both figurative and geometric – appears as murals or friezes, on stone, bone, and soon after on gold, but as indicated also by later cultures (such as Moche), ceramics seem to have been the foremost medium of artistic and symbolic expression. As these ceramics are the main concern of this study, a detailed overview of the literature on ceramic styles from the period is given in Chapter 3. Manufacturing processes and the subject of craft specialisation are treated separately in Chapter 4.

In the iconographic repertoire of the Formative Period North Coast and Highlands, scholars have long noted the prevalence of feline depictions, as well as motifs related to human-animal transformation and hybridity (composite supernatural beings) (see for example Tello 1942; Burger 1992; Roe 2008; Cordy-Collins 1998). Commonly recognised motifs on the coast and in the highlands thus include felines, serpents, fanged mouths, spiders, the San Pedro cactus, volutes, and step-motifs, many of which are often assumed to represent activities associated with ecstatic shamanism (Langdon & Baer 1992; Cordy-Collins 1977; Burger 2008; Staller & Currie 2001;

Sharon & Donnan 1974; Elera 1994). In particular, the importance of the feline in Andean iconography is usually interpreted in light of the fact that felines are common alter-egos of shamans (Langdon & Baer 1992; Burger 1995; Torres 2008). Following the increasingly entrenched notion of a shamanic iconography associated in particular with the Chavín cult, the prevalence of the feline has arguably been over-stated and generalised, and attributes favoured as “feline” at the expense of interpretations that might involve other animals.<sup>5</sup>

### **1.1.C The Setting in Sum**

The Early and Middle Formative Periods in northern Peru saw growing populations supported by irrigation agriculture and increased inter-zone exchange. Polities surrounding monumental ceremonial centres such as Montegrande and Purulén consisted of small, independent political units. They were likely led by an incipient elite that was supported by control over some resources, a limited labour force, and – perhaps most importantly – a body of esoteric knowledge and access to exotic materials, but who lacked insignias of power as seen in later phases (Elera 1998:275). This changes somewhat in the Late Formative, but the authority of leaders seems to remain intimately linked with ceremonial centres and the ritual activities carried out there (Burger 2008; Toshihara 2002; Seki 1997).

During much of the 20<sup>th</sup> century conventional wisdom and scholarship argued for the widespread influence of a feline cult centred at Chavín de Huántar. The discovery of particular architectural and iconographic traits shared across distant sites resulted in the notion of the Early Horizon, and led scholars to argue for a general cultural convergence during the Formative Period: societies of both the coast and highlands seemingly shared a similar set of ideological beliefs and practices, associated with a similar architectural tradition and iconography. “There is little doubt that we are dealing here with a set of religious concepts that from the Rimac Valley to Chiclayo were expressed by a rather uniform iconography” (Bischof 2008:139). Recent scholarship has questioned the exact nature of this phenomenon

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<sup>5</sup> See for example Paisley & Saunders (2010) who argue for bear-features on the Lanzón. Furthermore in the dataset collected for this thesis, felines are relatively rare, and ‘supernatural’ or composite beings very rare (see Chapter 7).

and, in line with newer theoretical interpretations, it is this alleged material 'uniformity' that this thesis seeks to address.

## 2 HISTORY OF RESEARCH

### 2.0 INTRODUCTION TO THE HISTORY OF RESEARCH

This chapter reviews the history of research into Formative Period northern Peru, particularly the Jequetepeque and adjacent coastal valleys. Where the previous chapter set the geographical and social scene, this chapter sets the scholarly scene, outlining the archaeological work underlying debates about ceramic styles. The structure of this chapter is chronological, following the history of research through the last 80 years. Early scholarship ( $\approx$  1930-1970) is concerned primarily with sequence-building and chronology. From the 1970s and 1980s and the increasing use of radiocarbon dating, the early chronologies are overturned and stylistic terms begin to acquire meaning aside from chronological seriation. The summary of work from 1990 onwards includes new chronological systems and seriations established for highland and coastal sites, concluding with the chronological framework to be used in this thesis. Specific ceramic typologies and stylistic seriations are reviewed in detail in Chapter 3.

As will be shown, scholarship during the mid-20<sup>th</sup> century is characterised most of all by Tello's conception of Chavín as the 'Mother Culture' (*'cultura matriz'* - Tello 1960) from which all other cultures developed. Indeed the history of research in North Peru has been dominated by the notion of a widespread cultural phenomenon, said to originate at Chavín de Huántar. The site is well known and described in detail elsewhere (e.g. Burger 1992). Located in the North-Central Highlands, it is far from the coastal centres being discussed by Larco, Willey, Rowe, and Roe in their chronological seriations (see below). The Chavín phenomenon rests on the recognition of widespread stylistic and cultural uniformity in Peru during the 1<sup>st</sup> millennium BC, from Pacopampa in the northern highlands to Ica-Paracas on the southern coast, which is also what defined the Early Horizon.

A conference at Dumbarton Oaks in 1968 firmly established that the Chavín phenomenon was a religious cult rather than the result of militaristic expansion (Benson 1972). Still today, Chavín de Huántar is generally understood as a place of pilgrimage at the centre of a far-reaching cult (Lumbreras 1977, 1993; Burger 1992; 2008; Rick 2008). The similarity between the architecture, iconography, and ritual

practices encountered at Chavín de Huántar and far-flung coastal and highland sites was thus explained by the existence of a belief system emanating from this North-Central Highland temple. However, while such similarities are in some respects undeniable, the notion of Chavín as the originator of these traits has come under increasing scrutiny, as the following review of the history of research into North Peru will demonstrate.

One alternative cultural label, assigned to describe the perceived cultural convergence specifically on the North Coast of Peru during the Formative Period, is “Cupisnique”. This was originally put forward by Rafael Larco Hoyle in the 1930s after his excavations of cemeteries in the Cupisnique ravine between the Chicama and Jequetepeque valleys (Map 1) (Larco 1941). More recently scholars have taken it up as a cultural and stylistic term that applies to the entire Formative Period North Coast (see Burger 1992:91). Given certain parallels with the iconography of Chavín de Huántar, however, Tello and many scholars since him incorporated the material culture from the North Coast (including from the Cupisnique ravine) into Chavín, considering it as a coastal variant of Chavín itself (Tello 1943, 1960; Bennett 1944; Evans 1968; Roe 1982; Cordy-Collins 1998; Castillo & Uceda 2008) (see Chapter 3). The primary and ensuing debate was whether northern coastal ceramics (“Cupisnique”) represented an indigenous, coastal tradition or reflected the expansion of highland Chavín culture and style into the North Coast. The main proponents of these opposing viewpoints were Larco Hoyle and Tello respectively, but the arguments continued to condition scholarship throughout the 20<sup>th</sup> century and to the present day.

Another key topic of scholarly interest concerned the development of statehood in the Andes (see for example Lanning 1967; Moseley 1975; Haas 1982; Feldman 1983; Haas, Pozorski & Pozorski 1987; Quilter 1991; Shady 2000; Stanish 2001), and the ceremonial centre concept also remains a topic of interest today (e.g., Donnan 1985; Rick 2008). With chronological horizons, and settlement hierarchies and/or centrality in mind, this chapter argues that the history of archaeological scholarship in Peru in the 20<sup>th</sup> century favoured the search for artistic and cultural *similarity*, and resulted in the overlooking of small-scale cultural groups and stylistic diversity. “Until recently, the study of prehispanic Andean societies has been characterized by an emphasis on

urban sites and ceremonial centers - what could be referred to as the 'temples-and-tombs' approach (Schreiber 1999:162). Indeed, as Schreiber indicates, the emphasis on larger, more spectacular archaeological sites has come at the expense of understanding smaller, humbler settlements, which make up the largest portion of Andean societies" (Vaughn 2004:65).

## **2.1 EARLY SCHOLARSHIP**

### **2.1.A Early Scholarship 1: Tello vs. Larco**

Julio C. Tello was one of the first (and certainly the most prominent) archaeologists working in the North of Peru. His main focus was on the highlands, particularly the monumental temple at Chavín de Huántar and surrounding sites, but he also worked on the Central and North Coasts during the 1920s and 30s. He identified in particular the presence of feline-related imagery and concluded on a presumed feline cult, as visible at both highland and coastal sites. The quality and distinctiveness of Chavín stone sculpture and iconography, along with their relatively early date, led Tello to conclude that Chavín was not only the oldest civilisation of Peru, but also the one from which all subsequent Peruvian civilisations developed (Tello 1943). As such, Tello considered Central Coast sites bearing what he identified as Chavín-like traits (such as the feline imagery at Cerro Sechín, Punkurí, and Cerro Blanco) as postdating Chavín de Huántar and indicative of its cultural expansion into the coastal valleys (Tello 2005 [1933]). Likewise, Cupisnique material culture as identified by Larco in the 1930s for Tello represented once more Chavín influence onto the North Coast, and he termed these remains simply "Coastal Chavín" (Tello 1943:158).

Standing against Tello's viewpoint was Rafael Larco Hoyle. Based on surveys carried out in the Cupisnique ravine (located between the Chicama and Jequetepeque Valleys), he identified and named the Cupisnique culture. Larco excavated approximately 32 burials at the sites of Barbacoa and Palenque in the lower Chicama Valley, which he recognised as belonging to the same culture (Larco 1941). He concluded on an early date for Cupisnique, given the presence of Salinar, Moche and Chimú burials stratigraphically above.

Graves were circular and dug into the ground, though a few seem to have had conical adobes. The material goods associated with these Cupisnique burials consisted of bone rings, bone spoons, quartz crystal, and anthracite mirrors, as well as one to two ceramic vessels per grave. The absence of metal objects was taken as indicative of an early date. For Larco, as for others since him, the ceramics provided the most critical feature of this North Coast cultural group, and he illustrated various types of ceramic vessels in his publications (Larco 1941, 1945, 1946, 1948). Larco used these ceramics to devise a chronological sequence for the Formative Period (he termed it the “Epoca Evolutiva”) on the North Coast (Larco 1948). Larco’s five ceramic phases are: Pre-Cupisnique, Cupisnique, Cupisnique Transitional, Cupisnique Santa-Ana, and Virú-Cupisnique (these are described in Chapter 3).<sup>6</sup>

Already in the 1940s Larco questioned Tello’s ideas of a highland origin for Peruvian civilisation and promoted Cupisnique as an earlier cultural manifestation, indigenous to the North Coast (Larco 1941, 1948).<sup>7</sup> Larco convincingly argued that Cupisnique was older than Chavín, although as Kaulicke points out he exaggerated the late-ness of Chavín (Kaulicke 2010:93-142). A long debate ensued over whether Cupisnique or Chavín were earlier and thus which one influenced the other. As will be clear from the following review (Chapters 2 and 3), subsequent scholarship by and large adopted and followed Tello’s explanation, interpreting coastal and highland sites of North-Central Peru as inheritors of the Chavín de Huántar cultural legacy. Larco’s definition of the Cupisnique culture was not taken up as he had envisaged. Instead, Cupisnique became known almost officially as the coastal manifestation of the Chavín culture. In an article paying tribute to the achievements of Larco Hoyle after his death in 1966, Clifford Evans wrote: “The archaeology of the North Coast of Peru today is based on [Larco’s] contributions, including definition of such cultures as Cupisnique (the North Coastal Formative period expression of the

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<sup>6</sup> Larco supports this by ordering sites chronologically according to the construction materials used: stones, conical adobes, or a mixture of both. However, as Toshihara in her extensive summary of Cupisnique sites points out, the difference of architectural materials could also correspond to differences in site types (habitation, cemetery, or mounds) (Toshihara 2002:157).

<sup>7</sup> Larco believed Cerro Blanco and Punkurí in the Nepeña Valley to be the basis for the Cupisnique and Chavín cult and cultures (Larco 1941:19).

Chavinoid horizon)" (Evans 1968:233). Only recently has 'Cupisnique' re-emerged as a (material-) culture in its own right.

### **2.1.B Early Scholarship 2: Chronologies of the 1930s, 1940s and 1950s**

In the early 1900s Uhle introduced the term and concept of the Horizon to Peruvian archaeology after noticing the widespread cultural phenomena ("Horizons") of Inca and Tiwanaku, with an intermediate period in-between. He recognised this as useful to place cultures in superpositioned layers, assuming some pan-Peruvian uniformity and generalisations. In his definition of Horizon, Uhle argued against the use of terms like "stages" because this assumed a uniform developmental trajectory. Instead, horizon periods should be units of contemporaneity based on principles of similarity (based on a combination of features) and associations (Uhle 1903, cited in Kaulicke 2010:93).

Tello's identification of a similar, widespread cultural phenomenon in a much earlier time period led to the introduction of the "Chavín Horizon" or "Early Horizon". This was supported by Kroeber's analysis of material from the Ica Valley and his (albeit brief) definition of horizon style (Kroeber 1944:108). Tello was searching for the origins of culture within Peru and Chavín became just that: the "Mother Culture" that spread over most of present-day Peru, and from which all other Peruvian cultures and civilisations developed. Tello thus developed a vision of the Formative Period as characterised by the "megalithic" Chavín culture spanning many sites along coastal and highland Peru (Tello 1943:158, 1960).

By the 1940s, the Chavín style horizon as the foundation of the Early Horizon in Peruvian culture history had become established (Kroeber 1944; Bennett 1944). Cultures pre-dating the Chavín civilisation were seen to consist only of simple, small-scale societies with relatively unsophisticated, early attempts at ceramics. The period was called the "Initial Period of Ceramic Use" (now known simply as the Initial Period - IP), beginning around 1800 BC (depending on the location).<sup>8</sup>

In 1951, Gordon Willey attempted to refine the broad scope of Chavín culture as applied by Tello (which equated more or less to the recognition of a feline cult – for a

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<sup>8</sup> Prior to this Initial Period was a Pre-Ceramic, Archaic Period.



critique see Kan 1972). Willey defined the Chavín Horizon based on the stone sculptures found at Chavín de Huántar. He reduced the number of sites to 17 main centres with Chavín stylistic similarities, which included North- and Central-Coast sites such as Cupisnique, Chongoyape, Cerro Blanco, Punkurí, and Ancón, and the highland centres of Pacopampa and Kuntur Wasi.<sup>9</sup>

In the 1960s, John Rowe developed a seriation of the stone sculpture at Chavín de Huántar that would hugely influence subsequent interpretation and understandings of Formative Period North Peruvian chronology (Rowe 1962, 1967):

**Table 2. 1 Rowe (1962) Chavín Stone Sculpture Sequence**

Phase	Stone sculpture
Phase AB	Lanzón
Phase C	Tello Obelisk
Phase D	Black and White Portal
Phase EF	Raimondi Stela

In 1974, Roe made use of Rowe’s sculptural chronology to devise a general chronological sequence. Roe isolated eye-forms, mouth-shapes and other appendages or motifs to align the iconography from various North Peruvian sites into the Chavín sequence. However, Roe notably avoided seriating the North Coast ceramics; he noted only their similarities to Mosna ceramics from the Galería de las Ofrendas at Chavín de Huántar, and to an undefined Salinar influence, thereby suggesting a late date (Roe 1974: 30). By contrast, Roe proposed early associations between Chavín and the *Central* Coast, for example comparing material from Ancón with the Tello Obelisk (1974: 30). In his conclusions, Roe placed all the *northern* sites from the coast and highlands – including Kuntur Wasi, Pacopampa, and

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<sup>9</sup> Further sites originally identified by Tello as evidence for the Chavín Horizon are discussed as second- and third-level associations to it (for example: Cerro Sechín). Willey also attempts to clarify a distinction between the Chavín style horizon and Chavín tradition, which Tello had envisioned as continuing through to the Inca period.

Chongoyape – once again late in the Chavín sequence (Rowe stone-sculptural phases D-EF), i.e. he interpreted them as inheritors of Chavín influence.

One of the earliest ceramic sequences established for a northern *coastal* valley is by Strong & Evans, who identified Guañape as the ‘Chavinoid’ manifestation in the Virú Valley. They linked the Guañape sequence specifically to Larco’s (1948) Cupisnique sequence, but used the terms ‘Chavinoid’ and ‘Cupisnique’ interchangeably, alongside Guañape (Strong & Evans 1952:229). By way of definition, they state that scholars “can use the term Guañape for a Virú Valley manifestation and Cupisnique for its slightly different counterpart in the Chicama-Santa Catalina Region. If a larger manifestation in this tradition is now under discussion, the term Coastal Chavín (which includes not only the North Coast Cupisnique and Guañape cultures but also those of Early Ancón-Supe and, possibly, Cavernas, to the south) may be used” (Strong & Evans 1952:12).

For Strong & Evans, the entire Guañape phase is defined by the presence of ‘Chavinoid’ ceramics, which are identified as the first (i.e. following the pre-ceramic phase). The end of their sequence is based on the transition of ceramic colourings from black to red, seen to connect Guañape with Salinar. Aside from a more sophisticated ceramic technology than the “initial ceramic” phase, their definition of the Middle Guañape ceramic style (which they chronologically link with Cupisnique) is based on very generalised features. Many of the decorated ceramics from Virú are described and categorised as some type of “Ancón” pottery (1952:37-39), however, relations to the Central Coast site of Ancón are not discussed other than as a generalised manifestation of Chavinoid culture along the entire coast of Peru. The only features expressly mentioned as indicative of the ‘Chavinoid style’ are feline iconography (1952:198) and the stirrup-spout bottle shape (1952:214), although this forces the authors to acknowledge that “Chavinoid shapes, designs or both” also occurred in later Gallinazo and Moche contexts (Strong & Evans 1952:233). Unlike other scholars thus far, Strong & Evans expressly state that it remains unclear whether the Chavinoid culture originated in the highlands as proposed by Tello, or on the coast as proposed by Larco.

### 2.1.C Early Scholarship 3: Criticisms of the 1960s, 1970s and 1980s

During the 1960s and 70s, increasing criticisms of the North Peruvian sequences were being voiced. Excavations had uncovered numerous monumental sites and sophisticated ceramics that were stratigraphically below the Chavín layers: Kotosh (Izumi & Terada 1972), Pacopampa (Rosas & Shady 1970; Kaulicke 1975), Huaca de los Reyes (Pozorski 1980) Garagay (Ravines 1984); and Cerro Sechin (Samaniego et al. 1985) amongst others. Early traits and materials previously considered as Chavín-influenced or ‘chavinoid’ came to be recognised as pre-Chavín, or even non-Chavín. The chronologies developed by Willey, Rowe, and Roe were forced to acknowledge a lack of identified artistic precedents to the Chavín style, since they considered the coastal and highland sites as resulting from or acquiring Chavín influence. As Lanning pointed out: “The evident relationships between Chavín stone carving and the early chavinoid pottery of the coast has led to a general acceptance for an early date for the Chavín temple, and to the use of the term Chavín as a cover term for the related manifestations on the coast [...]. The mere use of the term, however, does not indicate that Chavín de Huántar was the home of the Chavín style” (Lanning 1960:544, cited in Kaulicke 2010:134).<sup>10</sup>

This issue was compounded by the fact that Menzel, Rowe and Dawson (1964) came to specifically define the Early Horizon as the first and last appearance of Chavín iconography in the Ocucaje ceramic sequence of the Ica Valley (South Coast). This definition gave the Early Horizon a more narrowly defined temporal range, in contrast to the loosely woven, broad web of the Chavín Style horizon used thus far. The Early Horizon was defined as a more restricted period of a few centuries (later given absolute dates of 800/700-300 BC (Silverman 1991:352, cited in Proulx 2008:564)) during which ceramics of shared artistic, iconographic and technological traits were widespread.<sup>11</sup> This left the Initial Period covering a much longer time-

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<sup>10</sup> Lanning instead proposes the Casma-Nepeña valleys as the innovation centre of the IP, and hence origin of what he calls “*the Chavín style and religion*” in around 800 BC. Rowe (1962) also offers several temples that could have been the originators: Kuntur Wasi, Pacopampa, Garagay, Moxeke, Cerro Blanco, probably between 700 – 200 BC (although he does not preclude earlier dates being possible).

<sup>11</sup> Burger’s later revision of Rowe’s master sequence using radiocarbon dates narrowed this even more, arguing for the Early Horizon as a very late phenomenon of short duration (390 – >>

span, with many sites and materials pre-dating the Early Horizon but exhibiting so-called 'chavinoid' traits.

By the 1970s and 1980s the evidence for a complex iconography and style at both coastal and highland sites pre-dating the rise of Chavín de Huántar had become overwhelming. In part, this was due to the application of radiocarbon dating, but scholars initially remained reluctant to accept new findings. For example, regarding the figurative monumental friezes at Huaca de los Reyes (Moche Valley), which had initially been taken as evidence of a Chavín centre, Pozorski tentatively notes that an early radiocarbon date obtained from the site suggests a local iconographic tradition, "the origins of which *possibly* date before Chavín influence" (Pozorski 1980:109, *emphasis added*). It was not until absolute dates were obtained for Chavín de Huántar itself (Burger 1981:600), that Chavín was established as belonging firmly into Menzel, Rowe & Dawson's Early Horizon ( $\approx$  900-200 BC) rather than the preceding Initial Period ( $\approx$  1800-900 BC).<sup>12</sup>

The evidence of sophisticated pre-Chavín layers and styles led to a shift in local site sequences and their assumed relationship with and influence from Chavín de Huántar: Chavín style remains no longer indicated the first identified phases, but an intrusive phase on longer-term local cultural and stylistic sequences. In other words, Chavín remains crucial if not as an *originator* then as an *influencer* of cultures and their styles.

This was especially so in the North Highlands, where the University of Tokyo carried out several long-term and extensive excavations to understand local chronological sequences. At Kotosh a 'Pre-ceramic period', 'Initial Period', and then an 'Early Horizon' – clearly identifiable by the appearance of "Chavín style traits" – were defined, followed by post-Chavín phases (Izumi 1971; Izumi & Terada 1972). At San Pedro de Pacopampa, another monumental highland complex, the architecture and

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200 BC) within the longer process of the development of early Andean complex societies (Burger 1981:596).

<sup>12</sup> Burger's study identified three Chavín phases: Urabarriu (1000-500 BC), Chakinani (500-400 BC), and Janabarriu (400-200 BC) (Burger 1981, 1992). For the latest construction dates for Chavín de Huántar see Chapter 2.3.A.

ceramics were similarly attributed to the following main periods: 'Pacopampa', 'Pacopampa-Chavín', and 'Cajamarca' (Rosas & Shady 1970). These are just two examples of the new chronological sequences that were being developed in the 1970s and 1980s. These North Highland sequences provided evidence for the influence of Chavín de Huántar, in line with the argument for a chronologically restricted Early Horizon as proposed by Menzel, Rowe and Dawson (1964).

#### **2.1.D Summary of Early Scholarship & Chronology**

Early Scholarship was primarily concerned with chronology. Tello had identified a horizon of widespread stylistic similarity early in Peruvian culture history, which he considered as the 'Mother Culture' of Peruvian civilisation. Chronologies were soon revised and the phenomenon of widespread stylistic similarity shown to post-date earlier, pre-Chavín developments. Nonetheless as this terminology shows, subsequent scholarship continued to rely heavily on Chavín as a chronological marker, explained as a widespread religious cult that defined the Early Horizon.

The same is true of stylistic interpretations. Using Chavín as a chronological marker relied on the recognition of a Chavín style or traits. As the following overview of archaeological work done during the 1970s and 1980s in the Jequetepeque and adjacent valleys will show, most scholars followed Tello in considering Chavín de Huántar as the originator of and thus appropriate label for cultural phenomena, including ceramic styles, of the Formative Period.

On the North Coast specifically, scholars also relied on the identification of Chavín style traits, although here, distinguishing Chavín material from any local sequences proved more problematic if not impossible. In spite of Larco's assertions regarding a distinct "Cupisnique" style, the material culture found in the Jequetepeque and Chicama Valleys was and is widely considered to be a variant of Chavín (although as Chapter 3 will show, not a clearly defined variant), and thus the terms were and are used interchangeably. Prior to about 1990 there were also no long-term, large-scale excavations or sequencing of Formative Period sites on the North Coast, unlike in the Highlands. The following summary of archaeological work in the region reveals just how little data is available on which to base the chronological and stylistic arguments discussed thus far and onwards.

## **2.2 ARCHAEOLOGICAL WORK IN THE NORTHERN VALLEYS PRE-1990**

Archaeological work in the Zaña, Lambayeque, Jequetepeque and Chicama Valleys has been sporadic and has suffered greatly from the looting of sites and cemeteries. Perhaps because of this, most archaeological research has emphasised architecture, with scholars surveying sites and assigning them to chronological periods or styles, but (especially earlier on) often without illustrating or describing the ceramics or other portable materials found. Mention of ceramics or ceramic styles is largely without definition or justification, indicative of the underlying assumption that “Chavín” or “Cupisnique” as styles were recognisable and meaningful terms (the issues and contradictions within these terms are described in Chapter 3). The following review is not exhaustive of all archaeological work done in the region. It focuses on those sites and projects considered to be the most relevant, or those where ceramic styles and culture terms are specifically mentioned.

### **2.2.A Early Surveys**

In the wake of the Gallito Ciego Dam (see Chapter 1) a series of surveys and rescue excavations commenced to document what was left of the archaeological record surrounding Tembladera in the mid-Jequetepeque Valley. Unfortunately these did little more than record and briefly describe sites, only sometimes assigning a chronological period and only occasionally locating the sites on a map.

In 1977 Keatinge did a survey between Chungal and Montegrande, and of 21 sites recorded he identified 11 as belonging to the Formative Period (Keatinge 1980:468). The closest architectural parallel for him is Huaca de los Reyes on the coast of the Moche Valley. Keatinge briefly notes that the ceramics from the Tembladera region “do not include styles heavily influenced by Chavin de Huantar like those found at the site of Pacopampa in the northern highlands during the Pacopampa-Chavin phase” (1980:472). However, he illustrates just one ceramic vessel “from the Tembladera region” but belonging to an anonymous collection and without confirmed provenance. This vessel is described in Chapter 3 and is included in the present dataset.

Ravines (1982) led a more extensive expedition in 1978-81, identifying 52 sites in about 10km along the Jequetepeque River between Tembladera and El Mango, dating from the Formative through to the Inca Periods. Ravines recorded platforms, enclosures and sunken courtyards as well as 22 looted cemeteries, but does not indicate the location of sites on a map. He mentions ceramics but without providing their archaeological context. Some ceramics are captioned as “Cupisnique” or “Torrecitas” but without definitions for these terms, nor descriptions of each vessel (e.g. Ravines 1982:48 fig.26). Chauchat conducted wide-ranging surveys during 1972-1996 on the coastal plain between the Chicama and Jequetepeque Valleys, including 52 sites identified as Formative Period. He makes interpretive use of “Cupisnique” ceramics, but limits their definition to the presence of single- and stirrup-spout forms and as being “similar to Janabarriu ceramics at Chavín de Huántar” (Chauchat 1998:161, cited in Toshihara 2002:162).

### **2.2.B Chicama Valley Sites**

The site of Facalá was visited by various scholars including Ubbelohde-Doering who assigned it to “Coastal Chavín” but without giving the evidence for doing so (Ubbelohde-Doering 1952, cited in Toshihara 2002:159). Nearby Huaca Púcuche was visited by scholars including Bennett (1939), Larco (1938), and Reindel (1993), but the focus was on architectural constructions. Only Bennett reported that “a few suggest the Chavín Coast style of incised sherds” (Bennett 1939:87). Unfortunately, like so many others, Bennett does not illustrate these sherds. Larco’s work in the Cupisnique ravine between the Chicama and Jequetepeque Valleys (cemeteries of Barbacoa, Palenque and Santa Ana) is the only one to illustrate and describe the recovered ceramics in any detail. As this concerns specific stylistic descriptions, Larco’s work is reviewed in Chapter 3.

A large complex including a temple, cemetery, and possible gold mine was excavated at Morro de Etén (Alva 1985:71; Elera 1983, cited in Toshihara 2002:209). The associated grave contents have not been published, but the vessels are on display in the Museo Brüning and were recorded for use in the present dataset. Alva (1985:72) initially argued that the ceramics were of a local style influenced by the expansion of Chavín, which was supported by Burger’s identification of the Morro de Etén ceramics and goldwork from Chongoyape as belonging to the Janabarriu

phase, 490-200 BC (Burger 1988). Elera (1983) first argued that they were from the 'Etén' ceramic phase, but later discusses them as Cupisnique (Elera 1992, both cited in Toshihara 2002:209).

One of the few habitation sites to have been studied is Huaca Prieta, excavated by Junius Bird in the 1940s. Bird was interested in the Pre-Ceramic Period and his findings of Formative Period remains in test pits HP-4, -5, and -6 received only brief mention (see Bird, Hyslop and Skinner 1985). These test pits were located about 150m north of the main mound in what appears to have been a domestic sector of houses and storage units of which relatively little remained. The ceramics along with the fieldnotes from this excavation are now in the American Museum of Natural History and will be considered in relation to the dataset.

### **2.2.C Jequetepeque Valley Sites**

The most thorough excavation of any site in the Jequetepeque valley prior to the 1990s was at Montegrande in the 1980s. Tellenbach published the architectural finds, which included the Huaca Grande, Huaca Chica, and the Huaca Antigua, as well as residential structures surrounding the ceremonial core. He identified two construction phases, Montegrande I and II, and found 164 dwellings grouped into household clusters. One of the features commented upon was the surprising degree of overall planning of the site, where all household clusters shared a common orientation and were arranged into a U-shaped layout (Tellenbach 1986:152). This makes Montegrande unique within the Formative Period: this U-shaped arrangement of residential structures reflects an architectural expression of symbolic principles otherwise known only from ceremonial architecture. In terms of the ceremonial complex, Tellenbach concluded that the public architecture at Montegrande resembled highland sites such as Kuntur Wasi and Layzón more than it fit with coastal traditions (in contrast to Keatinge's architectural observations). For example, colonnades found at coastal sites such as Huaca Lucía-Chólope, Batán Grande (Shimada, Elera, Shimada 1983) and Huaca de los Reyes (Pozorski 1980) were entirely absent from Montegrande.

The ceramics of Montegrande were published by Ulbert (1994), with each findspot meticulously recorded and mapped. Ulbert divides the ceramics into two types corresponding to the two construction phases; A and B (and possibly a third group



C, although this makes up just 1% of the sample). He notes that Montegrando B ceramics show definite similarities with Early Huacaloma (Cajamarca), and may even have been imported from there (Ulbert 1994:44). Based on stylistic comparisons, Ulbert concludes that Montegrando II should be approximately contemporaneous to La Conga and Early Huacaloma, which he dates to 1500-1300 and 1200-600 BC respectively (Ulbert 1994:110, Plate 56).<sup>13</sup> While some scholars treat Montegrando as an Early Cupisnique site (Elera 1993; 1998; Toshihara 2002; Shimada et al. 1981), Tellenbach and Ulbert themselves make no mention of Cupisnique, neither as a culture nor as a style at Montegrando. They simply consider it as Initial Period.

#### **2.2.D Lambayeque & Zaña Valley Sites**

In the 1920s a number of gold objects were discovered by accident in the vicinity of Chongoyape (Lothrop 1941, 1951). What archaeologists were able to recover is now housed in the Smithsonian Institution (National Museum of the American Indian). Although not excavated archaeologically, the finds are believed to come from graves not associated to any identified architecture. They consist of several sets of large earspools, crowns, beads, ornamented pins and other items, as well as two complete ceramic vessels which are discussed in Chapter 3 and included in the thesis dataset.

Further gold objects in private collections are believed to originate from Chongoyape (see Lothrop 1941, 1951), or Cerro Corbacho<sup>14</sup> in the Zaña Valley, looted in the 1970s. Some scholars have called this a distinct style of gold-working (Burger 1993:72), although the exact characteristics that distinguish Cerro Corbacho goldwork from other Formative Period North Peruvian gold artefacts is not clear.<sup>15</sup>

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<sup>13</sup> One thermo-luminescence date obtained from Montegrando gave 1800 BC, which is significantly older. According to Ulbert, however, this single date is fraught with uncertainties, and he argues that a discrepancy in the results of C-14 dating between highland and coastal sites is a common occurrence (Ulbert 1994:111). Therefore, Ulbert argues that relations based on stylistic comparisons are much more convincing and accurate (Ulbert 1994:110). Based on his arguments the occupation of Montegrando falls somewhere between 1800 and 600 BC.<sup>13</sup>

<sup>14</sup> sometimes spelled 'Corvacho'.

<sup>15</sup> Robert Sonin (2002), in a letter authenticating some gold objects for the *Galerie des Templiers* (Geneva), states that the Cerro Corbacho style is "more massive" (than Chongoyape?), with lots of spaces to hold shell and stone inlays.

The Batán Grande-La Leche Project, beginning in 1978, was a major project carried out in the Lambayeque region. It covered an extensive area, including contexts from the Formative through to Inca periods. For the Formative mounds such as the Huaca Lucia, Shimada notes widespread 'Cupisnique sherds', although it is not clear how he defines this: rather than noting similarities with Larco's ceramics from the Chicama-Jequetepeque area, Shimada states that "support for the Cupisnique date comes from traces of a polychrome mural [...] similar to the mural [...] at Cerro Sechín in the Casma Valley" (Shimada et al.1981:417), far to the south.<sup>16</sup>

Shimada interprets the Huaca Lucia as a Cupisnique religious centre: "Apparently the Templo de las Columnas at Huaca Lucia was the regional center of the corporate entity [...] The closest Cupisnique religious center is the extensive site of Monte Grande in the upper Jequetepeque Valley to the south" (1981:441). However, Shimada concedes that "burials with classic Cupisnique vessels are known only from Huaca Facho and Corte thus far" (1981:441). Unfortunately it is not clear what he means by 'Classic Cupisnique'. Shimada includes the cemetery from Cerro Eten and caches from Chongoyape as additional proof of 'Cupisnique' occupation in the Lambayeque region, but there is a difference of up to 1000 years between Montegrande I and Chongoyape, as well as a great variety of ceramics.

A key find from the Lambayeque Valley was made during later excavations along the Poma Canal. During the 1980s Shimada and his team discovered a large number (57) of Formative Period kilns. The oldest layers were dated to 1200-500 BC, and may have been in consistent use for 1000 years (Shimada et al. 1998:23, 56). This is the only direct archaeological evidence for Formative Period pottery manufacturing from the North of Peru (see Chapter 4). Shimada considers the kilns and associated ceramics to belong to the Cupisnique culture, and his brief definition of the 'Cupisnique style' (only given in the 1998 publication) is reviewed in Chapter 3.

Purulén in the lower Zaña valley is a complex of principal buildings surrounded by terraces and habitation refuse. Dillehay refers to the ceramics from Purulén as "típicos de Cupisnique" but does not elaborate any further (Dillehay 2008:128). By

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<sup>16</sup> In later investigations the Huaca Lucia yielded radiocarbon dates of between 1200 ( $\pm 300$ ) and 740 ( $\pm 90$ ) BC (Shimada et al. 1998:25 Table 1).

contrast, Jones notes that the excavations yielded no stirrup spout bottles or fragments, and that the radiocarbon date of around 1350 BC predates the “Classic Cupisnique style” (Jones 2010:214). Evidently, the definitions and terms remain unclear.

In the upper Zaña Valley (2800-3000masl) Udima-Poro Poro is a monumental tiered platform with sunken plaza. A cache of 11 ceramic vessels and other objects was found, of which eight were published (Alva 1988). Although not explicitly described as ‘Cupisnique’ these vessels are included in the thesis dataset as rare examples of Formative Period North Peruvian ceramics with provenance.

### **2.2.E North-Central Coast Valleys**

Although located on the North-Central Coast, a few sites from the Moche, Nepeña, and Casma Valleys deserve brief mention here, having been labelled as Chavín as well as Cupisnique sites. Huaca de los Reyes (Caballo Muerto Complex, Moche Valley) was constructed and used between 1800-900 BC (Pozorski 1980, 1995). It is made up of an elaborate combination of platforms, sunken plazas, courtyards, and colonnaded halls. Some platforms were decorated with figurative friezes in the shapes of feline heads and standing figures with fanged faces at their feet (only the lower portion of these figures remain). Originally, the feline friezes, which are similar to the sculptures from Punkurí, Nepeña Valley, were seen as belonging to the style and iconography of Chavín de Huántar. The U-shaped plan of the site was also taken as diagnostic of a classic Chavín centre (Moseley & Watanabe 1974). However, radiocarbon dates obtained from Huaca de los Reyes of 1300 BC soon confirmed the centre’s earlier, pre-Chavín chronological placement (Pozorski 1980:108).

Thomas and Sheila Pozorski who excavated and published on Huaca de los Reyes make no mention of ‘Cupisnique’ as a style or culture. Only later scholars have begun to call it a ‘Cupisnique’ centre (Burger 1992; Jones 2010; Nesbitt et al. 2008), even calling the site characteristic of “the Cupisnique architectural style” (Burger 1992:93). This is in part symptomatic of the growing trend in the 1990s and 2000s to consider all Formative Period North Coast cultural manifestations as Cupisnique. The ceramics published from Caballo Muerto (Huaca de los Reyes, Huaca Herederos Chica) includes a few stirrup-spout fragments and bowl fragments with incised geometric designs (see Toshihara 2002 figs. 55-56). Some of these have been

interpreted as showing affinities with the “Cupisnique style” (Jones 2010:39; also Toshihara 2002). However, as investigations have focused on architecture and monumental friezes, the ceramic descriptions and images available for study are few. Where possible they will be drawn on for comparison in the present study.

Sites in the Nepeña and Casma Valleys have long been considered as the most closely related to Chavín. Tello excavated at Punkurí and Cerro Blanco in the Nepeña Valley in 1933, identifying them as sites established by colonists from the highland Chavín culture.<sup>17</sup> As well as comparing the murals and iconography, he illustrates incised ceramics from Cerro Blanco and Chavín de Huántar side by side to demonstrate their similarity (Tello 1943: Plate XIV). Tello also interpreted the Cerro Sechín murals (Casma Valley) as Chavín motifs. In the late 1960s Proulx conducted several surveys in the Nepeña Valley, again arguing for the influence of Chavín on the materials and architecture of the valley. For example, regarding Cerro Blanco he writes that “sherds of classic Chavín type” were found in the fill of the temple (Proulx 1968:7). More recently, however, the Nepeña Valley sites have also been labelled as Cupisnique (Proulx 1985; Quilter 2013; Nesbitt 2012), although archaeometric studies by Druc have confirmed the relationship between ceramics from Chavín de Huántar and northern Central Coast sites (Druc 1998, 2013, see below).<sup>18</sup> The few ceramics from these sites that have been published will be considered in comparison to the thesis dataset.

## **2.2.F Summary of Archaeological work pre 1990**

For most of the 20<sup>th</sup> century, archaeological work in the Jequetepeque and adjacent valleys has focused on architecture. This is in part due to the heavy looting that has destroyed much of the archaeology of the region, and due to the focus on debates concerning social complexity. Chronologically these sites span a wide range; from 1300 BC at Montegrande and Purulén, to 500-200 BC for Morro de Eten or Chongoyape. Geographically the range is also huge: from the Nepeña to the

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<sup>17</sup> By contrast Larco (1941), supported by Strong & Evans (1952), considered Cerro Blanco as the oldest manifestation and hence originator of the Chavín style.

<sup>18</sup> Hugo Ikehara opts for the term “Cupisnique-Chavin complex” in the description of his fieldschool in the Nepeña Valley (<http://www.archaeological.org/fieldwork/afob/7754>, visited 14 July 2014).

Lambayeque Valley is a distance of almost 400km. While several scholars make reference to finding 'typical Cupisnique' or 'Chavín' ceramics across this entire range of sites, only a fraction are described or illustrated to support such statements, nor did most authors define their stylistic terms. As such, the diversity of ceramic styles from the northern coast of Peru, as well as specific traits that enable the identification of similarity or difference, have been largely obscured. The few definitions that were given based on these pre-1990 investigations will be reviewed and compared to more recent, more detailed stylistic descriptions in Chapter 3.

### **2.3 NEW CHRONOLOGIES AND ARCHAEOLOGICAL WORK**

More recently, chronologies have become less Chavín-centred and new sequences for coastal centres (as well as for Chavín de Huántar itself) have been defined. New research has also attempted to refine the stylistic sequences and terminologies for the Formative Period North Coast. This final section of Chapter 2 briefly outlines the most recent interpretations of Chavín de Huántar, followed by a brief review of recent research on the coastal 'Cupisnique' area and chronology. The focus here is largely chronological and contextual, while specific ceramic descriptions, seriations and interpretations are reviewed separately in Chapter 3.

#### **2.3.A New interpretations of Chavín de Huántar**

The site of Chavín de Huántar with its monumental temple complex has been the locus of archaeological investigations since the 1920s. Particularly significant for this thesis are publications concerning the Galería de las Ofrendas. A huge number of broken ceramics were recovered from these subterranean chambers (Lumbreras 1993). These can be associated with feasting, and many seem to have been deliberately smashed in an offering-process. Most of the ceramics are understood as local, but some are said to have been identified as originating from the distant North Coast or Cajamarca region (Lumbreras 1993:37-42), although such attributions are problematic for the fragmentary knowledge of North Coast cultures and styles.<sup>19</sup>

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<sup>19</sup> For example, Kaulicke (2005) has argued that Pacopampa may have performed a similar function to Chavín, as a kind of oracle ('pacarina', Kaulicke 2005:202) and destination for pilgrims bringing goods from distant regions. However, he notes the difficulty in identifying >>

Lumbreras' publication (1993) with its comprehensive illustrations and descriptions makes stylistic comparisons by other scholars possible.

The non-local finds from the Galería de las Ofrendas will be described in detail in Chapter 3. They have been central in substantiating the widespread influence of the Chavín cult, more specifically its ability to draw 'pilgrims' bearing offerings from distant places. A key study was carried out by Isabelle Druc (1998), who used archaeometric clay-sourcing analyses to test the theory of ceramics being imported into Chavín de Huántar. Her analyses revealed trade between Chavín de Huántar and the relatively nearby sites of Huaricoto and Pallka, as well as between Pallka and two more distant sites in the Nepeña Valley.<sup>20</sup> In general, Druc confirmed Chavín de Huántar as a *recipient* of ceramics from other sites, exporting little or none of its own production.<sup>21</sup> The confirmed sites of origin for these ceramics are in the North-Central Highlands and on the Central Coast. More recently Lumbreras (2003) published further archaeometric studies. He also concludes that many ceramics from the Gallery of the Offerings "are not of local production, but were brought to Chavín from the neighboring provinces, presumably as offerings." (Lumbreras 2003:70), but as of yet he arrives at no conclusion as to a specific foreign provenance. In sum, there is thus far no archaeometric evidence to confirm that ceramics were brought to Chavín de Huántar from the *North Coast*. Assertions to this effect (made by Lumbreras (1993) and other since him) are purely on the basis of stylistic similarity and will be scrutinised in relation to the stylistic types identified in this thesis (see Chapter 7).

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the origins of offerings deposited at Pacopampa: "El contacto con zonas posiblemente periféricas de influencia Cupisnique podría servir de enriquecimiento notable del aparato ceremonial. Una apreciación más concreta es difícil por falta de conocimiento de aquella zona cultural y de su extensión" (Kaulicke 2005:211).

<sup>20</sup> This trade was mostly equated to Burger's Janabarriu phase. During the preceding Urabarriu phase, there is some indication that ceramic wares were imported from Ancón on the Central Coast (Druc 1998:92).

<sup>21</sup> It is highly interesting to note that Chavín did not appear to export much of its own (ceramic) production, given the widespread distribution of Chavín iconography and style traits.

Another key development was a new chronological sequence for Chavín de Huántar, placing its peak of activity and construction as early as 1200-800 BC (Rodríguez Kembel 2001:238, 2008:72, 77). This suggests that the Chavín style horizon largely post-dates the peak of the ceremonial centre and thus was not the result of direct influence from the Chavín cult (Mesía 2007; Rick 2008; Ikehara 2008). Furthermore, these latest construction sequences show that the Galería de las Ofrendas was constructed from as early as 1100 BC and finished before 780-500 BC, with definite signs of disuse and collapse from 500 BC (Rodríguez Kembel 2001:238-258, 2008:70-72). This provides at least a likely *terminus ante quem* for the ceramics found therein, and Kembel argues that the *ofrendas* ceramic sequence has shifted back in time and concludes by around 750 BC (Rodríguez Kembel 2008:79).

### **2.3.B New Research on the North-Central Coast**

Formative Period sites in the Moche and Nepeña Valleys have seen significant archaeological work in recent years. In line with new insights from Chavín de Huántar, new research in these coastal valleys considers the role of local agents in cultural developments, rather than influence from a centre. Ikehara & Shibata (2005) do not mention Cupisnique or Chavin as a culture or style: they describe the societies and their ceramics in their own terms. Ikehara explicitly argues that, after a period of strong Chavín influence at Kushipampa, from 500 BC the Nepeña Valley societies developed alternate exchange networks and new traditions (Ikehara 2008). As such, the Early Horizon is presented as a network of exchange in which local elites competed for prestige and access to exotic goods (e.g. Burger & Matos 2002).

In contrast to earlier scholars, some of the latest research in the Moche Valley openly considers sites such as Huaca de los Reyes as “Cupisnique” (Nesbitt et al. 2008; Burger 1992). Nesbitt is explicit about his reasons for doing so as he compares ceramics from his San Lorenzo Phase (1100-900 BC) to ceramics published by Larco (Nesbitt et al. 2008:279). The comparison is described in Chapter 3 on ceramic styles and seriations. Recent archaeological work on the North-Central coast is crucial in informing debates on the nature and chronology of the Chavín Horizon, however, by simply replacing the term ‘Chavín’ with ‘Cupisnique’ brings us only a short way closer to understanding ceramic styles and their interactions .

### 2.3.C New Research in the Chicama Valley: Puémape

In the last two decades there has been a revival of the term ‘Cupisnique’ for the cultures and materials of the Formative Period North Coast in general (Burger 1992). The work of Carlos Elera has been highly influential in this. Elera and Pinilla studied the monumental constructions and a (part-looted) cemetery at Puémape, 400m from the present day coastline between the Chicama and Jequetepeque Valleys. Elera identified remains from the Pre-Ceramic through to Salinar Periods.<sup>22</sup> Elera’s 1998 PhD thesis is the first to use archaeologically recovered materials to establish a specifically “Cupisnique” chronology and stylistic sequence since Larco’s publications of the 1940s. Elera convincingly argues that “Cupisnique was an indigenous coastal cultural development” (Elera 1998:288), the origins of which pre-date Chavín de Huántar and the Early Horizon. Unlike Larco, Elera is able to present supporting radiocarbon dates for the Middle Puémape contexts and firmly establish ‘Classic Cupisnique’ as older than Chavín de Huántar, even when considering Rick and Rodriguez Kembel’s revised chronology (Table 2. 2).

**Table 2. 2. Elera’s 1998 Cupisnique Sequence (based on Elera 1998)**

<b>Phase</b>	<b>Dates</b>	<b>Events of the Phase</b>
Early Cupisnique phase A	2500 – 1900 BC (c-14 date: 2400 BC)	Pre-Ceramic foundations of Cupisnique Culture
Early Cupisnique phase B (Early Puémape)	1900 – 1500 BC	Early ceramics
Classic Cupisnique (Middle Puémape)	1900 / 1500 – 800 BC (c-14 dates: 1960 BC / 1920 BC)	“Classic” Cupisnique ceramics
Late Cupisnique (Late Puémape)	800 – 400 BC  (Puémape abandoned after tsunami damage)	Tombs associated with metal, e.g. Chongoyape, Morro de Eten.
Salinar	(c-14 date: 340 BC)	

<sup>22</sup> although Salinar appears to be a later intrusion after a Tsunami destroyed much of the site around 800 BC (Elera 1998).



In a 2009 publication from the MALI (Museo de Arte Lima), Elera simplifies this sequence and revises the dates, shifting them forwards significantly (Table 2. 3). He also simplifies and generalises his description of the ceramic styles that characterise Classic and Late Cupisnique. This is the first published sequence for Cupisnique materials, with illustrations, since Larco’s work in the 1940s. While Elera’s new chronology provides a simple and general stylistic framework, the fact that “Classic Cupisnique” spans 1000 years and is defined more or less by the appearance of stirrup-spout bottles shows that much can still be done to refine the sequence. (A more refined Cupisnique seriation was indeed carried out by Kayoko Toshihara (2002), and this is also reviewed in Chapter 3.)

**Table 2. 3 Elera’s 2009 Cupisnique Sequence (after Elera 2009)**

<i><b>Phase</b></i>	<i><b>Dates</b></i>	<i><b>Events of the Phase</b></i>
Cupisnique Temprano	2200 – 1500 BC	Early ceramics
Cupisnique Clásico	1500 – 500 BC	Stirrup-spout bottles (Middle Puemape)
Cupisnique Tardío	500 – 200 BC	Metal ornaments (Morro de Eten burials)

### **2.3.D New Research in the Mid-Jequetepeque Valley**

The most recent and detailed investigations carried out in the Mid-Jequetepeque Valley (Tembladera region) are by Eisei Tsurumi (2008). He mapped and excavated at a number of sites, all located within a few kilometres of the modern town of Tembladera, along the shores of the Jequetepeque River and Gallito Ciego Dam. Tsurumi constructed the following chronological sequence (Table 2. 4):

**Table 2. 4 Chronology of the Tembladera Region (after Tsurumi 2008)**

<i><b>Phase</b></i>	<i><b>Dates</b></i>	<i><b>Period</b></i>
Hamacas 1	1450 – 1350 BC	Formativo Temprano
Hamacas 2	1350 – 1250 BC	
Tembladera 1	1250 – 1000 BC	Formativo Medio
Tembladera 2	1000 – 800 BC	
Lechuzas	800 – 550 BC	Formativo Tardío

The ceramics of the Hamacas Phases correspond to those from Montegrando (Ulbert 1994) (Tsurumi 2008:147). The Tembladera Phase is also divided into two (based on architectural construction), however, while Tsurumi notes that the corresponding ceramics also differ, he admits that he was not able to recover enough ceramics to make a comparative analysis and hence subdivision of the Tembladera phase ceramics (Tsurumi 2008:148). In fact, the only difference he describes is the vessel form, citing the appearance of stirrup-spout bottles in Tembladera Phase 2.<sup>23</sup> As this sequence is based exclusively on sherds, it is difficult to make comprehensive comparisons with my own dataset of complete vessels.

### **2.3.E New Research in the Upper-Jequetepeque Valley: Kuntur Wasi**

Kuntur Wasi is located in the Upper Jequetepeque Valley at 2300masl. Originally understood as part of the Chavín style horizon (Willey 1951; Roe 1974), it is increasingly interpreted as having been influenced by Cupisnique, in particular as far as ceramic styles are concerned (Onuki 1995). Around 800 BC there was a change in ceramic wares (except for utilitarian), architecture, and monoliths at Kuntur Wasi, signalling the start of the 'Kuntur Wasi Phase'. These developments coincide with the sudden widespread abandonment of coastal centres (Shimada, Elera, Shimada 1983:137; Elera 1994, 1998; Fung Pineda 1988:89; Grieder 1975; Stanish 2001:51), which at one time lead scholars to postulate an "invasion" by coastal groups into the highlands (Onuki 1995:210; Elera 1998:281). Similarly, Kato describes the changes that occurred in ceramics, architecture and monoliths with the Kuntur Wasi Phase as "drastic" (Kato 1993:227) and plainly states that the causes for these changes are not internal, but external. He is, however, more cautious about assigning causality or direction, given the lack of coastal data that existed at the time: "The data indicate a very intimate interaction between the site of Kuntur Wasi and the North Coast. But

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<sup>23</sup> It must be noted that the term 'Tembladera' is used by Tsurumi as a phase. It does *not* correspond to the term 'Tembladera style' as used by other scholars such as Alana Cordy-Collins or Christopher Donnan in an art-historical sense to define a style of complete ceramic vessels (see Chapter 3).

we still do not have enough comparable data for the ‘Cupisnique Culture’ of the North coast” (Kato 1993:228, my translation).<sup>24</sup>

The research from Kuntur Wasi provides a significant source of comparative information for this thesis. The site has been excavated over a number of years and a firm chronological sequence has been published (Table 2. 5). The close relationship that has been noted with coastal ‘Cupisnique’ ceramics means that the published or exhibited pieces from Kuntur Wasi have been recorded for the present dataset. This enables comparisons to be made and provides chronological and geographical anchor points for some of the identified types (Chapter 7).

**Table 2. 5. Kuntur Wasi Sequence (after Onuki 1995)**

<b><i>Phase</i></b>	<b><i>Dates</i></b>	<b><i>Events of the Phase</i></b>
Idolo	950 – 800 BC	first construction phase
Kuntur Wasi	800 – 550 BC	main U-shaped temple and circular plaza // appearance of “Cupisnique-style” traits
Copa	550 – 250 BC	remodelling of the site // figurative motifs get replaced mostly by geometric designs
Sotera	250? – 50? BC	abandonment and destruction // ceramics coming in from Cajamarca region

## ***2.4 SUMMARY OF THE HISTORY OF RESEARCH***

### **2.4.A Conclusion on Chronological Systems**

For the final two millennia BC, the Horizons system is strongly conditioned by the “Chavín phenomenon” as a macro-regional framework. It was devised in relation to the site of Chavín de Huántar and the iconography that was supposed to have spread from there. As such, proponents and arguments for this system are intertwined with – and indeed reliant on – the notion of a Chavín style denoting artistic and technological traits that can be recognised across material media and used to identify this chronological period at any site; the Early Horizon. In this

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<sup>24</sup> “La causa de estos cambios no es interna sino externa. Los datos obtenidos indican que entonces hubo una interacción muy íntima entre el sitio Kuntur Wasi y la zona amplia de la costa norte. Pero todavía no tenemos suficientes datos comparables sobre la “Cultura Cupisnique” de la costa norte” (Kato 1993:228)

system, pre-Chavín materials acquire relevance mainly as far as the origins of Chavín or, taking a wider perspective, antecedents of Chavín are concerned. Chavín de Huántar as the originator of the ‘Chavín style’ (however defined) has been questioned. More importantly, however (and regardless of what site may eventually turn out to be the earliest manifestation of the ‘style’), it is clear that a generalised chronological terminology that references the notion of a spread of traits from Chavín de Huántar or indeed Cupisnique (both of which are themselves ill-defined and potentially controversial) obscures and hinders our understanding of the developments of this period.

Throughout this thesis the Formative Period terminology will be used, as shown in Table 1.1. This is because I argue that a Horizon- and/or Chavín-based terminology is misleading, both in chronological terms and in terms of our understanding of the diversity of material culture concerned. In using the Formative terminology we can begin to move away from the over-reliance and power exerted by a now controversial and poorly defined concept of the Chavín phenomenon, and a long and diverse Initial Period, to consider a variety of contemporary styles and, arguably, cultures.

**Table 2. 6 Synthesised Formative Period Chronology.**

<b><i>Phase</i></b>	<b><i>Absolute dates</i></b>
Early Formative	2000 – 1300 BC
Middle Formative	1300 – 600 BC
Late Formative	600 – 250 BC
Epi- / Final Formative	250 – 1 BC

#### **2.4.B Summary of Recent Research**

Over the last 20 years the chronologies for both the Highlands (Chavín de Huántar, Kuntur Wasi) and the Coast (Puémapu) have been refined and in some cases, revised. Archaeologists now have more detailed, local chronologies, with less emphasis on Chavín as a chronological and stylistic marker. Initially, Elera’s thesis substantiated that Cupisnique was an indigenous coastal development that clearly pre-dated the

development of Chavín de Huántar.<sup>25</sup> After revising his dates in 2009, Elera presents 'Classic Cupisnique' as 1500-500 BC. In the meantime, the dates for Chavín de Huántar were also significantly revised and now more or less parallel the timeframe for other Middle-Formative coastal centres: 1300-600 BC (Rick 2005).

Chronologically, the cultural developments of Cupisnique and Chavín seem to run more or less in parallel. It is perhaps no longer a question of which preceded or gave rise to the other, but a more complicated picture of the two areas influencing each other at different times over a period of 1000 years.

However, the debate continues. Many scholars writing in the last few years still understand Cupisnique as "Coastal Chavín" (Cordy Collins 1998:156) or "Chavín's coastal spin-off" (Castillo & Uceda 2008:707), evidently disregarding its early - at least partly *pre*-Chavín - chronological placement. The problem is that 'Cupisnique' as a stylistic and cultural term remains almost as poorly defined as 'Chavín'. Indeed in recent scholarship, there has been a trend to identify anything Formative from the North Coast simply as 'Cupisnique', regardless of differences in local ceramic assemblages (Burger 1992:91). As such, definitions of "Cupisnique" remain almost as contradictory as those of "Chavín" (see Chapter 3).

A few recent PhD theses have sought to address this and have attempted to define, and in some cases to seriate, Cupisnique ceramic styles. These are summarised in Chapter 3. As already mentioned, to further complicate (or is it clarify?) the picture, a number of additional stylistic and/or cultural terms emerged during the 1970s and 1980s such as 'Tembladera', 'Chongoyape', 'Tecapa' and 'Zaña'. Although widely applied in museum collections and publications, these have rarely been defined explicitly and their relationship with Cupisnique or Chavín remains unclear. This thesis attempts to address this, and the various definitions that have been given for each of these stylistic and/or cultural labels are summarised Chapter 3.

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<sup>25</sup> His thesis dated Classic Cupisnique as 1900/1500-800, with radiocarbon dates quoted as 1960 BC and 1920 BC (Elera 1998).

### 2.4.C Final Remarks on the History of Research

Overall, the history of research in North Peru throughout the 20<sup>th</sup> century has led to an obscuring of diversity. The notion of Chavín as the mother culture, and then as the originator of a widespread style horizon, meant that similarities to the iconography of Chavín de Huántar were overemphasised and actively sought in order to contextualise and date dispersed sites. This meant that ceramics were characterised by their similarity to Chavín, with differences often being disregarded. Frustration with the indiscriminate application of 'Chavín' as a stylistic term was voiced as early as the 1940s by Kroeber, who wrote: "Seeming always more interested in a likeness than in a discrimination, Tello has weakened his own case by treating remote or doubtful similarities on a par with overwhelmingly strong ones" (Kroeber 1944:82). Furthermore, the research focus on monumental centres and rise of complex society in this period meant that scholarly debate emphasised large chiefdoms or 'states', overlooking the smaller diverse communities that undoubtedly coexisted with them.

Initially, distinct ceramic styles and iconography were considered variants of 'Chavín'. More recently everything from the North Coast has come to be labelled as 'Cupisnique'. The relationship between the two, and how additional labels such as Tembladera and Chongoyape fit into this, remains unclear. As has been described, several scholars lament our fragmentary understanding of Formative Period North Peruvian material culture, in particular ceramic styles, as a hindrance to understanding cultural relationships. Firstly, all of this stems from the history of research that led to the adoption of a chronological system that depended on widespread stylistic similarity. Secondly, any definitions of stylistic terms created thus far have been both limited and contradictory, as the following Chapter (Chapter 3) will show.

### 3 LITERATURE REVIEW

#### 3.0 INTRODUCTION

As in other places of the world, ceramics have become the primary means of reconstructing the cultural history of ancient Peru. Throughout most of the 20th century, style was at the service of chronology, and typologies were explicitly time-sensitive. Past cultures and chronological time periods are named and defined as material styles. Despite many developments in archaeological theory and method in recent decades, archaeologists still depend upon the products of the culture-history approach and its concept and use of style (see Chapter 4).

In northern Peru, ceramic styles have been greatly emphasised in parallel with the construction of the Early Horizon as a chronological framework (Chapter 2), and yet these styles have not been sufficiently studied or defined to be used for understanding a fine-grained chronology, nor cultural distinctions and interactions (this chapter). Despite Larco's early identification and definition of the Cupisnique style and culture on the North Coast, the term Chavín has been widely and liberally attributed to Formative Period ceramics. Chavín was used not only as a cultural and stylistic label, but also a chronological term, leading to the term Chavín or chavinoid to be applied widely to the entire range of material culture. Arguments over cultural and chronological affiliation are thus intertwined with the definition of ceramic styles, which are reviewed in this chapter.

In the 1970s and 1980s, a number of diverse ceramics came to light from the Jequetepeque and surrounding valleys, and these were assigned equally diverse cultural or stylistic labels (Lapiner 1976). As the following review will show, attempts to define these styles have thus far largely failed. Since the 1990s the term Cupisnique has mostly replaced 'Coastal Chavín'; as such, however, Cupisnique has effectively come to be applied to all Formative cultural manifestations on the North Coast, once again obscuring stylistic and cultural diversity.

In the last few decades of the 20<sup>th</sup> century, investigators at Chavín de Huántar itself identified a typology for the ceramics encountered there, including several apparently local Chavín styles. Several scholars have also defined their use of the terms Cupisnique, Tembladera, and Chongoyape. Some have done so in passing, but

a few have attempted stylistic typologies, including sub-styles and chronological seriations (types by phase). These definitions are reviewed in this chapter, grouped into both thematic and chronological order. It must be noted that the terms Chavín or chavinoid have been applied to nearly every type of ceramic vessel described under the other labels as well. Therefore only definitions of the Chavín style that are narrow and specific are reviewed here. The ceramics from Kuntur Wasi will also be described, as this is the only site in the Jequetepeque Valley with chronologically defined ceramic phases that have been intimately linked to coastal 'Cupisnique' ceramics as well. At the end of the chapter the stylistic terminology is synthesised and summarised, to see if any of the existing terms can be meaningfully taken forward.<sup>26</sup>

### **3.1 EARLY DEFINITIONS**

#### **3.1.A Tello and the Chavín Style Horizon**

Chavín as a stylistic term has been widely applied to a range of ceramics from Formative Period Peru. In one of the few explicit definitions ever given for what actually constitutes the Chavín ceramic style, Tello described 'classic Chavín' pottery as: "black pottery, well-polished and with a gloss like chinaware; chocolate-brownish pottery, and bright-red pottery with incised and carved decorations like those found in the best stone carvings of this marvellous Chavín art" (Tello 1943:151). As well as noting a metallic blackware finish, this makes clear the emphasis that was put on parallels with Chavín de Huántar stone carving. As outlined in Chapter 2, Tello – and many since him working under the notion of the Early Horizon – sought to emphasise similarity over difference and as such, 'classic Chavín pottery' has been identified from numerous sites in northern and central Peru. This was almost always without a comprehensive definition or description beyond the few lines originally

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<sup>26</sup> Approaching the material with a formal-analysis method, this study (and therefore this review) is concerned with the decorated ceramic vessels that fill museum collections around the world, rather than with sherds or plain, domestic wares. The same is true of the typologies reviewed in this chapter. Domestic ware typologies developed for specific sites such as Kuntur Wasi are not reviewed here.



provided by Tello. Tello simply referred to the coastal remains that seemed to him to be similar to Chavín as ‘Coastal Chavín’ (Tello 1943:158).

### **3.1.B Larco and Cupisnique**

One of the only contemporaries to try to systematically refute Tello was Rafael Larco Hoyle. In contrast to Tello, Larco named Cupisnique as a separate culture (1941, 1945), and argued that Cupisnique was one of many local cultures. He acknowledged that their ceramics did have commonalities (which he argued were due to exchange) but also differences that allow us to identify them as separate cultures. “One cannot assign the same root to all cultures” (Larco 1948:16, my translation).<sup>27</sup> Larco amassed an extensive ceramic collection, only some of which came from his excavations at Barbacoa, Palenque and Santa Ana. Larco’s publications do not clarify the provenances of his ceramics, nor do all of the excavated ones have stratigraphic context. Only in a few cases can the vessels be confirmed as coming from graves at the sites. Nonetheless, in 1948 Larco published his stylistic chronology for Peruvian North Coast ceramics, including the Formative. Following after the ‘Epoca Pre-Cerámica’ and ‘Epoca Cerámica Inicial’, he calls it the ‘Epoca Evolutiva’:

- ‘Pre-Cupisnique’
- ‘Cupisnique’ (incl. stirrup spout shapes A-D)
- ‘Cupisnique Transitional’ or ‘Transitorio’
- ‘Cupisnique Santa Ana’
- ‘Viru’

#### **3.1.B.1 Comment on Larco’s Phase-Typology:**

Larco’s ‘Pre-Cupisnique’ phase referred to presumed ‘early’ examples of stirrup-spout bottles, deduced based on their coarse paste composition. The final phase ‘Cupisnique Santa-Ana’ vessels have an orange-red polish and often lack extensive figuration or decoration; they were understood as showing transitional elements into the successive Salinar and Virú (Gallinazo) cultures, before being succeeded by Moche. Larco considers the Cupisnique vessels to be mold-made.

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<sup>27</sup> “No se puede dar un tronco comun a todas las culturas” (Larco 1948:16).

The main 'Cupisnique' phase vessels are sub-divided according to the shape of their stirrup-handle and spout (A-D). Larco asserts that vessel forms are directly related to the forms of the handles and spouts (Larco 1948:18). However, he does not substantiate this rather crucial statement. In the illustrated examples, the vessel with a 'Cupisnique Type-A' spout (rounded handle and wide, short spout with pronounced lip) stands apart from the others by the fact that it is high-relief decorated, while the others are fully three-dimensionally modelled (Figure 3.1). Jones expands on Larco's Cupisnique Type-A by saying that it typically boasts "feline, condor and serpent images [...] in high polish, resembling the quality of stone carving" (Jones 2010:7). Ironically this seems to match almost exactly the definition that Tello provided for classic Chavín (Tello 1943:151).

What distinguishes Cupisnique Types B, C, and D - other than the handle-and-spout shape - remains unclear, also to later scholars examining Larco's typology. For example Jones (2010) only ever refers to Cupisnique B-D as one group: "The Cupisnique B-D bottles are often executed with more open stirrup form, thinner and less polished frame, and thin and elongated spouts. These types often represent either finely incised designs or well-modeled figures - human, plant and animal forms" (Jones 2010:8).

Larco's 'Transitional Cupisnique' style consists of red, oxidised vessels with black graphite-painted motifs on top, (sometimes?) delineated by incised lines (Figure 3.2). The handle-and-spout shapes are similar to 'Cupisnique', but also show similarity with later Salinar. In sum, the stirrup handle-and-spout shapes feature heavily in Larco's description of Cupisnique ceramic phases, although particular handle or rim features appear in several phases and do not seem to define the chronological sequence. Larco postulates that monochrome, reduced-fired wares largely precede bi-chrome painting and oxidising firing, the latter of which he sees as reflecting the development - 'transition' - of Cupisnique ceramics into the later Salinar, Virú and Moche styles.

### **3.1.C Coastal Chavín: Bennett and Rowe**

Despite Larco's assertions of Cupisnique as its own style and culture, it became synonymous with Coastal Chavín and throughout the history of research its similarities with Chavín de Huántar were emphasised (see Chapter 2). In accordance

with early chronologies it was also seen as derived from Chavín, which guided the following definitions and seriations by Bennett and Rowe respectively.

In the 1940s Bennett excavated a number of pits at Chavín de Huántar, identifying Chavín and post-Chavín layers. For the 'Chavín Style', Bennett describes and illustrates a number of sherds, almost all of which are from "open vessels" i.e. bowls (Bennett 1944:83). No confirmed sherds of stirrup-spout bottles were found. By far the most common decorative technique is 'grooving' or 'broad-line incision' (1944:84). Bennett justifies his use of the term 'Chavín Style' by saying that these pieces "can be distinguished from the other sherd material, and the validity of the style is established by its isolation in [certain] pits" (1944:81). He goes on to say that "the style is obviously related to Coast Chavín ceramics which in turn have designs comparable to Chavín stone carving." (1944:81). Bennett explicitly identifies the Chavín Style as homogenous.

Bennett uses the term 'Cupisnique' interchangeably with 'Coast Chavín'. To contextualise his highland material he notes: "None of the fragments showed the heavy spouts so characteristic of Coast Chavín, or Cupisnique, stirrup-spouts" (1944:83) and "the fragments show a good firing, although not to the almost metallic hardness of Cupisnique." (1944:81). In other words, Bennett describes Cupisnique as characterised by "almost metallic hardness" and "heavy spouted stirrup-spouts", with "designs comparable to Chavín stone carving".<sup>28</sup> From this description we can gather that, while the iconography is similar to "Coast Chavín", the typical Chavín de Huántar vessel shapes and decorative techniques (open bowls and broad-line incising) are actually quite different from the coastal material (stirrup-spouts and fine-line incising). In line with archaeological thinking of the time, however, Bennett emphasises similarity rather than difference as the significant point to make.

One of the only early attempts to incorporate the North Coast ceramics into the Chavín chronology is a sequence devised by Rowe in the 1950s. Unfortunately this remains unpublished and is described only in the (equally unpublished) PhD thesis of Lanning (1960). According to Lanning, Rowe proposed nine phases of Cupisnique

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<sup>28</sup> Ironically this closely echoes Tello's original definition for 'classic *Chavín*' pottery (Tello 1943:151).

ceramic styles, divided into three groups (A-C). We lack detailed descriptions of each phase but Rowe's sequence regarded Cupisnique material to largely post-date the Early Horizon on the coast. Following phases A1 and A2 – which are considered Early Horizon, related to Chavín – “the north coast Cupisnique then came to specialize in ‘Chavín-derived representational designs, zoned-slip painting, and three-dimensional modeling’” (cited in Jones 2010:13).

### **3.2 LOOTED CERAMICS & THE DIVERSIFICATION OF STYLE LABELS**

Although he himself described them as “Chavín style” (Lothrop 1941), the discovery of two ceramic vessels alongside gold artefacts near Chongoyape has led to the term Chongoyape being used as stylistic label by many scholars (see below). The two vessels recovered from the Chongoyape tomb are illustrated in Figure 3.3 are both: monochrome black-brown/grey stirrup-spout bottles, with rounded handles and short, barrel-shaped spouts with bevelled lips. Both have part burnished, part textured surfaces, punctated using a D-shaped tool. Note that the handle of one bottle is part-modelled, depicting a naturalistically sculpted mouse sat on its hind legs. The vessel chamber is carinated i.e. consists of a flat base, straight sides and a curved lid (hereafter referred to as “cup-cake” shaped (following Toshihara 2002)). The other vessel is a flat-based sphere, divided vertically: one side is plain burnished, the other is decorated with D-punctuation and six small, appliquéd birds (one is appliquéd to the handle arch). Both vessels are now in the National Museum of the American Indian (NMAI) and were examined and recorded for the thesis dataset.<sup>29</sup>

The Chongoyape finds were quickly joined by other site-specific labels. After a particularly intense period of looting, a number of diverse ceramics from the Jequetepeque and surrounding valleys appeared on the art market and were assigned equally diverse cultural labels. One of the main publications that spurred

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<sup>29</sup> For scholars who choose to use the term ‘Chongoyape’ (see below), it appears to be in particular the barrel-shaped spout and bevelled-lip that defines the Chongoyape style. However, as this thesis will show, these traits – in combination with texturing and decorated or part-modelled handles – seem to belong to a discrete style with a particular combination of features, that also goes with a particular iconographic repertoire (Chapter 7).

scholarly interest in Formative Period North Coast Peruvian ceramics was Lapiner's "Precolumbian Art of South America" (1976). The book itself presents no ceramic typology and there is little text to accompany the illustrated vessels. The meanings of cultural and/or stylistic labels are not explained, nor is it clear where Lapiner took the information about each piece. Nonetheless, the labels presented have largely stuck and continue to influence stylistic definitions.

Lapiner's publication sets up a period of confusion over stylistic and cultural labels for Formative Period North Coast ceramics that continues to the present day. He is the first to apply the term "Chongoyape style" to vessels resembling those published by Lothrop in 1941, and the first to use "Tembladera" as a style or culture label. However, Lapiner does not put forward a consistent typology or stylistic labelling: an almost identical vessel to the Chongoyape pieces is captioned "Tembladera" (Figure 3.4). The only thing the "Tembladera" pieces published in Lapiner seem to have in common is that they are all fully modelled figure vessels (but then almost all of Lapiner's examples of Formative North Peruvian ceramics feature modelled anthropomorphic subjects). The labels 'Tembladera' and 'Chongoyape' are at the same time seen as part of a broader 'Chavín' period or culture. It seems particularly curious that Lapiner seems to distinguish between vessels that come from Tembladera (?) and are simply called "Tembladera", and vessels from the Tembladera that are "Cupisnique style" (Lapiner 1976:36 fig.29). It is not clear if he thereby means to suggest that Tembladera is a culture, style, or only a place of origin. The same goes for the term Chavín, interpretable a style, culture, or merely a chronological period.

A very similar but less influential publication followed in 1981 in the "Chavín Formativo" edition of the "Arte y Tesoros del Peru - Culturas Precolumbinas" series (Lavalle & Lang 1981). In it, vessels are variously labelled as Chavín, Cupisnique, or Tembladera and assigned to the Early-, Middle-, or Late Chavín period. There is little discernible consistency. Overall, it appears that Cupisnique and Tembladera are generally considered as Middle- or Late Chavín.

Another early compilation, publishing some of the same pieces as illustrated in Lapiner (1976) and Lavalle & Lang (1981), is by Walter Alva. He collected and published black and white photos and/or line-drawings of 470 examples of

Formative Period ceramics said to be from the Jequetepeque and adjacent coastal valleys. This includes modelled and incised stirrup-spout bottles, single-spout bottles, some flat-based straight-sided bowls, and a few figurines. Using various private collections as well as the photo archive of Edgardo Kcompt (who restored vessels for looters and dealers), Alva relates information as given on the site of origin for each piece. The vast majority are said to be from sites in the Jequetepeque Valley, but the Zaña, Lambayeque, Chancay and Chicama Valleys are also mentioned. Unfortunately it is difficult to assess how accurate the recorded provenances are.

Alva divides his dataset into six groups, on the basis of vessel type:

- Single-spout bottles (*botellas de gollete tubular*)
- Stirrup-spout bottles (*botellas de gollete-estribo*)
- Bridge-and-spout bottles (*botellas de asa-puente*)
- Short-rimmed bottles or jars (*botellas de gollete corto y cantaros u ollas*)
- Bowls, cups, beakers, and plates (*cuencos, tazas, vasos y platos*)
- Figurines and miniatures (*figurinas y miniaturas*)

These are then grouped into sets of between one and 10 or more items, and described in turn, before going on to describe each individual piece.

Alva's compilation is a huge source-book for Formative North Peruvian ceramics, and the present study utilises it in part as a ready-made dataset.<sup>30</sup> Although several scholars treat Alva's compilation as a database of "Cupisnique" ceramics (for example Elera 1993; Toshihara 2002), Alva himself assigns no stylistic or cultural

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<sup>30</sup> There is an issue in the small, black-and-white photographs or illustrations, and the only very basic descriptions accompanying each piece. As many of these ceramics have ended up in private collections, it was not possible to examine them personally. Some of the vessels published by Alva (1986) were examined in publicly accessible museum collections (including the Museo Larco and the Lindenmuseum Stuttgart). Unfortunately Alva's paste and colour descriptions did not always match observations made myself. It must be assumed that Alva had to base some of his descriptions on black-and-white photographs or third party accounts. This makes the given descriptions of paste, colours, surface finish, and incision-techniques highly uncertain. Therefore for the vessels published in Alva (1986), only the vessel forms, decoration, and motifs were incorporated into the present research database. Alleged provenances have also been noted and will be considered and discussed for comparison once stylistic types have been categorised (Chapter 7).

labels. He merely states the reported site of origin, noting similarities with “Cupisnique” on the coast (Alva cites Larco 1941) as well as with “Chavín-Ofrendas” in the highlands (Alva 1986:15). How he sees the ceramic figurines is unclear (Alva 1986, figs 461-470). Alva specifically notes that there is great variation in the ceramic types said to come from the Formative Period mid-Jequetepeque Valley, and admits that the pieces illustrated probably span several centuries (Alva 1986:16).

Keatinge was one of the first to survey the Tembladera area in the wake of the Gallito Ciego Dam. He describes the ceramics found in the Tembladera region as showing zoned punctation, diagonal slashes, incised appliqué bumps, raised bands, incising and white paint, as well as the use of graphite or manganese as a paint between incised lines (Keatinge 1980:475). Keatinge illustrates only one vessel: a monkey-shaped stirrup-spout bottle with black graphite or manganese-paint applied in zones bounded by incised lines to a red base (Figure 3.5). The surface is highly polished. This vessel is an example of Larco’s ‘Cupisnique Transitorio’ style (compare to Figure 3.2), but Keatinge merely labels it “Stirrup spout vessel from the Tembladera region” (1980:470). He does later refer to it as “a major new ceramic style” albeit without giving a description (1980:475).

Keatinge notes “definite affinities” between Tembladera ceramics and those found at sites in coastal valley sections, notably Caballo Muerto (Moche Valley), referring to the technique of using graphite / manganese as a paint and as a filler between incised lines (Keatinge 1980:474-5). On the other hand, Keatinge suggests that the Tembladera styles have a great deal in common with the highlands, especially material from La Copa (Kuntur Wasi) and the Cajamarca region, although the basis for this claim is not made explicit. Notably, for Keatinge there is *no* great influence of Chavín de Huántar on the ceramics of the Tembladera region: “the sherd collections reviewed here do not include styles heavily influenced by Chavín de Huántar” (1980:472). However, he notes close similarities between Tembladera region ceramics and “a distinctive type of ceramics which Burger believes was imported into Chavín de Huántar during the Janabarriu phase dating to the middle of the Early Horizon, ca. 400-250 BC” (1980:474), which is also the same style that in the Cajamarca region was labelled “Torrecitas-Chavín” (Reichlen & Reichlen 1949, cited in Keatinge

1980:474).<sup>31</sup> Keatinge's is only a short paper, but it is one of only a handful that mention "Tembladera" as a style. However, Keatinge's choice of a highly polished red vessel painted with black graphite to illustrate the ceramic style from the Tembladera region is unusual.

A second article specifically considering ceramics from Tembladera was published by Roe. It concerned three ceramic bottles said to have been looted from a cache in the Tembladera region. Roe specifically states the difficulty of defining the North Coast ceramic sequence, but firmly interprets these vessels as part of the "Cupisnique sub-style" of the overall Chavín style (Roe 1982:231). All are monochrome blackware stirrup-spout bottles with broad-incised or high-relief decoration showing avian forms (Figure 3.6). Roe notes their similarity with sculptural images at Chavín de Huántar (specifically the Black and White Portal and New Temple Cornices (1982:238)), and relates them to Burger's Janabarriu style and phase. These vessels are completely different from the example illustrated by Keatinge, but technically would seem to fit Tello's original definition of 'classic Chavín' pottery as glossy blackware with carvings reminiscent of Chavín stone sculpture (Tello 1943:151).

Other than as a place of origin, Roe does not mention Tembladera, i.e. he does not consider this cache as showcasing a local ceramic style. In fact, Roe seems dubious even of Cupisnique as a distinct coastal variant of the Chavín style: "The whole Cupisnique phenomenon may be a mere catchall for diverse coastal Chavín and Chavinoid materials" (Roe 1982:244).<sup>32</sup> Despite these reservations Roe's definition of the Coastal Chavín i.e. Cupisnique style as blackware stirrup spout bottles with wide-spouts and prominent lips, bearing high-relief (avian) decoration, has been remarkably influential on later definitions of Cupisnique (see Donnan 1992; Sawyer & Maitland 1983; also Rick pers. comm. 2012), although as the following review will

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<sup>31</sup> Torrecitas-Chavín style seems to refer to ceramics with post-fire paint, and is said to resemble shapes from Chavín de Huántar (Reichlen & Reichlen 1970), despite the fact that at Chavín de Hunatar, post-fire painted vessels are not known / common (see Lumbreras 1993).

<sup>32</sup> Disselhoff (1972) echoes this thinking, describing Larco's identification of Cupisnique as "irreführend", a misrepresentation of Chavín materials.



show, other definitions chose to completely contradict it (see Elera 1998, 2009; Jones 2010; Nesbitt & Matsumoto forthcoming).

### **3.3 TOWARDS A DEFINITION OF THE NORTHERN STYLES**

From the 1980s onwards, there was increasing dissatisfaction with the lack of stylistic and cultural definitions presented thus far. “To date, there is no solid evidence to suggest that the Chavín-related ceramics said to come from the Tembladera area were actually found there. The sharp rise in ceramic prices on the antiquities market stimulated illegal digging throughout the north coast in the 1960s and ceramics said to come from Tembladera represent a wide range of styles; some are identical to the Chicama Valley Cupisnique style, while others are clearly of different regional and temporal styles” (Sawyer & Maitland 1983:59). As such, a number of scholars began to define individual ceramic styles, separating Cupisnique and Chongoyape from the overarching Chavín style.

First was a new seriation by Sawyer & Maitland (1983), although this has now been largely superseded by the sequences of Elera (2009) and Toshihara (2002). In the 1990s followed a brief stylistic typology by Donnan (1992), as well as the influential writings of Richard Burger (1992 especially). In 1998 Shimada provided a definition of the ‘Cupisnique style’ to introduce his excavation report from Batán Grande, while Cordy-Collins (1998) gave one of the few definitions of the ‘Tembladera style’. Unfortunately there is little consistency and some direct contradiction in these classifications, which are reviewed and compared here.

#### **3.3.A Sawyer & Maitland 1983**

Following the resentment expressed in the words quoted above, Sawyer and Maitland attempted a new seriation for the North Coast ceramics. In 1983 they proposed a three-phase Cupisnique ceramic sequence (I, II, III). This involved firstly revising the Rowe (1962) Chavín Sculptural sequence, consolidating Rowe’s

alphabetic programs into three periods (Sawyer & Maitland 1983: 51).<sup>33</sup> To these groups they matched the 77 'Chavín-related North Coast ceramics' in their sample, which seems to consist entirely of stirrup-spout bottles:

**Group I** bottles have rounded, wide handles and short, wide spouts with protruding lips. Designs are in "broad-line incision" or in high relief. (They are thus similar to Larco's 'Cupisnique A'.) Sawyer & Maitland note a "*horror vacui*" in the designs (1983:60), although only one of their two illustrated vessels for this phase is decorated all over, including on the handle-and-spout (Figure 3.7a). Both bottles feature fanged-bird motifs, which they relate, surprisingly, to the Tello Obelisk and Raimondi Stela (rather than the Black & White Portal at Chavín, as Roe had done for a similar set of vessels from Tembladera (Roe 1982)).

**Group II** bottles, as illustrated by Sawyer & Maitland, feature slim, trapezoid as well as wide, rounded handle arches, and "flaring spouts with unflanged lips" (1983:60). Sawyer & Maitland consider Group II to be most similar to Larco's Chicama Valley ceramics. The three illustrated examples are spherical, decorated with either incised lateral / profile head motifs (Figure 3.7b). An almost identical bottle had been recovered from the Galeria de las Ofrendas and classified as 'Raku', which was thought to be post-Chavín (Lumbreras 1971 fig. 25b, cited in Sawyer & Maitland 1983:61). Therefore, they conclude that the Group II ceramics are also late or post-Chavín in date, reflecting an increasingly selective incorporation of Chavín motifs by North Coast artists (1983:61).

"**Group III** ceramics display Chavín-related imagery in an even more distinctive regional manner [...] Group III motifs contain very few Chavín traits and are, by far, the most regional in character" (Sawyer & Maitland 1983:62). Motifs of this group are described as naturalistic human, vegetal, or animal subjects (Figure 3.7c). They note the presence of trophy-head motifs, similar to the carvings at Cerro Sechin, and thereby conclude that this phase likely belongs to the period immediately following the collapse of the Highland Chavín culture.

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<sup>33</sup> The recent work at Chavín by John Rick and colleagues has called into question the Rowe sculptural sequence and begun to provide a revised construction sequence (see Rodríguez-Kemmel 2001; Rick 2008).

A final ceramic style discussed in Sawyer and Maitland, but oddly not included in their Groups I-III, is Chongoyape. They describe the style as heavy grey-ware with thickened spout lips and surfaces textured by punctation, rouletting, or appliqué and incised pads of clay. Decoration consists of geometric motifs “outlined in incision or applied in bosses or strapwork” (1983:57), but they also list simply modelled “bird, animal or human figure vessels” (1983:57). Sawyer & Maitland note that some of the Chavín Rocas style ceramics are “in pure Chongoyape style” (1983:58) and may have been brought to Chavín de Huántar by pilgrims. They also note that thickened spout lips similar to Chongoyape are found among South Coast Chavinoid ceramics and Sawyer suggests that traces of paint are evidence for post-fire polychrome painting, again paralleling South Coast Paracas techniques. The conclusion is that Chongoyape ceramics also pertain to Late Chavín.

### ***3.3.A.1 Comments on Sawyer & Maitland***

In terms of grouping the ceramics into types, Sawyer & Maitland rely primarily on iconography and secondly on the stirrup-handle and spout, using only stirrup-spout bottles in their sample. Their phases are equally defined on the basis of iconographic comparisons with the stone sculpture as seen (and sequenced) at Chavín de Huántar. Their argument is centred on “Chavín-related” ceramics and styles and “Chavín-derived motifs”. Their seriation presents no antecedents to Chavín.

Contrasting with the very narrow definition of Groups I and II, their definitions of Group III and of the Chongoyape style are broad. While associating Chongoyape with Late Chavín, they nonetheless comment: “it is obvious that the Chongoyape culture had a long history before the arrival of Chavín influence”, but do not substantiate this statement. Also, their chronological sequence leaves little in the way of styles/vessels with which to fill the pre-Chavín period and the lack of artistic precedents is a weakness in their seriation.

As becomes clear with later seriations (see below), Sawyer & Maitland’s Cupisnique sequence suffers from the assumption prevalent in the 1970s and 1980s that North Coast ceramics post-dated Chavín, and were derived from its influence (see Chapter 2). Therefore, the ceramics they associated most closely to Chavín in style (their Group I) were dated as “Chavín” or “Late Chavín”, and anything more distantly related was assumed to post-date it.

### 3.3.B Donnan 1992

The only publication so far to consider Cupisnique, Tembladera, Chongoyape, and Chavín in one comparative turn is in Donnan's (1992) book on Precolumbian Peruvian ceramics in general. He attempts to define what distinguishes "the Northern Styles" of the Formative Period from one another, and sums up: "The variants of Formative Period ceramics in northern Peru appear to represent distinct regional styles that were roughly contemporary or at least overlapped in time" (Donnan 1992:32). His is by no means a detailed typology or seriation, but it does illustrate and attempt to clarify the confusion that was characterising other publications and museum collections.

Donnan first outlines a general description of Formative North Peruvian ceramics: they are made using terracotta clays, and formed by modelling, coiling, and paddle and anvil techniques. Many of these ceramics are stirrup-spout bottles, elaborated with three-dimensional sculpture depicting a wide range of subject matter, including humans, plants, animals, supernatural creatures, and architecture. Donnan notes that sculptural ceramics are quite realistic and the subject is generally easy to identify (1992:26). As additional decorative techniques Donnan lists: pre- or post-fire incising, dentate impression, combing, brushing, punctuation, and pattern burnishing. Furthermore, he points out surface alteration by the addition of appliqué in the form of nubbins, fluting, and bands that create low-relief deco areas. "The proliferation of techniques for providing surface texture and designs reflects not only a strong interest in the potential of this type of elaboration but a high level of technical and artistic skill. No other Peruvian ceramics display such an emphasis on surface texture" (1992:31).

According to Donnan, nearly all Formative Period ceramics from northern Peru are a monochrome grey-to-black colour resulting from smudge firing. Oxidation-fired brown or red ceramic vessels are relatively rare. A few are painted with slip paint, usually in combinations of red and white or red and black, with areas of colour outlined by incised lines. The most common pigment is graphite painted onto red-slipped vessels (i.e. same as Larco's 'Cupisnique Transitorio'). Donnan also notes post-fire (resin) paint, generally in combinations of white, yellow, red, orange, and green. Donnan notes that this is often poorly preserved with just traces left, and that

likely there were once many more painted like this (1992:31). Having described general forms and techniques, he then explains what specifically distinguishes the different styles.

According to Donnan (1992:32), 'Cupisnique' stirrup spouts have thick tubular spouts that define a small arch. The upper part of the spout is short with a pronounced flaring lip. Vessels are often textured or low relief, with decoration that continues 'onto the arch of the spout' (i.e. the handle) itself (Figure 3.8).

'Chongoyape' vessels are similar to Cupisnique in having thick, tubular spouts. The upper portion of the spout is distinctly barrel-shaped, with a bevelled lip. [...] Surfaces are generally smooth, or textured with a simple technique such as combing. Vessels forms are round or oblate chambers. Chongoyape vessels often have humans or animals projecting from them in three-dimensional relief. The limbs of figures are normally thin ropes of clay, and the eyes tend to be simple clay pellets (Figure 3.9).

Stirrup spout bottles from 'Tembladera' tend to have much taller and less massive stirrup spouts than those of Cupisnique and Chongoyape. The upper parts of the tall spout sometimes expands slightly. Some Tembladera stirrup spouts have an abrupt angular bend in the handle, others are rounded. Tembladera vessels also include single spout bottles, bowls, and figurines. Some are coloured with red and white slip, others have distinctive red and black colour combination. Many vessels show traces of post-fire resin paint. Chambers are frequently modelled into sculptural forms, or combine sculptural forms with surface texturing (Figure 3.10).

The 'Chavín' style from Chavín de Huántar includes a variety of wares, some decorated with the same conventions seen in the Chavín stone carvings. Most remarkable are heavily textured and relief-modelled bowls and single-spout bottles (Figure 3.11). Stirrup-spout bottles are rarely found (Donnan 1992:31). With the term 'Chavín style', Donnan refers also to iconographic conventions, not necessarily technological ones. "... supernatural creatures in low relief and three-dimensional sculpture. These are portrayed with distinctive artistic conventions such as fanged mouths, eyes that are pendant from the eyebrow, and an emphasis on felines and feline characteristics. Eagles, hawks, and condors also predominate. This style is referred to as Chavín." (Donnan 1992:31).

### **3.3.B.1 Comments on Donnan**

In Donnan's stylistic definition, Tembladera, Cupisnique and Chongoyape are distinguishable mostly by the form of the stirrup handle-and-spout. His Cupisnique example is very similar to those illustrated by Roe (1982), found near Tembladera (compare to Figure 3.6). Meanwhile Donnan associates slim, angular or trapezoid handles as well as painting (slip or post-fire) with 'Tembladera' style ceramics and follows Keatinge (1980) in associating red-and-black graphite painted vessels with Tembladera (Larco had called these 'Cupisnique Transitional', Figure 3.2). The ceramic figurines are also labelled "Tembladera Figurines". The Chavín style is used by Donnan to refer both to a style of ceramic technique (relief modelling) as well as an artistic repertoire of motifs and iconography. Chronological change does not feature in Donnan's typology and he regards all these styles as more or less coeval.

Later seriations both support and contradict Donnan's typology: Cordy-Collins (1998) takes up his definition of 'Tembladera', while the typologies of Jones (2010) and Elera (1998) contradict it, classifying Donnan's 'Tembladera' vessels as 'Classic Cupisnique' (note that some bottles of this style came out of Larco's 1930s excavations in the Cupisnique ravine). It is important to note, however, that Donnan's reasons for defining the styles by these features are not made explicitly. The descriptions are very brief and generalised. It is thus proposed here that a new examination of objects, focusing on manufacturing techniques and consideration of the *chaîne opératoire*, as well as a more detailed categorisation of formal attributes, handle-and-spout shapes, and iconography, will provide further insight to these distinctions.

### **3.3.C Burger on the 'Cupisnique' and 'Tembladera' Styles**

Richard Burger and Lucy Salazar have written extensively on the Formative Period cultures of northern Peru, specifically the chronology and ceramic styles of Chavín de Huántar, as well as on Cupisnique iconography (Burger 1992, 1996, 2000; Salazar & Burger 2000). Burger makes occasional mention of 'Tembladera', which he sees as closely related to Cupisnique, but characterised by a different ceramic style (Burger 1992, 2008). As noted briefly in Chapter 3, Burger firmly dated Chavín de Huántar and associated ceramics to the Early Horizon, 900-250 BC. Both in relative and absolute terms, coastal ceramic styles such as Cupisnique and Tembladera are

generally understood by Burger to pre-date this, and are by and large assigned to the Late Initial Period or *early* Early Horizon (~1500-700 BC), although in later publications Cupisnique is seen to “continue to evolve and spread during the Early Horizon” (Salazar & Burger 2000:46).<sup>34</sup>

According to Burger (1992), Cupisnique pottery is “typically a dark monochrome colour, usually gray or black, sometimes decorated with naturalistic modeling and/or incised with narrow irregular incisions made while the clay was nearly dry” (1992:90). The stirrup-spouts are trapezoidal. He notes the occasional use of a red post-fire pigment rubbed into incised motifs, or a ‘post-fire graphite slip’ to produce an unusual reflective surface (see Figure 3.2). While there are “stylistic canons that set the Cupisnique style apart”, such as arachnid mythical figures and the vertical division of images into contrasting, asymmetric halves (Figure 3.12a), Burger argues for “strong ties” between the Cupisnique and Chavín cultures, especially in the final centuries of the Cupisnique culture (Salazar & Burger 2000:87).

Tembladera is only briefly mentioned, but does seem to be considered as a style in its own right. According to Burger, it is characterised by polychrome post-fire painting in zones. Burger sees this technique as specifically related to the Initial Period (Burger 1992:90). He notes in passing that the mid-Jequetepeque Valley cemeteries yielded a “panoply of coastal and highland ceramic styles, including a poorly understood style – featuring polychrome post-fire painting and complex iconography – widely referred to as Tembladera” (1995:98). Burger illustrates a resin-painted vessel with the caption “Tembladera-style bottle” (Figure 3.13), which he compares to late Huacaloma-style pottery from the Highlands (Burger 1992:98 fig.87).<sup>35</sup>

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<sup>34</sup> From about 800-700 BC Burger assumes the ‘Crisis on the Coast’ scenario where coastal (i.e. Cupisnique) sites were largely abandoned. As far as significant North Coast sites go, only Huaca de los Chinos (Moche Valley) and Morro de Etén and Chongoyape (Lambayeque Valley) are considered to be occupied during the Early Horizon (900-200 BC) (Burger 1992:189).

<sup>35</sup> As far as Tembladera ceramics *and architecture* are concerned, Burger agrees with Tellenbach and argues (based on Ravines 1982, 1985) that *in general*, mid-valley traits do not resemble the classic ‘Cupisnique’ cultural pattern, but instead have parallels in the adjacent highland regions (Burger 1992:97).

Burger states that Cupisnique-style pottery was restricted to the Chicama area, interpreting the diversity in the North Coast ceramic styles as intervalley i.e. geographical variability (1992:90). As such, Burger considers these distinct Initial Period styles as coeval, attributing stylistic difference to geographical rather than chronological separation. He explicitly objects to Larco's interpretation that the Santa-Ana style represented a temporal difference and further states that, specifically in the Jequetepeque and Lambayeque-Leche Valleys, "post-fire painting in zones is the preferred decorative mode of the late Initial Period" (Burger 1992:90). However, despite recognising stylistic diversity and considering the Cupisnique style as restricted in geographical area, Burger seems to favour a use of the term 'Cupisnique' to refer to all Formative cultural materials from the North Coast, regardless of differences in the local ceramic assemblages. He notes that this has become common practice (1992:91) and himself goes on to consider a wide variety of ceramic styles and iconographic motifs as examples of the Cupisnique style. For example, 'Cupisnique style' vessels illustrated in a later publication do include several stirrup-spouts with trapezoid handles and modelled chambers, many with either pre-fire or post-fire incising (Salazar & Burger 2000, Figs 23-30). However, they also include a polychrome, post-fire painted brown-ware single-spout bottle; a monochrome stirrup-spout bottle with a barrel-shaped spout and bevelled lip; and a red and black graphite painted bottle with relief modelled decoration (see Figure 3.14).

### **3.3.C.1 Comments on Burger**

Burger is an advocate of the Horizons system, seeing the wide-spread application of Janabarriu-style features on the North and Central Coasts as the result of Chavín de Huántar's influence in the late Early Horizon (Burger 1992).<sup>36</sup> He agrees with Larco that Cupisnique is a separate and early cultural development, albeit closely related to Chavín. However, he is much broader in his definition, applying the term Cupisnique for all Formative Period cultural manifestations from the North Coast.

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<sup>36</sup> Although Burger does state: "However, it should not be assumed that the potters provisioning these sundry centers and villages were directly imitating the pottery of Chavín de Huántar itself, but rather that the potters of many different regions were drawing inspiration from the same set of attributes, whose historical origins were diverse and complex" (Burger 1992:214).



Burger considers thick-spouted stirrup vessels with prominent rims or bevelled lips and/or high-relief decoration as 'Chavín style', imported to Chavín and deposited in the *Galeria de las Ofrendas* or belonging to the Chakinani or Janabarriu phases (see below). What other scholars have thus called 'Chongoyape' style (Elera 1998; Sawyer & Maitland 1983; Lapiner 1976), or Cupisnique style (Roe 1982; Donnan 1992) Burger labels as 'Janabarriu-related' or 'Chavín style'. Bottles with thin handle-and-spouts, featuring modelling and/or polychrome post-fire painting, are labelled 'Cupisnique' (or occasionally 'Tembladera') and are considered to be earlier in date. As such, Burger's conclusions fit with later devised sequences (see Elera 1998, 2009, below). However Burger's named stylistic groups also contradict those of later scholars; what Cordy-Collins (1998) calls 'Tembladera' for Burger is (by and large) Cupisnique. What Donnan calls 'Cupisnique' Burger calls 'Chavín style' or 'Janabarriu', and 'Chongoyape' as a style term is not used at all by Burger and Salazar-Burger.

### **3.3.D Shimada & the Batán Grande Kilns**

Based on the discovery of Formative Period kilns (the earliest layers dated to 1200-500 BC) in the Lambayeque-La Leche Valleys, Shimada aimed to reconstruct the manufacturing techniques, in particular the firing process, of Formative Period North Coast ceramics. By way of an introduction, he gives a brief definition of Cupisnique and related style ceramics, using radiocarbon dates from the Huacas Lucia and El Corte (Batán Grande) to suggest that the style may have originated as early as 1500 BC (Shimada et al. 1998:25, Table 1).<sup>37</sup>

Firstly, Shimada sums up Larco's definition of the Cupisnique style as "incised, monochrome sherds" (1998:24). He goes on: "Since then, related local styles such as Tembladera in the upper Jequetepeque valley and Chólpe in the mid-La Leche valley [...] have been identified. [...] These local styles shared the 'fang' motif and mythical animals with the Chavín style centered in the North Highlands" (Shimada et al. 1998:24). Admitting the difficulty in separating the Cupisnique style from Chavín, Shimada lists the following traits as distinguishing the Cupisnique style: Ornamentation depended on surface treatments like incision, pattern burnishing,

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<sup>37</sup> See chapter 3 History of Research: Shimada (1981:441) reports finding 'Classic Cupisnique vessels' at the Huacas Facho and Corte, but gives no definition.

combing, punctuation (vertical and oblique angle), stamping, appliqué, and modelling rather than colour. As noted by Donnan (1992), this is true for almost all Formative North Peruvian ceramics. Shimada specifies that surface patterns were made using tools such as shells, maize-cobs and husks, reeds, and canes. He questions Larco's assertion of the use of moulds in manufacturing Cupisnique stirrup-spout bottles (Shimada et al. 1998:27). Another notable remark is that the technique of broad-line incision to create a low-relief appearance "may well have been an attempt to emulate the repoussé effect seen on prestigious sheet gold objects" (1998:26).

As an artistic convention for Cupisnique, Shimada lists winged eyes, downcurved mouth corners, elongated teeth rows, rectangular fangs, and elements protruding from the mouth (1998:24). Three-dimensional modelling of the local fauna (snakes, ospreys, owls, mice, parrots) and flora (cacti, yucca) as well as humans and tropical shells (spondylus, strombus) he considers to occur late in the Cupisnique style, anticipating Moche naturalistic modelling (1998:26). In terms of colouring, Shimada lists only the use of post-fire reddish iron oxide or cinnabar over incised or punctuated areas, stating explicitly that slip painting was *not* yet practised. "Variations in surface colour, ranging from brown to gray to black, was achieved through controlled firing." (1998:26).

The research from Batán Grande provides the only direct archaeological evidence for ceramic manufacturing in the Formative Period. Stylistic definitions, however, remain problematic. For Shimada, Tembladera is a contemporaneous style but its distinction from Cupisnique is far from clear. The only technique Shimada notes for "some Tembladera style vessels" (1998:26, emphasis added) is decoration using post-fire resin paint. Similarly Shimada acknowledges the "difficulty [of] differentiating the Cupisnique style from the Chavín, as they overlap in time to some degree and the latter integrated various stylistic and iconographic features from the former" (Shimada et al. 1998:24).

### **3.3.E Cordy-Collins**

In an article focusing on feline depictions in the Andes (specifically felines with the head turned sideways or even backwards), Alana Cordy-Collins (1998) used the terms Chavín, Cupisnique, and Tembladera. Some of these she uses as cultural, others merely as stylistic labels, but all remain closely intertwined. For instance

Cordy-Collins defines Tembladera as a group of Chavinoid artefacts from the Jequetepeque, Zaña, and Lambayeque valleys, made by “one group of Cupisnique (Coastal Chavín) people” (Cordy-Collins 1998:156).<sup>38</sup> She describes Tembladera ceramic wares as “characterized by shallow open bowls, single spout bottles, and stirrup spout bottles” (1998:156). (She makes no mention of figurines.) In terms of decoration she highlights pre-fire incising, burnishing, and post-fire resin painting for bowls and bottles, while modelling and appliqué was used only on bottles (1998:157). On bottles, the spouts are described as tall, slim and unadorned (though burnished), cylindrical or out-tapering at the lip in shape. The illustrated vessels have no lip on the rim. Stirrup handles can be yoke-shaped or angular: “Angular stirrups either rise straight up from the chamber, or flare outward obliquely, then turn abruptly inward to join the spout. Yoke-shaped stirrups always rise straight up from the chamber” (1998:157).

Cordy-Collins highlights the prevalence of feline depictions on ‘Tembladera’ vessels, and notes their consistent rendering: the head, back and legs (but not the neck or belly) are incised with circles as stylised representations of a jaguar’s spotted pelt (Figure 3.15). Some ‘Tembladera’ cats feature banded ankles, a trait found on the *gato montés* rather than the true jaguar (1998:157).<sup>39</sup> Cordy-Collins cites Sawyer & Maitland (1983:63) in saying: “the eyes are usually winged rather than pendant, a characteristic of the Tembladera style” (Cordy-Collins 1998:158). However, this seems to be her own interpretation as they only note it as a “north coast trait” or part of the “north coast regional style” (Sawyer & Maitland 1983:63).

To sum up, Cordy-Collins considers slim-spouted vessels with angular handles as ‘Tembladera’, which she sees as a sub-style of Cupisnique that for her is itself a sub-style of Chavín (i.e. Coastal Chavín). Aside from the handle-and-spout, she relies on the features of modelled feline motifs, specifically the eye shape, to define the

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<sup>38</sup> In a previous publication she labelled some of the same vessels with trapezoid stirrup-spouts and modelled feline and cactus scenes as “Chavín” (Cordy-Collins 1977).

<sup>39</sup> Cordy-Collins (1998) goes on to link the backward-glancing felines to shamanic transformation, further supported by accompanying depictions of the San Pedro cactus and volutes, which have been linked to hallucinatory effects and visions of shamans in trance (Sharon & Donnan 1977).

Tembladera style. Without describing comparative styles it is impossible to see which of the technological features she lists might also be particular to this sub-style, or indeed characteristic of the broader style terms she uses: Cupisnique and Chavín.

### **3.3.F “Tembladera” Figurines**

The most recognised manifestation of material objects that are consistently labelled ‘Tembladera’ are ceramic figurines. Unlike most Formative ceramics from northern Peru. Tembladera Figurines are tan coloured resulting from oxidisation-firing, with traces of white and occasionally red or black post-fire paint. In terms of iconography they are remarkably homogenous and idiosyncratic: all show human beings in formal, rigid poses. The eyes consist of rectangular slits with pierced dots. Many wear elaborate jewellery including collars, bracelets, earspools, and animal headdresses (Burtenshaw-Zumstein 2013). These features set them clearly apart from other human representations of Formative North Peru, which will be noted in Chapter 7 (see Figure 7.12).

Morgan (2009) uses these figurines to point out that the Tembladera tradition is clearly distinct from Cupisnique: “it is remarkable that no similar figurines were found further south, in the general area of the Cupisnique culture, in spite of strong similarities between ‘Tembladera’ and Cupisnique ceramics. [...] In contrast to the wealth of figurines from the Jequetepeque valley, no figurines at all have yet come to light from a Cupisnique context in the Moche-Chicama valley” (Morgan 2009:38-39). A figurine in the Museo Nacional Chavín, supposedly from Puémape, may be an exception. More recently, the Museo de Arte Lima has published three figurines, also allegedly from Puémape (Elera 2009), but it has not been possible to verify the accuracy of these provenances.

Morgan (2009) dates Tembladera figurines to what she calls the Middle Formative, 600-200 BC by her chronology. This is significantly later than most scholars place Cupisnique and Tembladera material culture. Contrary to Keatinge (1980) Morgan concludes: “There can be no doubt that the distinctive Tembladera pottery style belongs to the northern tradition associated with the Chavín religious cult” (Morgan 2009:39). Through using a multivariate method, this thesis aims to compare and thus better understand how and whether these ‘Tembladera’ figurines associate with other ceramic styles of Formative Period North Peru.

### **3.4 SUMMARY OF STYLE TYPOLOGIES PRE-1998**

Publications of the 1970s and 1980s presented a wealth of styles and accompanying labels (Lapiner 1976; Lavallo & Lang 1980; Alva 1986). This prompted a new seriation of North Coast Formative ceramics (Sawyer & Maitland 1983). However, although recognising both Cupisnique and Chongoyape as separate styles, Sawyer & Maitland's typology in effect still followed earlier assumptions about the antiquity and prevalence of the Chavín style. As such, it assumed them to post-date the peak of Chavín and also suffered from a lack of identified artistic precedents. By the 1990s, the highly varied ceramics published in the 1970s and 1980s had by and large come to be recognised as styles separate from the enigmatic Chavín-style, and indeed as pre-dating it. Attempts to define them, however, have so far been made only in passing, and no publication had focused on Cupisnique, Tembladera, or Chongoyape specifically (Donnan 1992; Burger 1992; Shimada et al. 1998; Cordy-Collins 1998). The stylistic terminology used also remained vague and even contradictory, and most of the time Cupisnique served as an ill-defined catch-all term.

### **3.5 RECENT RESEARCH: NEW SERIATIONS OF CUPISNIQUE CERAMICS**

In the last 15 years, a small number of PhD theses in Peru and the USA tackled the 'Cupisnique' culture and ceramics head on, most of all defining new seriations and considering the iconographic repertoire (in particular Elera 1998; Toshihara 2002; Jones 2010). These are reviewed in this section. Despite making huge advances in our understanding of the ceramics of the Formative Period North Coast, these have had little time to impact the mainstream scholarly world, and none has clearly defined distinct ceramic types beyond their own use of the term 'Cupisnique' as a culture and style.

Meanwhile the ceramics from Chavín de Huántar itself were also becoming more specifically defined. This is crucial for making distinctions between Chavín and other ceramic-styles apparent, although here too assumptions and a lack of detailed knowledge about North Coast ceramic styles is often cited as getting in the way of

progress. The ceramic styles from Chavín de Huántar are thus also reviewed at the end of this chapter.

### **3.5.A Elera 1998 and 2009**

Since Larco, Carlos Elera's work at Puémape in the littoral of the Chicama Valley is the first chronological sequence derived for Cupisnique ceramics that is based – at least in part – on stratigraphically excavated materials (Elera 1993, 1998). As described in Chapter 2, Elera divided the Puémape sequence into three phases (Early, Middle, Late). In 2009 he revised the dates for those phases and applied the sequence to Cupisnique ceramics in general. Only one vessel was recovered from an Early Puémape Phase (EPP) burial; a broken neckless olla (Elera 1998:114). I thus review only the style descriptions for the latter two phases.

Middle Puémape Phase (MPP) Ceramics are described as having fine sand temper from local Puémape deposits. Vessels were made using the coiling method and, in the case of the stirrup-spouts, also the joining of separate parts. Elera notes polishing over burnishing as the surface finish, in some cases used to make a pattern of contrasting surfaces. The bases of all vessels could be either flat or rounded. Lip-profiles of the open vessels were straight, 'flanged', 'half-ogive', or 'convex'. Firing was done in a reducing atmosphere, although Elera notes that given the variability of the colour of the paste, there was no consistent control of the firing process in the MPP (1998:233). The predominant decorative technique is given as incising (fine-line, broad-line, and rough – all pre-fire), as well as punctuation, various kinds of appliqué, and impression (stamping?). Modelling is mentioned mainly for the stirrup-spout bottles. According to Elera the stirrup-spouts had "ogive and straight-shaped spout lips. The profile of the spouts appeared concave from the front and convex from the side. Most of the stirrup profiles are slightly trapezoidal. One had a quadrangular shaped stirrup and another had an ogive spout shape but a rounded stirrup profile" (Elera 1998:232). He concludes: "Classic Cupisnique burials [are] associated with slightly trapezoidal stirrup-spouts" (1998:274).

The description of the Late Puémape Phase (LPP) ceramics are almost identical to the MPP ones, except that the clay is now described as 'very fine' and the reducing firing atmosphere appears to be more consistent. LPP stirrup-spouts "had ogive and straight-shaped spout lips" (same as MPP stirrup-spouts) but the "spouts had nearly

straight sides" (1998:235). Motifs of the LPP followed predominantly geometric patterns, especially the materialisation of the dual principle as seen in contrasting surface finishes and in the presence naturalistic and geometric motifs on the same vessel (1998:236). Elera asserts that Late Puémape Phase ceramics fitted well with other Late Cupisnique contexts such as Morro de Etén and Chongoyape, however, it is not clear how Elera's descriptions of the Late Puémape ceramics match the vessels recovered from these sites. Although no such vessels were described or illustrated from Late Puémape contexts, Elera characterises stirrup-spout bottles of the Late Cupisnique style as "highly baroque in some cases, and rich also in religious symbolism. A typical Late Cupisnique ceramic shape was the bell-shaped vessel. Together with the traditional Late Cupisnique gray/black highly polished ceramics were bichrome and polychrome vessels" (Elera 1998:280).

A 2009 publication significantly clarifies Elera's stylistic sequence, using complete (and mostly unprovenanced) vessels to illustrate the phases. 'Early Cupisnique' ceramics receive almost no attention and only one drawing of a neckless olla is featured (Elera 2009:72, fig.19). Seven ceramics are captioned as 'Middle Cupisnique', all stirrup-spout bottles (Figure 3.16). Elera describes the style as characterised by lightly cuadrangular or trapezoid stirrups and in many cases modelled vessel bodies. The representations can be naturalistic or 'complex' (composite or hybrid), but all are considered to have a strong, religious symbolic significance (2009:73).

In contrast to Larco (1948), Elera (2009) seems to suggest that red and black graphite-painted bottles are relatively coeval with the monochrome, reduction-fired 'Classic Cupisnique' vessels, i.e. Larco's 'Transitorio' and 'Cupisnique' styles fall within the same long 'Middle Cupisnique' period of 1500-500 BC. Confusingly, the red and black vessels are labelled "Cupisnique Medio de Tecapa" (Elera 2009:90, cat.7, 8, 9) (Figure 3.17). Tecapa is the name of a lower Jequetepeque Valley site that is not usually associated with Formative Period materials.<sup>40</sup>

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<sup>40</sup> If such vessels were indeed found in the vicinity of Tecapa, there is no citation or reference to substantiate this statement (the only corresponding citation is Alva 1986, however Tecapa is not mentioned in Alva's book). Tecapa is the location of a site near Pacasmayo, part of the Cañoncillo Archaeological complex known mostly for its Chimu or Chimu-Inca remains. It was not possible to locate published accounts of Formative Period remains from the site of >>

Explicit descriptions of the characteristics of the Late Cupisnique ceramics are fleeting. In 2009 Elera only writes that the style is “excessively baroque” and that religious artistic expressions acquire an “official” character through their repetition and standardisation on different media (Elera 2009:75). Judging by the illustrated examples, Late Cupisnique vessels are all monochrome, with barrel-shaped spouts and bevelled-lips, much like those found at Chongoyape (Figure 3.18). Where in the chronology Elera places the afore-mentioned polychrome vessels is unclear (Elera 1998:280).

### **3.5.A.1 Comments on Elera 1998, 2009**

A main aim for Elera had been to contest the lingering understanding that Cupisnique was the result of Chavín-influence on the North Coast. He convincingly argues his case and concludes: “Many conventions commonly associated with Chavín seem to have occurred first in the Cupisnique heartland of the North Coast and/or on the Central or north-Central Coast” (Elera 1998:287). Indeed, Elera’s 2009 Cupisnique ceramic sequence overturned the North Coast stylistic seriations previously proposed (e.g. Sawyer & Maitland 1983), by reversing the order in which bottles with thick-stirrups appeared compared to the modelled, thin, trapezoidal stirrup spout vessels with no lip on the rim. As such his work is a crucial step forward in our understanding of Cupisnique material culture and chronology. This thesis aims to add to and further such insights. Elera relies strongly on the handle-and-spout shapes to distinguish the vessels of different phases and there is relatively little description of styles or types otherwise. Furthermore, Elera’s ‘Classic Cupisnique’ phase covers a time-span of 1000 years as well as continuing to incorporate diverse artistic and decorative features and thus merits further refining.

### **3.5.B Toshihara 2002, 2004**

Perhaps the most comprehensive study on ‘the Cupisnique Culture’ to date is Kayoko Toshihara’s unpublished PhD thesis (2002). In an attempt to define and

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Tecapa. The adjacent site of Jatanca is partly associated with Salinar, Gallinazo, Moche materials of the very Late Formative and Early Intermediate Period (Warner 2010).



understand the Cupisnique culture in a wider context (Toshihara 2002:iii) she draws together nearly every piece of research on Formative Period North Peru (and indeed beyond North Peru, including South Coast and South Highland information for connections, context, and comparison): climate, subsistence, settlement patterns, architecture, material culture, and iconography. She reviews available archaeological surveys and excavations from the Casma to Piura Valleys, assessing each set of ceramic data for stratigraphic and thus contextual accuracy, before defining a seven-phase chronological sequence spanning the entire Formative Period.

The basis of her sequence is published archaeological data, stratigraphy, and context, but she also incorporates stylistic and iconographic interpretations (especially in her 2004 article). There is no doubt that Toshihara's sequence is based on meticulous analysis of published excavation data. However, given the huge amount of data, her concluding descriptions are extremely complex and rather confusing.<sup>41</sup> Nonetheless using both her thesis (2002) and the 2004 article, we can summarise the following phase-type descriptions:

**Phase 1** comprises simple ceramics such as neckless *ollas*, with appliqué bands with incisions or impressions. There are no figurative motifs.

**Phase 2** introduces new vessel forms; single-spout bottles, sharp incisions, red slip, and neckless ollas with incurving rims (2002:355, 2004:55). Decoration consists mainly of geometric patterns (2004:60).

**Phase 3** contains "more developed" features: new forms such as bowls and new decoration techniques. In particular Phase 3 is characterised by punctuation (2002:356). Figurative motifs appear, which Toshihara describes as "primitive looking rather than stylized and are not naturalistic" (2004:60). In the latter half of Phase 3, stirrup-spout bottles appear in the Chicama-Moche area (2002:402).

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<sup>41</sup> For example, there seems to be some confusion over the phases associated with Huaca de los Reyes: "Huaca de los Reyes seems to have ceased its function, again because of the absence of Phase 4 features" (Toshihara 2002:404). But later she states: "based on the ceramics, the Huaca de los Reyes site [...] was mainly used during phase 4" (Toshihara 2002:413).

**Phase 4** is characterised by a prevalence of figurative motifs and stirrup-spout bottles on the coast, “with triangular spouts [handle arches?] and longer, slightly flared spouts without emphasis on the lip” (2002:405). It includes decorations and motifs of a huge variety: “decorated with modelled naturalistic animals and plants, geometric patterns such as step-motifs and leaf-like long triangular elements filled with texturing, and probably supernatural beings’ faces without fangs” (2002:405). She also describes Phase 4 ceramics as “characterized by the stylized supernatural beings’ faces or their (physical) attributes, which are geometricized and continue to the next phase”, listing fanged mouths, eccentric eyes (up- or down-turned), and “curvy bands of eyebrow” (2002:359, 362; 2004:63). While on one hand listing naturalistically modelled animals and plants, she also writes that typical Phase 4 decoration consists of stylised motifs depicted by incisions, associated with texturing (rocker stamping) and relief appliqué decorations (2002:359).

Particular examples of Phase 4 ceramics include modelled feline-and-cactus scenes, modelled fruits with incised head motifs, and “dual-modelling” such as paired strombus and spondylus shells (2004:63-64). At the same time, however, she states that “motifs related to supernatural beings become common” (2004:65). Toshihara explicitly states that certain Phase 4 motifs (circle within a notched square and supernatural heads with fangs, eccentric eyes, and up- or down-turned noses) are “without doubt” related to the motifs at Chavín de Huántar (2004:65).

**Phase 5** is when stirrup-spout bottles appear in the highlands. “The ceramics of this phase are characterized by flanged lips on (single- and stirrup-) bottles...” (Toshihara 2002:360; 2004:57). Iconographic motifs of Phase 5 emphasise the feline attributes of supernatural beings and become highly stylised (2004:66). Major motifs include a combination of a felines and raptorial birds, supernatural heads emphasising fangs, and geometric motifs combining steps and volutes (2004:66). In late Phase 5, motifs become more stylised, abbreviated, and geometricised. Stamped motifs (circles, U-shapes, S-shapes, and complex motifs) become common (2004:69).

Although she states that modelled vessel bodies become “very rare”, with most motifs being executed by incision or surface texturing (2004:68), she describes modelled animals, birds, or unidentified objects from the Chicama-Jequetepeque area (2004:68). Chavín’s apogee is classified as Early Phase 5, and by late Phase 5 it is in

decline. Nonetheless, late Phase 5 and Phase 6 is when Chavín motifs such as the staff-god are most widely spread and incorporated into distant religious traditions (e.g. Karwa, Pacopampa) (Toshihara 2004:71, 77). The the Limoncarro stone vessels (with, amongst other things, arachnid motifs) are dated to late Phase 5 or 6.

In **Phase 6**, Toshihara asserts that iconographic motifs shift back to “local, non-Chavín traditions” albeit in a revised form: “plants and naturalistic felines are no longer depicted; instead, common animals (deer, mouse), birds (owl, parrot), humans (shamans), and non-human or supernatural beings are the main themes” (2004:72). Most of the animals and humans of this phase do not have supernatural attributes such as eccentric eyes, although a few examples appear to still have feline characteristics or “may represent a shaman transformed into a supernatural being” (2004:72). Nonetheless, she considers these as “local supernatural beings that have few similarities with those of the Chavín culture” (2004:73). As techniques, she specifically mentions modelling as well as “a combination of incised motifs and painting (red, orange, black etc.)” (2004:56). In particular, she notes modelled stirrups and a cupcake-shaped body (as found on vessels at Chongoyape) as features which are unknown in the previous phases, but very similar to the later EIP Salinar ceramics on the north coast (2002:362).

During late Phase 5 and Phase 6, there is some resemblance between the North-Central Andes and the South Coast (Paracas), including stirrup-spout bottles with bevelled lips and double-spout-and-bridge bottles decorated as stylised feline heads. Again, she explains this contact as occurring mostly during the decline of Chavín de Huántar (2004:77).

**Phase 7** is an Epi- or even Post-Formative Period, segueing into Salinar. Toshihara lists painted ceramics, typically a combination of red and white as Early Intermediate Period (Salinar) features (2002:363-364). The typical forms are double-spout-and-bridge bottles, usually with plastic modelling on one of the spouts (these already appear in late Phase 6), and “sausage vessels” (2004:57). She adds that these may eventually be incorporated into Phase 6 or the Early Intermediate Period.

### 3.5.B.1 *Comments on Toshihara*

Toshihara's sequence is detailed and extensive, greatly improving our knowledge and understanding of the chronology of Formative Period ceramics. The discussion in Chapter 7 relies greatly on her findings. However, in describing characteristics by phase, it becomes incredibly difficult to distinguish coastal from highland traits (where these can be identified as distinct). For example Toshihara's Phases 4 and 5 cover the use and hence ceramics of the Galería de las Ofrendas, *as well as* coastal, Chicama-Moche 'Cupisnique' ceramics. This inevitably complicates her description of Phase 4 and 5 features. For example, she writes that in the subsequent Phase 6, "modeled vessel bodies again become popular" (2004:72), although her Phase 5 description clearly includes plastic modelling on the North Coast (2002:442; 2004:68).

Within the chronological sequence for Formative Period North Peru, Toshihara's emphasis remains on the Cupisnique culture, which she defines as follows: "In a narrow sense, the Cupisnique ceramic culture is represented by the ceramics of Phases 3 and 4 in the Moche, Chicama and Jequetepeque Valleys. Ceramics of Phase 5 in the Chicama area can be seen as Chavín mixed with local or Cupisnique traits, while those of Phase 6 and after as localized or modified post-Chavín, *which are no longer Cupisnique*" (Toshihara 2002:406, emphasis added). In general, she thus describes 'true Cupisnique' ceramics as having triangular handles and long, slightly flared spouts with no lip. Decoration consists of modelled naturalistic animals and plants, and geometric patterns such as step-motifs or leaf-like triangular elements filled with texturing, and (incised?) supernatural faces without fangs (2002:438). In 2004, Toshihara alters her definition slightly to say that "the Cupisnique culture can be characterized as *one of* the local cultures that developed figurative motifs on artifacts..." and that "the Chavín culture influenced the major local cultures, *one of* which was Cupisnique" (2004:78, emphasis added). She never elaborates on this statement but her definition of Cupisnique remains the most detailed and specific to date.

Toshihara does not use Chongoyape as a stylistic term. The ceramics from Chongoyape are grouped with other site-specific ceramics (notably Udima-Poro Poro) and assigned to a post-Cupisnique phase (Phase 6). However, there is some indication that she considers Tembladera as a distinct style (and culture?): "Several

vessels are overlapping with those in Alva's 1986 book [...], among which single-spout bottles of Type (c) [...] are alleged to have been from Tembladera in Lapiner's book. Although there are other vessels which are alleged from Tembladera, these distinctive types of single-spout bottles can be separated from others and labeled as 'Tembladera single-spout bottles'" (Toshihara 2002:386). Unfortunately she accords it no further attention or definition in relation to her phases or understanding of Cupisnique culture in general.

Toshihara's definition of 'Classic Cupisnique' matches Jones' (2010) and in part Elera's (1998), but is not how Nesbitt (2008) or Park (2010) define it in their theses (below). In a general sense, Toshihara's phases echo Elera's (1998, 2009) sequence of characteristics. Slim, trapezoidal handles with tall, lip-less spouts (Phases 3 and 4) precede thick spouts with prominent lips (Phases 5 and 6). Additional detail is difficult to discern and understand, except for a few particular vessel shapes or decorative features.<sup>42</sup> Toshihara's phases cover widely dispersed sites, including the North Coast and North-Central Highlands. She thus gives a precise historical context for Cupisnique materials within the culture history of North Peru in general. However, in grouping ceramic traits chronologically, the features that separate coastal from highland styles become blurred in her account. In other words, in dividing the ceramics by phase i.e. chronological periods, she is forced to include a wide range of diverse regional styles in her descriptions, covering North Coast to North-Central Highland ceramics that were made and used in each time period. Individual characteristics are assigned to phases, but no overall vessel types described. The difficulty in applying Toshihara's 7-phase chronology is evident in Jones (2010, see below), who cites Toshihara's work but in the end relies on Elera's

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<sup>42</sup> Questions remain: for example "sausage shaped" vessels are assigned by Toshihara to Phase 7. Such a vessel in the Reiss-Engelhorn Museen was thermo-luminescence dated to 800 BC and thus assigned to Chorrera (Ecuador) (Hickmann 2007, Cat.193). If accurate it begs the question whether all of Toshihara's phases truly represent phases, and may not be, in part, the result of regional differences.

much more user-friendly 2009 sequence.<sup>43</sup> The present thesis hopes that by dividing the ceramics by type, and *then* assigning these types to a phase (or, where possible, a region), this thesis will clarify the picture and make it easier to classify ceramics.

### 3.5.C Jones 2010 & Cupisnique Iconography

Jones' PhD thesis (2010) is an invaluable first study to categorise and understand the iconography of the Formative Period North Coast ("Cupisnique"). With a focus on motifs and themes, Jones is not primarily concerned with chronology or ceramic typologies. Nonetheless she is clearly aware of both Elera's and Toshihara's chronological sequences and combines these with sequences by Seki and Kato (see Jones 2010:59) into an amended chronological framework: "Based on current data, the north coast Cupisnique tradition appears to fall within the Early-Middle-Late Formative Periods, with the Salinar and Layzón traditions emerging in the Terminal Formative Period (250-50 BCE). More specifically, the Classic Cupisnique style [...] takes place during the Middle Formative Period (1200-800 BCE)" (Jones 2010:59). What kind of Cupisnique is present in the Early Formative is unclear.

Jones' dataset includes vessels labelled as 'Cupisnique', 'Classic Cupisnique', 'Late Cupisnique' or 'Late-style', 'Tembladera' and 'Chongoyape'. Classic Cupisnique is taken from Elera's (2009) and Toshihara's (2002) definition of slim, trapezoidal stirrup handles with tall spouts and no lip, including also the red and black-graphite painted bottles that Larco had labelled 'Transitorio'. She makes no distinction between modelled, incised, or painted decoration, defining the style only by the shape of the handle-and-spout. Only two single-spout bottles feature in her sample, on which she comments: "the single spout form and publication photo render unclear the placement of this ceramic within the Classic Cupisnique repertoire" (Jones 2010:202). A few vessels are captioned 'Late Cupisnique', others simply 'Late style' (Jones 2010:431, 433, 441). It appears based on Toshihara's seriations, referring

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<sup>43</sup> Toshihara separates the Chavín Galería de las Ofrendas ceramics into two phases, rather than into distinct but contemporary styles: Phase 4 for the 'Ofrendas Chavín' ceramic styles, Phase 5 for the 'Ofrendas Non-Chavín' Raku and Wacheqsa styles. No other scholar advocates this distinction (see Lumbreras 1993; Fux 2012).

to vessels with “thick flaring lips, robust stirrup and body [that] often boast stylized high-relief images” (Jones 2010:56).<sup>44</sup> Only one piece is labelled ‘Tembladera style’; a ceramic figurine in the shape of a seated woman wearing a long dress, decorated with incised circles. Jones describes no vessels to illustrate her understanding of the ‘Tembladera style’ in general. Jones ‘Chongoyape’ style follows earlier scholars, showing monochrome grey-black vessels with round stirrup-handles and short, convex spouts with bevelled lips. Chongoyape is included as a Late Formative development within the Cupisnique tradition.

Following other scholars before her, Jones relies on the stirrup-spout to define the Classic and Late Cupisnique and Chongoyape styles. She mentions other (sub-?) styles as well as their chronological placement, however, in the subsequent discussion on the iconographic repertoire she makes no distinction between these styles, considering all vessels as representative of ‘Cupisnique’ iconography as a whole. For the purposes of this thesis, a lack of specificity hinders the comparison of styles. For example, Jones states that the ‘Raku’ style bears similarities to ‘Classic Cupisnique’ monochrome bottles (Jones 2010:25). However, she is probably referring only to the Raku A style (as defined by Lumbreras 1993), and only to a sub-category of Classic Cupisnique (as defined by Jones herself), for there is no three-dimensional modelling in Raku (neither A nor B).<sup>45</sup> As subsequent chapters will show, the present study also has found that these distinct ceramic styles also emphasise particular iconographic themes (see Chapter 7).

### **3.5.D Park 2010 & Cupisnique Headmotifs**

A very narrow definition of Cupisnique is put forward by Yumi Park. Her PhD analysis (2010) focuses on the incised head-motifs seen on some Formative Period North Coast ceramic vessels. Indeed, she defines the Cupisnique style and culture by the presence of this feature, regardless of the variation in handle-and-spout types or

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<sup>44</sup> Jones cites Elera, but Elera actually illustrates and describes no high-relief bottles with flaring lips (see Elera 2009).

<sup>45</sup> Also, not all handles are perfectly trapezoid: some are flattened-round with thin corners (Lumbreras 1993 Lam.67) or wide and rounded (Lumbreras 1993 Lam.65 fig. 504).

vessel-body shapes that she identifies (Park 2010:213-214 Charts 1-2) (Figure 3.19). She asserts: “no one acknowledged the most important characteristic of the Cupisnique ceramics: the fact that the unique combination of the post-firing engraving technique and the head motifs are not found in other Andean art styles” (Park 2010:3). Following Larco, she assumes the vessels to have been mould-made (Park 2010:27). As a date range for Cupisnique she cites 1200-200 BC (2010:1).

Her thesis makes no mention of Tembladera or Chongoyape, although in a more recent publication (Park 2012) she writes: “The Cupisnique style is distinctive and characterized by four major features: a particular combination of stirrup-spouts, dark black or brown hues, engraved head motifs, and extremely well-polished surfaces. This style of engraved, stirrup-spouted ceramics is common to all inhabitants of the Cupisnique region, who established a different style than other local variations in such places as Tembladera, Chongoyape, and Santa Ana.” (Park 2012:15). Unfortunately she does not explain how she distinguishes these local variations.

Park’s definition is, on the one hand, very broad, including not only a wide date-range but also a wide range of handle-, spout-, and vessel-shapes. On the other, her definition is incredibly narrow, reliant on presence of post-fire incised head-motifs, which she notes also appear on Raku-style ceramics in the Galería de las Ofrendas albeit without explaining why. Park considers all such head-motifs as *post*-fire incised, however, some of the Raku vessels illustrated in Lumbreras 1993, for example, are pre-fire incised, and Alva (1986) distinguishes specifically between incising into the damp or dry *pre*-fired vessel surface and post-fire incising.<sup>46</sup> Therefore Park’s definition and analysis are limited but nonetheless worth mentioning, in particular in relation to Nesbitt’s (2012) classification.

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<sup>46</sup> Given the difficulty of distinguishing incising techniques, this thesis differentiates only between wet-paste incising, wet-paste carving, and dry-paste/post-fire incising (see Chapters 4 and 5).



### 3.5.E Nesbitt 2012 and the Huaca Cortada

Jason Nesbitt's work at the Huaca Cortada (Caballo Muerto, Moche Valley) provides an archaeological basis for a characterisation of Cupisnique in the Moche Valley as well as other styles and their possible provenances. At a general level, the "bottle rim with triangular flange" is considered as Early Horizon and thus late in the Cupisnique sequence (Nesbitt & Matsumoto forthcoming). Another Formative Period ceramic style identified at Huaca Cortada is "part of a bichrome bowl (Figs 17g; 18f), with zones of red paint over orange slip, separated by wide incisions. The authors postulate that this vessel comes from the Cajamarca region and is of a style known as Huacaloma Red on Orange from the Late Huacaloma Phase (see Terada y Onuki 1985: plate 29, e)" (Nesbitt et al. 2008:279, my translation).<sup>47</sup>

What Nesbitt considers 'Cupisnique pottery' is either black monochrome or black graphite on red: what Larco would have called 'Cupisnique Transitorio'. This comes from his San Lorenzo phase, Late Initial Period: 1100-900 BC (Nesbitt pers. comm. 2014; see also Nesbitt et al. 2008). As 'Classic Cupisnique' he describes specifically globular vessels with trapezoid stirrups, with a fine gray paste, black polished surface, and incised headmotifs, noting that incisions were executed when the clay was leather hard (see Nesbitt & Matsumoto forthcoming). Such vessels were classified at Chavín de Huántar as "Raku A" (Lumbreras 1993). After finding two bottles of this style at Campanayuq Rumi in the Ayacucho highlands, Nesbitt writes: "This bottle form is temporally diagnostic to the late Initial Period and has been published from various sites in the Chicama, Moche, and Jequetepeque valleys (Elera 1998; Larco 1941; Nesbitt 2012; Nesbitt et al. 2010; Pozorski 1983; Toshiahara 2004; Tsurumi 2010). Decoratively, the type of thin incisions and designs they create, including an emphasis on the depiction of anthropomorphic/feline heads are a common hallmark of late Initial Period pottery that Larco referred to as 'Classic Cupisnique' (Larco 1941; see also Elera 1993). Importantly, when seen on bottles, this kind of iconography is restricted to trapezoidal stirrup spout vessels. [...] Based on

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<sup>47</sup> "parte de un cuenco bícromo (Figs. 17, g; 18, f), con zonas de pintura roja sobre un engobe anaranjado separadas por incisiones anchas. Los autores postulan que este último tiesto proviene de la región de Cajamarca, del estilo conocido como Huacaloma Red on Orange de la fase Huacaloma Tardío (véase Terada y Onuki 1985: plate 29, e)." (Nesbitt et al. 2008:279).

technological, stylistic and iconographic traits we would argue that these pots [from Campanayuc Rumi] best correspond with pottery manufactured in the Chicama Valley” (Nesbitt & Matsumoto forthcoming) (Figure 3.20).

Nesbitt’s definition of ‘classic Cupisnique’ is similar to that of Park in the emphasis that is placed on the incised headmotif, but he is more specific about including features such as the trapezoidal stirrup-spouts, spherical body, and grey-black colouring. He also considers the red slip and black graphite painting technique as characteristic of Cupisnique. In fact, he surmises that these may indicate distinct Cupisnique traditions; a southern and a northern one (Nesbitt pers. comm. 2012). This hypothesis will be compared to the outcomes of the present study, both in terms of the definition of Nesbitt’s ‘classic Cupisnique’ style and in terms of other confirmed provenances of the different styles recovered and described from the Huaca Cortada.

### **3.6 HIGHLAND SITES AND CERAMIC TYPOLOGIES & SERIATIONS**

Two highland sites in particular have benefited from long-term archaeological investigation and thus provide some of the few contextualised, provenanced, and dated ceramic styles of Formative Period northern Peru; Chavín de Huántar and Kuntur Wasi. Their relationship to Cupisnique has been repeatedly asserted, which is why they must be considered and briefly reviewed here if we are to untangle the issue of styles.

#### **3.6.A Ceramic Styles from Chavín de Huántar**

Between 1966-1967 Lumbreras excavated the remains of more than 680 ceramic vessels in the *Galería de las Ofrendas* in the court of the Chavín de Huántar Old Temple. All these ceramics are described and illustrated in detail in Lumbreras 1993. They have been divided into Chavín and Non-Chavín styles, each with a number of sub-styles. The Non-Chavín ceramics are particularly relevant to the present discussion due to the alleged North Coast origins of some of them.

### **3.6.A.1 *The Chavín Styles***

Although sub-divisions have been named, all of the 'Chavín' ceramics are very similar to one another. Descriptions of slips, colours, and pastes often cross-reference other styles, blurring typological distinctions (Lumbreras 1993). The Chavín styles consists of essentially monochrome (dark-brown), highly polished vessels, decorated with broad-line incising, surface texturing (roller-stamping and dentate rocker-stamping), or a technique that looks like low-relief 'embossing' (Figure 3.21). There are almost no stirrup-spout bottles, but lots of single-spouts (carafes and bodies with spouts) and bowls. Spouts are tall, slim and slightly concave or straight, with lightly flaring lips; none have a horizontal rim or bevelled-lip. Bowls have flat bases and either straight or flaring sides. 3-dimensional figurative modelling is entirely absent. Instead, incised or relief-modelled motifs depict geometric or abstracted figurative forms. Zoomorphic beings (especially avian, feline, and crocodilian) feature hybrid elements, for example birds with fangs, or are only recognised from motifs consisting of isolated and abstracted body parts.

### **3.6.A.2 *The Non-Chavín Styles***

The non-local ceramics found in the Galería de las Ofrendas have lent credit to the hypothesis that the temple was a pilgrimage centre to which ceramics and other materials from distant regions were brought and deposited as offerings. While the origin of both Puksha and Puca Orqo style ceramics remain unclear (Lumbreras 1993; Fux 2012), Raku, Wacheqsa, and Mosna have been said to reflect intrusive wares from the North Coast and Highlands respectively: the Raku and Wacheqsa styles are said to show links with Cupisnique (Lumbreras 1993:196; Burger 1992:139; Jones 2010:25) (Figures 3.22 - 3.25). The Mosna style presents red-on-orange wares, a type which likely derives from the Cajamarca region (Lumbreras 1993:233) and upper Jequetepeque Valley (Inokuchi 1998) (Figure 3.26).

Although not explicitly stating so, the ceramics identified by Nesbitt & Matsumoto (forthcoming) and Park (2010) as 'classic Cupisnique' are equatable to Raku A style ceramics as illustrated by Lumbreras. Indeed a number of vessels identical to those described as Raku A reside in the Museo Larco, have been examined as part of this research, and are included in the dataset for quantitative analysis and typologising. Druc's (1998) archaeometric analysis confirmed that ceramics were indeed brought

from the Central Coast and Highlands to Chavín de Huántar (see Chapter 3). However, Druc's study includes no North Coast sites and thus cannot confirm the claims made for Wacheqsa A or Raku vessels as being from the Jequetepeque or adjacent valleys. Furthermore any parallels drawn between the non-local Chavín styles and Cupisnique have remained very generalised, rarely substantiated nor supported by the authors' definitions of what for them constitutes 'Cupisnique' other than the occurrence of the stirrup-spout form.<sup>48</sup>

### **3.6.B Kuntur Wasi**

Kuntur Wasi yielded some of the only complete Jequetepeque Valley Formative Period ceramics that have been systematically excavated and dated. Kuntur Wasi ceramics have been described as sharing North Coast Cupisnique traits (Onuki 1995). Indeed, the abrupt change in ceramic wares (as well as architecture and monoliths) for the Kuntur Wasi Phase coincides precisely with an apparently widespread demise of coastal centres around 800 BC. These developments at one time lead scholars to postulate an "invasion" by coastal groups into the highlands (Onuki 1995:210; Elera 1998:281). Given the very close relationship or similarities that have been proposed, this thesis uses data from Kuntur Wasi to inform the unprovenanced, un-dated vessels from other areas.

No general stylistic descriptions for each period exist and there is clearly a diversity of styles in each period. In order to be able to compare the Kuntur Wasi ceramics with other style ceramics, complete vessels from all phases at Kuntur Wasi have been included in the present dataset.<sup>49</sup> As a source of provenanced and dated pieces, the

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<sup>48</sup> Recent archaeometric studies have shown that even some of the so-called 'Chavín' ceramics from the gallery "are not of local production, but were brought to Chavín from the neighboring provinces, presumably as offerings" (Lumbreras et al. 2003:70). They arrive at no conclusion as to a specific foreign provenance. It is also worth noting that Raku B, Raku C, and Wacheqsa B ceramics appear to be very similar to one another; in fact I argue that stylistically they have more in common with each other than with Raku A or Wacheqsa A respectively.

<sup>49</sup> Non-diagnostic sherds from the excavations have been meticulously classified into descriptive groups including for example Idolo Brown; Idolo Brown polished; Idolo Brown Incised A; Idolo Brown Incised B etc. (there are 47 types). These will be drawn upon where >>

Kuntur Wasi ceramics provide valuable chronological and geographic anchor points for comparison within the typology created in this thesis (see Chapter 7).

### **3.6.C The Status Quo in 2012**

A final note in this literature review is given to the most recent and seminal volume on Chavín and Formative Period North Peru: a catalogue made for the exhibition “Chavín: Perus Geheimnisvoller Anden-Tempel” (2012) at the Rietberg Museum in Zurich. I take this to serve as a comparative benchmark of current scholarship at this time. In the exhibition Chavín ceramics followed the typology given by Lumbreras from the *Galería de las Ofrendas* (1993). ‘Cupisnique’ ceramics were afforded a room of their own and used to illustrate pre-Chavín iconography and material culture. Within the ‘Cupisnique’ case were a diverse range of ceramics as well as carved stone beakers and bowls allegedly from Limoncarro. All these were dated as 1200-500 BC. No stylistic or chronological distinction was made for ceramics that other scholars have called ‘Chongoyape’, ‘Tembladera’, and ‘Cupisnique Transitorio’, although one single-spout vessel and two ceramic figurines were published in the catalogue as ‘Tembladera style’ (Fux 2012, Cat.20) (Figure 3.27a). This was defined as “characterised by post-fire paint” (Fux 2012:245, my translation). A further vessel was labelled “Cupisnique / Tembladera-style” (Fux 2012, Cat.24) (Figure 3.27b). Given the high profile of the scholars involved in this project, exhibition, and catalogue, the grouping of so many diverse styles into one cultural and chronological category indicates that a clear-cut typology of both pre- and non-Chavín ceramic styles would be a significant contribution to scholarly understanding of the period and materials in question.

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possible, however, priority will be given to complete vessels. Approaching the material with a formal-analysis method, this study (and therefore this review) is concerned with the decorated ceramic vessels that fill museum collections around the world, rather than with sherds or plain, domestic wares.

### **3.7 SUMMARY BY STYLISTIC LABEL**

#### **3.7.A “Cupisnique”**

The term Cupisnique was coined by Larco in the 1930s, derived from the Cupisnique ravine located on the coast between the Jequetepeque and Chicama Valleys. It has been used to describe both a style and a culture, also by early scholars who saw the Cupisnique ceramic style as derived from Chavín. Putting chronology aside, definitions of the Cupisnique ceramic style have been both narrow and broad, and often contradictory (see Figure 3.28): Bennett (1944), Sawyer & Maitland (1983), Donnan (1992), and Rick (2012 pers.comm.) have used it to describe thick-spouted vessels with prominent rims and high-relief decoration. By contrast, Burger (1992), Elera (1998), and Jones (2010) describe ‘Classic Cupisnique’ as vessels with trapezoidal handles and slim, lip-less spouts (a description that Cordy-Collins (1998) and Donnan (1992) use to characterise ‘Tembladera’ style vessels, see below).

Recently it has become common to label all Formative North Coast material as Cupisnique, from the Nepeña to Piura Valleys, regardless of differences in the local ceramic assemblages (explicit in Burger 1992:91). Such a broad definition, however, not only obscures the diversity of styles in the region, but also makes chronological sequencing extremely difficult. Given a timespan of over 1500 years, chronology is likely to be a key element in any stylistic classification. Elera’s (2009) sequence for ‘Classic Cupisnique’ still spans 1000 years and includes a great deal of variety, but this variety is not described nor its potential meanings/reasons explored. Two recent PhD theses (Toshihara 2002; Jones 2010) have refined the ‘Cupisnique’ label somewhat, considering stirrup-spout bottles with slim, trapezoidal handles and tall, lip-less spouts as earlier in the Cupisnique sequence than thick spouts with prominent lips. Toshihara’s tries to narrow the definition of Cupisnique itself to two phases. Her phase-by-phase descriptions are detailed and consider iconographic as well as formal features, but make it hard to pick out or assign stylistic types (indeed, she does not define vessel types).

#### **3.7.B “Chongoyape”**

Chongoyape as a stylistic label appears to be the most consistent with a particular formal vessel features, but it has never been described or analysed in detail. In many

cases, thicker-spouted vessels with specifically bevelled lips have been called Chongoyape (Lapiner 1976; Saywer & Maitland 1983; Donnan 1992; Jones 2010). It is the name of a modern town in the lower mid-Lambayeque Valley where two burials looted in the 1920s yielded elaborate gold items as well as two monochrome stirrup spout bottles of a distinct style (Lothrop 1941). Their thick, convex spouts with bevelled lips have become characteristic of the 'Chongoyape' style and – where used – scholars apply it relatively consistently (Figure 3.29). Saywer & Maitland (1983) and Lapiner (1976) consider it a sub-style of Chavín; Elera (1998) and Jones (2010) seem to consider it a sub-style of the Cupisnique culture.

Thanks to the association of these vessels with gold artefacts, they have been relatively consistently assigned to the Late Formative Period. Absolute dates have not been put forward. As such, the relationship of this style with Cupisnique or Chavín remains controversial. Scholars continue to include Chongoyape vessels as part of their discussion of Cupisnique ceramics in general (see Jones 2010; Fux 2012), seemingly considering it to be a more or less contemporaneous sub-style. The present analysis will test whether other features – including both manufacturing technique and iconography – significantly distinguish Chongoyape style vessels, and how this might impact on arguments for a cultural association with Chavín or Cupisnique (which itself needs to be better defined).

### **3.7.C “Tembladera”**

There is not yet any consensus as to what denotes 'Tembladera' – whether a culture, style, or sub-style of Cupisnique or Chavín, and as such it has rarely been assigned a chronological position. A definition by geographic provenance (Tembladera region) does not seem fruitful, given the huge variety of styles reported to have been found there. Roe (1982) had illustrated thick-spouted, monochrome black vessels with high-relief decoration as exemplary from Tembladera. Meanwhile, Keatinge (1980) had used red-and-black painted and incised vessels to the same end (Figure 3.30).

In terms of defining a Tembladera style, there has also been a great degree of contradiction. Recent scholars have considered Tembladera as defined by slim, trapezoidal spouts (Donnan 1992, Cordy-Collins 1998), while others tend to mention polychrome post-fire (resin) painting with colouring in zones bounded by incised lines (Burger 1995; Fux 2012; Tsurumi 2012 pers.comm). Toshihara (2004) also

mentions post-fire paint, as well as a particular combination of motifs and modelled crests. There is also no consensus on the chronological framework: post-fire painting in zones is dated by Burger (1995) as early, pre-Chavín, while Toshihara (2002) dates it to late Phase 5, which is post-Chavín in her seriation.

With the focus on stirrup-spout bottles, no scholar has so far considered the so-called 'Tembladera figurines' in their definition of ceramic styles. While the provenance and dating of these figurines is far from clear (see Morgan 2009; Burtenshaw-Zumstein 2013), the label of 'Tembladera' assigned to them has not been challenged nor have alternatives been proposed. As such, a new definition of the Tembladera style will need to consider the figurines if it is to further our understanding of Formative Period material culture from this region. This thesis will briefly compare the figurines to the general corpus of vessels by means of technological and iconographic attributes (rather than the in this case inapplicable stirrup-spout shape, see Chapter 7).

#### **3.7.D "Chavín"**

The oldest and least well-defined term is Chavín, which has been used as both a style and a culture label, as well as being synonymous with a chronological period. In general, Tello's early proposition for Chavín as a 'Mother Culture' meant that the term was (too?) broadly applied to a variety of sites and materials including ceramics (see Chapter 2). While for example Bennett (1944) has given a definition of the 'Chavín style' and considered it internally consistent, he does imply differences between 'Chavín' and 'Coastal Chavín', but leaves these open-ended. The issue of Cupisnique being thought of as 'Chavín's coastal spin-off', or indeed a sub-style within a broader 'Chavinoid civilisation' (Larco 1941; Strong & Evans 1952; Lapiner 1976), however, has compounded the problem, meaning that for the last 50 years scholars have used the terms Chavín and Cupisnique interchangeably for North Coast materials. This has led to incredibly generalised and broad descriptions of "Chavín" style ceramics. The current situation in museum collections reflects this history.

Material recovered from Chavín de Huántar itself has been sub-divided into iconographic styles, as well as related to distant places by means of both stylistic and scientific methods (Druc 1998, Lumbreras et al. 2003). Some of the stylistically



defined categories are interpreted as local (Dragoniano, Floral, Qotopukyo), while others (in particular Wacheqsa and Raku) are said to be related to Cupisnique and the North Coast. However further, specific comparison with this material is desired, especially now that the coastal materials are beginning to be more clearly divided chronologically and stylistically (Elera 1998; Toshihara 2002). Incorporating the increasingly fine-grained chronology of the coastal and highland material into more fine-grained stylistic types and labels is what is now needed.

### **3.8 SUMMARY OF LITERATURE REVIEW**

There is great diversity in the ceramic forms and techniques from Formative Period North Peru, but no consistent stylistic labels have been defined to describe and classify them. Existing definitions and stylistic descriptions can be (essentially) reduced to iconographic motifs or to the shape of the stirrup handle-and-spout, without consideration of other formal or technological traits. Statements have been made regarding general similarities and styles, and these have been used to infer relationships and chronological contemporaneity. Specificity however, is mostly lacking. In the drive to find relationships and make connections, variety has often been overlooked.

Furthermore few of the scholars reviewed here made explicit reference to style theory or discussed the potential meanings of stylistic difference, i.e. whether stylistic labels equate to cultural groups. Even into the 1990s and 2000s, the focus has been on chronology rather than the issue of stylistic variation as potentially related to cultural, social, or ideological differences.

This thesis presents a reconsideration of the material in question, responding to a need to better classify and define stylistic groupings for ceramics from Formative Period northern Peru. This is imperative if we are to meaningfully discuss social developments and cultural relationships over a timeframe that spans more than 1500 years. As such, the work also fills a gap in the scholarly interpretations of Chavín de Huántar, in particular as regards the materials from the Galería de las Ofrendas and their relationship with the societies of the Jequetepeque and adjacent valleys. The recognition of stylistic differentiation for ceramics generally lumped under the

umbrella term 'Cupisnique' also contributes to recent research proposing the Formative Period – including the Early Horizon – as a period of great cultural diversity rather than homogeneity: "The pottery of this style [Cupisnique] and La Copa (Kuntur Wasi), Chavín and Ancón share enough similarities to consider them as contemporary. Only in a few cases do they carry Chavín style designs, but despite these similarities they should be treated as different styles, so that even within the restricted area of the Chavín art style there is a high degree of local cultural diversity" (Kaulicke 2010: 131, my translation).<sup>50</sup>

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<sup>50</sup> "La cerámica de este estilo [Cupisnique] y las de La Copa (Kuntur Wasi), Chavín y Ancón comparten suficientes similitudes para considerarlas contemporáneas. Solo en pocos casos llevan diseños del estilo Chavín, pero, pese a estas similitudes, deberían tratarse como estilos diferentes, de modo que, aun dentro del área restringida del estilo artístico Chavín, existe un alto grado de diversidad cultural local." (Kaulicke 2010:131).

## 4 THEORY, METHODS, & DATA

### 4.1 CERAMIC STYLE & MANUFACTURE

#### 4.1.A The Archaeological Use of Style

Ceramics have become the primary means of reconstructing the cultural history of ancient Peru. Past cultures and chronological time periods are named and defined as material styles, and, regardless of recent developments in style theory, archaeologists still depend on the culture-history approach and its concept and use of style. In many ways this thesis does so also, the key difference being that it is very explicit about style and cultural labelling. “Unfortunately many archaeologists [...] have attempted to infer (or ‘read’) social and cultural information directly from what is called the ‘style’ of artefacts without a full investigation of and a realistic appreciation for the processes by which style is created” (Dietler & Herbich 1998:234).

Societies use and make their materials in particular ways: clearly there are patterns and not infinite random variability in each cultural context. Therefore social groups (“cultures”) can be recognised by the idiosyncrasies of their material culture (“style”). Nonetheless most of the more recent tension in the archaeological concepts and uses of style derives from the very nature of what archaeological research is all about: by definition, archaeologists try to organise and classify cultural materials into cultural representations that are no longer situated in their original context. In this process, style is a “tool” to help researchers make sense out of the materials and out of the past. All archaeological inferences hinge on the relationship between the material and non-material aspects of culture and society. As such, scholars have always had the reconstruction of ancient social boundaries as a research goal, however what distinguishes more recent attempts is a more explicit concern with the theoretical justification and methodology of the endeavour, and for some, a more nuanced conceptualisation of the complex and fluid nature of social and cultural identities and of the contextual definition and negotiation of boundaries (Dietler & Herbich 1998:232).

As demonstrated by the previous chapters, this has been lacking in Formative Period Peru where Cupisnique or Chavín as vague stylistic or cultural labels or traits have been widely used but not defined. This thesis aims to explicitly and systematically create and group styles by traits, developing a typology for ceramics that lack provenance and context.

#### **4.1.A.1 “Style has Function, Technology has style”**

Until 1960s and 70s, style was considered primarily an extant phenomenon of material culture, associated with non-functional aspects, in particular decoration. As such, the most common definitions of style make it effectively synonymous with decoration.<sup>51</sup> Such definitions are summarised in Dietler & Herbich: “it is to be located in those attributes of objects that have no discernible role in affecting their utilitarian performance in the context of use (the domain of function) and that do not result from technical constraints in the context of their manufacture (the domain of technology)” (Dietler & Herbich 1998:237). There are significant problems with this: non-decorated objects also have style, as seen for instance on stone tools or knapped flints from different regions or periods that clearly have different attributes which enable their classification. This leads to an imperative understanding that ‘technology has style’ (Lechtman 1977). Therefore, to use style as an analytical tool we need to define it more broadly and look at the *chaîne opératoire*, not just the finished product (Leroi-Gourhan 1943). We need to understand the process by which style is created.

This actually refers to two interrelated but different things: on one hand there are the techniques, tools, and manufacturing processes being employed that condition the finished look, feel, shape, and weight of the object; on the other hand is the social environment; the ways in which social relations and processes condition the traditions guiding the production and reproduction of isochrestic variation (Sackett 1990). For the latter, Dietler & Herbich acknowledge the limits of theorising from an archaeological base and argue that “such understanding can only develop out of ethno-archaeological research” (Dietler & Herbich 1998:237).

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<sup>51</sup> (or what Sackett defined as ‘adjunct’ form (Sackett 1990:33)).

How one identifies style and interprets its social significance remains highly controversial. "While there is this analytical, 'outsider's' view, where style in material objects is used by us to write prehistory, there is also the perspective that there were active human beings who thought up, made, used, re-used, and often discarded that which we have as archaeological materials. [...] As archaeologists, we often claim that we want to 'get at' these active uses of style by prehistoric peoples, yet in the process of trying to access these, we all too easily slide into the outsider's role, where style becomes our analytical tool" (Conkey & Hastorf 1990:3). In other words, there are those who see style as a passive reflection of behaviour and those who see style as an active tool in social strategy and action. It brings us back to the fundamental question in archaeological uses of style: why do specific patterns in material culture characterise individual ethnic groups and reflect the nature and degree of their relations with other such groups?

Sackett's notion of "isochrestic variation" (1990) seeks to elucidate the passive reproduction of style. He argues that there normally exists a spectrum of equivalently viable alternative ways in which to do something, make something. This is isochrestic variation, meaning 'equivalence in use'. "Style is when the artisans of any group choose a few/one of the isochrestic options potentially available to them in doing any task, and the choices they make are largely dictated by the technological traditions within which they have been enculturated as members of the social group that delineate their ethnicity. These choices tend to be quite specific and consistently expressed (of course revised and subject to change and influence)" (Sackett 1990:33). He thus argues that it is in these consistent choices of isochrestic variation that we perceive style. This notion of unconscious choices being made can be closely related to the more widely applicable concepts of *habitus* and structuration as developed by Bourdieu (1977:72-88) and Giddens (1984).

Sackett reiterates the importance of technology (as opposed to decoration) in determining style: "Instrumental form that is built in rather than added on to, for instance, a pot, is also a great reservoir of style" (Sackett 1990:268). Choices made (consciously or not) that do not necessarily affect the desired function might include clay, temper, shape, thickness, techniques of construction and firing, "which may be just as ethnically -and hence stylistically - significant as the decoration that may be

applied to its surface” (1990:268). Sackett does note the occasional ‘iconological’ use of style for intentional signalling (active use of style), but his main argument proposes that “isochrestic variation should be viewed primarily as a result of transmission within ‘ethnic’ groups of largely unconscious perceptions of the way things should look and be used” (Dietler & Herbich 1998:240).

By contrast, other scholars have emphasised an active, human agency approach to style; ‘style has function’ (Wobst 1977). In this definition, style is actively manipulated in the transmission of cultural information between non-related social groups: style is active in the constitution of identity (Wobst 1977; Wiessner 1990:107). By approaching style as an active choice in the making of material culture, this highlights the human agent as the driving force behind issues of identity and its material manifestations. Despite their emphasis on human agency, models equating style with the conveying of information have been criticised for their extreme functionalism and for assuming people passively played out their roles in their cultural systems (Gosselain et al. 2010:5). Nonetheless, ethnoarchaeology continues to document people’s insistence on self-identification, demonstrating that notions of social identity are indeed reflected through material culture (Gosselain et al. 2010:6).

Conversely, Sackett also argues that while style can be *generated* in a passive (unintentional) way, it nonetheless *functions* iconically because people automatically react symbolically. “Thus it may be said that ethnic messages are far more often read than deliberately sent” (Sackett 1990:37). This insight would actually support the use of style as a tool by archaeologists, *if* we can assume to be reading such markers in a similar way to which past peoples did (and presumably past people were perfectly aware – most likely more so than archaeologists are today – of the ways in which another group’s ceramic style differed from their own).<sup>52</sup>

#### **4.1.A.2 Summary of Style**

This thesis attempts to define stylistic types (or assumes types to be defined) by consistent patterns of attribute association. Fundamentally, style is considered as the product of learned behaviours or traditions: “different wares were grouped into

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<sup>52</sup> A similar argument for archaeologists using their own perception to better understand past perceptions is made by Tilley (1994) in *A phenomenology of Landscape*.

what are called 'technological clusters'. A community would have had various production units which would have shared certain technological traits, such as the clay source, the preparation of the paste, the use of certain types of finishing, decoration, or shapes, all of which can be considered as a 'tradition'" (Ikehara & Shibata 2005:132, my translation).<sup>53</sup> The emphasis I place on technological and formal traits – as opposed to iconographic – is intentional. Wiessner suggests that "isochrestic procedures should [...] remain relatively stable except in the face of internal or imposed technological change [and] will not be altered by shifting patterns of social interaction" (Wiessner 1985:63). In contrast, symbolic aspects of style "should be an updated, current, and dynamic commentary on social relations" (1985:63). As a result, stylistic variation produced by symbolic behaviour can be less stable, changing at a faster rate and more readily borrowed across social boundaries, making it a less dependable indicator of socio-cultural entities (see Plog 1995:371).

In creating the ceramic typology this thesis aims primarily to consider manufacturing techniques and tools as well as decorative techniques. Iconography as well as the way in which social relations may have affected the finished objects and stylistic groupings are considered only in light of these groupings. While talking about style in abstract terms I believe it is imperative to bear in mind the individual(s) who created each object; the choices they faced, made, and ultimate outcome they aimed for. We can never aptly reconstruct or appreciate the mindset of a potter from 3000 years ago, but ultimately each object is the result of the actions of individuals working within a specific social context, and it is this which, in part, makes these objects so fascinating. With a definition of style that, at its core, considers the manufacturing process, we first of all review the methods and contexts by which ceramics were produced in Formative Period northern Peru.

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<sup>53</sup> "... variantes de alfares se agruparon en lo que se denominaron como 'grupos tecnológicos'. Una comunidad habría tenido varias unidades de producción, las que habrían compartido ciertos rasgos tecnológicos, como la fuente de arcilla, la preparación de la pasta, el uso de determinado tipo de acabado, decoración o formas, todo lo cual puede considerarse en conjunto como una 'tradición'." (Ikehara & Shibata 2005:132).

## **4.1.B Making Ceramics**

### ***4.1.B.1 The Origin of Ceramics in Peru***

The earliest Peruvian ceramics date to about 2000 BC and may be the result of spread from already developed traditions to the north. Once introduced, ceramic technology took some time to expand along the entire coast, and many areas did not begin to use ceramics until 1500 BC (Donnan 1992:26). On the other hand, once adopted the ceramics quickly developed into a highly artistic, figurative material culture. Characteristic vessel forms and techniques were developed during the Formative Period that would differentiate the traditions of North and South Peru for the next two millennia. Very generally: in the South, polychrome painting and spout-and-bridge forms; in the North, the stirrup-spout form and three-dimensional sculptural decoration. By 1200 BC a wide variety of decorative techniques were employed by potters of the North Coast, and ceramics had become a symbol of social status as well as a major medium of social and religious expression (Shimada 1998:24; see also Jones 2010).

As discussed above, technology is key to understanding and using ceramics for archaeological interpretation; knowing the procedures involved in their manufacture makes it possible to reconstruct how the technologies of distinct styles evolved through time, and when they spread from one area to another. This section very briefly outlines the general techniques of ceramic-making, specifically reviewing archaeological evidence for the processes and organisation of production in Formative Period North Peru. This is followed by a more detailed description of vessel forms and decorative techniques identified and used in this study to describe and classify ceramics.

### ***4.1.B.2 Manufacture & Technology in Formative Period North Peru***

The manufacturing of ceramics has to follow the same fundamental template in all societies and time periods; the collection of basic raw materials (clay, inclusions (temper), water, fuel), preparation of the mixture (purifying, mixing, kneading), forming the desired shape (coiling, pinching, slab-building, paddle-anvil or using a mould), decorating (painting, incising, stamping, burnishing, modelling, appliqué, embossing etc.), then drying the pot (it has to hold form and must not crack) and finally firing it (open-fire, pit, or kiln). Each of these processes is described briefly



below, with specific reference to ceramic-making in Peru. North Peruvian Formative Period ceramics were made using relatively basic procedures, tools, and raw materials, but these were “mastered to their full potential to create objects of extraordinary artistic and technological virtuosity” (Donnan 1992:26).

Variations within those procedures are often visible on the finished product, and it is these characteristics that enable archaeologists to identify distinct styles or types by reconstructing distinct *chaînes opératoires*. Decoration techniques (whether linear or plastic) are some of the easiest to identify on the finished pot. While these are often *perceived* to indicate the greatest difference between ceramic styles, however, it is important to take into account the entire *chaîne opératoire* when considering ceramic style, as for example the raw material used may be more indicative of separate ceramic-making traditions than the decorative techniques employed.

#### **4.1.B.2.1 Raw materials**

The most commonly used clay in Peru was terracotta, though sometimes clay from two sources was mixed to achieve the ideal composition for a specific use. The clay is mixed with temper, a non-plastic substance added to the clay to make the paste more workable and minimize shrinking and thereby cracking as the pot dries. Most commonly sand was used, although especially in later periods, there is also evidence for the use of crushed stone or potsherds (Elera 1998; Donnan 1992; Druc 2014).

Suitable clay sources are available in most areas of Peru, including the North Coast, and Druc summarises that ethnographic case-studies in the Andes show that raw materials are generally (in 67% of cases) acquired within 3km from the place of manufacture (2013:493). On the other hand, ethnographic studies have shown that Andean potters may also choose specific clay sources also for social, symbolic, or ancestral reasons, and may in fact travel long distances in order to obtain the desired raw material (Ramón 1999, 2011; Druc 2013). Political reasons also come into play. One study of a Moche workshop concluded that potters used local clay (within 1km) to produce figurines, ritual ceramics and decorated vessels. However, undecorated domestic wares from the same site were made using a wider range of clay-sources, none of which matched the local source that was identified. The authors conclude that domestic wares may have been produced off-site, while the production of

figurines and ritual ceramics were more tightly controlled and hence localised (Chapdelaine et al. 1995).

Classifying ceramics on the basis of clay or temper composition requires not only a good knowledge of clay sources in the region (very little information on which is currently available), but also scientific methods such as thin sectioning for analysis. Only a handful of studies have looked at clay or temper sources for the Formative Period. A 1985 project at Batán Grande (summarised in Chapter Section 4.3.D.) used both experimentation and microscopic chemical analysis to reveal the use of local raw materials and clay sources, as well as a local use of finished wares (Wagner et al. 1998:193).<sup>54</sup> Elera's investigation of ceramics from the Puémape cemetery reaches the same conclusion: fine sand was used as temper, and petrographic analysis revealed this to be local to the Puémape area (Elera 1998:207). Most recently Isabelle Druc analysed sherds from Puémape, also confirming the use of local raw materials (Druc 2014).

#### **4.1.B.2.2 Forming & Finishing Methods**

There was no potter's wheel in Precolumbian Peru. Instead a shallow, handheld plate served as a turntable (the earliest examples known are from 500 BC (Stone-Miller 2002:69), and a "paddle and anvil" were sometimes used to shape the clay (Figure 4.1a). During the Formative Period on the North Coast direct modelling, slab-building, or coiling were most common (Donnan 1992:14). Ceramics found in the Cupisnique ravine cemeteries are said to be made using the coiling method (Elera 1998). Larco (1941, 1948) had previously described 'Cupisnique' vessels to have been made using moulds, however, most later scholars seem to disregard this interpretation as no evidence for the use of moulds exists for Cupisnique examples thus far (Wauters 2008:289). Moulds – although commonly used in the ceramic production of later cultures – are known only from about AD 200 (Donnan 1992).

As discovered during fieldwork, recognising forming techniques on a finished vessel from this period is remarkably difficult. The ceramics in question have been

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<sup>54</sup> The same clays were used for ceramics and for mudplaster walls, the quantity of which led authors to infer a local clay source. Ulbert (1994) also mentions the parallels between plastered walls and ceramics at Montegrando, which similarly imply a local source of clay.

smoothed, burnished and decorated so that any coiling or slab-building (or indeed moulding) “seams” have been entirely obscured. It is not made explicit how Elera identified the coiling method for the Puémapé ceramics. The very thin, even walls of many of the ceramics (between 2-5mm) in this dataset demonstrate considerable skill and care by the maker to produce a faultlessly finished vessel (for CT-scan images confirming the evenly thin walls of ‘Cupisnique’ vessels see Wauters 2008:302-306 Figs 2-4, 6-8).

Only occasionally are scraping or burnishing marks visible that indicate the final shaping of the object’s surface. Burnishing is a method that presses the temper granules below the surface, leaving a reflective, smooth surface. It was probably executed while the pots were leather hard or completely dry, prior to firing.<sup>55</sup> Many things could have been used as a tool with which to do this, although ethnographic observations generally suggest a preference for pebbles or bone (Gibson & Woods 1990:115). Burnishing marks are sometimes visible on the finished ceramic, although polishing with a cloth or leather obscures such marks, leaving a perfectly smooth surface finish. Where burnishing was done over slip painting, the slip colours may be smudged (although the application of a lubricant could have prevented this).

#### **4.1.B.2.3 Firing**

The control of the firing process (temperature and oxygen levels) is not only crucial in the successful production of ceramic vessels, but also affects the colour of the objects. Formative Period North Peruvian ceramics evince the use of a variety of firing conditions, ranging in surface colour from deep black to grey, dark brown, tan, and orange or bright red shades. Grey-black shades are the most common: “Nearly all Formative Period ceramics from northern Peru are a monochrome grey-to-black color resulting from smudge firing. Oxidation fired brown or red ceramic vessels are relatively rare” (Donnan 1992:31). However the use of hematite to colour vessel surfaces red in an oxidising firing process has also been noted for some early

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<sup>55</sup> It is worth noting that burnishing can be a very slow and labour-intensive process. Observations of women potters in Iran show that to get a really good shine, a woman will work at a pot for the best part of a day (Crowfoot 1932:185, cited in Simpson 1997:154). On the other hand if the clay is particularly fine, a streak-free burnish can be obtained in just a few minutes (Simpson 1997:154 [222], endnote 17).

Formative Period contexts (Ulbert 1994:15, 117; Elera 1998:172), and a number of vessels in the present dataset are red, orange, or tan in colour.

In 'oxidising firing', oxygen circulates freely, allowing iron in the clay to oxidise which results in an orange-red colour. This is the outcome of open bonfires or open kilns. In 'reducing', 'deoxidising' or 'smudge-firing', smoke is trapped during the peak firing temperature, driving carbon into the ceramic and leaving a grey-black colour that can even result in a metallic appearance. This is achieved through firing in closed kilns or covered firing pits. 'Clouding', 'cloud-firing' or 'smudge-firing' results from the uneven oxidising or reducing of the vessel, where certain areas of the ceramic show dark discolouration (reduced) while the rest is orange-red in colour (oxidised). Colouration through firing can be enhanced by applying a layer of hematite slip, which in an oxidising atmosphere turns bright orange-red (hematite), in a reducing atmosphere turns black (to magnetite) (see below). Whether this was done after an initial 'Schührbrand' (pre-firing, thereby necessitating a second firing episode) or before the first firing, which then had a strong oxidising episode at the end to give the bright red colour, is unclear (Ulbert 1994:117).

Regardless of firing techniques, some vessels break during the firing process due to rapid heating or cooling or imperfections in the vessel body. Vessels may also blister and warp, forming distorted sherds ('wasters') that are recognisable in the archaeological record and are often found in the vicinity of firing areas (Sinopoli 1991:33). For Formative Period North Peru, the only direct evidence for the firing process comes from a 1985 excavation along the Poma Canal on the North Coast (Batán Grande region), where 57 burnt structures – kilns – were excavated (Shimada et al. 1998). Dated to 1200-500BC they were described as small, fuel efficient updraft kilns with one or two chimneys that could be used to carefully control the oxidising/reducing atmospheres and temperatures (Shimada et al. 1998:23).

Scholars disagree on the level of control of the firing process during the Formative Period. Shimada's (1998) description of the kilns implies a high level of sophistication and control. Ulbert (1994) mentions the possibility of using two firing episodes at Montegrande, also suggesting a deliberately complex manufacturing method in order to achieve certain colour outcomes. Elera (1998) concludes on a reducing atmosphere for firing and therefore the use of kilns, although he also states

that the variability in colours suggests no consistent control of the firing atmosphere (Elera 1998:233). Where available, viewing the cores of ceramics (i.e. a cross-section through the ceramic wall) can reveal how temperature and oxygen flow changed during the firing process (Figure 4.1b shows how the carbon in the reduced core of a ceramic wall gets progressively burnt off the longer it is fired). A significantly large dataset would be needed to ascertain whether this was the result of random or patterned variation. For the ceramics in the present dataset, most of which were unbroken, it was not possible to look at the cores systematically and draw conclusions on the firing process that way.

#### **4.1.C Ceramic Forms and Functions**

##### ***4.1.C.1 Vessel Types***

Thus far I have outlined the basic process for making ceramic objects of any kind. Prior to firing however, there are many more ways in which potters make decisions to create ceramics of a particular style: the choice of object-type, form, and decoration. As noted previously (Chapter 2), early ceramics from the Jequetepeque and adjacent valleys exhibit a great variety of forms that were evidently used as cooking, storage, and eating/drinking vessels, but also as iconographic expressions and carriers of ideological information. There are bowls of various shapes, cups, containers, jars, single-spout bottles, stirrup-spout bottles, and (after 1000 BC (DeBoer 2003:320)) bridge-and-spout bottles. There are also ceramic figurines.

The most iconic and intriguing form is the stirrup-spout bottle which, after its appearance on the North Coast in the mid-2<sup>nd</sup> millennium BC continued to be used and produced up until the time of the Spanish conquest some 3000 years later. The earliest stirrup-spout vessels known thus far come from Cotocallao / Santa Ana-La Florida in Ecuador, predating 1500 BC (DeBoer 2003:320; Guffroy 2008:892). In Peru some of the earliest examples may be those found at Huaca de los Reyes, or a few fragments found at Kotosh, both dated no earlier than the 2<sup>nd</sup> half of the 2<sup>nd</sup> millennium BC (Pozorski 1983, Table 2; Burger 1992, appendix Table 19; Toshihara 2002:357, 521, Table 18).

The function and meaning of the stirrup-spout bottle remain unclear. Some have argued for a practical foundation, reasoning that the shape minimises evaporation and spillage (Stone-Miller 2002:103), but the high level of decoration and evident

significance attributed to these bottles, as well as its long continuous use, suggest that a more symbolic explanation may stand behind the peculiar vessel shape (see for example Berrin 1997:13; Burger 1997:29).

The stirrup-spout bottle has been significant for many scholars, not only because they are often the most elaborately decorated, modelled ceramics, but also because the features of the stirrup-handle and spout have been recognised as chronological and geographical markers. Particularly in the case of the Moche culture, the five-phase seriation (first put forward by Larco (1948) and more firmly established by Donnan & McClelland (1999)) was determined first and foremost by the shape and rim of the spout. As was described in Chapter 3, many scholars have also relied heavily on the handle-and-spout shapes of stirrup-spout bottles in their attempts to characterise Formative Period ceramics. Therefore, discussions of stirrup-spout bottles will feature prominently in the present analysis. In order to consider other vessel types in the analysis, however, many other technological and formal features are also deliberately included.

#### **4.1.C.2 Recorded Traits: Form & Decorative techniques**

For my analysis, the features recorded for each vessel include shape traits (form), colour and paste, decorative techniques, and iconography. The full list can be seen, together with definitions, in the Variable Dictionary (Appendix 1). Form variables such as chamber-, handle-, or spout-shape were defined based on visual examination rather than a ratio of measured dimensions. The handle-and-spout traits (for stirrup-spout bottles) include the shape and diameter of the handle-arch and of the spout. The lip on the spout-rim is also recorded and categorised (SPOUT\_RIM). Some of these categories have been defined and labelled by previous scholars (e.g. bevelled lip), while others are newly devised for the present study. Note that definitions of spout- and rim-shapes also apply to single- and bridge-spout bottles. Regardless of handle and/or spout features (which only apply to spouted bottles), the shape of the vessel chamber (CHAMBER\_SHAPE) is always recorded; *GLOBULAR*, *CYLINDRICAL*, *CARINATED* etc. Many of the vessels also exhibit some form of three-dimensional modelling and/or appliqué, which ranges from fully-sculpted figurative 'effigies' to appliquéd elements or textures. Examples of each formal and decorative variable-permutation will be illustrated throughout Chapters 5 and 6.

The vast majority of vessels in this dataset are burnished and/or polished, and very few of the vessels in this dataset are without additional decoration.<sup>56</sup> The decorative techniques of Formative Period North Peruvian ceramics are highly varied, both linear and plastic. As noted above, many vessels feature modelled three-dimensional figuration and as such bear their decoration within the very form of the vessel itself. There are also a variety of decoration techniques, applied to the formed vessel without altering its basic shape. These include burnishing/polishing, surface texturing, incising, and painting. Again a list of all variables with definitions can be found in the Variable Dictionary.

#### **4.1.D Organisation of Production**

The procedures described thus far are necessary for making ceramics; all potters or potting societies must find solutions and make choices as regards these basic processes: choice of clay, choice of temper, forming method and tools, and finally, the method of firing. Each of these processes requires knowledge, experience, and skill for there are many potential complications, especially at the drying and firing stages. Pots cracking or breaking would have been a common occurrence in Formative Period North Peru. We now review what we can about the regional and temporal contexts specifically.

##### **4.1.D.1 Craft Specialisation**

Whether there was any kind of 'specialist' pottery production in Formative Period North Peru is both a matter of debate and of definition (for a discussion of definitions, see Costin & Hagstrum 1995; Costin 2001). Data from later periods (e.g. a study of Chimú pottery from the Jequetepeque Valley) suggests that fineware pottery production occurred in local workshops rather than a centralised facility (Levine 2011). Nonetheless these potters are normally considered 'specialists', defined as a limited number of producers making ceramics for a larger group of consumers by barter, reciprocity, or exchange (Costin 2001:204). The gender of

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<sup>56</sup> This may in part result from the preference for decorated items for museum collections, as well as the increased difficulty of identifying the cultural (geographic and chronological) attribution of plain vessels.

ancient potters is not known, and ethnographic studies in the Cajamarca region provide examples of both male and female potters (Andrade & Ramón 2013).

While many Formative Period North Peruvian ceramics are clearly the product of a highly skilled producer, versed both in artistic and technological knowledge (and often also in ideological, symbolic knowledge), we have very little tangible evidence for ceramic manufacturing. No workshops are known, and the only kilns are those excavated near Batán Grande (Shimada et al. 1998). The distinct absence of kilns at the vast majority of sites however implies that pottery was produced on a domestic scale in simple pit-kilns that leave no discernible archaeological trace. This makes the detailed study of the ceramics themselves all the more important for understanding manufacturing processes. As Costin & Hagstrum point out, “Identifying the parameters of production [...] is more conclusive when the actual production locations have been identified[...]. Yet it is still possible to use the technological characteristics of the objects themselves to delimit the organization of production” (Costin & Hagstrum 1995:623).

Fine-ware ceramics were clearly a sought-after product, being widely exchanged from the early 1<sup>st</sup> millennium BC. Isabelle Druc’s (1998) analysis of ceramic wares from Chavín de Huántar and a selection of highland and coastal sites confirmed that many ceramics were imported to the highland centre, but not exported from there (see Chapter 3). Her study thus provides support for the long-distance trade in ceramic vessels in North-Central Peru that has already been recognised on the basis of style and iconography.

The ceramics considered in the present dataset are almost exclusively thin-walled and of a high technological quality. Each one is unique, pre-dating the use of moulds for the serial production of figurative vessels as seen in later periods. Their manufacture by a highly skilled and practiced artisan is beyond question. The customary inclusion of figurative ceramics in burials throughout the Formative Period and beyond, as well as a probable difference between funerary and domestic pottery, suggests that there may have been a more specialised production of ‘funerary pottery’.



It remains impossible to know if full-time specialist potters existed at this time. Costin & Hagstrum's definitions for distinct idealised contexts of craft specialisation suggest a number of parameters for recognising the organisation of production (Costin & Hagstrum 1995). For example, they argue that the products of attached specialists will be more labour intensive than the products of independent specialists. The products of dispersed specialists should exhibit more variability than nucleated specialists working in larger workshops. The constitution of a production unit (group of potters) is also reflected in the amount of mechanical standardisation: the products of large workshops are likely to be more standardized than those of individual forms of production (Costin & Hagstrum 1995:624). At the same time, Costin & Hagstrum note that "skill" is related to the intensity of production; part-time or full-time. The products of part-time workers should reflect less proficiency, resulting from interruptions and hiatuses in their craft production activities (Costin & Hagstrum 1995:623). There can be little doubt that the vessels in this dataset were made by highly skilled individuals. Most have evenly thin walls (regularly less than 3mm thick) and an even surface-colouring, which is closely related to the selection of raw-materials and a controlled firing process. Nonetheless they need not have been full-time potters.

As Costin & Hagstrum themselves note, "the social functions of pottery vessels affect the labor invested in their manufacture. Decoration, requiring more labor to execute, is positively correlated with vessel visibility because decorative elements can communicate important social information, for example, group affiliation and socioeconomic status" (DeBoer & Moore 1982; Thompson 1958, cited in Costin & Hagstrum 1995:621). The high skill and high amount of labour invested in the ceramics analysed here might thus be considered in this context; as valuable and symbolically charged items, produced by highly skilled if not full-time specialist potters. Their diversity suggests local, community-based production, even if subsequent the distribution was wide and long-distance.

#### **4.1.D.2 Local or Regional Products**

Another issue surrounds the concept of 'local' or 'regional'. To what extent can a product be called 'local'? By one definition, "regional manufacture implies ceramic production by a number of communities among which common resources were

exploited, by-products circulated, and technological knowledge shared. In this sense, ceramics may be considered local if it can be reasonably demonstrated that they were manufactured within a specific region" (Zedeño 1994:14). In the absence of evidence regarding the spatial context of production, we must use the wares themselves for clues, most notably their style and their composition.

We have already noted that style can be imitated and borrowed over regional and even cultural boundaries (Wiessner 1985:63; Plog 1995:371). But equally, Druc notes that although clay-source analyses can be used as indicators of local or regional production areas, the link between a source and the community or communities of potters using it can be quite complex (Druc 2013:486). In the Andes and elsewhere, the choice and acquisition of materials may be linked to cultural or symbolic behavioural or social ties and the closest sources are not necessarily the ones exploited (see for example Sharratt et al. 2009), and several communities may share a single clay source. Ethnographic and ethnohistoric examples from the Andes demonstrate a complexity of situations: Ramón illustrates the case of itinerant potters, travelling with their raw materials, but producing ceramics of 'local style' at any given locale (Ramón 2011). Sillar (2000) notes the reverse case, of potters relocating away from their communities but continuing to produce the same kinds of ceramics using resources local to their new location. Druc thus follows Shepard (1968) in stressing the importance of using more than one set of data to identify what are local (or non-local) ceramics, and that includes stylistic data: "Compositional data must be coupled with stylistic, environmental, ethnographic, archaeological, and other contextual data to improve our understanding of ceramic production and distribution patterns embedded in a web of socio-cultural, economic, and political interactions" (Druc 2013:486). Shepard ranks temper and technology over stylistic evidence, especially when dealing with sherds rather than complete vessels. This thesis, however, *does* deal with complete vessels and as such, stylistic characterisation must be considered a crucial tool (even if it is just one of several) for discussing distinct potting traditions - and potentially distinct potting communities - of the Jequetepeque and adjacent valleys during the Formative Period.

## 4.2 METHODS

This research aims to classify a large body of highly varied ceramic objects into more specific categories according to their formal attributes; in other words, it aims to construct a stylistic typology. Ceramic groupings (Types) are defined on the basis of a multivariate analysis, as outlined in this chapter. The groupings identified with the methods I outline below can then be linked to previously recognised styles or archaeologically provenanced objects, and geographic and/or chronological (i.e. cultural or ethnic) interpretations suggested.

The possibility of misleading provenance labels assigned by looters has already been discussed. The bias introduced by the history of museum collections themselves will be considered below. One additional concern is that some of the pots may be the result of faking. In the database, a couple of pieces have been flagged as ‘fakes’ and these have been excluded from the analysis. The decision to exclude a piece on suspicion of being modern was always based on a number of factors that include shape, size, iconography, colour and ‘feel’, as well as tell-tale signs of deliberate ‘ageing’ of a vessel by applying black colour splatters. In some cases, stirrup-spout vessels had clearly been fitted with replica handle-spouts, in which case the handle-spout variables were also excluded from the database (e.g. Figure 7.9a, Appendix Database ID ML010481). Until scientific dating via Thermo-Luminescence or similar reliable methods is done on a significant number of pots, it will be hard to tell what proportion might be fakes. I dare say it is unlikely that there are enough to skew the results significantly. Some fakes may also be direct copies of genuinely ancient pots, and so would not introduce new variables.

### 4.2.A Collecting the Dataset

#### 4.2.A.1 Sources

The dataset is made up of 902 ceramic objects. Of these, 418 were recorded based on personal examination of the objects during visits to 13 public museum collections over the course of seven months between 2011-2013.<sup>57</sup> The rest (484) were recorded

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<sup>57</sup> For practical reasons it would have been impossible to look through all ceramics in the museum collections studied, just to look for ambiguous vessels that *might* be from Formative Period North Peru. Nonetheless at the Smithsonian NMAI and at the Peabody Harvard I *did* >>

on the basis of publications or museum-catalogue extracts. The biggest source publication was Alva (1986), which includes 470 objects, although 18 of these overlapped with pieces examined in museum collections (Appendix 4).<sup>58</sup> Having first examined several hundred objects personally, the aim of including published material was to expand the dataset and to include not only more pieces, but also specifically those pieces that other scholars had previously used to make arguments and inferences about Formative Period North Coast ceramics, as far as possible. Sources for all sources for the dataset are illustrated in Figure 4.2.

#### **4.2.A.2 Sampling Strategy**

Every sampling strategy has practical merits, depending on the overall project goals, but they also have ramifications for analysis. It is impossible to know before setting out on fieldwork what materials can be safely ignored or discarded from the sample, yet such decisions often must be made to save time and cost. In such a situation, the objective should be to acquire a sufficiently large representation of rare categories (Rice 1987:290).

The first point of note is that all the pieces in the dataset are fineware ceramics, as tend to be selected for publication or collection. Museums themselves were selected for fieldwork on the basis of the size of their collections, as well as for practical reasons of accessibility: for example, the cluster of museums from north-eastern USA results not only from their large and well-known collections but also from their close proximity to each other. A few museums located further afield but deemed of importance for the particular questions being asked in this study (e.g. Fowler Museum at UCLA, which provided the basis for Donnan's 1992 typology) were contacted and database-excerpts and photographs requested. In Peru, as many collections as possible were visited, especially in the North of Peru nearest to the source of the material in question.<sup>59</sup> In all museums that were visited (except for the

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examine all shelves containing Peruvian ceramics to check for mis-labelled relevant vessels, and none were found.

<sup>58</sup> In Alva (1986), numbers run from 1-470, but some numbers are not assigned (6 cases) and some refer to fragments of objects, which were not recorded for the thesis dataset.

<sup>59</sup> Two well-known Peruvian collections are missing from the dataset for the following reasons: at the time of enquiry (2011) the MNAHP (Museo Nacional de Arqueología, >>

Museo Larco), *all* objects labelled or catalogued as originating in North Peru and belonging to the Formative Period were recorded – be it in geographic terms or using cultural/stylistic labels such as Cupisnique or Chavín, sometimes Chongoyape, Tembladera, Kuntur Wasi.<sup>60</sup>

In the Museo Larco a limit was set on the number of objects made available for examination per day and in total, which means that in the end about 25% of the ceramics labelled as “Cupisnique” were personally examined and recorded. Objects were selected using a deliberately non-random sampling strategy in order to record the range of object-types and features present in the collection. Emphasis was thus placed on the greatest possible variety, rather than on selecting a proportionally representative sample. In other words priority was given to recording the range of ceramics that existed, not necessarily a proportionally representative sample of styles (as identified by eye). Nonetheless comparison with the Museo Larco online database confirmed that a roughly representative sample of each OBJECT\_TYPE had indeed been recorded.<sup>61</sup>

#### **4.2.A.3 Recording objects**

The examination of each object included physical handling and photographing of the piece, and the recording of a range of features including form/shape, dimensions, colour, iconography, surface-finish, temper or paste (where visible), as well as different modelling and surface-texturing techniques, incising, and painting (for a full list see Variable dictionary (Appendix 1); for illustrations see tables throughout Chapters 5 and 6). Acquisition information, provenance, or publications of each object were also noted. For objects known only from publications or museum database-excerpts i.e. photographs, data on colour, surface-finish, paste, and

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Antropología e Historia del Perú) levied a charge per object examined and furthermore denied researchers access to select objects from the collection for examination: their staff would choose and present the objects, based on the student’s research criteria. The private collections of Enrico Poli (Lima) refused a research appointment altogether. A visit to their ‘public’ gallery was charged at \$250 and thus deemed to be beyond the reach of this study.

<sup>60</sup> Objects identified as being mis-labelled have been excluded from the dataset.

<sup>61</sup> A future research project to create a proportionally representative typology would find the Museo Larco (or their online database) an excellent place to continue this research.

dimensions could not always be recorded and may thus be missing from the database.

## **4.2.B Processing the Data**

### **4.2.B.1 Typology**

All archaeological analysis relies in part on the recognition and classification of similarity and difference between material objects, be they technological or iconographic. In daily life the classification of material culture into categories draws on a wide basis of largely unquestioned cultural knowledge about how things look and what they mean (Sinopoli 1991:4). People also understand material or formal differences in terms of their context of use, value, or prestige, without having to consciously analyse the reasons for each case.

The definitions and uses of “style” in archaeology and for this thesis specifically have been discussed previously (Chapter 4.1). This section focuses on the methods used in the construction of the typology. This essentially involves sorting ceramics into groups so that members of each group more closely resemble each other than they do members of other groups. As with style, the nature of archaeological typologies has been debated. The most common methods for constructing a typology for archaeological ceramics can be described as follows:

- An **Intuitive** typology is the recognition and division of materials on the basis of perceived patterns of similarities and differences *using the complex process of human perception*. The sorting criteria are often only evident/made explicit at the end of the sorting-process, once each group of sherds or pots comes to be characterised.
- The **Type-Variety** method is a more explicit, hierarchically defined sorting of ceramics into broad classes (types) and each of these divided into finer groups (varieties), usually on the basis of raw materials or clays and tempers, and decorative treatment. Indeed, some variables themselves can similarly be distinguished into hierarchical levels of specificity: some simply record the presence/absence of a trait (such as painting or surface alteration), and others record the *kind* of (in this case) paint or surface-alteration.
- **Quantitative or Statistical** approaches aim to achieve the same outcome but based on explicitly defining and measuring a (potentially very large) number of

attributes of ceramics, using a variety of statistical techniques to examine their distributions, and then dividing vessels into objectively verifiable categories. This is also called a multivariate analysis. Of course, any statistical approach is informed by intuition at every stage of decision-making process, beginning with the nature of the attributes selected and the categories defined.

The following typological classification includes aspects of all three methods: firstly, the research project itself was inspired by the fact that *intuitively*, the ceramics labelled as “Cupisnique” included a range of ceramic types or styles. Some pre-determined styles or sub-styles already exist in the literature, but these are poorly defined (see Chapter 3). To test the existence and nature of particular stylistic groups, a statistical approach was chosen. On one hand, the statistical approach confirms empirical (intuitively created) types, but every attempt was made to employ it as “objectively” as possible and to identify statistically significant correlations and groupings from the ground-up. In other words the aim was to identify patterns that may not have been evident using a purely intuitive approach and to not simply “test” pre-determined patterns.

In the end the quantitative outputs have to be interpreted and consolidated into a hopefully comprehensible typology, and much of this relies on an intuitive interpretation of the statistical data. Finally statistically identified groupings or types are presented as a basic Class-Type-Variety system. The overall “Ceramic Complex” is divided into groupings (“Ceramic Classes”), within which there are the “Ceramic Types”, some of which contain specific “Varieties”.<sup>62</sup> No one process is applied in the exact same way to all variables or classifications of form and technique: throughout Chapters 5 and 6, the most telling patterns are explored in as much detail as possible, and these differ depending on the traits and data being examined. The final classification is an intuitively informed selection of statistical data.

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<sup>62</sup> This thesis does not exactly follow the Type-Variety classification as has developed in the SW USA and Mexico; where naming conventions are: Type = region + surface treatment (e.g. “Mississippi plain”), and Variety = one defining characteristic (e.g. “shell-temper”), and where form and production techniques are not considered type-variety identifications (Sinopoli 1991:53). Instead, although technological characteristics are prioritised, certain form (shape) traits are crucial in defining certain Ceramic Classes and Types (see Chapter 7).

#### **4.2.B.2 Choosing Variables & Setting Boundaries**

“The justification for the use of multivariate analysis techniques remains the fact that they provide a set of extremely useful tools for grouping items together and specifying links between variables” (Shennan 1997:217). The use of multivariate analysis presupposes an appropriate description of the objects. Indeed, the choice of attributes and specific procedures to apply is critical (Rice 1987:286; Sinopoli 1991:55). Shennan points out that there is sometimes a tendency to create and use as many variables as we can think of in the belief that meaningful patterns will emerge. However, meaningful patterns in some variables can potentially be obscured by including variables which are not relevant to those particular discussions. “Once again, the importance of the hard archaeological work of thinking through our description cannot be over-emphasised” (Shennan 1997:218).

Of the large number of ceramic attributes, some are continuous, others non-continuous (nominal). “For continuous variables, the question is what divisions can be made, and for nominal variables, it is what divisions should be made” (Read 1974:216). As such, the analyst is constantly forced to make decisions about grouping or splitting variable permutations. And as has been remarked; “a homogeneous group is merely one that has not yet attracted the attention of an investigator” (Benfer 1975:246, in Rice 1987:286).

Choices have to be made in light of the particular problem and materials in question. These should be reasoned on archaeological and methodological grounds. Throughout the process, as many variables as possible were recorded, but where traits had been identified as diagnostic by other scholars these were given particular consideration: while not much previous work has been done in terms of recognising diagnostic features for Formative Period ceramics, the handle-shape and spout-rim of stirrup-spout bottles, for example, have been previously noted as stylistically and chronologically characteristic.

In general the variables and permutations were created with the aim to record a wide range of traits relating to form, decorative technique, and iconography, and particularly traits that reflect the *chaîne opératoire*. After the data-collecting was completed, a number of combination or simplification variables were created to (in certain cases) prevent the fragmentation and thus ineffectiveness of statistical



calculations, by asking more simple questions. For example, as well as a variable recording *kinds* of surface-texturing (punctuating, rocker-stamping, appliqué, etc.), a variable was created that records simply whether surface-alteration is present or absent.<sup>63</sup> This generates a kind of hierarchical typology within certain variables, by asking first: is it textured (yes/no), and only second what *kind* of texturing (if present). This method follows the assumption that texturing of *any* kind is more closely related than not being textured at all.

All variables and their permutations recorded in the dataset are listed and defined in the Variable Dictionary (Appendix 1). Throughout the text, Variables are formatted using small-caps and full-stops or underscore lines to join words (formatting limits are set by SPSS). Permutations of a variable are formatted in small-caps italicised, hyphenated, and lack capital first letters. For example (see Table 4.1):

**Table 4. 1. Formatting used for Variables & Permutations**

Variable	Permutations (examples only)
OBJECT_TYPE	<i>STIRRUP-SPOUT, BOWL, SINGLE-SPOUT, FIGURINE</i> etc.
CHAMBER_SHAPE	<i>GLOBULAR, CYLINDRICAL, GLOBULAR-CARINATED</i> etc.
SPOUT_RIM	<i>NO-LIP, BEVELLED-LIP, EVERTED-CARINATED, ROUND-BULGE</i> etc.

#### **4.2.B.3 Statistical Methods**

The statistical methods used here have been developed and employed previously in the classification of archaeological ceramics, to isolate common combinations of particular traits and thereby reveal stylistic entities relating to particular periods, regions, or even workshops, fashions, social structures, or uses (Dietler & Herbich 1998; Read 1974; Shennan 1997; Arnold 1993; Kaplan & Levine 1981; Dunnell 1986; Spaulding 1953). These methods have thus been influenced by a number of sources in archaeology. Firstly, I make use of simple descriptive statistics, especially frequencies or proportions of variable or permutation occurrences. Secondly I apply tests of significant correlation and difference. Thirdly, I attempt to interpret these in terms of a hierarchical typology tree.

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<sup>63</sup> This also allows for cases where there are potentially more than one type of surface-alteration.

#### 4.2.B.3.1 Cluster Dendrograms

“The aim of classification studies is to discover the pattern of groupings in a set of data, with as few assumptions as possible about the nature of the grouping” (Shennan 1997:220). The most basic method would be to run a cluster analysis; a “multivariate statistical procedure that groups entities by their similarity on a large number of attributes” (Rice 1987:285). Cluster analyses have been successfully applied to divide ceramic assemblages, proving their applicability to certain datasets. Clustering tests are usually combined with scientific and archaeometric analyses (for example Druc 1998). Although Cluster analysis appears the best and simplest way to quickly divide any large set of data according to a high number of variables, the problem with this method for the present dataset is that it considers all variables equally i.e. of equal importance. The other problem is that it considers all variables at the same time, which for this dataset inevitably includes redundant data. For example, asking a bowl about the shape of its handle-spout is irrelevant. The problem can be partially overcome by comparing, for example, only stirrup-spouts, but even then there are a lot of variables relevant for a decorated vessel that are redundant if the vessel is plain, for example.

One way to overcome this is to generate a hierarchical typology dendrogram (see Whallon 1972: “monothetic subdivisive method”), which means creating a flow chart in steps. It starts with all the data and then splits it up by asking successive questions that differ along each branch: this way, once the question “is it a bowl or a stirrup spout” has been asked, depending on which branch the object falls into, questions are/are not asked about its handle and spout to classify the next step. The key to this typology is to know in which *order* to ask the questions (do you divide first by paste colour, or by object type?). This relies on using an intuitive process or trial-and-error method. As such, this thesis will showcase a very elementary hierarchical typology only *after* the quantitative data processing, i.e. after having used statistical methods to classify the data and identify significant trait correlations and/or differentiations.

#### 4.2.B.3.2 Significant Correlation and Difference

Tests of significant correlation and difference take two sets of data and analyse whether their specific numeric values, or mutual occurrence, can be considered as

related together in a statistically significant way. Only nonparametric tests of correlation can be applied to this kind of cultural data.

In terms of correlation, **Kendall's Tau\_b (T\_b)** test is used (Shennan 1997:145-150).<sup>64</sup> In terms of differentiation, **Pearson's Chi-square (X<sup>2</sup>)** test is applied. Both of these tests are generally considered to demonstrate significant correlation / differentiation when significance is less than or equal to 0.05. The standard format for presenting these test results is as follows, and will be cited in footnotes throughout this thesis:

Correlation Coefficient (T\_b) = #.###  
Number of Cases Tested (N) = ###  
Significance Level (known as p) = 0.###

Pearson's Chi-square (X<sup>2</sup>) = ###.###  
Degrees of Freedom (df) = ##  
Asymptotic Significance (p) = 0.###

#### **4.2.C Summary of Methods**

The research presented here combines quantitative statistical and intuitive methods. The statistical tests implemented in this thesis have been intentionally selected for their longstanding acceptance by social scientists. In this way, we can begin to compose a model of the cultural constructs unifying the diversity of identified stylistic attributes. Types represent associations in the data. The types thus denote a behavioural pattern i.e. since artefacts are the product of human behaviour, inherent patterns are behaviour patterns. In other words, it allows us consider sets of characteristics that may have been in the minds and repertoires of choice for potters. The testing of typological attributes for significant correlation and differentiation follows in Chapters 5 and 6.

This kind of classification is important, but culturally more significant are the interpretations of the types discovered (Rice 1987:288). Are types real, or are they just

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<sup>64</sup> For example, Pearson's Product-Moment Correlation Coefficient test cannot be reliably applied to cultural material of this kind, for it is intended for use on parametric data i.e. data expected to conform to a 'normal' or bell-curved distribution (Brace, Kemp & Snelgar, 2003: 80).

constructs devised by archaeologists to determine the structure and variability in their data and investigate problems? Numerous scholars have pointed out the need to reconcile devised (artificial) classifications with indigenous classification systems, linking typological classifications to the cultural complexity of a past society, but how far this is feasible in archaeology has been called into question.

In this thesis, dealing with an almost entirely unprovenanced dataset, one needs to acknowledge that the classifications and types identified will be largely stylistic, with much less emphasis possible on cultural, contextual basis. As such, answers about cultural or ethnic boundaries will remain tentative. However, one key justification for analysing this particular dataset is the magnitude of the geographic and temporal spans involved. As far as is known, this dataset encompasses an area that covers from the Lambayeque-La Leche Valleys in the North of Peru to the Nepeña and Casma Valleys on the northern Central Coast. It also spans more than 1500 years in time, during a period of considerable social change. To say the least, it seems far-fetched to assume cultural homogeneity over this timespan and area, and this thesis tentatively proposes that the classification and analysis of ceramic heterogeneity may help illuminate these unknown cultural complexities. Where possible, arguments for the quantitatively derived correlations and groupings are also supported by drawing on recent archaeological excavations and seriations (see Chapter 7).

No studies that are directly comparable to my own were found in the literature and thus no comparisons of methods or results can be reviewed here. In many ways this research is thus an experiment in stylistic classification. It is hoped that a statistical method will clarify some inconsistencies or misunderstandings in current scholarship about style in Formative northern Peru, and in being “objective” tease out patterns or trends between and within stylistic groupings that may have thus far escaped our knowledge. The Types classified in this thesis are not meant to be taken as definitive cultural styles, indicative of socially or ethnically bounded cultural entities: the present classification merely defines distinct groups of ceramic wares based primarily on technological style. The results must subsequently be considered in combination with other data in order to approach a comprehensive interpretation of Formative Period cultural identities over time and space.

## 5 QUANTITATIVE ANALYSIS OF FORM

### 5.0 INTRODUCTION

The ceramic styles developed during the Formative Period would differentiate the traditions of North and South Peru for the next two millennia. Very generally; in the South, polychrome painting and spout-and-bridge forms; in the North, the stirrup-spout form and three-dimensional sculptural decoration. The stirrup-spout bottle in particular has become the iconic vessel type of Pre-Columbian North Coast Peru, although its origins can be traced to Ecuador (see Chapter 2). The presence of stirrup-spout bottles at Chavín de Huántar in the North-Central Highlands was one of the factors taken as confirmation of contact with the North Coast.

Although scholarly attention has focused primarily on stirrup-spout bottles, other kinds of vessels were produced and used in the FORMATIVE PERIOD in North Peru and a number of these were recorded during fieldwork. Nonetheless, the dataset contains more stirrup-spout bottles than all other types of ceramic object (OBJECT\_TYPE) combined (55.5%, Table 5.1). This is almost certainly a reflection of a strong collections bias towards stirrup-spouts, for several reasons: they are seen as iconic and therefore desirable, and they are frequently decorated and carry elaborate iconography. In combination, this makes it easier to assign a cultural and/or geographical provenance to stirrup-spouts than (especially undecorated) bowls or single-spout bottles, and this is of course preferable for both private and museum collectors. This undoubtedly affected which vessels were labelled and recognised as Formative Period North Coast, and thus which were recorded for this study. Precisely for this reason, this study aims to consider all recorded ceramic objects as far as possible in its classificatory system, but stirrup-spouts will dominate the following analysis.

## 5.1 CLASSIFYING OBJECT FORMS

Broadly speaking the dataset can be divided into closed bottles with a variety of spouts, and open containers such as bowls and beakers. All variables and their permutations recorded to characterise FORM can be seen in the Variable Dictionary (Appendix 1). This includes the overall shape of the vessel chamber (CHAMBER\_SHAPE), the presence/absence of a flat base (FLAT\_BASE), the presence and nature of any 3-dimensional sculpting (3D-SCULPTING), as well as dimensions, in particular height. For the bottles, additional handle and/or spout variables were recorded, including primarily HANDLE\_SHAPE, HANDLE\_ORIENTATION, SPOUT\_SHAPE, and RIM\_SHAPE, amongst others.

The different OBJECT\_TYPES that make up the dataset are shown in Table 5.1 and illustrated in Table 5.2. Firstly, forms will be categorised for closed vessels (stirrup-, single-, and bridge-spout bottles), and open containers (bowls and cups/beakers). The form of figurines and ocarinas will not be analysed, but their decorative techniques and iconography will be examined in comparison with the vessels in Chapter 6. Given the nature of the dataset, the majority of the classification and analysis of form will be devoted to the bottles, in particular the stirrup-spouts.

### 5.1.A Open Containers (Bowls & Beakers)

There are 58 bowls and 14 beakers in the sample (Table 5.3). Bowls are defined as having a greater diameter than height, while beakers have a greater height than diameter. As this dataset is based on museum collections, it lacks a representative sample of domestic ceramic containers, and thus the formal classification of the open containers has been kept very straightforward.

In terms of CHAMBER\_SHAPE, 63.9% of all open containers are *STRAIGHT-SIDED*, 11.1% have *VERTED* sides, and 18.1% are rounded (*GLOBULAR*) (Tables 5.4 and 5.5). Just 7% have restricted rims, and 83.3% have a flat base. Beakers account for almost all cases of open containers with *VERTED* sides (87.5%). In terms of sculpted features, 79.2% have *NO-3D-SCULPTING*, and 13.9% (10 cases) have *ADD-ON-3D-SCULPTING*, and one bowl has a *FIGURE-ON-TOP*. The presence of *RAISED-STEPS-RIMS* was rare (7.7%) (Tables 5.6 and 5.7). Other distinctive features recorded (both very rare in the sample) were

*RIM-DENTS* (5.5%) for pouring, and two beakers have handles much like modern day mugs (see Table 5.7).

Given the very low frequencies of open containers with distinctive formal traits, as well as the lack of a statistically significant correlation or differentiation between *CHAMBER\_SHAPE* and *DDD\_SCULPTING*,<sup>65</sup> a more specific classification of the open containers will need to draw on decorative techniques and/or iconography, which are discussed in Chapter 6. Therefore, no further classification of the open containers is carried out here.

## 5.1.B Bottles

### 5.1.B.1 All Bottles

81% of the dataset is made up of bottles (N=731), i.e. closed vessels with spouts of some kind. These are: stirrup-spouts, single-spouts, and bridge-spouts (see Table 5.1). The overall forms of the vessel-chamber (*BODYFORM*) and of the handle-and-spout (*HANDLE.SPOUT\_FORM*) are categorised separately, before classifying *COMPLETE\_FORM* for each of the bottle types.

#### 5.1.B.1.1 All Bottles: Chamber-Shapes

To record the basic shape of bottle-chambers, eight permutations of *CHAMBER\_SHAPE* have been defined (plus an *OTHER* category). These *exclude* 3-dimensional modifications (unless *FULL-FIGURATIVE* is the recorded *CHAMBER\_SHAPE*) (Tables 5.8 and 5.9). Not surprisingly, by far the most common shape for the vessel chamber across all bottles is *GLOBULAR* (65.2%).<sup>66</sup> The next most common shape is *FULLY-FIGURATIVE* (15.7%), 90.4% of which occurs with a stirrup-spout (crosstabulation shown in Table 5.10).<sup>67</sup> Statistical tests of significance confirm that the relationship between *CHAMBER\_SHAPE* and *OBJECT\_TYPE* is strongly correlated and differentiated;

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<sup>65</sup> Bowl/Beakers; *CHAMBER\_SHAPE* \* *DDD\_SCULPTING*:  $X^2= 23.440$ ,  $df= 12$ ,  $p= .024$ ;  $T_b= .133$ ,  $N= 72$ ,  $p= .305$ .

<sup>66</sup> Note that “Globular” vessels can still have a flat base.

<sup>67</sup> *FULLY-FIGURATIVE* as a *CHAMBER\_SHAPE* refers only to bottles where the 3-dimensionally modelled being or thing is itself the vessel form. There are other kinds of 3D sculpting, such as *ADD-ON-SCULPTING* where 3D sculptural elements are used to modify another shape of chamber (see variable dictionary and Table 5.11).

in other words the distribution of particular chamber-shapes is not random across all bottle-types, suggesting that there is a culturally determined pattern.<sup>68</sup>

Comparing the bottle-types (OBJECT\_TYPE): 20.7% of stirrup-spout bottles are *FULLY-FIGURATIVE*, compared to just 4.7% and 5.7% of single-spouts and bridge-spouts respectively. *CUPCAKE*, *CYLINDRICAL* and *CONJOINED-CHAMBERS* are also disproportionately common as stirrup-spout bottles, and the *3-FACED-ANGULAR-CARINATED* shape is exclusive to stirrup-spouts. Meanwhile the *GLOBULAR-CARINATED* shape, despite making up just 1.5% of the sample, accounts for 14.3% of bridge-spouts, and occurs on only one stirrup-spout bottle. A *CONE/PEAR-SHAPED* chamber meanwhile is exclusive to single-spouts (Table 5.10).

Evidently, there are significant differences between the bottle types that go beyond the definition of their OBJECT\_TYPE as single-, stirrup-, or bridge-spout bottles. These differences need to be evaluated further if we are to hypothesise on distinctions in manufacturing processes. The next step for classifying Form considers the nature/extent of 3-dimensional sculpting, followed by handle- and spout-variables, to see if differences between bottle types extend also to those aspects of Form.

#### 5.1.B.1.2 All Bottles: 3D-Sculpting

The nature of 3-dimensional sculpting also differentiates the bottle types (DDD\_SCULPTING, Table 5.11). The crosstabulation of OBJECT\_TYPE and DDD\_SCULPTING is shown in Table 5.12. Statistical tests of significance demonstrate a strong correlation and differentiation.<sup>69</sup> The prevalence of *FULLY-FIGURATIVE* chambers (and thereby *FULL-3D-SCULPTING*) on stirrup-spouts was already noted in Table 5.10 and is reiterated in Table 5.12.<sup>70</sup> Aside from this, the sculpting of a *FIGURE-*

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<sup>68</sup> CHAMBER\_SHAPE \* OBJ\_TYPE: X<sup>2</sup>= 115.444, df= 16, p= .000; T\_b= .132, N=726, p= .000.

<sup>69</sup> OBJ\_TYPE \* 3D\_SCULPTING : X<sup>2</sup>= 188.269, df= 16, p= .000; T\_b= -.110, N=731, p= .000.

<sup>70</sup> Differences in percentages and counts for *FULL-3D-SCULPTED* as a degree of DDD\_SCULPTING compared to earlier tables listing *FULLY-FIGURATIVE* as a CHAMBER\_SHAPE, stem from the fact that the definitions for those variables are subtly distinct: a *FULLY-FIGURATIVE* chamber is always and by definition *FULL-3D-SCULPTED*, but not the other way around. *CONJOINED-CHAMBERS* is a CHAMBER\_SHAPE that can be *FULL-3D-SCULPTED* in terms of the DDD\_SCULPTING variable but can also be globular or cylindrical in CHAMBER\_SHAPE, for example.



*ON-TOP* is disproportionately common on bridge-spout bottles, 62.2% of which are sculpted in this way. To clarify; *FIGURE-ON-TOP* sculpting is a common feature of bridge-spouts, but bridge-spouts are not a key feature of *FIGURE-ON-TOP* sculpting, which also occurs on stirrup- and single-spouts. *EMBOSSING* is notable for its rarity and exclusive association with single-spout bottles.<sup>71</sup> Meanwhile *HIGH-RELIEF-SCULPTING* occurs only on stirrup-spouts.

The exclusive occurrence of certain kinds of sculpting on particular *OBJECT\_TYPES* (i.e. bottle-types) supports the idea of distinct potting traditions being associated with these distinct kinds of bottle, as already hypothesised from the proportional differences in *CHAMBER\_SHAPE*. A separate formal analysis of stirrup-, single-, and bridge-spouts in the following sections will expand on this, as will the analysis of the distribution of decorative techniques (Chapter 6).

#### 5.1.B.1.3 All Bottles: Spout-Shapes

One of the key variables to characterise bottles is the form of the handle and/or spout. (As only the spout-variables are comparable across all bottle types, handle traits are not discussed here.) The principal variables used for characterising the spout can be seen in the Variable Dictionary and are illustrated in Tables 5.14 and 5.17. These include the *SPOUT\_SHAPE* and diameter (*SPOUT\_THICKNESS*), shape of the rim or lip (*SPOUT\_RIM*), as well as the presence or absence of decorative features (*SPOUT\_DECO*). Each of these formal spout variables was cross-tabulated with *OBJECT\_TYPE* to discern how particular spout traits are associated with each of the three bottle-types.

The presence of decoration on the spout is too rare (2.3% of all bottles) and its distribution not statistically significant to comment on a specific patterning.<sup>72</sup> The crosstabulation of *OBJECT\_TYPE* (bottles only) with *SPOUT\_THICKNESS* (diameter) shows that *WIDE* spouts on stirrup-spout bottles occur in proportion with the whole sample of bottles (30.8%), while single- and particularly bridge-spouts are rarely of a *WIDE* diameter (18.4% and 11.8% respectively) (Table 5.13).

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<sup>71</sup> Lumbreras calls the dragoniano technique “*repujado con incisiones*”, *repujado* = bosses, embossed. (Cat. 291), which especially in metalwork is also called ‘repoussé’.

<sup>72</sup> *OBJ\_TYPE* \* *SP\_DECO*:  $\chi^2 = 2.837$ ,  $df = 2$ ,  $p = .242$ ;  $T_b = .031$ ,  $N = 704$ ,  $p = .410$ .

The SPOUT\_SHAPES are illustrated in Table 5.14. Table 5.15 shows the crosstabulation of SPOUT\_SHAPE with OBJECT\_TYPE for bottles. Tests of statistical significance indicate strong patterns of correlation and differentiation.<sup>73</sup> Some shapes are restricted to particular bottle types, for example *CONVEX* and *TAPER-OUT* spouts occur only on stirrup-spout bottles. *IRREGULAR-STRAIGHT* shaped spouts occur only on bridge-spouts. 86.9% of *TAPERS-IN-EVERTED-AT-TOP* spouts are found on single-spout bottles. Using a binary variable of whether or not the spout is everted at the rim (SP\_EVERTED\_YN), a cross-tabulation with OBJECT\_TYPE reveals that single-spouts are much more likely to have *EVERTED* spout rims (78.2%) than stirrup-spout (40.1%) or bridge-spout bottles (5.9%) (Table 5.16).<sup>74</sup>

#### 5.1.B.1.4 All Bottles: Spout Rims

As identified throughout the history of research, a key feature of bottles is likely to be the shape of the rim or ‘lip’ on the spout. Identified rims are shown in Table 5.17. A crosstabulation of SPOUT\_RIM with the three bottle-types again reveals statistically significant correlations and differentiations (Table 5.18):<sup>75</sup> More than half (60.6%) of all bottles have *NO-LIP* at the rim. The next most common SPOUT\_RIM permutations are *EVERTED-CARINATED* rims and *BEVELLED-LIP*, both of which occur to over 90% on stirrup-spouts (stirrup-spouts make up 67.4% of bottles). The single-spouts, despite being fewer in number than stirrup-spouts, are the most diverse in terms of the spout rim, featuring every SPOUT\_RIM recorded. *FLARING-WITH-NARROW-OPENING* is exclusive to single-spouts. However, the absolute count of each of these rim shapes on single-spouts is low, due to the fact that 74.3% of single-spout bottles have *NO-LIP* rims. These differences in spout form traits between the bottle types again support the notion of a stylistic or typological separation between the different bottle types beyond the basic *nature* of their spout or handle (i.e. their OBJECT\_TYPE).

#### 5.1.B.2 Summary of Bottle Forms (all bottles)

There are clear patterns in the formal execution of the different bottle types (stirrup-, single, and bridge-spout bottles), indicating that they are more significantly

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<sup>73</sup> OBJ\_TYPE \* SP\_SHAPE:  $X^2= 463.808$ ,  $df= 14$ ,  $p= .000$ ;  $T_b= .332$ ,  $N= 675$ ,  $p= .000$ .

<sup>74</sup> OBJ\_TYPE \* SP\_EVERTED\_YN:  $X^2= 103.587$ ,  $df= 2$ ,  $p= .000$ ;  $T_b= .204$ ,  $N= 673$ ,  $p= .000$ .

<sup>75</sup> OBJ\_TYPE \* SP\_RIM:  $X^2= 116.123$ ,  $df= 16$ ,  $p= .000$ ;  $T_b= -.194$ ,  $N= 665$ ,  $p= .000$ .

differentiated than by their OBJECT\_TYPE alone: the shape of the vessel-chamber (CHAMBER\_SHAPE) – as well as the extent to which this is modified by DDD\_SCULPTING – is closely linked to the *kind* of bottle being made. The same is true for the spout-shapes associated with each bottle-type, considering both the spout shaft itself (SPOUT\_SHAPE) and the lip of the spout rim (SPOUT\_RIM). This indicates potentially separate traditions or *chaînes opératoires* within customs of bottle-making during the FORMATIVE PERIOD in North Peru.

In order to characterise form more specifically, stirrup-, single-, and bridge-spouts will now be analysed separately. This allows the analysis to include variables that only apply to certain bottle-types, such as handle variables that apply only to the stirrup-spout bottles. One further reason is the different proportions of each bottle type: by creating trait-combination variables and relegating the least common permutations into an “OTHER” category, there is a danger that diagnostic shapes for the bridge-spouts in particular would be lost in a dataset that included the vastly more numerous stirrup-spouts.

### **5.1.C Stirrup-Spout Bottles**

Stirrup-spout bottles are the most numerous OBJECT\_TYPE in the dataset (N=501). They have been the most scrutinised and published in previous scholarship, and while particular handle- and spout-traits have been noted as indicative of chronological and cultural change (see Chapter 3), a systematic let alone a quantitative analysis of stirrup-spout forms from FORMATIVE PERIOD North Peru has so far not been carried out. As with the bottles in general, the body-, handle-, and spout-forms are characterised separately before being combined into an overall *complete* stirrup-spout form.

#### **5.1.C.1 Stirrup-Spouts: Size & Bodyform**

The comparison of all bottle-types showed that every CHAMBER\_SHAPE is represented on stirrup-spouts except for *GLOBULAR-CARINATED* (0.2%) and *CONE/PEAR*-shaped (0%) (Table 5.10). Table 5.12 further showed that 48.5% of stirrup-spouts have *NO-3D-SCULPTING* and 22.8% are *FULL-3D-SCULPTED*.

The remaining 28.7%, consisting of other kinds of 3-dimensional sculpting, is distributed across stirrup-spouts with different CHAMBER\_SHAPES as shown in Table 5.19.<sup>76</sup> Statistical tests of significance reveal that stirrup-spout CHAMBER\_SHAPES are strongly correlated and differentiated by DDD\_SCULPTING.<sup>77</sup> Indeed, only *GLOBULAR* and *OTHER* chambers co-occur with every variation of DDD\_SCULPTING. A disproportionately high percentage of cylindrical vessels have some kind of 3-dimensional sculpting, either *ADD-ON 3D-SCULPTED* (50%) or a *FIGURE-ON-TOP* (14.3%). The cupcake-shaped vessels have either *FIGURE-ON-TOP* sculpting (58.3%) or no sculpting at all (33.3%). Meanwhile the *3-FACED-ANGULAR-CARINATED* shape (which is exclusive to stirrup-spout bottles) is never modified by 3-dimensional sculpting, although the sample is small (N=7).

In terms of size (total height, including the handle and spout), the stirrup-spout bottles follow a relatively normal distribution of between 11-38cm. There is both a correlation and differentiation between ordinal size-categories (*SMALL* <22cm; *MEDIUM* 22-25.9cm; *TALL* >26cm) and CHAMBER\_SHAPE (Table 5.20):<sup>78</sup> *FULLY-FIGURATIVE* vessels are disproportionately tall (48% are *TALL*), and indeed *TALL* vessels occur as either *FULLY-FIGURATIVE* (49%) or *GLOBULAR* chamber shapes (46.9%). Meanwhile, *CUPCAKE*-shaped bottles are disproportionately *SMALL* (46.2% are less than 22cm high, compared to 25.6% of the entire stirrup-spouts sample), and no *CUPCAKE*-shaped stirrup-spouts fall into the *TALL* category.

The next step combines both CHAMBER\_SHAPE and DDD\_SCULPTING, in order to characterise the overall form of stirrup-spout bottle chambers (not yet the form of the

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<sup>76</sup> Please note that *FULLY-FIGURATIVE* vessels have been excluded from this calculation as they cross-tabulate to 100% with *FULL-3D-SCULPTING*. However *FULL-3D-SCULPTING* can also occur on the CHAMBER\_SHAPE *CONJOINED-CHAMBERS*, for example on modelled fruit-bundles where each is fully formed before being joined together with one stirrup-spout [e.g. Appendix Database ID: PBDY3, 46-77-30/4911]. In fact, Table 5.19 shows that 73.3% of all conjoined-chambered stirrup-spout bottles consist of figuratively sculpted individual elements that have been joined together. If we *also* exclude *FULL-3D-SCULPTING*, which falls 100% on the *CONJOINED-CHAMBERS* CHAMBER\_SHAPE, the statistical results remain significant:  $X^2= 140.886$ ,  $df= 18$ ,  $p= .000$ ;  $T_b= .282$ ,  $N= 384$ ,  $p= .000$ .

<sup>77</sup> CHAMBER\_SHAPE \* DDD\_SCULPTING:  $X^2= 430.028$ ,  $df= 24$ ,  $p= .000$ ;  $T_b= .351$ ,  $N= 395$ ,  $p= .000$ .

<sup>78</sup> HEIGHT\_ORD \* CHAMBER\_SHAPE:  $X^2= 28.544$ ,  $df= 8$ ,  $p= .005$ ;  $T_b= -.244$ ,  $N= 199$ ,  $p= .000$ .

handle-spout). The permutations for *CHAMBER\_SHAPE* and *DDD\_SCULPTING* were thus crosstabulated and combined into a single typological variable: *BODYFORM\_ST.SP*.<sup>79</sup> To avoid obscuring diversity, all combinations with counts over 5 (>1% valid) are presented here as a separate *BODYFORM\_ST.SP* permutations. Twelve (12) *BODYFORMS\_ST.SP* have been defined (plus an *OTHER-BODYFORMS* category that makes up 4.2%). Their frequencies are shown in Table 5.21 (a-b) and the dominant *BODYFORM\_ST.SP* ARE illustrated in Table 5.22. While this reveals a great deal of diversity, there are clearly three dominant *BODYFORMS* that collectively account for 77.1% of all stirrup-spouts:

1. *GLOBULAR* vessels with no 3-dimensional modifications (*NO-3D-SCULPTING*) are the commonest stirrup-spout *BODYFORM* (42.7%).
2. The next most common are *FULLY-FIGURATIVE* vessels (20.7%).
3. This is followed by *GLOBULAR* chambers that have been modified into a figurative overall form by *ADD-ON-SCULPTING* (14.3%).

Thereafter the proportions drop drastically, but these nonetheless represent the most common forms of stirrup-spout bottles in the sample: *CUPCAKE*-shaped chambers are represented both in their pure form (2.4%) and with a *FIGURE-ON-TOP* (4.2%). *CYLINDRICAL* vessels are rare, but represented as a *BODYFORM* with *ADD-ON-3D-SCULPTING* (1.4%) as well as in *PURE-CYLINDRICAL* form (1%). Given the sampling strategy that was used (see Chapter 4), these are not supposed to be taken as representative proportions for North Peruvian Formative ceramics in general. Rather, they clearly indicate that even within a sample that was deliberately selected for diversity, there are dominant reoccurring formal combinations and patterns that we might interpret as distinct traditional forms.

#### 5.1.C.1.1 Summary of Stirrup-Spout Bodyforms

The overwhelming majority of stirrup-spouts are flat-based (93.6%). While there is a range of *CHAMBER\_SHAPES* and a variety of ways of modifying (sculpting) the vessel chamber, the sample is strongly polarised: including the vessels with *FULLY-*

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<sup>79</sup> As 93.6% of stirrup-spouts have a *FLAT-BASE*, this variable is not considered in the classification of *BODYFORM*.

*FIGURATIVE* chambers, two thirds of the sample is either *FULL-3D-SCULPTED* (22.8%) or not sculpted at all (48.5% *NO-3D-SCULPTING*) (see Table 5.12). The contrast between these two dominant stirrup-spout bodyforms needs further clarification. It may indicate two distinct traditions of pottery-making, following separate *chaîne opératoires* and reflecting conceptually different ways of approaching the making of stirrup-spout bottles.

The next step is thus to determine if there is a relationship between the form of the vessel chamber (*BODYFORM\_ST.SP*) and the forms of the handle-spout, which together make up complete form of stirrup-spouts (*COMPLETE.FORM\_ST.SP*). Thereafter, each of the identified *COMPLETE.FORM\_ST.SP* permutations will be analysed in relation to decorative techniques (Chapter 6).

### **5.1.C.2 Stirrup-Spouts: Handle- and Spout-Forms**

The handle- and spout-shapes of ceramic bottles from North Peru, especially of the so-called stirrup-spout vessels, have long been seen as indicators of geographical and/or chronological provenance; in other words, as stylistic and cultural markers. For example, the well-known 5-Phase Moche seriation (originally proposed by Larco 1948, refined by Donnan & McClelland 1999) was based primarily on changes in the spout-shape and -rim.<sup>80</sup>

This dataset includes 501 stirrup-spout bottles (55.5% of all objects recorded, see Table 5.1).<sup>81</sup> As the handle and spout are comprised of separately formed elements which are first joined together and then added to the vessel chamber, handle- and spout-forms are defined separately, before being combined into a typology of overall *HANDLE.SPOUT\_FORMS* for stirrup-spout bottles.

#### **5.1.C.2.1 Basic Handle-Forms**

The basic characteristics of *HANDLE\_FORM* are the *HANDLE\_SHAPE* (illustrated in

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<sup>80</sup> More recently, some scholars have argued that the rim shapes on Moche bottles may also be related to geographical rather than chronological difference (Bourget 2011), which leaves the spout rim no less important as a trait of traditional difference.

<sup>81</sup> Please note that some of the calculations and/or tables report a lower total number of vessels, which results from missing data for certain variables (e.g. vessels with broken or missing handles and/or spouts).

Table 5.23) and *HANDLE\_THICKNESS*, *SLIM* or *WIDE*.<sup>82</sup> Table 5.24 shows that the relationship between shape and thickness (diameter) is both strongly correlated and differentiated.<sup>83</sup> These two variables have thus been combined to define the *HANDLE\_FORM\_BASIC*, which are listed in Table 5.25 and illustrated in Table 5.26. Note that *TRAPEZOID* and *RIGHT-ANGLED* shapes do not occur in a *WIDE* execution.

#### 5.1.C.2.2 Detailed Handle-Forms

To classify handle-forms in more detail, one further variable can be added: *HANDLE\_PART.SCULPTED*. *PART-SCULPTED* handles account for only 9.3% of stirrup-spouts, but 62.2% of this occurs together with *ROUND:SLIM* handles, 23.1% of which in turn are part-sculpted (Table 5.27). *WIDE* handles of any shape are not *PART-SCULPTED*.<sup>84</sup>

The handle variables that characterise form (*HANDLE\_SHAPE*, *HANDLE\_THICKNESS*, and *HANDLE\_PART.SCULPTED*) are thus unified into a single variable to characterise detailed handle form: *HANDLE\_FORM\_DETAILED*. Only those combinations that occur 9 times or more ( $\geq 1.8\%$  valid) are here listed as identified overall *HANDLE\_FORM\_DETAILED* and given codes *H1* - *H8*. The rest are assigned to an *OTHER-HANDLE-FORM* permutation. The identified *HANDLE\_FORM\_DETAILED* are listed in Table 5.28 and illustrated in Table 5.29. These represent the most common handle-forms created by potters during the *FORMATIVE PERIOD* in northern coastal Peru.

#### 5.1.C.2.3 Additional Handle Traits

Further traits that were recorded and can thus be considered in the analysis of handle-forms are the presence and absence of decoration on the handle (*HANDLE\_DECO\_YN*), and the handle orientation in relation to the vessel chamber (*HANDLE\_ORIENTATION*). Crosstabulating these traits with the *HANDLE\_FORMS\_DETAILED* and running statistical tests of correlation and difference

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<sup>82</sup> I have called it handle-“thickness” as opposed to diameter to avoid any confusion with the diameter of the handle arch.

<sup>83</sup> *HANDLE\_SHAPE* \* *HANDLE\_THK*:  $\chi^2 = 119.784$ ,  $df = 4$ ,  $p = .000$ ;  $T_b = -.372$ ,  $N = 482$ ,  $p = .000$ .

<sup>84</sup> Only 1 vessel counters this trend [Appendix Database: ID MET2, 1983.546.15].

reveals that their distribution is not random but clearly culturally patterned: 13.5% of handles are decorated (either incised, painted, or textured, usually an extension of the decoration on the vessel body).<sup>85</sup> Sixty-four percent (64.6%) of this occurs on *H4* (*ROUND:WIDE:NOT-SCULPTED*) handles, and another 26.2% on *H2* (*ROUND:SLIM:NOT-SCULPTED*) (Table 5.30). Indeed, crosstabulating just the *HANDLE\_SHAPE* with *HANDLE\_DECO*, 92.3% of decoration is on *ROUND* handles, while no *TRAPEZOID* handles are decorated.<sup>86</sup> It seems that the decision of a potter to decorate the handle of a stirrup-spout bottle co-occurs strongly with the decision to form a round-, and particularly a wide-handled stirrup in the first place.

Crosstabulating *HANDLE\_FORMS\_DETAILED* and *HANDLE\_ORIENTATION* shows that 56.5% of *FRONT-TO-BACK* oriented handles are of form *H6* handles (*ROUND:SLIM:PART-SCULPTED*) (Table 5.31).<sup>87</sup> Conversely 92.9% of *H6* handles are oriented *FRONT-TO-BACK*. This correlation is particularly notable in contrast to *TRAPEZOID* handles in the sample, which are almost never *PART-SCULPTED* nor occur commonly in a *FRONT-TO-BACK* orientation. It is clearly not simply partial sculpting of the handle that defines a *FRONT-TO-BACK* orientation, although the two are clearly closely related:<sup>88</sup> a *ROUND* handle-shape is also important, as seen by the fact that 66.6% of *RIGHT-ANGLED:SLIM:PART-SCULPTED* handles (*H8*) are in *PERPENDICULAR* orientation to the vessel chamber despite being partially sculpted.<sup>89</sup> *ODD-ANGLE* and *3-WAY* oriented handles are too few to discern a patterned distribution.

#### 5.1.C.2.4 Summary of Stirrup-Spout Handle-Forms

The most frequent overall *HANDLE\_FORMS\_DETAILED* (21.8%) is right-angled, slim, perpendicular to the vessel chamber, and bears no decoration. In total, *ROUND*

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<sup>85</sup> *H\_DECO* \* *DETAILED\_HANDLE\_FORM*:  $X^2= 145.002$ ,  $df= 8$ ,  $p= .000$ ;  $T_b= .243$ ,  $N= 482$ ,  $p= .000$ .

<sup>86</sup> *H\_DECO* \* *HANDLE\_SHAPE*:  $X^2= 80.497$ ,  $df= 4$ ,  $p= .000$ ;  $T_b= -.317$ ,  $N= 483$ ,  $p= .000$ .

<sup>87</sup> *H\_ORIENTATION* \* *DETAILED\_HANDLE\_FORM*:  $X^2= 279.889$ ,  $df= 24$ ,  $p= .000$ ;  $T_b= .226$ ,  $N= 482$ ,  $p= .000$ .

<sup>88</sup> *H\_PART.SCULPTED* \* *H\_ORIENTATION*:  $X^2= 260.823$ ,  $df= 3$ ,  $p= .000$ ;  $T_b= .577$ ,  $N= 498$ ,  $p= .000$ .

<sup>89</sup> This is still below the overall proportion of 87.1% perpendicular handles across all stirrup-spouts, which reiterates that partial-sculpting of the handle favours a front-to-back orientation.



handles are the most frequent shape (41.8%) but in combination with other variables they are also more diverse, occurring in both *WIDE* and *SLIM* thickness, *PART-SCULPTED*, and they have the possibility of decoration. Indeed, the distribution of decoration (*HANDLE\_DECO\_YN*) on *HANDLE\_FORMS\_DETAILED* is very particular (see footnote <sup>85</sup>), with decoration occurring especially on *ROUND:WIDE* and *ROUND:SLIM* handles (Table 5.30).

A trapezoid handle-shape has been noted by a number of previous scholars as characteristic feature of FORMATIVE PERIOD North Coast bottles (see Chapter 3). However neither the overwhelmingly perpendicular orientation, nor the absence of decoration or part-sculpting have thus far been noted as features of trapezoid handles, and yet these features are clearly indicative of specific traditions of handle-making by FORMATIVE PERIOD North Peruvian potters. The combination of handle forms with particular spout- and rim-forms, as will now be analysed, has also not been explicitly defined so far for the Formative Period. Crucially, no one has thus far demonstrated whether this trapezoid handle-shape actually correlates with particular vessel forms or sculpting traditions (*CHAMBER\_SHAPE*, *BODYFORM*), nor with decorative techniques or iconography, as Chapters 6 and 7 will show.

#### 5.1.C.2.5 Stirrup-Spouts: Spout-Forms

The spout – in particular the rim – is a key feature for characterising stirrup-spout bottles. Basic spout variables recorded for this study include *SPOUT\_SHAPE* (Table 5.13), *SPOUT\_THICKNESS*, *SPOUT\_RIM* (lip) (Table 5.16), *SPOUT\_HEIGHT*, and the presence/absence of decoration on the spout (*SPOUT\_DECO\_YN*). A simple binary variable for whether or not the spout-rim had a prominent lip or not was also created (*SP\_PROMINENT.RIM\_YN*).

Following the same process as for the handles, these spout variables were crosstabulated. In all cases, the variables were significantly differentiated but not correlated (except *SPOUT\_DECO\_YN*: no pattern):<sup>90</sup> The crosstabulation of

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<sup>90</sup> *SPOUT\_SHAPE* \* *SPOUT\_THICKNESS*:  $X^2= 113.962$ ,  $df= 6$ ,  $p=.000$ ;  $T_b= -.096$ ,  $N= 450$ ,  $p= .026$ .  
*SPOUT\_SHAPE* \* *SPOUT\_RIM*:  $X^2= 454.750$ ,  $df= 36$ ,  $p= .000$ ;  $T_b= -.064$ ,  $N= 442$ ,  $p=.127$ .  
*SPOUT\_SHAPE* \* *SP\_PROMINENT.RIM\_YN*:  $X^2= 131.689$ ,  $df= 6$ ,  $p= .000$ ;  $T_b= -.091$ ,  $N= 442$ ,  $p= .035$ .

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SPOUT\_SHAPE and SPOUT\_RIM is shown in Table 5.32. *BEVELLED-LIPS* are found predominantly (70.3%) on *CONVEX*, “barrel-shaped” spouts, and vice versa 71.4% of *CONVEX* spouts have *BEVELLED-LIPS*. Another 25.4% have a *ROUND-BULGE* lip, leaving *CONVEX* as the only spout-shape that is never without a prominent lip of some kind on the rim (i.e. 100% *PROMINENT-LIPS* within the binary variable for SP\_PROMINENT.RIM\_YN).<sup>91</sup> A *TAPERING-OUT* spout shape is the opposite, 91.7% of which have *NO-LIP* rims and another 4.2% have a *FLAT-PROFILE* rim (i.e. 95.9 % *NO-PROMINENT-LIPS*). *CONCAVE* -shaped spouts are strongly and exclusively associated with three rim-shapes: *NO-LIP* (57.4%), *FLAT-PROFILE* (12.9%), or *EVERTED-CARINATED* rims (29.7%), although there is one crucial difference: *EVERTED-CARINATED* rims occur on *CONCAVE:WIDE* spouts while *FLAT-PROFILE* or *NO-LIP* rims occur on *CONCAVE:SLIM* spouts.

The spout-variables were unified to create a single typological variable for overall SPOUT\_FORM. An initial analysis resulted in 14 overall SPOUT\_FORMS (including an *OTHER* permutation accounting for 14.4%), but it also revealed that the spout-thickness and -rim were regularly associated with similar spout-shapes. In other words; *CONCAVE*, *STRAIGHT*, and *STRAIGHT-EVERTED* spout shapes effectively appear to be slight variations on a cylinder towards the concave, while *CONVEX*, *STRAIGHT*, and *TAPER-IN* shapes appear to be variations on a cylinder towards the convex. As such, these have been unified into a more straightforward spout-shape permutation, which clarifies the classification of SPOUT\_FORM\_ST.SP. Again only those combinations with frequencies of more than 2% valid are listed as separate SPOUT\_FORMS (*SP1 - SP8*). Table 5.33 shows the resulting eight overall SPOUT\_FORMS (plus an *OTHER-SPOUT-FORMS* permutation of 9.3%) and these are illustrated in Table 5.34. Key will be to see whether these identified spout-forms *SP1-SP8* are statistically correlated and differentiated with previously identified HANDLE\_FORMS *H1-H8*.

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SPOUT\_SHAPE \* DECO\_ON\_SP:  $X^2= 5.837$ ,  $df= 6$ ,  $p= .442$ ;  $T_b= .030$ ,  $N= 451$ ,  $p= .352$ .

The presence of decoration showed no patterned relationship with spout-shape, but then only 2.0% of spouts are decorated. It has thus been left out of the overall spout-form analysis.

<sup>91</sup> Lips considered as “*PROMINENT*” are: *BEVELLED-LIP*, *ROUND-BULGE*, *EVERTED-CARINATED*, and *DELINEATED-RIM*. Lips classified as “*NOT PROMINENT*” are: *NO-LIP* and *FLAT-PROFILE* (see Variable Dictionary definition for SP\_PROMINENT.RIM\_YN.)

#### 5.1.C.2.6 Summary of Stirrup-Spout Spout-Forms

By far the commonest SPOUT\_FORMS on stirrup-spout bottles are *SLIM*, with *NO-LIP*, *STRAIGHT* or *CONCAVE*, and bear no decoration. The next most common form is also *STRAIGHT* or *CONCAVE*, but *WIDE* and with a prominent *EVERTED-CARINATED* rim. This is closely followed by *CONVEX : WIDE* spouts with *BEVELLED-LIPS* (13.7%). This third SPOUT\_FORM differs from the first in every recorded formal feature, and as such likely represents a completely distinct tradition of spout-making.<sup>92</sup> Crosstabulations with the HANDLE\_FORM variables (as well as with BODYFORM and variables of decorative techniques) will follow to confirm this.

In the existing literature, spout-rims have been mentioned as characteristic of certain ceramic styles; the bevelled-lip has been associated with the so-called Chongoyape style (see Chapter 3). More generally, the presence or absence of prominent lips on spout rims has been noted as reflecting a chronological trend: Jones (2010) summarises that earlier seriations (Sawyer & Maitland 1983) presumed short wide spouts with prominent lips to precede tall, lipless spouts, while more recent scholarship has reversed this pattern (Elera 1998, 2009; Toshihara 2002). However, no distinctions are cited for different *kinds* of prominent lips (*BEVELLED-LIP*, *EVERTED-CARINATED*, *DELINEATED*, OR *ROUND-BULGE*), nor for the shape of the spout with which these are associated. Also, spout and lip forms have thus far not been related to particular handle- or chamber-shapes in any systematic way, as the next section will do.

#### 5.1.C.2.7 Stirrup-Spouts: Handle-Spout Type-Varieties

The HANDLE\_ and SPOUT\_FORMS identified in the foregoing sections are now combined to produce an overall HANDLE.SPOUT\_FORM typology for stirrup-spout bottles. A crosstabulation of HANDLE\_FORM\_DETAILED and SPOUT\_FORM reveals an unsaturated matrix (see Table 5.35); i.e. not all identified HANDLE\_FORMS co-occur with all SPOUT\_FORMS. This is supported by statistical tests of significant difference

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<sup>92</sup> The only thing they share is an absence of decoration, but in a dataset where only 2% of stirrup-spouts have decoration on the spout, this is not a very revealing pattern.

and correlation, which reveal a strongly patterned set of relationships.<sup>93</sup> The most significant combinations are highlighted in Table 5.35. These are combinations with counts of 10 or more i.e.  $\geq 1.8\%$  valid, OR combinations where the proportion within either the *HANDLE\_FORM\_DETAILED* or *SPOUT\_FORM* is greater than 30%.

Combinations that contain “*OTHER*” as a permutation within either the handle- or spout-form are excluded. Thereby, 16 *HANDLE.SPOUT\_FORMS* are identified accounting for 79.5% of the sample. The combinations of handle- and spout-forms are evidently patterned, as is to be expected from cultural materials, but there is a great deal of diversity (Table 5.39).<sup>94</sup>

Crucially, Table 5.35 reveals a clear split in the combinations of angular handle shapes (incl. *TRAPEZOID*, *RIGHT-ANGLED*, and *ANGLED-UP*) and rounded handles (*ROUND*), which appear to associate respectively with an absence and presence of a *PROMINENT-LIP* on the spout.<sup>95</sup> To examine this relationship more closely, simplified variables of these characteristics were created: a binary variable for *ROUNDED* as opposed to *ANGULAR* handles (*HANDLE.ROUND\_YN*) and the previously mentioned binary variable for prominent lips (*SP\_PROMINENT.RIM\_YN*). These are crosstabulated in Table 5.36, and the basic types that emerge are labelled as *HANDLE.SPOUT\_TYPE A, B, C, and D*.

As expected, both the correlation and differentiation are highly statistically significant:<sup>96</sup> the trend is overwhelmingly towards *ANGULAR* handles (which by extension means *SLIM* handles, see Table 5.24) with *NO-LIP* spouts (226 vessels, 50.9%; *TYPE A*), and *ROUNDED* handles with *PROMINENT-LIPS* on the spout (164 vessels,

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<sup>93</sup> *DETAILED\_HANDLE\_FORM \* SPOUT\_FORM*:  $X^2=617.151$ ,  $df=64$ ,  $p=.000$ ;  $T_b=.338$ ,  $N=435$ ,  $p=.000$ .

<sup>94</sup> While it is not feasible to characterise the “other” handle- or spout-forms, their respective distribution does indicate specific spout- or handle- forms where the greatest diversity is to be found: the majority of *OTHER-SPOUT-FORMS* occur on *ROUND-SLIM* (39.0%) and *ANGLED-UP-SLIM* (31.4%) handles.

<sup>95</sup> *FLATTENED-ROUND* handles fall between the two, occurring primarily with flat-profile lips. However they are few in number ( $N=5$ ) and as such barely affect the overall proportions of the trend.

<sup>96</sup> *HANDLE.ROUND\_YN \* SP\_PROMINENT.RIM\_YN*:  $X^2= 255.224$ ,  $df=1$ ,  $p= .000$ ;  $T_b= .758$ ,  $N= 444$ ,  $p= .000$ .

36.9%; *TYPE B*), together accounting for 87.8% of the total sample. Only 12.2% (54 stirrup-spouts) have handle-spouts that do *not* fall into either one of these two *HANDLE.SPOUT\_TYPES*; *A* or *B* (Table 5.37).

We can therefore consider the basic and detailed variables and permutations used to create combinations of handle-spout forms as a Type-Variety system (see Chapter 4): the more general traits crosstabulated in Table 5.36 characterise *HANDLE.SPOUT\_TYPES A-D* (Tables 5.37 and 5.38), while the more specific variables of *SPOUT\_FORM* and *HANDLE\_FORM*, which take into account particular permutations of *HANDLE\_SHAPE* and *SPOUT\_RIM*, combine into *HANDLE.SPOUT\_VARIETIES*. The 16 *HANDLE.SPOUT\_FORMS* identified based on the crosstabulation in Table 5.35 are thus considered *HANDLE.SPOUT\_VARIETIES (A1 - C2)* and these are listed and illustrated in Tables 5.39 and 5.40.

#### 5.1.C.2.8 Summary of Handle-Spout Forms

As shown in Table 5.39, there are 16 *HANDLE.SPOUT\_VARIETIES*, which account for 79.5% of the stirrup-spout vessels. These represent the most common forms created by *FORMATIVE PERIOD* North Peruvian potters. This means that 20.5% of all stirrup-spouts in the dataset have a handle-spout variety that has been characterised as “other”, either in terms of the handle form, spout form, or both, which is a reflection of the diversity of forms and form-combinations that were created.

However this diversity exists primarily at the more fine-grained variety-level, as 87.8% of handle-spouts can be characterised in terms of one of two dominant *HANDLE.SPOUT\_TYPES*: *ANGULAR* handles with *NO-PROMINENT-LIP* on the spout (*Type A*), and *ROUNDED* handles with *PROMINENT-LIPS* on the spout (*Type B*) (Table 5.37). This division may allude to two separate bottle-making traditions that may be geographically or chronologically distinct, the possibility of which is examined in Chapter 7.

Within the varieties, rounded handle shapes are more diverse than angular ones. *ROUND* handles occur as both *SLIM* or *WIDE*. *ROUNDED* handles also combine with various *SPOUT\_SHAPES* and *SPOUT\_LIPS*, while *ANGULAR* handles co-occur almost exclusively with *NO-LIP* or *FLAT-PROFILE* rims. As noted earlier, partially sculpted handles are largely restricted to *ROUND : SLIM* handles (62.2%). *ROUND* handles

additionally have the possibility of decoration. In particular, this appears on handle-spout varieties B1 (52.2% of which are decorated, accounting for 37.5% of all decoration on handles), and B4 and B5 (80% and 70% of which are decorated, accounting for a further 12.5% and 10.9% respectively of HANDLE\_DECO\_YN) (see Table 5.41). Tests of statistical significant correlation and difference confirm the strength of this association.<sup>97</sup> *ANGULAR* handles are more restricted in the diversity of their execution, occurring exclusively as *SLIM*, not commonly featuring decoration (98.9%) nor *PART-SCULPTING* (94.0%), and being oriented almost exclusively *PERPENDICULAR* to the vessel chamber (91.7%). As such, *ANGULAR* (especially *TRAPEZOID*) handles may constitute a definitive and particular tradition that was possibly also restricted in space and time.

The next step in the classification of stirrup-spout forms is to combine the variables defined as BODYFORM and HANDLE.SPOUT\_TYPE - VARIETY, to determine COMPLETE\_FORM\_ST.SP. This will substantiate whether the identified handle-spout type-varieties do indeed indicate distinct overall stirrup-spout forms, and thereby can be linked more confidently to particular potting traditions.

### **5.1.C.3 Stirrup-spouts: Complete Form**

To characterise the overall form of stirrup-spout bottles, the previously identified forms of the vessel-chamber and the handle-spouts are combined into a variable for COMPLETE\_FORM.

The different options / levels for doing this are:

- HANDLE.SPOUT\_TYPE \* CHAMBER\_SHAPE (= COMPLETE.FORM\_ST.SP\_BASIC)
- HANDLE.SPOUT\_TYPE \* BODYFORM\_ST.SP (= COMPLETE.FORM\_ST.SP\_MEDIUM)
- HANDLE.SPOUT\_VARIETY \* BODYFORM\_ST.SP (= COMPLETE.FORM\_ST.SP\_DETAILED)

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<sup>97</sup> HANDLE.SPOUT\_VARIETY \* HANDLE\_DECO\_YN:  $X^2= 150.972$ ,  $df= 16$ ,  $p=.000$ ;  $T_b= .126$ ,  $N=435$ ,  $p= .000$ .

Significantly, regardless of the degree of detail used, the relationship is statistically significantly correlated and differentiated.<sup>98</sup> This allows us to discuss a number of trends at every level of formal detail, and substantiates the validity of the variables and their permutations used in this typological classification, as well as the strength of the association between the handle-spout and chamber- and body-forms.

#### 5.1.C.3.1 Stirrup-spouts: Complete Basic Form (Chamber-Shape + Handle-Spout Type)

Looking first of all at the most basic permutations, Table 5.42 shows the co-occurrences of CHAMBER\_SHAPE and HANDLE.SPOUT\_TYPE. Of the FULLY-FIGURATIVE vessels, 80% have ANGULAR-NO-LIP spouts (TYPE A). As such, handle-spout TYPE A is divided primarily between FULLY-FIGURATIVE and GLOBULAR-shaped vessels (33.8 and 47.1% respectively). Notably, 100% of 3-FACED-CARINATED-ANGULAR chambers have TYPE A handle-spouts. It is also worth noting that OTHER chamber shapes are far more likely to have handle-spouts of TYPE A (64.7%) than TYPE B (11.8%).

GLOBULAR and CUPCAKE-shaped chambers occur in approximately equal proportions with either of the dominant HANDLE.SPOUT\_TYPES; A or B. TYPE B is especially associated with GLOBULAR chambers, 77.4% of TYPE B occurring on GLOBULAR. Globular-chambered vessels additionally account for the majority of the less common HANDLE.SPOUT\_TYPES: 71.4% of C and 62.5% of D, although as a percentage of GLOBULAR chambers these are proportional with the sample as a whole (3.7% and 9.3%, compared to 3.2% and 9.0% across all stirrup-spouts). This is not the case for CUPCAKE-shaped stirrup-spouts, which occur exclusively with HANDLE.SPOUT\_TYPES A or B. To clarify; OTHER CHAMBER\_SHAPES tend to have handle-spouts TYPE A, while 'other' handle-spout TYPES C and D tend to occur on GLOBULAR chambers only. The commonest COMPLETE.FORM\_ST.SP\_BASIC forms are listed in Table 5.43, taking into account all combinations with eight or more ( $\geq 8$ ) examples AND any

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<sup>98</sup> HANDLE.SPOUT \_ TYPE \* CHAMBER\_SHAPE:  $X^2= 72.474$ ,  $df= 18$ ,  $p= .000$ ;  $T_b= .154$ ,  $N= 443$ ,  $p= .001$ .

HANDLE.SPOUT \_ TYPE \* BODYFORM\_ST.SP:  $X^2= 111.945$ ,  $df= 36$ ,  $p= .000$ ;  $T_b= .227$ ,  $N= 443$ ,  $p= .000$ .

HANDLE.SPOUT \_ VARIETY \* BODYFORM\_ST.SP:  $X^2= 474.425$ ,  $df= 192$ ,  $p= .000$ ;  $T_b= .108$ ,  $N= 435$ ,  $p= .004$ .

combinations where the proportion of either CHAMBER\_SHAPE or HANDLE.SPOUT\_TYPE permutation was greater than 40% (as per Table 5.42).

This is the most basic level of analysis for classifying the complete form of stirrup-spouts bottles. Although some general trends have been noted, the system at this level is almost fully saturated *as far as the two dominant HANDLE.SPOUT\_TYPES (A and B) are concerned*. If the HANDLE.SPOUT\_TYPES as previously hypothesised do indeed indicate two distinct potting traditions, all of the basic CHAMBER\_SHAPES appear to have been made in both (the only exception being 3-FACED-CARINATED-ANGULAR). To discern differences between presumed ceramic traditions more clearly, we need to consider the form of the vessel chamber in more detail, by using the BODYFORM variable and permutations that were defined earlier. In particular, we need to specify the GLOBULAR shape in terms of the nature of DDD\_SCULPTING, if we are to determine whether particular vessel forms correlate with particular handle-spout forms.

#### 5.1.C.3.2 Stirrup-spouts: Complete Medium Form (Bodyform + Handle-Spout Type)

Having previously characterised overall BODYFORM\_ST.SP (i.e. including modifications to the CHAMBER\_SHAPE by DDD\_SCULPTING), we now crosstabulate BODYFORM\_ST.SP permutations with the HANDLE.SPOUT\_TYPES (Table 5.44). As noted already, tests of statistical significance confirm a strong correlation and differentiation between the HANDLE.SPOUT\_TYPES and BODYFORM\_ST.SP (see footnote <sup>98</sup>).

For PURE-GLOBULAR, PURE-3-FACED-ANGULAR-CARINATED, as well as chambers that are already FULL-3D-SCULPTED, the proportions across the handle-spout Types remain the same as at the basic level using simply CHAMBER\_SHAPE. However, sub-groups can indeed be identified within the GLOBULAR chambers: GLOBULAR-ADD-ON-3D-SCULPTED is more likely to occur with handle-spout TYPE A (58.6%) than globular in its pure (unsculpted) form (32.1%). GLOBULAR-HIGH-RELIEF-SCULPTED occurs exclusively with handle-spout TYPE A. The CUPCAKE-shape is now split into two distinct associations: CUPCAKE-FIGURE-ON-TOP is more likely to have a TYPE B handle-spout (60%), while a PURE-CUPCAKE bodyform is more often found with handle-spout TYPE A (60%). The CYLINDRICAL chambers, while few in number (N=10 with an identified HANDLE.SPOUT\_TYPE), are now also clearly divided: CYLINDRICAL with



*ADD-ON-3D-SCULPTING* co-occur to 80% with handle-spout *TYPE B*. By contrast, the *PURE-CYLINDRICAL* form occurs with handle-spout *TYPES A, C or D*.

Unifying this crosstabulation into a new variable generates types of *COMPLETE.FORM\_ST.SPOUT\_MEDIUM*. Each form of the *COMPLETE\_ST.SP\_MEDIUM* forms has been assigned a code in accordance with previously used labels.<sup>99</sup> The forms listed in Table 5.45 (a-b) include combinations that occur eight times or more ( $N \geq 8$ ), or 4 times or more ( $N \geq 4$ ) but where either proportion (within *HANDLE.SPOUT\_TYPE* or within overall *BODYFORM*) is greater than 40%. The result are 19 *COMPLETE.FORM\_ST.SP\_MEDIUM* forms (including a permutation for “*OTHER*” combinations that adds up to 11.1%) (Table 5.45). These represent a typology of stirrup-spout forms created and used during the *FORMATIVE PERIOD* in the far north of Peru.

#### **5.1.C.3.3 Stirrup-spouts: Complete Detailed Form (Bodyform + Handle-Spout Variety)**

At the most detailed level, a crosstabulation of *BODYFORM\_ST.SP* and *HANDLE.SPOUT\_VARIETY* continue to indicate a strong statistical differentiation and correlation (footnote <sup>98</sup>, for Crosstab. Table see Appendix 6). To generate a representative list of forms for *COMPLETE.FORM\_ST.SP\_DETAILED*, we have considered:

- all combinations that occur seven or more times ( $N \geq 7$ )
- combinations that occur four or more times ( $N \geq 4$ ) but where the represented proportion of either the bodyform or the handle-spout variety is greater than 40%
- combinations that occur three or more times ( $N \geq 3$ ) but where the represented proportion of either the bodyform or the handle-spout variety is greater than 60%. (Combinations with an *OTHER*- handle-spout variety or bodyform have not been considered, leaving a total sample of 329 stirrup-spouts.)

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<sup>99</sup> The number (2) refers to the chamber-shape, a lower-case letter in brackets (b) indicates the kind of 3D-sculpting (where relevant), and the upper-case letters A-D indicate the handle-spout Type.

From this emerge 20 COMPLETE.FORM\_ST.SP\_DETAILED permutations, accounting for 73.6% of the sample (Table 5.48). The most significant are those combinations with the highest proportional percentages, because these show the exclusive links between certain BODYFORMS and specific HANDLE.SPOUT\_VARIETIES, which is what we hope to identify at this level of detail: more commonly it is particular handle-spout varieties that are exclusively or strongly associated with one specific BODYFORM, although a few BODYFORMS also have exclusive associations with a particular HANDLE.SPOUT\_VARIETY. Nonetheless the HANDLE.SPOUT\_TYPES (used to generate the COMPLETE.FORM\_ST.SP\_MEDIUM) remain highly determinant.

A number of HANDLE.SPOUT\_VARIETIES occur almost exclusively on *PURE-GLOBULAR* chambers:

- *VARIETY B6 (ROUND SLIM + CONVEX/TAPER-IN : WIDE : ROUND-BULGE)* is found only (100%) on *PURE-GLOBULAR* chambers.
- *VARIETY B4 (ROUND WIDE + STRAIGHT : WIDE : DELINEATED-RIM)* is found to 90% on *PURE-GLOBULAR* chambers, as is *VARIETY B5 (ROUND WIDE + STRAIGHT/CONVEX : WIDE : BEVELLED-LIP)*.
- *VARIETY B1 (ROUND WIDE + CONCAVE/STRAIGHT-EVERTED : WIDE : EVERTED-CARINATED)* is found to 89.1% on *PURE-GLOBULAR* chambers.

All these HANDLE.SPOUT\_VARIETIES have rounded handles with a prominent-lip on the spout (i.e. they belong to HANDLE.SPOUT\_TYPE B). These may well be linked to traditions of object-making where 3D-sculpting was not a common practice of ceramic-making.

Most BODYFORMS can co-occur with several different HANDLE.SPOUT\_VARIETIES, but there are three BODYFORMS that are predominantly associated with one particular HANDLE.SPOUT\_VARIETY each, i.e. these BODYFORMS do not commonly co-occur with other HANDLE-SPOUT\_VARIETIES. The absolute counts for these combinations is low (between 4 and 9 occurrences), but 83.3% of *PURE 3-FACED-ANGULAR-CARINATED* and 66.7% of *GLOBULAR-HIGH-RELIEF SCULPTED* have *VARIETY A2* handle-spouts (*TRAPEZOID SLIM PERPENDICULAR + STRAIGHT/CONCAVE : SLIM : NO-LIP*). Meanwhile 80.0% of *CYLINDRICAL-ADD-ON-3D-SCULPTED* have *VARIETY B2* handle-spouts (*ROUND*

*SLIM + STRAIGHT/CONVEX : WIDE : BEVELLED-LIP*). Although numerically rare in the sample, such strongly homogenous combinations of chamber- and handle-spout forms are suggestive of distinctive local trends.

One final thing to note is that the two *HANDLE.SPOUT\_VARIETIES* which include a specifically *TRAPEZOID* handle (combined with *STRAIGHT/CONCAVE* shaped spouts that have either *NO-LIP* or a *FLAT-PROFILE* rim, *VARIETIES A2* and *A4*), are both strongly associated with *FULL-3D-SCULPTED* chambers (46.8% and 54.5% respectively). Indeed, a crosstabulation of simply *HANDLE\_SHAPE* and *DDD\_SCULPTING* reveals that 46.0% of *TRAPEZOID* handles occur on *FULL-3D-SCULPTED* stirrup-spout bottles (compared to 23.6% of *FULL-3D-SCULPTED* across the sample as a whole). Meanwhile 63.4% of round handles and 75.0% of *FLATTENED-ROUND* handles occur on vessels that have *NO-3D-SCULPTING* (compared to an overall proportion of 48.9%) (Table 5.47). This seems to suggest a pattern linking more angular handle-shapes (i.e. towards *TRAPEZOID*) with a greater degree of *DDD\_SCULPTING* (i.e. towards *FULL-3D-SCULPTED*), while several of the *HANDLE.SPOUT\_VARIETIES* with *ROUND* handles are found only on *PURE-GLOBULAR* vessels. (We will consider this again once surface-texturing decorative techniques, such as appliqué texturing, have also been incorporated into the classification (Chapters 6 and 7).)

#### **5.1.C.4 Summary of Stirrup-Spout Forms**

The complete form of stirrup-spout bottles has been analysed at three levels of detail, using combinations of basic and detailed formal variables for the handle-spout and vessel shapes. Although the relationship is statistically significant at every level, the ‘Medium’ level of classification is perhaps the most useful. It reveals a clear patterning of association and disassociation (unlike the basic typology created using the most general form variables; *CHAMBER\_SHAPE* and *HANDLE.SPOUT\_TYPE*, which was fully matriculated for the dominant *HANDLE.SPOUT\_TYPES A* and *B*). Also, the 19 identified *COMPLETE.FORM\_ST.SP\_MEDIUM* form-types account for a higher proportion of the sample (90.7%) than the 20 forms generated using the most detailed level of analysis (*BODYFORM* and *HANDLE.SPOUT\_VARIETY*), which account only for 73.6% (or 55.6% if we include those bottles previously categorised as having an ‘*OTHER*’ *HANDLE.SPOUT\_VARIETY* or ‘*OTHER*’ *BODYFORM*). The most common permutations of *COMPLETE.FORM\_ST.SP\_MEDIUM* are thus illustrated in Table 5.48

(bearing in mind that the handle-spout forms of this level –HANDLE.SPOUT\_TYPES – distinguish only between *ROUNDED* and *ANGULAR* handles, and *PROMINENT-* or *NO-PROMINENT-LIP*, and as such do not show the exact kind of lip, nor the degree of handle roundness or angularity, nor handle- or spout widths).<sup>100</sup>

The identification of a strongly differentiated system of HANDLE.SPOUT\_TYPES and VARIETIES has been particularly significant, especially the high incidence of *ANGULAR* handles with *NO-LIP* on the spout (*TYPE A*) and *ROUNDED* handles with *PROMINENT-LIPS* on the spout (*TYPE B*), which together account for 87.8% of all stirrup handle-spouts. The selective distribution and association or disassociation of these HANDLE.SPOUT\_TYPES with particular CHAMBER\_SHAPES, as well as their modified sculpted versions (BODYFORMS), confirms that these basic handle-spout features are clearly indicative of specific traditions of bottle-making by Formative Period North Peruvian potters.

Crosstabulating the more detailed variables of BODYFORM and HANDLE.SPOUT\_VARIETY has allowed us to identify certain associations between more *specific* handle-spout forms and BODYFORM. In particular, these point towards a general trend that links the more angular handle shapes (especially *TRAPEZOID*) with a high degree of 3-dimensional sculpting (especially *FULL-3D-SCULPTED*). That said, all handle-shapes also occur on vessels with *NO-3D-SCULPTING* at all (especially *PURE-GLOBULAR*). Conversely, handle-spouts that are specifically *ROUND*, *WIDE*, and joined with *EVERTED-CARINATED*, *DELINEATED-RIM*, or *BEVELLED-LIP* spouts (HANDLE.SPOUT\_VARIETIES *B1*, *B4*, *B5*, which are also the ones where handle-decoration occurs, see Table 5.41) occur to 90% on un-sculpted *PURE-GLOBULAR* vessels, i.e. very rarely with any 3-dimensional sculpting.

So far we have only considered *form* to classify the stirrup-spouts. In that sense, *PURE-GLOBULAR* does not mean undecorated, it merely refers to an un-sculpted chamber (which could, for example, feature texturing applications to the surface, punctuating, incising, or painting). Chapter 6 will evaluate whether the form-types

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<sup>100</sup> Width applies only to rounded handles, given that all angular handles are slim, see Table 5.24.

classified here correlate with specific decorative techniques. Before that, we analyse the Form of single-spout and bridge-spout bottles.

## 5.1.D Single-Spout Bottles

### 5.1.D.1 Single-Spouts: Bodyforms

The single-spout bottles are the least diverse as far as CHAMBER\_SHAPES are concerned, with 77.2% characterised as *GLOBULAR* (see Table 5.49). As with the stirrup-spouts, the vast majority of single-spout bottles have a flat-base (91.7%). The major difference characterising the single-spouts in contrast to the stirrup-spouts is that only 10 single-spout bottles (5.2%) are *FULL-3D-SCULPTED*, compared to 22.8% of stirrup-spouts, and 71.0% of single-spouts have no *DDD\_SCULPTING* at all (Table 5.50).

*Excluding the FULL-3D-SCULPTED bottles and crosstabulating CHAMBER\_SHAPE with DDD\_SCULPTING, 81.0% of single-spout bottles have GLOBULAR chambers, and 62.5% are PURE-GLOBULAR without any 3-dimensional sculpting (Table 5.52). There is a statistically significant differentiation between CHAMBER\_FORM and DDD\_SCULPTING but not correlation, and overall frequencies are low.<sup>101</sup> Nonetheless certain trends can be noted. For example FIGURE-ON-TOP sculpting occurs on only 3.8% (N=7) of single-spouts, however 57.1% (N=4) of this is associated with CUPCAKE shaped vessels. The association is equally strong for the CHAMBER\_SHAPE, as 66.7% of CUPCAKE-shaped single-spouts have FIGURE-ON-TOP sculpting. A similar association between CHAMBER\_SHAPE and FIGURE-ON-TOP sculpting was noted on the stirrup-spouts (see Table 5.19).*

To characterise the overall form of single-spouts, an additional feature refers to the join between the spout and vessel chamber; whether it is attached separately or whether the modelling of the chamber flows seamlessly into the spout: binary variable SP.NECK\_FLOWS\_YN (see Variable Dictionary). To have a seamlessly flowing spout neck is rare, characterising just 20 single-spouts bottles in the sample (10.4%). Statistical tests of correlation or differentiation also reveal no significant relationship

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<sup>101</sup> Single-spouts *excluding FULLY-FIGURATIVE*; CHAMBER\_SHAPE \* DDD\_SCULPTING:  $X^2=269.149$ ,  $df=24$ ,  $p=.000$ ;  $T_b=.174$ ,  $N=184$ ,  $p=.041$ .

with the shape of the vessel-chamber, nor with the degree of 3-dimensional sculpting.<sup>102</sup> As this is related to the forming of the chamber, and as there is also no significantly patterned relationship with the spout-variables, SP.NECK\_FLOWS\_YN is included in the classification of BODYFORM.<sup>103</sup> Concatenating these three form variables for single-spouts and listing those unique combinations with counts of three or more (1.5% valid), nine overall BODYFORM\_SINGLE.SP can be distinguished (plus an 'OTHER' category for counts of less than three) (see Table 5.52).

#### 5.1.D.1.1 Single-Spout Bodyforms in Sum

With the vast majority of single-spouts having a *GLOBULAR CHAMBER\_SHAPE* (77.2%) and almost as many having *NO-3D-SCULPTING* (71.0%), the sample of single-spouts – as far as form is concerned – appears to be much more homogenous than the stirrup-spout bottles. Half (52.8%) of all single-spouts can be characterised using only the most common BODYFORM, which is *GLOBULAR, FLAT-BASE*, has *NO-3D-SCULPTING*, and has a separately attached neck. A key feature for formally differentiating single-spout forms may be within the spouts themselves, which will now be classified.

#### 5.1.D.2 Single-Spouts: Spout Forms

The frequencies of different SPOUT\_SHAPES for single-spout bottles are shown in Table 5.53 (for SPOUT\_SHAPE permutations see Table 5.14 or the Variable Dictionary). By far the most common shape (46.6%) is a spout that tapers in but is everted at the rim (*TAPER-IN-EVERTED*). *CONVEX* spouts do not occur on single-spout bottles in the sample, nor are there spouts that *TAPER-OUT* or are *IRREGULAR* in shape (see Table 5.15). In addition to SPOUT\_SHAPE, variables used to characterise spout-form are SPOUT\_THICKNESS and SPOUT\_RIM. Within single-spouts, 83.5% have *NO-PROMINENT-LIP* and 74.3% have specifically *NO-LIP* on the rim, but 78.2% have a rim that is *EVERTED*. 81.1% of single-spout spouts are *SLIM* (Tables 5.54 - 5.57).

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<sup>102</sup> SP.NECK\_FLOWS\_YN \* CHAMBER\_SHAPE:  $X^2= 19.173$ ,  $df= 7$ ,  $p= .008$ ;  $T_b= .100$ ,  $N=193$ ,  $p= .146$ . SP.NECK\_FLOWS\_YN \* 3D\_SCULPTING:  $X^2= 4.524$ ,  $df= 4$ ,  $p= .340$ ;  $T_b= -.129$ ,  $N=193$ ,  $p= .024$ .

<sup>103</sup> SP.NECK\_FLOWS\_YN \* SPOUT\_SHAPE:  $X^2= 12.357$ ,  $df= 4$ ,  $p= .015$ ;  $T_b= -.053$ ,  $N=189$ ,  $p= .369$ . SP.NECK\_FLOWS\_YN \* SPOUT\_RIM:  $X^2= 20.556$ ,  $df= 7$ ,  $p= .005$ ;  $T_b= .127$ ,  $N=183$ ,  $p= .101$ .

These variables have been combined (concatenated) into overall SPOUT\_FORMS for single-spout bottles. The dominant combinations (greater than 2%) have been labelled as separate SPOUT\_FORMS, the rest collected in an *OTHER* category (Table 5.58). The fact that almost a quarter (23.3%) of all single-spout SPOUT\_FORMS have been characterised as *OTHER* is indicative of the diversity in the sample, in spite of the high proportions for particular spout shapes and rims noted above. As expected from the individual frequencies, most of the identified SPOUT\_FORMS are *SLIM* and have *NO-LIP*. The fragmenting and diversity of the sample into seven forms (plus an *OTHER* category of 23.3%) is set against the fact that 35.6% are concentrated into just one SPOUT\_FORM; furthermore, the first three forms (59.7% cumulative) all refer to spouts that are *SLIM* and have *NO-LIP*, thus being differentiated only by a subtly different SPOUT\_SHAPE.

#### 5.1.D.2.1 Single-Spout Spout-Form in Sum

The single-spout SPOUT\_FORMS are different from those identified for the stirrup-spouts, and indeed from those defined for the bridge-spout bottles (see below). There is one clearly dominant SPOUT\_FORM on single-spouts: *TAPER-IN-EVERTED : SLIM : NO-LIP* (52.8%), beyond which the sample fragments. The next step is to combine the SPOUT\_FORM with the previously classified single-spout BODYFORMS, to classify COMPLETE\_SGL.SP\_FORM.

#### 5.1.D.3 Complete Single-Spout Form

A crosstabulation of single-spout BODYFORM and SPOUT\_FORM was calculated as statistically differentiated but not correlated.<sup>104</sup> In part this stems from the dominance of a few particular body- and spout-forms, leaving the frequencies for other combinations very low. Considering all combinations that occur eight or more times ( $N \geq 8$ ), combinations occurring four or more times ( $N \geq 4$ ) but not including an *OTHER* spout-or bodyform, AND combinations occurring three (3) or more times ( $N \geq 3$ ) but where either proportion is  $\geq 75\%$ , 12 COMPLETE\_SGL.SP\_FORM permutations are classified (plus an *OTHER* category).<sup>105</sup> These 12 complete single-spout forms account

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<sup>104</sup> BODYFORM\_SGL.SP \* SPOUT\_FORM:  $\chi^2 = 158.400$ ,  $df = 63$ ,  $p = .000$ ;  $T_b = .037$ ,  $N = 180$ ,  $p = .600$ .

<sup>105</sup> Two of the BODYFORMS (*FULL-3D-SCULPTED* and *GLOBULAR-FLOWING-NECK*) have been included as occurring with "*VARIOUS-SPOUT-FORMS*" because they occur with several specified as well as *OTHER* spout-forms. This intuitively informed step was taken to prevent these two >>

for 76.7% of the sample and are listed in Table 5.59 and illustrated in Table 5.60.

Table 5.59 (a-b) shows that the most common COMPLETE\_SGL.SP\_FORM is, perhaps not surprisingly; *GLOBULAR : FLAT-BASE : SEPARATE-NECK : NO-3D-SCULPTING* with a *SLIM : TAPER-IN-EVERTED : NO-LIP* spout (N=47, 26.1%). This is closely followed by the category for *OTHER* complete forms (23.3%), and the wide spread for the rest of the sample reflects the diversity of forms already mentioned. However this diversity must be considered against the previously noted patterns which showed that 77.1% of single-spout chambers are *GLOBULAR* (see Table 5.49), and 77.2% of this (i.e. 62.5% in total) have no DDD\_SCULPTING to modify the *GLOBULAR* shape (Table 5.51).

Without positive tests of statistically significant correlations or differentiations, and with only very low frequencies, a few other patterns are nonetheless notable: for example, 66.7% of *CUPCAKE*-shaped single-spouts have *STRAIGHT* spouts, and 57.1% of *FIGURE-ON-TOP* sculpting also co-occurs with *STRAIGHT* spouts. Running tests for other variables, the separately recorded feature of *EXTERNAL-APPLIQUE-CRESTS* (T\_APPL\_CRESTS = 1) is associated almost exclusively with *STRAIGHT* and with *TAPER-IN* spout-shapes.

#### **5.1.D.4 Single-Spout Form in Sum**

In general, single-spout chambers (BODYFORM) are very homogenous, with 62.5% characterised as *PURE-GLOBULAR*. 71% of single spouts have *NO-3D-SCULPTING*. Spouts are characterised by one dominant form; *TAPER-IN-EVERTED : SLIM : NO-LIP* (52.8%). 74.3% have *NO-LIP* on the rim, and lip-less spout rims are frequently *EVERTED* (78.2%) which is much rarer on stirrup-spouts (40.4%). However thereafter, the recorded permutations combine in such varied ways as to make it difficult to define further distinct formal groupings for single-spout bottles with any confidence.

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CHAMBER\_SHAPES from disappearing from the typology of complete single-spout forms, not due to their absolute rarity but due to the diversity of spout-forms with which they co-occur.



### 5.1.E Bridge-Spout Bottles

The final bottle type are the bridge-and-spout bottles. All the bridge-spout bottles in this sample have a single-spout and a solid bridge that joins this spout to a modelled feature or part of the vessel.<sup>106</sup> With just 37 bridge-spouts in the sample, it seems that this is not a common OBJECT\_TYPE made and used by people in Formative Period North Peru. Nonetheless their presence in various museum collections (in particular under the label “Cupisnique” in the Museo Larco) makes their consideration necessary and worthwhile. One key question is whether the bridge-and-spout form is itself diagnostic of belonging to a different stylistic group (and thereby culture, tradition, region, or period) and should be categorised as such, or whether bridge-and-spout bottles occur with the same characteristics as other bottles, and are merely a variation of single- and stirrup-spout bottle-making.

#### 5.1.E.1 Bridge-Spouts: Bodyforms

As with the other bottle types, the majority (60%) of bridge-spouts are globular in shape (Table 5.61). In contrast to other bottles types however, the next most common CHAMBER\_SHAPE is *GLOBULAR-CARINATED* with 14.3%, which is a significantly higher proportion than we find amongst single- and stirrup-spouts. The greatest difference is that 62.2% of bridge-spout bottles have a 3D-sculpted *FIGURE-ON-TOP* (Table 5.62), compared to 3.6% and 7.8% on single- and stirrup-spouts respectively, and 9.4% across all bottles (see Table 5.12).

The combined overall BODYFORMS for bridge-spouts (BODYFORM\_BRDG.SP) are shown in Table 5.63. By far the most common are *GLOBULAR* chambers with *FIGURE-ON-TOP* sculpting (37.1%), whereby the sculpted figure forms one of the supports for the “bridge” to the spout.

#### 5.1.E.2 Bridge-spout Spout Forms

Table 5.64 and 5.65 show the SPOUT\_SHAPES and SPOUT\_RIMS for bridge-spout bottles in descending order of frequency. The most common spout-shape, in contrast to both single- and stirrup-spouts, is *TAPER-IN* (35.3%). *IRREGULAR-STRAIGHT* spouts (26.5%) are a form that is unique to the bridge-spout bottles. In terms of rims, the

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<sup>106</sup> as opposed to the double-spout-and-bridge bottles, seen for example on Paracas and Nasca ceramics.

overwhelming majority (79.4%) of bridge-spouts have no lip, and 8.8% are classed as *OTHER-RIM*, meaning that almost none of the specific spout-rims recorded for single- and stirrup-spouts are found on bridge-spout bottles.

Combining the spout variables into overall *SPOUT\_FORMS* and labelling all combinations occurring twice or more results in the *SPOUT\_FORMS* for bridge-spout bottles shown in Table 5.66. The commonest three spout forms account for 73.5% of the sample. They only differ in the shape of the spout shaft:

- *TAPER-IN : SLIM : NO-LIP*
- *IRREGULAR : SLIM : NO-LIP*
- *STRAIGHT : SLIM : NO-LIP*

### **5.1.E.3 Bridge-Spout “handles”**

All bridge-spout bottles by definition have a solid, curved handle joining the spout to another part of the vessel. 81.1% of these bridge-spout handles are recorded as *PART-SCULPTED* (in part resulting from the high incidence of *FIGURE-ON-TOP* sculpting) and all of these are oriented in a *FRONT-TO-BACK* alignment. However statistical tests show no significant correlation or differentiation between the *PART-SCULPTED* handles and the here classified *SPOUT\_FORMS* for bridge-spout bottles.<sup>107</sup> As there is no discernible trend, and to prevent the already small sample from becoming even more fragmented, we do not define a ‘handle-form’ for bridge-spout bottles, nor use the handle as a variable in defining *COMPLETE\_BRDG.SP\_FORM*.

### **5.1.E.4 Complete Bridge-Spout-Forms**

When bridge-spout *BODYFORMS* are crosstabulated with *SPOUT\_FORMS* there is a statistically significant differentiation but not correlation (Table 5.67).<sup>108</sup> This is likely (at least in part) due to the small number of bridge-spouts in the sample, which hinders the quality of statistical results; the highest count for any one permutation of *COMPLETE\_BRDG.SP\_FORMS* is five for *GLOBULAR : FIGURE-ON-TOP + TAPER-IN : SLIM :*

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<sup>107</sup> *HANDLE\_PART.MOD. \* SPOUT\_FORM*: X<sup>2</sup>= 8.005, df= 6, p= .238; T<sub>b</sub>= .175, N= 34, p= .247.

*HANDLE\_ORIENT. \* SPOUT\_FORM*: X<sup>2</sup>= 5.000, df= 5, p= .416; T<sub>b</sub>= .260, N= 25, p= .063.

<sup>108</sup> *BODYFORM\_BRDG.SP \* SPOUT\_FORM*: X<sup>2</sup>= 75.726, df= 35, p= .000; T<sub>b</sub>= .110, N= 34, p= .489.

*NO-LIP*. Nonetheless it is worth noting that both of the *FULL-3D-SCULPTED* bridge-spouts account for both of the *IRREGULAR : WIDE : NO-LIP* spouts, and that all *GLOBULAR : ADD-ON-3D-SCULPTED* bridge-spouts have *TAPER-OUT : SLIM : NO-LIP* spouts. Also, 80% of *GLOBULAR-CARINATED : FIGURE-ON-TOP* bridge-spouts have *IRREGULAR : SLIM : NO-LIP* spouts.

Therefore, the separately listed *COMPLETE\_BRDG.SP\_FORMS* shown in Tables 5.68 and Table 5.69 includes all combinations occurring twice or more ( $N \geq 2$ ) and that do not include an *OTHER* permutation within the spout- or body forms. For three of those form-permutations, the only difference is in the shape of the spout (*IRREGULAR*, *TAPERS-IN*, or *STRAIGHT*). Effectively, there are thus just five *COMPLETE\_BRDG.SP\_FORMS*:

1. *FULL-3D-SCULPTED* with *WIDE* spouts ( $N=2$ ),
2. *GLOBULAR:ADD-ON-3D-SCULPTED* with *TAPER-IN* spouts ( $N=3$ ),
3. *GLOBULAR-CARINATED* with *FIGURE-ON-TOP* sculpting and *IRREGULAR* spouts ( $N=4$ ),
4. *GLOBULAR* with a *FIGURE-ON-TOP* and range of *SLIM*, *NO-LIP* spouts ( $N=9$ ),
5. and *PURE-GLOBULAR* with a *STRAIGHT/TAPER-IN* spout ( $N=3$ ).

#### **5.1.E.5 Bridge-Spout Forms in Sum**

The bridge-spout forms are very limited. Apart from the *FULL-3D-SCULPTED* and *ADD-ON-3D-SCULPTED* examples (eight (8) cases, 21.6% cumulative), and six (6) cases without 3D-sculpting, the bridge-spout bottles in this sample are *GLOBULAR* in shape, with or without carination, and have a sculpted *FIGURE-ON-TOP*. While there are some formal similarities with the stirrup- and single-spout bottles, there are also clear formal distinctions. Some *BODYFORMS* and *SPOUT\_FORMS* do overlap (such as *PURE-GLOBULAR*, *FULLY-FIGURATIVE*, and *STRAIGHT:SLIM:NO-LIP*), but the proportions are starkly different: *FULLY-FIGURATIVE* forms occur on just two bridge-spout bottles (5.7%, compared to 22.8% of stirrup-spouts). Neither the *IRREGULAR* shaped spouts nor the *GLOBULAR-CARINATED* *CHAMBER\_SHAPE* are found on stirrup-spouts. One final trait to note is that 40% of bridge-spouts have a whistling mechanism built in, a feature that is unique to the bridge-spouts and further sets them apart. As such, the bridge-spout bottles appear to belong not only to a different category of object but –

as suggested by the analysis of this chapter and the next – possibly a distinct potting tradition as well (see also Chapter 7).

## 5.2 ANALYSIS OF FORM IN SUM

This chapter has used quantitative methods to categorise the form of 750 ceramic vessels in the dataset, divided into open containers (bowls and beakers) and bottles (stirrup-, single-, and bridge-spouts). First of all, a comparison of formal traits across all bottle-types highlighted patterns in the execution of the different bottle-types, indicating that they are more significantly differentiated than by their OBJECT\_TYPE alone. Particular chamber shapes occur only with particular handle- and/or -spout shapes, or indeed only as one of the three bottle-types discussed here.

Secondly, recurring combinations of formal traits have been identified and used to list separate overall ‘complete’ forms for each of the object-types, or parts thereof such as BODYFORMS and SPOUT\_FORMS. In each case, the listed forms represent the most common combinations of formal traits in the dataset. On single-spouts, the prevalence of a few basic traits (such as *GLOBULAR* chambers and separately attached spouts with *EVERTED*, *NO-LIP* rims), coupled with a diversity of combinations, made it very hard to identify starkly differentiated COMPLETE\_SGL.SP\_FORMS. On the other hand, for stirrup-spouts, the sample was polarised into *FULLY-FIGURATIVE*/*FULL-3D-SCULPTED* bottles on the one hand, and *PLAIN-GLOBULAR* forms on the other. The statistically significant distribution of specific handle-spout forms across these very distinct BODYFORMS further supports the separation of the stirrup-spouts into at least two separate form-type categories. Of *TYPE B* handle-spouts, 63.4% occur on *PURE-GLOBULAR* bodied vessels. This precise combination represents 23.5% of the whole stirrup-spouts sample (Table 5.44). A further 17.2% of the stirrup-spout sample consists of *FULL-3D-SCULPTED* vessels with *TYPE A* handle-spouts. This means that, in spite of the great diversity of forms recorded and discussed in this chapter, over 40% of stirrup-spouts can be characterised by COMPLETE.FORM\_St.SP\_MEDIUM permutations 1A and 2B.

The classification of a Type-Variety system of HANDLE.SPOUT\_FORMS for stirrup-spout bottles is of particular significance. These have been shown to be strongly

correlated with specific BODYFORMS and are thus crucial in the definition of COMPLETE\_ stirrup-spout forms. The fact that the handle- and/or spout- shape in particular may be diagnostic of cultural or chronological groupings has been noted by other scholars (see Chapter 3). However the level of detail recorded here, the quantitative processing, and the classification of a Type-Variety system for stirrup-spout bottle handle-spouts represent an entirely new contribution to scholarship on this material culture.

The validity of 'form', in particular of the handle-and-spout form, as a potential indicator of stylistic and thereby cultural difference, needs to be examined in relation to further technological traits. To substantiate assumptions about stylistic difference made thus far on the basis of form alone, the next chapter (Chapter 6) analyses the distribution of decorative techniques such as painting and surface-texturing. These are examined in relation to each other, but more so in relation to the form-types identified in this chapter. Chapter 6 thus examines how particular decorative techniques are associated with specific stirrup-, single-, or bridge-spout bottle forms or form-traits, and indeed how these trends might further differentiate or associate the groupings thus far identified.

## 6 QUANTITATIVE ANALYSIS OF DECORATIVE TECHNIQUES

### 6.0 INTRODUCTION TO DECORATIVE TECHNIQUES

As well as forming the shape of a ceramic vessel or other object, there are a number of techniques with which potters can choose to treat the surface of their creations. As already noted, the ceramic traditions developed during the Formative Period very generally show a prevalence of polychrome painting in the South and three-dimensional sculptural decoration in the North of Peru (Donnan 1992:25). Chapter 5 analysed the presence and nature of three-dimensional sculpting to create or modify the vessel chambers of bottles and open containers. This chapter will identify patterns in the use and combination of different surface treatments on vessels, in particular the use of surface texturing (incl. various kinds of appliqué, combing, and punctating), as well as incising, and painting. These decorative techniques will be analysed in detail and cross-tabulated with the object-types and vessel-forms already defined. This way we can interpret statistically significant patterns that will inform the final discussion of ceramic classes, types, and varieties (Chapter 7).

As noted, this separation of form and decoration is purely practical, in that these are all separately defined and recorded variables that try to capture the traits that characterise ceramics in FORMATIVE PERIOD North Peru. It does not presuppose a conceptual separation between shape and surface treatments in the mind of the potter.<sup>109</sup> To the contrary, it is assumed that the patterned co-occurrence of certain formal and technical traits will be found, and this can be used to infer that potters habitually combined particular features together, thereby revealing insights into ancient potting traditions.

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<sup>109</sup> We do not know if one person created a ceramic vessel from start to finish, or if several craftspeople worked on distinct sections of the *chaîne opératoire*. Examples of “duo-location” (where ceramics are made in one place and decorated in another) have been recorded, for example from the Cuzco area (Mohr-Chavez 1992, cited in Druc 2013:488).

## 6.1 SURFACE-TEXTURING

There are a number of different ways of texturing the ceramic surface. I have grouped these into 3-dimensional surface-texturing (created through appliqué such as *APPLIQUÉ-RELIEF-CARVING*, *APPLIQUÉ-TEXTURES* and/or the deep gouging and elevating of bits of the clay surface (*DEEP-INCISION/D-PUNCTATING*)), and 2-dimensional surface-texturing such as *COMBING*, *ROLLER-/ROCKER-STAMPING*, or simple, shallow *PUNCTATING*.<sup>110</sup> Examples/descriptions of the recorded techniques can be seen in the Variable Dictionary and Table 6.1. Incising and painting are each discussed in their own section within this chapter. The surface finish in terms of burnishing or polishing was also recorded, and will be noted in Chapter 7. Of the entire sample 78.7% (and 82.6% of stirrup-spouts) are burnished, however there was no statistically significant correlation or difference with form or decorative variables. As such burnishing will not be considered in the analysis of surface treatments presented in this chapter.

### 6.1.A Surface-Texturing across all Object-Types

In the sample, 25.2% of all objects have surface-texturing of some kind (Table 6.2). How different texturing techniques are used across different *OBJECT\_TYPES* is shown in Table 6.3. The relationship is calculated as statistically significantly differentiated and correlated.<sup>111</sup> The 3-dimensional kinds of texturing occur primarily on stirrup-spouts: 88.1 % of *APPLIQUÉ-TEXTURING*, 92.6% of *DEEP-INCISION/D-PUNCTATING*, 100% of *CARVED-APPLIQUÉ-RELIEF*. Conversely, there is a disproportionately high percentage of *PUNCTATING* and *COMBING* (both 2D-texturing techniques) on single-spouts: 52.5% and 46.0% respectively, given that single-spouts themselves make up just 23.8% of the sample. Only one bowl and four beakers have *TEXTURING* of any kind. No figurines or ocarinas are decorated with surface-texturing. Clearly, the use of different texturing techniques is specific to particular kinds of ceramic objects.

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<sup>110</sup> *EMBOSSING* has been mentioned as part of *3D\_SCULPTING* to classify chamber forms (Chapter 5), because this modification is integral to the shape of the vessel itself. As it only affects three (3) cases in the sample, it doesn't skew a trend either way it was classified.

<sup>111</sup> *SURF.TXT\_kind \* OBJ\_TYPE*:  $X^2= 140.913$ ,  $df= 42$ ,  $p= .000$ ;  $T_b= -.150$ ,  $N=897$ ,  $p= .000$ .

Categorising the texturing techniques as simply two- or three-dimensional (SURF.TXT\_2D.3D), the pattern becomes more extreme (Table 6.4):<sup>112</sup> although single-spouts have the highest proportional incidence of *TEXTURING* in general (34.4%), 90.7% of *3D-TEXTURING* is on stirrup-spout bottles, in other words; 13.6% of stirrup-spouts are decorated with *3D-TEXTURING*, compared to just 2.6% of single-spouts. Only one bowl and one bridge-spout bottle have *3D-TEXTURING*. Meanwhile, single-spouts account for 39.7% of *2D-TEXTURING*. Having said this, we must bear in mind that 70.1% of stirrup-spouts and 65.6% of single-spouts have *NO-TEXTURING* at all (Tables 6.3 and 6.4). Therefore, to determine how the presence of texturing is distributed across the previously classified stirrup- and single-spout forms, we will now consider these two bottle-types individually.

### 6.1.B Surface-Texturing on Stirrup-Spouts

Having identified COMPLETE\_FORM for stirrup-spouts, we use these to crosstabulate with each of the different texturing variables, to determine the relationship between surface-texturing and form. We begin by crosstabulating COMPLETE\_FORM\_ST.SP\_MEDIUM with each of the texturing variables: SURF.TXT\_YN; SURF.TXT\_2D.3D; and SURF.TXT\_KIND. In each case, statistical tests of significance reveal strong a correlation and differentiation (Tables 6.5, 6.6, and 6.7).<sup>113</sup>

First of all we analyse the distribution of texturing in and of itself i.e. SURF.TXT\_YN (presence or absence). It appears that complete *FULL-3D-SCULPTED* forms are rarely decorated with *TEXTURING*, while complete forms with *GLOBULAR* chambers account for most of the *TEXTURING* (Table 6.5). Simply crosstabulating CHAMBER\_SHAPE and SURF.TXT\_YN reveals that just 11.7% of *FULLY-FIGURATIVE* vessels have *TEXTURING* (Table 6.8). Meanwhile 37.6% of *GLOBULAR* chambers have *TEXTURING*, accounting for 76.5% of all surface-texturing. A significant proportion (38.9%) of *CUPCAKE* chambers

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<sup>112</sup> SURF.TXT\_2D.3D \* OBJ\_TYPE:  $X^2= 106.829$ ,  $df= 14$ ,  $p= .000$ ;  $T_b= -.186$ ,  $N=897$ ,  $p= .000$ .

<sup>113</sup> COMPLETE\_ST.SP\_FORM\_MEDIUM \* SURF.TXT\_YN:  $X^2= 215.445$ ,  $df= 18$ ,  $p= .000$ ;  $T_b= -.245$ ,  $N=443$ ,  $p= .000$ .

COMPLETE\_ST.SP\_FORM\_MEDIUM \* SURF.TXT\_2D.3D:  $X^2= 233.962$ ,  $df= 36$ ,  $p= .000$ ;  $T_b= -.241$ ,  $N=443$ ,  $p= .000$ .

COMPLETE\_ST.SP\_FORM\_MEDIUM \* SURF.TXT\_KIND:  $X^2= 374.584$ ,  $df= 108$ ,  $p= .000$ ;  $T_b= -.209$ ,  $N=443$ ,  $p= .000$ .



are also decorated with *TEXTURING*.<sup>114</sup> Furthermore, Table 6.6 shows that specifically 3-dimensional texturing is essentially restricted to just three *COMPLETE\_FORM\_ST.SP\_MEDIUM* forms; 2-B, 2(a)-B, and 5(b)-B, i.e. all based on the *GLOBULAR* and *CUPCAKE* shapes and all with *TYPE B* handle-spouts.

### **6.1.B.1 Surface-Texturing and Handle-Spout Form**

Indeed, the key to the relationship between texturing and form appears to be the *HANDLE.SPOUT\_TYPE* rather than *BODYFORM*: *FULLY-FIGURATIVE* vessels with handle-spout *TYPE A* (*COMPLETE\_FORM\_ST.SP\_MEDIUM 1-A*) have an almost complete absence of texturing (97.4% *NO-TEXTURING*), but for *FULLY-FIGURATIVE* vessels with handle-spout *Type B* (*COMPLETE\_FORM\_ST.SP\_MEDIUM 1-B*) have an 80% presence of *TEXTURING*. Similarly, *GLOBULAR-ADD-ON-3D-SCULPTED* with *TYPE A* handle-spouts (2(a)-A) have 100% absence of texturing, while the same *BODYFORM* with handle-spout *TYPE B* (2(a)-B) has just 22.2% of cases without texturing of some kind (Table 6.5).

We thus look at the relationship between handle-spout forms and use of texturing techniques more closely. Making the calculation directly (*HANDLE.SPOUT\_TYPE* \* *SURF.TXT\_YN* (Table 6.9), 84.3% of *TEXTURING* occurs on vessels with *HANDLE.SPOUT\_TYPE B* and conversely 72% of *HANDLE.SPOUT\_TYPE B* are on vessels with *TEXTURING*. Meanwhile only 10.7% of *TEXTURING* occurs on stirrup-spouts with a *TYPE A* handle-spout (i.e. 6.6% of *TYPE A* are associated with vessels that *have* texturing). *HANDLE.SPOUT\_TYPES C* and *D* also rarely co-occur with *TEXTURING*. Specifically 3-dimensional texturing occurs to 93.8% on bottles with *HANDLE.SPOUT\_TYPE B* (Table 6.10).

The relationship between the *HANDLE.SPOUT\_TYPE* and the use of *specific kinds* of surface-texturing techniques is shown in Table 6.11, and statistical tests of significant correlation and difference point to a strongly patterned distribution:<sup>115</sup> the only kind of texturing that occurs to any significant proportion on vessels with handle-spout *Types other than B* is *SCRATCHING/COMBING*, 39.1% of which co-occurs with

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<sup>114</sup> *CHAMBER\_SHAPE* \* *SURF.TXT\_YN*:  $\chi^2= 33.893$ ,  $df= 7$ ,  $p= .000$ ;  $T_b= .087$ ,  $N=498$ ,  $p= .019$ .

<sup>115</sup> *HANDLE.SPOUT\_TYPE* \* *SURF.TXT\_KIND*:  $\chi^2= 222.750$ ,  $df= 18$ ,  $p= .000$ ;  $T_b= .404$ ,  $N=444$ ,  $p= .000$ .

HANDLE.SPOUT\_TYPE A. The reason for this may stem from the fact that scratch-texturing can be achieved by incising many individual lines and as such may (at least in some cases) be more closely related to incising than to other types of surface-texturing. The relationship between form and the use of surface-texturing is clearly highly selective, as texturing appears to have been the exclusive purview of potters making stirrup-spouts with rounded handles and prominent lips on the spout rim (HANDLE.SPOUT\_TYPE B). We now analyse this relationship more closely.

Although there is clearly a strong relationship between HANDLE.SPOUT\_TYPE B and texturing, not all prominent rims are equally associated with surface-texturing. Table 6.12 shows the crosstabulation of specific spout-rims (SPOUT\_RIM) and kind of texturing (SURF.TXT\_KIND), and statistical tests of significant correlation and difference confirm strong patterns within the relationship.<sup>116</sup> For example, vessels with *BEVELLED-LIP* spouts almost always have *TEXTURING* (only 10.9% have none). *BEVELLED-LIPS* co-occur with all texturing techniques except *CARVED-APPLIQUÉ-RELIEF*, but the most frequent associations are with *DEEP-INCISION/D-PUNCTATING* and *ROLLER-/ROCKER-STAMPING*, where vessels with *BEVELLED-LIPS* account for 65.2% and 64.5% of incidence respectively.

*EVERTED-CARINATED* lips co-occur with all kinds of texturing, but 30.4% have specifically *APPLIQUÉ-TEXTURES*, and indeed vessels with *EVERTED-CARINATED* lips account for 55.6% of *APPLIQUÉ-TEXTURES*. They also account for half of vessels in the sample with *CARVED-APPLIQUÉ-RELIEF*. *ROUND-BULGE* rims however, although also a “*PROMINENT*” rim form, are *not* associated with surface-texturing (86.4% of stirrup-spouts with *ROUND-BULGE* rims have *NO-TEXTURING*, Table 6.12).

The strong correlation/differentiation between texturing with different spout-lips makes the logical next step to compare texturing and HANDLE.SPOUT\_VARIETY. Table 6.13 shows the crosstabulation of HANDLE.SPOUT\_VARIETY with the presence of 2-

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<sup>116</sup> SPOUT\_RIM \* SURF.TXT\_KIND:  $X^2 = 317.190$ ,  $df = 36$ ,  $p = .000$ ;  $T_b = .467$ ,  $N = 448$ ,  $p = .000$ .

dimensional or 3-dimensional texturing, and this too demonstrates a very strongly correlated and differentiated relationship:<sup>117</sup>

HANDLE.SPOUT\_VARIETIES A4, A5, A6, A7 as well as C2 and B7 are on vessels that have a 100% absence of texturing. Texturing is also conspicuously absent on vessels with handle-spout VARIETIES A2 (96.8%), A3 (92.9%), C1 (92.3%) and A1 (88.3%). By contrast, stirrup-spouts with the following handle-spouts varieties are highly likely to have two- or three-dimensional surface-texturing (bearing in mind overall proportions of 17.2% for 2D-TEXTURING, and 14.9% for 3D-TEXTURING): VARIETY B1 (21.7% and 47.8% respectively), B2 (50% and 36.7%), B3 (55.6% and 33.3%), B4 (40% and 40%) and B5 (40% and 60% respectively). As noted before, the handle-spout varieties with round-bulge rims (B6 and B7) are the only varieties within TYPE B that are rarely associated with TEXTURING (75% of vessels with handle-spout VARIETY B6 and 100% of B7 have NO-TEXTURING) (all Table 6.13). There thus appear to be two distinct potting traditions where those potters using texturing as a decorative technique were also making stirrup-spout bottles with prominent lips on the rim, while those who did not use texturing also did not model prominent-lipped spout rims. More specifically, particular spout-rims and the previously classified handle-spout varieties are strongly patterned with surface-texturing.

### **6.1.B.2 Surface-Texturing and Complete Stirrup-Spout Form**

As there is clearly a close relationship between the HANDLE.SPOUT\_VARIETY (especially specific spout-rims) and texturing, both in terms of presence or absence and in kind, the permutations for COMPLETE\_FORM\_ST.SP\_DETAILED were crosstabulated with SURF.TXT\_YN. For presence/absence, statistical tests of significance show a strong differentiation but not correlation (Table 6.14).<sup>118</sup> To see patterns within those vessel forms that *have* texturing we filter out those COMPLETE\_FORM\_ST.SP\_DETAILED permutations that rarely or never occur with texturing (less than 15% or  $N \leq 2$  TEXTURING, as well as all un-textured cases), and

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<sup>117</sup> HANDLE.SPOUT\_VARIETY \* SURF.TXT\_2D.3D:  $X^2 = 220.405$ ,  $df = 32$ ,  $p = .000$ ;  $T_b = .142$ ,  $N = 435$ ,  $p = .000$ .

<sup>118</sup> COMPLETE\_FORM\_ST.SP\_DETAILED \* SURF.TXT\_YN:  $X^2 = 177.043$ ,  $df = 23$ ,  $p = .000$ ;  $T_b = -.115$ ,  $N = 329$ ,  $p = .016$ .

cross-tabulate the remaining “detailed” form permutations with SURF.TXT\_KIND. The result reveals no significant correlation or differentiation between the *kind* of texturing and COMPLETE\_FORM\_ST.SP\_DETAILED (Table 6.15).<sup>119</sup> With just 86 cases and a total of 15 permutations the data fragments. The two most frequent co-occurrences are nonetheless worth noting:

- COMPLETE\_FORM\_ST.SP\_DETAILED 2-B1 (PURE-GLOBULAR + ROUND:WIDE CONCAVE/STRAIGHT-EVERTED:WIDE : EVERTED-CARINATED) with APPLIQUÉ-TEXTURES (N=13)
- COMPLETE\_FORM\_ST.SP\_DETAILED 2-B1 (PURE-GLOBULAR + ROUND:SLIM STRAIGHT/CONVEX :WIDE : BEVELLED-LIP) with ROLLER-/ROCKER-STAMPING (N=6).

Therefore, although there is a strong correlation and differentiation between specific spout-rims and the kind of texturing applied to the surface (Table 6.11), a usable classification of stirrup-spout forms with and without the possibility of texturing is best based on COMPLETE\_ST.SP\_FORM\_MEDIUM.<sup>120</sup> Tables 6.16 and 6.17 illustrate the distribution of TEXTURING (presence/absence) on COMPLETE\_FORM\_ST.SP\_MEDIUM in a simplified way: Table 6.16 shows those forms that are commonly associated with texturing. The percentages are taken from Table 6.5. Table 6.17 shows forms that never or rarely occur with texturing. We must bear in mind that Table 6.16 does not illustrate additional details – such as specific *kinds* of texturing and their associations with particular spout-rims – which have been analysed in the preceding discussion. Nonetheless these are a valid and clear illustration of the strong stylistic trends between form and texturing traits. It indicates clear “traditions” of surface-texturing use, corresponding with particular stirrup-spout forms.

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<sup>119</sup> (excluding complete forms that are not commonly textured; SURF.TXT.FILTER\_DETAILED =1, as well as SURF.TXT\_KIND =0); COMPLETE\_ST.SP\_FORM\_DETAILED \* SURF.TXT\_KIND:  $\chi^2=70.514$ ,  $df=45$ ,  $p=.009$ ;  $T_b=.112$ ,  $N=86$ ,  $p=.188$ .

<sup>120</sup> This is further warranted by the fact that more of the dataset is characterised by using the COMPLETE\_FORM\_ST.SP\_MEDIUM variable (443 cases compared to 329 for DETAILED). Also, as 93.4% of HANDLE.SPOUT\_TYPE A is associated with NO-TEXTURING (Table 6.9), a distinction between NO-LIP and FLAT-PROFILE rims as stipulated by HANDLE.SPOUT\_VARIETY unnecessarily fragments the dataset.

### 6.1.B.3 External Appliqué Elements

One further decorative technique is worth mentioning here;

EXT.APPL.ELEMENTS\_YN, which refers to the application of elements such as studs or strings of clay, or indeed small figurative elements to the external vessel surface. This practice is not part of DDD\_SCULPTING as it is applied to the formed vessel chamber, nor can it be classed as surface-texturing because it can be individual studs. It is described here because it tends to co-occur with *TEXTURING*. Table 6.18 shows the crosstabulation of EXT.APPL.ELEMENTS\_YN with SURF.TXT\_KIND, showing that all surface-texturing techniques can co-occur with *EXTERNAL-APPLIQUÉ-ELEMENTS*. This is especially so for vessels featuring *ROLLER-/ROCKER-STAMPING*, 54.2% of which also have *EXTERNAL-APPLIQUÉ-ELEMENTS*. It is thus not surprising that this trait co-occurs with the same form-traits as *TEXTURING*: amongst stirrup-spouts, 89.0% of externally appliquéd elements are found on *GLOBULAR* chambers (Table 6.19). The rim-forms most likely to co-occur with *EXTERNAL-APPLIQUÉ-ELEMENTS* are: *DELINEATED-* (63.2%) and *EVERTED-CARINATED* rims (56%). 26.3% of *BEVELLED-LIP* rims also occur on vessels decorated with *EXTERNAL-APPLIQUÉ-ELEMENTS* (Table 6.20).

EXT.APPL.ELEMENTS\_YN is not a very specific variable and more detailed features (such as whether appliquéd elements consist of studs, strings, or other items of clay) were recorded. However at this level of detail they fragment the dataset too much to discern meaningful patterns. Therefore, only the presence and absence of appliquéd elements has been analysed here, and its association with *GLOBULAR* chambers as well as *PROMINENT* spout-lips and rounded handle arches are clearly worth noting, seemingly part of a specific tradition of pottery-making, alongside surface-texturing.

### 6.1.B.4 Surface-Texturing on Stirrup-Spouts in Sum

A number of traits describing form and surface-texturing appear on stirrup-spout bottles in consistently reoccurring combinations. In particular, the presence and nature of texturing is strongly associated with handle-spout *TYPE B* (Table 6.9). This trend is even stronger if we consider only the 3-dimensional kinds of texturing i.e. *APPLIQUÉ-TEXTURING*, *CARVED-APPLIQUÉ-RELIEF*, and *DEEP-INCISION/D-PUNCTATING* (Tables 6.10 and 6.11). In particular, *3D-TEXTURING* occurs to 93.8% on stirrup-spouts with handle-spout *TYPE B*, especially *EVERTED-CARINATED* and *BEVELLED-LIP* rims. The presence of EXT.APPL.ELEMENTS follows the same trends, also occurring

primarily on *GLOBULAR* vessels with handle-spout *TYPE B*. Conversely, there are a number of forms (both individual features and combined 'Complete' forms) that are never decorated with surface-texturing: *FULL-3D-SCULPTED* vessels tend to have *NO-TEXTURING* (88.3%), as do vessels with *CONJOINED-* or *3-FACED-ANGULAR-CARINATED* chambers (both 100% *NO-TEXTURING*, see Table 6.8). In almost all cases (81% cumulative, see Table 6.9 or Table 6.12) these are bottles with *NO-LIP* or *FLAT-PROFILE* rims on the spout.

While there is also a relationship between *SURF.TXT\_YN* and *CHAMBER\_SHAPE* (Table 6.8), this is not as strong as that with the handle-spout forms (both *TYPE* or *VARIETY*). For example, there are considerable proportions of stirrup-spout bottles with *FULL-3D-SCULPTING*, *ADD-ON-3D-SCULPTING*, or *FIGURE-ON-TOP* both *with and without texturing*, however those that *have* texturing are consistently those with handle-spout *TYPE B* (see Table 6.5 and diagrams Table 6.16).

Considering specific prominent-lip rims confirms the trend (Tables 6.12 and 6.13). It shows that *BEVELLED-LIPS* are strongly associated with *TEXTURING* (89.1%) and in particular, vessels with *BEVELLED-LIPS* tend to be decorated using *DEEP-INCISION/D-PUNCTATING*, *ROLLER-/ROCKER-STAMPING* or *PUNCTATING*. *EVERTED-CARINATED* rims meanwhile account for 55.6% of *APPLIQUÉ-TEXTURING*. This level of analysis also allows us to identify one important exception within the *TYPE B* handle-spouts; *ROUND-BULGE* rims (represented in *HANDLE.SPOUT\_VARIETY B6* and *B7*), although classed as *PROMINENT*, do not commonly co-occur with *TEXTURING* (86.4% absent). Particular rim-shapes are thus clearly associated with different decorative potting techniques, in this case surface-texturing. This correlation indicates a potential typological and stylistic difference which will now be further examined with reference to other variables such as painting (Chapter section 6.2) and iconography (Chapter 7).

### **6.1.C Surface-Texturing on Single-Spouts**

The only other object type to have any significant proportion of surface-texturing are single-spout bottles with 34.3% *TEXTURING* (see Table 6.3). This divides into 31.7% *2D-TEXTURING* and 2.6% *3D-TEXTURING*, which means that 93.3% of *TEXTURING* on single-spouts is *2D-TEXTURING* (Tables 6.21). While 3-dimensional texturing on single-spout bottles in the sample is thus very rare, 2-dimensional texturing is more

common than on any other object-type. Despite making up just 21% of the dataset, single-spouts account for 52.5% of *PUNCTATING*, and 46.0% of *SCRATCHING/COMBING* (Table 6.3).

For single-spouts, the only *CHAMBER\_SHAPE* with any significant proportion of surface-texturing are *GLOBULAR* (40.4%) and *CONE/PEAR-SHAPED* (42.9%) (Table 6.22), but due to the small numbers and lack of variety within single-spout forms, statistical tests of significant difference and correlation are negative.<sup>121</sup> If we use the variable for *BODYFORM* however, there is both a statistically significant correlation and differentiation with 80% of *TEXTURING* occurring on *PURE-GLOBULAR* single-spouts.<sup>122</sup> Single-spouts of other shapes and/or with any kinds of 3-dimensional sculpting almost never have *TEXTURING*.

In contrast to stirrup-spouts, the majority (76.7%) of *TEXTURING* on single-spouts co-occurs with *NO-LIP* rims (Table 6.23). However this is set against the fact that 74.9% of single-spouts have *NO-LIP* rims. As such, the distribution of *TEXTURING* on single-spouts is actually proportional to the presence/absence of a *PROMINENT-LIP* on the spout (16.3% of single-spouts have *PROMINENT-LIP* rims, and these account for 18.5% of *TEXTURING*), i.e. the relationship is not significantly patterned.<sup>123</sup>

Within single-spouts, two permutations of *COMPLETE\_FORM\_SGL.SP* making up 36.4% of the sample account for 61.1% of *TEXTURING* incidence (45.8% + 15.3%). Both forms are *GLOBULAR* bottles with *NO-3D-SCULPTING*, a separately attached neck, and a spout that is either *CONCAVE* or *TAPER-IN-EVERTED-AT-TOP* (which are very similar). Both have *NO-LIP* rims. *TEXTURING* is a common decorative feature on both these *COMPLETE\_SGL.SP\_FORMS* occurring on 60.0% and 47.4% respectively (Table 6.24). The relationship demonstrates a statistically significant correlation and difference.<sup>124</sup> The remaining incidences of *TEXTURING* are distributed across all of the

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<sup>121</sup> *CHAMBER\_SHAPE* \* *SURF.TXT\_YN*:  $X^2= 14.361$ ,  $df= 7$ ,  $p= .045$ ;  $T_b= -.077$ ,  $N=189$ ,  $p= .200$ .

<sup>122</sup> *BODYFORM* \* *SURF.TXT\_YN*:  $X^2= 35.454$ ,  $df= 9$ ,  $p= .000$ ;  $T_b= .202$ ,  $N=189$ ,  $p= .001$ .

<sup>123</sup> *SP.PROMINENT.RIM\_YN* \* *SURF.TXT\_YN*:  $X^2= 1.269$ ,  $df= 1$ ,  $p= .182$ ;  $T_b= -.084$ ,  $N=178$ ,  $p= .231$ .

<sup>124</sup> *COMPLETE\_FORM\_SGL.SP* \* *SURF.TXT\_YN*:  $X^2= 39.770$ ,  $df= 12$ ,  $p= .000$ ;  $T_b= -.309$ ,  $N=176$ ,  $p= .000$ .

COMPLETE\_SGL.SP\_FORMS, making it impossible to discern further trends between SURF.TXT\_YN and overall single-spout form. In sum, surface-texturing is common on single spouts (34.3%), but this is almost exclusively 2-dimensional (only 2.6% 3D-TEXTURING). Texturing is associated in particular with two COMPLETE\_FORMS\_SGL.SP; both PURE-GLOBULAR bodied with NO-LIP rims on the spout. Examples of single-spouts *with* TEXTURING are illustrated in Table 6.25.

#### 6.1.D Surface-Texturing on other Object Types

For the other OBJECT\_TYPES it is not possible to analyse the nature and distribution of texturing techniques, except to reiterate the distinct absence of it on bowls (1.7%), figurines (0%), ocarinas (0%), and other-containers (0%) (Table 6.3). There is TEXTURING on 28.6% of beakers in the sample, but this consists of just four (4) cases, which is too small a sample to analyse separately. TEXTURING was also recorded on six (6) out of 37 bridge-spouts (16.2%), however there is no significant correlation or differentiation between any surface-texturing variables and any form variables for bridge-spout bottles. Therefore, this will not be discussed further. Surface-texturing does appear to be rare on ceramic objects other than stirrup- and single-spout bottles. However the sample is too small to conclusively tell, or to discern patterns with any confidence.

#### 6.1.E Incising

As with texturing, there are subtly different kinds of INCISING, and differences in these techniques are relevant in distinguishing particular potting traditions. For the purpose of this study, they have been classified as:

- WET-PASTE-INCISING
- (wet-paste) CARVING
- DRY/PF-INCISING (dry paste / post-fire)

The methods of incising are here *briefly* analysed in relation to object type, other kinds of surface-modification techniques (texturing), and to painting. This will be picked up again in Chapter 7, where all these traits, including incising, are considered together.

Most objects are incised (67.5%), and the majority of this is WET-PASTE-INCISING (68.7%), which occurs on all object types (Tables 6.26). A crosstabulation between



INCISING and OBJECT\_TYPE shows that bowls and figurines have the highest incidence of incising (89.1% and 86.7% respectively), while the OBJECT\_TYPE least likely to be incised are the bridge-spout bottles (50%) (Table 6.27). Specifically, 77.1% of *DRY/PF-INCISING* is found on stirrup-spouts, while *CARVING* is disproportionately common on ocarinas (54.2%) (compared to 13.6% across the entire sample).

#### **6.1.E.1 Incising and Surface-Texturing**

The relationship between the types of incising (INCISING\_KIND) and texturing (SURF.TXT\_YN) is calculated as statistically differentiated and shows some clear patterns (Table 6.28):<sup>125</sup> *DRY/PF-INCISING* almost never occurs in combination with *TEXTURING* (0.4% of the total sample). Meanwhile 54.3% of *CARVING* occurs on vessels that have *TEXTURING* of some kind, which is considerably higher than for the sample as a whole (26.1% *TEXTURING*). Crosstabulating the kinds of incising with specific kinds of texturing (Table 6.29), we see that *CARVING* is the only incising-technique that is regularly used in combination with *3D-TEXTURING*: 23.8% of vessels with *APPLIQUÉ-TEXTURING*, and 22.2% of vessels with *INCISION/D-PUNCTATING* also have *CARVING*, compared to just 9.5% and 7.4% *WET-PASTE-INCISING*, and *DRY/PF-INCISING* never co-occurs with *3D-TEXTURING*. However, the highest co-occurrence is that 45% of vessels with *ROLLER/ROCKER-STAMPING* (a 2-dimensional texturing technique) have *CARVING*.<sup>126</sup>

#### **6.1.E.2 Incising and Paint**

Painting will be analysed below (Chapter 6.2) but is mentioned briefly here in relation to incising. The relationship between INCISING\_KIND and PAINT\_YN is calculated as statistically significant in terms of correlation and difference (Table 6.30).<sup>127</sup> Indeed, incising is commonly used in conjunction with painting to delineate

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<sup>125</sup> INCISING\_KIND \* SURF.ALT\_YN:  $X^2= 87.317$ ,  $df= 3$ ,  $p= .000$ ;  $T_b= .062$ ,  $N=851$ ,  $p= .091$ .

<sup>126</sup> In these cases, the *CARVING* is used to delineate areas of surface alteration. Also, *ROLLER/ROCKER-STAMPING* occurs on 4.4% of the total sample, but 12.2% of vessels with *CARVING* also have *ROLLER/ROCKER-STAMPING* (Table 6.29).

<sup>127</sup> INCISING\_KIND \* PAINT\_YN:  $X^2= 53.793$ ,  $df= 3$ ,  $p= .000$ ;  $T_b= .098$ ,  $N=854$ ,  $p= .001$ .

areas of colour (INCISED.ZONING\_YN<sup>128</sup>), and only 16.9% of painted vessels are without incising.

Contrary to surface-texturing, *DRY/PF-INCISING* commonly co-occurs with paint (45.8%), while a combination of *CARVING* and paint is relatively rare (19.8% *CARVED* vessels co-occur with paint) (Table 6.30). Considering specific *PAINT\_KIND* (Table 6.31), we see that *WET-PASTE-INCISING* co-occurs with all *PAINT\_KIND*, *CARVING* is associated with *POST-FIRE-PAINT* or *SLIP-PAINT*, and *DRY/PF-INCISING* is associated predominantly with *SLIP-AND-GRAPHITE* paint (discussed further in Chapter 6.2).

### 6.1.E.3 Summary of Incising

Incising is common on all object types and co-occurs with all kinds of *3D\_SCULPTING*, from *NO-3D-SCULPTING* to *FULLY-3D-SCULPTED*. There is some association between particular kinds of incising and object type (such as *DRY/PF-INCISING* occurring predominantly on stirrup-spouts), however, the stronger patterns are with texturing and painting techniques. *DRY/PF-INCISING* is commonly associated with paint, especially with *SLIP-AND-GRAPHITE* paint, while *CARVING* is common on vessels with *TEXTURING*, especially *ROLLER/ROCKER-STAMPING*. By extension, this means that *CARVING* is more generally associated with *PROMINENT-LIP* rims and *ROUNDED* handles (*HANDLE.SPOUT\_TYPE B*), while *DRY/PF-INCISING* co-occurs particularly with *NO-LIP* rims and *ANGULAR* handles (*HANDLE.SPOUT\_TYPE A*).

The methods of incising clearly relate to a number of formal and technological variables. In general, potters employed texturing techniques together with *CARVING-INCISING*, while *DRY/PF-INCISING* correlates with an absence of texturing but with painting instead. These incising techniques may thus belong to distinct ceramic traditions.<sup>129</sup> This is discussed further in Chapter 7. First we analyse the use of paint on Formative Period North Peruvian ceramics.

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<sup>128</sup> INCISED.ZONING\_YN is discussed in relation to specific paint types and colours in the next section (Chapter 6.2).

<sup>129</sup> Yumi Park (2010) argued that *DRY/PF-INCISING* (especially of the so-called headmotifs that were the subject of her thesis) was *the* defining trait of “Cupisnique” ceramics (see Chapter 3).

## 6.2 PAINTING & COLOUR

### 6.2.A Painting & Colour across All Objects

#### 6.2.A.1 Intro and methods for Painting & Colour

In this dataset, 28% of objects are painted. This makes painting about as common as surface-texturing (25%). Both pre-fire slip and post-fire paint is present (Table 6.32).<sup>130</sup> Larco identified the use of red-slip and black graphite painting as characteristic of the “Transitorio”-style (Larco 1948).<sup>131</sup> Other scholars refer to it simply as “rojo grafitado” (e.g. Druc 2013; Onuki 2012 pers.comm.). In the Highlands, polychrome post-fire painting is characteristic of Late Huacaloma ceramics, especially on bowls (Seki 1998). The use of white and/or red and/or black post-fire paint on so-called ‘Tembladera Figurines’ has also been previously documented (see Burtenshaw-Zumstein 2013:122-131). However no scholar has thus far systematically identified patterns between the use of colour and form, or indeed other decorative techniques, which this section aims to do.

The recording of colour for this study was done by eye, without the use of a colour chart. Colour-categories are accordingly general, both for the PAINT\_COLOUR and for BASE\_COLOUR (colour of the fired, unpainted ceramic surface).<sup>132</sup> The identification of the kind of paint (PAINT\_KIND), in particular distinguishing between post-fire and slip-paint, can also be difficult. When in doubt PAINT\_KIND was simply not recorded and the piece left out of any paint-type analyses or crosstabulations. In some cases, the recording relied on previously published definitions or statements for particular objects or colours.<sup>133</sup> For the objects taken from Alva (1986), colour and paint-type

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<sup>130</sup> No examples of resist painting were identified in my sample. Note that *MONOCHROME* vessels can still be painted, if the paint covers the entire vessel surface.

<sup>131</sup> Elera 2009 published it as “Tecapa style”, although no further reference to this could be found in the literature. Although cited by Elera, Alva 1986 makes no mention of Tecapa.

<sup>132</sup> A basic colour-chart for the permutations defined in this study can be seen in the Variable Dictionary.

<sup>133</sup> Note that it can be difficult to identify paint, or indeed to define the difference between “painting” and the use of a “ton-schlick”-coating applied to the vessel surface. This coating consists of the same clay as the vessel body (same colour) but is finer (filtered). Some authors >>

were recorded as he described. Some of the same pieces were also examined personally, making it clear that, while in most cases Alva's and my own descriptions overlapped, there were also instances of discrepancy (e.g. between uses of *RED* and *ORANGE* or *DARK-GREY* and *BLACK*). The use of the variable *COLOUR\_CHROME* (whether an object is monochrome, bichrome, or polychrome), where applicable, avoids inconsistencies in the exact colour definitions by simply recording the number of distinct colours visible on the object surface.

### **6.2.A.2 Paint-Types and -Colours**

The 28% of objects in this dataset that are painted divides into approximately equal halves of *PRE-FIRE-SLIP* and *POST-FIRE-PAINT* (including the application of *CINNABAR* powder in the latter) (Table 6.32).<sup>134</sup> The most frequent paint colours are *RED*, *WHITE*, *BLACK*, and combinations thereof, with colours such as *YELLOW*, *ORANGE*, and 'OTHER' (pink, purple, dark-red) present, but not common (Table 6.33). A *POLYCHROME* colouring (three or more colours visible on the object surface) seems to be closely associated with the use of *POST-FIRE-PAINT*: 78.9% of *POLYCHROME* pieces are painted using *POST-FIRE-PAINT* (including 11.8% that have a combination of *SLIP*- and *POST-FIRE-PAINT*) (Table 6.34).<sup>135</sup>

*PAINT\_KIND* and *PAINT\_COLOUR* are crosstabulated in Table 6.35. The most common combinations ( $N \geq 4$ ) have been used to create the variable: *PAINT\_KIND.COLOUR*. These are listed in Table 6.6. The most frequent paint and colour combination is *SLIP : RED + GRAPHITE : BLACK* (39 occurrences, 16.2% of painted objects). This is followed by

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identify it as slip paint, others do not, making it all the more difficult to find comparative examples on which to base evaluation.

<sup>134</sup> Some ceramics have both pre- and post-fire paint, or are painted using a slip and then graphite, so the distinction can be blurred. Also, It can be difficult to identify paint-type, as some pre-fire slips can turn out as a thick, mat layer that looks remarkably like post-fire paint. To avoid this becoming a problem, where possible the discussion will focus on colour rather than paint-type. There is of course also the issue of paint having rubbed-off over the millennia, and conversely of reconstructive repainting. Objects that are known or appear to have been repainted have been left out of paint-colour analyses.

<sup>135</sup> Unless the entire object surface is painted (which applies to 9.3% of the dataset), paint colours are in addition to the base-colour of the vessel surface, so the use of two paint colours can already result in a polychrome overall colouring.

*POST-FIRE-PAINT : RED*, then *POST-FIRE-PAINT : WHITE*, and then a combination thereof (*POST-FIRE-PAINT : RED + WHITE*). Slip-paint in either white (*SLIP : WHITE*) or red (*SLIP : RED*) is also commonly recorded.

### **6.2.A.3 Paint Cover and Delineation**

Perhaps more telling is the fact that the *PAINT\_KIND.COLOUR* combinations are statistically correlated and differentiated with how much of the vessel surface is covered by paint *PAINT\_COVER.ORDINAL* (Table 6.37).<sup>136,137</sup> However, almost all paint-colour combinations with *POST-FIRE-PAINT* result in a *PARTIAL* covering of the surface, while *SLIP-PAINTED* colours tend to cover the entire vessel surface. This relationship is simplified in the crosstabulation of *PAINT\_COVER.ORD* and *PAINT\_KIND* (Table 6.38).<sup>138</sup> This implies a deliberate and distinctive set of practices in the use of particular paint types by north Peruvian potters during the Formative Period. This may indicate distinct manufacturing traditions that were temporally or geographically patterned; i.e. they were cultural features.

Another trait to consider is the very common use of *INCISED\_ZONING*, i.e. where incised lines delineate painted areas from the unpainted background or areas of different paint-colours.<sup>139</sup> 82.9% of all objects with paint have incised lines to delineate colour-zones. It is especially common on painted bridge-spouts (100%), ocarinas (95.2%), and figurines (95.8%) (Table 6.39), where paint is almost never applied without delineating incised lines.

The only object type where paint is commonly applied *without* delineating incisions are stirrup-spouts, where 21.2% of painted cases lack *INCISED\_ZONING*.<sup>140</sup>

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<sup>136</sup> *Excluding unpainted vessels*: *PAINT\_COVER.Ord \* PAINT\_KIND.COLOUR*:  $X^2= 264.666$ ,  $df= 36$ ,  $p= .000$ ;  $T_b= .294$ ,  $N= 241$ ,  $p= .000$ .

<sup>137</sup> *CINNABAR* is almost always only left in incisions, but this may be the result of wear over time.

<sup>138</sup> *PAINT\_COVER.Ord \* PAINT\_KIND*:  $X^2= 209.665$ ,  $df= 6$ ,  $p= .000$ ;  $T_b= .304$ ,  $N= 249$ ,  $p= .000$ .

<sup>139</sup> Where applicable: a full-cover of paint precludes the possibility of Incised-zoning. Incised-zoning can also apply to delineated areas of texturing.

<sup>140</sup> A lack of incised-zoning to delineate painted areas is actually most common on the *OTHER-OBJECT-TYPES*, with 45.5% ( $N=5$ ).

INCISED\_ZONING as a technique is not unique to Formative northern Peru, but in other regions is restricted to particular traditions or styles; on the South Coast for example, Paracas ceramics usually have INCISED\_ZONING, while the later Nasca or indeed Wari and Tiwanaku ceramics do not, using instead mostly black lines of paint to delineate colour areas.

#### **6.2.A.4 Painting and Base-Colour**

Statistical tests of significant correlation/differentiation show that the use of paint, and indeed the specific paint-colours, are closely related to the unpainted surface colour of the object (COLOUR\_BASE) (Tables 6.40 and 6.41).<sup>141</sup> In terms of presence and absence of paint: ceramic objects with a BLACK or GREY-TAN base-colour very rarely have paint (86.3% and 94.2% respectively are unpainted). These dark-grey or black MONOCHROME ceramics, appearing to result from reducing firing-conditions, are those most commonly described for 'Cupisnique' or Formative North Coast Peru (Donnan 1992:31; Burger 1992:90). Pieces with an ORANGE, RED, or TAN base-colour are the most likely to be painted (60.6%, 54.3%, and 47.2% respectively), thereby setting apart (in a very general manner) oxidising-firing and painting on the one hand, and reduction-firing and a lack of paint on the other (Table 6.40).

In terms of PAINT\_KIND (Table 6.41), SLIP-PAINT is most commonly found on ceramics of a DARK-ORANGE, RED, or TAN base-colour, while the majority of POST-FIRE-PAINT occurs on a TAN or DARK-BROWN base-colour. Indeed (having already noted the relationship between POST-FIRE-PAINT and a POLYCHROME colouring (Table 6.34), Table 6.42 shows that a POLYCHROME colouring is also most likely to be found on a DARK-BROWN base (37.1%), or a TAN-coloured base (30.6%).<sup>142</sup>

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<sup>141</sup> COLOUR\_BASE \* PAINT\_YN:  $X^2= 172.012$ ,  $df= 9$ ,  $p= .000$ ;  $T_b= .277$ ,  $N= 814$ ,  $p= .000$ .

COLOUR\_BASE \* PAINT\_KIND:  $X^2= 387.535$ ,  $df= 54$ ,  $p= .000$ ;  $T_b= .278$ ,  $N= 809$ ,  $p= .000$ .

COLOUR\_BASE \* COL\_CHROME:  $X^2= 200.696$ ,  $df= 18$ ,  $p= .000$ ;  $T_b= .284$ ,  $N= 812$ ,  $p= .000$ .

<sup>142</sup> Note that 78.9% of POLYCHROME colouring on a TAN-coloured base is specifically made up of figurines and ocarinas, which tend to have a PARTIAL surface covering in WHITE & RED and/or BLACK POST-FIRE-PAINT. Vessels with specifically POLYCHROME and POST-FIRE-PAINT thus tend to have a DARK-BROWN base (62.1%).

### 6.2.A.5 Summary of Painting and Colour across All Objects

In this dataset 28% of objects are painted. This divides into approximately equal halves of *PRE-FIRE-SLIP* and *POST-FIRE-PAINT* (Table 6.31). Ceramics with a *BLACK* or *GREY / GREY-TAN* *BASE\_COLOUR* are almost never painted (86.3% and 94.2% respectively), while *TAN*, *ORANGE* or *DARK-BROWN* ware ceramics are regularly painted (Table 6.40). The most frequent *PAINT\_COLOURS* are *RED*, *WHITE*, *BLACK*, and combinations thereof, with colours such as *YELLOW* or *ORANGE* present but not common (Table 6.33). The most common *PAINT\_KIND.COLOUR* combination is *SLIP : RED + GRAPHITE : BLACK* (Table 6.36), where the red slip covers the entire vessel surface (i.e. the result is a *BICHROME* object). A *POLYCHROME* colouring tends to be the result of *POST-FIRE-PAINT* (67.1%), and in 78.9% this covers only part of the object surface (Table 6.34). A *POLYCHROME* colouring is applied predominantly onto a *DARK-BROWN* or *TAN* *BASE\_COLOUR* (37.1% and 30.6% respectively i.e. 67.7% cumulative, Table 6.42). Evidently there are particular ways that potters used specific kinds of paint and colours to decorate ceramic objects, and this is evidently related to the base-colour i.e. raw material and/or firing-technique used.

## 6.2.B Painting & Colours across Specific Object-Types

### 6.2.B.1 Presence/Absence of Paint across Object-Types

As well as being patterned within themselves, the distribution of the *PAINT\_KIND* and *PAINT\_COLOUR* on different *OBJECT\_TYPES* is selective.<sup>143</sup> In terms of presence and absence (Table 6.44), paint is disproportionately distributed onto the figurines (80%), ocarinas (69.4%), and bowls (48.3%). The percentages of *PAINTED* bottles are actually slightly lower (16.6% - 24.6%) than for the sample as a whole (28.3%), but their higher absolute counts within the dataset mean that a considerable number of bottles are painted and can thus be analysed for patterns linking painting and form. The least-commonly painted object type are the cups/beakers (85.7% *UNPAINTED*, which amounts to just two (2) cases with paint), distinguishing them starkly from the frequently painted bowls.

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<sup>143</sup> *PAINT\_YN \* OBJ\_TYPE*:  $\chi^2 = 101.621$ ,  $df = 7$ ,  $p = .000$ ;  $T_b = .155$ ,  $N = 898$ ,  $p = .000$ .

### 6.2.B.2 *Paint-Type across Object-Types*

Excluding *UNPAINTED* cases and crosstabulating *OBJECT\_TYPE* with *PAINT\_KIND* reveals that pre-fire painting techniques (slips) are disproportionately distributed onto stirrup-spout bottles, while paints applied *after* the firing process are found disproportionately often on bowls, ocarinas, and figurines (Table 6.45). Tests of statistical significance reveal a strongly correlated and differentiated relationship.<sup>144</sup> In fact, 96.0% of *PAINTED* ocarinas and 91.7% of *PAINTED* figurines are painted specifically with *POST-FIRE-PAINT*. Just 15.1% of *PAINTED* stirrup-spouts are painted using *POST-FIRE-PAINT*, which amounts to just 3.6% of stirrup-spouts overall. However due to the high absolute count of stirrup-spouts (501 cases) this still amounts to 18 pieces and thus merits analysis (Chapter 6.2.C).

### 6.2.B.3 *Paint Kind-Colour across Object-Types*

In terms of specific *PAINT\_KIND.COLOUR* combinations identified earlier (see Table 6.36), a crosstabulation with *OBJECT\_TYPE* shows that specific paint-type and -colour combinations are strongly correlated and differentiated with particular *OBJECT\_TYPES* (Table 6.45):<sup>145</sup> 50.0% of figurines specifically have *POST-FIRE : WHITE* paint (a further 16.7% have *POST-FIRE : WHITE + RED* paint). Together with the ocarinas, they account for 100% of occurrences of *POST-FIRE : WHITE* paint, i.e. post-fire white paint on its own is exclusive to figurines and ocarinas and is not used to decorate vessels in the sample (neither bottles nor open containers). By contrast, white *slip*-paint is found exclusively on stirrup-spout bottles. *SLIP-PAINT : RED* and *SLIP-PAINT : ORANGE* is found only on stirrup- and single-spout bottles. The most frequent overall *PAINT\_KIND.COLOUR* combination (*SLIP : RED + GRAPHITE : BLACK*) occurs to 94.7% on stirrup-spouts (N=36).<sup>146</sup> The other *PAINT\_KIND.COLOUR* combinations are widely distributed across the object types but reiterate the general

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<sup>144</sup> (excl. *UNPAINTED*) *PAINT\_TYPE \* OBJ\_TYPE*:  $\chi^2= 150.572$ ,  $df= 28$ ,  $p= .000$ ;  $T_b= -.471$ ,  $N= 249$ ,  $p= .000$ .

<sup>145</sup> (excl. *BRIDGE-SPOUTS*, *CUPS/BEAKERS*, and *UNPAINTED* cases) *PAINT\_TYPE.COLOUR \* OBJ\_TYPE*:  $\chi^2= 270.274$ ,  $df= 72$ ,  $p= .000$ ;  $T_b= -.287$ ,  $N= 220$ ,  $p= .000$ .

<sup>146</sup> All six cases with *SLIP & GRAPHITE : OTHER COLOUR/COMBINATION* are on stirrup-spouts, indicating that the use of black graphite paint in conjunction with any colour slip, predominantly with red, is more or less exclusive to stirrup-spout bottles (just two (2) examples on bowls and one (1) on an *OTHER* object-type, not shown in Table 6.45).



trends noted earlier for the association of post-fire and slip-paints with particular object types.

The question now concerns the specific forms of bowls, single-, and stirrup-spouts on which paints – and indeed specific PAINT\_KIND and PAINT\_COLOUR combinations – are used, assuming that they belong to particular traditions which would have created particular vessel forms. The following sections of this chapter will consider the application of paint specifically on stirrup-spouts, single-spouts, and bowls, to analyse whether and how specific *form* features are associated with painting, a lack of paint, or particular kinds and colours of paint. The almost complete absence of painting on beakers and bridge-spouts (see Table 6.13) means that these OBJECT\_TYPES are not discussed further in this section. We have already established that figurines and ocarinas have post-fire-paint in various combinations of white, red, and black (for more detail see Burtenshaw-Zumstein 2013:122-131) and in Chapter 5 we did not create subdivisions in terms of form for them. Therefore a detailed analysis of painting on figurines and ocarinas, beyond the trends shown in Table 6.45, is not fruitful at this stage.

### **6.2.C Colour & Painting on Stirrup-Spouts**

In the sample, 24.6% of stirrup-spout bottles are decorated with paint (Table 6.43). The most common type of paint is *PRE-FIRE-SLIP* paint, but *POST-FIRE-* as well as *GRAPHITE-*paint are also present (Tables 6.44, 6.45). Having previously identified common COMPLETE\_FORM\_ST.SP (Chapter 5), we here compare those forms with paint type- and colour-variables to check for patterned distributions or relationships, and thus see if traditions of paint-use correspond with particular stirrup-spout forms.

First of all, we test for the relationship between form and the presence or absence of paint (PAINT\_YN). The previously categorised variable of COMPLETE\_FORM\_ST.SP\_MEDIUM (i.e. BODYFORM plus HANDLE.SPOUT\_TYPE) is used as a starting point. Tests of statistical significance demonstrate both a strong

differentiation and correlation (Table 6.46).<sup>147</sup> Some forms are evidently much more or much less likely to be decorated using paint than others. To better understand this, individual form traits (handle- and spout-forms as well as bodyform) will separately be analysed for their relationship with the presence and absence of paint.

A crosstabulation of PAINT\_YN and BODYFORM\_ST.SP reveals an unsaturated matrix with a strongly differentiated (although not correlated) relationship (Table 6.47).<sup>148</sup> Clear patterns in the use of paint and stirrup-spout forms are thus emerging based on CHAMBER\_SHAPE and BODYFORM. The BODYFORMS most likely to be painted are:

- 2(a) (*GLOBULAR : ADD-ON-3D-SCULPTED*, 43.7%),
- 2(c) (*GLOBULAR : HIGH-RELIEF-SCULPTED*, 27.3%),
- 2(b) (*GLOBULAR : FIGURE-ON-TOP*, 30% although the sample is small (N=3)).

Conversely, chamber forms that are not associated with paint are:

- *CONJOINED-CHAMBERS* (BODYFORMS 9 and 9(1)),
- *3-FACED-ANGULAR-CARINATED* (BODYFORM 8),
- *CYLINDRICAL* (BODYFORMS 7 and 7(a)),
- *CUPCAKE-shaped chambers* (on BODYFORMS 5 and 5(b)) painting is very rare (8.3% and 9.5% respectively).

Looking again at Table 6.46, what seems to distinguish the *PAINTED* and *UNPAINTED* forms in particular is the presence or absence of a prominent lip on the spout. A relevant crosstabulation (SP\_PROMINENT\_YN \* PAINT\_YN) indeed reveals a strongly correlated and differentiated relationship between the presence or absence of paint, and the presence or absence of a prominent lip on the spout:<sup>149</sup> just 12.9% of stirrup-spouts with *PROMINENT-LIPS* are painted, compared to 31.9% of vessels with *NO-PROMINENT-LIP* rims (Table 6.48).

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<sup>147</sup> PAINT\_NY \* COMPLETE\_ST.SP\_FORM\_MEDIUM:  $X^2= 55.721$ ,  $df= 18$ ,  $p= .000$ ;  $T_b= .145$ ,  $N= 442$ ,  $p= .000$ .

<sup>148</sup> PAINT\_YN \* BODYFORM\_ST.SP:  $X^2= 39.034$ ,  $df= 12$ ,  $p= .000$ ;  $T_b= .065$ ,  $N= 497$ ,  $p= .092$ .

<sup>149</sup> PAINT\_YN \* SP\_PROMINENT\_YN:  $X^2= 22.011$ ,  $df= 1$ ,  $p= .000$ ;  $T_b= -.222$ ,  $N= 447$ ,  $p= .000$ .

More specifically, crosstabulating SPOUT\_RIM and PAINT\_YN reveals that *DELINEATED-*, *EVERTED-CARINATED*, and *BEVELLED-LIP* rims are rarely associated with paint (less than 8%). *ROUND-BULGE* rims once again (as with surface-texturing see section 6.1.B.1) are the exception amongst *PROMINENT-LIP* rims, with 59.1% occurring on painted stirrup-spout bottles.<sup>150</sup> Almost all of the remaining paint is associated with *NO-LIP* rims, 33.8% of which co-occur with paint (Table 6.49).

In terms of HANDLE\_SHAPE, *ANGLED-UPWARDS* and *RIGHT-ANGLED* handles are most likely to be painted (56.3% and 35.1% respectively), while bottles with *TRAPEZOID* or *FLATTENED-ROUND* handles are almost never painted (4.6% and 6.3% respectively) (Table 6.50).<sup>151</sup> There is also a very strong relationship between the presence or absence of paint and HANDLE\_THICKNESS, with just 4.4% of wide handles (N=4) belonging to vessels that are also painted (Table 6.51).<sup>152</sup> The difference between the lack of paint on *TRAPEZOID* handles and the high proportion of paint on *ANGLED-UPWARDS* handles indicates that the general use of *ANGULAR* as is used to define handle-spout *TYPE A* (and hence the overall COMPLETE\_ST.SP\_FORM\_MEDIUM, see Chapter 5) may obscure trends within the *ANGULAR* handle-shapes themselves.<sup>153</sup> The strong trend with HANDLE\_THICKNESS also deserves consideration, as does the exception of *ROUND-BULGE* rims amongst *PROMINENT-LIP* forms that make up handle-spout *TYPE B*. Therefore, in order to discern trends accurately, the presence or absence of painting was compared to and crosstabulated with HANDLE.SPOUT\_VARIETY and in turn with the permutations for COMPLETE\_ST.SP\_FORM\_DETAILED.

The crosstabulation of HANDLE.SPOUT\_VARIETY with PAINT\_YN is shown in Table 6.52. Tests of statistical significance reveal a strong differentiation but not

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<sup>150</sup> PAINT\_YN \* SP\_RIM:  $X^2= 56.234$ ,  $df= 6$ ,  $p= .000$ ;  $T_b= -.217$ ,  $N= 447$ ,  $p= .000$ .

<sup>151</sup> PAINT\_YN \* HANDLE\_SHAPE:  $X^2= 65.371$ ,  $df= 4$ ,  $p= .000$ ;  $T_b= .195$ ,  $N= 482$ ,  $p= .000$ .

<sup>152</sup> PAINT\_YN \* HANDLE\_THICKNESS:  $X^2= 23.105$ ,  $df= 1$ ,  $p= .000$ ;  $T_b= -.218$ ,  $N= 485$ ,  $p= .000$ .

<sup>153</sup> Using handle-spout Types; of stirrup-spouts with *TYPE A*, 29.6% are painted, which is roughly proportional with the sample as a whole (for stirrup-spouts, 24.5%). Only 12.2% of vessels with *TYPE B* handle-spouts are painted. Notably, 47.5% of stirrup-spouts with the much less common handle-spout *TYPE C* (rounded handle, no-lip spout) are painted.

correlation.<sup>154</sup> Nonetheless it clearly reveals that HANDLE.SPOUT\_VARIETY *B1, B2, B3, B4, and B5* are strongly associated with an *absence* of paint (88.2% - 100% *UNPAINTED*), while varieties *B6 and B7* are strongly associated *with* paint (62.5% and 100% respectively). Of the handle-spout forms without prominent lip rims (Types A and C), varieties *A2, A4, and C2* are strongly linked to an absence of paint (90.9% - 100% *UNPAINTED*) while *A3, A5, A6, A7, and C1* are disproportionately likely to occur on stirrup-spouts with paint (60% - 69.2% *PAINTED*). The presence of paint on the single most common HANDLE.SPOUT\_VARIETY (*A1*) more or less follows the proportions for the sample as a whole (28.6% *PAINTED*, 71.4% *UNPAINTED*).

Having identified that traits only discernible at the HANDLE.SPOUT\_VARIETY level are closely related to the presence or absence of painting, PAINT\_YN is crosstabulated with COMPLETE\_ST.SP\_FORM\_DETAILED (Table 6.53). Statistical tests of significance confirm both a strong correlation and differentiation.<sup>155</sup> Essentially, we can thus identify seven (7) forms (permutations of COMPLETE\_ST.SP\_FORM\_DETAILED) that do co-occur with paint, and sixteen (16) forms that generally do not. Based on this, a new variable was created to identify complete stirrup-spout forms that commonly occur with paint, and forms that do not (even if isolated cases therein may buck the trend); binary variable ST.SP.PAINTED.FORMS\_DETAILED\_YN.<sup>156</sup> This variable can be used as a filter for working only with those forms that have the possibility of paint, while still including cases within those forms that may be unpainted. The permutations are '*NO-PAINT FORMS*' and '*POSSIBILITY-OF-PAINT FORMS*'.

### **6.2.C.1 Presence/Absence of Paint on Stirrup-Spouts in Sum**

The presence or absence of paint on stirrup-spouts is closely related to form, including the chamber-, body-, and handle-spout forms. Particularly, it is specific handle-shapes and spout-rims that are decisive in indicating the likely presence or absence of paint, and as such the HANDLE.SPOUT\_VARIETIES (rather than

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<sup>154</sup> PAINT\_YN \* HANDLE.SPOUT\_VARIETY:  $X^2= 123.307$ ,  $df= 16$ ,  $p= .000$ ;  $T_b= .087$ ,  $N= 434$ ,  $p= .040$ .

<sup>155</sup> PAINT\_YN \* COMPLETE\_ST.SP\_FORM\_DETAILED:  $X^2= 103.954$ ,  $df= 23$ ,  $p= .000$ ;  $T_b= .159$ ,  $N= 328$ ,  $p= .000$ .

<sup>156</sup> Using the same process we also created a variable for ST.SP.PAINTED.FORMS\_MEDIUM\_YN.

HANDLE.SPOUT\_TYPES) are important in identifying form-paint associations. This by extension means that the presence and absence of paint is most accurately and indeed most strongly correlated and differentiated with the *detailed* complete form variable for stirrup-spouts; COMPLETE\_ST.SP\_FORM\_DETAILED.

### 6.2.C.2 *Unpainted Stirrup-Spouts: 'NO-PAINT FORMS'*

Before we move on to the painted stirrup-spouts ('*POSSIBILITY-OF-PAINT FORMS*'), we briefly consider those forms that are never or almost never associated with painting, based on my sample: the '*NO-PAINT FORMS*'. As noted at the very beginning of this section, the majority of stirrup-spouts are unpainted (75.4%). This lack of paint is most strongly associated with *CONJOINED-CHAMBERS*, *3-FACED-CARINATED-ANGULAR*, and *CYLINDRICAL* shapes, which are 100% without paint. *CUPCAKE*-shaped chambers, with or without the addition of *DDD\_SCULPTING*, are also very rarely associated with paint (91% unpainted). The relationship between the presence or absence of painting and handle-spout forms is also clearly and strongly patterned: stirrup-spouts with *PROMINENT-LIP* rims tend to be unpainted; 88.3% of handle-spout *TYPE B* occurs on unpainted vessels.<sup>157</sup>

In sum, the following form-permutations in the sample are not associated with paint ( $N \leq 2$ ). Any stirrup-spouts with these permutations are classed as '*NO-PAINT FORMS*' and are excluded from the analysis of painting and stirrup-spout form (section 6.2.C.3):

- BODYFORMS that incorporate the CHAMBER\_SHAPES 7 (*CYLINDRICAL*), 8 (*3-FACED-CARINATED-ANGULAR*), or 9 (*CONJOINED-CHAMBERS*), and 5 (*CUPCAKE*).
- HANDLE.SPOUT\_VARIETIES *B1*, *B2*, *B3*, *B4*, and *A2*, *A4*, and *C2*.

The crosstabulation of *PAINT\_YN* with *COMPLETE\_ST.SP\_FORM\_DETAILED* shown in Table 6.53 reveals stirrup-spout forms that are usually painted, or usually not painted. Sixteen (16) of those forms have one case or less ( $N \leq 1$  with paint and therefore can be classed as '*NO-PAINT FORMS*' (*ST.SP.PAINTED.FORMS\_DETAILED\_YN* = 0). As noted earlier however, these can be taken as examples only: the variable for

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<sup>157</sup> The exception within this are handle-spout *VARIETY B6* and *B7*, which account for 59.1% of painting incidence (*PAINTED*) on stirrup-spouts *with PROMINENT-LIP* rims.

COMPLETE\_ST.SP\_FORM\_DETAILED only covers a limited proportion of the dataset (cases with missing data are not included, leaving a sample of 328 stirrup-spouts, and 21.6% are classed as *OTHER*). Therefore it is insightful to consider also those 'medium'-level forms (COMPLETE\_ST.SP\_FORM\_MEDIUM) that are never (or very rarely) painted (taken from Table 6.46) but which – due to low-absolute counts when using the HANDLE.SPOUT\_VARIETIES – are not represented by a COMPLETE\_ST.SP\_FORM\_DETAILED permutation.

To sum up, stirrup-spout forms based on both \_MEDIUM and \_DETAILED complete forms that are never (or almost never) painted are listed and illustrated in Table 6.54. Those forms listed in Table 6.54 are classified as not having the possibility of paint (*NO-PAINT FORMS*, where ST.SP.PAINTED.FORMS\_MEDIUM\_YN or ST.SP.PAINTED.FORMS\_DETAILED\_YN = 0). They are excluded from the rest of the analysis on stirrup-spouts and paint, as we now focus on the '*POSSIBILITY-OF-PAINT FORMS*' and their associations with particular paint-types and colours.

### **6.2.C.3 Painted Stirrup-Spouts : '*POSSIBILITY-OF-PAINT FORMS*'**

Having identified strong trends in the use of paint on particular stirrup-spout forms (HANDLE.SPOUT -forms, BODYFORMS, and COMPLETE -forms) we now classify more specifically the paint used on those forms. Forms previously identified as '*NO-PAINT FORMS*' (i.e. not having the possibility of paint ( $N \leq 2$ )) in each of the sections of Chapter 6.2.C are excluded from the following analysis. This prevents the '*NO-PAINT FORMS*' from skewing the crosstabulations and resulting in significant statistical correlations or differentiations by consistently co-occurring with *UNPAINTED* and thereby obscuring other relationships (or lack thereof) between form and the specific use of paint. To clarify: keeping consistently unpainted forms in the sample skews the calculations, as statistical correlations and differentiations consistently come out as significant due to the strong relationship between these forms and *UNPAINTED*. Because we now want to discern the trends that occur *within* the forms that regularly co-occur with paint, we disregard presence and absence as a pattern for analysis here.

Crosstabulating BODYFORMS with PAINT\_KIND reveals an unsaturated matrix and a statistically significant differentiation but not correlation (Table 6.55).<sup>158</sup> Some clear trends can be discerned, confirming that the forming of particular vessel chambers and the use of specific Paint\_Kinds are patterned: *POST-FIRE-PAINT* is found almost exclusively on *FULL-3D-SCULPTED* and *GLOBULAR: ADD-ON-3D-SCULPTED* vessels (those two forms account for 81.3% of *POST-FIRE-PAINT* cumulative, and there are only isolated single occurrences on other BODYFORMS). *SLIP + GRAPHITE* paint (previously established as being primarily *RED* slip and *BLACK* graphite, the most common PAINT\_KIND.COLOUR combination used on stirrup-spouts, is found predominantly on *PURE-GLOBULAR* (41.5%) and *GLOBULAR : ADD-ON-3D-SCULPTED* BODYFORMS (26.8%), and to a lesser extent on *FULL-3D-SCULPTED* forms (14.6, Table 6.55).

Similarly, patterns can be identified in the use of particular paint-types, colours and the handle- and spout-forms. Crosstabulating HANDLE\_SHAPE with PAINT\_KIND reveals that *POST-FIRE-PAINT* is most likely on *RIGHT-ANGLED* handles (58.8% of *POST-FIRE-PAINT* is on *RIGHT-ANGLED* handles), while *SLIP-PAINT* occurs on stirrup-spouts with *RIGHT-ANGLED*, *ANGLED-UPWARDS*, and *ROUND* handles (Table 6.56). *SLIP + GRAPHITE* paint co-occurs predominantly with *RIGHT-ANGLED* and *ANGLED-UP* handles (83.7% cumulative).<sup>159</sup> This is echoed in the crosstabulation of HANDLE\_SHAPE with PAINT\_COLOUR (Table 6.57), where *RED + BLACK* is found on *RIGHT-ANGLED* and *ANGLED-UP* handles (82.4% cumulative).<sup>160</sup> *ORANGE* paint is found only on vessels with *ROUND* handles, *RED* paint primarily with *ROUND* or *RIGHT-ANGLED* handles (88.9% cumulative), and *WHITE* paint most commonly on vessels with *ROUND* or *ANGLED-UPWARDS* handles (78.6% cumulative).

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<sup>158</sup> Including only BODYFORMS with the possibility of painting and excl. unpainted cases: BODYFORM\_ST.SP \* PAINT\_TYPE:  $X^2= 61.536$ ,  $df= 30$ ,  $p= .001$ ;  $T_b= -.016$ ,  $N= 429$ ,  $p= .719$ .

<sup>159</sup> Statistical tests indicate no significant correlation or difference Including only HANDLE\_SHAPES with the possibility of painting, and excl. unpainted cases: HANDLE\_SHAPE \* PAINT\_TYPE:  $X^2= 20.279$ ,  $df= 8$ ,  $p= .009$ ;  $T_b= .166$ ,  $N= 112$ ,  $p= .018$ .

<sup>160</sup> Here too the relationship does not emerge as statistically correlated nor differentiated. Including only handle-shapes with the possibility of painting, and excl. unpainted cases: HANDLE\_SHAPE \* PAINT\_COLOUR:  $X^2= 26.043$ ,  $df= 16$ ,  $p= .053$ ;  $T_b= .048$ ,  $N= 114$ ,  $p= .539$ .

Crosstabulations with spout-variables are also insightful:<sup>161</sup> for SPOUT\_RIM, Table 6.49 already showed that paint is only commonly associated with *NO-LIP* and *ROUND-BULGE* rims. Table 6.58 specifically shows that 93.8% of *POST-FIRE-PAINT* and 100% of *POST-FIRE- + SLIP-PAINT* is on spouts with *NO-LIP* rims, while *SLIP-PAINT* is distributed between spouts with *NO-LIP* (67.5%) and *ROUND-BULGE* rims (32.5%). *ROUND-BULGE* rims are thereby associated exclusively with *SLIP-PAINT* (if painted at all).<sup>162</sup>

As noted earlier (Table 6.39), the majority (82.9%) of ceramics with painting also have *INCISED-ZONING*, i.e. painted areas or colours are delineated by incised lines. Stirrup-spouts are the only painted object-type to occur regularly *without* *INCISED-ZONING* (21.2% of cases with paint have *NO-INCISED-ZONING*). Within stirrup-spouts, the *PAINT\_KIND* most likely to be applied without incised delineating lines is *SLIP-PAINT* (35.6%), while areas of *POST-FIRE-PAINT* are almost always (94.1%) bounded by incised lines (Table 6.59).<sup>163</sup>

#### 6.2.C.3.1 Classifying Complete Painted Stirrup-Spout Types

So far, a number of clear patterns have been identified between paint variables and different form-features for stirrup spout bottles. The next step is to crosstabulate *COMPLETE\_FORM\_ST.SP* with the paint variables. Having earlier categorised particularly strong relationships between the presence or absence of paint and handle-spout form *Varieties* (as opposed to Types), as well as the kind of paint and *BODYFORM*, we use the variable *COMPLETE\_FORM\_ST.SP\_DETAILED* to crosstabulate with the different paint-variables. Complete forms classified as not having the

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<sup>161</sup> *excl. unpainted cases*: SPOUT\_RIM \* PAINT\_TYPE:  $X^2= 80.125$ ,  $df= 20$ ,  $p= .000$ ;  $T_b= -.127$ ,  $N= 104$ ,  $p= .061$ .

<sup>162</sup> Isolated occurrences of paint on other spout-rims are also specific by type: *FLAT-PROFILE* rims occasionally (13.3%) co-occur with *SLIP + GRAPHITE* paint. *EVERTED-CARINATED* can co-occur with slip-paint (6.1%), as can delineated rims (2 cases, 8%), while *BEVELLED-LIP* rims in rare instances co-occur with cinnabar powder (2 cases, 3.2%), but not slip- or post-fire paint.

<sup>163</sup> Only relevant cases (that have the possibility of incised zoning) have been included in this calculation, i.e. unpainted bottles, bottles that are fully painted in only one colour, or bottles where the paint is recorded as “in incisions” only, have been excluded. Nonetheless the relationship is not calculated as statistically significant in correlation or differentiation: *PAINT\_TYPE \* INCISED\_ZONING*:  $X^2= 10.180$ ,  $df= 10$ ,  $p= .017$ ;  $T_b= .076$ ,  $N= 111$ ,  $p= .324$ .



possibility of paint ('NO-PAINT FORMS') are excluded from this analysis, but unpainted cases within the forms that *can* have paint are included.

Statistical tests of significance reveal that COMPLETE\_FORM\_ST.SP\_DETAILED is both correlated with, and differentiated by, COLOUR\_CHROME, PAINT\_KIND, PAINT\_COLOUR, and PAINT\_KIND.COLOUR (Tables 6.60-6.63).<sup>164</sup> While the crosstabulations using DETAILED forms are thus clearly insightful, we must bear in mind that the number and proportion of stirrup-spouts with a COMPLETE\_FORM\_ST.SP\_DETAILED permutation are relatively few:<sup>165</sup> The more variables and permutations i.e. traits we consider in the classification of groups, the fewer the vessels we can include; vessels with missing handles or uncertain cases of painting lead to missing data and discounted cases.

For example, COMPLETE\_FORM\_ST.SP\_DETAILED and PAINT\_KIND.COLOUR represent only those vessels in which *all* of the form- or paint-traits are combined in the exact same way. The very low frequencies seen in Table 6.63 result from the fact that, even though the associations between each of the individual variables (traits) have been identified as strong, there are not very many vessels that combine all the exact same permutations.

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<sup>164</sup> COMPLETE\_FORM\_ST.SP\_DETAILED \* COLOUR\_CHROME:  $X^2=44.323$ ,  $df= 12$ ,  $p= .000$ ;  $T_b= .391$ ,  $N= 92$ ,  $p= .000$ .

COMPLETE\_FORM\_ST.SP\_DETAILED \* PAINT\_TYPE:  $X^2=55.398$ ,  $df= 24$ ,  $p= .000$ ;  $T_b= .287$ ,  $N= 92$ ,  $p= .001$ .

COMPLETE\_FORM\_ST.SP\_DETAILED \* PAINT\_COLOUR:  $X^2= 110.898$ ,  $df= 54$ ,  $p= .000$ ;  $T_b= .321$ ,  $N= 93$ ,  $p= .000$ .

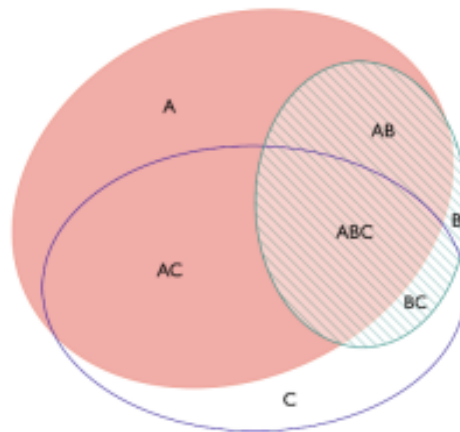
COMPLETE\_FORM\_ST.SP\_DETAILED \* PAINT\_TYPE.COLOUR:  $X^2= 154.148$ ,  $df= 72$ ,  $p= .000$ ;  $T_b= .285$ ,  $N= 92$ ,  $p= .000$ .

<sup>165</sup> In total, 329 valid cases for COMPLETE\_FORM\_ST.SP\_DETAILED, (compared to 443 for the \_MEDIUM complete forms, or 498 valid cases for BODYFORM and 435 for HANDLE.SPOUT\_VARIETY), and this is split over a high number of form-permutations (23 + OTHER COMPLETE\_FORM\_ST.SP\_DETAILED, compared to 18 + OTHER for the MEDIUM forms, and 12 + OTHER for the BASIC forms (see Chpt.5)).

To clarify, consider this Venn diagram (100 hypothetical vessels, 3 hypothetical traits):

- 82 cases have trait A, 33 have trait B, 61 have trait C.
  - o 82% with trait B also have A.
  - o 74% with trait C also have trait A (and 55% with A also have C).
  - o 58% with B also have C.

So even though A is strongly linked to B and to C, and B in turn is linked to C, only 15% of the sample have traits *A and B and C*.<sup>166</sup> The trends shown in Tables 6.60-6.63 are thus the ‘tip of the iceberg’ only, and must be considered in addition to more general associations or correlations identified between individual form- and paint-features throughout this chapter.



#### 6.2.C.3.2 Painted Stirrup-Spout Types (“Traditions”)

The overall classification of a typology of ‘painted’ stirrup-spout forms is summarised in Table 6.64: it is based on the crosstabulation of COMPLETE\_ST.SP\_FORM\_DETAILED and PAINT\_KIND.COLOUR, but also takes into account trends identified throughout this chapter. As such, statistically significant patterns concerning PAINT.COVER\_ORDINAL, BASE\_COLOUR, and the use of INCISED\_ZONING are also included. Table 6.64 thus represents a synopsis of trends

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<sup>166</sup> And this considers just three (3) traits. The analysis of Table 6.63 is by now considering 10 or more variables: CHAMBER\_SHAPE, DDD\_SCULPTING, HANDLE\_SHAPE, HANDLE\_THICKNESS, H\_PART.SCULPT, SPOUT\_SHAPE, SPOUT\_THICKNESS, SPOUT\_RIM, PAINT\_KIND, PAINT\_COLOUR, and we could further include PAINT\_COVER and INCISED\_ZONING.

that distinguish different types of painted stirrup-spouts. It clearly shows the exclusivity of trait associations, and reflects the consistent arrangement of numerous, highly specific traits of both form and paint colour and type.<sup>167</sup>









The patterns discerned throughout this chapter and summarised in Table 6.64 allow us to consider the existence of four distinct “traditions” producing *painted* stirrup-spout bottles, each likely produced in a narrow geographic and/or temporal context. Each is described below. Contextual information is not discussed at this point, but the groups identified here will feature prominently in the final discussion of style-types and the overall typology (Chapter 7).

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<sup>167</sup> As such (and because the sampling strategy was deliberately not random, see Chapter 4), these are potentially representative of many more vessels.

**Table 6.64: Painted Stirrup-spout Types**

**Table 6. 1**

<b>COMPLETE_FORM_ST.S P_DETAILED (POSSIBILITY-OF-PAINT FORMS)</b>	<b>% Paint_YN</b>	<b>SLIP + GRAPHITE : RED + BLACK</b>	<b>SLIP-PAINT : WHITE</b>	<b>SLIP-PAINT : ORANGE OR RED</b>	<b>PF-PAINT : VARIOUS COLOURS (POLYCHROME)</b>
		<i>FULL PAINT COVER</i>	<i>PARTIAL PAINT COVER</i>	<i>PARTIAL PAINT COVER</i>	<i>PARTIAL PAINT COVER</i>
		<i>N/A</i>	<i>ORANGE/RED BASE COLOUR</i>	<i>ORANGE/RED BASE COLOUR</i>	<i>DARK-BROWN BASE COLOUR</i>
		<i>WITH INCISED-ZONING</i>	<i>NO INCISED-ZONING</i>	<i>WITH INCISED-ZONING</i>	<i>WITH INCISED-ZONING</i>
<b>2-A1</b>	23.3%	<b>X</b>			
<b>2(a)-A1</b>	50%	<b>X</b>			
<b>2-A3</b>	75%	<b>X</b>	<b>X</b>		
<b>2-C1</b>	57.1%	<b>X</b>	<b>X</b>		
<b>2-B6 / B7</b>	62.5%			<b>X</b>	
<b>2(a)-A5</b>	100%				<b>X</b>
<b>1-A1</b>	29.2%				<b>X</b>
					
					
					

#### 6.2.C.3.2.1 Painted Stirrup-spout Type 1 : Red Slip + Black Graphite

The most frequently occurring paint-type and colour combination (*SLIP : RED + GRAPHITE : BLACK*), is clearly associated with four particular permutations of COMPLETE\_FORM\_ST.SP\_DETAILED:<sup>168</sup>

- 33.3% occurs on COMPLETE\_FORM\_ST.SP\_DETAILED 2-A1;
- 25% on form 2(a)-A1;
- 16.7% on form 2-A3;
- and 16.7% on form 2-C1.<sup>169</sup>

It almost always covers the entire vessel surface (92.3%, Table 6.37), and the black graphite designs are usually delineated by incised lines (88.9%, Table 6.59). In 82.6% of cases, these delineating incisions are *POST-FIRE/DRY* incisions. Examples are illustrated in Figure 6.1 This highly specific combination of painting and incising techniques with formal traits strongly indicates that this painted decoration belongs to a particular potting tradition that produced a limited number of forms. This will be discussed and these objects located in archaeological and scholarly contexts in Chapter 7.

#### 6.2.C.3.2.2 Painted Stirrup-spout Type 2 : White Slip

The second group of painted stirrup-spouts to emerge from the analysis are painted with white slip-paint only (*SLIP : WHITE*). 60% of this is found on COMPLETE\_FORM\_ST.SP\_DETAILED 2-A3, and a further 20% on form 2-C1. The difference between these complete forms is only in the *HANDLE\_SHAPE; ANGLED-UPWARDS* vs. *ROUNDED*. The specifically *ANGLED-UPWARDS* -shape within *TYPE A* handle-spouts (rather than *RIGHT-ANGLED* or *TRAPEZOID*) needs consideration: *ANGLED-UPWARDS* handles can appear similar to *ROUND*-handles if these are wide-set (see Table 5.23). Therefore, in this particular case of *GLOBULAR, SLIP : WHITE* -painted

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<sup>168</sup> In crosstabulation with COMPLETE\_ST.SP\_MEDIUM, a common form with *SLIP + GRAPHITE : RED + BLACK* is *FULL-3D-SCULPTED* with *TYPE A* handle-spouts. In other words, the use of COMPLETE\_ST.SP\_FORM\_DETAILED is obscuring certain patterns, just as COMPLETE\_ST.SP\_FORM\_MEDIUM obscures others. That is why I have used both in combination; detailed where possible, but medium to supplement identified trends/types and to add more cases to the sample.

<sup>169</sup> Not considering the handle-spout variables, this style of painting was also identified with *FULLY-FIGURATIVE* chambers and *BODYFORMS 2(c)* (*GLOBULAR HIGH-RELIEF-SCULPTED*) (Table 6.55).

bottles with *SLIM* handles and *SLIM, STRAIGHT, NO-LIP* spouts, a difference in *HANDLE\_SHAPE* may have been recorded where it was not truly present or intended by the makers. As such, it seems reasonable to argue that they belong to the same overall group;

- a *pure-globular* vessel Bodyform
- slip-paint : white
- *partial* Paint.Cover\_ord
- *orange* or *red* Base\_Colour
- without *INCISED\_ZONING* to delineate painted from unpainted areas
- slim, rounded or angled-up handles
- slim, straight spout
- *NO-LIP* rim.

Examples are illustrated in Figure 6.2.<sup>170</sup>

#### 6.2.C.3.2.3 Painted Stirrup-spout Type 3 : Orange/Red Slip

The third group of painted stirrup-spouts consists of *SLIP-PAINT* on *GLOBULAR* vessels with *ROUND-BULGE* rims on the spout. *ROUND-BULGE* rims (*HANDLE.SPOUT\_VARIETY* *B6* and *B7*) are the only *PROMINENT-LIP* rims to commonly co-occur with paint (62.5% and 100% respectively) (Table 6.52).<sup>171</sup> Table 6.61 shows that 100% of painted cases of *COMPLETE\_FORM\_St.SP\_DETAILED 2-B6* feature *SLIP-PAINT*, and Table 6.63 reveals that this is either *RED*, *ORANGE*, *RED & WHITE*, or *SLIP-PAINT* of an *OTHER* colour. (Due to low frequencies, *B7* as a *HANDLE.SPOUT\_VARIETY* has ended up in the *OTHER* permutation for *COMPLETE\_FORM\_St.SP\_DETAILED*. Nonetheless, as two cases of *HANDLE.SPOUT\_VARIETY B7* exist specifically on *PURE-GLOBULAR* chambers and with *ORANGE* or *RED SLIP-PAINT*, examples have been included in the illustrations in Figure 6.3.

#### 6.2.C.3.2.4 Painted Stirrup-spout Type 4 : Polychrome Post-Fire Paint

The only other combination of *COMPLETE\_FORM\_St.SP\_DETAILED* and *PAINT\_KIND.COLOUR* to co-occur more than once ( $N \geq 2$ ) are: *POST-FIRE-PAINT : RED* on form *1-A1 (FULL-3D-SCULPTED, RIGHT-ANGLED HANDLE, NO-LIP RIM)* (see Table 6.63).

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<sup>170</sup> A number of additional bottles with these exact traits are known to exist, for example in the Museo Larco where only a sample of ceramics was recorded during fieldwork.

<sup>171</sup> Vessels with the general handle-spout **Type B** (rounded handles with prominent lip spouts) are almost never painted (92.4% *UNPAINTED*).

The rest are too widely fragmented to discern further painted types using this level of analysis.<sup>172</sup>

However, patterns identified throughout this chapter (between individual formal features and paints/colours), of course still hold true and enable us to consider a larger sample. Thus using the COMPLETE\_FORM\_ST.SP\_MEDIUM level permutations (Table 6.65) it is possible to classify a further 'painted' stirrup-spout group: *POST-FIRE-PAINT* of any colour, as well as *OTHER COLOUR/TYPE COMBINATION*, occurs almost exclusively on COMPLETE\_FORM\_ST.SP\_MEDIUM 1-A and 2(a)-A (*FULL-3D-SCULPTED* or *ADD-ON-3D-SCULPTED* with *ANGULAR HANDLE* and *NO-LIP* rim). These same two forms also account for all but one stirrup-spouts with a *POLYCHROME* colouring (Table 6.66), and all but one case of *POST-FIRE-PAINT* (Table 6.67). Thus, while exact colours/colour combinations and COMPLETE\_FORM\_ST.SP\_DETAILED result in a highly fragmented dataset, there are clearly a number of *POLYCHROME*, *POST-FIRE-PAINTED* stirrup-spouts with HANDLE.SPOUT\_TYPE A and an either *FULL-3D-SCULPTED* or *ADD-ON-SCULPTED* BODYFORM. This combination of traits is included in Table 6.64, and examples are illustrated in Figure 6.4.

#### **6.2.C.4 Stirrup-Spouts & Paint in Sum**

In general, 75% of Stirrup-spout bottles in the sample are unpainted. Of those that are painted (N=123), 90 have *SLIP* paint and 22 have *POST-FIRE* paint. The presence or absence of painting on stirrup-spouts is closely related to form, including BODYFORM and the HANDLE\_ as well as SPOUT\_ forms. Specific HANDLE\_SHAPES and SPOUT\_RIMS are particularly decisive in indicating the likely presence or absence of paint on a stirrup-spout bottle, and as such the HANDLE.SPOUT\_VARIETIES (rather than \_TYPES) are important in identifying form-paint associations. There are also clear associations between particular form-features and PAINT\_KIND and \_COLOUR, as well as PAINT\_COVER and the use of INCISED\_ZONING.

Painted stirrup-spouts tend to have spouts with *NO-LIP* rims. The only exception are HANDLE.SPOUT\_VARIETIES B6 and B7 (*ROUND-BULGE* rims) which commonly (59.1%)

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<sup>172</sup> Although a paint-kind and colour combination may be relatively frequent in the sample, many of the bottles considered at this level either have a missing variable (such as handle and/or spout) or fall into an 'other' category.

co-occur with *SLIP-PAINT* on *GLOBULAR* vessels. The majority of paint on stirrup-spouts is pre-fire *SLIP-PAINT* (18.0%) rather than *POST-FIRE-PAINT* (4.4%), and the most common and *PAINT\_KIND.COLOUR* combination is a complete cover of *SLIP : RED* with *GRAPHITE : BLACK* painted on top, which accounts for 26.2% of paint on stirrup-spouts in the sample. In terms of *BODYFORM*, painting generally occurs on *PURE-GLOBULAR* as well as *FULL-3D-SCULPTED* bottles (20% and 26.2% respectively), but the most commonly painted form is *GLOBULAR-ADD-ON-3D-SCULPTED* (**2(a)**, 43.7%). Specifically *POST-FIRE-PAINT* is more likely to occur on *FULL-3D-SCULPTED* bottles, while *SLIP-PAINT* (with or without *GRAPHITE*) is more likely on *GLOBULAR* or *GLOBULAR-ADD-ON-SCULPTED* chambers.

Consolidating these patterns led to a Table with four “traditions” of painted stirrup-spout forms, with each *PAINT\_KIND.COLOUR* combination associated with a limited number of complete stirrup-spout forms (Table 6.64):

1. *SLIP : RED + GRAPHITE : BLACK* can be associated with a number of particular *BODYFORMS* but always with *HANDLE.SPOUT\_TYPE A*. The paint always covers the entire vessel surface and there is always incised-zoning.
2. *SLIP-PAINT : WHITE* is found on *GLOBULAR* vessels with *HANDLE.SPOUT\_TYPE C* or *A*. This tends to cover the lower half of the vessel surface and lack a delineating incised-line (*NO-INCISED-ZONING*). It is associated with an *ORANGE* or *RED* *BASE\_COLOUR*.
3. *orange* or *red slip-paint* occurs on *globular* vessels with a *Handle.Spout\_Varieties B6* or *B7*.
4. Both *FULL-3D-SCULPTED* and *ADD-ON-SCULPTED* stirrup-spouts with *TYPE A* handle-spouts occasionally occur with *POLYCHROME*, *POST-FIRE-PAINT*, which in turn is commonly associated with a *DARK-BROWN* *BASE\_COLOUR*.

The absolute counts for each of these combinations in the dataset are very low, but these represent the consistent co-occurrence of a great number of highly specific variable permutations. Statistical tests of significant correlation and difference have shown a number of more general trends between form- and paint-traits, all of which have informed the classification of painted stirrup-spout types. A consideration of iconographic features, in addition to the form and decorative techniques discussed in Chapters 5 and 6, may further support these, or indeed enable the association of



typological groupings between stirrup-spouts and other object types such as single-spouts, bowls or figurines. All of these paint-type-colour and form combinations for stirrup-spout bottles are discussed in terms of their scholarly and archaeological context, as well as in terms of their iconography, in Chapter 7.

## 6.2.D Colour & Painting on Other Object Types

### 6.2.D.1 Colour & Painting on Single-Spouts

Only 16.6% (N= 33) of single-spouts in the sample are painted. In contrast to the whole sample, and indeed to the stirrup-spout bottles, this is divided equally into *SLIP-* and *POST-FIRE-PAINT*, with neither *GRAPHITE* nor *CINNABAR* powder recorded on any examples in the sample (Table 6.68).<sup>173</sup> Also in contrast to stirrup-spout bottles, there are as many *POLYCHROME*-painted single-spout bottles (6.3%) as there are *BICHROME* ones (5.2%) (Table 6.69). The most frequent paint colour is *RED* (N=12, which accounts for 36% of paint on single-spouts), including seven (7) bottles in *SLIP-* and five (5) in *POST-FIRE-PAINT*. The specific *PAINT\_KIND.COLOUR* combinations are fragmented into occurrences of between one (1) and seven (7) (for *RED:SLIP-PAINT*) making it difficult to discuss definitive distributions (Tables 6.70 and 6.71).

A crosstabulation of *COMPLETE\_FORMS\_SGL.SP* with presence or absence of paint is shown in Table 6.72. It reveals a statistically significant differentiation but not correlations.<sup>174</sup> Although 83.3% of single-spouts are unpainted, just two of the listed *COMPLETE\_SGL.SP\_FORMS* in my sample *never* occur with paint, which means that the use of paint on single-spouts, although rare, is widely dispersed across the forms defined here. Nonetheless, the crosstabulation reveals some forms that are much more likely to be painted than others, despite the low frequencies and high number of shared traits between the different *COMPLETE\_FORMS\_SGL.SP*. The complete forms most likely to be painted are:

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<sup>173</sup> One rojo-grafitado single-spout bottle fragment is published from Cerro Blanco (Nepena Valley, Ikehara & Shibata 2005 fig.23).

<sup>174</sup> *COMPLETE\_FORMS\_SGL.SP \* PAINT\_YN*:  $X^2= 48.512$ ,  $df= 12$ ,  $p= .000$ ;  $T_b= .075$ ,  $N= 180$ ,  $p= .179$ .

- *CUPCAKE : FIGURE-ON-TOP + STRAIGHT : SLIM : NO-LIP* (100% painted, although it consists of just three (3) cases);
- *GLOBULAR-ADD-ON-3D-SCULPTED + TAPER-IN : SLIM : NO-LIP* (80% N=4);
- *GLOBULAR-ADD-ON-3D-SCULPTED + STRAIGHT : SLIM : NO-LIP* (75% N=3);
- *PURE-GLOBULAR + SEPARATE-NECK : CONCAVE : SLIM : NO-LIP* (26.3% N=5).

It is worth noting that there is a strong positive correlation between the presence of paint and 3-dimensional modelling on single-spouts:<sup>175</sup> compared to an overall proportion of 16.6% of single-spouts being painted, single-spouts with various kinds of DDD\_SCULPTING are also disproportionately likely to feature paint: *ADD-ON-3D-SCULPTING* (33.3%), *FIGURE-ON-TOP* (57.1%), *FULL-3D-SCULPTED* (20%) (Table 6.73).

To discern more detail and understand any trends within painting and single-spout form traits better, many form variables including *CHAMBER\_SHAPE*, *DDD\_SCULPTING*, *BODYFORM*, *SP.NECK\_FLOWS*, *SP\_SHAPE*, *SP\_RIM*, and *SP.EVERTED\_YN* were crosstabulated with *PAINT\_YN* and with *PAINT\_KIND*. Only one set of variables was calculated as significantly correlated or differentiated with the presence or absence of paint:<sup>176</sup> *NOT-EVERTED* spouts are much more likely to be painted (41.5%) than *EVERTED* spouts (9.5%) (Table 6.74).<sup>177</sup>

*SP.EVERTED\_YN* is also the only form-variable that was calculated as significantly correlated or differentiated with *PAINT\_KIND* (Table 6.75).<sup>178</sup> One possible pattern of note is that 58.8% of paint on single-spouts with *NOT-EVERTED* rims is *POST-FIRE-PAINT*, while 66.7% of *SLIP-PAINT* is found on single-spouts with *EVERTED* spouts. This can be compared to the finding that 75% of *POST-FIRE-PAINT* on single-spouts co-occurs with *ADD-ON-3D-SCULPTING*, while 66.7% of *SLIP-PAINT* occurs on single-spouts with *NO-3D-SCULPTING*.

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<sup>175</sup> *DDD\_SCULPTING \* PAINT\_YN*:  $X^2= 20.321$ ,  $df= 4$ ,  $p= .000$ ;  $T_b= .260$ ,  $N= 193$ ,  $p= .002$ .

<sup>176</sup> *PAINT\_YN \* SP.EVERTED\_YN*:  $X^2= 23.750$ ,  $df= 1$ ,  $p= .000$ ;  $T_b= -.355$ ,  $N= 188$ ,  $p= .000$ .

<sup>177</sup> While 90% of paint occurs on single-spouts with specifically *NO-LIP* rims, it should be noted that 74.3% of single-spouts have no-lip spout rims. Tests of statistical significance for a relationship between *SPOUT\_RIM* and *PAINT\_YN* were inconclusive: *PAINT\_YN \* SP.RIM*:  $X^2= 9.915$ ,  $df= 7$ ,  $p= .193$ ;  $T_b= -.136$ ,  $N= 183$ ,  $p= .025$ .

<sup>178</sup> *PAINT\_TYPE \* SP.EVERTED\_YN*:  $X^2= 32.469$ ,  $df= 3$ ,  $p= .000$ ;  $T_b= -.337$ ,  $N= 188$ ,  $p= .000$ .

Crosstabulating COMPLETE\_FORMS\_SGL.SP with COLOUR\_CHROME reveals that a POLYCHROME colouring is found on just two permutations of COMPLETE\_FORM\_SGL.SP, and these differ only in the shape of the spout (Table 6.76):<sup>179</sup>

- GLOBULAR : ADD-ON-3D-SCULPTED + STRAIGHT : SLIM : NO-LIP (75.0% N=3)
- GLOBULAR : ADD-ON-3D-SCULPTED + TAPER-IN : SLIM : NO-LIP (80.0% N=4).

The previously noted association between a POLYCHROME colouring, POST-FIRE-PAINT, INCISED-ZONING and a DARK-BROWN BASE\_COLOUR across all painted ceramics is also present for the single-spouts: 77.8% of POLYCHROME single-spouts have a DARK-BROWN base, variously painted with combinations of RED, WHITE, YELLOW, and OTHER colours using POST-FIRE-PAINT or a combination of SLIP + PF-PAINT (Tables 6.77 and 6.78).<sup>180</sup>

In terms of form-traits and BASE\_COLOUR, there is no statistically significant relationship with COMPLETE\_SGL.SP\_FORM, nor between SP\_RIM or SP.EVERTED\_YN and BASE\_COLOUR.<sup>181</sup> One of the few noticeable trends is again with SP.EVERTED\_YN: 39.5% of NOT-EVERTED spouts occur with a DARK-BROWN BASE\_COLOUR (which occurs on 20% of single-spouts overall), and 100% of RED single-spouts have an EVERTED spout (N=6) (Table 6.53).<sup>182</sup>

Based on the preceding analysis, one consistently co-occurring set of both form- and paint-attributes did emerge, which enabled the definition of one category of 'painted' single-spout bottles (N=7). This group is defined by having:

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<sup>179</sup> One additional case of a POLYCHROME colouring is on a single-spout bottle of complete-form CUPCAKE : FIGURE-ON-TOP + STRAIGHT : SLIM : NO-LIP.

<sup>180</sup> Contrast this with single-spouts of a black or grey-tan base-colour, of which just 5.9%, 4.2% respectively have any paint at all. (The same true for bowls, see below.)

<sup>181</sup> COMPLETE\_FORMS\_SGL.SP \* COLOUR\_BASE:  $X^2= 94.179$ ,  $df= 84$ ,  $p= .210$ ;  $T_b= .002$ ,  $N= 167$ ,  $p= .978$ .

SP\_RIM \* COLOUR\_BASE:  $X^2= 64.475$ ,  $df= 49$ ,  $p= .068$ ;  $T_b= -.098$ ,  $N= 170$ ,  $p= .145$ .

SP.EVERTED\_YN \* COLOUR\_BASE:  $X^2= 21.405$ ,  $df= 7$ ,  $p= .003$ ;  $T_b= -.141$ ,  $N= 175$ ,  $p= .059$ .

<sup>182</sup> Additional variables such as PAINT.COVER\_ORD or BURNISH\_YN are not included at this stage, because they are not consistently correlated with any of the other traits and thus fragment the already small dataset of single-spouts more than is necessary / useful for the present analysis.

- *GLOBULAR* : *ADD-ON-3D-SCULPTED* + *SEPARATE-NECK* chambers
- *STRAIGHT/TAPERING-IN* : *SLIM* : *NO-LIP* spouts
- a *POLYCHROME* colouring made up of two or more painted colours (this can be a combination of *SLIP* and *POST-FIRE-PAINT*, or *POST-FIRE-PAINT* only)
- delineated by *INCISED\_ZONING*
- on a *DARK-BROWN* base.

Examples are shown in Figure 6.5.

#### 6.2.D.1.1 Single-Spouts and Painting in Sum

A lack of clear associations between form-features and painting on single-spouts makes it difficult to identify traits that might define “traditions” (for single-spout bottles) in which painting as a decorative technique, or the use of particular *kinds* of paint, were common or defining characteristics. In part, it stems from the fact that so few single-spouts are painted (16.7% N=32). However one form-feature was strongly correlated with the presence or absence of paint in my sample; *SP.EVERTED\_YN*: 45.5% of single-spout bottles with *NOT-EVERTED* lips are painted, compared to just 9.5% of single-spouts with *EVERTED* lips.

More specifically, all single-spouts painted using *RED SLIP-PAINT* (N=6) have *EVERTED* lips on the spout. By contrast, *POST-FIRE-PAINTED* single spouts have *NOT-EVERTED* spouts and specifically *NO-LIP* rims. One particular group of these *POST-FIRE-PAINTED* single spouts has been further classified as characterised by a *POLYCHROME* colouring and *INCISED-ZONING* over a *DARK-BROWN* base. This is the only ‘painted single-spout’ type identified in the dataset. It is worth noting that this same set of attributes defines one group of painted stirrup-spout bottles (see 6.2.C.3.2.4). As such, this may identify a potting tradition or context in which different object-types were made using the same pastes and decorative techniques. Chapter 7 will compare iconography and archaeological context to evaluate this possibility.

#### 6.2.D.2 Colour & Painting on Open Containers

For open containers we already noted that bowls are commonly painted (48.3% N=28), while beakers/cups are almost never painted and too few in frequency to discuss further (14.3% N=2) (Table 6.43). Therefore, the following analysis for open containers considers bowls only.

The majority of bowls in the sample are *STRAIGHT-SIDED* (68.4%) (see Chapter 5). Compared to other object types, a disproportionately high number of bowls are painted (48.3%), resulting in a *POLYCHROME* colouring in 25% of cases (see Table 6.80). However crosstabulations run using various paint- and shape-variables revealed almost no statistically significant correlations or differentiations. This no doubt stems from the small sample of bowls available for consideration (N=58).

The only significant correlations are with *BASE\_COLOUR*, which is significantly differentiated by (and in part correlated with) paint in terms of *PAINT\_YN*, *COLOUR\_CHROME*, *PAINT\_COLOUR*, and *PAINT\_KIND*.<sup>183</sup> It confirms the same strong relationship between a *DARK-BROWN BASE\_COLOUR* and *POLYCHROME, POST-FIRE-PAINT*, as was noted for the sample as a whole and for stirrup- and single-spouts specifically: 85.7% of bowls with a *POLYCHROME* colouring have a *DARK-BROWN BASE\_COLOUR*, and 60.0% of bowls with a *DARK-BROWN* base are *POLYCHROME* painted. Bowls of a *GREY-TAN* colour are almost never painted (just one case in the sample) (Table 6.80). Of bowls with paint, 77.3 % also have *INCISED\_ZONING* (Table 6.81).

In sum: Bowls are frequently painted (48.3%) and there is little relationship between their form and the presence or absence, kind, or indeed colours of paint used to decorate them. This is in part due to the uniformity of bowl-forms recorded, 68.4% of which are straight-sided with a flat base. It is also worth mentioning that the painted decoration is on the exterior of the bowls, not the interior, which tends to be burnished but otherwise plain. The only set of attributes that is consistently found in combination is a *DARK-BROWN BASE\_COLOUR, POLYCHROME POST-FIRE-PAINT*, and the prevalence of *INCISED-ZONING*. What thus emerges is a 'painted tradition' of bowls with these attributes (see Figure 6.6). Importantly, these same technological traits identify a Type of painted stirrup-spouts and the only distinctively recognisable Type of painted single-spout bottles. Archaeological contexts for the type of painted bowls identified here are considered, in conjunction with single- and stirrup-spouts decorated using the same techniques, in Chapter 7.

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<sup>183</sup> *COLOUR\_BASE \* COL.CHROME*:  $X^2= 38.160$ ,  $df= 14$ ,  $p= .000$ ;  $T_b= .376$ ,  $N= 56$ ,  $p= .001$ .  
*COLOUR\_BASE \* PAINT\_TYPE*:  $X^2= 53.474$ ,  $df= 28$ ,  $p= .003$ ;  $T_b= .282$ ,  $N= 55$ ,  $p= .013$ .

### 6.2.D.3 Colour & Painting on Figurines

In general, figurines and ocarinas are commonly painted (74.2% average).<sup>184</sup> Of painted cases, 93.9% are in *POST-FIRE-PAINT* (Table 6.83). The single most common *PAINT\_KIND.COLOUR* is *POST-FIRE : WHITE* (42.9%), followed by *POST-FIRE : RED + WHITE* (16.3%) and *POST-FIRE : RED* (12.2%) (Table 6.84). On figurines and ocarinas, 95.6% of painting is associated with *INCISED\_ZONING* (Table 6.85).

The use of *PAINT\_KIND* and *\_COLOUR* on figurines and ocarinas is remarkably homogenous, consisting of a *TAN* base-colour (78.8%) and *PARTIAL* paint-cover in *WHITE*, *RED*, *BLACK* and combinations thereof using *POST-FIRE-PAINT* (93.9%). Areas of colour are delineated by *INCISED-ZONING* (95.6%).<sup>185</sup> A further discussion of painting on figurines is beyond the scope of this thesis. The key observation at this stage is that – as far as paint and colouring are concerned – the figurines and ocarinas do *not* appear to belong to any of the same potting traditions as have been identified for the single- and stirrup-spout bottles, none of which are recorded as having a *TAN BASE\_COLOUR* and *POST-FIRE-PAINT : WHITE*.

### 6.2.E Discussion of Painting

In the present dataset, 72% of ceramics are unpainted. The 28% that are painted are restricted to a limited number of object-types and forms. Differences between the distribution of particular paint-colours, -types, and -delineations recorded on different object-types reveal a distinction in their respective *chaînes opératoires*. This in turn points to distinct potting traditions. Specific groups of traits have been identified primarily for stirrup-spout bottles, where the consistent co-occurrence of a number of both decorative and formal attributes resulted in the classification of four

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<sup>184</sup> Within Figurines and Ocarinas there is no statistically significant correlation or difference between any of the paint- or colour-variables and the object-type. The only notable difference is that ocarinas are slightly less likely to be painted (70%) than figurines (80%). Therefore they are treated as one group of objects here.

<sup>185</sup> Two figurines that are painted with white or cream coloured *slip*-paint also differ from the rest of the sample in that they are dark-red coloured and have a highly polished surface. Furthermore they can be distinguished by their eye-shapes and dress and lack of ornaments (see Burtenshaw-Zumstein 2013).

(4) painted stirrup-spout categories. The very specific nature of the variables/permutations used provides a reasonable basis for defining each set of traits as indicative of a distinct type or style. For both single-spout bottles and for open-containers, few clear patterns between painting and form can be discerned, and only one (1) 'painted' type was classified for each.

Key to this classification is the fact that form is not prioritised over paint-type and -colour in the definition of groupings. Groups (such as those listed in Table 6.36) can be defined on the basis of their paint-traits, with forms being varieties therein, rather than paint being a feature characterising variety within particular form-types. In fact, I would argue for the former as a more appropriate interpretation of the data: with only 24% of stirrup-spouts being painted, *all* COMPLETE\_ST.SP\_FORMS exist without painting and as such, form cannot define any of the painted stirrup-spout categories. The presence of particular paints, on the other hand, clearly delimits a number of certain forms.

By prioritising techniques, we can compare objects of different OBJECT\_TYPES and potentially consider various kinds of vessels decorated in the same way as belonging to the same tradition. For example, a combination of post-fire polychrome painted brownware was identified amongst stirrup-spouts, single-spouts, and bowls, and thus may point to a tradition that encompassed all three object types. In the manufacturing process, we are thus most likely recognising a repetition of learned and habituated behaviours irrespective of whether a bowl or bottle was being produced: the sourcing of clay, firing technique, and decoration of the surface as well as the shaping of particular forms.

Similarly, a number of stirrup-spout forms are painted using *SLIP + GRAPHITE : RED + BLACK* paint, where the red slip covers the entire vessel surface and the designs in black graphite are outlined by *DRY/PF-INCISED* lines. The very same decorative process is known from two bowls (found in the Galería de las Ofrendas at Chavín de Huántar, see Lumbreras 1993 Fig. 571 or Fux 2012:360), which strongly suggests that these vessels belong to the same tradition of pottery-making as the bottles.

The following chapter (Chapter 7) will develop the groupings identified above on the basis of quantitative analysis, considering relationships between form and decorative

techniques in light of known archaeological and chronological contexts. The discussion will also examine whether iconographic traits can further develop any stylistic or typological associations or disassociations classified thus far.

## 6.2.F Painting and Surface-Texturing : Decorative Techniques in Sum

This chapter separately analysed the uses of surface-texturing and painting. Before moving on to outline a typology based on the forms and trends identified thus far, we briefly consider whether there is a relationship between these two decorative techniques.

In fact, a crucial pattern is revealed in the comparison of painting and texturing: tests of statistical significance reveal a strongly correlated and differentiated relationship, with just 2.1% of the entire sample featuring both painting *and* texturing (Table 6.87).<sup>186</sup> This means that 92.5% of paint occurs on vessels *without* surface-texturing, and 91.6% of *TEXTURING* occurs on *UNPAINTED* vessels. From a practical point of view, this is perhaps not surprising: textured surfaces do not lend themselves to the application of paint, but that makes the relationship no less significant.<sup>187</sup>

On stirrup-spouts we specifically observe the same distinction: 72% of stirrup-spouts with handle-spout *TYPE B* have *TEXTURING* (compared to 6.6% with *TYPE A*).

Conversely, there is a strong positive correlation between painting and handle-spout *TYPE A* (30.5% *PAINTED*) as opposed to *B* (11.7% *PAINTED*). In other words, painting and texturing are more or less mutually exclusive, and their respective distributions are strongly associated with the dominant *HANDLE.SPOUT\_TYPER A* and *B*.<sup>188</sup>

Comparing those *COMPLETE\_FORMS\_ST.SP* that have been identified as having the possibility of paint with those identified as having the possibility of texturing, the

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<sup>186</sup> All objects: *SURFACE.TXT\_NY* \* *PAINT\_YN*:  $X^2= 58.587$ ,  $df= 1$ ,  $p= .000$ ;  $T_b= -.256$ ,  $N= 893$ ,  $p= .000$ .

<sup>187</sup> There are usually also untextured areas on these vessels (in particular the underside of the handles and the spout shaft), which can be painted. Very occasionally there are traces of cinnabar powder within textured areas, but this is very rare (just one case in the dataset).

<sup>188</sup> The exception being *HANDLE.SPOUT\_VARIETIES* with *ROUND-BULGE* rims; **B6** and **B7**.



same mutually exclusive distinction is evident (compare Tables 6.53, 6.64 and 6.16). This strong separation of decorative techniques, each associated with distinct vessel forms, seems to indicate two separate potting traditions in which the vessel forms and decorative techniques being produced were categorically different. As such, these findings provide the basis for the Typology that is outlined in the following chapter.

## 7 THE CERAMIC COMPLEX - CLASSES, TYPES, VARIETIES

### 7.0 INTRODUCTION & METHODS

#### 7.0.A Combining Statistical and Intuitive Approaches

The preceding process identified statistically significant trends and correlations between specific permutations of both formal and technological traits. The patterns that emerged allow us to divide the ceramics into distinct groups, based on the co-occurrence and mutual exclusivity of particular traits. In this chapter, ceramic groupings are summarised and discussed using an intuitive approach. This allows us to interpret patterns or trends even where frequencies are very low and thus not apparent or meaningful when analysed using strictly quantitative methods. However the statistical, quantitative analysis of the preceding two chapters is the foundation for each of the groupings discussed below. We can thus be confident that they are valid stylistic categories. A secondary aim of this chapter is to summarise published archaeological data relating to each stylistic category and to consider whether these may also be cultural entities.

Not all ceramics in the dataset have been assigned to one of the numbered ceramic Classes, Types, or Varieties that are discussed in detail in this chapter. This is due to the enormous variation and high number of variables and their permutations that I have tried to consider. However all key trends and correlations discerned as part of the analysis can be found in Chapters 5 or 6, even if they are not repeated or discussed here. This chapter picks out those Types that are the most common, best-defined, and most relevant for contributing to and enlightening scholarly discussion of Formative Period North Peruvian ceramic styles. This means concentrating once again on stirrup-spout bottles, but other object types are included where appropriate. Additional small groups of objects were invariably noticed over the course of the research and these may well form the basis for further types to be defined in future. However as these were not statistically verifiable *and* as yet could not be related to any of the other identified styles, they have been left aside for now. The ceramic figurines (“Tembladera figurines”) have also not been included as a Type, although they will be briefly considered in relation to Type 4. This is firstly because the typology presented here relies strongly on handle- and spout-form variables, and

secondly because a detailed description and typology of the figurines themselves already exists (see Burtenshaw-Zumstein 2013).

### **7.0.B A note on Iconography**

Iconographic traits, beyond subject motif, are remarkably challenging to classify into variables – the factors involved to accurately represent them as comparable variables and permutations are extremely complex. For example, not only must we record the presence or absence *and* kind of traits such as geometric motifs, figurative motifs, or adornments, but also the pose or position of subjects, the rendering of features (e.g. facial), and combinations with other motifs. Furthermore each variable and permutation needs to be classified separately as two- *and/or* three- dimensional. The possibilities for variables and permutations are almost infinite (see Variable Dictionary for the selection used in this thesis). The result is that the database ends up with a huge number of empty (i.e. not applicable) cells, and very low counts for each trait occurrence that is truly comparable across vessels. Therefore, rather than applying statistical tests, iconographic trends or patterns are examined only in relation to the particular ceramic groups being discussed here, picking out specific motifs or artistic conventions that are more or less prevalent or absent. Where possible, quantitative figures or frequencies are given, but much of the description relies on an intuitive reading of the data. As a final note, it has been generally observed that iconographic motifs are more easily shared across cultural boundaries than operative techniques (Plog 1995:371; Wiessner 1985:63). The wide dispersal of ‘chavinoid’ traits and motifs during the Early Horizon is one example of this. In constructing a Typology, references to iconography are thus less *definitional* and more *observational*; this is a further reason why iconography is mentioned in this chapter, but not part of the quantitative analysis of the preceding two chapters.

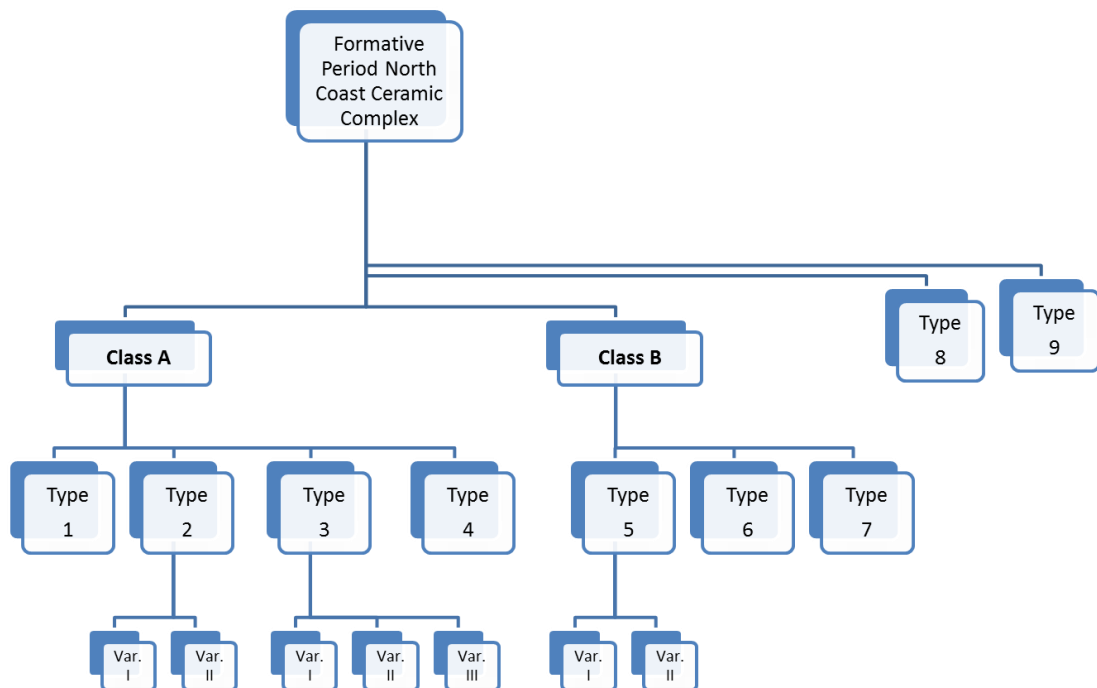
### **7.0.C The Class – Type – Variety System**

Chapter 4 outlined different ways of creating a typology, highlighting in particular the merits of a hierarchical typology (Whallon’s 1972 partitive divisive method). Here the data are classified into a straightforward, 3-level hierarchical typology: at the most basic level, two ‘Classes’ of ceramic emerge, within which it was possible to classify some specific ‘Types’ and occasionally ‘Varieties’. A Typology of this sort is essentially a set of ideas, of possible outcomes. When someone decides to make a pot,

do they even consider making it not globular, for example? Are they aware of paint as an option for decorating their product? Those choices or options - the notion of *potential* - of a feature are important. They are part of the isochrestic variation; of the choices available to the maker at each stage.

The ceramics can be considered as part of a northern Peruvian Formative Period Ceramic Complex. Of the dataset used in this thesis, 89.6% of stirrup-spouts have been assigned to a Ceramic Class (A or B), and 50% of stirrup-spouts have been assigned to a Ceramic Type (1-9) (Tables 7.1 and 7.2). Only 8% (N=15) of single-spouts have been assigned to a Type. This results from the fact that few patterns (correlations) emerged in the quantitative analysis of Chapters 5 and 6, and it is clear that more work and more data are needed to create a comprehensive Typology for single-spout bottles. Of bridge-spout bottles, 38% have been grouped into a single Type (Type 9), and the bridge-handle-spout is one of the definitive traits of that Type. Overall 41% of all pieces have been assigned to a Type.

**Figure 7. 20. Typology Diagram**



This chapter will summarise the traits that define each of the Ceramic Classes, Types, and Varieties, using both the correlations that emerged from the quantitative analysis (Chapters 5 and 6) *and* intuitive observations of characteristics, *including* iconography. Known archaeological findspots for each Type-Variety identified in this research are listed, which might serve as anchor-points for a geographic and/or chronological placement of that particular group. Where applicable, the Types and Varieties are discussed in relation to previously identified and labelled styles such as Cupisnique, Tembladera, Chongoyape, or Chavín, including Raku and Wacheqsa. The chapter then discusses how the present analysis confirms, refutes, or compares to those. Suggestions are made as regards the division of this ceramic complex into distinct cultural as well as stylistic entities.

Please note that Types 1-9 do not encompass the whole of stylistic diversity that exists within the dataset. Rather, they represent the clearest and most common groupings of traits, and specifically address existing debates concerning ceramic styles and cultures in Formative Period North Peru. This chapter cannot be a comprehensive discussion of all trends identified, nor address all definitions or characteristics that have been put forward by previous scholarship. Instead this chapter highlights what are perceived to be the most relevant, discussion-worthy points, most significant for contributing to and furthering our understanding of the material in question.

## **7.1 CERAMIC CLASSES**

The first key pattern to emerge from the quantitative analysis of Chapters 5 and 6 is that the ceramics divide into two clear sets (“Classes”) which differ from one another in a number of fundamental formal and technological traits. This division is particularly clear for stirrup-spout bottles, given the strong statistical correlations and differentiations calculated for the handle-, spout-, and rim-variables. In the most basic terms the two Classes, A and B, are defined by HANDLE.SPOUT\_TYPES A and B respectively. The quantitative analysis of the preceding chapters revealed and confirmed that this corresponds with a number of further traits to distinguish them, which are listed in Table 7.3. It must be noted that with a dataset as diverse as this,

there are isolated exceptions to almost every rule; however, tests of statistical significant correlation and differentiation support the here proposed Class division for every trait listed in Table 7.3.<sup>189</sup>

**Table 7.3**

<b>Formative Period North Coast Peru Ceramic Complex</b>	
<b>CLASS A</b>	<b>CLASS B</b>
Possibility of paint	Monochrome unpainted*
Possibility of oxidising firing	Black/Grey surface (reducing fired*)
No surface alteration	Possibility of surface-alteration
handle-spout Type A:	handle-spout Type B:
Slim handles	Possibility of wide handles
Possibility of angular/trapezoid handles	Round handles
No decoration on handles	Possibility of deco on handles
Perpendicular oriented handles	Possibility of front-to-back orientation
Tall, slim spouts	Short spouts, possibility of wide spouts
Concave or straight spouts	Possibility of convex shaped spouts
No prominent lips on spout rim (though rims can be everted)	Prominent lips on spout rim
(47.1% pure globular)	77.4% pure globular
80% of fully-figurative	(20% of fully figurative)
	<i>* exception: bottles with round-bulge rims are oxidising fired and can be slip painted.</i>

<sup>189</sup> For reasons outlined above, iconographic traits are not listed here but will be mentioned for specific Types and Varieties. There is some overlap in themes and even in specific motifs between the two Classes (such as felines or headmotifs), which is in part what led previous scholars to identify all these ceramics as belonging to one (material) culture. However – and as the descriptions of Types clarifies – there are more iconographic subjects and conventions that are different or exclusive to one or the other Type (and thus Class) than they have in common. Furthermore, what is commonly cited as shared iconographic components are actually quite vague: for example, felines and sacrifice are key components of a pan-Andean cosmology and ideology and thus represented in almost all periods and cultures of Prehispanic Peru.

Table 7.3 lists only absolute differentiating traits, but there are further general trends that can be used to describe differences between the Ceramic Class A and B. For example, in terms of *CHAMBER\_SHAPES*, Class A is much more diverse than Class B: 77.4% of Class B stirrup-spouts are categorised *PURE-GLOBULAR (BODYFORM)*, compared to 47.1% of Class A. Meanwhile 64.7% of *CHAMBER\_SHAPES* recorded as “*OTHER*”, and 80% of *FULLY-FIGURATIVE* vessels fall into Class A.

A general division, *similar* to the one defining Class A and B as identified in this thesis, has been previously noted. For example, in the chronological sequence put forward by Sawyer & Maitland (1983), vessels with wide spouts and “protruding lips” (their Group I) precede trapezoid handles with “unflanged lips” (their Group II) (1983:60-61).<sup>190</sup> This order is effectively overturned by later sequences (Elera 1998, also Toshihara 2002), which place slim, trapezoid handles with no-lip rims earlier in the sequence than vessels with prominent-lips on the spout. This very basic chronological division, based on attributes of the spout and rim, is supported by the sequence devised for Kuntur Wasi (Onuki 1995) as well as by the association of bottles with *BEVELLED-LIPS* (i.e. *PROMINENT-LIPS*) found at Chongoyape in association with sophisticated metalwork. Therefore a Late Formative Period date for vessel with *PROMINENT-LIPS* on the spout appears to be archaeologically substantiated. In other words, the general distinction between Ceramic Class A and B appears to be (at least in part) chronologically determined, with Class A preceding the development of Class B style vessels.

### 7.1.A CLASS A

The characteristics that define Class A ceramics are listed in Table 7.3. As mentioned, Class A stirrup-spouts are now understood to generally pre-date the style and traits of Class B. Class A incorporates a great variety of forms, decorative techniques, and iconographic subjects and these have never been defined in a consistent way. Vessels here categorised as Class A have been variously published as “Classic Cupisnique” (Jones 2010; Toshihara 2002), “Tembladera” (Donnan 1992; Cordy-Collins 1998), and

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<sup>190</sup> Chongoyape style vessels are not included in any of their Groups I, II, and III, but hypothesised as being late Chavín (1983:58).

“Chavín” (Lapiner 1976; Lavallo & Lang 1981; Cordy-Collins 1998). The statistical analyses support the division of Class A into sub-categories (Types and Varieties) with consistent and mutually exclusive characteristics. The most common and/or well-defined of these are now discussed.

#### **7.1.A.1 Type 1**

Chapters 5 and 6 revealed a strong correlation between *ANGULAR* handles and *NO-LIP* rims, and in turn with *DDD\_SCULPTING* (for example, 46% of *TRAPEZOID* handles occur on *FULL-3D-SCULPTED* stirrup-spouts, much higher than *FULL-3D-SCULPTING* across the sample as a whole (23.6%)). These form the basis for identifying a first ceramic group; Type 1, which is thus defined by following characteristics:

The handle is *ANGULAR* (*TRAPEZOID* or *RIGHT-ANGLED*) and *SLIM*. Of stirrup-spouts with *TRAPEZOID* handles, 68% fall into Type 1. The similarly slim spouts are *STRAIGHT* or *CONCAVE*, with *NO-LIP* rims or *FLAT-PROFILE* rims. Handle-spouts are never decorated (*HANDLE\_DECO\_YN* = 0). Type 1 vessels thus have *HANDLE.SPOUT\_VARIETY* A2, and also A1 and A4. Type 1 vessels are *MONOCHROME* and generally reduction-fired, resulting in 75% *GREY-TAN* to *BLACK* surface colour. The paste is *GREY-TAN* in colour, and very fine-grained.

There is a wide range of chamber shapes, but conspicuous 3-dimensional sculpting is by far the most common (characterising 80% of Type 1 when combining both *FULL-3D-SCULPTING* and *ADD-ON-3D-SCULPTING*). In fact, 50% of all *FULL-3D-SCULPTED* stirrup-spouts fall into Type 1. Meanwhile, 2-dimensional decoration is rare.<sup>191</sup> Type 1 vessels commonly feature neither surface-texturing nor painting (though there can be traces of cinnabar in crevasses of some pieces). Incising is present in about 50% of pieces, but figurative designs are extremely rare and restricted entirely to the so-called “headmotif” (see below). Examples of Type 1 are illustrated in Figures 7.1, 7.2 and 7.3.

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<sup>191</sup> not including surface finish such as burnishing or polishing.



#### 7.1.A.1.1 Type 1 Iconography

Type 1 iconography consists of sculpted 3D-figures showing very varied subjects, generally represented in a very naturalistic way (an extensive list and interpretations can be seen in Jones 2010). Apart from incised 'headmotifs', which feature on 14% of Type 1 vessels, there are only few 2D incised geometric motifs, such as concentric circles.<sup>192</sup>

In terms of modelled subjects, animals are the most common theme (44%). This includes felines (27% of sculpted animal vessels), serpents, birds, molluscs or shells, and deer or camelids. These are represented as individuals, in pairs, and occasionally in an interactive "scene", such as a feline with cacti, or with deer or human in its paws. Humans are shown in 29% of cases, commonly in a sitting position, and only rarely as acrobats or kneeling prisoners. They wear very little in terms of clothing or adornments, usually only a plain loincloth and very rarely plain round earspools (8%) or a simple headband (15%). In highly abstracted form, the human form (or rather, anthropomorphic heads) are also depicted in the so-called headmotif, incised onto plain or sculpted vessels (for a range of examples see Park 2010).

Fruits and vegetables are also commonly represented, including gourds, tubers, and peppers. Netgourds (gourds grown inside a net – Fig. 7.3) are quite common (N=7) and several of these feature incised headmotifs, resulting in the overall impression of a net-bag full of trophy heads. Finally, there are rare representations of architecture (N=4), usually a building with gabled roof standing on a low platform (see Figures 7.1j, 7.1k).

#### 7.1.A.1.2 Type 1 Findspots

Vessels of Type 1 have been found especially on the littoral and mid-valley areas of a few northern valleys; mainly Jequetepeque and Chicama. Fragments have been recovered from Huaca Prieta and Huaca de los Reyes, complete vessels from Puémape (Elera 1998) and Barbacoa or Palenque (Larco 1941, 1945), i.e. the Cupisnique ravine itself. Type 1 vessels have not been published from sites further

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<sup>192</sup> Such circles have been interpreted as jaguar spots as they occur on representations of felines also. They also occur on depictions of serpents.

south, neither in the highlands (Chavín de Huántar), nor the coast (Nepeña Valley).<sup>193</sup>

Type 1 vessels were possibly made and used over a relatively long time period. Toshihara attributes vessels of Type 1 to Phases 4 and 5 and 6. She points to a few specific motifs that might indicate an earlier or later date for vessels of this type, however the formal and technological traits compel me to consider all of these as part of one overall Type. At Puémapa they are associated with Elera's Middle Puémapa Phase. Radiocarbon dates cited for this phase are as early as 1960 BC (Elera 1998) but the "Classic" Cupisnique phase is later revised as beginning at 1500 BC (Elera 2009:72). As confirmed by Toshihara's sequence, these constitute some of the first *stirrup-spout* bottles in Peru. As such, they fall early in the sequence of stirrup-spout Types discussed in this chapter.

#### 7.1.A.1.3 Type 1 Labels in the Literature

Vessels of Type 1 have been called "Classic Cupisnique". Jones (2010) does so following Elera (1998, 2009) although both scholars also include other vessel styles that, by the present definition, are not part of Type 1. Examples have been also published as "Tembladera" (Lapiner 1976; Donnan 1992; Cordy-Collins 1998) and as Chavín (Lavallo & Lang 1981; Cordy-Collins 1998).

Jones (2010) examines and discusses in detail the iconography of "Cupisnique", using a dataset that includes a significant proportion of Type 1 vessels. She concludes on sacrifice as a major theme in Cupisnique ideology and iconography (Jones 2010:294). However, Jones includes the hunting and capturing iconography of what she herself calls "Chongoyape style" vessels, which I classify as part of a different Class and Type, and belonging to a later phase (Type 5, see below). Jones also includes the stone carved bowls and beakers allegedly found at Limoncarro in the lower Jequetepeque Valley (Figure 7.4). These feature various anthropomorphic

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<sup>193</sup> One example of a stirrup-spout with HANDLE.SPOUT\_VARIETY A2 and a 3-SIDED-ANGULAR-CARINATED chamber has been found at Kuntur Wasi in the highlands, very similar to one found at Puémapa on the coast. The handle-spout form as well as the lack of paint and gray-tan colour scheme link these to Type 1, but the lack of 3D-sculpting and incised head-motifs also link them to Type 2.

beings holding a knife and trophy heads, a clear visual reference to sacrifice and decapitation (see also Cordy-Collins 1992). Some scholars cite these, especially the spider-decapitator, as “typical” of or “important” in Cupisnique iconography (see Burger 1989, 1992:95-96, 1996; Alva Meneses 2008:111; Cordy-Collins 1992), and there are arachnid motifs in murals at Ventarrón (Alva Meneses 2008). However to my knowledge there are no arachnid motifs on ceramics, and subjects that we might interpret as ‘supernatural’ or recognise as composite or hybrid beings are extremely rare on Type 1 ceramics.<sup>194</sup> This makes links between the stone-bowls and beakers and the ceramics problematic.

Headmotifs occur on just 16% of Type 1 vessels and 9% of the whole dataset. While there are headmotifs that can be interpreted as trophy heads, decapitators (supernatural or not) are not depicted on ceramics. The only direct reference to sacrifice in the dataset are two figure-vessels apparently depicting self-sacrifice (see Figure 3.27b, also Appendix Database ID LM56). It must be noted that the self-sacrifice vessel shown in Figure 3.27b is unusual in that its *formal traits* match Type 1, but the post-fire paint is associated with Type 4. There are also two vessels of Type 1 representing bound captives, one of whom appears to be missing an eye (see Lapiner 1976:35 pl.27, also Appendix Database ID VMFA2). Given the scholarly interest in sacrifice and thus likelihood of such vessels having been published, I assume the isolated nature of these examples to reflect true rarity.

#### 7.1.A.1.4 Type 1 in Sum

Ceramics of Type 1 have long been called “Classic Cupisnique”, but under the term other scholars usually include other styles that have been grouped differently here (Larco 1941, 1948; Toshihara 2002; Elera 2009; Jones 2010). The proposed definition for Type 1 thus overlaps with, but is significantly narrower than, that of the aforementioned scholars. Any comparison with what others have said about “Classic Cupisnique” is thus somewhat problematic, because the boundaries of the datasets are different. This brings us to another kind of ceramic vessels that has been called

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<sup>194</sup> Some representations of serpents *may* have some feline features (such as concentric circles interpreted as representing spots), but these may also be artistic conventions for representing serpents. The only true composite depiction is the often-cited dual-head vessel from the Museo Larco (ML040218), see Figure 3.12a (also Appendix Database ID ML88).

“Classic Cupisnique” in recent publications, but which has here been defined as significantly differentiated from Type 1 and thus categorised as Type 2.

### 7.1.A.2 Type 2

Continuing with the headmotif (and indeed with existing definitions “Classic Cupisnique”), this second group of ceramics (Type 2) is related to Type 1 but also clearly distinct. Ceramic-Type 2 consists of unpainted<sup>195</sup>, grey or black stirrup-spout bottles of a fine grey paste, with *FLAT-BASED*, *PURE-GLOBULAR* chambers, thin vessel walls, and a burnished surface. Decoration is by incision: motifs show either a headmotif or avian design. There is a complete absence of *SURFACE\_ALTERATION\_YN* or *DDD\_SCULPTING* (the only exceptions are three cases that have an appliqué twisted string of clay, possibly referencing a rope used for carrying trophy heads). Although the majority have handle-spouts *TYPE A*, there are a few with handle-spouts *TYPE B*, and for this reason, Ceramic Type 2 is divided into two Varieties (see Figures 7.5 and 7.6):

#### 7.1.A.2.1 Variety I

- Variety I has slim, handles *tending* to *TRAPEZOID* (although many are characterised as *FLATTENED-ROUND*), and *SLIM* or *WIDE*, *CONCAVE* spouts with *NO-LIP* rims (although the *CONCAVE* spout-shape means that rims tend to *EVERTED*); *HANDLE.SPOUT\_VARIETIES C2* and *A2*. Where decorated, Variety I features incised headmotifs, sometimes joined by a double band, the rest are plain. All three types of incising are used (*WET-PASTE INCISING*, *DRY/PF-INCISING*, or wet-paste *CARVING*). Variety I can be equated with the style ‘Raku A’ identified by Lumbreras (1993) from the Galería de las Ofrendas.

#### 7.1.A.2.2 Type 2 Variety II

- Type 2 Variety II has the same characteristics as Variety I in all respects, except for the following: Variety II have *WIDE*, *ROUNDED* handles and short,

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<sup>195</sup> NB: some of these have clearly been coated in black slip or black graphite paint, however as mentioned in Chapters 4 and 6, it can be extremely hard to distinguish burnishing and slip paint (both result in a thin layer of fine clay at the surface. Therefore, without being able to confirm this for all vessels in the Type, this has not been included as a defining characteristic.

*WIDE* spouts with *EVERTED* or *EVERTED-CARINATED* rims (HANDLE.SPOUT\_VARIETY *B1*). As well as headmotifs, some cases of Variety II are incised with avian motifs (raptorial bird with fangs). Variety II appears to be similar to 'Raku C' (rather than 'Raku A') as identified by Lumbreras (1993) from the Galería de las Ofrendas.

#### 7.1.A.2.3 Type 2 Findspots & Dates

A significant number of Type 2 vessels (of both Varieties) were found in the Galería de las Ofrendas (Lumbreras 1993). Classified as non-local to Chavín, the origin of these "Raku" style ceramics remains unknown, although they have been linked to the North Coast "Cupisnique" style (Lumbreras 1993:196; Burger 1992:139; Nesbitt & Matsumoto forthcoming). Larco published several Type 2 Variety II examples as "Cupisnique" (1945) and a number of them have ended up in the Museo Larco, but whether their provenance was coastal or from the Cupisnique ravine is not known. Elera publishes no Type 2 vessels as "Cupisnique" and apparently none were found within the Puémape tombs.

Remarkably, fragments of Type 2 Variety I have been found in the South-Central Highlands (Campanayuq Rumi, Ayacucho region), and they are interpreted as "Classic Cupisnique" from the North Coast, assumed to have reached Ayacucho via Chavín de Huántar: "Based on technological, stylistic and iconographic traits we would argue that these pots best correspond with pottery manufactured in the Chicama Valley" (Nesbitt & Matsumoto forthcoming). Unfortunately, the literature review of this thesis could find no confirmed provenances of Type 2 stirrup-spouts on the North Coast. The origin of such vessels thus remains uncertain.

Toshihara attributes the headmotifs associated with Type 2 to Phase 5, which is contemporaneous with the Batán Grande kilns (absolute dates of 1200-500 BC) and the graves at Kuntur Wasi (KW phase 800-550 BC). Nesbitt & Matsumoto's (2014) finds of Type 2 in the South-Central Highlands are dated somewhat earlier, to the late IP 1100-800 BC. These date ranges firmly place Type 2 stirrup-spouts early within the sequence of the Formative Period North Peruvian ceramic complex.

#### 7.1.A.2.4 Type 2 Labels in the Literature

Lumbreras (1993) identified Type 2 ceramics from Chavín de Huántar as “Raku A” and “Raku C”.<sup>196</sup> Park (2010) relies on Type 2, plus a number of Type 1 vessels that feature incised headmotifs for her definition of Cupisnique, and she makes no distinction between them: “These post-firing engraved head motifs can [...] be considered the most important unifying and intriguing characteristic of the Cupisnique ceramic vessels. The engraved head motifs are the distinctive characteristic that differentiates the vessels from the Chavín art style” (Park 2010:23).<sup>197</sup> Similarly, Nesbitt writes: “Decoratively, the type of thin incisions and designs they create, including an emphasis on the depiction of anthropomorphic/feline heads are a common hallmark of late Initial Period pottery that Larco referred to as ‘Classic Cupisnique’” (Nesbitt & Matsumoto forthcoming).

#### 7.1.A.2.5 Type 2 in Sum

Type 2 is characterised by a fine grey paste and grey-black burnished surface, a lack of painting or surface-texturing. Type 2 vessels are exclusively *GLOBULAR* and the only decoration is in the form of incising (headmotifs or occasionally avian motifs). A number of them found at Chavín de Huántar have been categorised as “Raku” style (Lumbreras 1993), and Raku vessels in turn have been associated with Cupisnique from the North Coast. Nesbitt and Park consider Type 2 vessels as “Classic Cupisnique”. Park additionally considers *any* vessels with incised headmotifs in her definition. However, headmotifs occur also on Type 1, and the present analysis has shown that there are significant formal and iconographic differences between Types 1 and 2. In addition there are possible chronological distinctions, as indicated by Toshihara’s sequence (2002). Therefore Ceramic-Type 2 is considered distinct from Type 1 as defined in this thesis.

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<sup>196</sup> Raku C is very similar to Raku A, but incised with avian motifs (raptorial birds). Raku B, however, differ significantly from Raku A by having *WIDE, ROUND* handles, *PROMINENT-LIPS* on the spout rim (including delineated rims) and *CARVED-APPLIQUE-RELIEF* decoration. As such, Raku B is compared to and discussed under Class B Type 7.

<sup>197</sup> Examination of vessels during fieldwork found that many of the pieces featured in Park’s analysis were in fact incised *prior* to the drying and firing process, i.e. into the wet-paste surface.

#### 7.1.A.2.6 Ceramic-Types 1 and 2 as “Classic Cupisnique”

Both Type 1 and Type 2 have been published as “Classic Cupisnique”. There are a few points to discuss here. Firstly, headmotifs occur on just 9.4% of the dataset. While they may be unique to the Formative Period and North Peruvian region, they clearly characterise only a small group of ceramics. Secondly, both Park and Nesbitt cite Larco 1941, however Larco’s “Classic Cupisnique” included a number of other ceramic styles, many of which are without headmotifs (see Chapter 3). By contrast, Jones and Elera cite Larco 1941 in considering 3-dimensionally sculpted bottles with slim, trapezoid stirrup handles and tall slim spouts (more or less overlapping with Type 1) as “Classic Cupisnique”. It has been suggested that, when seen on bottles, headmotif iconography is restricted to trapezoidal stirrup-spout vessels (Nesbitt & Matsumoto forthcoming), however considering the range of chamber- and handle-spout -forms associated with incised headmotifs in the present dataset (e.g. Variety II has *ROUNDED* handles), the headmotif alone does not appear to be a good indicator of stylistic type. Thirdly, although examples of both Type 1 and Type 2 were found in the Galería de las Ofrendas, there are potential indications of a chronological difference. Toshihara (2002) attributes the Raku A pieces (i.e. Ceramic-Type 2) and associated headmotifs to Phase 5, while Ceramic-Type 1 vessels and associated headmotifs appear in her Phase 4. Fourthly, the headmotifs themselves differ between Types 1 and 2, as summarised in Table 7.4:<sup>198</sup>

**Table 7.4. Headmotif iconography on Type 1 and Type 2.**

	<b>Type 1</b>	<b>Type 2 (Raku)</b>
<b>Mouth shape</b>	85% corners curl down	90% corners curl up
<b>Head orientation</b>	Various orientations (33% face left)	79% face left
<b>Fangs</b>	77% without fangs	67% with fangs
<b>Other</b>	Discrete headmotifs only	Headmotifs can be part of more complex, composite designs. Some are joined by bands or have pulse-motifs in between
<b>Number of headmotifs</b>	Up to 15 headmotifs on a single vessel	1 or 2 headmotifs per vessel

<sup>198</sup> ‘Headmotif’ here refers to lateral anthropomorphic heads, generally with upturned eyes (c.70%). Note that headmotifs are also found single-spouts and bowls.

While Park categorises differences in headmotifs and individual headmotif-elements, it is only by recognising that these are associated with distinct ceramic styles (Types) that this observation gains significance, and enables us to consider that cultural differences (possibly geographic or chronological) are the cause. A more detailed analysis may also reveal differences between the headmotifs of Type 2 Variety I and II, but the dataset used here is too small to take this further. To sum up; if vessels of both Types 1 and 2 are to be called 'Classic Cupisnique' scholars need to be aware that the term denotes very little about the form or decoration of the vessel, beyond being monochrome stirrup-spout bottles from Formative Period northern Peru, *some* of which have trapezoid handles and *some* of which have incised headmotifs.

### 7.1.A.3 Type 3

Type 3 is primarily characterised by a complete covering of bright red (hematite?) slip and black graphite paint (PAINT\_TYPE.COLOUR = *SLIP:RED* + *GRAPHITE:BLACK*). There are 48 pieces of Type 3 in my dataset, of which 45 are stirrup-spout vessels. Chapter 6 demonstrated that this kind of painting is restricted to a limited number of complete vessel forms: it is particular to *PURE-GLOBULAR* chambers or *GLOBULAR* chambers with *ADD-ON-3D-SCULPTING* (BODYFORMS 2 and 2(a)), and is exclusively associated with *SLIM*, *ANGULAR* handles and *NO-LIP* rims. Type 3 is thus defined on the following characteristics:

A bright *RED SLIP* covers the entire vessel, with *BLACK GRAPHITE* painted designs on top of the slip. The designs in black are delineated by fine, *DRY/PF INCISED* lines.<sup>199</sup> Type 3 ceramics would have been fired in an oxidising atmosphere to produce the bright red colour, which Ulbert hypothesises may have been achieved by a strong oxidising phase at the end of the firing process, or by a second, separate firing episode (Ulbert 1994:15). Surfaces are burnished and polished and have a smooth,

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<sup>199</sup> The order at which the incised lines were done is unclear; while it would make sense that designs were incised and then painted black (esp. e.g. ML015294 red snake on black), the incisions scratch over the black colour, which never runs into the incisions. So: I deduce that they were painted red, then black leaving some red areas free, left to dry completely or even fired, and only then the outline of the black designs incised.



often highly reflective finish. There is no surface-texturing (only exceptions are 3 cases that have simple *PUNCTUATING* in a restricted area).

Stirrup-handles and spouts are *SLIM*. Handle-shapes range from small and *RIGHT-ANGLED* to large and *ANGLED-UPWARDS* (but not *TRAPEZOID*). The difference in the *HANDLE.SPOUT\_VARIETIES* (*A1* and *A3*) corresponds to possible Varieties within Type 3 (see below). The spouts are *STRAIGHT* or slightly *CONCAVE* and have *NO-LIP* rims. 3D-Sculpting is in the form of *ADD-ON* figurative elements (e.g. *GLOBULAR* chamber with a monkey head and stub-feet appliquéd), although a few examples of *FULLY-FIGURATIVE* chambers also exist (Type 3 Variety III). Type 3 vessels have 2-dimensional decoration in the form of painted motifs showing abstracted, stylised-figurative, or geometric designs. These are delineated by very fine *INCISED-ZONING* (possibly post-fire, but certainly after the paint and clay had fully dried; *DRY/PF-INCISING*).

#### 7.1.A.3.1 Type 3 Iconography

The overwhelming majority of Type 3 ceramics are painted abstract figurative motifs: highly stylised motifs sometimes depicting lateral (animal?) heads, often with mirror-symmetry and curling appendages, abstracted mouths and eyes, vegetal motifs (incl. cat's claw), snake heads, and geometric shapes such as diamonds or spikes, and sometimes concentric circles that *may* reference jaguar-spots. These appear on *ADD-ON-3D-SCULPTED* as well as *PURE-GLOBULAR* vessels.

In terms of *DDD\_SCULPTING*, monkeys are the most common (N=10), created by *ADD-ON-3D-SCULPTING* (heads and stub feet appliquéd to globular vessel body only). These also have abstract figurative motifs painted and incised on the body. There are also examples of S-shaped snakes sculpted in *HIGH-RELIEF*. Felines are conspicuously absent from Type 3 (with the exception of Alva 1986 Fig. 286).<sup>200</sup> Representations of humans are also conspicuously absent amongst the Type 3: just one case shows a flattened-*GLOBULAR* vessel with an appliquéd human head (Appendix Database: ID

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<sup>200</sup> Several of the snakes and monkeys feature concentric circles which might be linked to "jaguar"-spots, though they may also be an artistic convention or be representing snake skin patterns.

MALI13), and one bottle is in the form of a severed human leg (Appendix Database: ID AMNH38).<sup>201,202</sup>

#### 7.1.A.3.2 Type 3 Variety I

- Despite a relatively small dataset (48 vessels) it is possible to identify three distinct Varieties of Type 3 vessels. Variety I vessels that have painted and incised designs showing “abstract-figuratives”. All of these have relatively small, *RIGHT-ANGLED* handles and *NO-LIP* rims. Vessels are either *PURE-GLOBULAR* or *GLOBULAR-ADD-ON-SCULPTED*, most commonly an appliquéd monkey head and stub-feet. Examples are shown in Figure 7.7.

#### 7.1.A.3.3 Type 3 Variety II

- Variety II consists of *PURE-GLOBULAR* chambers. The large handle-arches are *ANGLED-UP* with *NO-LIP* rims on the spout. The painted design divides the vessels into two vertical halves: a plain red side with a vertical band of a design apparently representing *Uncaria tomentosa* (‘cat's claw’ plant), and the other half painted black. Occasionally there are designs within the black half, such as a double-headed serpent or a pattern of red and incised diamond-shapes (Figure 7.8).

#### 7.1.A.3.4 Type 3 Variety III

- Variety III have large, *ANGLED-UP* handle arches (same as Variety II) and either *NO-LIP* or *FLAT-PROFILE SPOUT\_RIMS*. Variety III is different in that it

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<sup>201</sup> There is a portrait head vessel in the Lindenmuseum, but sadly its large size, bright colouring, and the presence of very regularly and densely applied black paint-spots (as well as the fact that it stands out iconographically) has led me to identify it as a fake (Appendix Database: ID LM40).

<sup>202</sup> There are sculpted human figures in red and black painted and polished ceramic: all show standing figures with large flat feet, and two are bridge-and-spout bottles (see Appendix Database: ID MZA8, Alva 1986 Fig.111, and further examples are known from the Museo Enrico Poli collection (Tsurumi pers.comm. 2012), as well as published examples in and Lavalley & Lang 1981:59, 82-83)). Based on the one example that was examined personally, these appear to belong to a different tradition: the black consists of a thick slip rather than graphite paint, and the bridge-spout handle is unique. Moreover their authenticity has been questioned (Lau 2010 pers.comm.) More would need to be examined to draw a conclusive interpretation.

consists of 3-dimensionally sculpted vessels: there are fruit bundles, a lobster, both modelled on pedestals, and serpents sculpted in *HIGH-RELIEF* on both sides of a vessel (see Figure 7.9). A key distinction is that the black is usually painted in large areas and not in figurative 2-dimensional designs, nor is it outlined by *INCISED-ZONING* (with the exception of concentric circles on the snakes).

#### 7.1.A.3.5 Type 3 Labels in the Literature

Broadly speaking, these bright and easily recognisable red-and-black vessels have previously been acknowledged as a style of their own: Larco called it “Cupisnique Transitional” (1941). Keatinge (1980) published such a red-and-black monkey vessel as characteristic of the Tembladera area. Donnan (1992) equally publishes one example (also a monkey) as “Tembladera” style. Elera (2009) labels some examples as “Cupisnique de Tecapa”, albeit without any further explanation or bibliographic reference (see Chapter 3, Figs 3.5, 3.10, 3.17). Most recent scholars simply refer to vessels in “*rojo-grafitado*”. At Chavín de Huántar, two bottles of Type 3 Variety III plus two bowls were classed as “Wacheqsa A” (Lumbreras 1993) (see Fig.3.24).

#### 7.1.A.3.6 Type 3 Findspots

Although Larco includes *rojo grafitado* vessels in his seriation of Cupisnique, none are definitely listed as having been recovered at the coastal sites of Barbacoa or Palenque (Larco 1941). Druc (2013) analyses a *rojo grafitado* vessel from Puémape but concludes on a non-local origin. Provenances listed in Alva (1986) are sites in the mid-Jequetepeque Valley (Chungal, Quindén) and Chancay Valley (Saltur), as well as on the coast (Limoncarro), but as noted these cannot be confirmed for sure. Keatinge’s (1980) vessel is given as an example for Tembladera area ceramics, but this provenance can also not be confirmed. Ulbert (1994) mentions red hematite slip from Montegrande, but the published sherds look more orange than red and lack the high-shine polish seen on the here defined Type 3. Indeed, Tsurumi (pers.comm 2012) stated that he had *not* found examples of *rojo-grafitado* during his extensive work in the mid-Jequetepeque Valley. He hypothesises that they may originate further

north.<sup>203</sup> By contrast, Nesbitt believes them to be most common in the Chicama and Moche valleys to the south. Fragments of *rojo-grafitado* stirrup-spouts have been excavated in both the Moche and Nepeña Valleys. A single-spout bottle from Cerro Blanco (Nepeña Valley) features the ‘cat’s claw’ design specific to Variety II (see Ikehara & Shibata 2005 fig.23),

A recent publication from the MALI labels such vessels as “Tecapa style Cupisnique”, from Tecapa and Santonte (Elera 2009:90, cat.7, 8, 9) (see Figure 3.17). This is the name of a lower Jequetepeque Valley site that is not normally associated with Formative Period materials.<sup>204</sup> Confusingly, the text also says: “nos recuerdan a las botellas de Cupisnique Clasico rojo grafitadas” (Elera 2009:92), i.e. they are *reminiscent* of Cupisnique red and black graphite vessels, implying that they are not the same. The distinction, however is not made clear, as no *rojo-grafitado* Classic Cupisnique bottles are otherwise illustrated.

Ceramics of Type 3 have also been found at highland sites. An example of Type 3 is exhibited in the Kuntur Wasi museum, labelled as ‘Fase Idolo’ (Appendix Database: ID KW10). Better known are the *rojo-grafitado* vessels found at Chavín de Huántar assigned to the Wacheqsa A type (Lumbreras 1993, Laminas 68-71) (see Figure 3.24). These are interpreted as non-local, however their region of origin is uncertain. One of the Wacheqsa stirrup-spouts would here be categorised as Type 3 Variety III. The other complete Wacheqsa stirrup-spout has geometric motifs that are very different from the abstract figurative designs characterising Type 3 vessels. Two Wacheqsa open bowls also have simple geometric motifs (steps). A possible parallel example was found on the north-central coast at Cerro Blanco (Nepeña Valley), though here

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<sup>203</sup> Tsurumi suggested to check Alva’s excavations at Collud, Reque, and Zaña valleys, i.e. further North. He thinks they belong to Late IP; his Tembladera Phases. He showed me two bright red figure vessels from the Museo Enrico Poli, Lima, supposedly from Cerro Corbacho. However, these are more like my exceptions for Type 3, rather than typical examples.

<sup>204</sup> Tecapa is the location of a Chimu and Chimu-Inca site near Pacasmayo (Warner 2010). No reference was found to any Formative Period occupation at Tecapa. If such vessels were indeed found in the vicinity of Tecapa, Elera provides no publication reference (the only corresponding citation is Alva 1986, but Tecapa is not mentioned in Alva’s book).

too the *rojo grafitado* sherds were interpreted as of non-local origin (Ikehara & Shibata 2005:134, Table 2).

#### 7.1.A.3.7 Type 3 Dates

Larco (1941) hypothesised it to represent a transitional phase between Cupisnique and later Salinar, hence the designation “Cupisnique Transitional”. By contrast Elera findings at Puémape (1998) led him to conclude that it was contemporaneous with other Cupisnique ceramics. Most recent scholarship groups the *rojo-grafitado* ceramics together with Cupisnique in general, making no chronological distinction: in the 2009 MALI catalogue, Elera lists the “Tecapa style” as belonging to the “middle Cupisnique” period, contemporary with Classic Cupisnique at 1500-500BC. Most recently Druc identified a *rojo-grafitado* decorated ceramic as foreign in paste composition but contemporaneous with other Cupisnique materials at Puémape (Druc 2014).

Toshihara’s seriation of Cupisnique (2002) includes only one positively identifiable example of Type 3 (Variety I), a piece which she assigns to late Phase 5 (Toshihara 2002, figs 325n, o). Tsurumi thinks they may belong to the Late Initial Period (his Tembladera-Phases) dates as 1250-800 BC (pers.comm 2012). Similarly, the vessels found at Kuntur Wasi is assigned to the Phase Idolo, 950-800 BC. This supports the notion that Type 1 and 2 are contemporaneous (as opposed to Larco’s hypothesis of a transition into Salinar), but it also indicates that the exchange of ceramics between the North Coast Cupisnique ravine and Kuntur Wasi pre-dates the Kuntur Wasi phase.

The latest construction sequences show that the Galería de las Ofrendas was completed before 750-500 BC, with signs of disuse and collapse from 500 BC (Rodriguez Kembel 2001:238-258, 2008:70-72). This provides at least a *terminus ante quem* for the deposition of the Wacheqsa A vessels, also supporting the idea that *rojo-grafitado* decorated were probably made in the first half of the 1<sup>st</sup> millennium BC. In the Moche Valley the use of red slip and black graphite was dated to both the San Lorenzo and Laredo phases, 1200-500 BC (Nesbitt et al. 2008). Further south such fragments are dated to the ‘Nepeña Phase’ 800-450 BC calib. (Ikehara & Shibata 2005). It is not clear, however, if these sherds are from Type 3 vessels as defined here, or represent some other type of *rojo-grafitado* ceramics as yet undefined.

#### 7.1.A.3.8 Type 3 In Sum

The traits defining Type 3 are significantly different from Types 1 and 2, not only in terms of the use of paint, but also in form and iconography. This confirms that Type 3 ceramics do not constitute simply painted versions of Type 1 or 2. The Wacheqsa A vessels from Chavín de Huántar do *not* share the decorative features that define Type 3 Varieties I or II, and only one Wacheqsa A vessel can be equated with Variety III. The nature of DDD\_SCULPTING of Variety III relates them to Type 1, but the red-slip and black-graphite paint are clear characteristics of Type 3. Also, large *ANGLED-UP* handle-arches link Variety III to Variety II, which in turn is linked to Variety I by the 2-dimensionally 'abstract-figurative' motifs outlined by very fine DRY/PF-INCISED lines. The varieties may be the result of different but roughly contemporaneous workshops or traditions, or represent a change over time within a general *rojo-grafitado* painting tradition.

Druc's (2014) paste analysis confirms that at least one Type 3 vessel was manufactured in a different way and/or place from the other vessels found at Puémape. While it may be premature to say that they belong to a different ethnic or cultural group, there can be little doubt that they were manufactured in a separate context, both in terms of geographic location and aesthetic tradition. The present analysis concludes that they merit being a Type of their own, although probably largely contemporaneous with Type 1 and found in some of the same contexts, both on the coast and in the highlands. They were evidently widely exchanged, although scholars differ in their interpretations of possible origins for the *rojo-grafitado* vessels. Where they are found, they are interpreted as 'special' or non-local ceramics: Druc's (2013) analysis of ceramics from Puémape found a *rojo-grafitado* fragment to be the only one of non-local origin in her analysis, and Ikehara & Shibata note particular contexts of use for *rojo-grafitado* sherds found at Cerro Blanco: "the use of exclusive materials and techniques (red slip and graphite) and certain techniques of decoration became prized possessions, which would explain its recurrence in the different events that were identified" (Ikehara & Shibata 2005:152, my translation).<sup>205</sup> The red

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<sup>205</sup> "Algunas botellas tenían una calidad de pasta, acabado y cocción que no eran mejores que las locales, pero el uso de materiales y técnicas exclusivos (engobe rojo y grafitado) y ciertas >>

slip and black graphite technique is easily recognisable and has been singled out by numerous scholars. Under the framework of Type 3 it has now become definitively linked to particular form-traits such as vessel shape and handle-spout form.

#### **7.1.A.4 Type 4**

Type 4 is identified on the basis of a consistent combination of *POLYCHROME POST-FIRE-PAINT* (sometimes with *SLIP-PAINT* also) on *DARK-BROWN* ware, and the unfaltering use deep, *INCISED-ZONING*. Paint is in *RED, WHITE, BLACK* and occasionally *YELLOW* or *OTHER* colours. On the basis of these variables, Type 4 includes bowls as well as single- and stirrup-spout bottles (see Figures 7.10 and 7.11 ).

Type 4 bowls have flat-bases and straight tapering-out sides, and decoration is exclusively external. Type 4 bottles have tall, generally *STRAIGHT* or *TAPER-IN* spouts, and *NO-LIP* rims (*SPOUT\_FORMS 1* or *8*) (see Table 5.34). Stirrup-spouts tend to have *GLOBULAR : ADD-ON-3D-SCULPTED* chambers rather than *FULL-3D-SCULPTED*; for example human representations are rendered by modifying a globular chamber and adding ropes of clay for the arms. The same is true for single-spout bottles.

Single-spouts, which together with bowls make up the majority of Type 4 (36.7% each = 73.3%), stand out amongst other single-spouts for their 3-dimensional sculpting and very tall, slightly tapering-in spouts, as well as the specific painting variables listed above. *APPLIQUÉ-CRESTS* are also a particular feature of Type 4 single-spouts (72.7% have this trait), and three cases have a small *CUPCAKE*-shaped base onto which the main figure is set.<sup>206</sup>

##### **7.1.A.4.1 Type 4 Iconography**

In contrast to the Types discussed so far, the iconography of Type 4 commonly depicts “supernatural” beings and motifs, as well as geometric designs and

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técnicas de decoración las convirtió en bienes preciados, lo que explicaría su recurrencia en los diferentes eventos identificados” (Ikehara & Shibata 2005:152).

<sup>206</sup> The *COMPLETE\_SGL.SP\_FORMS* in Type 4 are thus: *GLOBULAR : ADD-ON-3D-SCULPTED + TAPER-IN : SLIM : NO-LIP* and *CUPCAKE : FLAT BASE : SEPARATE-NECK : FIGURE-ON-TOP + STRAIGHT : SLIM : NO-LIP*.

naturalistic human figures. Bowls are decorated with geometric, angular designs such as steps (54.5%), or with headmotifs or other abstract elements.<sup>207</sup> For bottles, modelling is by *ADD-ON-* rather than *FULL-3D-SCULPTING*. Single-spout bottles mainly seem to represent supernatural creatures with fangs, upturned eyes, and *APPLIQUÉ-CRESTS* of clay framing sculpted faces or heads. Chambers are decorated with abstracted 2-dimensional motifs some of which may represent eyes or mouths.

*Stirrup*-spouts of Type 4 represent mainly human subjects, generally depicted in a naturalistic way, although always with facial decoration or abstract-figurative motifs on the body. Noticeably, a number of human representations on Type 4 stirrup- and single-spouts have a cleft forehead (see Figure 7.11d, e, f). ‘Supernatural’ beings and *APPLIQUE-CREST* forms appear only on single-spout bottles (compare Figure 7.10a, b, c, d, f, with Figure 7.11). This difference in iconographic subjects between the single- and stirrup-spouts may in future assign some of these to a different typological category.

#### 7.1.A.4.2 Type 4 Labels in the Literature

Beginning with Lapiner (1976) a number of scholars have identified post-fire polychrome paint as “Tembladera style”, although none specifically define or justify their labelling, and there are numerous other definitions of Tembladera also (see Chapter 3). Tsurumi says he would call brown-ware polychrome painted bottles “Tembladera style” (pers.comm.2012), and an entry in Fux’s catalogue 2012 states that it is post-fire paint that characterises the Tembladera style (2012:245), albeit without citing references to indicate how this conclusion was reached.

Toshihara adds a form characterisation. She picks out a distinctive set of single-spout bottles and states that these can be separated from others and labelled as ‘Tembladera single-spout bottles’ (Toshihara 2002:386). Her categorisation reads: “very long straight or slightly tapered spouts without an emphasis on the lip; modeled bodies into supernatural beings, human, or plants (if the modeled body is tall, the spout is short), associated with additional supernatural beings having eccentric eyes or fangs, complicated motifs including eccentric eyes, step-motifs,

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<sup>207</sup> Only two (2) cases in the dataset were recorded as definitely showing “headmotifs” as opposed to other abstract-figurative designs that may be derived from the headmotif.



other supernatural faces, circle-and-dots, claws with sharp nails, headdress-like elements, and other geometric elements with red and yellow pre- or post-coccion on some parts of the decoration.” (Toshihara 2002:384). In 2004, she clarifies her definition somewhat, however without now referring to Tembladera as a *style*; she writes only of “examples [...] from the Tembladera area” and “Tembladera vessels” (2004:68). According to Toshihara, most are stirrup- and single-spout bottles with complicated motifs mixing human, feline, and bird together with geometric motifs. Most have “wing-like attachments” (presumably referring to what I have called *APPLIQUÉ-CRESTS*) and she also points out post-fire pigments (2004:68). She states that although some motifs are related to the Chavín culture, the Tembladera motifs are different in terms of the “stylizing of the figurative motifs and the concept or perception about the minor elements’ relationships with the main figures” (2004:68). Toshihara’s descriptions and the illustrated single-spout bottles for Late Phase 5 (figs. 325g, h, j) match Type 4 as identified and statistically validated in this study on the basis of both technological and formal traits (Chapters 5 and 6).

#### 7.1.A.4.3 Type 4 Findspots & Dates

For the bowls, the formal, technological and iconographic similarities with sherds from the Kuntur Wasi Idolo phase (1250-800 BC) and Huacaloma Tardío (1000-550 BC) in the highlands (see Seki 1998) are undeniable. This places them relatively early in the sequence of this ceramic complex.

For the bottles it is less clear. No vessels of this Type are known from Chavín de Huántar itself, nor from the littoral cemeteries (see Larco 1941; Elera 1998, 2009). Type 4 bottles illustrated in Alva 1986 (figs 60, 63, 64, 89, 90, 91) are said to be from sites such as Quindén, Pampa Larga, and Tembladera the mid-Jequetepeque Valley.<sup>208</sup> Geographically, Type 4 ceramics are thus consistently reported from the Jequetepeque and adjacent Valleys. None are reported from further south (Chicama, Moche, or Nepeña Valleys).

Toshihara considers “Tembladera vessels” local products from the lower and middle Jequetepeque Valley, belonging to the late part of her Phase 5 (2004:68). In assigning

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<sup>208</sup> The related but different Fig. 108 is allegedly from the Zaña Valley (Alva 1986).

them to a late- or even post-Chavín phase, her chronological placement is later than that assumed by other scholars: Burger (1995) considers post-fire painted vessels as belonging to the Late Initial Period, and Tsurumi (2012 pers comm.) attributes them to *Fase Tembladera 1* in his mid-Jequetepeque Valley sequence, 1250-1000BC (followed by 'gris fino' ware in *Fase Tembladera 2*, 1000-800 BC).

#### 7.1.A.4.4 Type 4 Discussion

Ceramic Type 4 has been identified as characterised by *POLYCHROME POST-FIRE-PAINT* on a brown base, with pre-fire *INCISED-ZONING*. On bowls, the iconography consists of incised geometric motifs and occasionally abstracted headmotifs. On bottles (which are primarily single-spouts), geometric motifs and abstracted headmotifs are also found, but they depict complex sculpted, supernatural beings often framed by *APPLIQUÉ-CRESTS* of clay.

Some recent scholars have assigned the label of "Tembladera style" specifically to bottles with polychrome post-fire paint (Toshihara 2002; Fux 2012; Tsurumi 2012 pers.comm.). However, existing definitions of "Tembladera" include vessels of other styles as well (especially vessels here categorised as Type 1 and Type 3, see Donnan 1992; Cordy-Collins 1998; Keatinge 1980; Lapiner 1976). While we have no proof that Type 4 vessels were found *at* Tembladera, middle and upper Jequetepeque Valley provenances are more often reported than coastal ones. Direct parallels for Type 4 bowls can be found in Huacaloma Tardío and Kuntur Wasi Idolo ceramics from the highlands (upper Jequetepeque Valley and Cajamarca basin), but no definite provenances have been published for Type 4 bottles.

Of the few *stirrup*-spout bottles within the here defined Type 4, some depict 'naturalistic' human figures which other scholars have grouped with bottles of Type 1. Nonetheless, aside from the paint and colour scheme, these can be differentiated from Type 1 by the fact that they are *ADD-ON-3D-SCULPTED* (as opposed to *FULLY-3D-SCULPTED*), have *ANGULAR* but not *TRAPEZOID* handles, and have tall, generally *TAPER-IN* or *TAPER-OUT* spouts, rather than *CONCAVE* spouts. As they share formal, decorative, and iconographic traits with the bowls and single-spouts of Type 4, they have here been associated with Type 4, however differences in iconography and the

use of *APPLIQUE-CRESTS* have been noted and will need to be considered in future research.<sup>209</sup>

#### 7.1.A.4.5 The “Tembladera” Figurines?

One concern with using “Tembladera” as the label for Type 4 ceramics is that the iconic “Tembladera figurines” have only few characteristics in common with the here defined vessel type. They do have *WHITE* and or *RED POST-FIRE PAINT* and pre-fire *INCISED-ZONING*, however the *TAN BASE\_COLOUR* of the figurines, as well as their iconography, set them apart (see Figure 7.12, also Burtenshaw-Zumstein 2013). Direct comparison of Type 4 bottles showing human figures, whether on single or stirrup-spouts, clearly shows that these have their facial features, clothing, and adornments rendered very differently from the figurines.

#### 7.1.A.4.6 Type 4 In Sum

In sum, Type 4 includes a range of iconography and object-types, but is internally consistent in its use of *POST-FIRE-PAINT*, *INCISED-ZONING*, a *DARK-BROWN* base-colour and tall, *STRAIGHT/TAPER-IN* spouts (for bottles). It is also differentiated from other Types by the presence of modelled *APPLIQUE-CRESTS* and the depiction of supernatural beings and heavily decorated bodies. While there is some recent scholarly consensus for calling this Type “Tembladera”, this label is loaded with stylistic meaning and association, and thus difficult to use for purposefully advancing scholarship.

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<sup>209</sup> The fact that there was a mixing of form and iconographic traits between different groups of potters (geographically or chronologically) is of course to be expected. An archaeometric analysis of pastes and clay sources may one day clarify the hypotheses proposed here, at least by revealing raw material sources and/or manufacturing locations.

### 7.1.B CLASS B

Ceramics of Class B are characterised by a lack of paint, the possibility (and indeed prevalence) of *SURFACE-TEXTURING*, as well as exclusively *ROUNDED* handles with short *WIDE* spouts and *PROMINENT-LIPS* on the rim (*HANDLE.SPOUT\_TYPE B*) (see Table 7.3). Accepting that the manufacturing of prominent lips on the spouts of stirrup-spout bottles, regardless of their *specific* form, was part of a general artistic trend that numerous potters in North Peru embraced around the same time, then the evidence suggests that the Type-Varieties of Class B developed later than Class A ceramics. While there are single-spouts with *SURFACE-TEXTURING*, the lack of *PROMINENT-LIP* spouts on single-spout bottles makes it impossible to classify them as Class B ceramics, which are defined (to a great extent) on the basis of their spouts. Class B ceramic Types 5, 6, and 7 discussed below are thus exclusively concerned with stirrup-spout bottles.

#### 7.1.B.5 Type 5

Type 5 consists of *MONOCHROME* dark grey or *BLACK* stirrup-spouts with specifically *SLIM ROUND* handles, sometimes *PART-MODELLED* (and if so always oriented *FRONT-TO-BACK*), with *CONVEX* ‘barrel-shaped’ spouts with *BEVELLED-LIPS* on the rim (*HANDLE.SPOUT\_VARIETY B2, B3, and B5*). These handle-spout forms only appear in combinations with a limited number of *CHAMBER\_SHAPES* and *BODYFORMS* and have a very high correlation with *SURFACE-TEXTURING* (86.7%, 88.1%, and 100% respectively). Specifically Type 5 bottles account for 33% of *all* incidences of *INCISION/D-PUNCTATING* and 37% of *all* *ROLLER/ROCKER-STAMPING* across the entire dataset.

All decoration is achieved by sculpting or by a 3-dimensional manipulation of the surface. There are no incised or painted designs. In particular, it is the *CONVEX* spout and *BEVELLED-LIP* rim that defines Type 5. As discussed below, this combination of traits has (sometimes) been used to recognise the so-called ‘Chongoyape’ style. Ceramic-Type 5 can be divided into two Varieties, based on both the *CHAMBER\_SHAPE* and iconography.

#### 7.1.B.5.1 Type 5 Variety I

Variety I is by far the most common (31 of 36 cases: 86.1% of Type 5). Vessels of Variety I depict naturalistic animals and humans (69.4%), with no abstractions such as fangs, snake appendages, or body decoration (see Figures 7.13 and 7.14). In terms of subjects, rodents and frogs are unique to Type 5, typically positioned on top of *CUPCAKE*-shaped chambers. Deer or camelid are represented in a captive state; bound, or bound and being carried by a human figure (Figures 7.13c, 7.14c). There are also birds including a duck-, raven-, and owl-like birds. Some of the subjects most common in the sample as a whole are almost entirely absent from Type 5; there are *no* monkeys, serpents, or felines.<sup>210</sup>

The eyes of humans and animals are consistently rendered using clay pellets, and humans have and large, well-formed noses with naturalistically modelled ala. Human limbs consist of appliqué strings of clay. They are almost always depicted as engaged in a particular activity: porters carrying deer, large loads, or each other; sitting on reed-boats (*caballitos de totora*); one figure is shown combing their hair.<sup>211</sup>

Remarkably, *all* human figures are represented wearing simple round earspools. The headdress or hairstyle ranges from a simple head-band to a double or triple-crested hairdo (or helmet?), or an elaborate top-knot. No further clothing is depicted except for a simple loincloth band. Several personages are shown with a twisted band (possibly rope, or simply a hair-plait?) around their neck, but none are represented explicitly as 'captives' with bound hands or feet.

#### 7.1.B.5.2 Type 5 Variety II

The only vessels of Type 5 depicting subjects with 'supernatural' features are a remarkably homogenous set of four specifically *CYLINDRICAL* head-vessels (see Figure 7.15). They have fangs and snakes around the eyes and on the headband. While their iconography is distinct from that described for Type 5 in general (Variety I), they share the same significant correlations of formal and technological traits: *ROUND*,

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<sup>210</sup> Possible exceptions are ALVA352, and ALVA360.

<sup>211</sup> The vessels in Figure 7.14c and d show almost identical seated/crouched figures, one carrying a bound deer, the other a human on his back. These are so similar that it may be showing the same character, and were almost certainly made by the same maker or workshop.

*SLIM* handles, short *CONVEX* spouts with *BEVELLED-LIPS* (HANDLE.SPOUT\_VARIETY B2), a grey/black colouring, *ROCKER/ROLLER-STAMPING* or *INCISION/D-PUNCTATING*, and a complete lack of paint.

#### 7.1.B.5.3 Type 5 Labels in the Literature

Vessels with these attributes have repeatedly been labelled as “Chongoyape” in the existing literature (e.g. Donnan 1992; Sawyer & Maitland 1983; Jones 2010). It is either treated as a sub-style of Cupisnique (Jones 2010) or as a separate style in and of itself (Donnan 1992; Sawyer & Maitland 1983). Not everyone uses the term Chongoyape and many scholars have treated Type 5 vessels as “Late Cupisnique” (Elera 2009), “Cupisnique” (Fux 2012), or “Tembladera” (Lapiner 1976:28). However where the term *is* used, it is consistently applied specifically to monochrome vessels with bevelled-lips.<sup>212</sup> The additional, more precise traits that define Type 5 here are the first to have been quantitatively verified and provide additional detail to the characterisation of the existing Chongoyape stylistic type.

#### 7.1.B.5.4 Type 5 Findspots

In terms of definite archaeological provenances, we know that two vessels of Variety I (now in the NMAI) were found at Chongoyape itself (Lambayeque Valley), together with a number of gold artefacts (Lothrop 1941, 1951). Of course, Chongoyape is unlikely to be the origin site for this type of vessel, especially as the finds appeared to be graves, not associated to any architecture.<sup>213</sup> Alva (1986) includes a number of Type 5 vessels (see especially figs 356-369), but the provenances are given as “Valle de Jequetepeque” and “Zona litoral de Jequetepeque”, with the exception of a couple of examples supposedly from the Zaña and Chancay valleys.<sup>214</sup>

On the coast, no Type 5 stirrup-spouts are published in Larco’s books on Cupisnique (1941, 1945, 1948), nor did any come to light in Elera’s excavations at Puémape. One

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<sup>212</sup> i.e. no vessels of other styles are ever called “Chongoyape”.

<sup>213</sup> In the same way that: “The mere use of the term, however, does not indicate that Chavín de Huántar was the home of the Chavín style” (Lanning 1960:544)

<sup>214</sup> In fact, the only example in Alva with the provenance given as “Chongoyape” is Fig.234, a tall, plain grey vessel with incised concentric circles, a short stirrup arch and tall, straight spout with no lip.

was found in a tomb at Morro de Etén (Appendix Database: ID BRU14). In the highlands, none have been published from the Galería de las Ofrendas, but individual examples of both Varieties I and II were found at Kuntur Wasi. No Type 5 vessels were found at Chavín de Huántar, and none were found as published from the northern Central-Coast valleys.<sup>215</sup>

#### 7.1.B.5.5 Type 5 Dates

The original Chongoyape finds included various highly elaborate gold artefacts, suggesting a Late Formative date, probably 2<sup>nd</sup> half of the 1<sup>st</sup> millennium BC. Elera comes to the date range of 500-200 BC for his “Late Cupisnique”. Similarly, the Type 5 vessel from Kuntur Wasi was dated to the La Copa phase, 550-250 BC. The association with this phase is further supported by four unique feline and human figurines found in the tomb of a child at Kuntur Wasi (also La Copa phase), which share the specific facial features of human representations seen on Type 5 vessels.

Toshihara assigns Type 5 vessels to a post-Cupisnique phase (Phase 6). Indeed, some of the traits that are here defined as characteristic of Type 5 are listed by Toshihara as features that appear *only* from Phase 6, specifically a “modeled stirrup and a cupcake-shaped body” (2002:362) and “flanged” spout lips (2002:362).<sup>216</sup> All the evidence thus points to a Late Formative Period date for Type 5 vessels.

#### 7.1.B.5.6 Type 5 in Sum

Type 5 vessels have sometimes been called “Chongoyape style” although the definition for Type 5 is more specific and detailed than previous ones. Named for a site in the Lambayeque Valley, the origin of the style is unknown. They have been found on the coast (e.g. Morro de Etén) as well as in the highlands (Kuntur Wasi), and as far south as Ayacucho, though none were found at Chavín de Huántar. In combination with Toshihara’s findings which assign them to Phase 6, it is likely that

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<sup>215</sup> Examples *similar* to Type 5 (cupcake chamber, part-modelled handle in front-to-back orientation, surface-alteration) were found at Jargam Pata in Ayacucho (Ochatoma 1998 fig.6), however their spout-rims, although prominent, are not exactly bevelled-lips, nor are modelled nose-ala or clay-nubbin eyes discernible from the published drawings. Incidentally, Ochatoma calls it classic Cupisnique style (1998:294).

<sup>216</sup> in my terminology, this refers to a part-modelled handle and cupcake chamber-shape. Bevelled-lips are one kind of flanged lip.

Type 5 vessels post-date the apogee and active use of Chavín de Huántar itself (Rodríguez Kembel 2008, 2013).

As a stylistic or cultural label, the present analysis regards 'Chongoyape' as a useful term for Type 5; where used, it is already being applied consistently to a particular type of ceramic bottles. The contribution of the preceding analysis is to substantiate its characteristics, adding detail to a label already being used. Indeed the unique combination of traits revealed through quantitative analysis (incl. form, techniques, and iconography) validate the use of Chongoyape for Type 5 as a distinct and identifiable style term.

Whether it also designates a distinct cultural, ethnic group is debatable, but is here suggested as likely: its unique formal and iconographic traits, in combination with its Late Formative period date, speak for treating Type 5 'Chongoyape' as a separate ceramic style and cultural group of the late Formative Period in North Peru. It largely post-dates the "Classic Cupisnique" period, as well as the decline of Chavín de Huántar. Further validation in the archaeological record would of course be highly desirable. For now, in terms of ceramic style, this thesis argues that to group it simply under "Cupisnique" (or "Coast Chavín") is misleading, both in terms of its stylistic and chronological attribution.

#### **7.1.B.6 Type 6**

The second Type identifiable within Class B consists of exclusively *PURE-GLOBULAR* vessels, all with *SURFACE-TEXTURING* and/or *APPLIQUÉ-ELEMENTS*. There is one double-chambered (*CONJOINED-CHAMBERS*) example (Alva 1986: Fig.320). All have *WIDE ROUND* handles, and 58.3% of *DECO-ON-HANDLE* falls within this Type alone. Specifically *ROUND, WIDE* handles with *EVERTED-CARINATED* spouts (*HANDLE.SPOUT\_VARIETY B1*) account for 90.9% of *PURE-GLOBULAR* stirrup-spout *BODYFORMS* with externally appliquéd surface textures (*DDD.TEXTURING\_YN* = 1). Examples are illustrated in Figure 7.16.

Type 6 vessels are not painted and there is no explicit figurative sculpting, although some have been interpreted as representing fruits or thorny oyster shells (*Spondylus princeps*) (an example in the Lindenmuseum is the only one that clearly depicts a



complete *Spondylus* shell, rather than just representing the textured surface of one, see Figure 7.16h). A few also present geometric motifs such as steps or swirls, together with *3D-SURFACE-TEXTURING*.

With the lack of human or animal figurative modelling (molluscs aside) or clearly identifiable iconographic motifs, Type 6 vessels have received little attention in the literature so far. In general they are labelled as “Cupisnique” (Larco 1941, 1948; Donnan 1992) or “Chavín” (Lapiner 1976) They are rarely used as examples to illustrate either style in publications, despite their relative frequency: 40 cases (15.4% of stirrup-spouts that have been assigned a Type within dataset) are categorised as Type 6, making it the third most frequent Type classified in this thesis (Table 7.2).

Alva publishes a number of examples (1986, Figs 299, 300, 301, 303-307, 309-322, 327, 328, 330), all of which were allegedly found in the lower to middle Jequetepeque or Zaña Valleys. Type 6 vessels have also been found in the highlands, for example at Kuntur Wasi, associated with the Kuntur Wasi phase (800-550 BC). Tsurumi reports finding one complete vessel of this kind at Lechuzas in the mid-Jequetepeque Valley, which is associated with dates also around 800-550BC (Tsurumi 2012 pers.comm.; also Tsurumi 2008). A small example has also been found at Chavín, with cinnabar powder in the crevasses of the appliquéd surface-texturing (Rick 2012 pers.comm.).

#### **7.1.B.6.1 Type 6 in Sum**

Type 6 encompasses a range of decorative features and motifs, however, all involve the alteration of the surface of generally *PURE-GLOBULAR* vessels (primarily through appliqué of some kind). Iconographic motifs are geometric or show very simple elements such as bands or swirls, although the through the surface-texturing these vessels may be intended to represent fruit (possibly *chiromoya* or *tuna*) or *Spondylus* shells.

Type 6 can be distinguished from Type 5 by a lack of figurative sculpting, the handle-spouts (*WIDE* as opposed to *SLIM* handles, and *EVERTED-CARINATED* spout-rims instead of *BEVELLED-LIPS*), and the frequent addition of appliqué-texturing or externally *APPLIQUÉ-ELEMENTS* (as opposed to *ROLLER/ROCKER-STAMPING* seen on Type 5). In shape terms, the handle-spout forms of Type 6 (*HANDLE.SPOUT\_VARIETY B1*) are very similar if not the same as those of Type 2 Variety II, however, the

presence of *SURFACE-TEXTURING* (which is never seen on Type 2), sets them apart. What further distinguishes them is the decoration on the handles, which is common only on Type 6.

Nonetheless 3-dimensional appliqué texturing is not exclusive to Type 6, and published provenances for this technique can be either coastal or highland. With the *PROMINENT-LIPS* on the spout (*EVERTED-CARINATED*), they are generally understood as belonging to later Formative Period traditions of pottery-making, developed later than the ceramics of Class A. Highland findspots for Type 6 bottles are generally associated with dates around 800-550 BC.

#### **7.1.B.7 Type 7**

Type 7 refers to a small group of just six cases of deep black stirrup-spouts decorated using *CARVED-APPLIQUÉ-RELIEF*. They share a fine grey paste, monochrome black colour, and polished surface. The *CARVED-APPLIQUÉ-RELIEF* technique itself is found exclusively on *GLOBULAR* stirrup-spout bottles and its effect has been compared to stone-carving (Roe 1982). All Type 7 stirrup-spouts have decoration on the handles, and *PROMINENT-LIP* spouts, especially with *DELINEATED-RIMS* (*HANDLE.SPOUT\_VARIETY B4*). They are illustrated in Figure 7.17.

In addition to these formal and technological traits, Type 7 bottles also share a particular iconography that can be related to Chavín de Huántar: two cases show raptorial birds (that in their position and iconography almost exactly mirror the motifs seen on the Black and White Portal at Chavín de Huántar), and one a lateral head-motif very closely related to the birds. Another two cases show frontal faces with fangs. One case is decorated with felines (Figure 7.17d), closely matching a Raku B vessel published in Lumbreras (1993, see Figure 7.17g).

Lumbreras considered Raku B vessels as being related to the North Coast ('Cupisnique'). Larco includes one Type 7 bottle as an example of Classic Cupisnique (1948). Three vessels of this kind, showing specifically raptorial birds were, were found in the mid-Jequetepeque Valley and interpreted by Roe as part of the "Cupisnique sub-style" of the overall Chavín style (Roe 1982:231). Some scholars have since cited this technique as diagnostic of the "Cupisnique" ceramic style

(Donnan 1992; also Rick pers.comm. 2012 in comparison of ceramics local to Chavín de Huántar).<sup>217</sup>

Few Type 7 vessels (or even fragments thereof) have been recovered from controlled archaeological contexts and the provenance of the style remains unclear. A cache of three vessels was found at Tembladera, Jequetepeque valley (Roe 1982), however being a dedicatory (?) deposit, there is no indication that the vessels would have been of local origin. It is also not clear whether the example published by Larco was actually recovered from one of the coastal cemeteries near the Cupisnique ravine. Sherds bearing this decorative technique have been found at Chavín de Huántar but are not considered as local to the site, labelled either as “Raku B” (Lumbreras 1993 fig.506) or “Cupisnique” (Rick pers.comm. 2012), and considered a rarity. Similar sherds have also been found on the North-Central coast (Nepeña Valley, associated with dates around 500-200 BC (Helmer 2013 pers.comm.)), but here too they are rarely found (at least in publications). A number of sherds with *CARVED-APPLIQUÉ-RELIEF* have been found at Kuntur Wasi associated with the Kuntur Wasi phase (800-550 BC). From Kuntur Wasi and the Nepeña Valley there are also examples of *CARVED-APPLIQUÉ-RELIEF* in polished red ware (possibly slipped?), but no example of a complete vessel of this kind could be found in the course of this research.

#### **7.1.B.7.1 Related Styles**

*CARVED-APPLIQUÉ-RELIEF* is rare, but there are a number of related decorative techniques. As well as likely being identical to Raku B, there are similarities with Raku C and Wacheqsa B, both of which show avian motifs (although *CARVED*-incised rather than in *CARVED-APPLIQUE-RELIEF*). Similarly, vessels from Cerro Blanco (Nepeña Valley) feature carved-incised bird forms and include decoration on the handles, but not *CARVED-APPLIQUE-RELIEF*. Here, this ‘gris fino’ ware is considered as local and dated to the Cerro Blanco and Nepeña Phases, 1100-450 BC (calib.) (Ikehara & Shibata 2005).

Some of the *local* styles from Chavín de Huántar (Ofrendas styles) are similar to the *CARVED-APPLIQUE-RELIEF* technique, also relying on a form of low-relief surface

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<sup>217</sup> Sawyer & Maitland (1983) label the style as “Chavín-related”, primarily because of the iconography associated with it (raptorial birds, fanged head-motifs, felines).

texturing and a *horror vacui* approach to rendering motifs on monochrome vessels. However, the “embossing” used for the local Chavín styles is clearly different from the *CARVED-APPLIQUE-RELIEF* defined here (evidently also recognised as such by Lumbreras 1993, who describes “repujado” for the Ofrendas styles and “decoracion incisa mecido llano, y repujado” for Raku B). Furthermore, the object-types of the ceramic styles interpreted as being from Chavín itself are exclusively open bowls and single-spouts rather than stirrup-spout bottles.

#### **7.1.B.7.2 Type 7 in Sum**

While Type 7 vessels have been related to Chavín stone carving (both in terms of iconography and surface appearance), those working at Chavín have categorised them as non-local, usually as “Cupisnique”. After Roe’s publication of three such vessels, some scholars even took the technique as diagnostic of the Cupisnique style. However, there are just six (6) examples of this type in the dataset collected for this thesis. Although further examples undoubtedly exist in other collections and publications, and fragments have been found from the North Highlands (Kuntur Wasi) to the North-Central Coast (Nepeña Valley), it is clear that this highly specialised and rare technique is unlikely to be diagnostic of any broad-sweeping ceramic style of the Formative Period North Peru. Rather, it appears to represent a relatively rare style, restricted in time and location within the broader trend of Class B ceramics that came to be made in the middle to late Formative Period.

### **7.1.C EXCEPTIONS & OTHER TYPES**

#### **7.1.C.8 Type 8**

Another group of ceramics was clearly identified over the course of the quantitative analysis, however, this group (Type 8) does not neatly fit into either of the two Classes distinguished at the beginning of this chapter. This is simply due to the fact that their round-bulge rims have been classed as ‘prominent’ and hence fall into Class B, while in most other aspects, Type 8 vessels fit the characteristics of Class A. On the typological diagram (Figure 7.20), Type 8 has been placed on its own, however, as the following discussion shows the chronological and geographic placement of Type 8 is actually relatively straightforward.

The vessels here categorised as Type 8 form a neat and homogenous group including both stirrup- and single-spout bottles (Figure 7.18). All have an orange/tan colouring, resulting from being fired in an oxidising atmosphere. The spouts are short to medium in height and tend towards *CONVEX* (barrel-shaped). As mentioned, their defining characteristic is the distinctive spout-rim, consisting of a ring of clay framing the spout (*ROUND-BULGE*). On stirrup-spouts, the handles consist of large, rounded arches. In combination, these are classified as *HANDLE.SPOUT\_VARIETY B6* and *B7*. Vessel bodies are large and spherical, with only a small flat base. Some bottles have sculpted or 3D-modelled elements, either on the handle or otherwise applied. These include zoomorphic heads and one instance of a cactus, but the chambers are always *PURE-GLOBULAR*.

There is no surface-alteration but all vessels have designs in pattern-burnish and/or red-slip, creating a colour contrast with the orange base. Occasionally there are also traces of white slip-paint, mostly very faded. Designs are always outlined by wide, shallow incisions (*CARVING*). The most common design is a ring or circle on each side that is slipped and burnished.<sup>218</sup> Some vessels feature an unidentified, possibly supernatural animal motif on one side (see Figures 7.18a, b, c).

#### **7.1.C.8.1 Type 8 Labels, Findspots & Dates**

The Museo Brüning illustrates a Type 8 vessel as its case example of ‘Cupisnique’, however, in general they do not feature prominently in the literature on Formative Period North Coast ceramics, and are to my knowledge not published as typically Cupisnique elsewhere. Alva (1986) illustrates several examples, all of which are alleged to be from somewhere in the Jequetepeque Valley. None have been published as definitely excavated at Puémapa, Purulén, or Morro de Etén, and none feature in Larco’s publications on “Cupisnique” (1941, 1945, 1948, 1966).

However, a number of Type 8 vessels have been found at Kuntur Wasi, associated exclusively with the La Copa phase (550–250 BC). The fact that these La Copa ceramics are regarded as local to Kuntur Wasi by the archaeologists working there, coupled with the rarity of Type 8 vessels found on the coast, make it highly likely

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<sup>218</sup> Either a solid circle, or a ring with an unpainted/unburnished centre.

that this style originates in the highlands, possibly Kuntur Wasi itself (although within the scope of this thesis it has not been possible to examine other Highland sites and ceramics for comparison). It can thus be considered a Late Formative Period Highland style, although a few examples may well have found their way to the coast.

#### **7.1.C.9 Type 9**

Most of the bridge-spout bottles in this sample are remarkably homogenous and the quantitative analyses of Chapters 5 and 6 have differentiated them from the single- or stirrup-spouts by a significant number of formal and technological traits. Certain traits were unique or disproportionately prevalent on bridge-spouts, notably *GLOBULAR-CARINATED* chambers and *IRREGULAR*-shaped spouts. The most common combination of traits thus allowed us to classify one distinct group of bridge-spout bottles as its own category within the overall ceramic complex: Type 9 (Figure 7.19).

On all Type 9 bridge-spouts, the handle connects a spout to another protuberance; not actually a second spout, but in most cases a sculpted element (*FIGURE-ON-TOP*). All have *PURE-GLOBULAR* or *GLOBULAR-CARINATED* chambers.<sup>219</sup> There is no surface alteration or paint. As noted, the only kind of sculpting seen on Type 9 is *FIGURE-ON-TOP*, depicting a human or animal subject in a *FRONT-TO-BACK* orientation with the handle. Notably 40% of Type 9 bridge-spouts in the sample have whistling mechanism.

Type 9 iconography has definite similarities with Type 5 (“Chongoyape”), not necessarily in terms of subject matter (which is largely restricted to human figures) but definitely in the *ways* that the potters rendered facial features and adornments. The eyes consist of clay pellets, the noses have prominently sculpted nostrils and ala, and some Type 9 figures have crested hairstyles or headdresses that closely parallel

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<sup>219</sup> A pattern distinguishing these two chamber-shapes has been tentatively identified, which may in future distinguish more specific bridge-spout Types, but the sample here is too small to discuss this at length: *GLOBULAR: FIGURE-ON-TOP* bodyforms tend to have *TAPER-IN* spouts, while 80% of *GLOBULAR-CARINATED : FIGURE-ON-TOP* bridge-spouts have *IRREGULAR* shaped spouts.

those seen on Type 5 (Variety I) stirrup-spouts (compare for example Figures 7.19d, e with 7.14c, d).

#### 7.1.C.9.1 Type 9 Labels, Findspots & Dates

The bridge-spouts in this dataset were recorded because they were labelled as “Cupisnique”, especially in the Museo Larco. However, a much greater number (including a number of almost identical pieces to those that define Type 9) are catalogued in the Museo Larco as “Salinar”. A number of scholars associate the bridge-spout form with a Late Formative or even post-Formative date. Toshihara associates them with Phase 7 (2002:766, Fig.328; 2004:56, Fig.2). Elera found examples in the final phase at Puémape and calls it Salinar style (Elera 1998, plate 28). Indeed bridge-spouts are common in the material cultures of Salinar and Vicús as well as in the significantly later Moche culture. In terms of iconography, similarities have here been noted with Type 5, which is itself considered a relatively late Formative Period style.

#### 7.1.C.9.2 Type 9 in Sum

Numerous scholars have noted that the bridge-spout form is a late- or post-Formative Period development. The present analysis further established that bridge-spout bottles are formally differentiated from other object types, with different chamber shapes (such as *GLOBULAR-CARINATED*) and spout-forms (*IRREGULAR-NO-LIP*). It also noticed a relationship between the iconographic conventions seen on Type 9 and those of Type 5. Therefore, the present analysis strengthens the notion that bridge-spout bottles merit separate classification and are only marginally associated with the Formative Period Ceramic Complex discussed here. It must be remembered that Type 9 is just one specific style of bridge-spout bottle and – while they almost certainly developed from some of the Types outlined here – likely belongs to the Salinar culture, along with other bridge-spout forms.<sup>220</sup>

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<sup>220</sup> Some bridge-spout vessels *may* represent an intermediate stage, however, we must bear in mind that the stirrup-spout *and* bridge-spout forms continue to be made up until the arrival of the Spanish in the 16<sup>th</sup> century.

## 7.2 CHRONOLOGY & SERIATION OF TYPES

So far this chapter has described ceramic Type-Varieties belonging to two distinct Ceramic Classes, based on the quantitative analysis of the preceding chapters. Having established that there *are* distinct groups of ceramics that can be discerned and differentiated from one another on the basis of co-occurring and mutually exclusive combinations of formal, technological, and iconographic traits, we can now consider specific reasons for this.

One of the first and most apparent is chronology. For the Ceramic Classes, the general trend of *NO-PROMINENT-LIP* preceding *PROMINENT-LIPS* on stirrup-spout bottles has been noted. A full discussion of chronology, let alone a new seriation of Formative Ceramics, is beyond the scope of this thesis and indeed is not its aim. Instead this thesis relies on and informs other scholars' findings and seriations to provide possible chronological associations for the Types identified here through statistical formal analysis.<sup>221</sup>

Chapters 5 and 6 have clearly shown the difficulties of classifying such a diverse dataset into neatly bounded Types, and indeed a significant proportion of pieces have not been attributed to a Type at all (40% of all ceramics, and 50% of stirrup-spouts, belong to one of the here defined Types, though 89.6% of stirrup-spouts can be categorised by as belonging to Ceramic Class A or B). Nonetheless, the attempt clearly yielded valid results and insights. A final step is to attempt to consolidate the presently identified Types with chronological ceramic sequences proposed elsewhere; Toshihara's 7-phase Cupisnique Sequence (2002, 2004) and the sequence established for Kuntur Wasi (Onuki 1995; Kato 1993).

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<sup>221</sup> On a methodological note: I argue that by describing the traits of *Types* rather than of *phases*, the process of categorising unprovenanced ceramics in future is clarified: description of an entire phase normally includes several different ceramic styles, thus listing traits that are not relevant to a vessel that a scholar may be intending to categorise. This thesis suggests that describing vessels by Type provides for a more clearly bounded classification. Of course, a particular Type may occur in several phases, but there can only ever be one matching Type-description for the vessel in question.



## 7.2.A Types and the Toshihara Sequence

As described in Chapter 3, Toshihara's (2002, 2004) 7-phase sequence for Formative Period ceramics is based on published archaeological data, stratigraphy, and context. Her phase-by-phase description focuses primarily on motifs and iconography, and secondly on form-features and painting or texturing techniques. We can identify definite instances of overlap between her illustrations and phase descriptions and the Types described in this chapter, and general result is summarised in Table 7.5.

**Table 7.5. Types compared to the Toshihara Sequence**

Toshihara Phase	Burtenshaw-Zumstein Ceramic-Type								
	1	2	3	4	5	6	7	8	9
1									
2									
3									
4	X								
5	X	X				X	X		
late			X (only Variety.I)	X					
6				X	X			X	
7								X	X

## 7.2.B Types and the Kuntur Wasi Sequence

A similar comparison can be made with the sequence devised for Kuntur Wasi. This is relevant because scholars have long noted close similarities between the ceramic styles of the Jequetepeque littoral (Cupisnique ravine) and highlands, even though this may have been exaggerated (see Chapter 2.3). Nonetheless examples of *most* of the Types classified in this thesis have been found at Kuntur Wasi. How these relate to the chronological sequence there is summarised in Table 7.6.

**Table 7.6. Types compared to the Kuntur Wasi Sequence**

Kuntur Wasi Phase	Burtenshaw-Zumstein Ceramic-Type								
	1	2	3	4	5	6	7	8	9
Idolo (1250-800 BC)	X		X	X					
Kuntur Wasi (800 – 550 BC)					X	X	X		
La Copa (550-250 BC)					X			X	

### 7.2.C Chronology of Types in Sum

There are clear chronological distinctions between some of the Types: not all Types are made or used throughout the entire Formative Period. This is not really surprising given the long timeframe under consideration – indeed it was one of the hypotheses that inspired this study in the first place. Archaeological evidence suggests that prominent-lipped spout-rims, at least on stirrup-spout bottles, developed later on in the sequence; i.e. the earliest stirrup-spout forms had no-lip rims. While there is undoubtedly an overlap in the manufacture and use of ceramics from both Classes, the creation of Class B styles thus postdate the beginnings of Class A.

Specifically, Type 1 seems to constitute some of the earliest ceramics of the Formative Period North Coast Ceramic Complex. Type 2 also appears to be early and is related to Type 1, however it has here been divided into two varieties, one of which (Variety II) has Type B handle-spouts. If the assumption about the chronologically sequential nature of Type A and Type B handle-spouts is correct across the board, then it may be that Type 2 ceramics were made over a very long time period. The painted Types (Type 3 and 4) probably begin to be made shortly after Type 1. Post-fire painting (Type 4) is used contemporaneously to slip-paint (Type 3). The contemporaneity of Types 1 and 3 as proposed in Toshihara’s sequence is supported by the findings of Elera (1998) and Druc (2013) from Puémape, contradicting Larco’s initial arguments for Type 3 as a ‘transitional’ style (1948). The late date that Toshihara suggests for Type 4 however, contradicts how Tsurumi (2012 pers.comm.) and Burger (1992) evaluate the chronological placement of polychrome post-fire painted ceramics. Indeed, the prevalence of this technique early in the Kuntur Wasi sequence (Phase Idolo) suggests a relatively early date.

While variations of colour can be seen in any given ceramic group, Types that are consistently oxidising-fired (tan and orange surface colours, e.g. Type 8) tend to post-date largely reduction-fired ceramic Types (grey and black tones, e.g. Types 1 and 6). This is *not* to say that reduction-fired vessels or styles go out of use: Type 5 ceramics are consistently reduction fired but shown to fall late in the sequence. Nonetheless, Type 8 possibly constitutes one of the last ceramic styles developed by North Peruvian potters in the highlands, alongside the introduction of bridge-spout bottles (Type 9) on the coast at the very end of the Formative Period.

### **7.3 SUMMARY DISCUSSION**

This chapter has presented a Typology of the Formative Period North Coast Ceramic Complex, describing the formal, technological and iconographic attributes that distinguish Ceramic Classes, Types, and Varieties. Archaeological findspots as well as chronological placements for each of these have been outlined, in some cases supporting an argument for cultural distinction between the proposed ceramic groupings or styles. Existing stylistic labels and corresponding definitions used by scholars have also been discussed in light of the correlations between Types and the traits that define them. This presents the intuitive summary of the trends that emerged in the statistical analysis of the previous two chapters.

The two ceramic classes (A and B) can be distinguished on the basis of a number of mutually exclusive traits, as summarised in Table 7.3. While there is undoubtedly an overlap in the manufacture and use of ceramics from both Classes, archaeological evidence suggests that prominent-lip spout-rims, at least on stirrup-spout bottles, developed later on in the Formative Period; i.e. the earliest stirrup-spout forms had no-lip rims. In other words, the creation of Class B styles postdate the beginnings of Class A. A more fine-grained comparison of Types 1-9 with seriations such as that proposed by Toshihara (2002), and the ceramic sequence from Kuntur Wasi, provide further support for this and more detailed indications of how the different Types or styles developed in time (Tables 7.5 and 7.6).

In terms of geographic provenance, the situation is more complicated. Most Types were found in widely dispersed sites, and it appears as though fineware finished

ceramic vessels were exchanged over long distances. There was evidently a great deal of interaction between the different societies living in North Peru at the time, and stylistic as well as iconographic attributes were undoubtedly borrowed and copied across what might well be considered ‘cultural’ boundaries. For example, sherds with red slip and black graphite paint have been found in the Highlands and on the Coast, and from the Jequetepeque to the Nepeña Valleys (including the sites of Kuntur Wasi, Puemape, Huaca Cortada, Cerro Blanco, and Chavín de Huántar, to name a few). While this painting technique was thus used (or vessels exchanged) widely, without complete vessels or at least larger fragments coming to light, we cannot know if these fulfil the criteria that define Type 3 as identified above. Indeed, I think it would be premature to automatically equate *rojo-grafitado* finds with Type 3.<sup>222</sup> With more data we would undoubtedly be able to define further Types or Varieties and understand the full extent of the use of this kind of decoration as a tradition.

Similarly, Type 2 vessels have been found on the North and North-Central Coast, as well as at Chavín de Huántar, where it was considered an import-ware. By contrast, Type 2 vessels have not been found at Kuntur Wasi, suggesting that their distribution may have been southward of the Chicama Valley. Indeed, isolated examples reached as far south as the Ayacucho region, probably via Chavín de Huántar (Nesbitt & Matsumoto forthcoming). Where they originate is unclear, other than that their provenance is likely coastal.

On the other hand, Type 4 appears to have been largely restricted to the Jequetepeque, Zaña, and Lambayeque Valleys, in particular from the mid-valley upwards into the Highlands of Cajamarca (Pacopampa, Kuntur Wasi, Huacaloma). It is generally associated with relatively early phases, and may reflect a period of less intense long-distance interaction, or at least a less intense exchange of ceramic vessels.

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<sup>222</sup> Even in the present dataset there are vessels with red slip and black graphite paint that have *not* been classified as Type 3, due to their distinct handle-spout-shapes or 3D-sculpting, additional paint colours, or the lack of incised-zoning as seen on some Wacheqsa A bottles also.

Similarly, the iconic fully-3D-sculpted figurative bottles with slim, angular or trapezoid handles and no-lip spouts (Type 1), appear to have been made and used primarily in the Chicama, Jequetepeque, and Zaña Valleys. None made their way into the Galería de las Ofrendas and they may largely pre-date the apogee of the Chavín de Huántar. By contrast, Types 5 and 8 are strongly and exclusively associated with later, post-Chavín periods. The only definite provenance that was found for Type 8 vessels was Kuntur Wasi (La Copa phase). Meanwhile Type 5 (largely overlapping with what scholars have called 'Chongoyape style') was found in both the lower Jequetepeque and Zaña Valleys (e.g. Chongoyape, Morro de Eten) and Highlands (Kuntur Wasi), but appears to have been relatively restricted in its spatial distribution to the far North of Peru.

The Formative Period North Coast Ceramic Complex as a whole has historically been called Chavínoid or Coastal Chavín, incorporated under the presumed Chavín Horizon. More recently, the term "Cupisnique" has replaced this as an all-encompassing label for the cultures and styles of the Formative Period North Coast. This thesis proposes that, based on a formal analysis of technological and formal traits, not all these ceramics can be described using a monolithic label, Cupisnique or otherwise. Or, if the term is to be used as such, then there should be more awareness that the "Cupisnique Ceramic Complex" encompasses a wide range of sub-styles, and the only thing they have in common is the stirrup-spout bottle object-type.<sup>223</sup>

As clearly demonstrated in this chapter, there is a huge diversity of ceramic material from this period and region, and different manufacturing processes, *chaînes opératoires*, and traditions can be identified and should be recognised as indicators of not just stylistic but also cultural diversity or change. This is supported by comparisons with excavation data and recent ceramic seriations. Although a fuller analysis of iconographic motifs and subjects needs to be carried out using a larger dataset, the preliminary findings presented here suggest that there are significant distinctions between the iconography (as well as formal and technological traits) of

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<sup>223</sup> Bear in mind that Type 4 is made up primarily of single-spout bottles, and bowls are not uncommon in the sample also.

the here classified Ceramic Classes, Types, and Varieties, which further supports the divisions presented here.

## 8 CONCLUSIONS

### 8.0 REVIEW OF THE RESEARCH

This thesis examined a corpus of ceramics that have historically been considered as either “Chavín”, “Coastal Chavín” or more recently as “Cupisnique”. Although other stylistic labels have also been applied (notably “Cupisnique-Transitorio”, “Chongoyape”, and “Tembladera”) few attempts have been made to consider let alone classify the artistic diversity of Formative Period North Peruvian ceramics. The reasons for this are largely attributable to the history of research. Firstly, the main research interests of archaeologists for much of the 20<sup>th</sup> century concerned chronology-building. The Chavín-style phenomenon and Early Horizon of widely shared cultural, technological, and iconographic traits, as identified by Tello in the first half of the 20<sup>th</sup> century, provided a useful tool for establishing relative site sequences. Although scholars increasingly criticised the notion of Chavín as the *originator* of these traits, chronological phases, particularly in the North Highlands, were commonly defined by a presence or absence of chavinoid traits. Secondly, there was a great interest in the Peruvian Andes as an area of pristine state formation. With a focus on monumental centres and the emergence of large, complex civilisations, archaeologists overlooked the smaller societies that undoubtedly coexisted with them.

Of particular significance for this thesis is the fact that scholars relied on terms such as “Chavín style” to describe ceramic vessels and sherds, and presumed that other scholars would know what was meant without having to list specific attributes. The lack of a solid definition of what constituted this “great art style” (Burger 1993:57) meant that the term was applied with little restraint.<sup>224</sup> Similarities to Chavín de Huantar stone sculpture were actively sought and overemphasised in order to fit relative sequences to the Chavín master sequence.

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<sup>224</sup> For example, for an early critique of the use of feline-traits as identifiers of chavinoid iconography, see Kan 1972.

In many regards, the same is true of “Cupisnique” as a term. Although “Los Cupisniques” were identified and labelled as a culture by Rafael Larco Hoyle as early as the 1930s and 40s, Cupisnique material culture quickly became subsumed into the Early Horizon concept and became synonymous with “Coastal Chavín”. Only in the last 20 years has Cupisnique re-emerged as cultural development in its own right, largely due to the work of Carlos Elera who strongly and convincingly argued for its chronological placement pre-dating the Early Horizon. However since then the term Cupisnique has come to be widely and indiscriminately applied to materials and sites of the Formative Period North Coast, merely replacing the term “Coastal Chavín”.

Although Larco’s (1941) and later publications (Lapiner 1976; Alva 1986) had shown that North Coast ceramics were highly varied (and not all showed similarity with Chavín pottery) little has been done to systematically identify or define sub-styles. This is in spite of the fact that the Formative Period spans over 1500 years. The first point argued in this thesis is thus that not all these ceramics should be grouped under one monolithic label. “It is wrong to reduce data [...] to an oversimplified classification of this kind. [...] These cultures, pseudo-cultures and decorative styles which are given the name of horizons are nothing of the kind.” (Larco 1966:12-17). “Cupisnique” can be a valid general term for the cultural phenomena of the Formative Period North Coast in general, but if used as such scholars must be aware that the term denotes no agreed-upon stylistic definition, nor does it refer to a homogenous social entity or ideology. The second point is that particular groupings of ceramics i.e. styles can be identified within this Cupisnique Ceramic Complex. Quantitative processing identified statistically significant combinations in the permutations that classify variables such as chamber-shape, 3D-sculpting, handle-shape, spout-shape and spout-rim, the application of different kinds of paint, and the use of surface-texturing techniques, amongst others. The different and mutually exclusive combinations of traits strongly indicate distinct manufacturing processes (*chaînes opératoires*), which are probably attributable to the learned behaviours and transmission of skills within distinct potting communities. An examination of the distribution of iconographic motifs across the formally and technologically defined ceramic Types points to possible ideological and therefore cultural differences as well.

## 8.1 THE CREATION OF A TYPOLOGY

On the basis of statistical tests of significant correlation and difference, a number of specific trait combinations were identified. In particular, Chapter 5 showed that angular handles on stirrup-spout bottles were always slim in diameter and were almost exclusively associated with no-lip rims. By contrast, round handles occur in both slim and wide diameter, and prominent-lips on the rim occur on stirrup-spout bottles with rounded handles. The statistically significant distinction was used to define two dominant HANDLE.SPOUT\_TYPES: angular handles with no-lip rims (*TYPE A*), and rounded handles with prominent rims on the spout (*TYPE B*).

This distinction between the handle-spout types clearly divides the dataset of stirrup-spout bottles also in terms of other variables. In particular, handle-spout *TYPE A* is associated with most instances of painting, while handle-spout *TYPE B* accounts for almost all occurrences of surface-texturing. Also, 3-dimensional figurative sculpting is much more common on vessels with handle-spout *TYPE A* than *TYPE B*.<sup>225</sup> As such, it was possible to begin creating a typology of ceramics, first of all dividing the dataset (in particular the stirrup-spouts) into two 'Ceramic Classes' that can be distinguished by a number of statistically significant or even mutually exclusive formal and technological traits, including the handle-spout types. A comparison with published archaeological data indicates that the differences between these two Ceramic Classes may be attributable to chronology: in the archaeological record, ceramics with traits belonging to *CLASS A* tend to precede those characterised as *CLASS B* (see Chapter 7). This finding in turn supports the Class division proposed here and thereby provides some validation for the methods of formal analysis attempted in this thesis.

The Classes were subdivided into 'Ceramic Types' and in some cases further into 'Ceramic Varieties'. Based on the quantitative analysis of Chapters 5 and 6, Chapter 7 took a more intuitive approach to describe each of these and, as far as possible, link them to archaeological data and previous scholarship on style labels and definitions. Some of the *TYPES* classified in this thesis have close parallels with definitions used

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<sup>225</sup> Some specific handle-spout varieties within *TYPE B* do regularly co-occur with full-3D-sculpting, notably those with *BEVELLED-LIPS* on the spout rim (*HANDLE.SPOUT\_VARIETIES B2, B3, B5*).



by other scholars to describe particular ceramic styles. However the use of stylistic labels – such as those that provide the title for this thesis – has been inconsistent and contradictory, and very rarely included a specific characterisation of traits (see Chapter 3). For example, this research has shown that *TYPE 3* ceramics can be distinguished from *TYPE 5* in almost every aspect including shape-variables (notably the handle-spout), the firing-process, the mutually exclusive use of paint *or* surface-alteration, and the iconography. Some scholars have distinguished them (e.g. “*rojo-graftado*” or “*transitional*” vs. “Chongoyape”), but both are also repeatedly labelled and published as “Cupisnique” (for example Fux 2012, Elera 2009; Jones 2010).

Donnan (1992) made a first attempt to clarify differences between what he calls “the northern styles” (Tembladera, Cupisnique, Chongoyape and Chavín), and his definition of Chongoyape almost exactly matches the here defined *TYPE 5*.<sup>226</sup> More recent scholarship however disagrees with Donnan’s definitions of Tembladera and Cupisnique. For example, painting had not been not recognised as diagnostic of any of the styles, contrary to the findings of the present research. Finally Donnan’s definition of Cupisnique as *CARVED-APPLIQUÉ-RELIEF* (a definition that is used by several scholars e.g. Rick 2012 pers.comm., Helmer 2013 pers.comm.) is problematic, as the dataset of 900 alleged “Cupisnique” ceramics contains only six examples of this technique (these have been grouped into *TYPE 7*).

Elera, excavating at looted cemeteries on the coast (Puémape and Morro de Etén) was clearly aware of the diversity of vessels at both sites, and is the first to seriate and separate “Classic Cupisnique” from “Late Cupisnique” (Elera 2009). However he does not illustrate or define particular types, nor suggest possible reasons for the diversity beyond chronological change. Similarly, Jones (2010) is aware of a distinction between “Classic Cupisnique” and “Chongoyape-style”, but does not explicitly consider the potential implications of these representing culturally

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<sup>226</sup> There are some exceptions: for Chongoyape Donnan notes that “single spout bottles are also common” (1992:30), but the present dataset includes no single-spout bottles with a bevelled lip spout, which is a key characteristic that has here been identified as diagnostic of Type 5.

(geographically or temporally) distinct material traditions. She uses both as part of one dataset of “Cupisnique” iconography.<sup>227</sup>

Nesbitt has suggested that differences in style could potentially be separated into a ‘northern’ and ‘southern’ Cupisnique, and that these are at least in part related to differences in interaction patterns (2013 pers.comm.). He suggests that the Jequetepeque and Lambayeque Late Initial Period materials seem very closely related to the northern highland region of Cajamarca and even the eastern Andean slopes, by which he means polychrome painting. In contrast, the ceramic styles southwards of the Moche or perhaps Chicama Valleys have more of an emphasis on black monochrome and red-slip and graphite vessels, and some of this southern material makes its way into the Ofrendas gallery (pers.comm. 2013). This insight supports a Jequetepeque Valley provenance for polychrome post-fire painted ceramics as exemplified by *TYPE 4*, however all the other Ceramic Types identified in this thesis would fall into the ‘southern’ Cupisnique category.

Druc’s (2014) results of a ceramic paste-analysis of sherds from Puémape indicate that the only vessel made using non-local paste was a *rojo-grafitado* bottle, i.e. *likely* belonging to *TYPE 3* (only a fragment is illustrated, and as such the complete form cannot be used to verify this attribution). This seems to confirm the relative contemporaneity of *TYPES 1* and *3*, contradicting the hypothesis proposed by Larco that “Cupisnique Transitorio” represented a transitional style between Cupisnique and Salinar. Nonetheless there are definite chronological distinctions between some of the other Ceramic-Types, where the *TYPES* of *CLASS A* largely precede those categorised under *CLASS B* (see Chapter 7). Toshihara’s seriation (2002, 2004) has been particularly fundamental in clarifying chronological differences for the Ceramic-Classes and -Types defined in this thesis. In addition, her thesis considers the rise and decline of Chavín influence on societies and styles, noting the fragmentation and return to more ‘local’ iconographic themes from Phase 6

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<sup>227</sup> On that note, the arachnid beings that Jones (2010), Burger (1989, 1992:95-96, 1996), Alva Meneses (2008:111) and Cordy-Collins (1992) mentions as ‘typical’ of Cupisnique iconography, are entirely absent from the ceramics in this dataset. These motifs were evidently restricted to a few stone-bowls and murals found on the north coast (Ventarrón, see Alva Meneses (2008:111). The reasons for this separation are unclear. The authenticity of the stone bowls and beakers has been questioned, but the murals are definitely ancient.

(Toshihara 2004:72). This explains and supports the notion of a great diversity of ceramic styles in the Late Formative Period, although the results of this thesis suggest a high degree of diversity throughout. This feeds into current debates regarding the nature of the Early Horizon and Chavín phenomenon, providing evidence in support of Kaulicke's argument that "even within the restricted area of the Chavín art style there is a high degree of local cultural diversity" (Kaulicke 2010: 131, my translation).

## **8.2 COMPARISON TO HIGHLAND SITES**

A number of ceramics found at Highland sites have long been interpreted as originating from the North Coast, most notably those found in the Galería de las Ofrendas at Chavín de Huantar. Of the styles identified as non-local, Lumbreras (1993) and others since him have considered Wacheqsa and Raku as part of Cupisnique material culture. While Wacheqsa A shares a number of traits with *TYPE 3*, only two of the Wacheqsa A vessels can be identified as *TYPE 3* (specifically *VARIETY III*). We of course leave open the possibility that the present sample does not cover the entire range of pottery from the region and period, and that further styles or Type-Varieties are yet to be classified.<sup>228</sup> Raku A shares the characteristics that define *TYPE 2*, specifically *VARIETY I*, and Raku C seems to equate more or less with *TYPE 2 VARIETY II*. Wacheqsa B, by the classification proposed here, would also fall into *TYPE 2 VARIETY II*. While the origins of *TYPE 2* remain somewhat uncertain, other than Chavín de Huántar itself, findspots have been reported mostly from the North and North-Central Coast of Peru, though isolated examples ended up in the archaeological records of the Ayacucho Highlands (Nesbitt & Matsumoto forthcoming).

Examples of ceramics identified as *TYPE 3* and *TYPE 5* have been found at Kuntur Wasi in the upper Jequetepeque Valley. This has been instrumental in assigning those types to particular chronological phases, because Kuntur Wasi has been systematically excavated and a chronology devised over several decades. The same is

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<sup>228</sup> The geometric designs and lack of incised-zoning on the rest means that they do not fully match any of the Ceramic-Types classified here. Wacheqsa A can thus be related (but not seen as identical) to *TYPE 3*, as far as can be discerned at this point.

true of both dating and finding contextual connections for *TYPE 4*, as a large number of brownware bowl fragments with polychrome post-fire-paint and incised-zoning (definitive *TYPE 4* traits) were recovered from layers of the Idolo Phase (950-800 BC) at Kuntur Wasi. One further ceramic group (*TYPE 8*) was identified, consisting of orange-coloured vessels, some with areas of red slip, and specifically round-bulge rims on the spout. Although labelled as Cupisnique in several collections, *TYPE 8* may actually originate in the Kuntur Wasi region (Copa Phase, 550-250 BC). Although the ceramics discussed here are normally considered coastal (named “Cupisnique” or “Coast Chavin”), comparisons with highland sites are clearly insightful, both for chronological seriation and for identifying social connections and spheres of exchange. As is discussed however, the explanations are not always as straightforward as implied by earlier scholars.<sup>229</sup>

### **8.3 SOCIAL IMPLICATIONS**

Of course, the question of whether stylistic differences equate to social or ethnic differences is one that archaeologists have always grappled with. A fuller discussion of architectural, iconographic, and ethnographic evidence, as well as theoretical consideration is beyond the scope of this thesis. Nonetheless, there are hints in the ceramic data that indicate different approaches, not just to making ceramics, but also in the way the makers and users of these ceramics saw themselves and their world. In terms of 3-dimensional sculpting, vessels of *TYPE 1* depict almost exclusively naturalistic beings and scenes. The well-known dual-faced vessel of the Museo Larco (Figure 7.11) is actually a rare exception amongst *TYPE 1* vessels. Similarly in *TYPES 4* and *5*, it is only particular Varieties that depict ‘supernatural’ beings.<sup>230</sup> This is in contrast to the local Chavín Ofrendas ceramics (and stone carvings) where hybrid

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<sup>229</sup> For example, a specific analysis and definition of *rojo-grafitado* vessels reveal technological distinctions between coastal ceramics and some of the Wacheqsa vessels identified as ‘Cupisnique’ (Lumbreras 1993). Not all Wacheqsa vessels have the characteristics that define *TYPE 3*. Similarly, an ‘invasion’ of coastal people into Kuntur Wasi, bringing their ceramic styles with them, is not supported by the data: while some isolated vessels of *TYPE 3* and *5* were found at Kuntur Wasi, most Kuntur Wasi ceramics were different enough to not be categorised as any of the Ceramic Types defined in this thesis, or as a type of their own (*TYPE 8*).

<sup>230</sup> Within *TYPE 5*, Variety II consists of cylindrical, fanged head vessels. *TYPE 4* only Variety I includes 2-dimensional motifs that appear to reference the supernatural, with elements including upturned ‘eccentric’ eyes and fangs decorating the vessel bodies.

beings or their elements are commonly represented, and where there is a general absence of naturalism.

Considering specifically human representation, *TYPE 1* figures wear no clothing or adornments other than incised loincloths and occasionally plain round earspools or a simple headband. *TYPE 5* human figures consistently wear round earspools and there is an emphasis on elaborate hairstyles, but no further adornments are shown.<sup>231</sup> By contrast, *TYPE 4* figures wear clothing decorated with various motifs, as well as adornments including bracelets, dangling earrings, multi-layer necklaces. This is also true and particularly extreme on the Tembladera Figurines, although their adornments and the execution of their features differ from those seen on *TYPE 4*. These differences in depicting or not depicting elaborately adorned bodies may reference differences in the nature and conception of ritual or social hierarchy. As Lau states: “Ancient representations comprise one of the few lines of evidence which show how ancient Andeans conceived of themselves and social others” (Lau 2010:264). While the ‘quotidian’ representations of *TYPE 1* may well be symbolically charged, the differences appear to be indicative of more than mere artistic conventions, and reflect a different way of conceiving of and approaching human persons and bodies. In addition to the large geographic area and long timespan involved, I tentatively suggest that the distinct ceramic groupings that can be identified should be recognised as indicators of not only stylistic but also cultural diversity and/or change. More work on the iconography of human representations is likely to be fruitful.

As discussed in Chapter 4, it is possible to infer aspects concerning the organisation of production from finished ceramics. There can be little doubt that these vessels were made by highly skilled individuals. In terms of artistic representation, they are amongst the finest ever produced in Peru. The same is true in terms of technological aspects. Most have evenly thin walls (regularly less than 5mm thick) and an even surface-colouring, which is closely related to a skilled selection of raw-materials and a carefully controlled firing process. In general, potters expressed a high degree of

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<sup>231</sup> possibly crested headdresses, but the example of a figure washing or combing their hair (Appendix Database: ID NMAI12) may reference the importance of hairstyles among the people who made Type 5 ceramics.

creativity and individuality. There is only a possible, slightly elevated degree of standardisation in some of the styles, for example, *TYPE 2* as opposed to *TYPE 1*, implying the possibility of full-time specialisation developing in some contexts of the Formative Period.

What may be more significant are the societal functions of ceramics, which affect the labour invested in their manufacture. They (or their 'style') can communicate important social information such as group affiliation and socioeconomic status. The high skill and amount of labour invested in the ceramics analysed here might thus be considered in this context; as valuable and symbolically charged items, produced by highly skilled if not full-time specialist potters. Their diversity suggests a local, community-based production by distinct social groups, even if finished fineware ceramics were desirable, exotic goods that were exchanged over long distances. It is also clear that there was a high level of artistic freedom and innovation, and that production was not controlled or standardised beyond functional and cultural expectations.

#### **8.4 SCHOLARLY IMPLICATIONS**

The implications of this are several. First and foremost is the recognition of the stylistic diversity of the period and region, and the understanding that 'Cupisnique' is not a term that denotes any particular style above and beyond the stirrup-spout form itself during the Formative Period. As such, the classification and description of some of the most common forms and styles, matched to chronological and geographical information, can help museum curators and archaeologists better understand the materials with which they work. Indeed, I argue that by describing the traits of ceramic *types* rather than of whole *phases*, the process of categorising unprovenanced ceramics in future may be clarified. One of the reasons for such heterogeneity is undoubtedly the fact that we are dealing with more than a dozen centuries, in which there may be various kinds of workshops and pottery-making dispositions. But we must also acknowledge that even within the same workshop (and thus phase) there may be variability in what is produced, and in understandings of what it is meant to look like.

Of course, one of the fundamental questions regarding the ceramics is whether the stylistic diversity equates to cultural or ethnic diversity. To answer this question convincingly, much more and much better archaeological data would be needed to accurately reconstruct ancient ways of life. This may also include clay-source analyses and ethnohistoric and ethnographic studies. Nonetheless, as tentatively indicated here, differences in the iconographic themes between different *TYPES* – especially as far as human representations are concerned – do seem to point to possible cultural distinctions. Already Lanning (1960) and more recently Kaulicke (2010) have argued for the Early Horizon as a period of great artistic diversity and change, and this thesis substantiates these arguments with definitive data.

Although the issue of style and cultural affiliation remains a topic of debate, this thesis hopes to contribute one avenue within a multi-angle approach to the material at hand. In an article on the notion of ‘local’ products, Druc (2013) proposes guidelines for the understanding of Andean ceramics along eight levels of increasing complexity of interpretation. These relate to distinct approaches or spheres of understanding, going from physical, statistical, technological, economic, social, and political to conceptual and representational (Druc 2013:505). This thesis, with all its limitations, provides the data for her fourth approach: the identification of the technological style of the wares analysed. As such, the results of the present research are but one avenue, to be used in conjunction with others, to better understand the technological, social, and cultural situation of Formative Period northern Peru.

## **8.5 CONCLUDING REMARKS**

This thesis argues that the history of research has obscured stylistic diversity in northern Peru during the Formative Period. In particular, the labels of Chavín and Cupisnique have been widely applied, more often than not without definitions of the traits that might define them. Attempts at outlining and labelling ceramic styles remained contradictory. The results of this thesis suggest that there is no such thing as “typical Cupisnique”. Rather, “Cupisnique” (if one wishes to use the term at all, and indeed as the term appears to be used more and more frequently in the literature) refers to a Formative Period North Peruvian Ceramic Complex, within which there are at least two separate Ceramic Classes and a number of formally, technologically, and iconographically distinct Ceramic Types.

This thesis developed a stylistic typology for this Ceramic Complex, using a multivariate quantitative approach. The identification of distinct ceramic groupings is based on traits that are statistically correlated and differentiated. These have subsequently been validated by a comparison with the existing literature, and the results indicate that statistical methods can be used to identify ceramic styles. Nonetheless with a dataset of this limited size and diversity, intuitive approaches have also been fruitful and necessary.

Types were defined based primarily on form-variables, as well as variables revealing technological processes and methods of decoration, rather than on an iconographic basis. While variables concerning the handle- and spout-forms of stirrup-spout bottles are fundamental in the definitions of the Ceramic Classes and Types, every attempt was made to go beyond stirrup-spout bottles and include other object-types also. By considering variables such as paste-colour and *kind* of paint, it was indeed possible to define *TYPE 4*, which includes primarily bowls and single-spout bottles.

Some scholars had previously identified a general distinction between stirrup-spout bottles with short-spouts and prominent lips, and tall slim spouts with no-lip rims, especially as far as chronology is concerned. However, the addition of further traits such as surface-texturing, the level of detail, and the use of quantitative, statistical data to substantiate a division into two Ceramic Classes is entirely new, as is the subsequent discussion of ceramic *TYPES* within *CLASS A* and *B*. The findings were discussed using an intuitive approach, comparing them to published archaeological data and recent ceramic seriations, in order to determine (as far as possible) a geographic and chronological context for the *CLASSES* and *TYPES*. The extent to which distinct *TYPES* relate to ethnic or cultural divisions is touched upon, although a full discussion is beyond the scope of this study. Nonetheless the drastic differences between some of the *TYPES* in terms of form, technique, and iconography, together with the large region and long timeframe involved, mean that significant societal distinctions are considered highly likely.



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### 8.5.A Limitations and Future Work

There are still a lot of unanswered questions. Half of the vessels in this dataset were not assigned to any one of the Ceramic Type-Varieties defined here (although 90% of stirrup-spouts were grouped into either Ceramic *CLASS A* or *B*). It is also clear that *TYPES 1* to *9* do not constitute the full suite of ceramic styles produced and used in the Jequetepeque and surrounding Valleys during the Formative Period. To name just one example: a cache of vessels from Udima-Poro Poro yielded stirrup-spouts and bowls with forms unlike those commonly seen in the dataset (Alva 1988). But it is a start. Future analyses would benefit from a larger dataset, so that rarer traits and diverse iconographic elements could also be processed quantitatively. Archaeometric studies such as clay source analysis and thermoluminescence dating would greatly benefit the researching of these objects, and the answering of questions posed in this thesis. Nonetheless (as discussed in Chapter 4), clay-source analyses are particularly valuable *in combination with other data, including stylistic characterisation* such as was presented here. More substantial archaeological, contextual information is, of course, always desirable, especially as far as information about ancient ways of life can be discerned. This might allow us to consider whether access to fineware ceramics was restricted to certain segments of society, and whether they were used in domestic as well as ritual contexts, as was the case of Nasca polychrome ceramics (see Vaughn 2004). This way we could explore some of the other levels of interpretation that Druc (2013) outlined.

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