Lost Languages of the Peruvian North Coast

Matthias Urban

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Abbreviations and symbols

1 first person
2 second person
3 third person
ABL ablative
ADJR adjectivalizer

AGT agentive causative **CAUS** copula COP DAT dative distal DIST gerund **GER** imperative IMP INV inverse

LOC/ALLlocative-allativeNOMnominativeNPOSSnon-possessed

OBL oblique
PASS passive
PL plural
POSS possessed

PRES.PRTC present participle

PROX proximate
PURP purposive
SG singular

<...> orthographic representation
/.../ phonemic representation
[...] phonetic representation

alternates with

- morpheme boundary

/ variant readings of identical personal names in colonial

documents; variant in copies

† inferred identity of Quingnam toponyms and anthroponyms

I. Introduction

To the people of the North Coast, past and present A la gente de la costa norte, del pasado y del presente

Linguists have assembled an impressive array of documentary materials for those languages of the Central Andes that survived Inca expansion, the Spanish conquest, and the resulting changes and hardships these events involved for their speakers in the colonial period and thereafter. Following pioneers of linguistic documentation like Santo Tomás (1560a), Bertonio (1603), and others, both Quechua and Aymara have been studied extensively during the past 50 years or so. Chipaya, another survivor, is now also well-described (see Cerrón-Palomino 2006). This documentation constitutes an important harbor of cultural knowledge of the indigenous peoples of the Central Andes. But it has also proven valuable for further purposes: the languages of the Central Andes play a significant role in a more general attempt to understand the prehistory of this cultural area. Recent efforts aim at an explicit linguistic contribution to the prehistory of the Central Andes. Here, the focus lies on the question of how the expansion of the major Andean language families, Quechua and Aymara, relate to the Chavín phenomenon and the expansion of the Wari state (Heggarty & Beresford-Jones 2012; Kaulicke et al. 2010). On the other hand, in a quite different vein, the conceptual structure found in Andean languages has been a source of inspiration for the interpretation of pre-Columbian art and worldviews (e.g. Urton 2008; Urton & Nina Llanos 1997).

It is in all these senses that we can appreciate the immense loss which the extinction and the scanty documentation of the languages of the Peruvian Coast constitutes. In the absence of written records, authors like Silverman & Proulx (2002: 72) are forced to resort to speculation on what conceptual categories the language of coastal cultures like Nazca, (temporally) removed from our present about as far as Rome and Ancient Greece, may have had.

In other cases, however, the fact that linguistic structures of the coastal languages cannot be recovered is not because of a irreconcilable gap of time, but rather due to the lack of attention they received in early colonial times and their early extinction. The present book is about the lost languages of the Peruvian North Coast, of which this is true to varying degrees: Sechura and Tallán (documented in two varieties spoken at Colán and Catacaos) in the Far North close to the border with Ecuador, Mochica to the south of the Sechura Desert in the coastal area of the department La Libertad up

¹ The languages of the coast are not alone in their fate. Culli, a language of the Northern Highlands, for example, shares their adverse fate, even though it was spoken well into the 20th century (Adelaar 1988).

to at least the Chicama Valley, and from there further southward Quingnam, up to the Central Coast. It is unknown what intriguing avenues full knowledge of the grammatical and conceptual systems enshrined in these languages would have made possible for the study of the complex societies which flourished on the North Coast before the Inca conquest. Much information is irrevocably lost, unless hitherto unknown early documentation is discovered in the future. What information (except for Mochica) exists is marginal, and, unless for special purposes, would not be adduced as the principal source for linguistic analysis in the case of living or reasonably well-documented languages. Nevertheless, even in the absence of speakers at present and the scarcity of dedicated colonial documentation (again, except for Mochica) to work with, not everything is lost (Adelaar 2007a; Solís Fonseca 2009). Lexical material is scattered in various colonial sources, and the stock of lexical items can be further enhanced by paying attention to the local varieties of Spanish that succeeded the indigenous language. Moreover, important sources of information are local toponyms and personal names, even though working with them presents several challenges.

The goal of this book differs from that of other contributions to the study of the North Coast languages. These have hitherto frequently been concerned with questions of the geographical extension of the languages (most recently Salas García 2010 on Quingnam). Instead, the focus here lies on the question of what can be learned about the languages from the available materials on the lexicon and grammar of the languages themselves. This endeavor faces several problems. The relevant languages are attested by single wordlists (Tallán and Sechura), colonial and pre-modern linguistic documentation (Mochica), or virtually not at all (Quingnam). Thus, techniques like comparative reconstitution (Broadbent 1957; Constenla Umaña 2000), which exploit variation between sources to bring to light covert phonetic and phonological variation, would not be applicable to this kind of material. Having said that, the available data have not yet been thoroughly exhausted by previous authors and more aspects of the structures of the languages of the North Coast can still be recovered, at least tentatively. At the same time, sobriety is in order, as in many cases no definite statements can be made based on the extant materials. The properties of the language cannot be demonstrated with an even vaguely comparable degree of certainty to that obtainable if the data upon which the analysis is based had come from proper linguistic fieldwork. With the available sources as the sole basis of possible knowledge, one cannot even think about elucidating alignment, word order and other major structural features of the languages since the data this would presuppose are simply lacking. Thus, this book is an essay in the literal French sense of the word – an attempt to go as far as possible with what documentation there is.

This attempt, however, also goes beyond linguistic structures proper. More than 25 years ago, Guffroy, Kaulicke & Makowski (1989: 137) called for a new synthesis of archaeological, ethnohistoric, and linguistic evidence to eludicate the political

geography of the Piura department during the last pre-Hispanic centuries, while Netherly (2009: 127) lamented the lack of attention given to the languages of the North Coast as an additional source for theorizing prehistory. Interdisciplinary synthetisizing, however, can be perilous. As Renfrew (1987: 287) famously said, genetic(ist)s and linguist(ic)s are all too frequently "building on each other's myths". Along with a refocusing on a more local level and a move away from continent-wide studies, it has been realized recently that it may be more profitable to begin by evaluating the evidence from each discipline separately and by building multiple 'histories'. Evidence from the different disciplines can nevertheless be compared and be brought to bear on one another, but results ought not be aprioristically expected to converge. The linguistic situation on the North Coast, in which (for all that can be known) genealogically isolated languages share a relatively restricted geographical space, is particularly challenging for existing models which explain the interaction of linguistics and archaeology in theorizing (Andean) prehistory. However, it is nevertheless possible to reconstruct aspects of the past relations of the speakers of the languages. A crucial piece of evidence is a body of vocabulary items which North Coast languages shared among themselves, but also with near and distant neighbors. These shared items paint, at least as far as vocabulary is concerned, a picture of 'international' speech communities in contact with diverse groups of the South American Pacific coast and the adjacent highlands. This, in fact, is expected given the sociolinguistic setting that can be inferred for pre-Columbian times.

Organizing this book into chapters, and these into sections, has not been easy. This is because the relevant evidence is scattered over different types of sources which must be brought to bear on one another. After some experimenting, I have settled on the following structure: before embarking on a full discussion of the languages in the following chapter, I provide a sketch of the geography of the North Coast and its sociopolitical history, that of pre-Columbian times as inferred from archaeology and that of colonial times as partially recoverable from early Spanish sources. The inclusion of such a chapter reflects my conviction that a study such as this one can hardly ignore the geography of the region or the sociocultural background of the (erstwhile) speakers of the languages. Indeed, these can form a backdrop against which the typological position of the languages and the evidence for linguistic contacts can be discussed, and with which it can be compared and contrasted without necessarily having an expectation of convergence of the different lines of evidence. Subsequently, in the chapter entitled "The linguistic situation in Northern Peru reconstituted", I first provide a general overview of statements in colonial sources which refer to the linguistic diversity of the North Coast. From this basis, I proceed to explore where individual languages likely dominated. The following chapters, then, deal with the individual languages: Tallán, Sechura, Mochica, and Quingnam. These chapters are designed so that they can be read by themselves or in conjunction. Their internal structure is fairly standardized: first, the origin of the names by which the languages are known to us is discussed. There then follows a discussion of the sources available for the study of each language and what can be learned from these sources about its vocabulary and structure, while brief remarks on the fate of the languages wrap up the discussion. The chapter on Mochica differs somewhat. Mochica is comparatively well-documented *vis-à-vis* the other languages of the North Coast, and substantial efforts have been made to revitalize this documentation to describe the language in terms of modern linguistic analysis (Adelaar 2004; Cerrón-Palomino 1995; Hovdhaugen 2004; Torero 2002). For this reason, I do not embark on a full description of Mochica here, but rather provide a short sketch of the language based on these materials. Since the publication of the last major syntheses of Mochica in 2004, Mochica studies have not ceased. On the contrary, a wealth of new studies has appeared in the meantime. I mention each of these, so that the chapter on Mochica also forms an up-to-date summary of the state of our knowledge regarding this important North Coast language.

Having discussed the individual languages, I move into comparative terrain. In the chapter "Previous classification attempts", I review previous conjectures as to the geneaological affiliations of the languages of the North Coast. I reach the conclusion that neither is well-supported at the present state of research. Then, in the chapter "Shared vocabulary items", I provide a discussion of linguistic evidence for the interregional contacts of the languages' speakers in the form of shared vocabulary items and discuss some possible typological patterns in the chapter on "Typological aspects of the North Coast languages". In conjunction, these provide the most direct evidence linguistic analyses can offer for the general study of the pre-Columbian North Coast, a theme elaborated on tentatively in the last major chapter on "Language and the prehistory of the North Coast". Thus, the discussion of extralinguistic facts within this book forms a bracket: first, they set the stage for the discussion of the linguistic data. These are then revisited, hopefully enriched by precisely that discussion.

II.

Geographical and sociopolitical background: Peru's North Coast

Peru's North Coast: Basic geographical givens

The coastal region of Peru is for the most part made up of a narrow strip of lowland desert, jammed between the Pacific Ocean to the west and the towering Andean cordillera to the east. Its extremely arid climate results from the wind shield caused by the cold waters of the Humboldt current.² While the amount of freshwater the North Coast receives from rainfall is virtually zero under normal conditions, many rivers or river systems provide the coastal lands with fresh water. Running in a mostly west-southwesterly direction from the Andean highlands through the coastal deserts to drain into the Pacific, there are about 30-40 rivers dissecting the coast of Peru.³ The amount of water they discharge is fairly irregular in most cases, and some of them run dry entirely for part of the year. Under these conditions, irrigation is as vital for agricultural production today as it was in the prehistoric past. The Humboldt Current, carrying cold and nutrient-rich waters from Antarctica up to the Peruvian coast, affects human life on the coast in more ways than just being the ultimate cause of the arid climate. The waters are extremely rich in marine resources. This important protein source was exploited from very early on by humans occupying the coast. In fact, it has been argued that Andean civilization generally emerged fed by the resources the sea had to offer (Moseley 1975). On the other hand, the cold waters of the Humboldt Current are submerged by warmer water at fairly but not entirely regular intervals. This is known as an El Niño event or the ENSO (El Niño-Southern Oscillation) phenomenon. During such events, marine resources diminish drastically and, in addition, torrential rains and concomitant floods occur. Together, these effects may be catastrophic for coastal populations, although not every El Niño event is equally strong, nor does every El Niño event affect each valley in the same way.

In the system of originally indigenous denominations for the different altitudinal levels of the Andes (see Pulgar Vidal 1987), the term for the dry coastal lowlands is *chala*. Further up, *yunga* refers to the low and warm valleys on both sides of the Andes. The *yunga* zone is home to the upper valleys of the rivers which descend from the Andes to the coast. This is a very fertile zone which is characterized by the coexistence of different ecological niches and which allows for the cultivation of a wide range of plants. Often, these valleys are shrouded by low-level fogs known as *garúa* during the winter season. These fogs have varying effects on the possibility of crop cultivation: while providing an additional amount of moisture, in the lower river valleys they can also promote the growth of harmful fungi (Ramírez-Horton 1996: 6). In pre-Columbian times, the indigenous

² However, much earlier in prehistory, before 3000 BC, the climate must have allowed for more tropical vegetation, including mangrove swamps like those found today in the Ecuadorian coastal regions to the north (Guffroy 2008: 889-890; Guffroy, Kaulicke & Makowski 1989: 121).

³ Quilter (2014: 28). The precise figure depends on the manner in which the tributaries are counted.

population was concentrated in the yunga parts of the river valleys. Later, a significant percentage of the yunga-dwelling people were resettled from the most productive upper valleys to the lower valleys in the *chala* zone to free the best lands for exploitation by the Spanish (Ramírez-Horton 1996: 6). Already in these early colonial times the term yunga experienced at least two crucial metonymic extensions from its basic geographical meaning in Spanish usage: it could now also refer to the inhabitants of the yunga altitudinal level (indios yungas) and to the language they speak (lengua yunga). This at times makes the interpretation of colonial descriptions quite difficult, since several different ethnic groups and languages could have been implicated. In addition, certain cultural properties seem to have come to be associated with the term yunga, to the effect that in Spanish usage it did not follow that indigenous peoples living in the yunga altitudinal zone were necessarily *indios yungas* or spoke a *lengua yunga*. Thus, Toribio de Mogrovejo (2006 [1593-1605]: 115), the famous 16th century bishop of Lima who travelled widely through his diocese, could say of the villages of Huchos and Challas that "[...] in both villages it is hot because they are perfect yungas, and the indians are [yungas] and they speak the language of the plains and understand the general language". 4 Still further inland from the coast and higher up the mountains, the so-called quechua, puna, and jalca zones are found (the latter only from the Ancash department southward).

Latitudinally, the North Coast can be divided into three subregions which are separated by two larger expanses of arid land (as will become clear later, these are also relevant both for archaeology as well as for linguistic geography).

The region called the Far North or Extreme North is largely coextensive with the present-day department of Piura and the much smaller department of Tumbes, which both border with Ecuador in the north. This is the area where the Tallán and Sechura languages have been attested. The southern boundary of the Far North is formed by the Sechura Desert (Figure 10); its forsakenness is well illustrated by a multitude of spooky tales heard by Bastian (1878: 150) while crossing it. The Far North is crossed by three rivers: the Tumbes, the Piura, and the Chira. The Tumbes and the Chira Rivers originate in the highlands of Southern Ecuador, from which they flow in a westerly direction to discharge into the Pacific in Peruvian territory. In contrast, the Piura River's headwaters are in the highlands of Peru in Piura's Huancabamba province. From there, it flows to the north before changing its course into a southwesterly direction to discharge its waters into the Pacific north of the Sechura Bay (Figure 10). With its south-north orientation in its upper course, the Piura Valley forms a natural corridor to the Lambayeque region in the south (Guffroy, Kaulicke & Makowski 1989: 118).

^{4 &}quot;[...] en ambos pueblos hace calor por ser perfectos yungas, y los indios lo son y hablan la lengua de los llanos y la general la entienden".

Reference to the 'North Coast' or 'Northern Coast' usually implies the entire strip of land from the Sechura Desert in the north roughly to the valley of the Casma River in the south, which, according to recent archaeological findings, formed the southern boundary of consolidated control of the Chimor Empire (Mackey 2009). The North Coast can be subdivided into a northern and a southern region – the Northern North Coast and the Southern North Coast. The boundary is set at the Pampa de Paiján, the second and somewhat smaller expanse of barren land mentioned earlier (Figure 10). It is, as we see later, also roughly in this area that Mochica-speaking populations in the north appear to have overlapped with Quingnam-speaking populations in the south. By using the terms 'Far North' (or 'Far North Coast'), 'Northern North Coast', and 'Southern North Coast', major geographical divisions can be identified and referred to unambiguously. However, sometimes it is necessary to refer to the Northern North Coast and the Southern North Coast collectively, as opposed to the Far North. I use the somewhat clumsy phrases 'North Coast south of the Sechura Desert' or simply the conjunctive 'Northern and Southern North Coast' in such cases because I wish to reserve the more elegant 'North Coast' for the entire region made up of the Far North, the Northern North Coast, and the Southern North Coast in the context of this book.

In the area which is called the Northern North Coast here, the first river valley system south of the Sechura Desert is the Lambayeque/La Leche system. This is presently one of the most fertile regions of Peru and was an important center of the development of pre-Columbian cultures. To the south lie the Saña and Jequetepeque Valleys, while the southern boundary of the Northern North Coast, the Pampa de Paiján, is found between the Jequetepeque and Chicama Valleys (Figure 10). Rivers intersecting the coastal desert in the Southern North Coast area are, from north to south, the Chicama, Moche, Virú, Chao, Santa, Nepeña and the Casma (Figure 10).5 The valleys differ from each other regarding their size,6 the amount of water they discharge and whether or not they run dry during the summer period. Replicated from Cook (1981: 21, Table 3), Table 1 provides statistics on the valleys of the North Coast; data on the size of the irrigated area and the average flow of water is based on 1960 data. As Cook (1981: 20-21) remarks, the amount of irrigable land is a function of both waterflow as well as of the surface area of the valleys. In addition, population density estimates are given for the year 1520, whereby a minimum and maximum estimate are stated. This is because Cook's figures are extrapolated from household counts, and the variability of the size of the households (apparently assumed to be anywhere between two and twelve members) must be taken into account.

⁵ The area of the Nepeña and Casma Valleys is sometimes referred to as 'North-Central Coast' or is lumped together with the Central Coast in the literature.

⁶ The northern Lambayeque and Jequetepeque Valleys are much larger than the Moche, Virú, Chao, and Santa Valleys on the Southern North Coast (see Castillo Butters & Uceda Castillo 2008: 707).

Valley	Irrigated area (thousands of hectares)	Average flow of water (cubic meters per second)	Population density (thousands) 2	Population density (thousands) 12		
Tumbes	6	216	12	72		
Chira	27	344	54	324		
Piura	60	69	120	720		
Lambayeque and La Leche	87	44	174	1044		
Saña	19	13	38	228		
Jequetepeque	30	72	60	360		
Chicama	40	42	80	480		
Moche	20	14	40	240		
Santa	9	192	18	108		

Table 1. Statistical information on valleys of the Peruvian North Coast, from Cook (1981: 21, Table 3).

The valleys also vary regarding their micro-geography and thus provide different affordances. Indeed, no valley is quite the same as another, and Shimada (1982) argues that coastal people could attain self-sufficiency independent from the highlands since resources from different valleys have the potential to complement one another. Many more details on the geography and nature of each of the valleys can be found in Kosok (1965).

As far as the highlands are concerned, rivers mostly take a southwesterly course. The Santa River is the major exception. Originating in the highlands of Ancash, at an altitude of ca. 4,000m, the Santa flows in a northward direction through the Callejón de Huaylas, a valley situated between the Cordillera Negra and the Cordillera Blanca, constantly lowering in altitude. Only after having descended to 2000m does the river change its course to the typical southwesterly direction of the coastal rivers and drains into the Pacific near Chimbote.

There is one further aspect of geography with possible repercussions on sociohistorical developments: while the Andes are generally a formidable, though not impenetrable, obstacle to lateral population movements throughout their entire range, at the height of the North Coast the elevation is considerably lower as the Andean *cordilleras* change their general orientation from running in a northwesterly to a northeasterly direction (the so-called Huancabamba transversal), and river valleys such as that of the Marañón facilitate penetration of the Andes.

A view of the Peruvian North Coast from the perspectives of archaeology and ethnohistory

This section presents an overview of the early colonial history and the prehistory of the North Coast of Peru. It is not intended as a full review of the literature, and gaps in the coverage may be present. Emphasis is placed on aspects of pre-Columbian society which are of potential interest for linguistic analysis and, conversely, for which linguistic analysis may be illuminating. These include topics such as the mobility of the population in pre-Columbian times; post- and pre-Columbian resettlements and, contrarily, ethnic continuity of the general population through time; the territorial expansions of the pre-Columbian states of the North Coast south of the Sechura Desert and/or their sphere of influence; as well as (long-distance) trade. Most of these factors suggest that at least part of the indigenous population was rather mobile. Forced or voluntary mobility as an expression of indigenous economic organization or as a consequence of the late prehistory and (early) colonial prehistory of the studied region is an integral part of its history and hence the sociolinguistic setting. As such, it is vital background information for the study of the linguistic data as well, as it may have led to the diffusion of personal names of diverse linguistic origins in the region as well as, of course, dialect levelling among speakers of closely related varieties and other language contact phenomena.⁷

1532: continuities and discontinuities

Demographic collapse

When Francisco Pizarro and his expeditionary force made landfall at Tumbes in 1532, they found themselves for the first time in lands that were controlled directly by the Inca Empire. The Tallanes, just a little further south, were among the first indigenous peoples to encounter the Spanish in what is today Peru. Indeed, according to Titu Cusi Yupanqui's account of the Spanish conquest of the Inca Empire, it was "tallanas yungas" who informed Mancu Inca Yupanqui in Cuzco about the arrival of the Spanish invaders and delivered the famous portrayal of the invaders as gods (Legnani 2005: 77-78).

In the aftermath of the Spanish conquest, the population of the North Coast collapsed, though in varying rates depending on the individual valley – the Lambayeque complex, for instance, suffered least from population collapse (Cook 1981: 143; see Table 1 for pre-conquest estimates). A major reason for this demographic collapse were epidemics introduced by the Spanish, which found an ideal breeding ground in the

⁷ Certainly, there is a notable onomastic correlate of either forced or voluntary population movements. Echenamo, for instance, the name of a lord of Cherrepe in 1580 (Zevallos Quiñones 1993a: 36), corresponds closely to the name Eche, a name amply attested at Sechura (see. Appendix D II). The telling last name Catacaos is attested at Santiago de Cao in 1682 (Zevallos Quiñones 1993a: 17), and the characteristic Tallán name Guaylupo is attested at Huanchaco in the Moche Valley in the 18th century (Zevallos Quiñones 1993a: 42).

densely concentrated populations of the valleys of Peru's North Coast (Cook 1981: 143). In addition, in the Far North, the indigenous population was already greatly diminished by 1572 due to starvation and excessive forced labor (Diez Hurtado 1988: 20). The *Relación de la ciudad de Sant Miguel de Piura* (Jiménez de la Espada 1965: 39; 42) also mentions the fact that all Spanish colonizers entered Peru through the Piura region, a matter which contributed to the high death toll among the Indians there. However, the demographic collapse in this region had already begun in pre-Spanish times due to violent conflicts, such as the war between Tumbes and the inhabitants of the island of Puná (Cook 1981: 122).

Political organization

The Northern North Coast was divided into six political units, so-called señoríos, following the Spanish conquest: Jayanca, Túcume, Sinto, Collique, Saña, and Pacasmayo. Each one was ruled by a principal lord referred to as *cacique principal* in Spanish sources. His rule was based on principles of reciprocity: his subjects provided labor in exchange for the lord's role as a mediator between humans and gods and for his hospitality in the form of banquets and chicha parties (Ramírez-Horton 1996). The cacique principal's power was, however, not absolute, since pre-Hispanic society in the Central Andes was organized into ranked moieties, called parcialidades by the Spanish administrators of the North Coast. The cacique principal of Spanish documents thus turns out to be the lord of the higher-ranking ('upper') moiety who was the counterpart of the lower-ranking ('lower') moiety at the highest level of political organization. The head of the lowerranking moiety usually appears by the name of segunda persona in Spanish documents. This system of political organization was transitive; thus, each of these two moieties at the highest level of organization was again divided into two unequal parts, and so on to the lowest level of organization, whose lords exercized control over a few individual households. Rule was dual on each level (Netherly 1984: 229-231; 1990). By far, most people were farmers; others were fishermen who lived in separate communities, and still fewer were specialized craftsmen. More than twenty distinct professions are attested (Ramírez-Horton 1982: 124-126). These professions also formed the basis for the lower levels of political organization, as people were grouped into political units according to their specialization; at the higher levels, these lower-level groups were united into larger units incorporating people of different professions (Netherly 1984: 231).8 Otherwise, the Spanish found that the people of the Northern North Coast interacted in more than one way with their highland neighbors. There is evidence of economic ties which

⁸ This contrasts with Ecuadorian societies such as the Manteño, where production of export goods such as *Spondylus* shells is more likely to have been an activity in which large parts of the general population rather than a specialized group was engaged (Martín 2010).

⁹ This is a possible difference from the Southern North Coast which appears to go back to prehistoric times (Topic 2013: 344).

ensured that coastal lords had access to goods from the highlands. This was at least in part accomplished by dispatching people from the coast to highland sites to produce goods, with the consent of the lords of the highlands (see below for further details on this mode of economic organization). Ethnohistoric evidence further indicates that the management of water rights was another important, and possibly less harmonious point of negotiation between the coastal lords and those further inland (Ramírez-Horton 1996: 17-18). The same situation that may have occurred in prehistoric times as well (Benson 2012: 26).

Regarding the Far North, a salient observation is that rulers were female with some frequency (Diez Hurtado 1988: 45; Huertas Vallejos 1995: 201-203). However, this does not mean that societies of the Far North were organized matriarchally, but merely that women came to power in the absence of suitable male heirs (Diez Hurtado 1988: 46; 2006: 113, fn. 3).

Exogamy

Ethnohistorical sources suggest a rather mobile indigenous population on Peru's North Coast. One sociological trait favoring mobility is exogamy, which appears to have been frequent at least among the nobility of the Far North. For instance, Phelis Temoche, a 17th-century *cacique* of Sechura, was first married to the daughter of the *cacique* of Colán and after her death married María Coscochumbi, daughter of the *cacique* of Lambayeque; his daughters continued the pattern of exogamy (Diez Hurtado 2006: 112). Diez Hurtado (1988: 32) believes that these instances of intermarriage, by which ties between lineages of the Far North and even the Northern North Coast were established, continue a pre-Columbian tradition.¹⁰

Trade

A further aspect leading to mobility of (parts of) the population is trade which linked regions along the Pacific coast with one another and which was probably partly carried out by maritime routes. I discuss this topic in somewhat more detail because of its potential relevance as background for understanding aspects of the linguistic record on the North Coast.

One of the earliest European observers, Juan Ruiz de Arce, who accompanied Pizarro's expedition to Peru, observed that the peoples of the Far North "trade much by sea" (Stoll 2002: 79). Indeed, the watercrafts used by the peoples of Ecuador and Peru

¹⁰ On a somewhat more regional scale, onomastics is also of help in detecting patterns of linguistic exogamy. The ending *-naqué*, typical of an area in Far Northern Peru where the Tallán languages were spoken, is attested at Sechura a number of times in 1572, before major resettlement was carried out by the Spanish. Such cases also suggest that the mobility and intermarriage between speakers of Tallán and Sechura is not something which emerged only in post-Columbian times. On personal names of the Tallán and Sechura areas, see also the respective sections in the pertinent chapters.

^{11 &}quot;[...] tratan mucho por la mar".

were technologically advanced. Various colonial and other descriptions of indigenous watercrafts are discussed in Alcina Franch *et al.* (1987: 42-52) and Edwards (1960: 374-384). Particularly sophisticated vessels were wood rafts equipped with centerboards and originally probably triangular sails (Figure 1).¹²

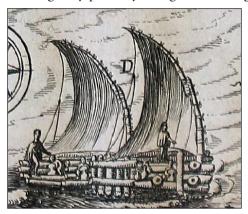


Figure 1. Speakers of the Colán dialect of Tallán? Indigenous seafarers on a sailed raft carrying goods during the Dutch sacking of Paita in the early 17th century. The original caption (1621: 78) reads: "Is een van der Wilden schepen Balsem ghenaemt, hier vaerense met visschen, sy connen met dese scherp aem den Vint seylen". From a digitized version of Van Spilbergen and le Maire (1621: plate 13). http://ds.ub.uni-bielefeld.de/viewer/image/2014144/111/LOG_0017/; sessionid=EDC3DFCD-2F4E723F37B66018EDF17400. Reproduced with kind permission of Bielefeld University Library.

Edwards (1960) found balsa wood rafts off the coast of Sechura still in use in the 20th century. While modified to some extent under the influence of European navigation techniques, they do continue the indigenous seafaring tradition. Indigenous watercrafts are believed to have played a key role in long-distance interaction, possibly even as far north as Mesoamerica (Marcos 1977/1978). Several accounts from the 16th to the 19th century describe that the vessels were used in trade. A particularly early and detailed description of a large raft comes from Bartolomé Ruiz de Estrada, who sighted a raft in 1526 off the coast of Ecuador which carried twenty men, women, and children and a variety of different merchandise including "red shells",13 as Oviedo y Valdés (1855:122) says; these the Indians traded for gold, silver, and cloth. The red shells mentioned were very likely Spondylus bivalves, an exotic good which is found with frequency in the archaeological records of various cultures of ancient Peru from Preceramic

times onward. There are three relevant species (Carter 2011: 64; Hocquenghem 2010: 36-38), of which *Spondylus princeps* (Figure 2), with its bright red color, seems to have been a particularly prized one.

The archaeological contexts in which these shells are found suggests that they had high ritual significance in the Central Andes and were considered extraordinarily valuable. *Spondylus* shells are archaeologically attested from very early on on the Peruvian coast,

^{12 &}quot;Is one of the savages' ships, called Balsa. With it they go fishing, they can sail close to the wind with these".

^{13 &}quot;[...] conchas coloradas".

namely at the site of Caral in Central Peru in the 3rd millennium BC (Shady Solís 2008: 47, 52). Now, *Spondylus* shells are not normally found in the relatively cool waters of the Peruvian coast because they require higher temperatures to thrive. The southern limit of natural occurrence is now thought to be Cabo Blanco on the Far North coast between Tumbes and Paita (Carter 2011: 67-69); therefore, if they were recovered archaeologically on the North Coast south of the Sechura Desert and further south, they must have been an imported good. *Spondylus* processing workshops in coastal Ecuador are believed to have satisfied at least part of the Peruvian demand. They were also worked at Tumbes (Hocquenghem & Peña Ruiz 1994), and indeed the natural occurrence in the Peru-

vian Far North requires a shift of attention to this area as a possible source. Copper recovered from archaeological sites on the Ecuadorian coast from the 1st century AD onwards are thought to be imports from Peru brought there to be exchanged for *Spondylus* (Paulsen 1974: 597). Hocquenghem (2012; see references to earlier work therein) argues, based on iconographic evidence and statements by early colonial observers, that maritime travelling was severely hampered by the currents of the Humboldt stream making north-south voyages to the south of Tumbes very difficult (see also Brüning



Figure 2. A Spondylus princeps bivalve. https://upload.wikimedia.org/wikipedia/commons/4/49/Spondylus_princeps_1.jpg.

1989 [1922]: 50). Therefore, she challenges the view that the trading system was based on maritime routes along its entire range. According to Hocquenghem, an early trade route, in use up to the beginning of the Late Intermediate Period (ca AD 900), led from the Lambayeque Valley via the Piura Valley northward into the *sierra* of Ayabaca, and from there on into the mountainous regions of present-day Ecuador. Thereafter, a route

¹⁴ It is of great interest in this regard that an anonymous description of the area of Puerto Viejo in Ecuador (Anonymous 1868a [~1605]: 286) provides evidence for a language common to people involved in maritime activities, as opposed to a general situation of linguistic diversity:

Los indios desta tierra, no convenian en una lengua general y común á todos: cada pueblo hablaba la suya diferente, lo cual era causa de discordia y guerras entre ellos: los indios marítimos se entienden todos entre sí, aunque la lengua que usan no es ...

The Indians of this land did not agree on a general language common to all: every village spoke its own different one, which was the reason for strife and war among them: the maritime Indians all understand each other, although the language they use is not ... [illegible]

which followed the coastline more closely was established between the Piura and Tumbes Valleys. It ended at the port of Tumbes, where imports from northern regions, such as *Spondylus* shells, were disembarked, worked, and transported further via land routes.¹⁵ Interpreted this way, Tumbes served as a pivot linking the northern maritime-based trade routes to the land-based ones in the south running through the North Coast.

At any rate, Far Northern Peru certainly occupied a strategic geographical position at the time of European contact, in between the places where exotic goods such as *Spondylus* shells were produced and where they were destined. Based on archaeological evidence, Richardson *et al.* (1990: 437) indeed suggest that "Piura populations [at Colán and the Piura estuary, MU] may well have participated in the maritime traffic from Ecuador to Peru south of the Sechura Desert that passed along the Piura coast".

Resource sharing

In addition to (long-distance) trade, there is another particularly Andean pattern of resource acquisition which possibly had dramatic consequences for the structures of the languages spoken by the peoples participating in it. This 'vertical archipelago' model of socioeconomic organization (Murra 2002) involves the colonization of lands at different ecological tiers of the Andes in order to procure or produce goods or resources not otherwise obtainable. 16 On the North Coast, the counterpart of the vertical archipelago model developed by Murra is known as 'resource sharing'. It involves "one lord [...] delegat[ing] the use of resources under his control to another lord who would exploit those resources with the labor of his own subjects" (Topic 2013: 338). The local lord in whose jurisdiction the resources are harvested, in exchange, would keep some of the foreigners's produce in return (Ramírez-Horton 1995b: 141). Motivations for the practice may have often been the same as for a vertical archipelago economy. Spanish accounts of early colonial Lambayeque mention that merchants were active on the North Coast. Ramírez-Horton (1995b) suggests that they were really retainers for lords who moved goods from the site of their production to the seat of their sponsoring lord or transported them in the context of reciprocity or gift-giving etc.

In addition, parts of the population may have shifted their residence during the course of the year on a regular basis (Dillehay 2013).

Trading relations and exogamy thus suggest that parts of the population of the prehistoric North Coast were mobile, and practices of resource sharing between the North Coast and the highlands suggest that there were also 'expats' residing here on a possibly more permanent basis.

¹⁵ On pre-Hispanic roads in Piura specifically see also Fernández Villegas (1990: 109).

¹⁶ See Dillehay (2013) for a recent evaluation of the vertical archipelago model and complementary perspectives.

The Spanish reducciones

Quite different, involuntary types of mobility and expatriation joined or replaced those described so far after the Spanish conquest. A major source for perturbations in the population structure of the North Coast are the Toledan Reforms of 1572, with which the Spanish assigned indigenous peoples, sometimes of diverse ethnic origins, to single settlements known as reducciones. On the North Coast, 'reduccionization' led to a drastic decrease of the number of separate indigenous settlements. In addition, people from the same previously existing place were sometimes assigned to separate reducciones, as appears to be the case for Sinto, which contributed to the reduction towns of both Chiclayo and Sicsi (Ramírez-Horton 1996: 31-32). At Catacaos, in the Far North (Figure 10), peoples from the basins of the Chira and Piura Rivers were resettled (Diez Hurtado 1997: 165; Huertas Vallejos 1995: 96). Of the 24 parcialidades to which Catacaos had grown by the 17th century, six were formed by people from the Piura Valley and another six by people from the Chira Valley or the coasts to its north. Muñuela, originally a parcialidad of Sechura, was later assigned administratively to Catacaos (Diez Hurtado 1997: 165). Conversely, for the Sechura region, Huertas Vallejos (1995: 97) asserts that colonial resettlement, while it was practiced, involved more localized people only. Nevertheless, he (1995: 102-104) mentions that resettlement took place from the Sechura province to San José in the Lambayeque department near Chiclayo beginning in 1694, as well as to Olmos and Etén (see also Brüning 1989 [1922]). Also relevant is some relocation of people in the aftermath of El Niño-induced devastations in 1578 and 1720 (Huertas Vallejos 1995: 88-89).

As far as the Far North is concerned, Huertas Vallejos (1999: 19) distinguishes three different regions with respect to post-colonial resettlement: in the Ayabaca and Huancabamba provinces of the Piura department peoples from the *sierra* of Piura mixed with Europeans, in Chulucanas, Morropón, Tambo Grande, and Sullana populations of diverse origins intermingled, and in the Lower Piura, Sechura in particular, there was only weak foreign influence.

Inca

Just before the Spanish conquest, approximately some 60 years before Pizarro's arrival, the Inca Empire, or Tawantinsuyu, had incorporated the North Coast region into its realm. This event itself is known from ethnohistorical sources, but, as Mackey (2010: 233) notes, "little was said about Inka administration or political strategy" (though see Ramírez-Horton 1990). Inca rule on the North Coast appears to have operated through local lords who were already in place before Inca conquest. Lower and middle tiers of the indigenous hierarchy of power could have remained intact (Klaus 2014: 253). This would also explain the poor archaeological visibility of the event and the paucity of archaeologically visible construction activity on behalf of the Inca. Nevertheless, in recent years a growing body of archaeological evidence has been assembled which helps

to clarify the nature of the Inca presence on the North Coast, and indeed reveals a stronger presence of the Inca on the North Coast than previously assumed (Hayashida & Guzmán 2015; Mackey 2010). Some North Coast sites were constructed or altered by the Inca; these include, among others, Farfán in the Jequetepeque Valley (Mackey 2010), La Viña in the La Leche Valley (Hayashida & Guzmán 2015), and Chiquitoy Viejo in the Chicama Valley (Conrad 1977). Also, after the Inca conquest, wares known as Provincial Inca were produced on the North Coast in addition to a hybrid Chimu-Inca style which continued earlier pottery traditions.

The Spanish were not the first to carry out resettlement projects. Indeed, *mitmaq*, or forced resettlement of subjects, was an established imperial Inca practice (though the Inca did not 'invent' it either, but rather 'borrowed' it from their precursors).

Inca *mitmaq* can in a certain sense be conceived of as a state-controlled derivative of older practices of vertical complementarity. As such, it did not serve one single purpose. Economic motivations played a role in some cases, in others *mitmaqkuna* – the Quechua name for the resettled subjects – were drafted to serve ideological and religious purposes. A further major objective of resettlement was the consolidation of newly acquired territories by populating them with loyal subjects from provinces that had been conquered earlier (Ogburn 2001: 47-54). As Ogburn (2001: 60) points out, "[t]he scale of resettlements in Tawantinsuyu resulted in extensive mixing of ethnic groups within the provinces of the empire". At the same time, however, care was taken by the Inca that different ethnic groups were kept apart from one another by establishing ethnically segregated settlements and imposing restrictions on travel.

Unfortuntely, "it is impossible to come up with a complete inventory of who was moved where under Inca rule" (Ogburn 2001: 61). Especially for the North Coast, there is little clarity regarding the scale of Inca resettlement. From anecdotal evidence, however, it is clear that it did take place. It appears that in particular resettlement of North Coast populations to the Central Coast were instigated (Ramos 2011: 26).¹¹ Otherwise, especially skilled specialists appear to have been resettled. For example, potters from Collique were relocated to Cajamarca (Espinoza Soriano 1969/1970) and metalsmiths from Chan Chan to Cuzco (Hayashida & Guzmán 2015 with references therein). Also, "Mitmaq from the North Coast controlled the strategic Marañón crossing at Balsas" (Church & Hagen 2008: 916, based on Zevallos Quiñones 1995). A further indication for resettlement prior to the arrival of the Spanish is found in various ethnohistoric documents from the North Coast which mention *parcialidades* consisting of non-local people. Thus, a group of Cañari people from Ecuador is attested ethnohistorically near Narihualá (Huertas Vallejos 1995: 107).

¹⁷ See Rostworowski de Diez Canseco (1978: 125-129) for a case of mitmaqkuna from the Santa and Casma Valleys at Huaura.

Chimor

Beneath the so-called Late Horizon associated with Inca hegemony lies a chronological sequence of interrelated but distinguishable archaeological cultures native to the North Coast.

Immediately prior to the Inca conquest, the Chimor state held sway on the North Coast, at least to the south of the Sechura Desert. Before its defeat and subsequent incorporation into the Inca realm around 1470, Chimor was a powerful expansive state. Its power, craft production, and material resources were highly centralized at the capital Chan Chan in the Moche Valley (Figure 3). That valley, together with the neighboring Chicama and Virú Valleys, came to form Chimor's heartland by 1200 AD (Moore & Mackey 2008: 787). In this



Figure 3. Ruins of the Chimor capital Chan Chan. https://commons.wikimedia.org/wiki/File:Fishnet_walls_of_storerooms_at_Chan_Chan.jpg.

core region, Chimor expanded the preexisting irrigation channel network: the construction of the La Cumbre canal, linking the Chicama and Moche Rivers, is attributed to its rulers (Lumbreras 1999: 552; Moore & Mackey 2008: 787).

The capital Chan Chan is home to ten monumental walled compounds commonly known as *ciudadelas*, which contain, among other structures, massive burial platforms. The *ciudadelas* are assumed to be the palaces and later the mausolea of Chimor kings. Narrow doorways restrict access to the *ciudadelas*, which reinforces the idea of a highly stratified society which restricted access to certain areas in the capital to certain classes.

The Chimor polity may be called proto-historic because, even if only fragmentary, information relating to it has been passed down by Spanish chroniclers who recorded the testimonies of individuals who remembered (or remembered having heard telling of) the times of Chimor power (Shimada 2000: 49). An anonymous list of Chimor rulers and their respective achievements was recorded in 1604 and published in Vargas Ugarte (1936). According to the document, the polity ultimately goes back to the mythical Taycanamo, who arrived alone from the sea on the coast of Peru. After having learned the local language, Taycanamo is credited with founding the Chimor polity. His successors are said to have successively expanded Chimor's territory, until it would ultimately span from Tumbes in the north to the Chillón Valley in the south under Minchançaman.

The Chimor intrusion in the Northern North Coast is visible in the creation of regional centers in Chimor style and changes in the hierarchical organization of local centers, while the distribution of the local population was left unaffected (Tschauner 2014). While it is clear that Chimor influence is visible in a wider area, from the Far North of Peru (e.g. by

Chimú-inspired ceramics at the Huaca Narihualá, Fernández Villegas 1990: 113-114) down to the Central Coast at sites such as Pachacamac (Eeckhout 2005), there is still no clear picture and no consensus on the nature of Chimor presence on its northern and southern fringes. 18 Early interpretations tended to rely on the anonymous genealogy, which speaks of an extent of Chimor rule from Tumbes in the north to Lima in the south. This picture has been revised more recently.¹⁹ The Chimor state probably extended its influence to the Piura, Chira, and Tumbes Valleys relatively late in prehistory (by 1400 AD according to Richardson et al. 1990: 434-435). Although the chronicler Antonio de la Calancha (1638: 549-550) says that Chimor conquered the land in the north up to Paita and Tumbes and made the population pay tribute, it is not clear whether the area was indeed dominated or only influenced by Chimor. As far as the Tumbes Valley is concerned, Moore (2008) denies any imperial Chimor presence. Moore & Mackey (2008: 789, Table 39.1), however, speak of "[i]nfluence (e.g. trade or inter-elite gift exchange) to Tumbes sometime before AD 1450". Hocquenghem (1993, 2011), in contrast, assumes that Chimor controlled the Tumbes Valley and other regions of the Far North in order to secure trade routes of luxury goods such as Spondylus. Regarding the south, direct control south of the Casma Valley, where the regional center of Manchán is located, is not supported archaeologically.²⁰ Incidentally, the south of the Chimor heartland was not a sociopolitically empty void into which Chimor expanded. Prior to Chimor expansion, the valley appears to have been the host of a polity of its own called Casma which, centered at the site of Purgatorio, controlled the coast up to at least the Chao Valley in the north. The polity is also associated with an art style which is, while showing some northern influences, distinctive (Vogel 2012).²¹ Chimor's eastward expansion was limited to the yunga zone; access to products from the highlands was secured through intermediaries. At the same time, an ethnic group in the yunga region that may have served as an intermediary for state-managed trade with the highlands was controlled by Chimor (Topic 2013: 340).²²

¹⁸ With all statements regarding the expansion and incorporation of territories into their realm, it must be borne in mind that according to Ramírez-Horton (1996), the concept of land ownership is not native and that in early colonial times the indigenous lords of the North Coast did not actually control land, but people. According to Fernández Alvarado (2004: 85), who takes this reasoning one step further, one can speak of an area of influence of a certain lord, but not really of territories under his control.

¹⁹ See Moore & Mackey (2008: 789, table 39.1) for an overview of different models of Chimor expansion.

²⁰ Mackey (2009); see also Giersz, Makowski & Prządka-Giersz (2014: 27) on the Culebras Valley. However, the site of Paramonga, in the Fortaleza Valley, has long been considered a possible Chimor center (Horkheimer 1944: 14; Mackey & Klymshyn 1990: 207).

²¹ The earlier prehistory of the valley is no less intriguing: an initial period of flourishing was (violently) disrupted by the intrusion of "an especially gruesome lot" of highlanders at the end of the Initial Period (Pozorksi & Pozorski 1987: 127). They subsequently established a highland-centered polity which, nevertheless, incorporated the North-Central coast. This development was "unprecedented in Andean prehistory and was not duplicated until several centuries later, during the Tiahuanaco/Huari expansion" (Pozorksi & Pozorski 1987: 130).

²² More detailed overviews of Chimor can be found in Lumbreras (1999), Shimada (2000), and Moore & Mackey (2008). See also contributions in Moseley & Cordy-Collins (1990).

Sicán

Before the expansion of the Chimor state, the Northern North Coast was home to the Lambayeque or Sicán culture.²³ This archaeological culture is divided into three phases, Early (AD 800-900), Middle (AD 900-1100), and Late (AD 1100-1375). The Middle Sicán period, marked by the onset of the construction of monumental architecture, has received the most extensive study so far (Shimada 2014).

The art of Early Sicán, a period for which there is no evidence yet of largescale organized labor, represents an artistic blend of local coastal styles with Huari elements. It was further developed and brought to maturity in the syncretistic yet unique Sicán style during Middle Sicán times, perhaps aided by the development of local political identity after the fall of the Huari state (Shimada 2014: 23). The largest Middle Sicán center is the archaeological complex of Batán Grande in an area of tropical dry forest to the northeast of Ferreñafe in the La Leche Valley. Batán Grande is a complex of monumental mounds, an old North Coast tradition (south of the Sechura Desert) which Sicán revived. Batán Grande burial mounds have yielded elite burials with rich grave offerings. From patent differences in the amount and quality of grave offerings in Sicán burials, there is no doubt that Sicán was a highly stratified society, as was the



Figure 4. A Middle Sicán ceremonial tumi knife (VA 64773, © Ethnologisches Museum der Staatlichen Museen zu Berlin – Preußischer Kulturbesitz, foto: Claudia Obrocki).

²³ These terms are now frequently used interchangeably; Lambayeque is the older term. Sicán was coined by Shimada because of the conceptual entanglement of the term Lambayeque with mythological lore as well as to leave open the possibility of a distinct cultural tradition in the lower Lambayeque region (Cleland & Shimada 1992: 193-195). See Shimada (2014:16-20) for further explanation.

more southerly Chimor later. Funerary offerings and burial position allow Shimada (2014: 52-53) to distinguish a four-tiered social hierarchy: higher elite, lower elite, commoners, and low commoners. Gold objects, semi-precious stones, *Spondylus* shells and some other objects were restricted to the elites. Burials in a sitting position, with crossed legs, occurred at the upper three tiers of the hierarchy, while the low commoners were exclusively buried in a flexed position.

There is no consensus on the degree of political integration achieved in Middle Sicán times. Shimada (2000: 60) conceives of Sicán as a "state-level religious polity" with Batán Grande as its capital, others speak of a confederacy of several centers (Moore 2014: 329-330). Concomitantly and correlating with a possibly lower degree of political centralization on the Northern North Coast when compared with Chimor to the south, Topic (2013: 344) notes possible differences in interzonal exchange and patterns of access to resources between the Northern North Coast and the Southern North Coast in the Late Intermediate Period: "[i]n the southern region, centrally administered exchange may have taken place between groups that were more bounded territorially. In the northern region, lords may have had access to spatially dispersed resource zones, and those lords then exploited them by using labor of their own subjects [i.e. resource sharing, MU] as well as by using centrally administered exchange between political units".

Sicán smiths were masters of their art; a particularly noteworthy innovation of Sicán times is the introduction of arsenical bronze. Furthermore, in Sicán times already existing irrigation channels in the Lambayeque area were extended, resulting in a single system that connected the Lambayeque and La Leche Rivers (Lumbreras 1999: 548).

Middle Sicán iconography, a unique blend of known motifs from the earlier Moche and Huari cultures and innovative elements, finds its expression in a variety of media, including the typical polished blackware ceramics. It is centered on the representation of the so-called Sicán deity and its earthly alter ego, the Sicán lord (Figure 4).²⁴

The iconography of the Sicán lord is complex and multifaceted (Mackey 2001; Shimada & Samillán Torres 2014). A textile found in the Huaca las Ventanas which depicts the so-called 'Sicán cosmovision' suggests that the Sicán lord was conceived of as a nexus between the earth and the sky (Shimada 2014: 30), as was the Inca god Viracocha later.²⁵

Shimada (2014: 23) speaks of Sicán rule from at least the Piura (Shimada 2000: 61 considers the Chira Valley) to the Chicama Valley. He also notes indications for the possibility of rule over the Moche Valley. Hocquenghem (2011) infers a Middle Sicán occupation of the Macizo de Illescas area near the Sechura Bay from the archaeological presence of

²⁴ The Sicán lord may well have evolved iconographically out of Early Sicán antecedents (Shimada 1990: 321).

²⁵ A tripartite cosmovision with a watery underworld and a divine 'heaven' embracing the terrestrial realm is also suggested by an unusual Sicán silver beaker (Mackey & Pillsbury 2013: 138).

Spondylus princeps shells and Middle Sicán ceramics (albeit more rustic in their elaboration than those found at the Sicán capital). Accordingly, Sicán is portrayed as a multiethnic society, consisting of at least the Sicán elites (with six geneaological lineages linked ideologically through the figure of the Sicán lord), the "Northern Mochicas", and the "Tallanes" (Shimada 2014: 68-69). Artistic, religious and commercial influence, however, was still wider, extending from Tumbes probably to the Ica Valley (Segura Llanos & Shimada 2014).

Several pieces of evidence suggest that Middle Sicán greatly expanded pre-existing long-distance exchange networks. At its apogee, Sicán's network is thought to have reached as far as Colombia in the north and the Amazonian lowlands east of the Andes (Shimada 2000: 57-59). For instance, emeralds found in Sicán burials probably stem from a mine in the Muso region near Bogotá, Colombia (Shimada 2014: 49), and gold may have come from the Marañón Valley (Shimada 2000: 59). 26 Sicán is thought to have exported its innovative arsenical copper in standardized sizes, known as naipes (Shimada 2000: 58). Hocquenghem (2011: 59) also notes an increase in the import of Spondylus princeps as opposed to Spondylus calcifer (which can be harvested closer to Northern Peru) and changes in trade routes following the rise of Sicán. Generally, the amount of the highly prized Spondylus shells imported to Northern Peru greatly increased in Middle Sicán times and stayed at that elevated level during Chimú times. This is evidenced by the rising number of archaeological finds in Peruvian North Coast sites from this period, especially those of the Sicán culture, but also by the thriving of Ecuadorian coastal settlements in southern Manabí which are thought to have provided some of the shells at roughly the same time (Martín 2010). Moreover, remnants of balsa on the Chilean North Coast suggest maritime contact between the Peruvian North Coast and Northern Chile according to Shimada (2000: 59).²⁷

Two pieces of evidence suggest an intensification of contact with the Far North specifically. First, so-called *paleteada*, or paddle-stamping pottery, was introduced as a utilitarian ware in Middle Sicán times. Cleland & Shimada (1998) attribute this development to a (forced) immigration of potters from Piura who produced this style. Far Northern influence is also visible iconographically. From late Moche times (late 7th century AD) onward, and continuing through the Sicán period, figurines of women with several attributes that identify them as foreigners appear in Northern North Coast art (Figure 5). These attributes include a characteristically round head shape, hair worn open rather than braided, an open dress, labrets, and (for some) a type of drum distinct from that used by the Moche. Several of these features are attributable, based on archaeological

²⁶ Jolkesky (2016) suggests, based on linguistic evidence, a pre-Columbian zone of interaction centered around the Marañón Valley and involving Mochica, the language spoken in historical times in the core area of the Sicán culture.

²⁷ Shimada attributes this to Berenguer (1986), who, however, does not appear to mention balsas.



Figure 5. A Moche figurine depicting a 'labretted lady' (ML013311, © Museo Larco – Lima, Perú). http://www.museolarco.org/catalogo/ficha.php?id=14425.

or ethnohistoric evidence, to the Tallanes of the Far North, with broader associations with Ecuador (Cordy-Collins 2001).

Marking the end of the Middle Sicán period, the Batán Grande complex was (ritually?) burned and abandoned around AD 1100, after decades of flood in the preceding century and a severe ENSO event. The center of the subsequent Late Sicán phase was located at the site of El Purgatorio.²⁸ While pottery production in Sicán style continued during the following Late Sicán phase, there was considerable simplification and reduction of the iconographic repertoire. Most notably, the Sicán lord is almost completely absent. Jennings (2008) interprets this as a consequence of the perceived failure of the deities and rulers to avert the catastrophic events.

People may have lost faith in the ability of their highest rulers to mediate between humans and gods. Indeed, it is likely that the collapse of societies like the Sicán caused the upper levels of organization to become dysfunctional, while the lower levels remained intact (Klaus 2014: 254; Netherly 1990). Shimada & Samillán Torres (2014: 189) suggest that Middle Sicán elites sought refuge in the Moche Valley after the collapse of Middle Sicán and formed alliances with local polities from which ultimately the dynasties of Chimor would emerge.

Moche

While also introducing new elements under the influence of the Middle Horizon, both Sicán and Chimor continue many cultural traditions associated with a still earlier North Coast culture, the Moche.

For one, dual organization into *parcialidades* is inferred archaeologically from at least Moche V times onward (Shimada 2001; see Benson 2012: 37 and Moore 1995 for a more general review). Population continuity through the Moche-Sicán transition is demonstrated by Klaus (2014) on the basis of the characteristic position in which people were buried: from very early times onward, burial in extended position aligned with a cardinal direction was preferred on the North Coast; typical Moche burials conform to

²⁸ This is a different site from the capital of the Casma polity in the valley of the same name.

this pattern (Klaus 2014: 243). In Middle Sicán, the burial of commoners in extended position thus continued older practices (and, in fact, persist into colonial times). Klaus (2014: 244) infers that the Middle Sicán commoners pertained to a cultural Moche substrate which retained or revived older cultural practices and traditional ethnic identities within and under Sicán rule.

Like its successors, Moche was a stratified and urban society; the typical monumental architecture are pairs of pyramids (Chapdelaine 2011: 199). Urban centers like Pampa Grande and Huacas del Moche feature residential and craft production areas as well as storage rooms.

Moche culture is famous for its ceramic production (Figure 6); the narrative nature of scenes on fineline painted vessels is unique and constitutes a significant resource for the interpretation of Moche culture, especially when linked with archaeological data. For example, from a combination of archaeological work and iconographic analysis, it appears that Moche elites assumed the role of personages depicted in a widely repeated scene in the iconography (Alva & Donnan 1993: 223-227).

In earlier phases of research, Moche was conceived of as a unified, expansive, and militaristic state-level society, whose



Figure 6. A Moche portrait head vessel, Musée du quai Branly, Paris. https://commons.wiki-media.org/wiki/File:Moche_portrait_ceramic_Quai_Branly_71.1930.19.162_n1.jpg.

southern boundary would have been the Nepeña Valley and whose religious and administrative centers would have been the Huaca de la Luna and the Huaca del Sol in the Moche Valley (Larco Hoyle 1945). This conception was based on work on the Southern North Coast. With increasing archaeological work on the Northern North coast, several differences between the areas have become obvious which have ultimately led to the rejection of the idea of political unity on the North Coast south of the Sechura Desert in Moche times. For one, Moche IV ceramics are virtually absent on the Northern North Coast. The Moche IV style would thus appear to be the corporate style (Moseley 2001: 78-89) of a southern Moche state (Castillo Butters & Donnan 1994). The boundary between the two Moche spheres is the Pampa de Paiján between the Jequetepeque and Chicama Valleys. Within Moche, the emergence of the division can be dated to between AD 300-400 (Chapdelaine

2011: 193).²⁹ While Castillo Butters & Donnan (1994) conceive of the stylistic differences as the reflection of two Moche states, further research has led to the recognition of even further possible fragmentation, in particular on the Northern North Coast. There are now several competing ideas on Moche political organization (Quilter 2010, Chapdelaine 2011). Shimada (1999: 462) recognizes Moche polities in the Upper Piura, Lambayeque, Moche, and perhaps Jequetepeque Valleys, even though even smaller units of political organization, corresponding to individual valleys or parts thereof, are considered possible (Castillo Butters 2010: 87). At the same time, a unifying role was played by shared religious beliefs (Donnan 2010; Quilter 2010). Reviews of different scenarios of Moche political organization and integration are provided in Chapdelaine (2011: 204-207) and in Castillo Butters & Quilter (2010). Hitherto no consensus has emerged, except that a single unified state comprising all of the North Coast can be ruled out. As Quilter (2010: 229) says, "[i]t seems reasonable to propose, however, that the distinct sub-styles that have been and are being distinguished in both spatial and temporal dimensions on the North Coast reference some kind of socio-political behaviors and beliefs although what those are, exactly, may require careful considerations". One scenario posits that at a later point of time, by AD 500, the southern Moche polity began expanding and uniting the originally more fragmented political Moche landscape, establishing a "pan-North Coast hegemony" (Shimada 1999: 465) ranging from Piura to Huarmey.

As is often the case, the nature of Moche presence on the periphery is subject to different interpretations (Giersz, Makowski & Prządka-Giersz 2014: 16). For instance, Chapdelaine's (2011: 194) Figure 1 shows the Upper Piura area and the valleys to the south of the Nepeña as areas "under Moche influence" as opposed to "controlled by Moche rulers". 30

The Moche presence in the Upper Piura, and the possible Moche polity in this region, are peculiar in several regards. Here, two recognizably distinct styles were in use. One of them, called "Vicús/Vicús" by Lumbreras (1979), is not typically Peruvian and instead shows similarities with Ecuadorian styles. However, artistically highly developed Moche ceramics from the early phases were found in the context of Vicús/Vicús ceramics. These are called "Vicús/Mochica" by Lumbreras (1979) and date from 100 BC to AD 600 (Figure 7). Vicús/Vicús is the older style and predates the presence of Vicús-Mochica in the upper Piura (Makowski 1994: 112).

The early phase of high production standards is followed by a marked decline in the quality of the vessels during the following phases. Moche ceramics from later phases

²⁹ Independently, Reindel (1997: 95-99) recognizes the same boundary based on particular features of monumental architecture.

³⁰ On the southern boundary of Moche control, see also Giersz, Makowski & Prządka-Giersz (2014), who argue for the possibility of Moche presence in the Culebras and Huarmey Valleys.

are not attested in the Upper Piura – as Castillo Butters & Uceda Castillo (2008: 711) state, "it is as if the style had drifted away, becoming something quite different from Moche". Shimada (1999: 435) assumes an immigration of people from the Ecuadorian-Colombian border area into the region as early as 200 BC. Their goal may have been to facilitate interregional trade between Northern Peru and the Northern Andes, especially coastal Ecuador and Colombia (Guffroy 2008: 901; Kaulicke 2008: 105). This may also have been the reason for the Moche presence in the area in the first place

(Benson 2012: 18). Lumbreras (1979) indeed thinks of the Vicús/Mochica style as a product of Moche colonists.31 Makowski (1994) posits a multiethnic society and a cultural crossroad emerging on the Upper Piura with at least three ethnic groups corresponding to three different art styles in the same geographical region. According to Montenegro Cabrejo (2010: 452-455), fortified sites that were suitable for military defense are not attested in the Upper Piura before the arrival of Chimor and the Inca. suggesting an egalitarian mode of contact between Upper Piura locals and North Coast polities rather than one of conquest and concomitant imposition of administration and control.

Just as its origins are still not entirely clear, the cause of the demise of the Moche culture is much debated, too. Environ-



Figure 7. AVicús/Vicús felinevessel (48.2835, © The Walters Art Museum). https://art.thewalters.org/detail/79380/feline-vessel/>.

mental hazards in the 6th century AD, the appearance of the expansive highland polity of Huari, and/or internal imbalances in the organization of Moche society and a perceived failure of ideology in the face of environmental and foreign threats have all been invoked (Benson 2012: 131-139; Castillo Butters 2001: 308-309; Castillo Butters & Uceda Castillo 2008: 723-725). At the same time, recent evidence shows the survival of Moche style and urban classes until the 8th century AD. This suggests a very gradual rather than rapid decline (at least in some parts) of Moche territory (Chapdelaine 2011: 197). In addition, ceramics were created in a hybrid Moche/Sicán style long after the collapse of

³¹ As Shimada (1999: 435) observes, such interregional relationships are attested both before and after the beginning of the first millennium AD.

Moche.³² Castillo Butters (2001) views the end of Moche (in the Jequetepeque Valley) as characterized by the disappearance of art styles associated with Moche elites (i.e. fine-line ceramics and boot-shaped tombs). These elites may have perished or merged with lower levels of the social hierarchy. The following transitional period is characterized by the coexistence of a multitude of styles, including one called Coastal Cajamarca which is inspired by highland styles, until a political leadership emerged that was strong enough to define a new canon: Sicán.

Gallinazo and Cupisnique

Prior to the rise of the Moche, Gallinazo (Figure 8) was an important and widely distributed style of North Coast ceramics (Millaire & Morlion 2009).

Castillo Butters & Uceda Castillo (2008: 707, 713-714) think of the rise of Moche



Figure 8. A single-spout Gallinazo vessel (Raccolte Extraeuropee del Castello Sforzesco, Milan). https://commons.wikimedia.org/wiki/File:Raccolte_Extraeuropee_-_PAM00438_-_Perù_-_Cultura_Virù.jpg.

as an archaeological culture from an older substratum of local North Coast cultures, including Gallinazo, at the time of the commencement of large-scale irrigation. According to them, the art style was initially an elite phenomenon in early Moche times which then "trickled down to lower social strata, eventually to influence and shape all aspects of society" (see also Castillo Butters 2009). The Gallinazo-Moche relationship remains problematic, and may have had different characteristics in different valleys (Castillo Butters 2009). Genetically, Gallinazo and Moche people are very similar (Shimada et al. 2008). Gallinazo ware continued to be produced through the Moche period and in some cases even survived its demise (Castillo Butters 2009; Donnan 2009), showing a remarkable homogeneity both across time and space (though the latter

needs to be confirmed, Castillo Butters 2009). People associated with this ceramic style may have been assimilated culturally to the Moche and formed a class of commoners in

³² See also Shimada (1990: 358-363) on cultural continuities and discontinuities on the North Coast and Schaedel (1987) for a general argument in favor of cultural continuities on the North Coast from Moche times to the present.

Moche society without losing their ethnic identity; indeed, Gallinazo is not an independent style but perhaps an expression of lower class culture. Furthermore, the situation in the Upper Piura region can be interpreted in ways similar to the Gallinazo-Moche relationship further south, i.e. as an elite phenomenon cast on a Vicús substrate in this case (Castillo Butters & Uceda Castillo 2008: 718); indeed, Kaulicke (2008) notes similarities between Vicús and Gallinazo ceramics.

Moche elites were also in contact with the producers of the Salinar style ceramics (who perhaps stood in a similar relationship to Moche as the makers of Gallinazo ware), the Lima and Pachacamac cultures on the Central Coast, the Nazca of the south coast, and the Recuay, Chachapoyas, and Cajamarca in the highlands (Benson 2012: 20, 133; Castillo Butters & Uceda Castillo 2008: 708; Chapdelaine 2011: 208).

Still earlier, from ca. 1200-200 BC, the Cupisnique style of pottery, strongly associated stylistically and iconographically with Chavín, was widespread on the North Coast. Cupisnique art anticipates several themes which were later also common in Moche art (Benson 2012: 12-13). Benson (2012: 18-19) views the Moche as the descendants of the producers of Cupisnique ceramics, with whose style the Moche products also share (certain) continuities.

Figure 9, adapted from Klaus (2014: 252, fig. 6), schematically summarizes the cultural sequence of the North Coast south of the Sechura Desert. It also shows a presumed ethnic continuity of the commoners.³³

The fact that the discussion of the prehistory of the North Coast south of the Sechura ends here does not mean that Cupisnique is the beginning of the North Coast cultural sequence, nor that earlier accomplishments are not worth mentioning. Alva Meneses (2008) discusses very early cases of monumental architecture in the Lambayeque Valley, with iconography which shows impressive continuities in subject matter with later North Coast cultures, Cupisnique in particular.

³³ Schaedel (1987), though see Shimada (1982: 188) on the difficulties of archaeologically identifying ethnic groups.

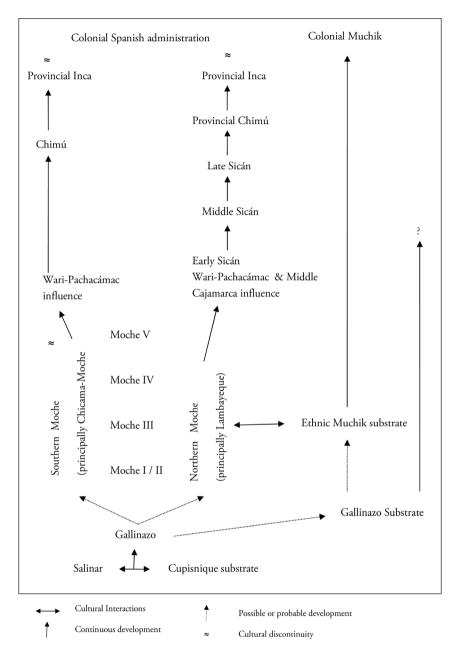


Figure 9. Schematic summary of cultural developments on the North Coast through time, adapted from Klaus (2014: 252, fig. 6).

The Far North

Up to now, the Far North has been mentioned occasionally as the northernmost point of expansion of the influence of cultures from the Northern North Coast; here, I shall now discuss this area in its own right.

Only limited archaeological excavations have been carried out in the Far North of Peru (Richardson et al. 1990: 422). The seminal archaeological work and sequencing of styles of the area can be credited to Lanning (1963). His periodization of ceramic styles is superficially confusing insofar as that he labeled them Negritos, Paita, Sechura, and Piura, while in fact these chronologically follow each other in their development rather than being styles associated with the eponymous settlements. Later research found that Negritos was a variant of Sechura rather than a separate tradition, and that all three styles are found in the entire coastal region of present interest, from Bayovar on the Illescas Peninsula in the south to Los Organos, just south of the modern departmental border between Piura and Tumbes in the north (Richardson et al. 1990: 422). The Paita style, subdivided into three phases, is radiocarbon-dated to ca. 1700-600 BC, Sechura, again attested in three distinguishable phases, to ca. 600 BC-AD 500, and Piura from ca. AD 500 to colonial times, subdivided into five parts (Richardson et al. 1990: 423, fig. 2). Although it has been suggested that Sechura and the Vicús/Vicús style of the Upper Piura are expressions of the same culture, the relation between the coastal and inland regions of the department of Piura remain unclear, not least because the Sechura culture is known for utilitarian and Vicús for funerary wares which are not directly comparable (Guffroy, Kaulicke & Makowski 1989: 129).

Stylistic aspects paint a picture of a rather independent ceramic tradition. Nevertheless, ties with cultures of Ecuador have been suggested for the Peruvian Far North early in prehistory. More specifically, Bruhns (1994: 119) mentions that the Peruvian styles of the Far North coast appear to be derived from those of Ecuador. There is evidence for relations between the coastal preceramic Piuran traditions of Siches and Honda with the Las Vegas complex of the Ecuadorian Santa Elena Peninsula (Guffroy, Kaulicke & Makowski 1989: 121). Also in ceramic periods, early though 'vague' similarities between Paita, Sechura and Ecuadorian styles like Valdivia can be noted (Lanning 1963: 199-201).

A traditional view among archaeologists conceptualized the Sechura Desert as a natural barrier for the cultural expansion of the civilizations that thrived in the coastal regions to the south. Moseley (1982: 4), for instance, says that while some cultural exchange is attested earlier, it was only as Chimor influence became a major factor in the Late Intermediate Period that "the area was wrested away from long-standing ties to the Ecuadorian sphere of influence and brought within the confines of central Andean civilization". However, a growing body of evidence suggests that influence from the south on the Far North is an older phenomenon. According to Richardson *et al.*

(1990: 436), some impact from the south on the Far North is archaeologically visible already during the Early Horizon (Paita phases 2 and 3, i.e. between 1400 and 600 BC). Lanning (1963: 152) himself stated that northern Peruvian influence can be felt from the late stages of the Sechura phase onward, and that from the subsequent Piura style during the Middle Horizon the ceramics are entirely identifiable as belonging to Peruvian traditions. A certain integration with other regions of the Peruvian coast is further shown by the appearance of step pyramids in the Far North, marked changes in settlement patterns, and population growth during the Late Intermediate Period (Guffroy, Kaulicke & Makowski 1989: 135). In this period, there was an architectural style common to the lower Piura and Chira Valleys (though not the upper Piura Valley) which is defined primarily by the use of conical mud bricks. This style possibly extended to the Tumbes Valley, too. The sites in which these structures appear were located at economically strategic places and seem to have played a role in the control of irrigable lands (Guffroy, Kaulicke & Makowski 1989: 135). The archaeological site of Narihualá, situated just to the south of the modern city of Piura, is usually considered to have been an important sociopolitical center of the Far North region from the Late Intermediate Period (AD 1000-1200).³⁴ The site was already looted in early colonial times, but – in chronological order - ceramics of local traditions, Chimú, and Inca styles could still be found later (Fernández Villegas 1990).

Associated with the view of the Far North Coast as a barrier to cultural expansion is the view that the area is marginal to developments on the Peruvian coast. Along with a new appreciation of evidence for cultural contacts that existed at various points of time is thus a reappraisal of the area as an important meeting point of different traditions through which ideas were exchanged. Cardenas Martín, Huapaya Manco & Deza Rivasplata (1991: 7, 95) reaffirm the view of the Sechura Desert as a contact zone rather than a geographic-cultural barrier.

³⁴ The mythological founder of the Tallanes is said to have been named Nari Walác; Walac is the name of a principal Tallán god according to Cruz Villegas (1982: 63-67).

III.

The linguistic situation in Northern Peru reconstituted

Introduction

The aim of this chapter is to reconstitute the linguistic situation in Northern Peru as it existed in early colonial times: how many different languages were spoken in the region, and where were they spoken? Which languages were their immediate neighbors, to the north, to the south, and in the *sierra* to the east? The approach taken here is two-pronged: first, in the following section, I summarize information on the languages of the region from colonial documents. Here, I can draw on a wealth of work by scholars who have studied this topic previously. Then, I try to establish the geographic boundaries between these languages to the extent possible at the present state of research. This question has been relatively little explored, except in the case of the Moche-Quingnam boundary. It emerges that a more systematic exploration of the toponymic record would be necessary to provide ultimate answers to the question. At the same time, this record is far from clear. In consequence, the refinements I make are still preliminary. Another aspect that needs to be borne in mind is the possible effects of mitmag or practices of complementarity on the linguistic landscape. As individuals were sent to foreign lands they likely continued to speak their languages (see Mannheim 1991: 49-53 for discussion of the relationship between language, territory, and ethnicity in the South-Central Andes). If this continued for some time, situations of prolonged and continuing bilingualism without language shift and local mosaics of languages could have emerged. It follows that zones in which one language predominates may be spotted with smaller islands of people with a different (ethno)linguistic affiliation, or, alternatively, that linguistic zones are fringed on the edges with islands of speakers of a given language in plain territory of another or rather fuzzy linguistic boundary zones in which groups of different linguistic affiliation lived and worked next to each other.³⁵ The map in Figure 10, which anticipates much of the discussion to follow, does not show this clearly, but it should be borne in mind throughout when conceptualizing Andean linguistic boundaries.

³⁵ This scenario represents just the minimal necessary departure from the better-known contemporary situation in Europe to be able to discuss Andean sociolinguistic ecology. It may not go far enough, though. The use of concepts like linguistic islands and contiguous blocks in which another language dominates still suggests that individuals are affiliated with one 'main' language. And the use of the term 'ethnolinguistic group' suggests that this main language correlates with ethnicity – arguably also a projection of European conditions onto the Andean world (Mannheim 1991). In addition, the relevant sociocultural, economic, and political practices responsible for the dispersal of languages in the Andes are quite well-entrenched. Given the time they were operating, it is not at all given that in 1532 a continuous distribution of languages in geographical space actually existed at all.

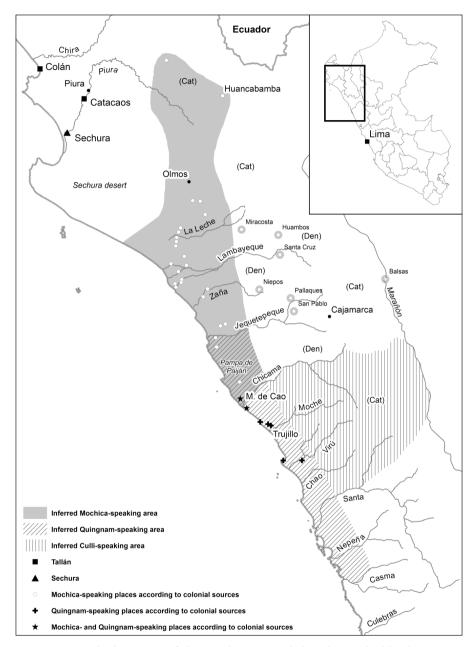


Figure 10. The languages of the North Coast and the adjacent highlands (map by Arjan Mossel, based on Torero (1986; 1989), Cerrón-Palomino (1995), and adapted according to the findings of the present study).

Colonial references to the languages of the Peruvian North Coast

References to the languages of the Peruvian North Coast in colonial documents have been evaluated by Ramos Cabredo (1950), Torero (1986), Cerrón-Palomino (2004a), and Netherly (2009), so that the linguistic diversity in the region at that point of time can be relatively well recovered.

The chronicler Agustín de Zárate (1968 [1555]: 10) furnishes an early statement in this regard. He distinguishes three indigenous languages on the North Coast: the 'Yunga' language, Mochica, and Tallán, without saying where each is spoken:

The Indians of the plain are divided into three tribes: the Incas [sic!], the Tallanes and the Mochicas. There is a different language in each province. But the chieftains, captains and nobles speak the same tongue among themselves, though they also know and can speak the local one. This single language is that of Cuzco (Zárate 1968 [1555]: 38, trans. J. M. Cohen).³⁶

The 1571 Relación de la ciudad de Sant Miguel de Piura (Jiménez de la Espada 1965: 33-45), whose authorship is attributed to Salinas de Loloya by Ramos Cabredo (1950: 14, fn. 10) and Cerrón-Palomino (2004a: 83), is a little more explicit. It describes the jurisdiction of the city of Piura, the earliest Spanish settlement in present-day Peru. Three indigenous groups in Piura are distinguished. Their languages, the document points out, were not mutually intelligible, but there were many bilinguals that could serve as interpreters to facilitate communication:

Within the limits of said city [Piura] there are three nations of indigenous people which differ in speech and names [...] And each one of these nations had its provinces by itself and known and designated boundaries [...] And each of said provinces of indigenous people had its language which differed from the others and they could not understand each other without interpreters, so that as they contracted with each other there were many who understood each other.³⁷

The author of the *relación* elsewhere states that the mentioned limits of Piura extend thirty leagues to the south and north, and more than twenty to the east (Jiménez de la Espada 1965: 42). Unfortunately, what exactly is understood by a league is very difficult to pin down, as the distance covered by this unit of measurement varied. Even if one assumes a very conservative estimate of three kilometers for the author's league,

^{36 &}quot;Diuídense en tres generos todos los Indios destos llanos, porque a vnos llaman Yungas, y a otros Tallanes y a otros Mochicas, en cada prouincia ay diferente lenguaje, caso que los Caciques y principales y gente noble demas de la legua propia de su tierra, saben y hablan entre si todos vna mesma lengua, que es la del Cusco".

^{37 &}quot;En términos de la dicha ciudad hay tres naciones de naturales diferentes en la habla y en los nombres [...] Y cada una de las dichas naciones tenía sus provincias por sí y territorios y límites conoscidos y señalados [...] Y cada una de las dichas provincias de naturales tenía su lengua diferente de las otras y que no se podían entender sin intérpretes, que como contrataban unos con otros, había muchos que se entendían" (Jiménez de la Espada 1965: 41-42).

interpreted this way, the limits of Piura would have included the bay of Sechura in the south and reached as far as Máncora in the north.³⁸

About 100 years later, in 1651, the Bishop of Trujillo sent a letter to his superiors in which he, among other things, informs about the linguistic diversity in his diocese:

If in this diocesis of Trujillo a chair were necessary, there would have to be five because of the diversity of languages: one for the general language of the Inca for the highlands, another for the village of Olmos which has a particular language,³⁹ yet another for Sechura, which has a different language, another for Catacaos and Paita where a different language is spoken, and another for the other villages, called "of the valleys", where a language called Mochica is spoken.⁴⁰

Based on this statement, Cerrón-Palomino (2004a: 84) identifies the three languages of the Piura region mentioned in the *relación* of Piura as Sechura, Tallán (Catacaos-Paita), and a third one hitherto probably unmentioned in any statement: Olmos. The linguistic distinctiveness of the village of Olmos (see Figure 10) is also mentioned by Cabello Valboa (2011 [1586]: 393) and Calancha (1638: 550). The latter says:

[...] in the other valleys of the plains they spoke the Muchic language, which today is found as far as Motupe, and another called Sec; and the one of those from Olmos changes the letters and endings, even so each town and even each family has its own language or different words (trans. Netherly 2009: 133).⁴¹

Otherwise, it is most likely that the 'Sec' language Calancha mentions is no other than that of Sechura.

38 One more document which highlights linguistic diversity as opposed to unity is the late 18th-century geographical description of the Piura region written by José Ignacio Lecuanda (1861b [1793]: 186):

Por lo que hace á sus idiomas, se observa una variedad digna ciertamente de admiracion. Los mas de los pueblos, aunque sean confinantes ó cercanos, tienen su diferente lenguaje, guturacion y distinciones, que aun los que no los entienden, lo conocen al oirles hablar.

As far as their languages are concerned, one observes a variety surely worthy of admiration. Most villages, although they may be adjacent or nearby, have their different language, timbre, and distinctions, so that even those who do not understand them recognize it when hearing them speaking.

- 39 Lengua general and lengua particular are technical terms in the context of Spanish colonial administration: lenguas generales are usually widespread languages chosen by the Spanish as particularly important vehicles of indoctrination, lenguas particulares are local languages of relatively little importance for their purposes.
- 40 "[...] si en este obispado de Truxillo fuera necesario cathedrático, avia de auer sinco por la diversidad de lenguas, uno para la general del Inga para la sierra, y otro para el pueblo de Olmos que tiene lengua particular, y otro para Sechura, que tiene otra lengua; y otro para Catacaos y Paita que hablan diferente lengua; y otro para los demás pueblos que llaman de los valles, donde se habla una lengua que llaman la Mochica" (Rostworowski de Diez Canseco 1989: 270).
- 41 "[...] los demas valles de los llanos ablavan la lengua Muchic, que oy conservan asta Motupe, i otra que llaman Sec; i la de los Olmos mudan letras i finales, si bien cada pueblo, i aun cada familia tiene lengua propria, o vocablos diferentes".

Crucial for a more precise understanding of the linguistic geography of the North Coast, however, is an anonymous 17th-century document published by Ramos Cabredo (1950: 53-55). 42 The document is not very helpful regarding the languages of Piura, for which there is a general statement to the effect that the language spoken there is not found anywhere else in Peru. Here, other accounts such as those mentioned above must be used as complements. Its limited utility regarding Piura aside, the document otherwise lists the languages spoken in Northern Peru together with the names of the localities where they were spoken as well as Spanish individuals capable of speaking them. Using a modernized orthography of the names of the localities, the document mentions Mochica at St. Pedro de Lloc, Jequetepeque, Guadalupe, Pueblo Nuevo, Mocupe, Reque, Monsefú, Callanca, Chiclayo, St. Miguel (de Farcapa, near Chiclayo, see Netherly 2009: 133), Lambayeque, Ferreñafe, Mochumi, Illimo, Tucume, Motupe, Jayanca, and Pacora, the "Mochica or Quichua" language at Chocope and Paiján, and a "lengua pescadora" to the south of Mochica, namely at Guañape, Virú, St. Esteban ("an urban parish in Trujillo", Netherly 2009: 131), Mansiche, Guanchaco, Santiago de Cao, and Magdalena de Cao (Figure 10).

Despite the obvious misidentification of Mochica with Quechua in one instance, the document can generally be considered trustworthy regarding the linguistic situation on the North Coast south of the Sechura Desert. The "lengua pescadora" it mentions, apparently spoken mostly to the south of Mochica, is mentioned in earlier sources as well, but these are frequently confusing. Toribio de Mogrovejo (2006 [1593-1605]: 52-53), the Archbishop of Lima who undertook three extensive trips through his diocese between 1593 and 1605, locates Pescadora at Santiago and Magdalena de Cao (in fact, here he speaks of "lenguas pescadoras" in the plural). Confusingly, Mogrovejo (2006 [1593-1605]: 48) reports Pescadora, or more precisely "Yunga Pescadora" also at Eten, the last refugium of Quingnam's northern neighbor, Mochica. May he simply have confused them (Salas García 2010: 91)? The case is worth mentioning because it shows the difficulties one encounters when trying to reconcile the statements of various colonial observers. Lizárraga (1968 [1605]: 13) likewise reports both Mochica and Pescadora in the Chicama Valley, indicating a zone of overlap between the two. This issue is discussed in further detail in the following section of the present chapter.

The Mochica-speaking localities mentioned in the Ramos document (Ramos Cabredo 1950) correspond quite well with those mentioned around the same time in Carrera's (1644) grammar of the language. But Carrera provides more information.

⁴² Netherly (2009: 131) refines the date of the document to 1631 or 1632.

⁴³ Mogrovejo's annotations often also remain unclear otherwise. He mentions Mochica only at Lambayeque, and otherwise frequently talks about a "Yunga" language, both on the North and Central Coast.

Using a modernized orthography, he lists Santa Cruz, Niepos in the Upper Zaña Valley, San Miguel en la Sierra (=San Miguel de Pallaques, Torero 1986: 539), San Pablo, and Cachén (today Miracosta, Torero 1986: 539) as municipalities in the highland province of Cajamarca where Mochica is spoken (see Figure 10).⁴⁴ No reference is made to a municipality in the Upper Chicama Valley. In contrast, Carrera also mentions as Mochica-speaking the Valley of Condebamba and Guambos and a "doctrina de las valsas del Marañon", which can be identified with modern Balsas in the Amazonas department (Figure 10). The linguistic connection between the coast and the Marañon Valley recurs in Mogrovejo's (2006 [1593-1605]) diaries: indeed, in his description of the linguistic situation of the Marañón Valley some of the same designations used for the coastal areas recur (Adelaar 2014). This is the case for Yunga, which, however, may find its explanation in that this is originally a Quechua term referring to a zone of hot climate found in both regions. However, for Huchos de Mitopampa, Mogrovejo (2006 [1593-1605]: 115) reports that the indigenous population spoke the "lengua de los llanos", which would not make sense given the steep slopes of the Marañón Valley if not some linguistic continuity with the coast was implicated (in particular regarding Mochica, which is commonly referred to as "lengua de los llanos" by Mogrovejo).

Carrera (1644) attributes the presence of Mochica in the highlands to forced resettlement (*mitmaq*) of coastal populations to the highlands on the part of the Inca. Indeed, the relevant localities are almost all mentioned in the ethnohistorical record as harboring a population originally from the North Coast (see for Balsas and Cajamarca respectively Espinoza Soriano 1969/1970 and Zevallos Quiñones 1995 in Church & von Hagen 2008: 916). Also, it is known from ethnohistorical sources that in 1540, the *señorío* of Túcume on the Northern North Coast exploited lands in Guambos in the Cajamarca region, and Saña had a presence near Niepos (Ramírez-Horton 1982: 126-127). The Mochica presence in the highlands thus need not have been a result of forced resettlement on behalf of the Inca with the purpose of pacification but may have (partly) been motivated by economic interests of the local lords and embedded into the North Coast practice of resource sharing, in which case it may well predate the Inca intrusion.⁴⁵

Ad Rostworowski de Diez Canseco (1985) comes to the same conclusion through an analysis of personal names recorded in a 1571 inspection of Cajamarca. The methodology she employs must be called quite naïve: noting the presence of the letter <f> in Mochica and other coastal languages and its absence in highland languages, she infers that speakers of a coastal language, Mochica specifically, must have been present in Cajamarca in early colonial times. Despite the methodological flaws, the conclusion is correct, which is demonstrated among other things by the high frequency of the final sequence <-ef> in Cajamarca personal names, which can be easily identified as the Mochica word for 'father'.

⁴⁵ In fact, the presence of people from the North Coast evidenced by last names involving <f>, the attestation of resource sharing, and particularities regarding stylistic variation within Coastal Cajamarca pottery in space leads Topic (2013: 345) to infer economic differences between the Northern and Southern North Coast.

In addition, Mochica had a strong presence in the Upper Piura Valley: Carrera (1644) mentions as Mochica-speaking the hamlets of Copis and Salas near Olmos and Penachi respectively, Huancabamba ("Guacabamba"), and Frias. Local toponymy (e.g. Morropón) also strongly supports a Mochica presence in this area. In addition, the distribution of the ending *-nique* (derived from Mochica <nech> 'river' according to Torero 1986: 541 and from the locative case marker <-nic> according to Salas García 2010: 107) links the Upper Piura presence of Mochica to its heartland of Lambayeque. The evidence thus suggests a continuous Mochica-speaking zone on the eastern margin of the Sechura Desert and the Upper Piura (Figure 11).



Figure 11. Toponyms in -nique on the North Coast (map by the author, based on public domain data from the GEOnet Names Server of the US National Geospatial-Intelligence Agency).

The scope of Carrera's (1644) statement regarding Inca agency in spreading the Mochica language is not clear. Is it only the Mochica speakers in the Condebamba Valley, mentioned immediately before, whom he considers to have been resettled to do *mitmaq* service, or also those in the Upper Piura Valley and Cajamarca? With the background knowledge we have about the ancient Central Andes, characterized by discontinuous territoriality (Ramírez-Horton 1996; Rostworowski de Diez Canseco 1999), it would be premature to attribute the Mochica presence in the Upper Piura and Andean Highlands exclusively to late population movements instigated under Inca rule, a point already made by Rostworowski de Diez Canseco (1985).

The localities in the Upper Piura and the highlands of Cajamarca are not considered to belong to the "area of the Mochica language" in Cerrón-Palomino's (1995: 30) map (though it is acknowledged that Mochica was spoken there otherwise). Instead, Santa Cruz, Niepos, San Miguel and San Pablo in highland Cajamarca are considered to pertain to a Culli-speaking area. Indeed, it remains unclear whether the villages in the Cajamarcan highlands mentioned by Carrera form isolated spots of Mochica speakers in an overwhelmingly Culli-speaking territory, whether they are hallmarks of a continuously Mochica-speaking zone, or whether they indicate a continuously bilingual zone. At any rate, Mochica clearly was not only a language of the *chala* zone, a fact which is little appreciated (though mentioned in passing by Cerrón-Palomino 1995: 29 and Adelaar 2004: 319).

By maximizing the linguistic distinctions on the North Coast across all documents evaluated so far, one can distinguish five languages: the language of Colán and Catacaos (Figure 10; this language is called Tallán in some of the documents), that of Sechura, and that of Olmos in Piura, Mochica in Lambayeque, La Libertad, and the Upper Piura Valley in Piura, and the "lengua pescadora" to its south.

The situation is greatly complicated by reference to a language called Quingnam by Calancha (1638) in the same area where other sources, Mogrovejo in particular, report Pescadora. From Calancha (1638: 550) one can learn that Quingnam was spoken in the early 17th century in the "valleys of Trujillo". ⁴⁶ From the use of the plural it is clear that not only the Moche Valley, where the city of Trujillo is actually located, is implicated, but a wider region. In fact, Calancha (1638: 606) later adds that Quingnam was also spoken at San Pedro de Lloc and Jequetepeque. ⁴⁷ This is further north than where other reports locate Pescadora.

It appears that Quingnam and Pescadora were not only closely associated geographically: when speaking about Pescadora in relation to Quingnam, Calancha (1638: 606) says that one is basically dealing with the same language, but that Pescadora is more

^{46 &}quot;valles de Trugillo".

^{47 &}quot;San Pedro de Yoco,i Xequetepeque".

"guttural". 48 Based on this statement, coupled with ethnographic knowledge regarding labor division in coastal societies and the special social status of fishermen, it has been proposed that Pescadora was a dialect spoken by fishermen (Rostworowski de Diez Canseco 1981: 99) or a sociolect (Rabinowitz 1983: 261) through which fishermen deliberately marked their social identity by what Mous (2003) would call 'lexical manipulation'. The view that a recognizably different variety corresponding to Pescadora existed is also considered possible by linguists (Cerrón-Palomino 2004a: 86; Rivet 1949: 10; Torero 1986: 541,). Salas García (2010: 100) is bolder, and identifies Pescadora and Quingnam straight away, arguing that the designations are mere synonyms. Indeed, the casual remark by Calancha about Pescadora's guttural character vis-à-vis Quingnam proper, together with the special status of fisherman on the Peruvian North Coast is, in the absence of any linguistic documentation, a very weak basis for postulating a recognizably distinct sociolect.⁴⁹ At any rate, there is general agreement that there is a close relationship - if not one of identity, one of dialectal variation - between Quingnam and Pescadora, so that the northernmost localities where Quingnam, or, if such a thing existed, its Pescadora variety, was spoken are considered to be San Pedro de Lloc and Jequetepeque.

Coastal linguistic boundaries

?-Tallán

It is evident that two locations where the Tallán languages were spoken in historical times were the towns of Colán and Catacaos, which served as the namesake for the doculects represented in the principal source, Martínez Compañón's (1985 [1782-1790]) wordlists (see chapter IV for more details). Indeed, Torero's (1986: 529) map shows circular regions around the respective towns as the former Tallán-speaking areas. In his textual discussion of the languages, Torero (1986: 543) says that Tallán must have occupied the region of the lower and middle Chira Valley to the middle Piura Valley. While it is not unreasonable to assume that the languages were not only spoken in the towns that served as their namesakes, no evidence is adduced by Torero to support his statements. ⁵⁰ As Arrizabalaga Lizárraga (2008b: 54) points out, the attention that the synod at Quito

^{48 &}quot;La pescadora es en lo general la misma, pero usa más de lo gutural". Since Mochica is mentioned immediately before this statement as well, there is some unclarity regarding just which language(s) Pescadora is similar to: Mochica and Quingnam or just Quingnam? This is the source for the identification of Mochica and Quingnam on behalf of Rivet (1949: 9), a now discarded theory.

⁴⁹ Rostworowski de Diez Canseco (1989: 176) goes even further and ponders whether Sechura, spoken by peoples occupied to a substantial extent with fishing and the trade of salted fish, may have been a professional jargon or *lingua franca*, in analogy to what has been suggested about Pescadora.

⁵⁰ Torero refers to an unpublished 1984 presentation as the source of the map. If this presentation included evidence for the extent shown for the languages of the Far North, Torero's (1986) readers are not told what it is.

in the late 16th century paid to the Tallán languages by commissioning catechisms to be written in the languages is evidence that they were considered of some importance for evangelization, albeit of course to a much smaller degree than, say, Quechua or Aymara. Hence one may conclude that they were of some regional importance at the time, presumably covering a larger area and having more speakers than the languages of Sechura and Olmos, which are not even mentioned by the Quito synod.

A detailed analysis of the distribution of toponyms would have to be carried out to clarify the linguistic boundaries of the region with more precision. That being said, the toponymic profile of Tallán is not as easily recognizable as that of e.g. Culli (see Adelaar 1988; Torero 1989). Toponyms ending in -ará or -alá are frequent in the regions where Tallán was spoken in historical times (see Narihualá, Tangarará, Simbilá, Cucungará). However, the distribution of the toponymic ending is wider. Yanchalá is a village in the highlands of Ayavaca, and toponyms featuring this element are also found in Ecuador, both on the coast and in the highlands (Machala, Macará). In addition, already in 1572 Bernardino de Loayza mentioned the village of Muñiquilá in the jurisdiction of Sechura (Huertas Vallejos 1995: 132), and Brüning (1989 [1922]: 59) reports the lands of Chapalá near Olmos. It is interesting that the initial element of toponyms in -ará or -alá is frequently disyllabic or even trisyllabic, in contrast with the frequently monosyllabic one preceding the toponymic ending -ura - ora, which also occurs in both Tallán- and Sechura-speaking areas (e.g. Piura, Sechura, Pisura, etc.). 51

Thus, the northern boundary of the Tallán languages at present remains poorly defined. According to Bruhns (1994: 281), likely "the famous traders of Tumbes [...] were actually Ecuadorians", as Tumbes in historic times was "mainly a Cañari town". If this were the case, then a linguistic boundary would have probably run somewhere south of Tumbes and north of Colán. On the other hand, Netherly (2009: 139) speculates that a language affiliated with Tallán may have served as a *lingua franca* in the region of the Gulf of Guayaquil. The situation is unclear, and, unless additional information is found in ethnohistorical documents, only a detailed toponymic analysis which would probably have to involve advanced spatial statistics in a GIS framework might be able to resolve the question.

According to Vega (1993: 184), the chronicler Martín de Murúa provides an etymology of one of the placenames featuring the ending -ará or -alá. Tangarará, the site of the first Spanish settlement in what is now Peru, is said to literally mean 'shore of the goddess'. However, it must be borne in mind that Murúa's etymologies are otherwise often plainly incorrect (see Cerrón-Palomino 2004b). In addition, none of the elements of this placename can be linked with the Tallán languages for lack of data, though compare <lá> - <rá> - <ná> - <gá> 'water', a form attested in Ramos Cabredo (1950) for Piura which appears to derive from Mochica.

Tallán-Sechura

As is the case for Tallán, the precise limits of Sechura are also unclear. However, one can assert with some confidence that in early colonial times, Sechura was a truly regional language, because both its northern and southern neighbors are known. Torero (1986: 543) speculates that Sechura was spoken in various places of the bay of Sechura and the adjacent plains, including the Lower Piura.

Just like in the Tallán case, it is not easy to assign toponyms to the Sechura language with a sufficient level of confidence to infer the language's former distribution (contra Solís Fonseca 2009: 7). Sechura toponyms can be recognized by an increased frequency of voiced consonants in all positions: Indur, Chode (Ramos Cabredo 1950), Bapo (Huertas Vallejos 1999: 177), but this is too weak a criterion for tracking the distribution of the language.

Otherwise, the areas delimited by those endings that do recur across the Far North cross-cut the areas where the languages have been historically attested. The frequent ending -ura - -ora already alluded to earlier is a case in point. It is very common in the bay of Sechura (see Nonura and Pisura, the names of old parcialidades of Sechura, Huertas Vallejos 1995), and Sechura is obviously itself a token. But it also occurs in Tallán-speaking territory, most prominently in the name Piura itself, as well as in places much further to the north such as Máncora. There are two main possibilities regarding -ura - -ora. The ending may derive from the Sechura language, an identification favored by Calancha's designation 'Sec' for the language of Sechura. Assuming palatalization, Sechura would accordingly be interpreted as 'place of Sec speech' or 'place of the Sec' if Sec was also an ethnonym. This interpretation would imply that the language once had a greater extension to the north (i.e. Piura, etc.). This suggestion receives support from the fact that the Relación de la ciudad de Sant Miguel de Piura (Jiménez de la Espada 1965: 33) asserts that Piura is simply a proper name without any descriptive meaning, indicating that it was not segmentable to the local (Tállan-speaking) population. Instead of assigning -ura - -ora to the Sechura language, however, it is equally possible that these toponyms are instead remnants of a language that was spoken in the region but became extinct in prehistoric times.

The very name Tumbes may belong to a toponymic area identified by Torero (1989: 238-239) which is characterized by a final element -is. Such placenames occur from the La Libertad department in the south to Piura in the north. They cluster along the western slopes of the Andes and appear only rarely in the coastal areas themselves, but, as Torero points out, may survive overlain by the Mochica element -nique in the name of Cupisnique. Torero has in mind a language which was once widespread on the North Coast as well, but which subsequently disappeared from the coastal fringe. Linguistic continuity between the Tumbes and Sechura regions at some point of time in prehistory (namely, when the -is language was spoken) is also suggested by the name of the archaeological site of Chusís, just to the north of Sechura (Lanning 1963: 141).

An interesting distribution also emerges for the ending -ur, which may or may not be a variant of -ura - -ora. Placenames featuring this element are found in the Upper Piura area. According to Ramos Cabredo (1950), Pabur, Jambur, and Cucur are placenames of that region. She further mentions a place called Macurur in Huancabamba. At Sechura, Tur and Indur are found. Saltur is a small village close to Sipán on the southern banks of the Rio Chancay in the Lambayeque region.

All in all, there are interesting toponymic areas in the Far North, but with the information at hand, they fail to jointly delimit a consistent area, nor can they be linked to any particular language. This may indeed be indicative of widespread multilingualism on the Far North Coast with no language clearly dominating subareas. A task for further research is thus to assess in more detail to what extent the toponymic areas, including that of Torero's (1989) -is language, overlap. For the present time, a consequence of the difficulties in assigning toponyms to languages in the Far North is also that their phonological and phonotactic structure cannot be used lightheartedly as a source for elucidating structures of the Tallán and Sechura languages, as can be done for Culli (Adelaar 1988).

Given that toponymic analysis in the Far North would be a major topic for detailed investigation in itself which I cannot offer here, I now leave this subject to turn to the ethnohistoric record. Huertas Vallejos (2003: 160) asserts that La Tortuga, approximately 20 kilometres south of Paita on the coast, pertained to Muñiquilá, which had been ethnically affiliated with Sechura since pre-Columbian times. Furthermore, Huertas Vallejos (1995: 249-252) documents several territorial disputes between people from Sechura and Catacaos. For instance, in 1777, Juan Francisco Chapilliquén had to defend the Sechurans' rights to the land of San Clemente against the people of Catacaos, saying that the Indians from Sechura had always peacefully possessed the land. San Clemente is at roughly the same longitude as Vice, where attested personal names strongly support a presence of the Sechura language (Huertas Vallejos 2003: 194-196). San Clemente and Vice are located very close to the present-day border of the Sechura and Piura provinces, about 20 kilometres northeast of Sechura and 30 kilometres southeast of Piura. If the information summarized so far can be trusted, the colonial boundary between the Sechura and Tallán-speaking areas, if such a straightforward separation is feasible at all, ran close to the line La Tortuga-Vice-San Clemente. This is also consistent with the location of the towns from which data from the Tallán and Sechura languages are attested historically, as well as with variation in the name of a tributary of the Piura River, which appears variously as Dipatera, Diapatera, or Yapatera (Lequernaqué 2007: 157). This points to a Tallán origin of the name, since the variation in the initial consonant is highly suggestive of reflecting the same sound represented by a digraph <dl> in the linguistic data from Colán (see chapter IV for further discussion). Hence, the Piura Valley, to the north of the La Tortuga-Vice-San Clemente line, is reaffirmed by the toponymic evidence as a Tallán-speaking area in early colonial times.

Sechura-Mochica and the Olmos problem

At first glance, the linguistic boundary between Sechura and Mochica appears straightforward: the Sechura Desert would form a natural boundary which separated the speech communities on the north-south axis.

The picture is complicated by the unclear linguistic situation at Olmos, located north of Motupe at the southeastern edge of the Sechura Desert (see Figure 10). Olmos was a waypoint for travelers along the Paita-Lima coastal route. After conquest, it became a center of mule breeding and its people specialized as muleteers (Cook 1981: 132). Adelaar & Muysken (2004: 400) interpret the 17th-century document published by Ramos Cabredo (1950), which does not distinguish different languages in Piura, as evidence for "the linguistic unity of Olmos and Sechura-Tallán". In light of the more numerous colonial references to the linguistic situation in the Far North that speak of diversity rather than homogeneity, however, it seems wise to interpret this single statement with caution.

In fact, the language of Olmos has been the subject of some speculation. Cerrón-Palomino (1995: 27) believes that it might have been a variety of Sechura with a strong Mochica influence. This, as reviewed in Urban (2015a), is based mainly on two pieces of evidence: first, the vocabulary of weaving gathered by Brüning (1989 [1922]: 72) shows similarities with both Sechura and Mochica. Brüning's comparison, with the original gloss translated into English, is shown in Table 2:

Mochica (Eten)	Olmos	Sechura	Gloss
<tésgam></tésgam>	<terlán></terlán>	<tasila>⁵²</tasila>	'loom in which the warp is fixed'
<uño></uño>	<silluque></silluque>	<sillique></sillique>	'loop to change warp yarn'
<quide></quide>	<llagal></llagal>	<ll>acala>⁵³</ll>	'tool to compress the weft'

Table 2. Brüning's Mochica, Olmos, and Sechura data.

As can be seen, the terms gathered by Brüning at Olmos show similarities either with Mochica or Sechura, even though one must not forget that nothing is known about the circumstances under which Brüning gathered the data.

Second, Cerrón-Palomino adduces a cryptic statement from Calancha (1638: 550) about the language of Olmos in support of the hypothesis of a mochicaized variant of Sechura at Olmos. According to Calancha, the people of Olmos modified the sounds of the words so that each family had a different manner of speaking. This is comparable to

⁵² Huertas Vallejos (1999: 149) and Ramos Cabredo de Cox (1958: 28) record this term as <tarrilla>.

⁵³ Ramos Cabredo de Cox (1958: 28) has <yacala>.

Juan and de Ulloa's statement regarding the speech of Sechura, according to whom "they contract half of their last words, as if they lacked breath to pronounce them" (Juan & Ulloa 1806 [1748]: 13, see further discussion in the section on the Sechura sound system).

However, there are more statements in colonial sources that complicate the picture further and that have triggered more speculations. Cabello Valboa (2011 [1586]: 274) says about Olmos that "[...] its indigenous inhabitants have the disposition and custom of searching for new words and making use of them so that the other peoples do not understand them".54 This, together with the remaining evidence, suggests to Torero (1986: 544) the existence of a mixed language at Olmos. In addition, the "modification of letters and sounds" mentioned by Calancha (1638: 550) may point to a custom of lexical manipulation (Mous 2003), i.e. the conscious and deliberate alternation of the shape of morphemes. A more cautious evaluation, however, would point out that one lexical similarity with Mochica and two with Sechura do not make Olmos a mixed language (in particular because the comparisons involve cultural vocabulary which is prone to borrowing). Further, Calancha's (1638: 550) "modification of letters and final sounds" may simply refer to a morphophonological phenomenon rather than a deliberate alteration of lexical items. In fact, a property of Sechura phonetics which is also responsible for the transcription of vowels in one source and their not being found in the corresponding position in another (see the discussion in chapter V) would be able to explain Calancha's observation. And even if we assume that Cabello Valboa's report on the linguistic behavior of the Olmos inhabitants is accurate: bilinguals' deliberate use of lexical items from a language that others do not know in order not to be understood does not yet make for a secret or mixed language.

Beyond the evidence considered by Cerrón-Palomino and Torero, there are even more relevant pieces of evidence, yet they unfortunately further blur the picture. I will discuss three of these: the names of families migrating from Sechura to Olmos according to popular lore, further personal names attested at Olmos, and a 17^{th} -century petition of a priest who had served at both Olmos and Sechura.

Brüning (1989 [1922]: 50-51) was told that long ago seven families from Sechura established themselves at a site called Cascajal, approximately two leagues north of Olmos. The names of the families are reported as well: Arroyo, Cornejo, Maco, Papán, Serrato, Monja, and Soplopuc. As Brüning himself notes, "long ago" here cannot be longer ago than the time of the arrival of the Spanish, for some of the migrating families have Spanish names.⁵⁵ An analysis of indigenous names of the Sechura region reveals

^{54 &}quot;[...] se están sus naturales con la inclinación y uso de buscar vocablos nuevos y usar de ellos para q[ue] los demás pueblos no los entienda[n]".

⁵⁵ Hence, migrations of Sechurans to Olmos may be irrelevant for the interpretation of Cabello Valboa's and Calancha's statements, as they would have taken place after these authors wrote their respective works.

that, indeed, Maco occurs as a female name in the protocol of the *visita* of Bernardino de Loayza to Sechura (see Appendix D II), but also in the Chicama Valley (Zevallos Quiñones 1993a). This makes the name inconclusive with respect to the identification of the linguistic affiliation of its bearer. The name Soplopuc is reminiscent of several names from the Sechura area with a sequence *-upu-* from the 1572 *visita* of Bernardino de Loayza to Sechura such as Cupuy, Chupun, Lupuñaque, Tacupus, and Pianlupo. In fact, Lup itself is attested as a last name from Sechura (see Appendix D II). On the other hand, the final element *-lupú - -lupo*, as found in the name Pianlupo, is actually characteristic of the Tallán-speaking area rather than of Sechura (see also the discussion on personal names as a source for the Tallán languages in chapter IV), and Pianlupo is the only token attested at Sechura. The name thus adds another layer of complexity to the problem, as it may indicate an implication of Tallán speakers.

More in line with the picture of Olmos as a mixed-language community involving Sechura and Mochica elements, Carrera (1644) mentions that Mochica was spoken in Copis, a place which was annexed to Olmos by the Spanish. Furthermore, local toponyms like Sarrapón and Chillarnique strongly support a Mochica presence in the region. Also, further last names of Olmos (see Appendix D III) support the hypothesis that Mochica speakers were present at Olmos: Nuque and Usllon, for instance, are attested in the Mochica-speaking area, too (Zevallos Quiñones 1989: 114; 1993a).

Finally, a 1632 petition by Bartolomé Ramírez, then priest of Sechura, to the Audiencia de Lima is potentially relevant to the question, as it indeed indirectly supports a linguistic relationship between Olmos and Sechura (and not Tallán). The document is kept at the Archivo General de Indias in Sevilla (reference number ES.41091.AGI/23.9// LIMA,229,N.16). Born in Spain, Ramírez requests permission from the Audiencia de Lima to return to his home country after having worked with the indigenous peoples of Peru. By his own account, Ramírez served for more than ten years at the parish of Olmos and was later transferred to Sechura in the corregimiento of Paita. Ramírez states that he is well-versed in the language of that corregimiento, apparently referring to Paita, to reinforce the impression of a competent priest. Doctor Don Andres Téllez de Cabrera, relator of the Real Audiencia, adds that Ramírez translated the Christian catechism into the language of Olmos, something which had not been done before because the language was "short and difficult". 56 Ramírez therefore must have spoken (one of) the language(s) of Olmos. Cristobal Velazquez, corregidor and depositario general of Piura, states that Ramírez was transferred to Sechura and knows the language of the Indians which, like Ramírez's own statement, strongly suggests that he also knew the language of Sechura. While it does not follow from Ramírez's professional career that the language of Olmos

^{56 &}quot;[...] mediante su cuydado y trauajo rredujo o tradujo el chatisismo y dotrina xpna en la lengua de los yndios del dho pueblo de olmoss que no la auia por ser muy corta y difícil".

and Sechura were identical (he could have learned two different languages, one in each village), it would make sense that Ramírez was transferred to Sechura precisely because of his previously acquired language skills.

Since the interpretation of the situation must be based to a large extent on casual observations rather than lexical data it seems best to me not to engage in speculation regarding the linguistics of Olmos beyond saying that (i) likely speakers of Mochica and Sechura lived in the region in historical times and that (ii) the sparse linguistic evidence from Brüning and the majority of colonial documents cited do not lend support to the interpretation that the language of Olmos was completely distinct from either that of Sechura or Mochica (the clearest dissenting voice being the 1651 document from the Bishop of Trujillo, according to which Olmos had a particular language). Hence, it is indeed reasonable to assume a close coexistence of Mochica and one or more languages from the Far North in the Olmos region in colonial times.

Mochica-Quingnam

Regarding Mochica's southern limit, there is some slight, and telling, disagreement between the colonial sources: the southernmost place where Mochica was spoken, according to the early 16th-century document published in Ramos Cabredo (1950), lies in the Jequetepeque Valley. Carrera (1644), however, mentions that Mochica was also spoken at Santiago and Magdalena de Cao in the Chicama Valley. Torero (1986: 535-536) and following him Cerrón-Palomino (2004a: 86) conclude that effectively the region between the Jequetepeque and Chicama Valleys - that is, the old North Coast cultural boundary of the Pampa de Paiján – was one in which both Mochica and Quingnam were spoken.⁵⁷ According to Netherly (2009: 140), Mochica and Quingnam overlapped in two specific places, namely the northern shores of the Chicama Valley, in Paiján and Chocope, and the southern shore of the Jequetepeque Valley.⁵⁸ Salas García (2010: 107-112; 2012: 24) suggests that there were also speakers of Mochica in the Moche Valley, which he considers to have been bilingual, too.⁵⁹ The evidence for this claim is, however, mostly circumstantial and not sufficient to demonstrate this beyond doubt. For one, the existence of an irrigation channel called 'la Mochica' in a valley called Moche in which a town also called Moche is located is no evidence for the

⁵⁷ It is interesting to note in this context that the same lands in the Chicama Valley were either called Aracena (or Aracsena) or Payalquip in 1592 (Zevallos Quiñones 1992: 58). Given the boundary zone of the two languages in this area, it is perhaps not too bold too assume that one of these is a Mochica name and the other its Quingnam equivalent.

⁵⁸ See Salas García (2010) for a detailed review of colonial accounts.

⁵⁹ Earlier, Harrington (1945: 25) situated the very centre of the Mochica-speaking population in the Moche Valley.

presence of the Mochica language.⁶⁰ On the other hand, toponyms such as Guaninique, lands owned in 1593 by Don Cristobal Saguanchi Munao, cacique of Moche (Zevallos Quiñones 1993b: 37) and hence likely located in the Moche Valley, indeed show the characteristic Mochica ending *-nique*. This shows the necessity for more detailed studies of the linguistic boundary between Mochica and Quingnam and consideration of its precise sociolinguistic properties that goes beyond evaluation of ethnohistorical sources.

More generally, whether there were indeed bilingual speakers of Mochica and Quingnam in the overlapping zone, as Salas García implies, is an entirely open question. Netherly (2009: 140), for instance, suggests that this was not so, and that Mochica and Quingnam-speaking communities were separated from one another.

The outline of the linguistic boundary zone between Mochica and Quingnam is also recognizable from the different structure of the toponyms that the two languages left in the landscape of the valleys and deserts of the North Coast. Torero (1986: 541) notes the presence of the letters <f> and <rr> and absence of orthographic sequences interpretable as [w] in Lambayequean (and hence, by inference, Mochica) toponyms. Conversely, <f> and <rr> are absent, but [w] is present to the south of the Chicama Valley. Cerrón-Palomino (1995: 39-40) considers the presence or absence of [w] as the central distinguishing criterion. This criterion, however, is only able to attribute items with [w] to Quingnam; it is not suitable to provide a more general means to tease apart the origins of toponyms and anthroponyms where this sound is not found. Recent accounts of the Mochica-Quingnam border usually affirm a markedly different structure of the languages as inferable from personal names and place names (Adelaar 1999: 212) or the Naimlap king's list from Lambayeque and that of the Trujillo rulers in the anonymous document from 1604 (Cerrón-Palomino 1995: 46). While this is not wrong in principle, the distinctiveness is somewhat exaggerated by such statements and the difficulties one encounters when actually attempting to assign a particular toponym to either language is underestimated.

Quingnam-?

Of all the languages of the Peruvian Pacific coast whose existence we can take for granted, Quingnam is the least well-known. In fact, it is even difficult to attain a reasonable level of security as to where exactly it was spoken. The southern limits of Quingnam and indeed the linguistic situation on Peru's Central Coast at the time of European contact and in early colonial times are especially difficult to ascertain. A rather conservative southern limit would be the Nepeña Valley (see Figure 10), on grounds of San Sebastián de Enepeña being the southernmost locality where Mogrovejo (2006 [1593-1605]: 434)

⁶⁰ See Urban (2015c) on the supposed etymology of Pongmassa as "soursop or custard apple of stone" also adduced by Salas García (2012).

reports Pescadora.⁶¹ Further south, at Quisquis, Llaután, San Francisco de Parquin, Casma Alta and Baja, and Huarmey, Mogrovejo reports "Yunga". Salas García (2010: 115) infers "Yunga" to be Quingnam. However, the identity of said Yunga language is for the time unclear and what difference, if any, Mogrovejo intended to convey by alternating between the designations *yunga* and *pescadora* remains elusive.

Salas García (2010: 112-114) also adduces further ethnohistorical evidence to support the idea of linguistic continuity between the Southern North Coast and the Central Coast: a certain Cristóbal from Casma and a Cristóbal Gutierrez, "yanacona alguacil" from Huaura, interpreted for witnesses from the Moche Valley in a 16th-century trial (Zevallos Quiñones 1994b). Hence, Salas García assumes that these places shared a language: Quingnam. However, one must say that there is a particular relationship between the North Coast and Huaura, documented by Rostworowski de Diez Canseco (1978: 125-129): a 1549 lawsuit mentions a group of "Mochicas" who are later characterized as "Trujillan" as being present in the Huaura Valley itself. Thus, the existence of a person from Huaura who could translate for witnesses from the Moche Valley does not necessarily indicate that Quingnam was the original language of Huaura.⁶² Indeed, the possibility of the presence of Mochica- rather than that of Quingnam-speaking peoples on the Central Coast would provide an explanation for Mogrovejo's reports of a "Yunga" language there, the same term he uses for the language of the Northern North Coast of which we can be sure was Mochica. In addition, given that the witnesses were members of the nobility who were obliged by Inca decree to learn Quechua (Cerrón-Palomino 1989a), it is not at all clear that the language used for interpreting was not Quechua.

Other evaluations of colonial statements have suggested that a yet wider stretch of the coast, possibly as far south as Lima, was Quingnam-speaking. However, all such references are intertwined with descriptions of the expansion of the Chimor state (see Salas García 2010: 120 for an overview). As discussed in chapter III, however, the archaeologically visible southern limit of direct Chimor control is the regional center of Manchán in the Casma Valley. In addition, it is hard to imagine that during the brief period of Chimor rule in the area of Lima (if indeed there ever was such a thing), Chimor rulers would have managed to introduce Quingnam and extirpate previous local languages, something they either did not manage or did not even intend to do in the regions north of their heartland where Mochica remained vigorous.

⁶¹ Torero (1986: 529) placed this limit at the Santa Valley (see also Salas García 2010: 104), because the full edition of Mogrovejo's journal, which mentions Pescadora at San Sebastián de Enepeña, only became available in 2006.

⁶² Last names of persons from Huaura in the testament of Don Luis de Colán (Rostworowski de Diez Canseco 1989: 195) like Colupu point to an origin in the Far North (see the ending *-upu* in names of the Tallán-speaking area, Appendix D I). See also the remarks on Inca resettlement from the North to the Central Coast specifically in the preceding chapter.

One avenue not yet systematically explored is a detailed toponymic and onomastic comparison. For instance, it is well-known that placenames and personal names from the Huaura and Chillón area cannot be aligned with either Quechua, Aymara, or Mochica (Cerrón-Palomino 2010: 256-257).

Linguistic neighbors

A comparatively complex linguistic situation on the eve of Spanish conquest is not just visible in the case of the North Coast of Peru, but also the coastal lowlands to the north and south as well as the highlands to the east. As is the case for the North Coast, the situation needs to be reconstructed: the extinction of the North Coast languages is unfortunately not an exception as the indigenous languages of adjacent areas have suffered the same fate.

What is immediately striking about the linguistic geography of the Peruvian North Coast and adjacent highlands is the high ratio of linguistic isolates (Aikhenvald 2007), especially when compared with the (formerly) widespread, though shallow, Quechua and Aymara language families. The picture was thus one of genealogical diversity rather than homogeneity. Surely, in a considerable number of cases, the inability to discover external relatives is due to the extremely poor state of documentation. While very shallow language relationships are discernible with a certain reliability even with little and poorly transcribed data, the chances of recognizing relationships with such data quickly diminishes if the languages are not particularly closely related. It is impossible to know what could be said about the external relations of the languages of the North Coast if more and better data were available.

I begin a more detailed discussion about the linguistic situation in the highlands adjacent to the North Coast, and will then consider northern and southern coastal neighbors.

Quechua varieties would have been the highland neighbor of Quingnam in its southern areas, more specifically Huaylas-Conchucos Quechua (a Quechua I dialect) in the *sierra* of the province of Ancash. Depending on how far south Quingnam really extended and depending on the now disputed question of the existence of a coastal variety of Quechua (see Itier 2013), there may have been a boundary with a Quechua II variety in the south as well.

Further to the north, a linguistic watershed existed near or in the Chicama Valley not only on the coast, where it roughly separated Mochica from Quingnam-speaking areas, but also in the highlands. South of the Chicama, the highland provinces of La Libertad, where the upper Moche, Virú, Chao, and Santa Valleys are located, were the domain of the Culli language (see Figure 10). Some typical Culli toponyms ending in *-bal* are located quite close to the coast in this area (Adelaar 1988: 123; see also the following section on the presence of Culli on the coast). Culli was once also spoken

in the southern provinces of Peru's Cajamarca department, at least in the Cajabamba province. It was also spoken in the Pallasca province of Ancash, extending eastwards to the reaches of the Marañón (Adelaar 1988: 121). Culli probably went extinct only in the 20th century. The documentation is limited to two wordlists, one in Martínez Compañón (1985 [1782-1790]),⁶³ the other, collected by a local priest, in Rivet (1949). Nevertheless, further data could be rescued later, and toponymic analysis on Culli has been quite fruitful despite the limited material (Adelaar 1988 and further references in Andrade Ciudad 2010). Still further east, speakers of the equally extinct Chacha, Hibito, and Cholón languages would have been found on the eastern slopes of the Andes. Chacha is undocumented except for personal and placenames (G. Taylor 1990); for Hibito, there are two wordlists, and for Cholón there is a colonial grammar analyzed exhaustively by Alexander-Bakkerus (2005). Jolkesky (2016: 241) and Urban (to appear) are able to etymologize various Chachapoyas place names through Cholón material, suggesting that all three languages may have been related.

Mostly to the north of the Chicama Valley, another highland neighbor of the coastal languages is detectable thanks to toponymic analyses carried out by Torero (1989: 229-234). In the absence of a known name, Torero (1989) calls the language 'Den', from the salient toponymic ending -den (with variants -don, -ten and -ton). The highest density of toponyms with this ending is found on the western Andean slopes in the areas of the upper Jequetepeque and Chicama Valleys in the Contumazá province of the Cajamarca department, but the language must have been present once also in the area of the upper Zaña and Lambayeque Valleys to the north (see Figure 10). Espinoza Soriano (1977) recovered three non-Spanish words from a colonial report elaborated in Contumazá: <nus> 'lady', <losque> 'young girl', and <mizo> 'female servant' (see Torero 1989: 232; Adelaar & Muysken 2004: 404). These may be isolated survivors for social categories of the 'Den' language in local Quechua or they might belong to another language still viable at the time of the report's writing. Hybrid toponyms, consisting of Quechua lexical material with the -den ending (Andrade Ciudad 2010: 174) show that the 'Den' language was still spoken at least when Quechua arrived, according to Adelaar (2012) around 900 AD at the latest. Parts of the 'Den' area, but also that in which Chacha was formerly spoken, overlap with another large toponymic area characterized by the ending -cat (with many variants like -cate, -gat, -gate). In Urban (to appear), I seek to make a case for an affiliation of the language or languages that left the 'Den' and 'Cat' toponymic areas with Cholón, too. The indigenous language now spoken in the highlands immediately to the east of the core Mochica-speaking coastal zone, albeit limited to small and discontinuous areas, is Ferreñafe or Cañaris Quechua (a variety classified as belonging to the controversial Quechua IIA group).

⁶³ See the section on relevant sources on the Tallán languages for more information on this work.

Regarding the highlands of Piura, Hocquenghem (1989: 48-49) argues that the Guayacundos, an ethnohistorically attested ethnic group of the Ayavaca and Huancabamba provinces of Piura, were affiliated culturally, and – indirectly – also linguistically, with Jivaroan. 64 The background of Hocquenghem's claim for a Jivaroan affiliation of these groups is that indeed a former wider extension of Jívaro-speaking groups in Andean environments of southern Ecuador is in evidence. This is supported by toponymy, e.g. the ending -nam(a) - -num(a), a Jivaroan locative marker (Taylor 1991: 446) which is found widely in the southern Ecuadorian Andes (see also Gnerre 1975 and Buchwald 1918: 230 to the same effect). 65 A Jivaroan connection for the Palta language, once spoken in what is now Ecuador's Loja province and documented through only four words, is possible (Gnerre 1975; Taylor 1991: 445-446; Torero 1993: 456-459). Ethnohistorical sources mention that the language of the Palta and that of the Malacatos, another group of highland Ecuador, were mutually intelligible, and that the territory they inhabited was called "Xibaro" (Taylor & Descola 1981: 18), further supporting the linguistic affiliation. Hocquenghem (1989: 45-48) observes that the Guayacundos of Piura are frequently mentioned together with the Calvas people of south-central Ecuador. Now, the Calvas are reported by Cieza de León (2005 [1553]: 164) to be distinguishable from the Palta only through their headdress. Thus, Hocquenghem concludes, the Guayacundos of the highlands of Piura would be the southernmost representative of Jivaroan groups in the highlands. 66 However, in the colonial period, the highlands of Piura, with the exception of the Mochica-speaking upper Piura Valley, appear to have been Quechua-speaking. In addition, as A.-C. Taylor (1990: 271; 1991: 450) points out, areas which Hocquenghem claims to have been inhabited by groups with Jívaro affiliation do not show evidence for Jívaroan toponymy. At least linguistically, then, Hocquenghem's theory is untraceable.

⁶⁴ Espinoza Soriano (2004: 137) repeats the claim of a Jivaroan relation (or at least a strong Jivaroan influx) and goes on to associate the Guayacundos with Torero's (1989: 234-238) 'Cat' language. It is true that Torero notes isolated cases of toponyms ending in -cat (or variants -gat, -cot, -got) in the Ayavaca and Huancabamba provinces in Piura, but the 'Cat heartland' is clearly located further south, in the Lambayeque and La Libertad departments and adjacent regions of other departments (Figure 10). In addition, -cat is not indicative of a Jivaroan association (compare typical elements in Jivaro toponyms in Gnerre 1975: 80). Building on various threads of evidence, in Urban (to appear) I indeed argue that both the 'Den' and 'Cat' languages were probably relatives of Cholón.

⁶⁵ Torero (1993: 458) assumes that the ending means 'water'. However, a water-related meaning, namely 'river', is only attested in Aguaruna among present-day Jivaroan languages. Cognates mean 'fish' in other languages (Adelaar & Muysken 2004: 397, fn. 189).

⁶⁶ Hocquenghem (1998: 182) also argues for a "protojívaro" affiliation of the Vicús polities and for intensive relations of the Guayacundos with Central Andean societies like the Huari and Cajamarcas as well as the coastal states of the Moche, Sicán, and Chimu at their respective time of flourishment, i.e. from the Early throughout to the Late Intermediate Period. This, according to her, led to an "Andeanization" of the Guayacundos which differentiated them from other groups of suspected Jívaroan association, including the Palta.

Regarding the linguistic situation to the north of the North Coast, the language of the Tumbes region is completely unknown (though see Bruhns's 1994: 281 suggestion that in historic times its inhabitants were ethnic Cañari). Some Tumbesiños must have spoken a variety of Quechua as a second language at the time of the arrival of the first Europeans if it is true that, as Cieza de León (1998 [1553]: 126) reports, Francisco Pizarro recruited the (in)famous interpreter Felipillo there. The documentary situation of coastal languages still further north, outside the Central Andean culture area, is not better. Unknown are the languages once spoken on the island of Puná, that of the important Ecuadorian Manteño chiefdom, as well as the Quillaçinga language mentioned by López de Solís (1596). Other languages of the region were those of the Huancavilca and the Chonos; the latter may have been the ancestors of the present-day Tsáchila (Colorados) (Newson 1995: 75; see Adelaar & Muyksen 2004: 392). The last reference to indigenous languages of the area of Puerto Viejo found by Arauz (2000: 116) dates to 1605, a time at which the people were already fully bilingual in Spanish. The document, quoted here from Anonymous (1868a [-1605]: 260) suggests a situation of high linguistic diversity:

In each village, and even in some of every *parcialidad*, the Indians speak a different language, unique and long-established in that place; they do not use a common language, neither Quechua nor another, the language which almost all know, and which is in general use, is Spanish.⁶⁷

The next coastal language to the north for which some documentation exists is Esmeraldeño, named for Ecuador's Esmeraldas province (another name sometimes used is Tacames or Atacame). Starting with Seler (1902: 62-63) and ending with Kaufman & Berlin (1994: 62), a connection of this language with Yaruro, spoken in the lowlands of western Venezuela, has been suggested in the literature, but could never be substantiated. Today, the Esmeraldas province is home to the Cha'palaa (a.k.a. Chachi, Cayapa) language. Through its membership in the Barbacoan language family, Cha'palaa is linked linguistically to the highlands of Ecuador and Southern Colombia, where further Barbacoan languages are spoken. Oral traditions of the Cha'palaachi also speak of a migration from the highlands, although its timeframe remains unclear (Floyd 2010: 4). Finally, the coastal regions of Colombia are occupied by speakers of the Chocó languages Waunana and Emberá (the latter is in fact a diversified continuum of dialects or very closely related language varieties, see Aguirre Licht 2006).

^{67 &}quot;En cada pueblo, y aun en algunos de cada parcialidad, hablan los indios lengua diferente, propia y antigua de aquel lugar; no usan lengua comun, ni la del Inga, ni otra; la que saben ya casi todos y corre en general, es la castellana". Arauz actually attributes the passage to Anonymous (1868b [~1605]) rather than (1868a [~1605]).

Just like the southern limit of Quingnam is harder to determine than the northern one, its southern neighbor is not easily identified either. Cobo (1882 [1639]: 41-42) mentions a linguistic boundary at Carabayllo, stating that the northern language is spoken up to Chancay and further north, and the southern language down to Pachacamac. Rivet (1949: 11) and Cerrón-Palomino (1990: 339) identify the northern language with Quingnam, while the southern language is often taken to be an extinct variety of Quechua. In 1649, Diego de Molina (in Romero 1928) speaks of a language of the Lima Valley which is different from Quechua, possibly also Quingnam, or perhaps yet another coastal language about which we otherwise know nothing. Otherwise a homeland or later extension of the Aymara languages on the south-central coast remains possible (see Cerrón-Palomino 2010).68 In addition, the Puquina language, once widespread in Southern Peru, was present on the western side of the Andes in the area of Moquegua probably as far as the Pacific coast (Torero 1987). The areas of Arica and Iquique, in northern Chile, were Puquina-speaking, too (Cerrón-Palomino 2010: 258), as were the Coli people of Arequipa (Julien 1979; Torero 1987: 344). Aymara and Puquina may thus have coexisted on Peru's South Coast during the Late Intermediate Period, to be joined by Quechua during the Late Horizon (Cerrón-Palomino 2010). The next coastal language in northern Chile is Chango; nothing is known about this language apart from family names which suggest a historical relation with the Uru people of the south-central Andean highlands (Willem Adelaar, personal communication; Wachtel 1990: 599-600). If all this is so, the linguistic situation on the southern coast of Peru differs crucially from that in the north: while in the former the same widespread languages of the highlands were also spoken in parts of the coastal lowlands, in the latter there are clearly recognizable, if permeable and dynamic, linguistic boundaries involving more localized languages with a late sociolinguistically conditioned overlay of Quechua (see the next section for more details on the relationship between highland and lowland languages on the North Coast).

Other languages formerly spoken in northern Chile (and Argentina) are Diaguita (a.k.a. Kakán) and Atacameño (a.k.a Kunza and Lican Antai). No documentation dedicated to Diaguita survives, though available lexical material and placenames are

⁶⁸ Excavations in the Norte Chico region (Shady Solís 2008; Shady Solís, Haas & Creamer 2001) revealed monumental architecture which is suggestive of a high level of political organization at a very early, pre-ceramic period. Torero (2002: 44-45) claimed that these early coastal civilizations can be associated with a very early precursor of Quechua ("Paleoquechua"). Shady Solís (2003: 110) adopts this questionable statement. In fact, the linguistic situation on the Central Coast during the preceramic period will remain a matter of speculation for lack of written records in combination with the great length of time separating them from the present. Quechua words in local Spanish (Gálvez-Astorayme 2003) are no evidence for the association at this time-level. There is, thus, no solid reason for Torero's idea to associate Quechua with Caral (see also Adelaar 2010: 251, fn. 4; Cerrón-Palomino 2010: 274, fn. 2; Heggarty & Beresford Jones 2010, supp. mat.).

assembled and evaluated by Nardi (1979). Atacameño, in contrast, is well documented lexically (see Vaïsse, Hoyos & Echeverría i Reyes 1896), but large parts of its grammar remain unknown. Despite ample lexical material, Atacameño remains isolated genealogically. Still further south, the coast of Chile becomes more homogeneous linguistically. It is the domain of Mapudungun or Mapuche, a linguistic isolate which is still spoken and well-documented both lexically and grammatically (Augusta 1916; Salas 1992; Smeets 2008; Zúñiga 2000).

The presence of 'highland' languages on the coast The presence of Quechua

Quechua must have arrived on the North Coast relatively late, probably only after the coastal deserts had been incorporated into the Inca state and only a few decades before the arrival of the Spanish. Like the presence of the Inca was once thought to be poorly visible archaeologically, so the precise nature of the presence of their language still is at present, and more research into ethnohistorical sources would be necessary to elucidate both the sociolinguistics of the arrival of Quechua on the North Coast as well as the characteristics of the Quechua once spoken there. Some observations can nevertheless be made.

Statements from chroniclers regarding the topic are usually short, and they vary. Martín de Murúa (2005: 311v) says about the people of the North Coast that "most speak and understand the common Quechua language which the Inca gave them".69 On the other hand, Lizárraga (1968 [1605]: 13) states that few inhabitants of the Chicama Valley speak Quechua. The most nuanced statement comes from Augustín de Zárate (1968 [1555]: 10), who notes that the local nobility of the North Coast had knowledge of Quechua in the mid-16th century and, what is more, even spoke Quechua among themselves. Indeed, the introduction of Quechua in the region would primarily have affected the local elites, functionaries and merchants (Cerrón-Palomino 1989b: 49) according to the Inca language policy (Cérron-Palomino 1989a). Sociolinguistic differences in the use of Quechua may thus partially explain the different statements of the chroniclers. On the other hand, in the appointment certificate of Melchor de Morales, who became priest of the doctrina of the repartimiento of Sechura and parts of that of the repartimiento of Catacaos in 1578, it is stated that the "lengua general de los yn[di] os" is suitable to teach the Christian faith to the indigenous people (Lequernaqué 2008: 31). Since *lengua general* usually refers to Quechua, it is possible that in the 16th century Sechurans were bilingual in Quechua.⁷⁰ Another relevant piece of information which

^{69 &}quot;[...] por la mayor parte hablan y entienden la lengua quichua y general quel ynga les dio".

⁷⁰ Though note that "Mossica", i.e. Mochica, was considered a *lengua general* by viceroy Francisco de Toledo (in office 1569-1581, see López 1889: 549).

suggests bilingualism in the Far North is the background of Felipillo, the indigenous translator who accompanied Francisco Pizarro during large parts of the *conquista*. In the account of the mestizo chronicler Garcilaso de la Vega (1829, vol. 3: 410), Felipillo was originally from the island of Puná but had acquired knowledge of Quechua during a stay in Tumbes from second language learners. Finally, it is hard to imagine how the "tallanas yungas" (Legnani 2005: 77-78) who were already mentioned earlier could inform Mancu Inca Yupanqui in Cuzco about the arrival of the Spanish invaders without some knowledge of Quechua.

Another important aspect of the presence of Quechua on the North Coast is that, at least after Spanish conquest, there were indigenous people present in the region who spoke Quechua, but not the local indigenous languages. This is shown by the protocol of a 1613 legal conflict in Piura brought to light by Huertas Vallejos (1995: 107), which mentions that different interpreters for Tallán and Quechua (one of whom hailing according to himself from far-away Chachapoyas) were appointed for the process.

The pesence of Culli

There is toponymic evidence for the presence of speakers of another language centered in the highlands on the North Coast, namely Culli.

The names of the salines of Colpabal (Huertas Vallejos 1995: 66) and Bayobal (Huertas Vallejos 1999: 75, today Bayóvar), with their characteristic ending -bal, suggest a Culli presence in the Sechura area at some point of time. Torero (1989: 226) suggests a meaning 'plain, field' for the element -bal in Culli toponyms. The first element of the toponym Colpabal is of Quechua origin, see Ancash qullpa - qollpa 'alum, nitrous ground on which the animals lick' (Carranza Romero 2003: 186), qolqa 'saline' (Parker & Chávez 1976: 143), Ayacucho-Chanca qollpa 'saltpeter, nitrous ground' (Soto Ruiz 1976: 95), Cuzco-Collao gollpa 'saltpeter bed, salitre' (Hornberger & Hornberger 1978: 188). Such apparently hybrid Quechua-Culli toponyms are not uncommon, and the semantics of both elements befit the designated place. However, the Sechura area is about 300 kilometres from the 'heartland' of what is thought to be the erstwhile dominion of the Culli language in the inland southeast of the Illescas peninsula. Relevant toponyms are, however, not only found in the Far North. There is a place called Huabal in the Lower Chicama Valley and a Choroval in the Lower Moche Valley. Similar outliers of Culli-looking toponyms appear in the area of Celendín (Cajamarca department) and on the shores of the Marañón in the border region between the present-day departments of La Libertad and Huánuco (Torero 1989: 227).

Chimor was allied with a polity in the Cajamarca area in late prehistory, and emulations of Cajamarca-style ceramics suggests the possibility of colonies of highlanders on the coast even earlier (Shimada 1982). The Jequetepeque Valley served as the major route of exchange between the coast and the highland in Northern Peru from much earlier on.

The ethnohistorically attested Culli toponyms on the coast may thus be interpreted as a sign of coast-highland interaction for economic motivations, not necessarily as resettlement by the Inca or later the Spanish. Analogously, the same may be said regarding the presence of Mochica speakers in the highlands (see above in the present chapter).

Spanish

In the introduction to this chapter, it was stated that its goal is to reconstitute the linguistic situation in Northern Peru as it existed in early colonial times. This situation, of course, also includes the presence of the Spanish language. Spanish must have entered a complex sociolinguistic relationship with the indigenous languages, a relationship which probably involved asymmetric bilingualism to various degrees at various points of time (indigenous people speaking Spanish alongside one or more indigenous languages but descendants of Europeans not usually speaking an indigenous language).

Spanish is of significance for present purposes because its introduction to the North Coast and the sociolinguistic factors associated with this are the ultimate reason for the demise of the indigenous languages which this book is about. The final sections in the chapters on the individual languages provide what information is known on the timing and other specifics of the language shift in each case. But Spanish is also important because it is the native language of most of the authors who bothered to produce descriptive material on these languages in the form of grammars, wordlists, or other types of documents. Also, it was the language of the chroniclers and many other writers whose works contain remnants of the relevant languages in the form of isolated words, as well as of the unknown scribes who produced accounts of visitas or protocols of lawsuits which contain pertinent if scant information. As such, the phonetic, phonological, and grammatical properties of Spanish formed, consciously or unconsciously, a kind of interpretative background for the bulk of linguistic work carried out on the languages of the North Coast as well as other works that can be exploited for their study. Likewise, Spanish orthography and its historical development forms a crucial backbone for the study of the materials. Even though this book is about the languages of Peru's North Coast, therefore, some aspects of Spanish diachronic phonology and orthography are discussed in Appendix E.

IV. The Tallán languages

The name Tallán

The origin of the name Tallán is not clear, as the reference of designations like 'Tallán', 'tallanas', etc. varies in colonial sources. In the first known mentioning, as <tallana> in a report by Estete (1987 [1545]: 286), the term actually refers to the Chira River and thus not to a people (see Arrizabalaga Lizárraga 2008a):

[...] from here [the Tumbes area] in 20 leagues distance there was a torrential river called Tallana, of many villages, in which there were officials and judges installed there at the order of that great lord [Atahualpa].⁷¹

Only about 30 years later, however, Zárate (1555) uses the term as the designation of one of the ethnic groups of the Peruvian Far North.⁷² Oviedo y Valdés (1855: 224-225), finally, uses "tallanes" as the name of a language spoken in the "Pira" (Piura or Chira?) Valley:

At the river they call Pira [sic!], which is at thirty leagues having passed Tumbez, where Sanct Miguel was first founded, there is a language and they call it Tallanes [...] other eighty or ninety leagues from this river in the direction of the village of Trujillo there are other languages which they call Mochicas.⁷³

Later, the terms and/or their designations become muddled up even more. Hence, a certain Francisco de Mendoza (quoted in Arrizabalaga Lizárraga 2008b: 53) can ask the king of Spain in 1604 to be allowed to return to Catacaos after a stay in Spain by pointing out that "I know the general language which your highness oblige the clerics to know and likewise I speak the tallan language of the valleys of Trujillo". "Unless Mendoza interpreted the geographical range of the "valleys of Trujillo" very liberally (which is quite possible), it appears that he was praising his knowledge of the Mochica language. Hence, the fate of the term *tallán* and its variants appears to be somewhat similar to that of *yunga*, gradually expanding its denotational range by a chain of metonymies.

Etymologically, Arrizabalaga Lizárraga (2008a) relates the term to a Quechua verb *talla*- 'to lie down'. Estete's <tallana> would then be a nominalization meaning 'place where one lies face down' and then, according to Arrizabalaga Lizárraga (2008a) 'pallet, simple bed'. This, according to him, could either be a description of the plain of a wide

^{71 &}quot;[...] de allí a veinte leguas había un río caudal que se dice Tallana, poblado de muchos pueblos en los cuales había corregidores y justicias puestos por mano de aquel gran señor". It is potentially relevant that Tacalá appears as the indigenous name of the Piura River in a document of 1593 (published by Huertas Vallejos 1996: 116).

⁷² See Arrizabalaga Lizárraga (2008a) and Hocquenghem (1994: 33-39) for further early uses of the term.

^{73 &}quot;En el rio que llaman de la Pira [sic!], ques á treynta leguas, passado Tumbez, donde primero se pobló Sanct Miguel, hay una legua, é llámanse *tallanes* [...] En otras ochenta ó noventa leguas que hay desde aqueste rio hasta la villa de Truxillo hay otras lenguas que llaman *mochicas*".

^{74 &}quot;[...] sé la lengua general que Vuestra Alteza manda que los clérigos sepan y asimismo hablo la lengua tallana (sic) de los valles de Trujillo".

and shallow river such as the Chira or it could refer to the fact that one the activities of the Tallanes was to fashion beads from *Spondylus* shells, which they did face down to not waste a bit of the precious material. An older popular theory, articulated by Cruz Villegas (1982: 27-28) and unattractive for several reasons, is that the source of the term is a Quechua word for 'plow' represented for instance in Santo Tomás's (1560b: 14) Quechua dictionary as <tachla>.

Sources on Tallán

Martínez Compañón

In the late 16th century, Quito's bishop Luis López de Sólis commissioned catechisms to be produced for the languages spoken in his diocesis, which at this point of time included Northern Peru (see more details on the document in the chapter on previous classification attempts). While Tallán is explicitly mentioned as one of the languages for which catechisms were ordered, it is unclear whether the materials were actually produced; Arrizabalaga Lizárraga (2008b: 54) considers it unlikely.⁷⁵

Hence, the earliest and at the same time only dedicated linguistic documentation of the Tallán languages are the wordlists which Baltasar Jaime Martínez Compañón (1985 [1782-1790]), bishop of Trujillo in the late 18th century (Figure 12), collected for the indigenous languages spoken in his diocesis.⁷⁶ The so-called 'plan' forms part of a monumental documentation of life in colonial Peru which also includes a rich array of watercolors. The work breathes the spirit of the enlightenment, and Martínez Compañón worked hard on the betterment of the Trujillo region by effectuating a series of reforms.⁷⁷ The volume is the result of an extensive inspection, lasting from 1782 to 1785. Accompanying Martínez Compañón were his personal secretary Pedro de Echevarri and other adjutants (Berquist 2007: 64). It appears that Pedro de Echevarri is the

⁷⁵ Since López de Solís explicitly requested that the catechisms should be send back to Quito once they were finished, one place to look for possible fruits of the call from Piura would be the archive of the archbishopric of Quito. However, a search for linguistic materials there effectuated in October 2015 did not yield any results.

⁷⁶ Another document which has been taken as a possible direct source for Tallán are the etymologies of a list of toponyms and personal names elaborated by Manuel Yarlequé and dated to 1922. They are published in Cruz Villegas (1982: 37-39). However, this list appears to lack scientific value (see Diez Hurtado 1997: 152, fn. 2).

⁷⁷ From the perspective of an anthropological linguist of today, Martínez Compañón's efforts are two-sided, for part of the betterment he envisioned was the profusion of Spanish at the expense of the indigenous languages. About Huancabamba, an *auto* of Martínez Compañón is attested to the effect "[...] that this priest shall pursue to make general the Spanish language in his parish, both in the interest of its parishioners as well as for his own benefit and that of the prelates" ("[...] que dicho cura procure hacer general en su curato la lengua castellana, tanto por el interés de sus feligreses, como por el suyo propio, y el de sus prelados", quoted from Domínguez Morante 2008: 111). See also Berquist (2007: 92) on Martínez Compañón's language policy.

one who wrote the captions for the watercolors in Martínez Compañón's work (Berquist 2007: 25) and, since the handwriting is identical, by inference also the 'plan'.

There are two originals of Martínez Compañón's work, one kept in Bogotá, the other in Madrid. The wordlists of the 'plan' as represented in the Bogotá version have been republished in Zevallos Quiñones (1948b), and a complete facsimile edition of the Madrid version of Martínez Compañón's entire work is published as Martínez Compañón (1985 [1782-1790]). In both versions, the 'plan' contains wordlists of 43 items for every language then spoken in the diocesis of Trujillo: Spanish, Quechua, Mochica (featured under its pseudonym 'Yunga'), Sechura, Colán, Catacaos, Culli, Hibito, and Cholón. What Martínez Compañón calls 'Colán' and 'Catacaos' is usually summarized under the label Tallán, a practice which this book adheres to. The list from the Madrid edition appears here as Figure 13; Appendix A offers a complete transcription of the Sechura, Colán, and Catacaos wordlists from Martínez



Figure 12. Baltasar Jaime Martínez Compañón. https://wikipedia/commons/8/87/Baltazar_Jaime_Martínez_Compañon_y_Bujanda.jpg.

Compañón's 'plan' along with annotations on individual items that summarize key observations which emerge from the subsequent discussion.

The Madrid and the Bogotá versions differ somewhat from one another: The Madrid version is headed by the title "PLAN que contiene 43. vozes Castellanas traducidas álas ócho lenguas que hablan los Yndios de la costa, Sierras, y Montañas del Obpdo. de Trugillo del Perù". Spacing between characters becomes smaller towards the end, presumably on the realization on behalf of the writer that space was running out. The title of the Bogotá version is "PLAN que contiene 43. vozes Castellanas traducidas á las 8. lenguas que hablan los Yndios de la costa, Sierras y Montañas del Obpdo. de Truxillo del Perù". One can note that the spelling of the seat of the diocesis has been changed from <Trugillo> to <Truxillo>, perhaps reflecting orthographically the voiceless character the fricative must have had by the time of writing (see Appendix E for details).

Longito	Lenona	II. enuna Vinos della Ba	Annua de Codunes en	T. Principal de Cata		The Paris of Paris	Transmitter of the second second	T. on an adoloff halanof de
Castellana	Quichua.	pine de Tragilla, y Saita, la Provincia de Piara . la Provincia de Piara la Provincia de Trara.	a Provincia de Piura	la Provincia de Piura	la Provincia de Puera.	Pingal Charachucolomeranes della lillas la misma Gomeranes	Conversiones delluidillas	la mismas Comerciones.
)ios	Dias	Yos	Dioos	Tios	Thios	Yaid	Dioschu	Dias
Lombre	Ccari	market and a	Sucda	Yatadlam	Aszar	USi	Numm	Num.
Muger.	Alma	Change	A l	A1	Pichim	Ahh	Krite	Yld
Cutano	Ven		Culamachi	Cuerna	Current Current	Calmin	A Kachzi	A cho-mes
Corazon	Sonco.	Cheres	Chushimma	Nessinim	Nic sinichim	chucuall	Thus Suic	Alumach
arne	Aicha		Colt	Carne	Cool	Avcha	Amaa.	Chep
Hueso	Tullu	Loti	Ruño	Dladlapiram	Lalapechen	Moscar	Chepte	chål
Padre	Yaya	Elquic.	Jachi	Mam	Pateri	Onimi.	*******	Appa
Madre	Мата	Enguic	The Party Street	Niin.	Nichim	Mamk	Same and desired	Appan
Hip	Churi	Ezquic		Hicum	Yeuchim	11	· continue	Apm
Н. ји.	Vitalita		Nosm	Hlcum	Yeuchum Capuc		Noo	Anna
lermano.	- Vauque	-	Meann.	Flam	Funchum		Moscaa	Α
Comer	Micro	Dence	Dapmem	Ania	Annachin	Men.	Longue	Amor
Rohen	Vhice		Tutus			-	Verie	Nin
Reir	Acii		Parene	Change			Collam	Chasam
- John	Hanger	Tamicec	Wic	200	- Constitution	Acasii	AFracquem	Vo= vam
Morin	Frigini	Limid	Lactate	Digenti			Calouesquim	Nooli = cho
Gozo	Custemi	Ollimouedanid	Otranc	Chapasin		Cuhi	Misuovem	Alloilubactum
Dolor	Nanacui	Banomeec	Punuc	Masic	1. 1.	The same of the same of	Calac	Ysiam
Mueric	Huáñui	Lemicec	Lactueno	Dlacati	Ynataclacatu	-	Huane	Micol
lich	. Hanac-pacha	Cúcia	Cuchuc yor	Curic-rap.	Cielo	Cielo	<u>Рихат</u>	Centa
Sol	Ymi. 1	Hån	Voro.	Turinap	Nap	Sú	Nim.	Musac
ulma	Quilla			Nap.	Nam.	Mün	Cuina	Peel
strellas	Coillur	Chonyic		Chilpudup	Estrellas	Chuup.	Caychas	Que = nac.
nego	Nina	-	-	Huyur.	Ituanararde	Mil	Ucche.	VET
Territo.	Huarra		F16	Curat nap	V.C	Trimita	Coctom	
a aro	Przceu		Yarbab	Yalau	Icya	Lichum		Z 1
Lerra	Allpa		Loct.	Dlurum	-	Lus		ranspey
Animal	Llama	Cal, a Cab	A nimbla.	Animal	****	Animal		Anund
A rbol.	Hacha		Nusuchu	Arbol	Chiquasam	-	Distriction.	Mees=Tigup
2 101100	Hachap- Chagum	E tub		Lucaram	-	1	T. K.	P. P.
Flor	Cacila	Mechen	P. ama	Labutram		-	Churchum	Niman
Tiern	"Man of the state	Filet	-	Lands	Caseham	Hudyohii	Lloona	Overious
Prince	Vince	Pear	l'antièce!	Aguaral	Tanuacol	Paihas	Ouide	Pullo
A Origin	Varia	T.o. o. Tro	Turbi	Vin	Yub	Con	Tanana and and	Ourit
Mar	Mama-ceacha			Amum.	A maun	Onida		Socotlo
Lio	Mayu	Nech.		Yub	Turuyup	Uram.	Cecllutrachi	Quot = ysoquot
as.	Pocchin	Olas	Caph	Llamas	Olas.	Computeasu	Omum.	Yoursingm
Lluvia	Para			Nuo	(Illayaquinunt	Caut	Laamelus	Lisiac
						-		

Figure 13. The Madrid version of Martínez Compañón's 'plan'. $\ \ \,$ Patrimonio Nacional, reproduced with permission.

More important for the philological analysis of the lists is that spacing between letters is nearly even in the Bogotá version and that no problems to fit the content to the line are apparent. Partly, this is achieved by writing <8.> instead of <ocho>. This suggests that the writer has learned from previous problems, and hence that the Bogotá version is a copy of a prior version, possibly that kept in Madrid. Further, the Bogotá list is 'harder' to read in the sense that a clear reading of some of the items is difficult to extract. More often than in the Madrid list, there is some ambiguity in the position of the tilde, to the effect that it is not always clear which letter it is meant to modify. Such ambiguities in the Bogotá version too can be interpreted as evidence that it has been written after the Madrid version, more quickly and with less care than when writing down the words for the first time. This is also congruent with the known history of Martínez Compañón's work: having received the post of Archbishop of Santafé de Bogotá in 1788, Martínez Compañón had copies of all his records drawn up to take with him to Colombia (Berquist 2007: 8, fn. 12). On a different route, Salas García (2002: 121-130) arrives at the conclusion that the Madrid version is original (or closer to the original), too.

Despite the differences between the two known versions, the lists generally give the impression of a carefully elaborated work. However, at the same time, it is clear that limitations of the Latin alphabet and the unfamiliarity of the author(s) with some of the sounds occurring in the documented languages leads to a loss of phonetic information. Several diacritics are employed; these surely reflect the intention of keeping this loss at a minimum and of capturing as precisely as possible the pronunciation of the indigenous words. Unfortunately, their significance is unclear because they are not explained. However, the fact that certain diacritics occur only in the lists of some languages, such as an enigmatic diacritic in the Culli and Mochica lists which looks like a caron on top of (or under) a circumflex and which thus creates a star-like shape, makes it unlikely that they are merely ornamental. Their possible functions will have to be discussed in more detail in the examination of the data.

Table 3 presents my working transcriptions of those Tallán (i.e. Colán and Catacaos) items in which the Madrid and the Bogotá version differ or may differ. Particularly unclear items in the Bogotá list are accompanied by a question mark in parentheses.

It is quite possible that the 'plan' is the work of more than one author. Certain differences in the transcription of the Colán and Catacaos data support multiple authorship:⁷⁸

⁷⁸ There is another possible explanation for the existence of two separate lists for apparently very closely related varieties. It seems that the people originating from the region were settled in the *parcialidades* on the lefthandside of the Piura River (Narigualá, Menón, Mecache, Mechato, Mécamo), which provided better conditions and infrastructure for agriculture, while those coming from farther away had to make do with the less profitable lands on the righthandside in the *parcialidades* of Motape, Pariñas, Marcavelica, La Chira, and Cucio (Diez Hurtado 1997: 158-159; 165). Diez Hurtado (2006: 119) speculates that this configuration, with groups of different provenience and thus different languages or at least dialects, is the ultimate cause for why Martínez Compañón compiled two separate lists for the Tallán area.

A notable difference between the lists is the abundance of diacritics in Colán which contrasts with their virtual absence in Catacaos. Most salient, however, is the difference in the transcription of the word for 'son', given as <hicum> in Colán and as <ycuchim> in Catacaos. The value of the letter <h> is not clear, given the gradual loss of the sound in many, but not all varieties of Spanish (see Appendix E). It is quite possible that a (perhaps slight) aspiration is implied for Colán, but not for Catacaos. On the other hand, the spelling differences may represent not phonetic differences in the onset, but reflect the transcription habits of two different transcribers, one preferring an initial <h> without phonetic value and the other doing without it and transcribing the initial vowel represented as <i> in Colán as <y>. In this context, it is interesting to note that <hergones>, a local word for a particular bee in Lecuanda's (1861b [1793]) report on the geography of Piura, corresponds to <ergón> in Martínez Compañón's own work (Arrizabalaga Lizárraga 2007b: 76). One can observe the same difference between the presence vs. absence of initial <h> as in the 'plan' itself. Quite possibly, therefore, Lecuanda, who was Martínez Compañón's nephew, accompanied the bishop on parts of his trip and collected data at Colán, while Martínez Compañón engaged in work at Catacaos.

Colán		
Madrid	Bogotá	Gloss
<pirn></pirn>	<pim></pim>	'woman'
<dladlapirãm></dladlapirãm>	<dladlaperãm></dladlaperãm>	'bone'
<nũn></nũn>	<nuñ> (?)</nuñ>	'mother'
<cũm></cũm>	<cum> (?)</cum>	'drink'
<nãr></nãr>	<ñãr> (?)	'cry'
<cuiat ñap=""></cuiat>	<cuiat ńag=""></cuiat>	'wind'
<tũcurãm></tũcurãm>	<tùcuram> (?)</tùcuram>	'trunk'
<yabitiram></yabitiram>	<yabmram> (?)</yabmram>	'branch'
Catacaos		
Madrid	Bogotá	Gloss
<guayaquinum></guayaquinum>	<guaraquinum> (?)</guaraquinum>	'rain'

Table 3. Working transcriptions of Colán and Catacaos lexical items with differences between the Madrid and Bogotá version of Martínez Compañón's 'plan'.

Indigenous vocabulary in colonial and ethnographic materials

The dedicated linguistic documentation of the Tallán languages is thus extremely scarce. In such a situation, indigenous vocabulary in colonial and ethnographic materials from the relevant areas can potentially be used as an ancillary source of information on the language or languages from which they probably derive. For Tallán, such items come mainly from two publications: Lecuanda's (1861b [1793]) geographical description of Piura as analyzed in Arrizabalaga Lizárraga (2007a), Ramos Cabredo's (1950) and Ramos Cabredo de Cox's (1958) lists of regional vocabulary of Piura.⁷⁹

Such a corpus is not easy to analyze. For one, items may contain Spanish morphology or additional phonological segments to make them fit the constraints of Spanish phonotactics, for example word-final vowels (see further Appedix E). More serious is the possible intrusion of non-Spanish vocabulary from indigenous languages other than those of interest, in which case they should not enter into consideration at all. Ramos Cabredo, for instance, mentions <lá> - <rá> - <ná> - <gá> 'water' among words used in Piura. While this word is clearly of non-Spanish origin, it would be wrong to deduce from its presence in the Far North that it originates in the indigenous languages of this region: it is a word from the Mochica language. As this example shows, and as Arrizabalaga Lizárraga (2007a: 82) emphasizes, too, it is a very risky enterprise to assign local vocabulary from essentially non-linguistic sources to individual languages of the Far North. For the North Coast, the problem is exacerbated by the extreme geographical proximity of the two former indigenous languages of the Far North and the resulting very real possibility that vocabulary has diffused on a local scale through the medium of Spanish. The degree of confidence that candidate items really originate from a particular language is somewhat higher when a specific location where the forms are used is mentioned. But even then, there is the very real chance that their usage at present cross-cuts the old Tallán-Sechura linguistic boundary or indeed the geographical boundaries of the Far North Coast. One example is <chicula> 'large semi-open calabash used to extract liquids from clay vessels', which Ramos Cabredo de Cox (1958) associates with Catacaos specifically, but which according to Huertas Vallejos (1999: 211) is also in use in the Sechura area.

Despite these serious issues, I nevertheless attempt to make tentative statements regarding the origins of at least some of the terms mentioned by Lecuanda (1861a [1793]). I have gone through all terms in Lecuanda's report which Arrizablaga Lizárraga (2007a) considers to be of unclear (and hence, possibly Tallán or Sechura) origin and have

⁷⁹ These are not the only materials available for study, and in fact they constitute only the first step towards a more comprehensive corpus of regional vocabulary with a possible origin in the local languages. Other sources that should be consulted in the future are the folkloric dictionaries of Puig-Tarrats (2007) and Arámbulo Palacios (1995), but include also Cruz Villegas (1982), Camino (1987) and others.

attempted to ascertain the areas where they are used at present. I discarded all items that are either used in a wider area outside of coastal Piura as likely not of Tallán origin. The reasoning behind this is that, while it is not impossible that an originally local word gained wider currency later on, it is more likely that it is a foreign intrusion into the area. Furthermore, I disregarded words that are also attested at Sechura specifically (Huertas Vallejos 1999). The origin of such forms is unclear, and it is conceivable that they originate either from Tallán or from the language of Sechura.

This procedure yields some names for animals, plants, and products in Lecuanda's (1861b [1793]) report on Piura that may have a Tallán origin. These include:

Possible Tallán	Gloss	
<pumalan></pumalan>	'k.o. fish' (Lecuanda 1861b [1793]: 209)	
<cumbilulo></cumbilulo>	'coral snake' (Lecuanda 1861b [1793]: 197)	
<churucutula></churucutula>	'k.o. fish' (Lecuanda 1861b [1793]: 206)	
<arunchas>, <pihas></pihas></arunchas>	'k.o. guan, <i>Penelope</i> sp.' (Lecuanda 1861b [1793]: 198)	
<zoña> (with variant <soña> in other sources)</soña></zoña>	'long-tailed mockingbird, <i>Mimus longicaudutus</i> ' (Lecuanda 1861b [1793]: 203)	
<chucarumbas>, <tachun- gas>, <nimbuchez></nimbuchez></tachun- </chucarumbas>	different types of bees (Lecuanda 1861b [1793]: 204)	

Table 4. Names for animals, plants, and products in Lecuanda's (1861b [1793]) report on Piura that may have a Tallán origin3.80

In addition, Lecuanda's reports features the terms <guáltico>, <tailis>, and <sioque>, which satisfy the criteria mentioned above, too. All words denote specific kinds of trees (Lecuanda 1861b [1793]: 212-213).⁸¹

Lecuanda's description also appears to be a major source for the regional vocabulary found in Ramos Cabredo (1950) and Ramos Cabredo de Cox (1958). However, Ramos Cabredo unfortunately also considered terms from other descriptions of Lecuanda, in particular that of Trujillo (Lecuanda 1861a [1793]). I have filtered her list of lexical items according to three criteria similar to those mentioned above: first, there should be no evidence for use outside

⁸⁰ Arrizabalaga Lizárraga (2007b) also considers the words https://doi.org/10.10/ also considers the words https://doi.org/10.10/ also considers the words https://doi.org/10.10/ also considers the words https://doi.org/10.10/ and https://doi.org/10.10/

⁸¹ Words documented by both Lecuanda (1861b [1793]: 221, 215) and Huertas Vallejos (1999), a mayor source on regional vocabulary of Sechura, are sito> 'kind of herb, Sesuvium portulacastrum' and <yupisín> 'glue extracted from algarrobo tree (Prosobis sp.)'. In addition, Ramos Cabredo's <choos> 'dogs' can be excluded as an (exclusive) Tallán term on grounds of its appearance in a Sechura vocabulary collected by British botanist Richard Spruce in the form of <tono>; see the pertinent section in the chapter on Sechura for more details on this source.

of Piura, second, the plant or animal in question should not be associated with the highlands or temperate climate more generally, and third, it should not be mentioned specifically in connection with the Sechura area.⁸² The following terms remain:

Possible Tallán	Gloss
<arerico></arerico>	'k.o. reed, said to make hair grow at Catacaos'
<cuncun></cuncun>	'plant used against bubonic plague' (Ramos Cabredo de Cox 1958: <cuncún>)</cuncún>
<chapapoya></chapapoya>	'k.o. bean'
<retoco></retoco>	ʻk.o. plant'
<siope></siope>	ʻk.o. plant'
<acharán> ~ <charán> '</charán></acharán>	k.o. shrub which provides seeds used in coloring'
<lunguapo></lunguapo>	'tree or shrub which provides wood for construction'
<paltajiro></paltajiro>	'tree or shrub which provides wood for construction'
<cucamba></cucamba>	'beetle'
<guanchaco></guanchaco>	'k.o. marsupial'
<titiguay></titiguay>	'wasp's nest'

Table 5. Names for animals, plants, and products in Ramos Cabredo (1950) and Ramos Cabredo de Cox (1958) that may have a Tallan origin.

Ramos Cabredo de Cox (1958) associates all the flora terms with Catacaos specifically; <cumbilulo>, <cucamba>, <guanchaco>, <soña>, and <titiguay> are among the fauna terms for which the same is true.

⁸² Words which are also attested in Sechura according to Huertas Vallejos (1999) are the following: <catil> 'k.o. dark brown cotton', <bickayo> (Ramos Cabredo 1950: <vichayo>) 'k.o. shrub with small edible fruit, branches used for construction', <nuche> (Huertas Vallejos 1999: 58: <ńuche>) 'Jerusalem's thorn', <chumuco> 'a kind of vegetable with greenish shell and yellow pulp', <fenjo> 'flexible stalk around which totora is braided' (Huertas Vallejos 1999: 59: <fenco> 'k.o. reed of the Scirpus genus'), <chicula> 'large semi-open calabash used to extract liquids from clay vessels', <churuco> 'big calabash with small hole to guard food, kept in a woven bag', <huas> 'calabash with a rectangular orifice almost in the middle part, used to extract liquids from vessels' (Huertas Vallejos 1999: 209: <waz>), <nicula> 'club made from algarrobo root' (Huertas Vallejos 1999: 274: <nícula>), <silluque> 'indigenous loom' (Huertas Vallejos 1999: 278 and Brüning 1989 [1922]: 72: <sillique>), <pachucho> 'germinated maize to produce chicha', <chila> 'whirlpool', <yacún> 'loose soil, surface dust' (Huertas Vallejos 1999: 23: <yucún>), and <jañape> 'k.o. lizard'. In addition, Ramos Cabredo de Cox (1958: 28) mentions the utensils <hulera> and <tupe>; the later is a thick pole used in weaving according to Huertas Vallejos (1999: 279). Indentation suggests that these are recorded for Sechura specifically, but this is not quite explicit. In addition, Ramos Cabredo de Cox also mentions <tarrilla> and <yacala>, which are terms related to weaving and which appear in Brüning (1989 [1922]: 72) as <tasila> and <llacala> respectively in connection with Sechura.

In addition, Ramos Cabredo (1950) offers a collection of terms which, for the most part, are related to daily culture of Piura, which I have filtered according to the same criteria mentioned above to identify and remove words of Quechua, Spanish, or other foreign origin. Remaining possibly local (Tallán) terms are:

Possible Tallán	Gloss
<ajango></ajango>	'netting to hang objects'
<collona></collona>	'roof of hut against rain, only partially covers the building'
<shishuna></shishuna>	'hand-made tablecloth, white with narrow coloured hem' (Hocquenghem, Franco & Reyes 1987: 385: <sisuna>)</sisuna>
<copus></copus>	'traditional dish'
<soroco></soroco>	'stored dried sweet potatos'
<taca></taca>	'chicha grounds'
<copé></copé>	'petroleum'
<envachu></envachu>	'being in company of women'
<guango></guango>	'flake'
<guayanche></guayanche>	'rump of birds' 83
<huachina></huachina>	'cord hanging from a beam forming a trap to catch go-getters'
<huapala></huapala>	'agricultural implement' ⁸⁴
<huashuar></huashuar>	'seek refuge in a cave or hole dug in the slope of paths for protection from rain or wind'
<jacar></jacar>	'contract disease or spell from touching objects belonging to witchers'
<marcabel></marcabel>	'sojourner or commissionee, used in "Satacaos" [sic!]'
<ñijes>	'persons with cleft lips'
<picho></picho>	'lively child'
<rungo></rungo>	'uncultivated person'
<shulines></shulines>	'Andean siskin'
<tupature></tupature>	'stone (k.o.?)'
<tuguyero></tuguyero>	'stone (k.o.?)'
<zanora></zanora>	'small mudslide, heavy whitewater caused by strong torrential downpours'

Table 6. Further terms from Ramos Cabredo (1950) that may have a Tallan origin

⁸³ This word is attested elsewhere in connection with love magic.

⁸⁴ Nick Emlen (personal communication) points out a possible Quechua connection: Junin-Huanca Quechua has the term *wapa* 'plot on which beans, potatoes, or any other tubers have been sown' (Cerrón-Palomino 1976: 147).

Of these terms, <ajango>, <collona>, and <shishuna> are associated with Catacaos specifically according to Ramos Cabredo de Cox (1958: 28).85

Personal names

Indigenous last names from the Piura and Chira regions, i.e. what for all we know were core regions of the Tallán language, can be culled from a variety of sources. Their origin is heterogeneous: some of the names are attested in colonial protocols of lawsuits or other materials, but for the bulk of names, which come from Ramos Cabredo (1950) and Ramos Cabredo de Cox (1958), such information is lacking.⁸⁶

The names showcase some recurrent final elements. One such element is -qué, which appears to be associated with Catacaos specifically. Particularly frequent is in fact -naqué. It is therefore possible that one is dealing in fact with two distinct elements, or that -naqué is bimorphemic. Personal names featuring either of the two elements are Adanaqué, Ayalaqué, Changanaqué, Chapilliquén (with variant Chapilliqués?), Chiroque, Icanaqué, Ipanaqué, Lecarnaqué, Lequernaqué, Yamunaqué - Llamunaquen - Llamunaque - Llamunaq, Mullunqe, Sernaqué, Sique, Susanaqué, and Yarlequé. Other recurrent endings include -lupú (Yaquelupú, Yequerlupú, Piaulupu, Belupú, Cordalupú, Culupú, Guaylupo, Lalupú, Macalupú, Macalupú, Macarlupú, Salupú, Sirlupú, Tirlupú, see also Lupuche), -valú - -walú (Magualú, Cutivalu, Savalu, Queravelú, Querevalú), -chere - -cherre (Yunchere, Tanchere, Lancherre, Pacherre, Tupucherre), -che (Itache, Quineche, Pulache, Lupuche, Namuche, Pasache, Rumiche), -pac (Puchupac, Quepupac, Tuyepac), and -til (Miguaçucatil, Yuncatil - Iuncatil - Uncatil, Puycatil).

A comparative analysis of the last names attested in the Tallán-speaking area shows some overlap with names from Sechura. The names Belupú, Chapilliquén, More, Paico, Rumiche, Querevalú, Tezén, Tume, and Vite (or variants thereof) are attested at both Sechura and Catacaos. Since Belupú, Chapilliquén, and Querevalú bear characteristic elements of the Tallán-speaking area that recur there but not at Sechura, it is likely that the names (or more accurately, their bearers or their ancestors) originate from the area where Tallán was once dominant. Also, Lupuñaque, Nuyurnaque, Pinaque, and Charnaque, names attested in the Sechura area, appear to bear the typical Tallán ending *-naque*. Except for Charnaque, all are attested as early as 1572, suggesting either preor early post-Columbian interactions. On the other hand, Miguaçucatil and Puycatil, names attested in the Tallán speaking area, appear to bear the Sechuran final element *-catil* (see also discussion of personal names of Sechura in chapter v). As this case shows,

⁸⁵ Ramos Cabredo (1950: 51) also mentions Sayapullas and Tallamponas as alternative names of the Capullanas, the female rulers of the Far North. I have not encountered these in any ethnohistorical source.

⁸⁶ A list of last names that can be putatively associated with (former) speakers of Tallán can be found in Appendix D I.

the onomastic influence is both ways, even though that of Tallán on the Sechura area appears to be stronger than the other way around.⁸⁷

Sound system

The tilde

In this section, I begin with the analysis of the available data that was presented in the preceding section. The main source of information remains Martínez Compañón's 'plan', but local vocabulary items and personal names are adduced as ancillary sources where appropriate.

As is true of other lists of Martínez Compañón's 'plan', there are diacritics with unclear function especially in the Colán wordlists. Elucidating what sounds may have existed in the language and how they were distributed requires an analysis of these diacritics. Most prominent is the tilde. In the Colán vocabulary, a tilde occurs both on consonants and on vowels. Among the consonants it modifies are $\langle \tilde{s} \rangle$, $\langle \tilde{n} \rangle$, $\langle \tilde{m} \rangle$, $\langle \tilde{y} \rangle$, and $\langle \tilde{g} \rangle$. Particularly frequent is $\langle -\tilde{m} \rangle$, but that is because it is part of a suffix $\langle -\tilde{v} \rangle$ in kinship terms (see further below on this and other possible grammatical elements in the extant data). The most surprising token is that of $\langle \tilde{s} \rangle$, because it appears in the Spanish loanword $\langle \tilde{t} \rangle$ 'god'. In the Catacaos list, in contrast, the tilde only occurs in $\langle \tilde{n} \rangle$. As for vowels, while $\langle \tilde{u} \rangle$ and $\langle \tilde{a} \rangle$ are found in the Colán data, $\langle \tilde{i} \rangle$ is absent (mid vowels are rare in the vocabulary, see further below for more discussion on vowels). The tilde is entirely absent as a modifier of vowels in the Catacaos list.

The tilde also occurs with unclear significance in the Spanish title of the wordlists: as already mentioned, the Madrid list is headed by the title "PLAN que contiene 43 vozes Castellanas traducidas álas ócho lenguas que hablan los Yndios de la costa, Sierras, y Montañas del Obpdo. de Trugillo del Perù". Here, the tilde is used in at least three different manners, namely to distinguish the palatal nasal from the alveolar one as in the modern standardized orthography of Spanish, but also to indicate an abbreviation as seen in <Obpdo.> for *obispado* 'diocesis', and this despite the presence of a full stop that appears to do the same job. Further, a tilde is found with unclear function in <álas> and <ócho>. These occurrences make it even less easy to identify a consistent function of the tilde in the vocabularies.

⁸⁷ In addition, the name Sabalú, attested in the Sechura area, may well be a combination of the Sechuran name Saba with the Tallán final element -alú. Macalupú may represent a similar case when compared with Maca, also a name attested at Sechura. Furthermore, some very similar names appear in the Tallán-speaking area and the Sechura region, including Nima (Catacaos) – Ynima (Sechura), Pasache (Catacaos) – Pasacha ~ Pasaccha (Sechura), Puchupac (Catacaos) – Puchu, Puchupal ~ Puchupai (La Muñuela), Lancherre (Tallán-speaking area) – Lachere ~ La Chere (Sechura). These names are attested early at Sechura.

Nevertheless, the most plausible interpretation seems to be that it functions as an indication of some sort of nasality associated with the sound that it modifies or the syllable it is part of. This may not be a consistent pattern, but there is evidence that suggests this function in many cases. To begin with, the tilde was originally used as an indication for the omission of a letter for a nasal sound (whence its function to indicate nasal vowels e.g. in Portuguese orthography, and whence also <ñ> for the palatal nasal, which was spelled <nn> in Old Spanish). Only in later times it acquired the function of indicating any abbreviation as just seen in <Obpdo.> Hence, it is inherently connected to nasality in its origin.

Alongside this general tradition, an association with nasality is also suggested specifically within colonial linguistics by a comparison with another colonial grammar. In Pedro de la Mata's 18^{th} -century grammar of Cholón, $\langle \tilde{g} \rangle$ is associated with the velar nasal [ŋ], a sound for which there is no conventional transcription in Spanish. Mata transcribes the velar nasal variously as $\langle m\tilde{g} \rangle$, $\langle \tilde{g}(u) \rangle$, $\langle ng \rangle$, $\langle n\tilde{g}(u) \rangle$, or $\langle \tilde{n}g(u) \rangle$ (Alexander-Bakkerus 2005: 94). Apparently, while $\langle \tilde{g} \rangle$ alone can represent the velar nasal, it is frequently accompanied by another letter which makes explicit the nasal character of the sound transcribed. Although the latter is not the case in Martínez Compañón's list, the use of the highly uncommon $\langle \tilde{g} \rangle$ appears to be analogous to that of Mata. Hence, for instance, Colán $\langle nu\tilde{g} \rangle$ may have represented [nuŋ].

A general interpretation of the tilde as having to do with nasality also makes sense for $<\tilde{y}>$ when comparative data are considered: if <hu \tilde{y} ur> is indeed a loan from or at least shared with Atacameño <humur>, 89 it would be natural phonetically for the intervocalic nasal to be integrated into Colán as a nasal sound. However, the precise phonetic value of $<\tilde{v}>$ is not recoverable.

Yet to be accounted for are $<\tilde{s}>$ and $<\tilde{m}>$. One possibility is that the tilde does not always modify the letter on top of which it actually appears, but either the entire syllable of which it is a part or that syllable's nucleus.

However, my general suggestion to interpret the tilde as associated with nasality may not go through in all cases, and it may have had several distinct functions which cannot always be recovered for individual cases. It cannot even be entirely ruled out that some cases are merely ornamental.

⁸⁸ A more complete overview of different representations of the velar nasal in colonial grammars of Central Andean languages and the possible value of their comparison for heuristic purposes when dealing with documents like Martínez Compañón's 'plan' is in Urban (submitted).

⁸⁹ See the chapter on shared vocabulary items for further discussion.

Sound correspondences between Colán and Catacaos

Colán and Catacaos, as has frequently been noted, are closely related varieties. Nevertheless, there are some heterogenous correspondences that can be discerned; some of them are virtually regular.

A particularly conspicious correspondence is that between Colán <dl> and Catacaos <l>. It is not clear what sound <dl> is meant to represent; a lateral fricative [1], possibly as part of the affricate [d1], would be a possible interpretation (see Adelaar & Muysken 2004: 400). The fact that Spanish *dios* 'god' is rendered <tios̄> in Colán may indicate the nonexistence of voiced alveolars in initial position; this should be borne in mind when interpreting what phonetic reality <dl> is meant to represent. There is one instance, <dlurum>: <durum> 'earth', in which <d> occurs initially in Catacaos as the corresponding element to Colán <dl>.90 The form is likely ultimately a borrowing, which may be part of the explanation of its exceptionality. In fact, Colán <dlurum> and Catacaos <durum> 'earth' belong to a set of widely diffused forms on the Pacific coast (Urban 2014, see also the chapter on shared vocabulary items). In these, invariably the initial sound is a voiced alveolar /d/ or, for poorly known languages, such a sound is at least suggested.

A final recurrent correspondence that distinguishes the two varieties is that between <g> or <ḡ> in Colán to <m> in Catacaos, as in <nuḡ> : <[guayaqui]num> 'rain' and <nag> : <nam> 'moon'. Incidentally, this further supports the interpretation of $<\tilde{g}>$ as [ŋ] since a nasal is of course phonetically closer to [m] than other possible interpretations of $\langle \tilde{g} \rangle$ such as [g] or [x]. 91 As I discuss further in Urban (submitted), in Luis de Valdivia's early 17th-century grammar of the Huarpe language Allentiac, and at least once in the fragment of his work on Millcayac, <g> occurs as the representation of the velar nasal (Viegas Barros n.d.: 7-8). The same is true of Valdivia's (1887 [1606]) Mapudungun grammar. The manner of representing the sound, needless to say, is also very similar to what occurs in Tallán. But there are even more interesting observations made by Viegas Barros (n.d.: 8): a recurrent though not regular alternation of <g>, which also must have represented [ŋ], with <m> takes place, both within the languages as well as across them, e.g. Allentiac <telag> - Millcayac <telam> 'maize'. Viegas Barros (n.d.: 7-8) suggests that the sounds represented by <m> and <g> were allophones of the same phoneme because of their frequent alternation. Since in Tallán, languages not or not closely related to Allentiac, almost exactly the same improbable correspondence

⁹⁰ Cerrón-Palomino (2004a: 95) reads the Catacaos form as <d'urum> and suggests that the apostrophe indicates the simplification of the consonant cluster found in Colán. This is mistaken, because there is no apostrophe present in the transcription in the first place: what Cerrón-Palomino interprets as the apostrophe in fact is the lowest part of the letter <y>, which appears in the line above.

⁹¹ To achieve consistency, one would have to assume that <nag> also was [naŋ] and that the transcriber forgot to add the diacritical tilde in this case.

between letters occurs, one must consider of the possibility that the alternation is not indicative of an allophonic rule shared by Tallán and Huarpean, but rather a regularity in the transcription of indigenous languages on behalf of the Spanish. Hence, another line of interpretation, namely that <g> and <m> did not represent different phones in Huarpe, but actually represented the very same sound, i.e. [ŋ], appears more likely. As for the Tallan languages, then, we must consider the possibility that <-m̄> and possibly even in some cases <m> represents the velar nasal as well. That the very same sound may be implied is relevant for the question of authorship, since it adds further weight to the idea that the Colán and Catacaos lists were elaborated by two different persons with slightly different habits of transcription.

Voiced stops

Regarding graphemes that can represent voiced stops in Spanish orthography, is only found once in intervocalic position in both the lists for Colán and Catacaos (except for Spanish loanwords). In line with Spanish phonology and orthography (see Appendix E), the letter may well have represented a fricative rather than a stop. Alternatively, if it represented a stop, the phonetic environment would suggest predictable voicing of an underlyingly voiceless phoneme. <d> is exlusively found as the first member of the cluster <dl> in Colán and occurs once in <durum> 'earth' in Catacaos; these occurences were just discussed above. As also just noted, <g> occurs word-finally in Colán, where it probably represents a velar nasal. Otherwise, there is only one instance of <g> in the Colán data, namly in <chagasiñ> 'joy'. Again, the letter is found in an intervocalic environment. In Catacaos, <g> is only found in the sequence <gua>, presumably representing something close to [wa] if interpreted against the backdrop of standard Spanish spelling conventions (see also Appendix E).

In indigenous words in local Spanish which perhaps originate from Tallán, is frequently preceded by a homorganic nasal. There are only two personal names featuring this letter, Lacachacuyobra and Belupú. <d> is absent from the regional vocabulary; it occurs in only seven personal names. <g> is found in some lexical items, but frequently as part of the sequence <gua>, which obviously does not represent a stop. Where <g> occurs outside this sequence, there are four cases in which the letter follows a nasal, and just one, <tuguyero>, where it occurs intervocalically. In personal names, <g> is found in Chig, Mangualú, Achitiga, Miguaçucatil, Changanaqué, Changanaqui, Eduptangar, Guaylupo, and Megualora. Again, there are many cases of <gua>. Otherwise, <g> occurs three times after a nasal, once in intervocalic position, and notably, there is one instance each of the letter occurring in initial and in final position.

In sum, the rarity of letters representing voiced stops and the distribution of those which occur in Martínez Compañón's data would suggest that voicing of stops was not relevant in the languages. On the other hand, the data from the regional vocabulary

and the personal names, paint a somewhat different picture. While the relevant letters are also not common there, and especially not in particularly diagnostic positions, their frequency is certainly increased *vis-à-vis* Martínez Compañón's wordlists.

Mid vowels

A striking characteristic of the Colán and Catacaos vocabulary items of Martínez Compañón is the near-absence of mid-vowel symbols <e> and <o>. This might point to a system of three phonemic vowels, as in Quechua and with a certain degree of likelihood also in Culli. 92 Nevertheless, <e> is found in some items: Colán <ñessinim> and Catacaos <ñiesiñichim> 'heart', Colán <dladlapi(-)rām> ~ <dladlape(-)rām> and Catacaos <lalape(-)chen> 'bone', as well as Catacaos <conecuc> 'drink', <yeya> 'bird', and <yabique> 'branch'. <o> occurs in Colán <aguacol> and Catacaos <taguacol> 'grass' as well as Catacaos <ccol> 'meat' and <conecuc> 'drink'. <ccol> is explainable when observing that it may not be a native word but a borrowing from Mochica (see the chapter on shared vocabulary items). Also, where external etymologies are not available, internal reasons, i.e. the phonetic environments, often help to explain the occurrence of mid vowels. Concretely, regressive assimilation (raising) of hypothetical /a/ to [e] before high vowels and progressive lowering of hypothetical /u/ to [o] in the context of velar (or postvelar?) consonants could be suspected. However, if this is so, these height adjustments in vowels are not systematic, since for instance Colán <cutuc-nap> 'sky' and <turinap> 'sun' show that in the same contexts the presumed underlying vowel quality is retained. Nevertheless, the evidence for mid vowels as part of the phonemic system is not strong in Martínez Compañón's data.

In native vocabulary, <e> is found frequently word-finally, where it is likely to be an adaptation to the phonology of Spanish. However, in the items <arerico>, <retoco>, <envachu>, <tuguyero>, and <marcabel>, it also occurs in other positions. In personal names, final <e> is frequent, too. However, the letter is also very frequent word-medially, without any apparent conditioning. Presence of <e> in names like Yaquelupú, which show a characteristic final element -upú that can be associated with the Tallán languages, virtually guarantees that they indeed derive from Tallán. Another notable exception are names in which a stressed <é> is found in a recurrent final syllable <-qué>, which can also be associated with the Tallán languages. As the syllable is stress-bearing, it is very unlikely that its vowel is paragogic.

In indigenous vocabulary, <0> is frequent word-finally. In other positions, there is a tendency, but no absolute rule, for the mid-vowel to occur in contact with a back

⁹² Alternatively, Martínez Compañón may have employed a native speaker of Quechua to do the transcriptions, as Matthias Pache (personal communication) points out.

⁹³ See the statements on Spanish phonotactics in Appendix E.

consonant. This pattern repeats itself in personal names. However, <u> is also found in contact with <c> and <qu>, to the effect that <o> and <u> are not in complementary distribution in the local vocabulary and in the personal names.

In sum, only the absence of a mid back vowel /o/ receives some amount of support from all available datasources: Martínez Compañón, regional vocabulary, and personal names. Even though also in this case there are exceptions, the tendency for <o> to occur in the context of back consonants does not appear to be entirely accidental.

Alternation of letters representing high vowels and others

The graphemes <i> and <u> alternate with one another in four forms of Martínez Compañón's 'plan'.

Colán		Catacaos
<dlacati></dlacati>	:	<lacatu></lacatu>
<dlacati></dlacati>	:	<[ynatac]lacatu>
<tũcu[rãm]></tũcu[rãm]>	:	<tucci[càs]></tucci[càs]>
<nũn></nũn>	:	<nichim></nichim>

Table 7. Alternation of letters representing high vowels between Colán and Catacaos lexical items from Martínez Compañón's 'plan'.

Such variation may point to a sound intermediate between [i] and [u], i.e. the high central vowel [i], but the examples are too few and too little is known regarding the closeness of the relationship between the two languages and the circumstances of data collection to warrant the conclusion that such a sound occurred.

Phonotactics and root structure

Judging from the available data, the Tallán languages did not allow for consonant clusters, except word-medially, where they can be thought of as pertaining to distinct syllables. A notable possible exception is the digraph <dl> in the Colán data from Martínez Compañón, though of course its phonetic interpretation is not clear. The consistency with which the absence of consonant clusters can be noted otherwise suggests that, whatever its phonetic realization, phonologically <dl> acted as a single consonant.

It is notable that stops and even affricates such as that represented by <ch> are allowed finally. Otherwise, there are some apparent restrictions as to what types of consonants can appear in onset and coda position, though the reliability of this statement depends of course on the number of tokens available for each letter. Whether or not letters

 >,

<d> and <g> represent voiced stops or in some cases fricatives, they are absent in coda position. The same is true of <ll>.

Regarding their root structure, the Tallán languages have a certain predilection for monosyllabic roots. Torero (2002: 212) counts 33.3 % and 25.0 % monosyllabic items for Colán and Catacaos respectively, which is in contrast to Spanish and even more strongly to the prevalent disyllabic canon of Quechua.

Morphosyntax

Grammatical morphs in the data

In Catacaos, the equivalent for 'fruit' is given as <cosecham>, a loanword from Spanish *cosecha* 'harvest'. Although we cannot be entirely sure how the final <m> is to be interpreted phonetically (it might represent a velar nasal, nasalization of the preceding vowel, or some other aspect of Catacaos phonetics salient enough to be noted by the transcriber of the data), it is plausible to assume that it is a native morph. ⁹⁴ In support of this interpretation one can note that a final <-m> or - <-m
> in Colán frequently corresponds to Catacaos <-chim> (Adelaar & Muysken 2004: 398 and Cerrón-Palomino 2004a: 95). ⁹⁵

Pertinent cases, in which comparable equivalents are available for both languages, are in Table 8.

Colán	Catacaos	Gloss
<pirn></pirn>	<pichim></pichim>	'woman'
<nũn></nũn>	<nichim></nichim>	'mother'
<hicum></hicum>	<ycuchim></ycuchim>	'son'
<puañ></puañ>	<puachim></puachim>	'brother'
<pur></pur>	<purveyim></purveyim>	'sister'
<nessinim></nessinim>	<ñiesiñichim>	'heart'

Table 8. Correspondence between final <-m> or <-m
> in Colán to Catacaos <-chim> in the data of Martínez Compañón's 'plan'.

A similar structure is also found in a notional verb: where Colán has <aguã>, Catacaos has <aguachim> 'to eat'. In this case there is no final <-m> or <-m̄> in Colán; in its place, the tilde appears on the final vowel. The presence of the pattern in a verb form, albeit

⁹⁴ To the contrary, the form <llamas> 'waves', explicitly plural in the Spanish gloss of the list, may bear the feminine Spanish plural suffix -as.

⁹⁵ Cerrón-Palomino (2004a: 96) suggests that the element may have been a kind of topic marker, which is speculative given that one is dealing with forms in isolation for which a discourse context is absent.

with a slight difference in Colán, does not make it easier to ascertain the function of the involved morphs within the languages. One possible interpretation would be that one is dealing with an element that can both act as a possessive marker on nouns and a verbal person marker on verbs. However, this is not sufficiently supported by the data (for Sechura, as discussed in the following chapter, the evidence for a possessive marker is better). At any rate, on the purely formal side of things, these pairs suggest that Colán <-m̄> is equivalent to Catacaos <-m>, and that the forms in the latter language contain another morpheme <-chi->. Highly similar morphs are also in evidence in Sechura as is evidenced in the loanwords <almachi> 'soul' (Spanish alma) and <cuerpocchi> 'body' (Spanish cuerpo).

A further recurrent element is <-rām> ~ <-ram> in Colán <tũcurãm> 'trunk', <yabitiram> 'branch', and <dladlapirãm> 'bone' (for the latter Catacaos has <lalapechen>, where <-chen> may represent the same morph or sequence of morphs more frequently transcribed as <-chim>).96 It may also correspond to the final syllable in Catacaos <chiguasam> 'tree'. The token frequency of the element makes it unlikely that <-ram> in Colán <yabitiram> 'branch' is a borrowing from Spanish *rama*. Given the common semantic denominator between 'bone', 'trunk', and 'branch', it would be natural to think of a noun class marker or a nominal classifier.

Finally, the presence of a final element *-qué* in personal names (mentioned in the discussion of personal names above) becomes significant when one compares the Colán form *-* (yabitiram) 'bone' with the corresponding one in Catacaos, *-* (yabique). As already discussed, *-* (ram) *-* (-rām) recurs in Colán, but not in Catacaos. Together with the evidence for *-* (qué) from the personal names, the identification of a common lexical root (yabi) becomes considerably strengthened, and concomitantly also the assumption of the presence of the same suffix *-qué* in the Catacaos form. Finally, from the comparison of Colán (yabi-ti-ram) with Catacaos (yabi-que) one obtains a further Colán suffix (-ti), albeit with unclear function.

Constituent order in complex constructions

Cérron-Palomino (2004a: 95) maintains that complex forms in Colán are left-branching (i.e. have a modifier-modified order), as is the case also for other Central Andean languages. Thus, Colán <cutūc-nap> 'sky' and <turi-nap> 'sun', as well as perhaps also <cuiat ñap> 'wind', would be identifiable as complex constructions in which the final element can be equated with Catacaos <nap> 'sun'. Likewise, Catacaos <turuyup> 'river' can be interpreted as a complex item headed by <yup> 'water'. The pair Colán <turinap> – Catacaos <nap>, together with Colán <yup> – Catacaos <turuyup> 'river' in fact suggests an element <turi-> ~ <turu-> common to both languages. The early

⁹⁶ Cerrón-Palomino (2005: 94) suggests the same segmentation of the items implicitly.

Spanish observer Xerez (1891: 42) mentions that Francisco Pizarro reached a village named Puechío on the shores of the Turicarami, which is an old name for the Chira River. It is likely that this name contains the very same element, and that it is hence of Tallán origin. Perhaps <turi-> ~ <turu-> is of a grammatical nature given the lack of an obvious common semantic denominator between 'river' and 'sun' that could explain its occurrence. Then, however, it would be no evidence for left-branching compounds or conventionalized NPs. There are more deviations from the general Andean leftbranching characteristics in Martínez Compañón's data: a comparison between Catacaos <ycuchim> 'son' and <ycuchim capuc> 'daughter' shows that there are also right-branching constructions in this language; the most likely meaning for <capuc> would be 'female'. Further complex items in the available data are the forms given by Martínez Compañón as the equivalents for 'grass', <aguacol> in Colán and <taguacol> in Catacaos. As Arrizabalaga Lizárraga (2007b) points out, the first element in these terms can be identified with the root in <agua- and <aguachim> 'to eat'. The element <col> corresponds to Catacaos <ccol> 'meat' (as well as Sechura <colt>). 'Meat' is unlikely to have been the only meaning of the form. As Arrizabalaga Lizárraga (2007b) further observes, it also corresponds to Mochica <col>. In that language, the term is said to mean 'animal' in Martínez Compañón's 'plan', but appears as <col> 'horse' in Carrera's (1644: 6) grammar of Mochica. In other words, 'grass' in Tallán is literally something like 'that which horses or animals eat'. The formal properties of the type of construction represented by <aguacol> and <taguacol> remain unclear, however. One can speculate that the initial stop in the Catacaos form <taguacol> has a grammatical, nominalizing function, turning the verb root 'to eat' into a noun 'food, fodder'. If this construction was headed by the (nominalized) verb as would be expected semantically, it would be another instance in which the modifying element (<col> in this case) follows rather than precedes the head. In sum, order in complex constructions appears to not exclusively be of the typically Andean left-branching type in Tallán.

Finally, concerning the overall morphological characteristic of the languages, from the morphosyntactic analysis of the material so far, a preference for suffixing appears to be in evidence. Despite the hopelessness of a morphological analysis of Catacaos <ñaracñaquitutin> 'to cry', a comparison with the Colán equivalent <nár>> at least strongly supports a suffixing structure in the verbal morphology.

The fate of the Tallán languages

Martínez Compañón's documentation is direct evidence that Tallán speakers could still be found in the late 18th century. Lecuanda's (1861b [1793]: 186) remarks on the linguistic diversity of Piura is further indirect evidence for the vigorousness of the languages, even though, of course, Spanish would have already been a regular instrument of communication also for the indigenous population (see Cerrón-Palomino 2004a: 99). Already

about 70 years later, the Tallán languages had disappeared. Markham (1864: xlv, fn. 1) quotes verbatim from the travel diary of Richard Spruce:

The Catacáos live in the village of that name, about five leagues higher up the Valley of Piura...I was unable to find among them any one who recollected anything of their ancient language, beyond the tradition that it was entirely distinct from the Sechura. The Colánes, formerly very numerous on the lower part of the river Chira (a little to the north of the port of Payta), and still existing in the village of Colán, at the mouth of the river, and at Amotape, a little way within it, have also lost all remembrance of the language of their forefathers.

The languages must have thus become extinct in the first half of the 19th century; unfortunately, details regarding the circumstances are not known.

V. Sechura

The name Sechura

As we have seen in the overview chapter on the languages of the North Coast, Calancha (1638: 550) mentions a language called 'Sec' in Northern Peru. Cerrón-Palomino (2004a: 86) identifies 'Sec' with the language of Sechura. This is reasonable, since the name of the town of Sechura contains a recurrent final element -ura - -ora which is also found in Piura and many other placenames of the Far North. The designation of the Sechura language thus appears to simply derive from that of an indigenous settlement and was apparently later extended to both the Sechura River and Desert.⁹⁷

Sources on Sechura

Martínez Compañón

Bishop Martínez Compañón's (1985 [1782-1790]) 'plan' also features a Sechura vocabulary. As already discussed in the section on sources for the Tallán languages, there are two versions of the manuscript, kept in Madrid and Bogotá respectively. A comparison between the Sechura lexical items as represented in the Madrid and the Bogotá version is seen in Table 9.

Madrid	Bogotá	Gloss
<sucda> (?)</sucda>	<succla></succla>	'man'
<chusiopunma></chusiopunma>	<chusiopunmo> (?)</chusiopunmo>	'heart'
<jàchi></jàchi>	<jáchi></jáchi>	'father'
<bapueñi></bapueñi>	 bapuẽni>	'sister'
<ñangru>	<ñanoru> (?)	'moon'
<fucù></fucù>	<pucù> (?)</pucù>	'trunk'
<unñiòcòl></unñiòcòl>	<unĩuòcòl< td=""><td>'grass'</td></unĩuòcòl<>	'grass'
<puri>></puri>	<putir> (?)</putir>	'rain'

Table 9. Differences in the transcription of Sechura material between the Madrid and Bogotá versions of Martínez Compañón's 'plan'.

As in the Tallán case, the versions differ somewhat. Since the Madrid version is probably the original, it has philological priority (the Bogotá version appears to be written with

⁹⁷ Huertas Vallejos (1995: 128-129) suggests that the original pre-Hispanic settlement of Sechura was located at or near Punta Aguja, the northernmost point of the Illescas peninsula (Sechura was refounded twice in subsequent history, once in the late 16th century and again in 1728 after a seaquake had destroyed the second settlement).

less care, which is why proper interpretation is difficult for some items). However, in one case, namely the difference between <sucda> (Madrid) and <succla> (Bogotá), the reading of the Bogotá list receives some circumstantial support from a comparison with the phrase <xamanmi recla> 'where is your husband?' in Spruce's Sechura vocabulary to be discussed now. <cla>, a sequence that occurs in both sources, may represent a root denoting a male adult.

Spruce

Another source for the study of the language of Sechura is a short sample collected by the British botanist Richard Spruce in 1864. It features 39 lexical items and phrases and is published in Buchwald (1918), Lehmann (1920: 1084-1085), Jijón y Camaaño (1945: 755-756), and Rivet (1949: 7-9), with varying amounts of transcription errors. A new transcription and a facsimile of the original, kept in the Kew Royal Botanical Gardens in London, together with philological notes, is in Urban (2015a). This transcription is reproduced in Appendix C II.

Regional vocabulary

An ample list of local vocabulary used in and around Sechura is published in the glossary of Huertas Vallejos (1999: 264-280) and *passim* in Huertas Vallejos (1999). ⁹⁸ I have filtered these forms according to the same criteria applied to Tallán regional vocabulary: items with known Spanish or Quechua etymology were removed, ⁹⁹ as were items which are also attested outside the Sechura area. Remaining items are likely to be truly regional and hence possibly originate from the Sechura language. Table 10 lists the relevant items.

Item	Gloss
<chajear></chajear>	'for waves and balsa to move in same direction'
<cadupar></cadupar>	'get stuck'
 birbur>	'whirlwind'
<añustar></añustar>	'tie two or more strings together'
<chusgar></chusgar>	'navigate a single pole close to the shore, done by children to lose fear of the sea'
<chapirar></chapirar>	'advance with balsa, breaking the wave'
<ñolofe>~ <ñuilofe>	'k.o. fish'

⁹⁸ Another resource of possible interest that should be consulted in the future is Rumiche Ayala (1987).

⁹⁹ The presence of Spanish bound morphology such as infinitive suffixes in verbs or diminutives etc. is, however, allowed.

Item	Gloss	
<mucus></mucus>	'pot to cook mote' (Huertas Vallejos 1999: 222)	
<mocus></mocus>	'k.o. vessel' (Huertas Vallejos 1999: 17)	
<tipira></tipira>	'small pot to make chicha'	
<yantel></yantel>	'lintel'	
<janco></janco>	'niche in the wall to put saints' figurines'	
<chalique></chalique>	'thin <i>algarrobo</i> roots, used for thatching and other purposes'	
<umaz></umaz>	'k.o. big calabash with handle'	
<toatín></toatín>	'k.o. plant used as fodder for livestock' (Huertas Vallejos 1999: 61)	
<chirri></chirri>	'k.o. fish' (Huertas Vallejos 1999: 65)	
<piduche></piduche>	'k.o. fish' (Huertas Vallejos 1999: 65)	
<chápalo, chapalo=""></chápalo,>	'k.o. fish'	
<chuchal></chuchal>	'shell mound'	
<cuco></cuco>	'big calabash used to keep utensils of fiber craft'	
<mulo></mulo>	'k.o. clay vessel to ferment chicha'	
<guara></guara>	'broad oar' (Huertas Vallejos 1999: 166)	
<embergo></embergo>	'mast of balsas'	
<gricero></gricero>	'hole of pulley'	
<talingo></talingo>	'rope to tie an <i>algarrobo</i> pole to a stone; together they form the anchor of a balsa'	
<cantuta></cantuta>	'balsa with sail'	
<sayo></sayo>	'sound made by paddle touching upon rocks in the sea, transmitted by the wood to the ear of the fishermen put against the other end'	
<macora> ~ <mocora></mocora></macora>	'floodgate of irrigation ditch' (Huertas Vallejos 1999: 186, 196, 274)	
<chulaos></chulaos>	'fishermen living on the edge of the village'	
<cabipore> ~ <cadipore></cadipore></cabipore>	'necklace made from seeds found in prehispanic graves or sea shells' (Huertas Vallejos 1999: 218, 266)	
 biqui>	'strong cough with headache'	
<bol></bol>	'k.o. snail'	

Item	Gloss
<cagaló></cagaló>	'very tasty seafish, also called cabrillón'
<calolo></calolo>	'toad'
<chapiño></chapiño>	'instrument for weaving'
<charroncillo></charroncillo>	'k.o. reed' ¹⁰⁰
<checo></checo>	'plant of the fruit which is used to wash hair'
<chinchilito></chinchilito>	'small calabashes which are threaded on a hemp string and are used as bracelets and adornments for children' 101
<chinguió></chinguió>	'apparatus similar to a basket, used to pull certain small seashells from the sand'
<cirindana></cirindana>	'small bird resembling a hummingbird, hovers over waves of the sea'
<cocho></cocho>	'female genital'
<crespió></crespió>	'vine used as cattle fodder'
<incaló></incaló>	'sweet'
<karate></karate>	'k.o. ray'
<leucito></leucito>	'seagull'
<marara></marara>	ʻrain, <i>garúa</i> fog'
<manga></manga>	'shoal'
<mayatre></mayatre>	'section of woven cloth'
<merluza></merluza>	'powder put on art made from plaster to add softness'
<mochura></mochura>	'women's pubis'
<mocloque></mocloque>	'sweetwater fish'
<morzal></morzal>	'fruit of the caper bush'
<ñata>	'k.o. ray'
<notol></notol>	'big black fly which drills quickly through balsa wood, leaving big tunnels and making it unusable'
<orsa orsa=""></orsa>	'pull sail in the direction of the wind'

¹⁰⁰ The original gloss is 'especie de junto', for which I have no better explanation than to assume that *junto* may be a clerical error for junco.

¹⁰¹ Pacaraos Quechua chinchi 'wooden disk which forms part of the whorl' (Adelaar 1982: 10) may be relevant, as Nick Emlen points out in personal communication.

Item	Gloss
<palas></palas>	'k.o. shell'
<pasalla></pasalla>	'rope made from tree bark, used to construct roofs and to tie the logs of a raft together'
<pencas></pencas>	'block of salt'
<putela></putela>	'k.o. ray'
<ribuque></ribuque>	'crossing of vertical and horizontal threads'
<sañate></sañate>	'boiled juice of the <i>algarrobo</i> fruit'
<sarragua></sarragua>	'women's dance'
<tamila></tamila>	'net for fishing close to the shore or in irrigation ditches'
<tomasín></tomasín>	'plant used as fodder'
<tongo></tongo>	'swimbladder'
<tuya></tuya>	'k.o. fish related to the manta'
<yabago></yabago>	ʻk.o. ray'
<yepe></yepe>	'thin, bent'
<yibur></yibur>	'support used in the construction of <i>quincha</i> walls'

Table 10. Regional items of possible Sechura origin (page numbers are only provided if the term does not figure in the glossary of Huertas Vallejos 1999).

In addition, Huertas Vallejos (1999: 209) has a picture of several vessels or scoops, among them the <humax>.

As in the Tallán case, it is not guaranteed that the above lexical items really are relics of the Sechura language. In particular, it is notable that some of them, like for instance <gricero> and <embergo>, have a structure that is entirely compatible with a Spanish origin.

Personal names

Personal names can be used as an auxiliary source of information on certain questions for Sechura as well. For the Sechura region, a wealth of personal names is attested in the protocols of a 1572 inspection of Sechura by Bernardino de Loyoza (published in Huertas Vallejos 1995) which form a coherent and extensive onomasticon. Huertas Vallejos (1999: 222-223) even states that by the last names it was possible to distinguish from which parcialidad someone hailed from. The complete set of names from the inspection, amended by last names mentioned in other – later – sources is in Appendix D II.

Recurrent final elements of Sechura personal names are -aca - -acas (Chuinaca, Purisaca, Raca, Churcmaca [Churuc Maca], Xucacas, Llaca, Maca, Calamacas), -catil (Curacatil, Nocatil - Nocatili, Pancantil, Sucatil, Suicantil, Suicatil, Tucatil, Yucatil - Iucatil, Xinticatil, Yancatil), -uch(h)ur (Lebanlluchur - Lebanilluchur, Llimlluchur- Iumlluchur (?), Minalluchur, Naculluchur, Sinlluchur, Sinllychur, Yabilluchur, Caxalluchur, Colánduchur, Llulluchur, Nucuyuchur, Catarsuchur), -pian - -piam (Cupian - Cupián, Guyumaillapian, Leipiam - Leimpian, Llapian, Axapian - Axanpian, Chimpian - Chinpian, see Pianlupo), -eche (Minieche - Mineche, Queche, Sereche - Sureche), -calla (Yequercalla, Suncalta [Sincalla]), and -pus (Piupus, Tacupus). It is noteworthy that Catil and Eche are also attested independently as personal names. This suggests that some Sechuran names are complex. 102

Some of the endings are sensitive to sex: *-uchur* (and variants) and *-pian* are exclusively found in the names of females. The latter case is particularly interesting for the interpretation of the name Pianlupo, the name of a male.

Finally, there are last names which are attested in both Sechura as well as in the former Tallán-speaking areas of Piura (see the pertinent section in chapter IV).

Sound system

Aspects of the transcription

A notable difference between the Sechura vocabulary and the Colán and Catacaos vocabularies in Martínez Compañón's (1985 [1782-1790]) data is the absence of the tilde in the Sechura data other than in <ñ>, in which case it is part of the conventionalized representation of the palatal nasal [n]. Instead, one finds with a much higher frequency a grave accent on vowels, as for instance in <tutù> 'water' and <chùpchùp> 'star'. Although the significance of the grave remains unclear, 103 the difference in the use of diacritics suggests that phonetically Sechura was notably different from Tallán.

Voiced stops

Symbols that may have represented voiced stops, i.e. , <d>, and <g>, are not very frequent in Sechura.

In native vocabulary, <d> is not found at all, except for <sucda> 'man' in the Madrid version of Martínez Compañón's (1985 [1782-1790]) 'plan'. This item, as pointed out above, may really have been intended as <succla>, the way it is written in the Bogotá version (see also Cerrón-Palomino 2004a: 96). However, it is noteworthy that Spanish

¹⁰² Some think the names with a 'suffix' referred to social status or occupation (Huertas Vallejos 1995: 105).

¹⁰³ If it were to indicate primary stress, its double occurrence in <chùpchùp> and its presence in <yòro> 'sun', i.e. on the syllable which would regularly bear stress in Spanish anyway, would beg for an explanation.

dios 'god' comes out in Sechura as <dioós>, whereas it appears as <tios> and <thios> in Colán and Catacaos, respectively. Now, the spelling of Spanish loanwords on behalf of literate native speakers of Spanish must be interpreted with some caution. On recognizing that the word they are about to write down originates from their native language, there is a real chance that they are more influenced by spelling conventions in that language than by the phonetic reality of the indigenous language they in fact aim to represent (see Dench 1995). However, in the present case it seems that the author of Martínez Compañón's wordlists did pay attention to differences between the phonetics of the source and the target form, as shown by the Tallán forms (provided, of course, that one and the same person did the transcriptions, which is not secure). Hence, the spelling <dioós> certainly can be interpreted to the effect of the presence of phonetically voiced stops in initial position in Sechura.

Moving on to the occurrences of , one finds that this grapheme also occurs in initial position in Martínez Compañón's data, namely in <bapueñi> 'sister' and <busuc> 'laugh'. It is also found intervocalically and in final position: <yaibab> 'bird'. The word-initial and word-final occurrences are particularly noteworthy, because these are unlikely positions for phonetic voicing of underlyingly voiceless stops.

b> is even found in a homologous environment with voiceless , as the pair <busuc> 'laugh' – <punuc> 'pain' shows. Further, voiceless is found in intervocalic environments, too, e.g. in <bapueñi> 'sister'. The positional liberty of , together with the attestation of in comparable environments, point to a possible phonemic voicing contrast in bilabial position.

Finally, concerning velars, <g> occurs only once in the data of Martínez Compañón, namely in <ñangru> 'moon', where the digraph <ng> may represent [n] (Cerrón-Palomino 2004a: 96).

In personal names and lexical data, , <d>, and <g> are attested word-initially and intervocalically. In one case, the name Ymbra, is found between consonants.
 is absent finally. In both datasets, is found in the same environments, except between consonants. However, cannot be identified straightforwardly as a stop in neither position given variant transcriptions such as Paiva - Payba, Nibardo - Nivardo and Bayo ~ Vayo. <d> and <g> also occur after continuants, especially nasals. 104 The pronunciation of <d> in intervocalic position remains ambiguous. However, where <d> occurs in initial position the sound in question likely was pronounced as a voiced stop.

In sum, the evidence for a voicing contrast in Sechura is stronger than in Tallán, especially for the bilabial position. However, some other phonetic feature, perhaps together with voicing, could be involved as well.

^{104 &}lt;g> also occurs as part of the digraph <gu>, which may represent something close to [w].

Regularities in vowel quality

As in the Tallán languages, <e> is rare in Martínez Compañón's Sechura data. In fact, it occurs only in <bapueñi> 'sister'. In Spruce's wordlist, it is somewhat more frequent, and there are no apparent distributional peculiarities of the letter in personal names. The grapheme representing a back mid vowel <0> does not differ markedly in token frequency from that of other vowel graphemes, and neither is there an obvious consonantal environment that could derive a mid-vowel from an underlying high or low one. Hence, no case for a trivocalic vowel system can be made for the Sechura language.

Consonant sequences

Cerrón-Palomino (2004a: 96) notes that the Sechura language shows evidence of consonant clusters which differ from those found in Tallán. For one, the borrowed word for 'animal' is written <animblà> in Martínez Compañón's data. If this is not a mere clerical error, it can be interpreted as evidence for problems on behalf of Sechura speakers with the phonotactics of Spanish animal. The problem may have been the final lateral (this is not clearly attested in the data - in Spruce's vocabulary, I read <ludac> 'lizard' instead of the <lutal> of earlier published transcriptions). There is no consonant cluster in the source term that the alternation could resolve - quite to the contrary, judging from Martínez Compañón's transcription, a rather unusual one is created. It is also worth noting that Spruce's vocabulary features an item, <kon'mpar> 'snake', in which there apparently also is a sequence of homorganic bilabial nasal and stop in adjacency to < n > .105

Further relevant items from Martínez Compañón which feature consonant sequences are <sucda> 'man', <cuctum> 'woman', <colt> 'meat', <lactuc> 'dead', <otmuc> 'joy', <loct> 'earth', and perhaps <caph> 'waves', which latter is hard to interpret phonetically.

A comparison of Martínez Compañón's transcriptions with those of Spruce, seen in Table 11, complicate the interpretation:

Martínez Compañón	Spruce	Gloss
<jum></jum>	<xuma></xuma>	'fish'
<cuctum></cuctum>	<cucatama></cucatama>	'woman'

Table 11. Comparison of Martínez Compañón's and Spruce's transcriptions of two Sechura words.

¹⁰⁵ Further, there are sequences of nasals in <naminma> 'daughter-in-law' and <xamanmi recla> 'where is your husband?', although these may have come into being only through suffixation, possibly of a possessive marker as suggested below in the discussion of possible affixes in the data.

Evidently, there is a vowel in Spruce's transcription of the word for 'woman' which breaks up the cluster <ct> of Martínez Compañón and which creates a consistent <CV>-pattern. One can infer that the vowel transcribed by Spruce but not by Martínez Compañón was weakly articulated. It was perhaps a central vowel the realization of which was to some extent influenced by the vocalic environment. Thus, one cannot safely conclude that consonant clusters were a feature of Sechura and if so, on what level of analysis. Spruce's data do not only show a vowel between two consonants that is lacking in Martínez Compañón, but also word-finally. This suggests that this vowel was difficult to perceive as well.

There is an enigmatic statement concerning how the Sechura language sounded to the ears of a native speaker of Spanish by George Juan and Antonio de Ulloa, whose travel report was first published in 1748. I quote here the fairly free English translation by John Adams in Juan & Ulloa (1806 [1748]: 13):

Nor is it only their language which distinguishes them, but even their accent; for besides their enunciation, which is a kind of melancholy singing, they contract half of their last words, as if they lacked breath to pronounce them. 106

My fantasy is vivid enough that I can think of several interpretations of this statement, ranging from pitch accent or tone, suggested by the "melancholy singing", via voiceless vowels in word-final position to larger intonation patterns that perhaps include creaky or breathy voice or even ingressive phonation types towards the end of intonation groups or other prosodic units (this latter is suggested by the fact that reference is made to "half of their last words" as opposed to "last half of the words"). 107 But such speculations on phonetic details are moot; nevertheless, it is plausible to link Juan & Ulloa's observation with the phenomenon which underlies the absence of certain vowels in Martínez Compañón's 'plan' which Spruce does transcribe.

Phonotactics

There are some indications that the syllable structure of the Sechura language could be more complex than in Tallán. One piece of evidence is that initial clusters in the Spanish loanwords <flor-ac> and <fruto> appear to be preserved. At the same time, the

^{106 &}quot;[...] no solo se distinguen en lo formal de la lengua pero en el acento porque, además de prorrumpir las voces en un tono, como de canto triste, comen la mitad de las palabras finales, como si les faltase la respiración para concluirlas" (Cerrón-Palomino 2004a: 89).

¹⁰⁷ Solís Fonseca (2009) affirms substrate influence from Sechura in Piuran Spanish and repeatedly states that much remains of the original language, but never makes explicit just what he is referring to. The 'singing' of Piuran Spanish is indeed sometimes attributed to an indigenous substrate, but it would seem quite difficult to sustain such a claim given the rudimentary information on phonological and morphosyntactic structure of the languages, especially since methodological standards for postulating substrate effects are, for good reasons, rather high (Thomason 2009).

reality of supposed clusters is called into question to some extent by the comparison of the transcriptions of Martínez Compañón and Spruce which were discussed above. In addition, personal names and regional vocabulary support the existence of clusters only to a very limited extent. Relevant personal names are Fredi ~ Frelio and Preni. The only relevant vocabulary item, interestingly also showing a *cr*-cluster, is <crespió> 'vine used as cattle fodder'. The clear majority of personal names and regional vocabulary items, however, are most consistent with a canonical (C)V(C) structure. One possible interpretation, bearing in mind the analysis of consonant sequences made above, is that there were underlying clusters which are broken up on the surface by epenthetic central vowels.

As noted above in connection with voicing, letters which appear initially in Sechura include also

b> and sometimes, in personal names,

d>. As in Tallán, plosives are permitted in final position, while <ll> is absent there. Unlike Tallán, absent from the final position is also <<
ń>.

Torero (2002: 212) counts 23,5 % percent of monosyllabic lexical items in Martínez Compañón's Sechura data. Like in Tallán, this is more than in Spanish and much more than in Quechua. Actually, the percentage of monosyllabic roots Martínez Compañón's data is likely still higher, as several recurring suffixes in the data can be discerned. These are discussed now.

Morphosyntax

Several grammatical suffixes are in evidence in the available Sechura data. As Adelaar & Muysken (2004: 400) note, Sechura verbs in Martínez Compañón's wordlist typically end in <-(u)c>. 108 To this one can add that <lactucno> 'death' is clearly derived from <lactuc> 'to die' by means of a nominal(izing) suffix <-no>. This demonstrates that <-(u)c> is retained when the verb undergoes a morphological process. The identification of a suffix <-no> in <lactucno> 'death' becomes interesting when one notes that two nouns in the Spruce data also have <no> as the final syllable: <tono> 'dog' and <sono> 'cotton'. Note also <ruño> 'bone' in Martínez Compañón's data. There is no evidence for this suffix in the regional vocabulary, and only the last names Cono, Quino, and Yuno may be relevant. 109

¹⁰⁸ Cerrón-Palomino (2004a: 97) speaks of an "infinitive" <-c>.

¹⁰⁹ The Sechura form for 'grass' is parallel in structure to the respective terms in Tallán: Sechura <unñiòcol> shows the shared item <col> or <ccol> (see the chapter on shared vocabulary items) in combination with the verb 'to eat', which is <unuc> in Sechura. There are two possible explanations for the exact form which are potentially relevant when trying to understand the behavior of the suffixes <-(u)c> and <-no>: the first is that the initial sequence <unñiòc-> representes the very same form as <unuc>, that is, including the root <un-> and the suffix <-uc>. The other would be that the initial sequence <unñiò-> is made up of the root <un-> and the nominalizing morpheme also attested in <lactucno>, but here transcribed as <-ñiò> instead of <-no>, showing palatalization. Both are possible, but the former leads to an inconsistency with other data: if nominalization is involved, the verb would have lost its suffix <-uc>, unlike what can be seen in <lactucno>.

A Suffix <-ru> is suggested when comparing Sechura <ñangru> 'moon' with Colán <nag> and Catacaos <nam>. A variant <-ro> may be present in <roro> 'sea' and possibly in <yòro> 'sun', in which case the root may be shared with the Barbacoan language Tsafiqui (see chapter IX). Perhaps <gricero> 'hole in washer' in the lexical data and the last names Faro, Mundro, and Curo also can be compared.

Further, <-ac> is identified unambiguously as a native element by its occurrence in the context of a Spanish loanword, <florac> 'flower'. The same is true of <-cchi> in <cuerpocchi> 'body' and <almacchi> 'soul'.¹¹¹0

The items < tutuc> 'drink', < tutù> 'water', and < tufut> 'river' in Martínez Compañón's data appear to stand in a morphological relationship to one another, but it is difficult to ascertain just what the relationship is. Since <-uc> clearly is a verbal suffix, one possibility is that there is a lexical root <tutu>. Further, <tufut> 'river' may be derived from this root by means of a not otherwise attested derivational morpheme. The difference in the consonant may be due to a copyist's error resulting from the similar shape of the letters <f> and <t>.

There are several further Sechura suffixes in evidence. First, as Adelaar & Muysken (2004: 400) note, several of the kinship terms on Martínez Compañón's list end in <-ñi>. The full set of terms is: <nosni> 'son, daughter', <sicanni> 'brother', and <bapueni> 'sister'. Words for 'father' and 'mother', however, do not show this ending. That one is dealing with a suffix and not part of the root is made virtually certain by the fact that this <-ñi> corresponds to <-ma> in Spruce's <ñosma> 'son, daughter'. Neither of these elements is present in the lexical data from Sechura, nor in the personal names. Adelaar & Muysken (2004: 400) suggest that <-ñi> and <-ma> may be possessive suffixes (and Cerrón-Palomino 2004a: 97 does so for <-ñi> specifically). In this case the difference between the forms <ñosñi> and <ñosma> would have to be interpreted as indicating different persons of the possessor in a head-marking fashion. The suffix <-ma>, furthermore, is in evidence in yet other cases in Spruce's data, namely <naminma> 'daughter-in-law' and the body-part term <teuma> 'head'. It may also be present in <chusiopunma> 'heart' in Martínez Compañón's list. Being kinship and body-part terms, all tokens are indeed semantically compatible with a possessive function of the suffix. However, <-ma> also occurs as the final syllable of Spruce's forms <taholma> 'sea', <xuma> 'fish' (Martínez Compañón: <jum>), and <yuvirma> 'path, way', that is, including items that are unlikely to occur in possessed forms on semantic grounds.

A case for the presence of a suffix <-ma> can also be made for two of the phrases contained in Spruce's vocabulary, namely <ubrun cuma> 'how are you?' and <xoroc tema> 'come here!'. This latter may suggest that <-ma> is encoding a second person.

¹¹⁰ Cerrón-Palomino (2004a: 97) hypothesizes that <-cchi> codes an "inalienable genitive", which is, however, speculative in the light of the complete lack of information on its behavior in the grammar.

If one then assumes that <-ńi> encodes the first person, one would get (a part of) a paradigm that would adhere to a formal shape commonly found in the Americas, in particular the western parts (Nichols & Peterson 1996).

In regional vocabulary, the high frequency of items ending in <-ó> (<cagaló>, <chinguió>, <crespió>, <incaló>) is notable. The consistent stress placement on the final syllable makes it unlikely that the vowel is an adaptation to Spanish phonotactics. It may reflect a native element such as a suffix. <yibur> and <birbur> may showcase another such element, and the same may be true for <tomasín> and <toatín>, especially in the light of the common semantic denominator of these latter items: <tomasín> means 'plant used as fodder' and <toatín> 'k.o. plant used as fodder for livestock'. 111

The fate of Sechura

The Sechura language was spoken somewhat longer than its northern Tallán neighbors, which must have become extinct in the first half of the 19th century. In fact, the town of Sechura has successfully maintained its indigenous character through time, to the effect that the persistence of the language can be viewed as just one aspect of a higher degree of cultural continuity.¹¹²

In 1864, Markham (1864: xliv, fn. 1) quotes Richard Spruce to the effect that at Sechura "[o]nly the very oldest people recollect anything of their original language, but they relate that in their younger days it was in general use...". This quote suggests that by 1864, the language had already fallen out of general use, and would have passed with its last old speakers which Spruce was able to consult shortly later. Indeed, Bastian (1878: 168) reports that the language of Sechura is said to be lost, although he says that some words survive in greeting formulae.

However, there are reports regarding the language of Sechura postdating the late 19th century. Means (1931: 114, fn. 12) reports the following:

I found Sec faintly surviving in the vicinity of Sechura, Department of Piura, in 1918. Olmos, near the northern side of the Department of Lambayeque, still has a dialect of its own, albeit most of the people habitually speak Spanish.

Unfortunately, it is unclear just what it meant for Means for a language to "faintly survive". Four decades later, Hammel & Haase (1962: 213) still note the existence of an indigenous strain in the Spanish spoken by Sechura's fishermen:

¹¹¹ The final element <-ur> may be related to placenames like Tur and Indur in the Sechura area and Pabur, Jambur, and Cucur in the Upper Piura. For <tomasín> and <toatín> compare also <yupisín> 'glue extracted from *algarrobo* tree (*Prosobis* sp.)', a form which, however, is attested also in the former Tallán-speaking area.

¹¹² Alcedo (1788: 534) describes Sechura as an entirely Indian town of ca. 400 families, different from other Indians in language and degree of cultivation ("moderacion y orden").

It is of some interest that these very traditional villages near Sechura are the only locales encountered on the coast at which some aboriginal coastal speech may still exist. When questioned about puzzling features of their dialect, the fishermen declined to comment; to the best of our knowledge and powers of discrimination, however, they were employing a series of non-Spanish and non-Quechua words, together with Spanish vocabulary, in a Spanish syntactical framework. They were, of course, quite capable of speaking the standard local Spanish as well, and shifted to it as soon as they were questioned about their speech; evidently, they were aware of the distinctions involved.

From this situation, it is just a little way to the ample local vocabulary documented in Huertas Vallejos (1999) which, at least partly, constitutes the heritage of the Sechura language.

VI. Mochica

The name Mochica

The multiple uses of the word 'Mochica' can be confusing. In the phrases pueblo Mochica or pueblo Muchik, it can refer to the people of the North Coast south of the Sechura Desert and their culture generally. Implied can be either the present-day people or the bearers of the archaeological cultures that flourished there from Moche times onward (see Schaedel 1987). 'Mochica', or its more indigenous form 'Muchik', also has gained ground in linguistics as the quasi-standard term for the language treated in this chapter, virtually defeating in this regard the competitors 'Yunga' and 'Chimú'. These latter, indeed, are perhaps even more confusing: as discussed in the general overview of the linguistic geography of the North Coast, yunga has multiple meanings, too. Generally, it is a Quechua designation for a particular altitudinal belt on both sides of the Andes, as well as for its inhabitants. As such, it may principally refer to any language spoken in this zone, not just the language called 'Mochica' here. But the term also has a long tradition of referring to the Mochica language, Carrera's (1644) colonial grammar of the language and Martínez Companón's (1985 [1782-1790]) 'plan' being prime representatives. 'Chimú' on the other hand, used prominently by Middendorf (1892), is misleading, too, because it suggests a privileged association of the Mochica language with the Chimor state which is, in this form, not warranted (see further chapter XI).

Moreover, it is by no means clear a priori that Mochica is indeed the traditional name of the language used by its speakers. Cerrón-Palomino (1995: 33) rightly notes that Andean languages generally had no special names, because, for their speakers, their language was the language par excellence.

Attempts to etymologize the name Mochica through the Mochica language itself are difficult. Cerron-Palomino (1995: 41, fn. 20) discusses various proposals to link it to the forms like <macha-> 'kiss, adore', <macyac> 'idol', or <much eic>, supposedly meaning 'we are', and rejects them all for various reasons.

There is, however, one scholar who provides an autodenomination for the language, Walter Lehmann. According to Schumacher de Peña (1991), Lehmann's principal consultant, Isidora Isique, supplied the forms <mutšíkō> and <mūtšís túk>, which latter she translates as 'our language'. <túk> may be assumed to be the Mochica word for 'language', unattested in any other source, and Mrs. Isique's translation of <mūtšĭs tūk> as 'our language' in fact supports to some extent the proposed connection with the 1st person plural personal pronoun. But the etymology of the phrases remains problematic for the unexplained sequences <-ĭs> and <-íkō> respectively. In addition, <mūtšĭs túk> and <mutšíkō> are postcolonial terms recorded in a setting of language death, and it is not clear that they were in use, for instance, in 1644, the year Carrera composed his grammar. As the existence of two variants from the same speaker shows, they probably had a low degree of conventionalization even then and may be of relatively recent origin.

Another complication lies in the uncanny similarity between the name Mochica and the placename Moche. According to Cerrón-Palomino (1995: 41, fn. 20), the association of the Mochica language with the toponym is completely fortituous and based on the erroneous (or at least too hasty) identification of Mochica as 'the language of Chimor'. Salas García (2012: 21), who considers the name of the language and the toponym to be similar by sheer chance, too, attributes the association of the Mochica language with the site of Moche to Larco Hoyle, who worked both at Moche and the Chicama Valley (where Mochica indeed was spoken). There is one fact which suggests, contrary to what Cerrón-Palomino and Salas García say, that the similarity between Mochica and Moche may not be coincidental (and then, folk etymology may be involved in the explanations provided by Mrs. Isique to Lehmann): according to Middendorf (1892: 64), the Mochica name of Moche actually is <muchik>, a form which matches precisely the non-hispanized name Muchik given to the language. While, for me, this information virtually proves the non-accidental nature of the similarity between Mochica and Moche, it is hard to come up with an explanation. 113 As mentioned in the discussion of colonial references to North Coast languages, in a 1651 document, to the south of Piura only a language called 'la Mochica' is mentioned for the archbishopric of Trujillo. 'La Mochica' may well have been meant to refer to 'the language of Moche/Muchik' and surroundings. It is not impossible that failure to properly distinguish between Mochica and Quingnam, 114 together with the early death of Quingnam, caused the designation Mochica to be adopted for the remaining language of the North Coast south of the Sechura Desert, the one today called Mochica. In suggesting the place name Muchik a.k.a. Moche as the etymological source of the name of the Mochica language, I am not denying that, conceptually, the association between place and language is probably spurious, as Cerrón-Palomino (1995: 41, fn. 20) says, just like an association with the Moche culture is, without further support, unwarranted (Salas García 2012: 25).

Sources on Mochica

The production of documentary materials on Mochica can be divided roughly into two phases, one colonial, lasting from the late 16^{th} century to the mid 17^{th} century, and the other republican, lasting from the late 19^{th} to the early 20^{th} century.

Statements in a variety of colonial sources show that there was a vibrant production of materials on or in Mochica on behalf of Christian missionaries, starting at least in the late 16^{th} century. This reflects the importance assigned to the language by the Spanish;

¹¹³ Salas García's (2012: 24) assumption of ethnic Mochica in the Moche Valley is based on weak evidence and, at present at least, not suitable as the basis for a convincing argument.

¹¹⁴ This is not implausible; note, for instance, that neither Zárate nor the 1651 document distinguish these, and that early witnesses like Oviedo y Valdés (1855) speaks of the "Mochicas" languages in the plural!

viceroy Francisco de Toledo even named it among the "lenguas generales" of Peru (López 1889: 549). Only few of these works have survived to the present day, and if they have survived, they may be hidden in archives unbeknownst to the scholarly community.

Such is the case with the work of Pedro de Aparicio, a Dominican active in the Chicama Valley. Meléndez (1681, vol.1: 558-559) states that Aparicio composed a grammar, dictionary, and Christian sermons, instructions, and prayers in the local language. Unfortunately, with the Chicama Valley forming a zone of overlap between Quingnam and Mochica, it is unclear what language Aparicio was describing.

Cuervo (1915: 558-559, 561) mentions two further priests who were active in producing linguistic materials in the Chicama Valley in the 16th century, both Mercederians from the convent of San Estebán in Salamanca. One is Benito de Jarandilla, who is also mentioned by Lizárraga (1968 [1605]: 13). According to Cuervo, Jarandilla learned the very difficult language of the land, writing sermons, a catechism and a volume of commentaries to help the indigenous population understand the Christian faith. The other author from the convent of San Estebán is Bartolomé de Vargas. Having spent time in Cuenca (Ecuador), Vargas was sent to the convent of Chicama with Jarandilla, where he learned the language with near-native proficiency, and wrote a grammar, a copious dictionary, and a Sermonario de Santos y de tiempo para utilidad de los naturales y misioneros en Chicama. Cuervo (1915) does not indicate the sources for his information on these priests and their work, a reference to Meléndez (1681, vol. 2: 40) in connection with Jarandilla aside. The fact that an exact title for the Sermonario is mentioned suggests that Cuervo may have seen it. At the same time, Cuervo's discussion of the work of Jarandilla and Vargas, similar to Mélendez' statements on Aparicio, is plagued by the unclarity regarding the actually described language. Espinel (1995: 147), however, mentions a vocabulary and an Arte de la lengua que llaman pescadora written by Vargas. If the title is genuine, this would be a Quingnam grammar and vocabulary, not one describing Mochica. Again, the fact that a concrete title is mentioned suggests that Espinel may have seen the grammar.

Other presumably lost sources are discussed by Zevallos Quiñones (1948a), together with short biographies of their authors. A grammar, accompanied by translations of catechisms, was composed by Alonso Nuñez de San Pedro, priest of Jayanca in the late 16th century. A collection of materials for conversion by Roque Cejuela de Traña, the priest of Lambayeque, dates from around the same time. In 1618, the Jesuit Luis de Teruel was busy composing an Arte y bocabulario de la lengua maternal de dicho pueblo y valles de Trujillo, a title that demonstrates once more the characteristic vagueness of early Spanish references to North Coast languages; since the Jesuits were active in Lambayeque, however, Mochica is likely the subject of Teruel's work. Another possible author of Mochica materials is Pedro de Prado y Escobar, who was active in Reque and Jayanca. According to Horkheimer (1944: 22), he wrote a grammar entitled Arte de la lengua de los valles de Zaña, Chiclayo y Trujillo, a title which, given the reference to Trujijllo, again leaves it unclear if the language described was Mochica or Quingnam.

With these sources lost or unlocated, and setting aside isolated words in early 16th-century chronicles such as that of Cieza de León and Cabello Valboa, Mochica is first attested in Ore's (1607) edition of the catechism of St. Toribius. Ore's Mochica texts are also published in Grasserie (1897). The main source for colonial Mochica is, however, Carrera 's (1644) *Arte de la lengua Yunga de los valles de Truxillo del Peru*. Carrera grew up in the Mochica-speaking area and served as the priest of San Martín de Reque. By his own account, he learned the language as a boy, and his command of Mochica must accordingly have been at least near-native. There are two editions of the grammar, probably intended for use in Europe and Peru respectively, with some apparently haphazard differences between them (Hovdhaugen 1992: 114). These are discussed in more detail by Salas García (2002: 84-89).

Martínez Compañón's (1985 [1782-1790]) 'plan' also contains a short vocabulary of the Mochica language. It is thus the only known documentary effort from the $18^{\rm th}$ century.

The second major source containing information on Mochica sound structure and grammar already pertains to the second phase of documentation, about 100 years later: Middendorf (1892).

He informs that he worked first with different speakers of Mochica in Eten for a period of two weeks until he met a consultant with whom he achieved results that he considered satisfactory (1892: 46). Middendorf's fieldwork methodology deserves mentioning: according to Middendorf (1892: 45-46) himself, before commencing, he had familiarized himself with Carrera's colonial grammar, and had prepared questionnaires for his consultants based on said grammar. Even more revealingly, regarding his work with his later principal consultant, Middendorf remarks that Carrera's work formed the basis of their joint work. This is important, since, while remaining a valuable source, Middendorf's work cannot be considered completely independent from that of his predecessor.

Lexically, both Carrera and Middendorf offer rich material, which is enhanced by various smaller compilations of vocabulary from the second wave of documentation. These include Bastian (1878: 169-173), Villarreal (2013), Lehmann (published by Schumacher de Peña 1991), Larco Hoyle (2001 [1939]), Zevallos Quiñones (1941), Huber (1953), and Kosok (1965). Bastian (1878: 167, 169) collected his short list of lexical items and phrases during a few hours one morning from whatever opportunities to do so offered themselves to him. Hence, his consultants also include Spanish Peruvians, who may have provided, in his own words, "jargon". Villarreal (2013 [1921]) offers two new wordlists, the first collected for him by Amadeo Vilches from the mouth of María Carbayo, then over 70 years of age, and the second by Lorenzo Colchón who consulted with (an) unnamed speaker(s). In 1929, Lehmann recompiled about 330

words as provided by speakers Trinidad Chancafe, Juan de Dios Puican, Martín Chirinos, José Velásquez, and Isidora Isique, who was Lehmann's main informant and contributed most data. His data are published by Schumacher de Peña (1991), together with comparative data from other sources. However, diacritics are not always faithfully represented in the mentioned edition, which is particularly lamentable since Lehmann's transcription

seeks to preserve fine phonetic detail. Also, the materials are of special interest because Lehmann explicitly annotates cases where speakers disagree on the pronunciation of words and their meaning, and as such provides some concrete manifestations of idiolectal variation in a situation of language death which is unique for the case of Mochica (see Figure 14 for an example).

Larco Hoyle (2001 [1939]: 138-143) consulted with Domingo Reyes and others in Eten and Monsefú in 1936, which resulted in a list of 174 words. Comparative data from Carrera and Villarreal are provided in addition. Zevallos Quiñones (1941) has data from Monsefú; his informants were Manuel Llonto Esqueche, 70 years of age, and José Ayasta, 72 years old. Both Huber (1953) and Kosok (1965) publish data originally coming from the Quesquén family; the complicated philological history of these data is discussed in Salas García (2002: 237-239). Huber (1953) also offers a list of indigenous words preserved in the Spanish spoken at Ferreñafe, Mórrope, Lambayeque und Eten, thereby marking the transition from primary to salvage work.115

All lexical material mentioned so far, except for that of Lehmann, is assembled

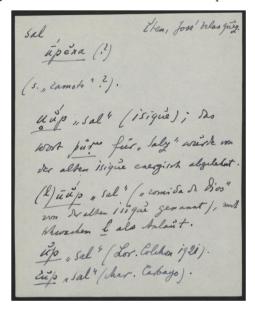


Figure 14. One of Walter Lehmann's Mochica file cards in possession of the Ibero-American Institute (IAI), Berlin. It records one of the Mochica words for 'salt' tentatively as <úpěna> (provided in that form by José Velásquez) or <uūp> ~ <(l)ūūp> (provided that way by Isidora Isique). Lehmann specifies that the latter pronounced the form with a weak lateral sound in the onset and vehemently rejected the alternative word <pūr> ~ (All this, together with Lehmann's additional note that Isique considered salt to be the "comida de Dios" – 'God's food' –, illustrates the rich detail enshrined in some of Lehmann's data (Reproduced with permission of the IAI).

¹¹⁵ Postcolonial authors from the second wave of documentation who state to have produced documentary materials of Mochica are Manuel Gonzalez de la Rosa and José I. Kimmich (Zevallos Quiñones 1948a: 56; 58).

in Salas García's (2002) Mochica dictionary, which offers both the material of individual authors separately as well as a 'diachronic' section, in which all material is united in a single dictionary, both Mochica-Spanish and Spanish-Mochica. Salas García's work is an extremely useful practical tool, but it is unfortunately not reliable enough to be trusted without consultation of the original sources (Schumacher de Peña 2004). Earlier recompilations of this kind by Zevallos Quiñones (1946) and Orrego (1958) are more limited in scope, and that by Hans Horkheimer, who "compiled a definitive as yet unpublished vocabulary from all the published sources" (Gillin 1945: 7, fn. 7), remains unedited.

A major addition offering a wealth of otherwise unrecorded words is the lexical material collected by Brüning, which appeared under the editorship of Salas as Brüning (2004); Brüning's original manuscript is kept at the MARKK Museum am Rothenbaum Kulturen und Künste der Welt (formerly known as Museum für Völkerkunde) in Hamburg, Germany. 116 Another German scholar who was active in the documentation of Mochica during the second phase is Otto von Buchwald. Unfortunately, however, his work fell prey to a fire in Guayaquil, and its extent and foci are not clearly known.

Secondary Mochica scholarship

The Mochica language has been a continuing subject of study from the late 19th century, when it was still spoken, to the present day. The more recent works must necessarily rely on what material had been gathered before the language's extinction. The two periods merge seamlessly into one another since, in fact, the first secondary work on Mochica, based on the grammar of Carrera (1644), Villarreal (2013 [1923]), was published when the language was still remembered in Eten. Villarreal basically rearranges the information given by Carrera, but adds, as noted above, two new Mochica vocabularies.

An early sketch of the language, mainly based on Carrera (1644), is offered in Harrington (1945), and one based on Middendorf in Sánchez Arroba (2000). The most significant contributions to the study of the Mochica language, however, are those by Cerrón-Palomino (1995), Torero (1997, 2002), Hovdhaugen (2004), and Adelaar (2004). The latter two works offer – independently from one another – overviews of the phonological and grammatical structure of the language. Cerrón-Palomino (1995) and Torero (1997), in contrast, are concerned exclusively with phonological questions and reach in some regards incompatible conclusions. A revised version of Torero's (1997) phonological analysis appeared again, together with a grammatical sketch, in Torero (2002).

However, Mochica scholarship has not stopped at this point. One of the foci of more recent work is the philological analysis of Mochica texts. Salas García (2007,

¹¹⁶ A much shorter vocabulary, found by Juan Mejía Baca among the sheets of music he kept from the time when he was a violin student of Brüning, appears in Salas García (2002) and earlier sources (see Salas García 2002: 205-207).

2008c, 2009a, 2009b, 2011a, 2011b) occupied himself with a philological analysis and translation of Mochica texts with mostly Christian content which are found in Ore (1607) and Carrera 's grammar (and sometimes still other sources). Salas García (2013) adds an analysis of the hybrid Spanish-Mochica lyrics of the so-called Tonada del Chimo, recorded by Martínez Compañón (1985 [1782-1790]), and offers observations on the genesis of Christian vocabulary in the aforementioned Mochica texts. Salas García (2008b, 2011c) explores some of the intricacies of the Mochica numeral system, in particular the coexistence of free and bound forms of the lower numerals, and Salas García (2012) provides a critical examination of Mochica terms popularized in the archaeological literature by Larco Hoyle.

Another concern of recent work is to explore the outside connections of Mochica, especially as far as the transfer of lexical material is concerned. Loanwords from Mochica in Peruvian Spanish and vice versa are explored in Salas García (2008d, 2012), while Cerrón-Palomino (1989b) examines lexical borrowing between Mochica and Quechua, rectifying also an unfounded proposal by Rostworowski de Diez Canseco (1987). Salas García (2012) and Eloranta (2017) discuss shared vocabulary items between Mochica and Cholón, and Adelaar (1990) also identifies a shared word for the 'sea lion' between Mochica, Quechua, and Mapudungun, spoken in Central Chile. A lexical connection between these languages is also supported by evidence presented in Hovdhaugen (2000) and Urban (2018a). A significant contribution to the loanword record in Mochica is Jolkesky (2016), who not only provides extensive additional material regarding the connection with Mapudungun, but also offers a wealth of lexical comparisons which may betray contact relations with other languages and language groups, in particular Arawakan and Barbacoan languages, Hibito-Cholón, and the isolates Atacameño, Candoshi, Munichi, Canichana, and Trumai. Jolkesky interprets the material involving Mochica and the languages of the Upper Amazon as evidence for a pre-Columbian interaction sphere revolving around the Marañón River. Some of the comparisons he makes involve forms which diverge considerably in their form, and it remains a task for the future to evaluate Jolkesky's data in a systematic manner and see which comparisons and which connections can be substantiated.

An urgent task before embarking on further external comparisons would be a thorough application of internal reconstruction to the extant material, which promises to resolve many of the irregularities found in it and to uncover pre-Mochica grammar. One area of application would be the allomorphy of the genitive (Cerrón-Palomino 1995: 81, fn. 50). Another area in need of further investigation are the synchronic vowel suppression rules still recoverable for colonial Mochica, especially in relation to the dominantly monosyllabic lexicon. Perhaps it will be possible to reconstruct earlier disyllabic shapes once the effects of such rules, either in synchrony or diachrony, are undone.

The following sketch of the Mochica sound system and Mochica morphosyntax is mainly based on already existing analyses, especially Hovdhaugen (2004). Alternative analyses by Adelaar (2004), Torero (1997, 2002), and also Stark (1968) are included where pertinent, alongside original data from Carrera (1644) and Middendorf (1892) where they help to gain more insights into the grammatical system of Mochica. At a few times, I depart from previous analyses altogether, most notably regarding the morphosyntactic nature of the person markers. In addition, at various times I make some remarks on the possible diachronic development of the system described by the extant sources, as a first and still incomplete approach to an internal reconstruction of pre-Mochica. My treatment of morphological and syntactic topics is geared towards a more thorough discussion of the basic warp and weft of the grammar – basic nominal and verbal morphosyntax and phrase structure – at the expense of complex constructions such as subordination, which are treated somewhat more cursorily. That said, it remains a sketch even with regard to the basic topics, and I omit many peculiarities and irregularities in the behavior of individual lexemes and constructions.

Sound system

Vowels

Regarding vowels, there is consensus among many modern interpreters of the data. It is agreed that Mochica had a system of six contrastive phonemic vowels: /a, e, i, o, u/ and the infamous 'sixth vowel' represented by <æ> in Carrera (1644).¹¹⁷ This ligature was known to Carrera from Latin and is meant to represent a Mochica vowel quality for which he found no other means of orthographic representation. The sixth vowel shows several peculiarities in its phonological behavior: it is never stressed (orthographically) and is elided under conditions that are semi-predictable. At the same time, however, it is also the vowel that appears epenthetically to break up illicit consonant clusters (Hovdhaugen 2004: 10). Hovdhaugen assumes a phonetic realization as [ə] given its phonological behavior; similarly, Stark (1968: 24) assumes a rounded mid-central vowel [θ]. Both Carrera and later Middendorf (1892: 49), however, offer impressionistic descriptions of this unusual sound (and Middendorf admits his failure to learn to pronounce it) which make one think of a sequence of two distinct articulatory phases (whence Salas's [2002] transcription as [əυ]).¹¹⁸ Finally, Torero (2002: 326-327) and Adelaar (2004: 323) point

¹¹⁷ Torero (1986: 531) argued for a four-vowel system, but in a later publication (2002: 323-324) he accepts the idea of a six-vowel system while pointing out some uncertainties regarding the distinctiveness of the front vowels.

¹¹⁸ As support for this 'biphasal' interpretation, one may add that in Lehmann's data, <æ> sometimes alternates with <er>>, as in <fæs> - <fers> lúcuma (Cerrón-Palomino 1995: 27, fn. 3). In modern standard German, the sequence <er>> would be realized as [ɛɛ] in this position.

out the very real possibility that Carrera used <æ> to represent a variety of phonetic realities which must be assigned to different phonemes.

The contrastive nature of vowel length remains unclear; it may have only emerged after Carrera had completed his grammar, because the evidence in the data from the 19th century is much clearer (Hovdhaugen 2004: 11; see apparent minimal pairs in Cerrón-Palomino 1995: 81-82). Cerrón-Palomino (1995: 83) concludes that the contrast was present, but marginally.

The existence of diphthongs or, more generally, vowel sequences is also unclear and subject to varying interpretations. Orthographically, vowel sequences appear restricted to ones involving <i> as either first or second member. Middendorf (1892: 49) only mentions the diphthongs <ai>, <oi>, <ei>, and <ui>, while adding the perception that the two phases were pronounced more clearly separate than in German. The reality of diphthongs is implicitly denied by Torero (1986: 531), who points out that <i> following a vowel symbol can always be interpreted as a glide or as a correlate of palatal consonants; a similar analysis is offered by Stark (1968). Cerrón-Palomino (1995: 127-131), in contrast, interprets <i> in these cases as the nucleus of a separate syllable.

Consonants

Carrera (1644), in the preface to his grammar, claims to have invented two letters for writing Mochica. These are the digraph <cu> and the trigraph <xll>. <xll> however, is already found in Ore (1607) and even in earlier transcriptions of Mochica toponyms (Salas García 2011b: 87-88). In the light of such exotic graphic representations, it comes as no surprise that there are some points of agreement between different interpreters regarding the consonant system of Mochica, but also great differences.

The differing proposals reflect different points of departure and approaches to the analysis. One is based on graphemic analysis, subsequent inference of the phonetic properties of the sounds the graphemes represented, and then searching for phonologically relevant contrasts (Cerrón-Palomino 1995), while the other emphasizes organization and structuredness of the phonological system (Torero 1997, 2002), or, as Torero (2002: 304) himself puts it, "principles of coherence, naturalness, and economy". 119 Stark (1968) and Hovdhaugen (2004) are less explicit regarding the employed methodology. All interpretations are based mainly on Carrera (1644) and seek to describe the system of colonial Mochica, although Cerrón-Palomino (1995) and Stark (1968) take into consideration auxiliary evidence from other sources, principally Middendorf (1892).

^{119 &}quot;principios de coherencia, naturalidad y economía". Cerrón-Palomino (1995: 95) accuses Torero of imposing phonological principles on the data without sufficient reason; conversely, Torero (2002: 304-305) accuses Cerrón-Palomino of merely identifying letters and trying to find out "how they sounded" instead of conducting phonological analysis.

All interpreters agree that there were voiceless stop phonemes /p, t, k/, nasals /m, n, ŋ/, a lateral /l/, a rhotic /r/, and a high glide /j/. In addition, there is agreement regarding the existence of a palatal nasal and a palatal lateral, which are represented as /ñ/ and / \hbar /. Torero, in the light of his argument for a plain-palatal contrast in the language to be discussed below, prefers to write these /n½/ and /½/. A fricative / \int /, or a closely related sound, is also posited by all.

There is near-agreement about the existence of /f/, although Cerrón-Palomino (1995, personal communication) suggests that <f> represents a bilabial rather than labiodental fricative because of the treatment of [w] in Quechua loanwords which Mochica replaces with <f>.\frac{120}{2} This interpretation receives some support from Middendorf's (1892: 47) comment about a "soft" pronunciation of <f> resembling German /v/.

Cerrón-Palomino (1995: 118) and Stark (1968: 18) are alone in positing a contrast between two rhotics, a tap /r/ and a trill /r/ in the case of the former, and an alveolar and palato-alveolar resonant in the case of the latter. According to Cerrón-Palomino, however, the contrast was only active in intervocalic position and otherwise neutralized, resulting in free variation.

There is also near-agreement regarding the letter <d>, which is interpreted mostly as /d/. This would be the only place in the phonological system where a voicing contrast would have been relevant in the language, and that only in a restricted set of phonotactic contexts. The dissenting voice in this case is Hovdhaugen (2004: 12), who suggests that one is dealing with a voiced dental fricative [ð]. Cerrón-Palomino (1995: 87) rules this out because Spanish *casado* 'married' is adapted to Mochica as <casaro>.

Hovdhaugen (2004: 13) is also the only author to assume tentatively a retroflex stop phoneme /t/, represented by the very rare digraph .

The major point of disagreement concerns the existence of a palatal series of phonemes. This is proposed in slightly different manners by both Hovdhaugen and Torero. The disagreement is intimately linked with that regarding the interpretation of sequences of vowel graphemes involving <i>. As we have seen, for Torero this is a marker of palatality. Hovdhaugen (2004: 12) reasons in a similar vein, noting that said <i> is either preceded or followed by <ç/z, ch, ñ, tzh, x>. ¹²¹ He interprets it as an on- or offglide triggered by a common phonological feature of these consonants, which he infers to be postalveolar point of articulation and/or palatality; a similar account is also provided by Stark (1968: 19-24). ¹²² Torero's phonological analysis is outlined in Torero

¹²⁰ See the chapter on shared vocabulary items for some examples.

¹²¹ On the free variation between <ç> and <z>, note that these graphemes represented once distinct sounds in the orthography of Spanish that were distinguished by a contrast in voicing which had collapsed by Carrera's times (see further Appendix E).

¹²² Under this interpretation, however, as Hovdhaugen notes himself, it is unexpected that <ll> does not combine with <i>.

(1986) and elaborated on more fully in Torero (1997, 2002), but it is not always easy to make sense of Torero's phonetic descriptions. The following report therefore also makes use of information provided by Willem Adelaar in personal communication, who had conversed at length with Torero about Mochica phonology. For Torero, the palatality contrast pervades the system of consonant phonemes of Mochica. He distinguishes four sibilants, two palatals - in fact a "prepalatal" [ʃ] and a "predorsal" - and two plain, with "apicoalveolar" and "predorsodental" articulation (Torero 2002: 308-309). In his interpretation, laterals were organized according to a similar fourfold pattern, distinguished by point of articulation and voicing. Only the palatal laterals would have been distinguished in writing by the sequences <ll> and <xll> respectively, while the non-palatal phonemes would both have been represented by <1>.123 Likewise, a plain-palatal contrast is also posited by Torero for affricates, with <tzh> being interpreted as a plain apicoalveolar affricate and <ch> its (pre-)palatal counterpart, as well as for the velar series, with plain /k/ represented according to the standards of Spanish orthography (see Appendix E) and <cy> as its palatalized or mediopalatal counterpart. Hovdhaugen's (2004: 12-13) version of the palatality distinction is less copious. Beyond /p/ and /ʎ/, he recognizes <tzh> as /tsi/ and <c> and <z> as allographs of a single phoneme /si/. <cu> and <xll> he interprets as retroflex /ts/ and /s/ respectively because these sounds no not interact with non-nuclear <i>, a criterion to which he sticks for diagnosing palatality. A phonological role for palatality is also assumed by Stark (1968), although the details of interpretation differ from both Torero's and Hovdhaugen's.

Cerrón-Palomino's (1995: 88-111) analysis, operating on the same data but with the crucial difference that vowel sequences involving <i> are assigned to different syllables yields a quite different picture. He distinguishes dentoalevolar, prepalatal, and palatal affricates, with $\langle tzh \rangle = /ts/$, $\langle cy \rangle = /tc/$ and $\langle ch \rangle = /tf/$. Simple fricatives are recognized at the same points of articulation, with $\langle \varsigma, z \rangle = /s/$, $\langle s, ss \rangle = /s/$, |s| / (x) = /(x)/, and |s| / (x) = /(x)/ $= /c^{1}/.125$

Yet another phonetic and phonological interpretation of the Mochica data is implicit in Salas García's (2002) transcription of Mochica data, although only explanation of why he assumes [əu] is given (Salas García 2002: 146-147).

Table 12, which presents an overview of the different interpretations of Carrera's orthography, relies heavily on Hovdhaugen (2005b: 173). I have added Stark's (1968) interpretation. In some cases, in particular with Torero (1997, 2002), Hovdhaugen had to infer the precise phonetic realization from at times unclear descriptions.

¹²³ One of these was alveolar according to Torero, the other "cacuminal", i.e. retroflex (Torero 2002: 318).

¹²⁴ Described as "quasi-retroflex" ("cuasi retrofleja") by Cerrón-Palomino (1995: 103).

¹²⁵ Described as a lateralized prepalatal fricative by Cerrón-Palomino (1995: 109), but appearing as a velar in Table 2 in Cerrón-Palomino (1995: 123).

Carrera (1644)	Cerrón- Palomino (1995)	Salas García (2002)	Torero (2002)	Hovdhaugen (2004)	Stark (1968)
<a>>	a	a	a	a	a ¹²⁶
<e></e>	e	e	e	e	e
<i>></i>	i	i	i	i	i
<0>	О	0	0	О	o:, u
<u></u>	u	u	u	u	u:, u
<æ>	Ø	υe	u	9	Θ
<c qu=""></c>	k	k	k	k	k
<ç/z>	S	S	§	S ^j	¢ z ¹²⁷
<ch></ch>	t∫	t∫	t ^j	t∫	îç
<cu></cu>	tç	t ^j	\mathbf{k}^{j}	tş	<u>t</u> ^j
<d></d>	d	d	d	ð	d^{128}
<f></f>	ф	f	f	f	f
<l></l>	1	1	1, L	1	1
<ll></ll>	λ	λ	1 ^j	λ	λ
<m></m>	m	m	m	m	m
<n></n>	n	n	n	n	n
<ñ>	ŋ	n	\mathbf{n}^{j}	n	л
<ng></ng>	ŋ	ŋ	ŋ	ŋ	ŋ
	р	р	р	p	р
<r rr=""></r>	r/r	r	r	r	r/\underline{r}
<s ss=""></s>	Ş	ş	S	S	z/s ¹²⁹
<t></t>	t	t	t	t	t
	-	-	-	t	-
<tzh></tzh>	ts	ts	ts/t ^j	ts ^j	ţs
<v></v>	W	u?	?	u	?
<x></x>	ſ	S	ſ	S	X
<xll></xll>	ç ^l	4	Ý	Ş	çj
<y, i="" j,=""></y,>	j	j	j	j	j

Table 12. Letters used by Carrera (1644) to transcribe Mochica and their suggested interpretations, based on Hovdhaugen (2005b: 173).

¹²⁶ Stark (1968: 20) interprets <â> as [a:].

¹²⁷ These sounds are considered allophones in Stark's (1968) analysis.

^{128 [}d] and [ts] are allophones in Stark's (1968) analysis.

¹²⁹ These sounds are also allophones of one another in Stark's (1968) analysis.

I have further modified the table slightly where Hovdhaugen retains non-IPA symbols, the original descriptions of the sounds suggest the use of a different IPA representation than that chosen by him, and where he made small errors. While I hope to have achieved an accurate interpretation of each author's statements, I cannot exclude that I myself have introduced deviations from what was intended as a result of the phonetic terminology and symbology that differs between the individual authors. Therefore, readers are advised to consult the original sources to cross-check particulars.

Syllable and morpheme structure, phonotatics, and morphophonology

Whatever position one takes regarding the interpretation of <i>, Mochica has a strict (C)V(C) syllable structure. Complex onsets or codas are illicit, to the effect that all consonant clusters are found at syllable boundaries. 130 There are virtually no phonotactic restrictions, with the exceptions that <d> (Hovdhaugen: /ð/) cannot be the second member of such a cluster, a restriction resolved by epenthesis of a vowel whose quality appears to depend with certain regularity on that of the root (see Hovdhaugen 2004: 15; Cerrón-Palomino 1995: 145-147). Cerrón-Palomino (1995: 126) observes further gaps in this position that may either reflect true phonotactic restrictions or accidental lacunae in the corpus. In contrast with Quechua and Aymara, Mochica has a strong preference for monosyllabic roots. A restriction on root structure is that <d> and <ng> (/d/ and /n/ in Cerrón-Palomino's interpretation) are not found root-initially (Cerrón-Palomino 1995: 126).

The available Mochica material shows frequent alternations in both consonant and vowel qualities (see the overview in Hovdhaugen 2004: 15-16). Part of this is certainly due to the nature of the material (especially Carrera is not always consistent in spelling), but some regularities can be observed. Cerrón-Palomino (1995: 139-150) identifies several morphophonemic processes operative at the word-level: a fairly regular, though not entirely consistent one is the syncopation of <æ> as the nucleus of the penultimate of inflected or derived forms, under the condition that not more than one consonant precedes. Cerrón-Palomino assumes that absence of stress in the relevant position is the decisive factor for the phenomenon, since the process also applies sporadically to other vowels in Middendorf's (1892: 54) data. Other processes observed by Cerrón-Palomino are more limited in scope and pertain to the combination of certain elements: stemfinal vowels are contracted with those of following personal marker; similar phenomena occur with oblique forms of the personal pronouns and the combinations of lexical roots with the locative postposition. The final vowels of the form <fe> 'is' and of the oblique endings frequently undergo apocope. As Cerrón-Palomino points out, the regularities

¹³⁰ Data from Middendorf (1892) that appear to contradict this generalization can be explained by vowel suppression.

were probably more rule-like than what can be recovered from the transcriptions in the sources. There is also limited evidence for vowel harmony, in the quality of the suffixes of the 'gerund' (this is the same process treated by Hovdhaugen as a phonotactic restriction), and the active participle, but the data are too messy to formulate concise rules. 131

Stress and the suprasegmental structures of Mochica remain poorly understood due to the neglect with which its grammarians chastened the topic. Consequently, there are as many opinions as interpreters: Hovdhaugen (2004: 14) tentatively identifies a word stress pattern on the first syllable with many exceptions, while Cerrón-Palomino (1995: 133-138) argues for regular stress on the antepenult. Stark (1968: 27) interprets the data to the effect that stress fell frequently on the penultimate but assumes that it was not predictable and hence phonemic.

Morphosyntax

Nominal and adjectival morphology and syntax

Mochica nouns inflect for number, case, and possession.

Mochica has a distinction between inalienable and alienable possession. Carrera (1644), whom the study of Latin grammar did not prepare for this phenomenon, calls the possessed forms the 'second nominative'. Mochica nouns fall in three morphologically defined classes regarding the possessive forms (Hovdhaugen 2004: 20): For one class, the possessed stem is zero-marked morphologically, and the non-possessed one derived mostly with the suffix <-quic>, for a second, it is the other way around, and the possessed stem must be derived with a suffix, which can be <-(V)ss>, <-æd> or <-æ>. Carrera (1644: 5) himself suggests that <-(v)ss> is triggered by vowel-final roots, but admits that the choice of the allomorph is largely unpredictable. The third group has overt marking for both possessed and non-possessed stem; the suffixes are <-(v)r> and <-(v)c> respectively. Many of these latter nouns are deverbal, and indeed, this pair of suffixes can also be described as nominalizers.

The Mochica case system appears to be cast on a basic nominative-oblique opposition (the latter traditionally called genitive). The oblique marker, which is attached to the stem formed by the nominal root and the possessive inflection, has three allomorphs. Allomorph selection is to some extent predictable from the shape of the stem, but there are so many exceptions that it must be considered morphologically conditioned from a synchronic perspective. Allomorphs are <-ær> (Middendorf 1892: <-än>), <-ng>, and <-ei>, which latter may be reduced to <-e>. The oblique may be followed in certain context by a vowel <-ô> (Carrera 1644) or <-ō> (Middendorf 1892). Its function is not clear. According to Carrera (1644: 1-3), <-ær> is preferred with consonant-final

¹³¹ Torero (2002: 328) briefly suggests front/central and rounded/unrounded as phonologically relevant parameters for the alternations.

stems, and <-ng> with vowel-final ones, whereas Middendorf (1892: 52-54) speaks of a preference for <-är> after <k, t, p, m, n, ch, ts>, <-ei> after <l, r, s, j, ch, w (v), ng, d>, and <-ng> after vowels. Two nouns, <col> 'horse' and 'fire' have irregular obliques in <-u>, and another rare ending is in <-i> (Hovdhaugen 2004: 22).

The status of peripheral cases is not entirely clear-cut: Carrera (1644: 2) also speaks of a dative case, which is formed by combining the oblique form with pæn>; this element is analyzed by Middendorf (1892: 56) as a postposition. Hovdhaugen (2004: 23-25) distinguishes an agentive case (to be discussed further below), a nonproductive locative <-vc>, a locative-allative <-n(i)c> and an ablative <-ich>. Unlike the locative <-Vc>, the locative-allative <-n(i)c> requires the noun it attaches to be in its oblique form. The ablative <-ich>, when occurring on nouns, is "normally" (Hovdhaugen 2004: 25) preceded by the locative-allative. Hovdhaugen (2004: 25) considers <-n(i) c> a suffix rather than an independent word although it is regularly written separately because (i) its formal variability suggests that it forms a phonological domain with its host and (ii) it occurs intercalated between oblique and ablative. Generally, Hovdhaugen's (2005a: 146) criteria for distinguishing between case and adpositions are the morphological alternations the former but not the latter trigger and the combinability of case markers which postpositions lack. At the same time, this latter behavior is a typological rarity (see Hovdhaugen 2005a: 147-149 for some comparisons). That many of the supposed case markers demand the oblique stem suggests a looser morphosyntactic structure - indeed, Hovdhaugen (2004: 71) observes that case markers are added phrase-finally. One possible analysis, which is adopted here, is that the peripheral case markers of Mochica, at least the locative-allative, are phrasal clitics or cliticizing postpositions. Combinations of these markers (Hovdhaugen 2005a) would then be analyzed as clitic chains, thus <purgatorio-ng=niqu=ich> 'purgatory-OBL=LOC/ALL=ABL' 'from the purgatory' (see Hovdhaugen's 2004: 25 analysis). A postpositional analysis of the ablative would seem possible, too.

Regarding other case marker candidates, the correct analysis is even less clear. According to Hovdhaugen (2004: 54), they are postpositions, and can be subdivided into those that govern the nominative and those that govern the oblique. An overview of postpositions and the case they govern according to Middendorf (1892: 96-100) is in Table 13.132

Middendorf (1892: 125) suggests considering those markers that govern the nominative as case markers and those that require the oblique as postpositions, a suggestion that Torero (2002: 338-339) appears to have followed. This would be compatible with Hovdhaugen's (2004: 71) observation that case markers are added phrase-finally, i.e. that there is no case agreement within the noun phrase. Taking up an idea from Middendorf

¹³² Carrera (1644) mentions that there are more postpositions which he does not discuss.

(1892: 97), Salas García (2012: 146-154) analyzes several of the postpositions indicating a position in space as grammaticalizations of body-part nouns followed by an element <-æc>, according to him a reduced form of the locative <-nic>. This account would also explain why they demand the oblique.

There is one preposition, <pir> 'without'.

oblique	nominative
<nik> ~ <nek> 'in'</nek></nik>	<len> 'with' (comitative)</len>
<kapäk> 'on'</kapäk>	<tana> 'with'</tana>
<jechäk> 'above, on top'</jechäk>	<tot> 'with, against'</tot>
<ssekän> 'under'</ssekän>	<foin> 'mixed with'</foin>
<lek> 'at'</lek>	<er> 'with' (instrument)</er>
<juchäk> 'in between, in the middle of, under'</juchäk>	<kapo> 'from, containing, made of'</kapo>
<tutäk> 'in front of'</tutäk>	<tim> 'for the sake of'</tim>
<turkich> 'behind, because of'</turkich>	<na> 'through'</na>
<pän> 'for'</pän>	<totna> 'to'</totna>
	<ich> 'from'</ich>
	<män> 'according to'</män>
	<fanäk> 'according to'</fanäk>
	<fanang> 'while'</fanang>
	<pän> 'for, as, to'</pän>

Table 13. Mochica postpositions according to governed case; from Middendorf (1892: 96-100).

Regarding number, singular is unmarked, and the plural can, but need not be, marked with <-æn> (Carrera 1644) or <-än> (Middendorf 1892). This suffix is not restricted to nouns, but also occurs on adjectives and the verb as a marker of the 3rd person plural. It also appears to be present in the plural forms of the demonstratives (see below). In noun phrases which involve modifying adjectives, plural marking is usually only found on the adjective in Carrera's data (Hovdhaugen 2004: 71). Middendorf (1892: 65) states that the number marker follows the adjective in the nominative, but follows the noun in the oblique, thus <ñass-än-o tot> 'the beautiful faces', <ñass-o tot-än-ärō> 'of the beautiful faces'. <-æn> may have been a separate plural particle, given that Carrera (1644: 5) emphasizes that it is "pronounced by itself". 133 Relevant here is also the positioning of this element vis-à-vis one allomorph of the oblique case marker, discussed explicitly only by Middendorf (1892: 53): while the plural marker is positioned between stem and oblique if its allomorphs are <-är> or <-ei>, the combination of the plural marker with <-ng> results in <-ng-än>. Hovdhaugen (2004: 19) observes that both orders are attested with <-ær> in Carrera's data, thus we have <moxquic-æn-ær> 'of the souls' but <ñofn-ær-æn> 'of the men'.

Mochica pronouns also inflect for number and case. One peculiarity are distinct caseforms expressing a dative-benefactive semantic role for the 2nd person singular and plural and the 1st person plural. The paradigms are seen in Table 14 (Hovdhaugen 2004: 29):134

	1sG	1PL	2sG	2PL
NOM^{135}	<moiń></moiń>	<mæich></mæich>	<tzhang></tzhang>	<tzhæich></tzhæich>
OBL	<mæiń></mæiń>	<mæich></mæich>	<tzhæng></tzhæng>	<tzhæich></tzhæich>
DAT	<moiñ></moiñ>	<ñof>136	<tzha></tzha>	<tzhachi></tzhachi>

Table 14. Paradigms of Mochica pronouns, from Hovdhaugen (2004: 29).

Diachronic morphological complexity is likely considering what I call the 'cliticizing personal reference markers' in the discussion of verbal morphosyntax that will follow below. The non-reduced forms of these are <eiń> '1sG', <az> '2sG', and <ix> ~ <eix> '1PL'. The 1st person forms at least bear an obvious diachronic relationship with the personal pronouns (pace Adelaar 2004: 329). At the same time, the free pronouns are incompatible with such markers and vice versa (Carrera 1644: 95-96). Together, both facts suggest the fusion of the personal reference markers with pre-Mochica pronominal roots *<m-> and *<tzh-> respectively. 137 Regarding the ablaut relationship between the nominatives and the obliques, Torero (2002: 342-343) suggests that the raising of the root vowel of the oblique forms may have been conditioned by the erstwhile suffixation of the oblique marker <-i> or <-e>.

There are also so-called third person pronouns. Since these appear to involve a distance contrast, however, they may better be labeled demonstratives. Semantic

^{133 &}quot;[...] pronunciar la dicha particula. æn. como de por si".

¹³⁴ This, and the following paradigms of the demonstratives, are considerably altered from their original presentation on behalf of Carrera (1644: 10-20). This is especially true of the dative for which Carrera presents constructions with pæn>, which he considers the dative case marker.

¹³⁵ Hovdhaugen calls this "direct" case (abbreviated DIR) instead of nominative (NOM).

¹³⁶ Middendorf (1892: 70) suggests that this form is grammaticalized from <nofan> 'man'.

¹³⁷ Middendorf (1892: 131) suggests that the root of the first pronoun is identical to that of the demonstrative <mo>; his theory that <moiń> is a contraction of this root and <eiń> 'who?' seems less likely, however.

interpretation differs between authors: Adelaar (2004: 331) and Hovdhaugen (2004: 30-31) agree that <mo> is a proximal and <aio> a distal form, but the former labels <çio> as "neutral" and the latter glosses it as 'he, she, it'. The paradigms for all forms are seen in Table 15 (adapted from Adelaar 2004: 331 and Hovdhaugen 2004: 31):

	SG	PL
NOM	<çio>	<çiongæn>
OBL	<çiong> ~ <çiung>	<çiungæn>
DAT	<çioss>	n/a
	SG	PL
NOM	<mo></mo>	<mongæn></mongæn>
OBL	<mung></mung>	<mungæn></mungæn>
DAT	<moss></moss>	n/a
	SG	PL
NOM	<aio></aio>	<aiongæn></aiongæn>
OBL	<aiung></aiung>	<aiungæn></aiungæn>
DAT	<aioss></aioss>	n/a

Table 15. Paradigms of Mochica demonstratives, adapted from Adelaar (2004: 331) and Hovdhaugen (2004: 31).

A number morpheme is not synchronically analyzable, but the plural paradigms are suggestive of former analyzability involving the plural marker <-æn>. In addition, the recurring sequences <-ng> and <-ss> in the oblique and dative forms show a striking similarity with the <-ng> of the nouns' oblique and the possessed stem formative <-Vss> respectively.

Several facts make it dubious if adjectives are a recognizably distinct part of speech in Mochica. As Hovdhaugen (2004: 27) notes, adjectives can without further measures receive case markers and function as nouns. The other relevant fact is that the 'adjectivalizer' <-ô> (after consonant-final roots) ~ <-iô> (after vowel-final roots) can attach to nouns. After suffixation, they can appear in modifying position and in many cases exhibit noncompositional meaning (see Torero 2002: 344). Selected evidence from Middendorf (1892: 67) is listed in Table 16.

noun	adjective
<ōj> 'fire'	<oj-o> 'fiery'</oj-o>
<tsak> 'hair'</tsak>	<tsak-o> 'thin'</tsak-o>
<jā> 'water'</jā>	<ja-io> 'thin (of liquids)'</ja-io>
<fanu> 'dog'</fanu>	<fanu-io> 'shameless'</fanu-io>

Table 16. Compositional and non-compositional examples for the semantic effect of the 'adjectivalizer' <-o>, from Middendorf (1892: 67).

This 'adjectivalizer' appears as a marker of dependent status with adjectives, numerals, participles, adverbs, and PPs; Torero (2002: 338) treats it as one of the case markers. It appears to be applicable to entire phrases as well. In the following example, as Hovdhaugen (2004: 28) suggests, <-o> appears to transform the phrase <corregidor chi-læc> to a modifier of the 1st person actor.

(1).	<corregidor< th=""><th>chi-læc-o=iñ</th><th>tæp-æd</th><th>tzha></th></corregidor<>	chi-læc-o=iñ	tæp-æd	tzha>
	mayor	be-GER-ADJR=1SG	flog-GER	2sg.dat
	'Being mayor I h	nave to flog you'	(adapt	ed from Hovdhaugen 2004: 28)

Middendorf (1892: 115) says that there are no fixed rules for the appearance of <-o>, and Hovdhaugen (2004: 28) admits that "[i]t is difficult to cover all the uses of -ô not the least due to the great variability in the use of this suffix where there most likely are pragmatic or syntactic subtleties that we have not grasped". 138

Modifiers (numerals, adjectives, possessive pronouns, genitives, demonstratives) consistently precede their head in Mochica noun phrases (Hovdhaugen 2004: 71), thus <peñ-o ñofæn> 'a good man', <mecherræc-o col> 'mare' (Carrera 1644: 28-29). A more complex example is in (2):

(2).	<moexll.mætzh-o< th=""><th>ærqu-ic-ær</th><th>chi-çæ-r></th></moexll.mætzh-o<>	ærqu-ic-ær	chi-çæ-r>
	DEM.PROX five-??	flesh-NPOSS-OBL	be-NMLZ-POSS
	'these five senses'		(adapted from Hovdhaugen 2004: 22)

The 'five senses' have been translated as 'beings of the flesh' by Carrera (1644); the head of the noun phrase is <chi-çæ-r>.

¹³⁸ Another curious fact is that it sometimes appears to code a genitive-like relation, as in <Dios ô chiçær> 'God's being' (Carrera 1644: 134); there appears to have existed another rule in which it replaces the personal reference markers in negatives which was unclear to Carrera (1644: 136-137) himself.

The Mochica numeral system is decimal. Attested simple numerals are <onæc> '1', <aput>¹³⁹ '2', <copæt> '3', <nopæt> '4', <exllmætzh> '5', < tzhaxlltzha> '6', <ñite> '7', <langæss> '8', <tap> '9', and <çiæcy> '10' (Carrera 1644: 182). There is a system of numeral classifiers to count groups of tens and hundreds of different objects. Attested classifiers (Carrera 1644: 183-187) are <pong> 'tens of men, horses, goats, canes and everything not money or fruit', <ssop> 'tens of money and days' (perhaps related to <ssop> 'rope' as Middendorf 1892 suggests), <cuo quixll> 'tens of fruits, corn cobs and other things' (perhaps related to Brüning's 2004 < tšok> 'squash' according to Salas García 2012: 171), <na ch(i)æng> 'hundreds of fruits etc.' (perhaps related to Brüning's 2004 <tšŭm> 'pumpkin' according to Salas García 2012: 173), and <paxllæc> 'hundreds', which was apparently a generic classifier. In Urban (2015c) I suggest that <pong> is grammaticalized from the free noun <pong> 'stone' and <palæc> from <paxllæc> 'lima bean'. Circumstantial evidence from onomastics reported in Urban (2015c) shows that the numeral classifiers retain the possessive morphology of nouns when they appear in the appropriate context. Salas García (2012: 163-164) offers a different analysis which involves a theory on the semantic development from 'stone' to a classifier that can refer to humans. In contrast, I conceive of the relation between object and classified to have been entirely symbolic in Piercian terms. Also, contrary to my analysis, Salas García (2012: 173-174) suggests that <palæc> comes from an older stratum of primary numerals rather than from a grammaticalization of <paxllæc>.

There are also classifiers for pairs of things, <luc> and <felæp>. Salas García (2012: 158-160) suggests that these are derived from <loc> 'foot' and <felæp> 'be seated' respectively. In addition, free nouns are recruited to do duty as classifiers. Thus <col> 'horse' (originally 'llama') can serve as a classifier of maize, in <na col mang>, literally 'one horse maize', a phrase which Salas García (2008b: 149) interprets as 'the quantity of maize one horse can carry'. Furthermore, <pacñofæn lá>, literally 'two man water', means 'two estados'; an *estado* is an old unit of measurement of the water level equivalent to the height of an average man. It is likely that there were more classifiers not mentioned by Carrera.

The classifiers are combined with short forms of the numerals from '1' to '4', which are <na->, <pac->, <çoc->, and <noc->. Also, the higher numerals <palæc> '100', and <cunô> '1000' demand these short forms. Thus <pac cunô allo napalæc allo aput> is '2102' (Carrera 1644: 185). As one can see, <allo> serves as a linker. Middendorf (1892: 129) and, elaborating on him, Salas García (2008b) argue that the short forms are contracted versions of the free forms. However, a more plausible hypothesis in light of the common endings <-put> ~ <-pæt> in the long forms is that these are expanded versions of the diachronically original shorter forms with elision of their final consonant.

¹³⁹ Corrected from <atput> (Carrera 1644: 182).

Alternatively, both paradigms may have been formed from common numeral roots with the formatives <-put> - <-pæt> and <-c>. According to Hovdhaugen (2004: 26), ordinal numbers are formed with <-xa>, and frequentatives ('x times') with <-xia>; this analysis is contested by Salas García (2011c), who argues that <xa> - <xia> is a single noun having to do semantically with the position of an entity – materially or temporally – within an ordered whole.

Mochica is rich in nominalizations. Hovdhaugen (2004: 52) only mentions one strategy of lexical nominalization which involves the verbal noun in <-(i)-çæ-c> (there are variant forms). Adelaar (2004: 335, 340) adds an agentive nominalization in <-(V)pæc> and a stative nominalization in <-(V)-d-o>. These morphemes are described as the present and preterite participle by Hovdhaugen (2004: 42-43). Since these indeed are found within the verb complex, the best analysis of where within the grammar of Mochica they pertain remains open; a required task on the path to a more conclusive analysis would be a more detailed look at the syntax of verb forms involving the participles. In addition, Adelaar (2004: 341) recognizes an instrument nominalizer <-ic> -<-uc>, which also forms locative nouns (see Middendorf 1892: 109).

Hovdhaugen (2004: 69) notes that there is no compounding in Mochica. To this, however, one must add that N-N and ADJ-N phrases, in which the dependent is marked with <-o>, are abundant and functionally replace compounding in the language (e.g. Morr-o-pon 'Iguana stone,' the name of a town in the Upper Piura Valley). Torero (2002: 341) alludes to the distinct possibility of old complex forms in the lexicon that may have started as phrases of this or a similar type, see <pitær> 'esophagus', <altærr> 'throat', <xllontær> 'crop' (though see Salas García 2012: 153-154). Also, the term <xūt xaets> which denotes a kind of vulture with a coloured head according to Lehmann in Schumacher de Peña (1991: 30), is interesting in this connection. Schumacher de Peña reasonably compares this with Middendorf's (1892) <jäts> 'head' and <jute> 'hood'. Derivation is common. The nominalizers (or participles) discussed above are involved in the formation of lexical items, as in <chi-co-pæc> 'be-CAUS-PRES.PRTC' 'creator, God'. 140 In addition, there are derivational morphemes <-cu> (with unclear semantics) and <-mæd>. The latter derives nouns denoting "a person doing something together with others or being together with others" (Hovdhaugen 2004: 68). <-äss> forms abstract nouns from adjectives (Middendorf 1892: 111). There are also examples in which combinations of adpositions with nouns serve for word-formation, most notably <pir> 'without', as in <pürchópok> 'devil' (Middendorf 1892: 58), which apparently can be translated literally as 'without soul'. Some forms involving the 'adverbializer' <-na> have also entered the lexicon, e.g. <lecy-na> 'first, more' from <lecy> 'head' (Hovdhaugen 2004: 53).

¹⁴⁰ Probably the Turkey Vulture (Cathartes aura) is meant (Hovdhaugen 2004: 27). See Salas García (2012: 120-122) on the further history of this word.

Verbal morphology and syntax

Hovdhaugen (2004: 38-39) distinguishes three types of verbal stems. The form of the first type is invariable and mostly includes stems which end in a vowel. The other two types of stems undergo alternations. The second type copies the vowel of a (C)VC root at its end in certain grammatical contexts, such as the gerund, the preterite participle, the portmanteau causative-passive <-quem->, and inconsistently in other grammatical contexts. The third type has 'floating <æ>'. These are polysyllabic stems with the shape (C)V(i)C&C which change their form to (C)V(i)CC& when followed by the suffixes which trigger the long stem in the second class.

Our picture of Mochica verbal morphology is severely disturbed by the extensive appliance of terminology from Latin grammar to Mochica on behalf of Carrera, and following him Middendorf and to some extent also Hovdhaugen. The original description is teeming with categories like 'gerund', 'supine', 'participle' etc. that may or may not be adequate for the description of Mochica. In addition, a problem even more virulent than in the case of nominal morphology is to make a distinction between affixes, clitics, and free function words.

That said, Mochica seems to have lacked affixal verbal person marking entirely. So-called personal reference markers or even suffixes are promiscuous with regard to their position relative to the verb itself, being capable of appearing either in preverbal or postverbal 'suffix' position. In disjunctive questions, they appear phrase-initially (Adelaar 2004: 331), and they are also capable of attaching to the constituent preceding the verb (Torero 2002: 331). I infer postclitic status for these elements from example pairs like those in (3) (adapted from Adelaar 2004: 330, in turn from Middendorf 1892: 160) which demonstrate the positional variability of the elements.

- (3). a. <met=eiñ mäiñ ai-näm> pup an make-PURP bring=1sG wood 1sg.obl house 'I bring wood in order to build my house
 - b. <pup eiń met mäiñ ai-näm> 1sG bring 1sg.OBL house make-PURP 'I bring wood in order to build my house'

In addition, phonological reduction is in evidence when the markers cliticize. Hovdhaugen (2004: 35), who calls these elements "personal copula particles", presents the following summary of forms:

	V+_	C+_	non-clitic
1s _G	<-iñ	<-aiń> ~ <-eiń> ~ <-æiń>	<eiñ></eiñ>
2sG	<-z/-ç>	<-az> ~ <-ez> ~ <-æz>	<az></az>
1 _{PL}	<-ix	<-aix> ~ <-eix> ~ <-æix> ~ <-ix>	<ix>, <eix></eix></ix>
2PL	<-zchi	<-azchi> ~ <-ezchi> ~ <-æchi>	n/a

Table 17. Mochica personal reference markers, from Hovdhaugen (2004: 35).

The 2nd person plural form is composite. This is not only suggested by the similarity to the 2nd person singular but is also shown by the separatability observed in (4).

The bipartite nature of the 2nd person plural marker requires a reconsideration of the semantics of the markers and an exploration if an individual semantic contribution can be assigned to <-chi> in particular. 141

Markers coding the undergoer in active clauses are unattested. Examples like that in (5) show that the full pronouns are employed in this case:

```
(5). <tzha.c-n
               moiñ
                           tzhæng
                                     cucia-s.-e=nic>
      carry-IMP 1sg.NOM
                           2sg.obl heaven-poss-obl=loc/all
     'Carry me to your heaven!'
                                          (adapted from Hovdhaugen 2004: 30)
```

There are two copula verbs in Mochica which combine with these markers, namely <chi> and <loc>. <chi> is also used in a construction expressing predicative possession (Torero 2002: 348; note that it corresponds formally to the second element of the bipartite personal reference marker for the 2nd person plural). Light-verb constructions with the copulas or other generic verbs are the functional equivalents of verbalization in Mochica (Torero 2002: 359); otherwise, mechanisms for the creation of new verbs are not well developed.

In addition to the copula verbs, there are three 'non-personal copula particles' <fe> ~ <f>, <e>, and <ang> ~ <æng> ~ <ong> ~ <-ng> (Hovdhaugen 2004: 34). True copula function is seen in (6).

¹⁴¹ Following an earlier proposal, Adelaar & Muysken (2004: 336) suggest that "the second-person plural marker was split into a prefix and a suffix part". One does not necessarily have to follow this interpretation, as <-æ> in example (4) may equally well or better be interpreted as cliticizing to the verb <t-> expressing futurity.

(6). <moiń ang ńofæn>
1SG.NOM COP man
'I am a man'

(adapted from Hovdhaugen 2004: 34)

These are incompatible with the person clitics and require the free pronouns instead. This is consistent with the interpretation of the free pronouns as the result of the diachronic fusion of pronoun roots with the personal reference clitics. There are exceptions, however. In (7) one finds a free pronoun in combination with the cliticizing person markers. In addition, there is a zero-copula.

(7). <mæich eix ûtzh-o>
1PL 1PL.NOM tall-ADJR
'We are tall' (Carrera 1644: 44)

The copula particles can also occur in conjunction with a verb root and the free pronouns. In fact, the second major way to form finite clauses in Mochica involves the copula particles. An example is in (8).

(8). <moiñ é met xllac>
1SG COP bring fish'
'I bring fish' (Carrera 1644: 98)

Instead of <moiñ é met xllac>, equally possible is the use of the other copulas, yielding <moiñ fe met xllac> or <mæiñ ang metær xllac>; the latter shows supposed passive morphology, on which see further below. Middendorf (1892: 73) notes that while interchangeable, <e> is preferred with the first person and <fe> with the third person, while for the second person the construction involving the cliticizing personal marker is preferred.

The only verbal constructions not involving personal markers of some sort are the imperative and prohibitive. The imperative is formed with the suffix <-(a)n> (the vowel only appears with consonant-final stems, Hovdhaugen 2004: 44). This suffix is formally virtually identical with the preverbal particle <an>, which has a hortative function (Hovdhaugen 2004: 58). The prohibitive is formed with the marker <amoz> in initial position (Hovdhaugen 2004: 44, 58).

According to Hovdhaugen's (2004: 42-43) analysis, Mochica has a present and a preterite participle, the former marked with $\langle -p(x)c \rangle \sim \langle -ap(x)c \rangle$ and the latter marked with $\langle -(x)d \rangle$. According to Adelaar (2004: 340), the participles have passive meaning with transitive verbs and active meaning with intransitives. Some bisyllabic verbs form the present participle periphrastically. The present participles can function as heads or modifiers in NPs and as such receive nominal morphology such as the plural marker, e.g.

<aia-pc-æn> 'those doing' from <ai(a)> 'to do' (Hovdhaugen 2004: 42). They are also involved in the formation of relative clauses (Hovdhaugen 2004: 75), as in example (9):

(9). <tzhang aia-pæc-o tzhang chico-pæc-o Dios> 2sg.nom make-pret.part-?? 2sg.nom create-PRET.PART-?? god 'God who has made and created vou' (adapted from Hovdhaugen 2004: 75)

Note that the 'adjectivalizer' is involved here, too. This construction requires identity of subjects. Further, a major function of the so-called participles is to convey tense-aspect distinctions in finite verbs, in which case the participial form is combined with the personal reference clitics. According to Hovdhaugen (2004: 44), the distinction conveyed by the resulting verb forms is aspectual. Hovdhaugen (2004: 44) further states that tense is distinguished for the non-imperfective forms, but it remains unclear how this is achieved; Carrera (1644: 65) states that Mochica speakers use the "present tense" to refer to past events, suggesting that aspect rather than tense is involved.

Adelaar (2004: 337, Table 3.20), in contrast, distinguishes a preterite from a future tense. Indeed, Carrera mentions a "future verb" <t->, which is however unattested in the texts (Hovdhaugen 2004: 46). Torero (2002: 336) sensibly interprets it as a grammaticalized and shortened version of the verb <ta> 'go'. Otherwise, Hovdhaugen (2004: 44) says that futurity "is mainly expressed through verbal particles". Yet other tenses Carrera (1644) and Middendorf (1892) distinguish following the Latin model of grammatical description appear to be spurious.

Derivational verbal morphology includes a class of valency-changing elements. These include a causative <-co-> (Adelaar 2004: 339), a benefactive (or applicative, according to Torero 2002: 352 and Adelaar 2004: 339) <-(x)c(x)>, and a supposed passive. When more than one of these elements are present, the order is causative-benefactive-passive (Hovdhaugen 2004: 40). There is also an impersonal <-cyæm>, which is incompatible with other elements (Hovdhaugen 2004: 41), and there may have been a continuative <-(\varepsilon)p-> (see Torero 2002: 361-362, who calls it "inconclusive"). The combination of causative with passive is expressed by <-quem->, that of causative with benefactive by <-quec-> (Hovdhaugen 2004: 40). Hovdhaugen (2004: 41) otherwise distinguishes eight allomorphs of the passive marker; possible functional or semantic distinctions among them are lost due to insufficient information. Judging from Hovdhaugen's examples, four of these, <-ær->, <-ir->, <-er-> and <-ar-> could be described as a single marker <-(V)r-> with the vowel quality copied from that of the preceding verb stems. The same may be true of the markers <-(x)m(x)-> and <-em-> (see Adelaar 2004: 338). The variation between these morphemes is not determined morphologically. Therefore, from <met(e)> 'to carry', both <met-er> ~ <met-ær> and <met-em> are attested (Hovdhaugen 2004: 41). Another passive marker is <-æp-> (Hovdhaugen 2004: 41).

A peculiarity is that those nouns with oblique forms in <-ei>, when expressing the agent of a passive clause, receive the marker <-en> (Middendorf 1892: 55), as seen in example (10).

```
(10). <ef-en jip-kem=eiñ>
father-AGT call-CAUS.PASS=1SG
'I am called by the father' (adapted from Middendorf 1892: 55)
```

Hovdhaugen (2004: 23) calls this the agentive case, noting that it is found particularly frequently with human nouns.

Indeed, the use of the passive is so widespread (see Carrera 1644: 11) that one may think of the language rather having been ergative, or on its way to becoming ergative. Hovdhaugen (2004: 74) says that Mochica "is a rather special kind of a split ergative language" which codes the A of passive clauses (or ones involving a preterite participle with passive meaning) with the agentive, while in non-passive transitive clauses both agent and undergoer are treated alike morphologically. This analysis seems problematic because Hovdhaugen's 'agentive' is only attested with one subclass of nouns, whereas with nouns of other classes the agent of passivized clauses is in the oblique without said marker. However, Salas García (2012: 139-144) is able to explain this anomaly by phonotactically illicit structures that would have arisen when suffixing <-n> to the other oblique markers <-ng> and <-ær>.

Another analytic option, proposed by Torero (2002: 351-357), is an inverse system subject to a person hierarchy 1 > 2 > 3. Carrera (1644: 97, 100) notes the impossibility of "transforming back" some "passive" clauses back to active, saying that native speakers of Mochica do not know how to do it and that he who could would be a master linguist ("lenguaraz"). This indeed suggests that one is dealing with something else than an active-passive opposition. In addition, given its token frequency, the so-called Mochica 'passive' seems to be pragmatically unmarked. Under Torero's analysis, the person involved highest on the hierarchy would assume the role of grammatical subject. The 'passive' markers on the verb are reinterpreted as inverse markers, coding the person highest on the person hierarchy. The examples in (11) illustrate the inverse analysis, with the inverse marking triggered by a third person acting on a second person in (11a), and a second person acting on a first in (11b). In both cases, the agent is in the oblique rather than the nominative, and the verb bears the inverse (passive) marker.

```
(11).a. <Pedro-ng az-xllip-quem>
Pedro-OBL 2sG-call-CAUS.INV
'I bring wood in order to build my house' (adapted from Hovdhaugen 2004: 73)

b. <tzhæng ein funo-quem>
2sG.OBL 1sG.NOM eat-CAUS.INV
'You give me to eat' (adapted from Carrera 1644: 71)
```

Torero's direct-inverse analysis is able to account for a remarkable amount of the available data; it remains to be checked against the entire corpus available just how much of the data can be explained. It is already clear that there are some problematic examples for the inverse analysis in which the person hierarchy appears to be violated. Torero (2002: 356) attributes this to an idealization of Mochica grammar on behalf of Carrera who tried to make the data fit to his analysis modeled on the Latin passive. This explanation, of course, unduly immunizes Torero's theory to counterexamples. A major problem for Torero's analysis, however, is transitivity, which is the main diagnostic difference between passive and inverse construction (Klaiman 1992). Whereas passivized clauses by definition are intransitive, inverse constructions retain transitivity. Now, Torero (2002: 355) himself states that there are inverse constructions without the agent expressed, e.g. <xllip quemaz> 'you are called' (Carrera 1644: 70), <metæraz> 'you are brought' (Carrera 1644: 99), <funo quemeiñ> 'you are given to eat' (Carrera 1644: 70).

Alignment of case-marking in the direct (active) is neutral, and ergative in the inverse (passive). This is, at least, the case if the roles are filled by full lexical noun phrases. Adelaar (2004: 332) suggests that the irregular form <ñof> also codes the accusative. In example (12), repeated from (1), the dative pronoun <tzha> appears to be in a rather clear patient role, suggesting a more complicated picture obscured by Carrera's (1644) lack of explanation.

(12). < Corregidor chi-læc-o=iñ tæp-æd tzha> flog-GER 2SG.DAT be-GER-ADJR=1SG 'Being mayor I have to flog you' (adapted from Hovdhaugen 2004: 28)

Again, a full assessment of the corpus is necessary to determine if non-neutral alignment is detectable on the basis of the pronouns and demonstratives in a systematic manner.

Mochica speakers had at their disposal an array of verbal suffixes to form subordinate clauses (Hovdhaugen 2004: 46-52). These include <-næm> 'purposive' and the four 'gerunds' <-læc>, <-ssæc>, <-(æ)zcæf>, and <-æd> which form adverbial clauses with varying semantics. <-læc> is used to form conditional, concessive, and more rarely causal and temporal clauses, <-ssæc> principally for temporal clauses and more rarely causal and concessive ones, <-(x)zcxf> for perfective temporal clauses, and <-xd> (Carrera's 'supine') for purpose clauses. The latter is mostly identical in form with the preterite participle. Torero (2002: 366) adds <-(i)ô> and <-(v)p(æ)c-ô> as subordinators expressing contemporaneous action ('while'). These appear to feature the 'adjectivalizer' <-ô>/<-o>, which suggests that we are dealing with a clausal constituent in apposition with a noun.

In addition, there is the morpheme <-top>, which serves to conjoin clauses expressing "the sequence of actions or events [...] or several parallel events or states" (Hovdhaugen 2004: 46; Adelaar 2004: 336 interprets it as a "remote past tense"). The subject, always

Phrasal conjunction is realized with the form <allo>, which is also used in the construction of numerals, and phrasal and clausal conjunction with <çæn> (Hovdhaugen 2004: 59-61).

Constituent order is relatively free at the clause-level. Torero (2002: 352) gives examples of direct VSO, OSV, and SVO clauses; Hovdhaugen (2004: 73) identifies SVO as the most common order in active transitive clauses, while "[i]n intransitive clauses Seems always to follow the verb". The placement of copulas involved in the formation of finite verbs and the cliticizing personal markers is restricted to the clause-initial or second position (Hovdhaugen 2004: 72-73).¹⁴²

The fate of Mochica

All in all, Carrera (1644) estimates the Mochica-speaking population in the mid-17th century at about 40 000 persons. From this figure, it would have gradually declined until the perishing of the last speakers in the early 20th century in Eten. According to Bastian (1878: 168), the last person who understood the dialect of Monsefú died in the mid-19th century. Given the gradual nature of language death, Zevallos Quiñones (1941) was still able to record data there.

Salas García (2013: 114-115) evaluates various statements from the 18th century (mostly originally assembled but left unpublished by Brüning) regarding the need for interpreters. These can be used as a proxy for assessing the vitality of the language, since the necessity of interpreters implies the existence of monolingual speakers who do not understand Spanish. From this it appears that in the late 17th century there were still monolingual speakers in Lambayeque, while in 1740, in San Pedro de Lloc, most of the indigenous people were already bilingual. In 1782, San Pedro de Lloc was already a monolingual Spanish-speaking community, a situation apparently common in much

¹⁴² Torero (2002: 353) analyzes this regularity in a different manner, saying that the true function of the copulas is to mark the agentive function of the preceding phrase. This suggests an ergative-like pattern (though in a quite different manner than that proposed by Hovdhaugen). However, an interpretation of the copula as an ergative marker is not feasible in all examples.

of the originally Mochica-speaking area by the late 18th century. The Mochica language, however, survived for more than a century longer in Monsefú and the coastal town of Eten to the south of Chiclayo. Apparently, there were still monolingual speakers in the late 19th century (Middendorf 1892: 46). This is where the second wave of documentary work on Mochica was carried out. Middendorf (1892: 45), one of the key figures of this wave, however, was acutely aware that the language was nevertheless doomed to extinction. According to him, the town of Eten had been relatively secluded so that its inhabitants had preserved their old customs and their language. The construction of a railroad that connected Eten with the major neighboring cities pulled the town from its isolation, with dramatic consequences. Middendorf reports that the young people began feeling ashamed of their language and stopped using it in public and in contact with strangers, which Middendorf correctly diagnosed as the beginning of the end of the Mochica language.

In the light of this situation in the late 19th century, the Mochica language has made an unlikely career. Long after its extinction, it has proven to possess an enormous power as a symbol of cultural identity of the people of Lambayeque, as part of a more general upsurge of interest in the indigenous heritage of the region (Alva Mendo 2004; Silverman 2005). Workshops are organized so that students can learn about the cultural heritage of the region. These include also classes on Mochica (Chero Zurita 2009). Further south, the ciudadelas of Chan Chan, traditionally named mostly for explorers, have recently been rebaptized and given historically unmotivated Mochica names (Paredes Núñez 2010).

VII. Quingnam

The name Quingnam

Quingnam is likely not the name that was used by its speakers to refer to their language. To my knowledge, only two etymologies for the name have been suggested. The first, originally proposed by Richard Schaedel and quoted as personal communication by Rabinowitz (1983: 264, fn. 3), derives it from a supine form of Mochica <king> 'to spin'. Hence, the name would mean 'to spin, for spinning' (Cerrón-Palomino 1995: 32, fn. 9). The assumption is that there is an underlying metaphorical connection between spinning and speaking. This is rightly dismissed by Cerrón-Palomino as folk etymology. Salas García (2010: 102), on the other hand, speculates that quingnam actually means 'fisherman' in Quingnam, probably against the background of the presumed association of the language with fishermen. This suggestion, however, is difficult to reconcile with the fact that <guaxme>, a term reported in colonial sources in locations which are thought to have been Quingnam-speaking, has the same meaning (see also the discussion of lexical items with a possible Quingnam origin further below).

A more plausible etymology can, if also only tentatively, be suggested on the basis of the so-called Crónica de Ocxaguaman (Zevallos Quiñones 1994b). This is actually not a chronicle, but a collection of protocols from a lawsuit that took place in Trujillo from 1562 to 1564. Its subject was the right of succession to Antonio Chayhuac. Chayhuac had been the lord of Mansiche, where the descendants of the elites of the original Chimor polity had settled down. As part of the trial, the Spanish tried to ascertain how the indigenous rules of succession worked before their arrival. The witnesses heard in the trial differ somewhat in their statements, both in details as well as sometimes major points. However, they agree that Chumun Caur was the ruler of the Moche Valley during the reign of Tupaq Inca Yupanqui (assumed to last from 1471 to 1493, McEwan 2006: 69, Table 4.1.) and that he was succeeded by his son Guaman Chum, who lived during the reign of Huayna Capac (from 1493 to 1525, McEwan 2006: 69, Table 4.1.). Since Guaman Chum's first four sons were assassinated, Cuyuchi was installed as the ruler of the Moche Valley by Huayna Capac. Cuyuchi had served Huascar in Cuzco for an extended period of time. Witnesses relate that in 1533 Cuyuchi, with a large entourage, set out to meet Atahualpa at Cajamarca, and although they are not explicit as to his motives, it seems obvious that after Huascar's death, Cuyuchi sought to establish and improve relations with his earlier adversary and new Inca ruler. However, Cuyuchi and all his men were killed by Inca soldiers on the way at "Pacamayo" (i.e. Pacasmayo) at the explicit order of Atahualpa, who seems to have been unwilling to forgive Cuyuchi's former affiliation with Huascar (Zevallos Quinones 1994b: 84).

The relevant witness for the present purposes is Don Gonzalo Colque Chicon. At the time of his testimony he was old and an outsider to the happenings in the Moche Valley. He is identified as "prenzipal" of Cajamarca and served as its senior record keeper or *qhipukamayuq*, too (Zevallos Quiñones 1994b: 83). ¹⁴³ Colque Chicon testifies that he knew Cuyuchi very well because he had spent time with him serving Huascar, and that he also witnessed the assassination of Cuyuchi and his entourage at Pacasmayo. It is in this context that his testimony mentions "Quin Namo". Unfortunately, the relevant passage in his statement (Zevallos Quiñones 1994b: 85) is badly preserved and hence only partially and tentatively translatable:

This witness saw how he [Cuyuchi] arrived from ... [v]alley to Cajamarca to serve Atahual[pa] if Quin Namo and when the Span[iard]s came to the land of this ... year this witness descended to this valley and found in it Don Martín as cacique. 144

Who, or what, is Quin Namo? The context provides little clue as to what or who is being referred to, especially because the syntax of the passage is unclear. It is also unclear whether only the end of Atahualpa's name is illegible or whether a longer passage had to be left out which may have created a syntactic context for the mention of Quin Namo. -namo, at any rate, is a frequent final element of names in the Chimor heartland (Zevallos Quiñones 1993a). There is a variant -nam, which suggests that the final vowel may be an adaptation to the phonology of Spanish. One can assume with a high level of certainty that -namo is morphologically separable. This is because names occur with and without the element, compare e.g. Sep – Sepnamo, Xalca – Xalcanamo, and Suy Suy – Çuy Çuy Namo. -namo was a title for a lord if Calancha's (1638: 546) etymology of Pacatnamu can be trusted. That we are dealing with a name in the case of Quin Namo, in addition to the clear presence of the -namo ending, is made likely by the fact that a certain Quin Quin is attested in Mansiche in the Moche Valley in 1612 (Zevallos Quiñones 1993a). This shows that Quin or Quin Quin, in a parallel fashion to the names just mentioned, is a name that was used in the realm of Chimor.

The resulting account for the etymology of Quingnam would then be that it takes its name from an individual. This may have been a particularly high-ranking officer whom the Spanish encountered during the first months of the conquest of Peru. One possibility is that Quin Namo was a member of Cuyuchi's entourage. Quin Namo's role may have been salient enough to draw the attention of the Spanish and then became the namesake of his and Cuyuchi's native language. It is not at all uncommon for language names that became established among the Spanish to originally derive from geographical description, invidiual sites, or salient persons or ranks. An example of the former is 'Yunga' to refer to several different lowland languages (Mochica among them), an

^{143 &}quot;quipo camayo major de la dha probincia".

^{144 &}quot;este to. bido como acudia de [roto]alle a caxamarca a servir a atabal(roto) si quin namo y quando los espa(roto)es bynieron a la tierra que fue deste (roto) año este to. baxo a este balle e hallo en el por cazique a don myn".

example of the latter '(lengua) Inca' or '(lengua) Inga' to refer to Quechua varieties – in fact, a Quechua II variety of Colombia is known to the present-day as Inga. Even though also the etymology of Quingnam through the name Quin Namo mentioned by the ghipukamayug Gonzalo Colque Chicon is not secure, it is at least the only one proposed so far which pays due respect to the striking correlation between the final syllable of the language name Quingnam and the common ending -namo in names associated with that language.

Sources on Quingnam

Possible lost sources

Meléndez (1681, vol. 1: 558-559) mentions that a grammar, dictionary and other materials describing a local language of the Chicama Valley were put together by the Dominican friar Pedro de Aparicio, who arrived in the region already in the 16th century (see Zevallos Quiñones 1948a). Rabinowitz (1983: 262) believes that the documented languages was Ouingnam, though, as also discussed in the section on sources for the Mochica language in the preceding chapter, another possibility is that we are dealing with an early documentation of Mochica given the zone of overlap of the two languages in the Chicama Valley (Cerrón-Palomino 1995: 38, fn. 15 considers the latter more likely). Aparicio's work has hitherto not been located, so the question remains open. The same is true of the work by the Mercedarians Benito de Jarandilla and Bartolomé de Vargas (Cuervo 1915: 558-559, 561). 145 Espinel (1995: 147) specifically mentions an Arte de la lengua que llaman pescadora as the title of the grammar written by Vargas. This title would make it probable that indeed we are dealing with an early documentation of Quingnam. Generally, it seems quite unlikely that three priests working in the same valley would all document just one of the two languages spoken there while ignoring the other. Therefore, in turn, it is quite likely that extensive colonial materials on Quingnam existed. Their unclear conservation status leads to the unfortunate situation that there is no linguistic information proper on Quingnam, with the probable exception of a recently discovered list of numerals (Quilter et al. 2010).

Rowe (1948: 33) mentions a vocabulary of a language still spoken then in the Moche Valley, which was collected by Squier in the 1860s. Actually, however, Squier (1877: 169) himself says:

The inhabitants of the Indian village of Moche still speak, in confidential intercourse, the ancient language of the Chimus, which, from all I can learn, is identical with that spoken in the village of Eten, or Eteng, about one hundred miles to the north, on the coast. Of this language I have a brief vocabulary.

¹⁴⁵ See more background information on these individuals in the discussion of sources for the Mochica language.

Apart from the confusion of the language of Moche with Mochica, it remains unclear to what language the demonstrative in the last sentence of the quote refers. It is more likely that Squier is referring to a sample of the Mochica language, still spoken at that time at Eten. The situation is clarified in an anonymous report on the June 1861 meeting of the American Ethnological society. The report (Anonymous 1861: 240) informs that during this meeting "Mr. Squier, read a letter from the Hon. P. Randolph Clay, late minister to Peru, accompanying a vocabulary, procured by him, of the inhabitants of the village of Eten [...]". Given the explicit mentioning of Eten, is seems clear that the vocabulary mentioned by Squier is not Quingnam (though bear in mind Mogrovejo's confusing mentioning of Pescadora at Eten). 146 The vocabulary remains to be found; a letter from Clay to Squier kept in the Squier archives at the Library of Congress mentions that it had been passed down hand-to-hand to Squier.

In the absence of any principled linguistic documentation of Quingnam in the form of a colonial arte, let alone a modern linguistic description, all information on the language is indirect and must be culled from various sources. I will begin a survey of these with isolated vocabulary items in chronicles and other colonial sources in the following section.

Lexical items of possible Quingnam origin in colonial sources

According to Hovdhaugen (2005a: 139), "[n]ot a single word of Quignam [sic!] has survived". This is not true. In fact, Calancha (1638: 546) himself provides an etymology for the name of Pacatnamu, the general he credits with accomplishing the Chimor expansion to the Jequetepeque Valley (see Conrad 1990 for an evaluation). According to Calancha, Pacatnamu's name means 'common father' or 'father of all', 147 a name that was given to him because of his benevolent treatment of the conquered people. Also, Calancha says, Pacasmayo is named in honour of general Pacatnamu, but is now pronounced in a 'corrupted' manner. As -namo and its variant -namu are frequent endings in Quingnam personal names (see further below for more details), it is logical to conclude that this is the element corresponding to 'father' or 'lord' as a title or epithet given to a ruler or high-ranking individual (Torero 1986: 541). This would leave <pacat> with the meaning 'common, all'.

Apart from the name of Pacatnamú, several indigenous vocabulary items in colonial sources can be tentatively attributed to Quingnam, since they are explicitly mentioned in the context of coastal peoples and do not have a known etymology through any of

¹⁴⁶ Clay shows himself remarkably uninformed in this letter. Not only can he not specify the location of Eten except that it was a short distance from Lambayeque, he also says that he has never seen one of its inhabitants, and that all his information on the village and its people was obtained from hearsay. This suggests that someone else procured the wordlist.

^{147 &}quot;padre comun, o padre de todos".

the other languages of the North Coast. Of <chimo>, Feijoo (1763: 3) says that it means 'powerful' in the Quingnam language, but the accuracy of this statement must be questioned on grounds of the fact that by Feijoo's own testimony, Quingnam was already extinct at the time of his writing. More interestingly, Calancha (1638: 368) provides a word for 'god' in the major languages of Peru, which includes <vini> for the "maritimos Pescadores". The Quechua and Aymara equivalents given are <guaca>, however, so we cannot be sure how accurate the gloss 'god' is. At the same time, the information is very valuable, because the equivalent in the language of the "Iungas Mochicas", <alec>, is also given. Therefore, <vini> is with a high degree of certainty a Quingnam word.

Calancha (1638: 553) further states that there was a coastal deity in the form of a constellation which corresponds to the outer two stars of the western Orion's Belt, Alnitak and Mintaka. It was called <patà>. 148 The star in the middle (known as Alnilam in the occident) was considered a thief and evil-doer, which is why the moon sent these two stars to flank and seize him. This is, Calancha explains, what <patà> actually referred to. The passage is embedded into a discussion of North Coast customs, which is evidenced by the repeated use of phrases like "los Indios Pacasmayos i sus Yungas" or "los Pacasmayos i Yungas" and the appearance of Mochica lexical items such as <ni> and <alecpong> in the text. Urton (1982: 240) assumes that indeed the North Coast is implied and associates the information with Chimor. 149 The word <patà>, in fact, is not registered in the available lexical sources of Mochica (which is not surprising given its highly special meaning); the stress on the final syllable is not suggestive of a Mochica either. Neither is the word Quechua. In the Quechua-speaking highlands, the Orion's Belt is known as chakana 'bridge, stair' (see Gonçalez Holguin 1608: 85: <chacana> 'escalera,' <chaccana> 'tres estrellas que llamã las tres marias').

Arriaga (1621: 14) mentions < munaos > as the coastal equivalent to the mallquis, ancestor mummies venerated as huacas, of the highlands. This simple equation is probably spurious given the stark differences between funerary practices and ancestor veneration in the Chimor and Inca states (Moore 2004: 106-118). Nevertheless, the coastal, and particularly Quingnam, origin of this term is supported by the attestation of a Don Francisco de Azabache Munao Chimo as cacique of Moche in the 17th century (Zevallos Quiñones 1992: 144). Salas García (2008a: 215-220; 2012: 123-129), however, suggests that <munaos> comes from Mochica <munà> (Carrera 1644), <mena> (Middendorf 1892), which the latter author translates as 'grandfather'. Salas García explains the final diphthong as an adaptation to the speech of the Trujillo region (not mentioning Quingnam explicitly).

148 Thanks to Rita Eloranta for pointing my attention to this passage.

¹⁴⁹ However, immediately before and after the discussion of pata>, Calancha makes brief references to Pachacamac.

Further terms associated with the coastal areas in Arriaga (1621: 24, 44) are <morpiss 'punishing gods' and <yale> 'kind of chicha'. Regarding <yale>, Arriaga specifies that this term was used from Chancay "northward" and that is was a particularly strong variety offered to *huacas*. These words, too, are of possible Quingnam origin (Cerrón-Palomino 1989b: 54), an interpretation supported by the consistently distinct Mochica word for 'chicha' (see Salas García 2002). A further term mentioned by Arriaga (1621: 34) is <ñaca>, which denotes cut hair which was offered to the *huacas*. ¹⁵¹

«Guaxme» 'fishermen' may also be a word of Quingnam origin. It is found in the earliest extant Quechua dictionary by Santo Tomás (1560b: 85). Yet it lacks cognates in other varieties of Quechua. In addition, the Augustinian report on the customs of Huamachuco (Anonymous 1865: 22) mentions that its inhabitants had expelled or exterminated an earlier population which are referred to as 'guachemines'. ¹⁵² A third attestation of the same lexical item is in Guaman Poma da Aiala (1615/1616: 1083), who mentions a settlement of "uachime yunga"s. ¹⁵³ Torero (1989: 229) ventures to propose a retroflex articulation of the sound transcribed as <ch> in this form, a view supported by Cerrón-Palomino (2002: 214, fn. 4). Given that the Quechua documented by Santo Tomás is usually taken to be an extinct coastal variety (Cerrón-Palomino 1990, though this is challenged by Itier 2013) and Guaman Poma's 'yunga' association, it would make sense to assume that the word entered Quechua from one of the principal language of the coast, Quingnam. ¹⁵⁴ Cerrón-Palomino (1989b: 54) considers attributing a Quingnam origin not only to <guaxme> but also to <thome> 'sea lion', another supposed non-Quechua word in Santo Tomás's (1560b) dictionary.

In the context of his description of the Santa Valley, Mogrovejo (2006 [1593-1605]: 37) mentions the word <pez> 'reed plantation'. Then again, he adds that its "actual name" is <saucha>. This statement is difficult to make sense of. In particular, it is unclear what Mogrovejo means when he speaks about the "actual name". Was <pez> indeed the name for the cultivated field and <saucha> the name of the actual plant?

^{150 &}quot;a baxo".

¹⁵¹ Much the same terms found in Arriaga (1621) reappear later in Villagómez (1649).

¹⁵² These 'guachemines' are, strangely, identified in the report as Christians (see MacCormack 1991: 144-145 and Gose 2008: 74-75 for interpretation). Torero (1989: 229) also reports a Huachmin River and a Huachimin Valley in the highlands of the La Libertad department where the Culli language was once spoken. Cerrón-Palomino (2002: 214, fn. 4) interprets the name of Huarmey, a site in the lower valley of the river of the same name, as originating from the word as well.

¹⁵³ There are several more indigenous words in the Augustinian document. Many are Quechua, others are of unclear provenience. Given that the toponym Huamachuco appears to have a Culli etymology (Adelaar 1988: 118-119), it may be that these originate in the Culli language.

¹⁵⁴ Note the personal name Guarme, attested in the Virú Valley (Zevallos Quiñones 1994a: 68).

^{155 &}quot;[...] se crían en él [the stream course of the Santa River, MU] mucha abundacia de cañizales, a quien los naturales llaman pez, su propio nombre Saucha".

Or are we dealing with names from different languages for the same referent? Indeed, a Mochica word for 'grass' is recorded as <pei> (Carrera in Salas García 2002), and <saucha> bears a certain resemblance to Quechua sacha which, depending on dialect, denotes weeds or bushes. 156

Lecuanda's (1861a [1793]) description of the flora and fauna of the Trujillo area contains some non-Spanish words for which a Quingnam origin can be hypothesized, too. The <machira> (Figure 15) must be the name for the swordfish. and <chita> (Lecuanda 1861a [1793]: 143) is a further unidentifiable edible fish. Regarding plants, Lecuanda (1861a [1793]: 151-153) mentions <sinamon> 'cypress', <taparte> 'k.o. shrub', and a cactus called <maran> on which <pilcái>, cochineals, live. The only item of these that may have a non-coastal origin is <maran>, for which there is a good chance that it is related to Pacaraos Ouechua mara 'agave' (Adelaar 1982 and personal communication).

Written as late as 1811 by an anonymous parish priest, a report on the customs of the locals of Virú contains some apparently indigenous terms (Castañeda Murga 1991: 93-101). None of these have an apparent etymology through a North Coast language. Given the highly special-

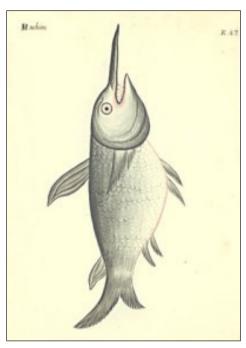


Figure 15. The <machina> as represented in Martínez Compañón (1985 [1782-1790]). © Patrimonio Nacional, reproduced with permission.

ized semantics of the terms, however, it is well possible that equivalents in these are simply unknown. <colao> and <anchaco> are kinds of chicha, the <circil> is a kind of textile used to store maize in holes in the sand for preservation and to sieve it later. A <pulluyo> is a kind of calabash, and a <casoco> is probably the name for a kind of plant which is used in pulverized form for medicinal purposes. The <oberal> or <nier> is a tree the flowers of which are used to cure icterus; <oberal> is also mentioned in Lecuanda's (1861b [1793]: 216) description of Piura, but <nier> appears to be a regional term. <Pay pay> is a word for 'flour' (compare Mochica <pei> 'grass'?), and the <pac pac> is a

¹⁵⁶ As Willem Adelaar (personal communication) points out, the website www.deperu.com reports the existence of a hacienda called La Saucha in the highland province Ayabaca of the Piura department.

not further specified animal which is used to cure hernia by opening it alive and placing it on the sick part of the body. Another animal used in folk medicine, a kind of vulture with red head (*Cathartes aura*?), is called <vll>. This sequence of letters is immediately followed by the editor's indication of an illegible part of the manuscript. <vll> may hence be an insecure interpretation of a badly legible word or it may be only the first part of the name of the bird, the rest of which is illegible.¹⁵⁷

The Magdalena de Cao lists

In 2010, a brief list of numerals from the early 17th century in a hitherto unknown indigenous language was excavated at Magdalena de Cao (Quilter *et al.* 2010). This discovery probably constitutes the only dedicated documentation of Quingnam. The proviso 'probably' is necessary because the list itself does not identify the language it exemplifies. Given the location of the find, and the obvious distinctiveness of the numerals vis-à-vis Mochica (with the exception of the numeral for 'five' which may be a loanword, Quilter *et al.* 2010: 364), Quingnam is the most likely candidate.¹⁵⁸ Quilter *et al.*'s (2010: 362) working transcription of the list is reproduced here in Table 18 (orthographic chevrons added by me):

¹⁵⁷ Finally, Feijoo (1763: 129) states that in the "Lengua peculiar del Chimo", <pelù> means 'river', and that a corruption of this word is also the source for the name of the Virú Valley. Feijoo refers to Garcilaso de la Vega (1829, vol. 2: 11-12), according to whom the name Peru derives from the name of an Indian encountered by an expedition of Vasco Nuñez de Balboa. This Indian is said to have been encountered while fishing in a river by one of the expedition's ships near the equator. When questioned what the name of this land is, he did not get the question right, and actually provided two words: Berú, his proper name, and <pelú>, meaning 'river' in his language. The Spanish, says Garcilaso, settled on the compromise pronunciation Perú for the land to the south. It is this passage which may have induced Feijoo to state that <pelù> is a Quingnam word. However, there is little reason to believe that this was so (see further Porras Barrenechea 1968 on the etymology of Peru).

¹⁵⁸ However, it must be borne in mind that there is no complete clarity on the identity of the Pescadora language. Also, it cannot be fully excluded that the list exemplifies yet another language which is not mentioned by the Spanish chroniclers or in other colonial sources.

Numeral	Gloss
<chari></chari>	'1'
<marian></marian>	'2'
<apar></apar>	'3'
<tau></tau>	' 4'
<himic> [?]</himic>	' 5'
<sut> [?]</sut>	' 6'
<canchen></canchen>	' 7'
<mata></mata>	'8'
<yucan></yucan>	'9'
<ber> <bercor></bercor></ber>	'10'
<maribencor chari="" tayac=""></maribencor>	'21'
<apar bencor=""></apar>	'30'
<chari pachac=""></chari>	'100'
<mari pachac=""></mari>	'200'

Table 18. Quilter et al.'s (2010: 362) working transcription of the list of numerals excavated in 2010 at Magdalena de Cao.

A clear decimal organization emerges. The numerals <tau>, <sut>, <canchen>, and <pachac> must be loanwords from a variety of Quechua II (tawa, sugta, qanchis, and pachac respectively), reflecting "a short but significant period of contact and resultant influence from Quechua speakers" (Quilter et al. 2010: 363). The Quechua borrowings, as Quilter et al. (2010: 364) also note, show certain adaptations of the source forms, in particular, deletion of final consonants, change of final /s/ in ganchis to <n>, and elision of the medial uvular in sugta (or, of course, weakening which the transcriber did not note or did not know how to represent; Quilter et al. speculate about [su?t] as the realization of <sut>).

Words in local Spanish

Zevallos Quiñones (1975) makes available a list of words with non-Spanish origin from the Trujillo region. Some of the items come from unpublished colonial documents from the Chicama, Moche, and Virú Valleys, but most were collected by Eduardo Calderón Palomino at Moche, where they are in use (or were in 1975). As far as their semantics is concerned, the words are those which typically survive from local languages in the Spanish superstrate: they mostly denote culturally relevant implements and local flora

and fauna. Given the strong maritime adaptation of life on the Peruvian coast, types of fishing implements, species of fish, and crustaceans figure strongly on the list. Since Quingnam was the language of the Moche Valley, it is not far-fetched to assume that the words originate from this language. Yet this is not so easy: as Rostworowski de Diez Canseco (1981: 100, fn. 14) already noted, Zevallos Quiñones (1975)'s list contains some items which are clearly not local, such as <milpa>, a word brought by the Spanish conquerors from Mexico, and <rucoma>, likely a variant of Quechua rucma - lucma 'lúcuma'. A further case is <pitahuay> 'currant-coloured cactus fruit', which must be an adaptation of pitahaya. A more severe problem, however, is that several items on Zevallos Quiñones's (1975) list are found in the neighboring Mochica language. These are <biringo> 'hairless dog', 159 <col> 'llama', <calcal> 'net to store fish and seafood', 160 <jujume> 'tablecloth,' <camanay> 'k.o. edible bird, sea duck', <chisco> 'k.o. song bird, thrush', 161 and <openec> 'sweet potato'. Items possibly having a Mochica etymology are <cos> 'black salt used to preserve fish', <cuchumic> 'you're drunk' (see also chapter IX), <melleca> 'excrement of clucking hen', <muy muy> 'small lead-coloured crustacean', 162 <may may> 'big reddish-brown crab living on rocks', and <chumuco> 'gourd'. One possibility is that the words were in fact shared by Mochica and Quingnam already before the advent of the Spaniards. Another possibility is that the items were borrowed from Mochica into local Spanish and never were part of the Quingnam lexical stock.

One category of items on Zevallos Quiñones's (1975) list that have a good chance for originating from Quingnam are those which involve a [w], a sound not found in Mochica. They include <cahuan> 'net to fish in river or lagoon', 163 <carrahuay> 'small crustacean', <huacala> 'k.o. seafish', <huabina> 'freshwater fish', and <huiri huiri> 'k.o. ray'. By the same logic, items on the list which feature a labiodental fricative may be assigned a Mochica rather than Quingnam origin, as this sound is thought to not have been present in Quingnam. Relevant words are <flique> 'small crustacean which parasitizes the shell of sea snails', fe> 'small k.o. fish found in rivers and irrigation

¹⁵⁹ Beringo - biringo appears in a prescriptive Colombian dictionary of lexical items considered to be impure Spanish with the meaning 'naked' (Uribe Uribe 2007: 111). This strongly suggests that the item is originally neither Mochica nor Quingnam.

¹⁶⁰ This term is also reported by Gillin (1945: 163) with the meaning 'fishing net used with reed raft in Huanchaco'. It is also used by Sechura fishermen according to Huertas Vallejos (1999: 170).

¹⁶¹ Lecuanda (1861b [1793]: 203) also mentions this name in his description of Piura but says that it is called <zoña> there.

¹⁶² Gillin (1945: 163) has <muy-muy> 'sea shrimp'. The word is also used at Sechura according to Huertas Vallejos (1999: 65).

¹⁶³ Gillin (1945: 163) has <cahuán> "dip net for catching shrimp, crabs, etc."

ditches', 164 and <faique> 'fruit of algarrobo tree'. 165 Another good case for a Quingnam origin of a particular item can be made when a Mochica word with the same meaning is attested in the lexical sources for that language which does not correspond in its form to that in the Trujillan vocabulary. 166 Items for which a different Mochica equivalent is attested are <chomuña> 'old', <llalla> 'perhaps kind of yarn used to weave sacks', <caban> 'bag-shaped net to catch crustaceans' (probably identical with <cahuan> mentioned above), <chollengue> 'lean, shabby', 167 <maimenec> 'Shut up!', <chanque> 'Chilean abalone', <pacan> 'ghost crab', and <budu> 'kind of pidgeon'. However, the most frequent type of item is that for which no, or no precise, Mochica equivalent is available in the lexical sources on that language. This can mean either that the word was not present in Mochica, in which case Quingnam is the most likely source, or that it was present, but simply not recorded while the language was still spoken. The provenience of such items, which are listed in Table 19, remains uncertain (not mentioned are items for which an alternative etymology can be suggested or which appear in a wider area, either within Peru or even outside).

Form	Gloss
<coycoy></coycoy>	'liqueur'
<churuco></churuco>	'hidden and lost treasure'
<chapis></chapis>	'buttocks'
<pus></pus>	'branch of the espino bush'
<chepon></chepon>	'gluttonous person'
<chipipe></chipipe>	'something almost unusable'
<chonte></chonte>	'mechanical blow between stones or seeds'
<chuchir></chuchir>	'boil seafood or squid'
<omo></omo>	'acerbic taste'
<chancullay></chancullay>	'small freshwater fish living on the ground'
<capusa></capusa>	"molting" muy muy, used as bait
<cayachipe></cayachipe>	'marine animal'

¹⁶⁴ This term is also mentioned for Sechura and may have a wider distribution, see Huertas Vallejos (1999:

¹⁶⁵ For the history of this term see also Salas García (2012: 45-48).

¹⁶⁶ It is, however, not entirely waterproof because Mochica may have had (near-)synonyms that simply have not been recorded before the language went extinct.

^{167 -}enque is a frequent suffix with diminutive semantics in local Andean Spanish. Cerrón-Palomino (2005) attributes a Culli origin to it.

Form	Gloss
<cholleca></cholleca>	'beach crab'
<ansumo></ansumo>	'sea otter'
 bracay>	'k.o. feline'
<pinuquil></pinuquil>	'small heap of sand, common in the dunes'
<misho></misho>	'k.o. thin fish'
<monengue></monengue>	'freshwater fish, living on ground'
<meñoca></meñoca>	'beach crab, places its eggs deep into the sand'
<puquion></puquion>	'very small crab'
<mińuńio></mińuńio>	'beach flea'
 dinchin>	'k.o. songbird; seeing or hearing it is considered a bad omen'
 	'k.o. bird whose singing is considered a sign for death or pestilence'
<cochipe></cochipe>	'nocturnal bird of prey'
<cocho></cocho>	ʻpelican'
<chirro>, <sarupico></sarupico></chirro>	'sea and land bird, of various sizes'
<chuita></chuita>	'guano-producing bird with yellow beak and feet'
<chimbil></chimbil>	'cactus fruit, has to ripen in silence according to legend to obtain pleasant taste'
<chuyano></chuyano>	'guano-producing bird, also called piquero'
<paucay></paucay>	'shrub found on dry land, used to dye nets and ponchos'
<puc></puc>	'very small black songbird'
<chipa></chipa>	'plant found in lagoons and pools, used to make mats'
<mandaco></mandaco>	'thorny creeping bush'
<pichucho></pichucho>	'fragrant shrub; a coloured liquid is extracted from its fruit'

Table 19. Items from Zevallos Quiñones's (1975) wordlist with possible but uncertain Quingnam origin.

There is some overlap between Zevallos Quiñones's (1975) list of words with those that appear in Gillin's (1945) ethnographic description of the village of Moche. Yet, Gillin (1945) also mentions words that do not figure in the list of Zevallos Quiñones (1975). Some are Quechua, others Mochica, and for still others I have not been able to find a plausible etymology. To keep the length of the discussion manageable, I will in this case not discuss the identified Mochica and Quechua sources, but merely list those items of interest because of their unknown origin. Such items are listed in Table 20.

Form	Gloss
<choloque></choloque>	"[t]ree which has a fruit encased in a green-yellow shell" (Gillin 1945: 22)
<taya></taya>	'net rope' (Gillin 1945: 33)
 diquín>	'k.o. crab' (Gillin 1945: 36)
<jeta> ~ <geta></geta></jeta>	"a sort of sauce made of dry lentils [] cooked to a mush, and beaten" (Gillin 1945: 53)
<chuño></chuño>	"sprouted maize kernels" (Gillin 1945: 163)
<quirana></quirana>	"binding with which the reeds composing a roll or bundle is bound in the reed raft used for fishing in Huanchaco" (Gillin 1945: 164)

Table 20. Additional items with possible but uncertain Quingnam origin extracted from Gillin (1945).

Also mentioned are the terms <zavarriala> (Gillin 1945: 95), <toro>, <hunguay>, <simora> (Gillin 1945: 124), <huaringa> (Gillin 1945: 125), <hórgamo> 168 (Gillin 1945: 129), <chocho>, and <corpusuay> (Gillin 1945: 140), which denote items or plants used in folk medicine or shamanism. 169

The possibility that there are some 'false positives' among these items is quite high. For one, Hammel & Haase (1962: 214) indirectly suggest that <taya> is an adaptation of Sp. tralla, even though the precise semantic connection is elusive; other items, such as <zavarriala>, <órgamo>, and <corpusuay> have a decidedly European 'look' to them, but I have been unable to pin down source forms.

Finally, Rodríguez Suy Suy (1997: 89-90) offers a list of terms used by North Coast fishermen; the author does not provide specifics as to the exact places where these words are used. Again, some items are clearly Spanish (others contain Spanish morphology, but may be indigenous), others are Mochica, still others Quechua, and for a final group I know of no viable etymology. Terms from this latter group are listed in Table 21:

¹⁶⁸ Gareis (1994: 220) gives the 18th-century form of this word as <ornamo> and that of today as hórnamo.

¹⁶⁹ According to Fernández Alvarado (2004: xii), Maichil is an alternative name for the Llonquinua River, which feeds into the Chancay, itself part of the Lambayeque-La Leche River system.

Form	Gloss		
<araso></araso>	'very strong crosswind on open sea which is dangerous for balsillas'		
<ler></ler>	'ray without sting but with spine on the back'		
<luya></luya>	'ray with short tail'		
<masquerito></masquerito>	'small calabash with neck which can hold one or two bottles of liquid: tea or herbal tea which the fisherman takes with him when leaving for fishing'		
<ogalón></ogalón>	'when processed fish meat gets a jellyish consistence and smells strongly'		
<pasayas></pasayas>	'fibres used to tie together parts of watercraft'		
<tasca></tasca>	'strong wave capable of turning around a balsa or balsilla'		
<toroco></toroco>	'dry sweet potato'		
<potossis></potossis>	'thin and transparent white clouds which appear in the Milky Way and can be seen in cloudless nights without moon, announcing abundance of fish'		

Table 21. Additional items with possible but uncertain Quingnam origin extracted from Rodríguez Suy Suy (1997).

To conclude this section, a cautionary remark: it would be quite hazardous to think of the vocabulary items assembled above as something like a coherent 'Quingnam vocabulary'. First of all, all items are associated with this language only bona fide as they are used in the former Quingnam-speaking areas and lack obvious etymologies from another language. Nevertheless, it may be that they do have such an etymology that I failed to recognize. Alternatively, they could derive from another unknown or poorly known language of the North Coast or adjacent highlands. Second, the heterogeneity of the sources, and the centuries that have passed between the time that individual items were recorded, must be borne in mind. Items found in local Spanish must have undergone a considerable amount of adaptation to the phonology and phonotactics of Spanish, perhaps more than those items from early colonial sources.

Placenames and personal names

Clearly the most abundant source on Quingnam, but in many ways also the most difficult to work with, are placenames and personal names. Such names are assembled in Zevallos Quiñones (1993a, 1993b), with only very little accompanying analysis. Further terms from the Moche Valley can be extracted from Zevallos Quiñones (1992, 1994a, b), for the Chicama Valley from Ramírez-Horton (1995a), and comparative material for the Northern North Coast from Espinoza Soriano (1975).

Jointly, placenames and personal names from these sources will form the basis for a first attempt to explore some sound structures of Quingnam in the following section. Given the overlap between Mochica and Quingnam from the Chicama Valley northward, I analyze primarily Moche Valley placenames and personal names in order to minimize the chance that non-Quingnam names add noise. I further consider the few names from the Virú and Chao Valleys to the south available in the above-mentioned sources, since both valleys belong to the secure core domain of Quingnam and were closely associated with the Chimor state. The bulk of data, however, come from Moche. I will adduce names from other valleys, in particular the Chicama, where they appear relevant. As Salas García (2010, 2012) suggests that Mochica speakers were present in the Moche Valley, however, even this way to proceed is no guarantee that all names in the corpus really can be assigned to Quingnam as opposed to Mochica (note, though, Espinoza Soriano 1975: 248 regarding the paucity of Mochica *mitmagkuna* at Moche).

All in all, there are about 530 toponyms and 380 personal names from the Moche, Virú, and Chao Valleys in the resulting corpus. One of the issues with these data is that Zevallos Quiñones (1993a, 1993b) sometimes lists variant transcriptions under the same lemma, while in other cases, highly similar names appear as separate lemmata. For instance, persons named Chaumam, Chauñam, and Cheinam are all attested in the same location (Mansiche) and in the same year. Are we dealing with three different names or one? If, as is the case there, the supposed variants are attested in the same place, I will assume that indeed we are dealing with a single name. I indicate the fact that this is only an assumption by adding a superscript dagger, in this case e.g. Chaumam ~ Chauñam ~ Cheinam[†]. In other cases where doubts are greater, I will point out details in the discussion. 170

Regarding the structure of personal names and toponyms, I shall only outline some general and rather cursory observations departing from and refining those of Zevallos Quiñones (1993a: 6-7), but leave a more detailed analysis for further work.

Some personal names consist of more than one element, which can be shown if a name attested in isolation is also attested as part of a longer name. This is the case for

¹⁷⁰ One will note that the superscript dagger has not been used for variants of personal and place names in the discussion of Tallan and Sechura, which were separated, rather, by a slash. This reflects a fundamental difference between the reasons for variation in the different sources. The assumed Tallán and Sechura names are more often than not just mentioned once in the colonial source, and spelling differences are likely introduced by the paleographer. For a dagger to appear in the Quingnam names, the spelling differences are mentioned more than once in the same source or in different sources. The spelling differences are hence original, and possibly reflect phonetic properties of the language from which they derive.

instance for the names Sorpec, Sospec, Axacpec, Caspec, and, notably, Guascar Pec, which can be compared with the name Pec. Likewise, when the names Penansep ~ Peñansep[†], Ancaesep, Paicosep (both Chicama), Palonsep, Quesep, Sepiran (both Virú) and, again notably, Huaman Sep and Sepnamo are compared with the name Sep ~ Sepe, it is clear that the former are composite.¹⁷¹ A particularly frequent ending is -an, the postulation of which is motivated by the existence of pairs such as Guachar -Guacharan and Sep – Sepan (which latter attested in the Chicama Valley). This element is particularly frequent as part of a larger final sequence -Vran, where V can be any vowel. For instance, Peñ is the name of a female at Magdalena de Cao in 1620, and Peñaran, Peniran, Peñoran, Piñaran is the name of individuals living at various times in the Chicama and Moche Valleys. In fact, -Vr itself is rather frequent (e.g. Piguir, Sachur, Necsur, Tecor), so it may be that -Vran is itself composite. There is also other evidence to suggest that some names incorporate more than just two segmentable elements. For instance, we have seen that Penansep - Peñansep† likely contains the name Sep - Sepe as a building block. Given that Peñ is attested as a name itself in the Chicama Valley, Penansep ~ Peñansep† would appear to be segmentable as Peñ-an-sep. It is names like this that suggest that, with much further work, a considerable number of names could be decomposed and shown to consist of monosyllabic elements. However, for the time being, numerous long names remain which are not amenable to such decomposition. At the same time, it is possible that several naming principles are reflected in the record of personal names. Zevallos Quiñones (1975: 268) mentions the old and now almost lost habit among the inhabitants of the village of Moche to give persons and entire families bynames, He provides the following: (los) Mechecos, Chulaco, Chin Chin, and (los) Monecos, of which latter it is known that it means 'the vultures'.

In addition to those discussed so far, there are some very frequent elements of personal names that may have been titles rather than integral parts of personal names. We have already come across the final element *-namo*, of which Calancha (1638: 546) says that it means 'father'. In the available data, *-namo* is only found finally; the interpretation as a title is due to Netherly (1990: 465). Other frequent elements that may have been titles are *-chumbi* and *-guaman - -huaman*.¹⁷² The latter appears to be a clear case of an intrusion from Quechua. Rostworowski de Diez Canseco (1961: 12-13) argues that *-chumbi* is from Quechua, too. Her comparison is with *chumpi* 'belt; brown or dark color', but the explanations of the semantic shift remain unsatisfying. These elements, and their distribution within Peru, require much more attention to settle the question of their etymology; as Rostworowski de Diez Canseco (1961) points out, *-chumbi* is

¹⁷¹ Combinations with Sep are more frequent in the North, in particular the Chicama region.

¹⁷² Zevallos Quinones (1993a: 6) suggests that *-chumbi* is associated with females, but there does not appear to be a strong correlation with gender.

also found in names of the Central Coast. In the Quingnam-speaking area, at any rate, -chumbi and -guaman - -huaman show variability in their position in personal names. Guaman is found both initially (as in Huaman Cache - Guaman Cache) as well as finally (as in Paycoguaman). In fact, a protocol in the Crónica de Ocxaguaman (Zevallos Quiñones 1994b: 55) contains a statement in which *quaman* varies in position in the name of one and the same person: "I was informed that Guaman Cochuchu or Cuyucho Guaman, his father, had been the principal lord". 173 The same variability is found regarding -chumbi (compare Chumbinamo with Chinchumbi) and another recurrent element, -mas(s)a (compare Chicmasa - Chinmasa with Masayamo - Masayaman -Masaguaman, which latter attested in the Chicama Valley). 174 This variability supports the idea that these elements are not integral parts of the personal names. However, the correct interpretation of names that would, under this interpretation, appear to consist of two titles only, such as Chumbinamo, remains unclear.

Toponyms may in principle be analyzed along the same lines as personal names. Sets such as Suisuipur, Sunsapur, and Vichupur (which latter in the Chicama Valley) may be interpreted to the effect of the existence of a final element -pur, in particular because Suisuipur can be compared with Suy Suy, a well-attested Quingnam name. The case of Purimini - Puremiñe, where Pur- occurs in initial position, and that of Pur Pur, the name of an artificial sand mount in the Virú Valley, favors the interpretation as a lexical item rather than a suffix. All toponyms in which -pur occurs denote plots of land or areas. Another final element would be -iñe, with a possible variant -(m)ine: it is attested in a number of toponyms, especially in the Moche Valley.

The sound(s) of Quingnam Methodological introduction

Several colonial witnesses attest to a perceived difficulty of Quingnam pronunciation, at least from the point of view of native speakers of Spanish. Calancha (1638: 606) comments that it was "obscure and of slippery pronunciation". 175 Lizárraga (1968 [1605]: 13) comments on the languages of the Chicama Valley that "the fishermen [had] one, and very difficult, and the other one not so". 176 Cerrón-Palomino (1995: 38, fn. 15) identifies the less difficult language as Mochica, the more difficult one as Quingnam. 177

^{173 &}quot;[...] me fue hecha rrelazion que abiendo sido guaman cochucho o coyucho guaman su padre señor

¹⁷⁴ În Urban (2015c) I argue that massa was the designation for an indigenous rank that spread through Chimor-controlled areas of the North Coast, against the etymology of this element from Mochica <máça> 'custard apple' (Brüning 2004: 32) proposed by Cerrón-Palomino (2008: 157).

^{175 &}quot;[...] escura i de escabrosa pronunciacion".

^{176 &}quot;[...] los pescadores una, y dificultosísima, y otra no tanto".

¹⁷⁷ How cautious one must be when interpreting such statements is made clear by Carrera (1644), who describes precisely Mochica, not Quingnam, with exactly the same adjectives.

In this section, I will attempt to infer some aspects of the Quingnam sound system from the transcriptions of personal names and placenames made available in Zevallos Quiñones (1992, 1993a, 1993b, 1994a, 1994b).

Reconstructing the sounds of the Quingnam language based on these data is a difficult enterprise. This is because the placenames and personal names stem from unsystematic transcriptions whose primary purpose was not at all to represent the names as testimonies of the language they come from, and whose authors hence may have taken little care to represent them as faithfully as possible. In addition, even very careful scribes employed an alphabet that may have been quite ill-suited for an illuminating transcription of the language. On top of that, Spanish orthography was not yet as regularized as it is today, leading to the possibility of variant spellings for the same item without the implication of any phonetic difference. One can think of variant spellings of the name of the last independent Inca ruler Atahualpa, which include Atahualipa, Atagualpa, Attahuallpa, Atabalipa, etc. In addition, the transcriptions of the names in the published versions of the manuscripts do not appear to be reliable in all cases. In Zevallos Quiñones (1993b), for instance, one finds an entry for lands called Rastachem in the Valley of Chicama which gives as additional information that they were united with those of Tacap in the Valley of Chicama. But then the entry for Tacap cross-references lands called Rostacchen rather than Rastachem. Such likely typographical errors are quite harmful since they add another layer of insecurity regarding the phonetic interpretation of the material.

All mentioned factors, at any rate, may lead to variation in the transcription of the same placenames and personal names. The amount of variation is also a function of the frequency with which a particular name occurs in the available sources. For instance, the legal dispute over the right to rule in the Moche Valley is amply documented, and most parts are reproduced in Zevallos Quiñones (1994b). The sheer length of the documentation inflates variant transcriptions. For instance, the name of one person who played a central role in the trial, conventionally spelled Ocxaguaman by Zevallos Quiñones (1994b), variously appears as Oxaguaman, Oxahuamán, Ocxahuaman, Hoxaguaman, Osaguaman, and Hocxaguaman. Where names appear less frequently in the documents, variation is lower.¹⁷⁸

Where letters associated with certain sounds in the Spanish alphabet recur with sufficient frequency in the transcriptions, one may infer tentatively that indeed these sounds were present in the language. What one inevitably will miss by proceeding in this way are any sounds that are alien to Spanish and not representable easily with its alphabet. The material available for Quingnam is not suitable as input for a systematic application of the technique of comparative reconstitution (Broadbent 1957; Constenla Umaña

^{178 -}guaman, as mentioned earlier, is clearly of Quechua origin. The same may be true of the first element of the name which resembles uqsha 'straw'.

2000), which, based on comparisons of more than one non-phonetically transcribed wordlist, allows to infer the original sounds of the transcribed languages. I propose that, analogously to the comparison of variant transcriptions in comparative reconstitution, it is especially variant transcriptions of the same placenames and personal names which have the potential to illuminate some aspects of the language's phonetic structure which initially remain covert. Nevertheless, all of the other possible sources of variation just mentioned present a problem, which is why identifiable alternations are not necessarily indicative of a phonetic property of the transcribed language. For all these reasons, alternations need to be recurrent to some degree, as in comparative reconstitution: only if the same alternation recurs independently in several items, and if it is not likely caused by simple mishearings (in which case I will not discuss the evidence in the following discussion), it can reasonably be assumed to indicate some aspect of the sound structure of the transcribed language rather than random variation.

Straightforward cases

There are several sounds which can be attributed to Quingnam because of the frequency and rather fixed phonetic values the letters which represented them have in Spanish orthography. These include voiceless stops [p], [t], [k], the affricate [tʃ], nasals [m], [n], and [n], laterals [l] and $[\Lambda]$ (which in some cases alternate with one another), and the approximant [i]. It seems clear that there were sibilants at at least two points of articulation, one alveolar (similar in quality to [s]) and represented by either <s> or <z>, ¹⁷⁹ the latter palatal [ʃ] and represented by <x>. <r> in a few cases alternates with <l> and with <n>, which is why the tap [r] rather than a trill [r] is the more likely default interpretation. <rr> may have represented a separate sound, but the evidence in favour of this interpretation is weak. In names from the Moche Valley, <rr> is restricted to the intervocalic position, and outside there are just a few cases in other positions. Moreover, [w] can be posited on the basis of a number of heterogeneous orthographic sequences, such as <ua>, <guv>, and <ao>. These occur amply in placenames and personal names as well as in lexical items. Alternations such as Puvan - Puguam or Chumun Caur -Chumun Cabr ~ Chumuncava suggest that <v>, and even <b-, sometimes represent the same sound, as is expected from the situation in Spanish orthography and phonology at the point of time (see Appendix E). There is no indication that <z> could represent an alveolar affricate [ts], since relevant alternations, in particular that with <ch>, are absent. In the absence of evidence to the contrary, I interpret <z> to have represented [s] in most cases.

¹⁷⁹ Given that by the time the first relevant documents were written seseo, i.e. the merger of the sibilant phonemes these letters once represented in Spanish, was already in place (see Appendix E), there seem to be insufficient grounds to assign distinct phonetic realization to <s> and <z> in Quingnam.

Voiced stops?

It is difficult to establish whether the language had voiced stops, and if so, which ones. Relevant letters , <d>, and <g> are not frequent in Moche placenames and personal names, and all are outnumbered by their respective voiceless counterparts , <t>, and < k > / < qu >.

/b/ is not part of the phonological system of Mochica (Cerrón-Palomino 1995: 123), and does not occur in Carrera's materials save for loanwords (Hovdhaugen 2004: 13). Indeed,
 is rarer in toponyms and anthroponyms to the north of Chicama than to the south. 180 To the contrary, one finds increased frequency of in the Chicama and Moche Valleys, including a fairly large number of tokens in initial position. Again, in some cases alternations show that a fricative rather than a stop was represented (e.g. Guambás - Bambás - Huambás), but nevertheless, numerous cases where no such indication can be made remain. In one case, that of Tampoc - Tamboc, occurs in alternation with following a nasal. The notorious problem is to establish the phonetic value of $\langle b \rangle$ in these cases, i.e. to exclude that it represents [β] or possibly [w]. Where alternations are absent, the letter remains ambiguous as it is not clear to what extent scribes were projecting allophonic rules of their native language to the indigenous items.

The easiest case is that of [d]. The letter <d> is very rare in the transcriptions, and it never occurs in initial position. In Moche toponyms, it is found in Canda, Capuxaida, as well as in Simpad, where it alternates with Simbal and Simpat. 181 Relevant personal names attested in the Moche Valley are Chanduy, Chuquipodan, Quido, and another alternating case, that of Asmat ~ Asmad ~ Asmate[†]. 182 It is relevant that there are no sequences with /ð/ as its second member in Mochica either (Hovdhaugen 2004: 15; /ð/ is his interpretation of <d> in Carrera). If this generalization is correct, it follows that Canda and Chanduy are with a very high degree of confidence not Mochica. The attested cases may result from a sporadic continuation of voicing following nasals or between vowels.

<g> occurs in the following environments: (i) initially and medially followed by <ua> or <uo> where it sometimes alternates with <h> or <v>, (ii) after <n> in medial position, (iii) initially, as in Guyuche (a hapax legomenon of a name mostly spelled as Cuyuchi), and (iv) medially. The cases in (i) can rather straightforwardly be ascribed to

¹⁸⁰ Attested cases in the north are Binsos - Binsoos - Vinsos, Quibinche, and Yumbo in the Jequetepeque Valley, and Macabí at Paiján (I do not list toponyms ending in -tambo, which is Quechua, and personal names in -chumbi since, as indicated in the section on sources for Quingnam, this ending may be from Quechua, too).

¹⁸¹ Zevallos Quiñones (1993a), perhaps influenced by some knowledge of Nahuatl, suggests Simbatl as the most adequate form. Since the ending -bal is highly characteristic of the Culli language, this may not be a Quingnam toponym.

¹⁸² The structure of all these toponyms resemble those deriving from Culli (Willem Adelaar, personal communication).

[w] rather than [g] on the basis of Spanish spelling conventions, a conclusion which is supported additionally by the alternations with <h>. Cases in (ii) can be attributed to sporadic continuation of voicing from preceding nasals. On the other hand, certain cases suggest that the digraph <ng> may also represent the velar nasal. For instance, if the velar nasal were implicated in Ningle and Ningle, an apparent exception to the otherwise fairly consistent maximal CVC syllable structure of the Quingnam language (which will be carved out in more detail further below) would cease to exist. Some cases in (iv) can probably be explained by scribal or transcription errors. For instance, the alternant Begap may be a mistake for Beguap, in which case <g> is easily interpretable as an approximant or fricative. In other cases, however, there is no solution other than to accept [g] in intervocalic position. The occurrence of voicing is sporadic, both in initial position and more frequently in medial position.

The distribution of the relevant letters is generally not in complementary distribution with those representing homorganic voiceless stops. The evidence for [b] is strongest (though the possibility that [w] is represented cannot be discarded), that for [d] weakest. However, in all cases, the relevant letters are clearly outnumbered by those for voiceless stops, indicating either that voiced stops were simply less frequent in the lexicon or, perhaps, that with more and better data at hand, the existing occurrences could be explained as representing something other than voiced stops.

In summary, the evaluation of the presence and, if so, status of voiced stops is not easy and ultimately equivocal. The surviving lexical material shows the same patterns as the toponyms and anthroponyms: letters representing voiced stops occur, but relatively infrequently.

Alternations involving plosives

There are some remarkable alternations involving . One is that with <c> or <qu>, i.e. [k]. This alternation occurs five times in the Chicama Valley, twice at Paiján, and three times in the Moche Valley. From the geographical distribution alone, it does not immediately follow that this bespeaks a phonetic property of Quingnam. It is noteworthy that the cases from Chicama and Paiján are found in the coda position or even word-finally, as e.g. in Soloque ~ Solop. Where there is a final vowel, we cannot be sure whether it is indigenous or an adaptation to Spanish phonotactics (see Appendix E). It is known that perceptual cues are stronger in initial than in final position (Côté 2012). Perhaps the originally articulated stops were unreleased, a factor known to reduce identifiability in postvocalic position (Lisker 1999). The cases from Moche are somewhat different: here, one case actually involves the metathesis of and <q>, and the alternations involved in another one, Occopmuña - Ocpocmuña, can be conceptualized in the same way. However, the form Ocpocmuña suggests that in fact both stops, [p] and [k], may have been present, perhaps in the form of a coarticulated labiovelar stop [kp]. Such a sound is not at all common in South America (nor elsewhere in the world!), but it was found in Muisca, a Chibchan language of the Colombian Andes (Adelaar & Muysken 2004: 85). Whether or not exactly such a sound was present in Quingnam in these instances, it is here that we can perhaps catch a glimpse at the reasons why the Spanish invaders found the language so difficult, in particular regarding its pronunciation.

 is also involved in further alternations, though the only one of some frequency in the Moche Valley is that with <ch>, namely in Benach ~ Benape[†] and Vapup ~ Vapuch Nimi[†]. A third case is probably that of Sappe ~ Sapche[†], even though, again, the transcriptions come from different sources and the identity of Sappe and Sapche is hence not guaranteed. A further variant transcription of the same site may be Sapsi - Sapti. As always given the nature of the data at hand, this is open to several interpretations. The transcription Sappe is notable, since sequences of identical letters are generally rather rare. It is tempting to interpret this as a gemination resulting from the simplification of a consonant cluster that would also explain the general pattern of alternation. This would in fact be supported by the case of Obchape - Ochape - Optabe, which occurs in the Chicama Valley. <c> and <qu> are also found in alternation with <ch>. Moche cases include Muchquic - Muchquich, Mochquichi - Mochquiqui (these two pairs may in fact be one), Sachcacam - Sacacham, Canonchache - Canoncachay - Canur Cachay - Canon Cachay - Cano Cachay, and Tomequiche - Tomechique[†].

<c> is involved in a number of further alternations in Moche Valley personal names and toponyms. In one case, it alternates with <n>, in others, with <s>, and in one further case, with <z>. Possible explanations are scribal or reading errors, and <c> may have been meant as <c>.

<f>

Torero (1986: 541) proposes that presence vs. absence of <f> is a diagnostic criterion to separate the toponymic area of Mochica from that of Quingnam. Indeed, evidence for [f] in Quingnam is very weak. 183 Salas García (2010: 107-108), however, accurately points out several toponyms and placenames in the Moche Valley in which the letter appears. In fact, Salas García wishes not to argue against the accuracy of the absence of [f] in Quingnam, but rather for Mochica-Quingnam bilingualism in the Moche Valley. 184 <f> is moderately frequent in toponyms from the Chicama and Jequetepeque Valleys, but virtually absent in the Moche Valley and below. One exception is the toponym Fallape,

¹⁸³ There is also no guarantee that the sound transcribed as <f> actually was [f] rather than a sound that did not occur in Spanish and for which [f] is the closest available equivalent. $[\Phi]$ would be a likely

¹⁸⁴ The word bilingualism appears poorly chosen for we do not know whether there were indeed people speaking both languages. What Salas García appears to be arguing for is coexistence of languages in the same geographical, but perhaps not sociolinguistic space.

which, however, seems to derive from Mochica rather than Quingnam. Another possible exception is Fachen, though about this place we only know that it is located in the jurisdiction of Trujillo, but not exactly where. Regarding personal names, Cafo is attested both in Santiago de Cao and Mansiche, Efan in various places in the Chicama and Moche Valleys, and Ferru in a protocol written in Trujillo (but it is unclear whether the person in question hailed from the Moche Valley). Clearer cases of personal names with <f> in the Moche Valley are Chancaf, attested in Mansiche and Huanchaco, Chovfuc in Mansiche (a Chofoc is attested in Chicama), Fillnun Cha Chaz in Mansiche, Llifin in Mansiche, Llufucnamo (this one early in 1561) in the Moche Valley, Nefuc in Trujillo, and Niunfir at Moche.

Further fricatives

Letters representing fricatives attested in the data are <s>, <sh>, <x>, and <j>. As mentioned above, on grounds of sheer frequency of these letters, it seems clear that both [s] (represented by <s>) and [ʃ] (represented by <sh> or <x>) were present in Quingnam.

Nevertheless, <s> alternates both with <sh> and <x>. A Moche Valley token of this alternation is the case of Oxaguaman - Oxahuamán - Ocxahuaman - Hoxaguaman -Osaguaman - Hocxaguaman. At Virú, the case of Saraque - Sarac - Xarac is attested. These raise the question what, if any, phonetic reality is responsible for these alternations. They may or may not indicate the presence of a postalveolar or palatal fricative [c] or [c]. It is interesting to note that all cases involve the context of a following <a>.

A further question pertains to the interpretation of <j>. At the time of writing of the earliest of the evaluated documents, this letter may still have represented the voiced palatal fricative [3] in Spanish (see Appendix E). In place names and personal names from the Moche Valley <x> outnumbers <j> with a relationship of about 2:1. In addition, alternations between the two letters are found both in initial (Jacón - Xacon -Jancon) and medial (Loja - Loxa) position. The evidence for [3] in Quingnam is therefore not particularly strong.

Nasals

There are numerous examples of a letter representing a nasal consonant which alternates with zero in variant transcriptions of the same placename or personal name. This phenomenon is most frequent word-finally and in internal clusters. The sheer frequency of <m> and <n> alternating with zero is perhaps suggestive of nasalization of an adjacent vowel. This view is supported by the frequent interchangability of <m> and <n>; if merely nasalization were implicated, indeed place of articulation would be an irrelevant feature.

Otherwise, there are some cases of <n> in alternation with <ñ>. They are remarkable because they involve more than one token within the same item, e.g. an indigenous name attested in 1593 at Mansiche is spelled Canenam or Cañoñam. One can observe a concomitant backing of the vowel between the nasals, which suggests that indeed a difference in the place of articulation is present in the two attested versions.

In the discussion of plosives, the possibility of a velar nasal represented by <ng> was alluded to. Aside from the relative frequency of the combination <ng>, there is one more alternation, that with <n> and <ng>, that suggests the presence of such a sound. It is found in Benape ~ Bengape ~ Bengap † in the Moche Valley and Ponochongo ~ Pongochongo in the Chicama Valley. 185

Alternations of consonants with zero

This phenomenon occurs primarily in two circumstances, in fact the same where alternations with zero have already been identified for nasals above. Thus, we are dealing with a more general regularity. First, alternations of consonants with zero occurs in word-final position and second, in the reduction of word-internal clusters, as seen e.g. in Mecraran ~ Mecaran†. Stops, the affricate <ch>, and the fricative <s> sometimes alternate with zero when followed by another consonant or in word-final position. The latter is clearly an adaptation to Spanish phonotactics (see Appendix E), and the former may well be triggered by the same process. There are a few cases where the environment differs, and this explanation is therefore not available (e.g. Concache ~ Conache).

In some cases, <ll>, <y>, and zero alternate, see e.g. Mio ~ Millo ~ Mello, a personal name attested at Mansiche.

Vowels

The available data support the existence of at least five vowels, [a], [e], [i], [o], [u]. I have not found evidence to posit that mid-vowels [e] and [o] are triggered by lowering of hypothetical /i/ and /u/ due to the consonantal environment.

It is quite frequent for graphemes representing high and mid vowels, i.e. <0> and <u> on the one hand and <i> and <e> on the other, to vary with one another. It is hard to argue for conditioning from adjacent segments that would cause lowering or raising. While the possibility remains that these alternations indicate a pronunciation somewhat intermediate between the Spanish sounds represented by the respective letters, the variation may well be simply random.

¹⁸⁵ In light of Pescadora's characterization as "guttural" by Calancha (1638: 550), note that a sound described in the same way in Pedro de la Mata's Cholón grammar is interpreted by Alexander-Bakkerus (2005) as the velar nasal.

Vowels frequently alternate with zero in the penultimate syllable of trisyllabic forms, as in Campcha - Campocha[†]. The quality of the vowel, when present, appears to be conditioned by the environment. In the context of non-front vowels, <o> appears, whereas a high vowel represented by <i> triggers the appearance of a like high vowel. One possible interpretation is that one is dealing with a weakly-articulated shwa-like vowel whose exact point of articulation varies somewhat depending on the vocalic environment. It is possible that deletion of entire syllables in the middle of words¹⁸⁷ is a phenomenon attributable to the same underlying property of the language. Alternatively, as suggested by Rodolfo Cerrón-Palomino in personal communication, the vowel in question may be epenthetic and introduced as an adaptation to the syllable structure of Spanish.

In Mochica, there are a number of morphophonological processes which lead to suppression of vowels (Cerrón-Palomino 1995: 141-145). Interestingly, suppression of <æ> in Carrera's (1644) material only occurs if the vowel is in the penultimate syllable; in Middendorf's (1892) material, the process seems to apply to other vowels as well (Cerrón-Palomino 1995: 142-143). This evidence is in fact a plausible explanation for some of the alternations observed, and it may be the case that indeed a number of items mentioned above are Mochica rather than Quingnam. It is not possible, however, that all relevant cases are Mochica: Quirihuac - Querihuac - Quirhuac† involves the sound [w] which was, for all we know, foreign to Mochica.

Beyond that, there are further alternations in the use of letters representing vowels, but I am not sure if some property of the Quingnam language can be deduced from these.

Occurrence restrictions

All the consonants mentioned so far, except the hypothetical velar nasal, appear in initial position in Moche toponyms, but [r] is rare, occurring only in the personal names Rina and Rincha, and not at all in toponyms. Voiced stops [b] and [g], if they existed, are absent from final position, and [d] is found there only once, where it alternates with [l] and [t] (the relevant toponym may be of Culli origin). Absent from final position is furthermore [Λ] (though note <maichill> in the words mentioned by Gillin 1945: 141 at Moche). [ʃ] is rare finally: the relevant letter <x> occurs only three times in this position, and <j> does not occur at all.

¹⁸⁶ Note also Espichiguaman - Espichhuaman[†], although the structure of this name differs somewhat from the other cases.

¹⁸⁷ As in Yumacyoagan ~ Yumacyoaguam ~ Yuamiguan ~ Yomacyoagan ~ Yumoyugan ~ Yomayocguan ~ Yumayuguan - Yomayoguan - Yumoyaguan - Yumaiguana - Yumuyuguan - Yumayguana.

Syllable structure

Generally, consonant clusters appear to be only allowed when the involved segments are heterosyllabic. There are only eight cases of a name from the Moche Valley where a consonant cluster is observed that can not be interpreted this way. These are Abcla, Olgpa, Ñingle - Ningle[†], Sevatr, Prexiran, Sept, Tingrahuaman, and the particularly noteworthy case of Xacchcac Guamanchumo, a personal name found in the genealogy of Chimor rulers dictated by Pedro Ocxaguaman before his death in 1596 (Zevallos Quiñones 1992: 231). Personal names from the Chicama Valley which may feature a consonant cluster are Tringa (see the just mentioned Tringahuaman), Malinpxep, Yecplequife, Calf, and Yfsacanamo ~ Fsacanamo ~ Yf Sa Canamo. At Paiján, there are Elung and Muntran, and in the Jequetepeque Valley, the personal name Santont is attested.

Abcla, with its medial cluster, may be a case of medial vowel reduction in trisyllabic terms discussed above in the section on vowel qualities. The same may be true of Olgpa, though this name can also be interpreted as containing a coarticulated segment in line with the suggestions made above. Ningle - Ningle interpreted as containing a velar nasal represented by <ng>. The other items are aberrant; among the lexical material possibly originating from Quingnam, <erc> 'meat' features a cluster as well.

The evidence indicates that Quingnam had very predominantly or exclusively (if the attested exceptions are scribal or reading errors) a (C)V(C) syllable structure, as did Mochica.

Stress

From the alternation of vowels in the second syllable of trisyllabic terms with zero, it can be inferred that the penultimate was not stress-bearing in trisyllabic items in Quingnam. Stress is indicated quite rarely in the available data, which is no doubt because of the early documentation at a time when stress was not yet regularly indicated by the Spanish scribes. In the few cases where it is marked, it invariably falls on the ultima. With the exception of <hórgamo>, the name of a plant used in curing, the same is true of lexical items with a possible Quingnam origin in the various sources discussed above. Taken together, the evidence thus points to a prosodic system in which stress (whatever its precise phonetic correlates) fell on the last syllable lexically. This may have been a general rule, or it may have occurred at least under certain conditions which cannot be recovered anymore. This is an important difference to Mochica, where, even though opinions vary regarding stress placement rules or absence thereof (see discussion in the pertinent section), the ultima is not considered by any interpreter of the available data.

A glance at lexical and grammatical structures Introduction

With the nature and extent of the data at hand, it is clear that the grammatical and lexical organization of Quingnam must essentially remain unknown. However, it is possible to infer some traits in both domains, even if only in broadest outlines.

Lexical reduplication

A striking characteristic of the Quingnam lexicon as well as of its toponymy and anthroponymy is a particular type of reduplication which involves (i) mostly monosyllabic roots of (ii) CVC shape (thus resulting in a CVCCVC structure of lexical items) and which (iii) is not obviously related to sound symbolism and apparently neither (iv) the result of a grammatical process but simply the way the forms are stored in the lexicon. We have already encountered examples such as Quin Quin or Pur Pur.

Rostworowski de Diez Canseco (1981: 123, 129-131; 1989: 167-174) discusses an old coastal deity named Con, whose cult was prominent on the North Coast but influential also on the Central Coast. Rostworowski de Diez Canseco (1981: 130-131: 1989: 170-172) tentatively connects Con with the names of a number of coastal sites. The northernmost, in the Moche Valley, is called Concon, another is Konkan at Sechín, still further sites located in the Chillón and Cañete Valley bore originally the name Con-Con. If this association is valid, it is here that we have a functional correlation of reduplication, and that in territory in which Quingnam is thought to have been spoken. On the other hand, it is not given that <con> was a Quingnam word (Torero 1990: 253 compares the deity's name with Culli <coñ> ~ <qon> 'water'). A Quechua etymology (from q'uñi 'hot, warm') has been proposed for Con's name as well (see Cerrón-Palomino 2013: 147-152).

Prefixing and suffixing

Quilter et al. (2010: 363) state that "the numbers from one to ten are quite probably monomorphemic (i.e., unanalyzable and distinct unto themselves)". However, there are reasons to question this for the numerals '1' and '2', and quite likely also '3'. As a comparison of <marian> '2' with <mari pachac> '200', where the numeral recurs, shows, the sequence <-an> is not actually part of the root. It is likely a suffix of the Quingnam language (see <yucan> '9', quite possibly <yuc-an>). As seen in the section on relevant personal names above, -an is also a very frequent ending of Moche personal names. A suffix -an may also be inferable from a number of terms in local Spanish, such as <pacan> 'ghost crab' and <caban> 'bag-shaped net to catch crustaceans', though this remains speculative. 188

Returning to the numerals from '1' to '3', after subtraction of <-an> in <mari-an> one gets a common ending <-ari> in '1' and '2': the numerals can be analyzed as <ch-ari> and <m-ari>. For '3', the list records <apar>. Given the emerging paradigm, one may speculate that this numeral follows or originally followed the same structure, i.e. that a more appropriate synchronic transcription would have been *<apari> or, alternatively, that this was the shape of the numeral at an earlier stage in the development of the language.

The closest parallel to this that I am aware of within South America, both structurally and formally, is found in the Yaruro language of the western Venezuelan rainforest. Numerals from '1' to '3' in this language are kjāreme, noāri, and tjarari (Mosonyi et al. 2000: 565). Beyond three, the language employs complex terms as is typical for Amazonian languages (Aikhenvald 2007). Kjārė́mė̃ contains an additional suffix -mė̃, which is supported by Dyck & Dyck's (2007) transcription k^barē-mē. The numerals noārii and tiarari share the sequence -ari and the same is probable for kjāreme, in which the final vowel of the sequence would have been assimilated to that of the -me suffix (though this analysis is admittedly ad hoc). Thus, Quingnam and Yaruro not only both have the property of a recurrent sequence in, and only in, the numerals from '1' to '3', but in addition, this sequence is strikingly similar formally. This is, however, no evidence for a genetic relationship, as the initial roots of the numerals between Yaruro and Ouingnam are not comparable. For Quingnam <chari> '1', Timote-Cuica forms like <kári> (Jahn 1927, see Urban 2015b for the full set of attested transcriptions), may also be compared. Timote-Cuica is a small and extinct language family formerly spoken in the Venezuelan Andes, not too far from Yaruro albeit in a quite different environmental setting.

In the lexical data, there is evidence for a further suffix <-na>, although it is not clear if it is indeed Quingnam. It may be present in the items <quirana> 'binding with which the reeds composing a roll or bundle is bound in the reed raft used for fishing in Huanchaco' and <huabina> 'freshwater fish'. While in these items the existence of a separable final element -na would remain speculation, the existence of such an element is better supported by <huangana> 'binding for reed raft' (Gillin 1945: 163), a term for which Rita Eloranta (personal communication) suggests a Quechua origin (wanqu 'strap, lace') and even more strongly by palana> 'shovel or spade; used in agriculture' (Gillin 1945: 164). This is apparently Spanish pala 'shovel' with an otherwise not explainable element. Rather than a Quingnam suffix, one may be dealing with the Quechua instrument nominalizer -na, however, in which case the cited items (with the exception of <pala->) may be better explained as Quechua in origin.

¹⁸⁸ Oviedo y Valdés (1855: 225) mentions a coastal huaca named <guatan>, which is also the name of whirlpools and dust whirlwinds. However, since Oviedo y Valdés is talking about the North Coast generally in the relevant passage, it is unclear from which part of it exactly his information comes.

Moving further into the realm of speculation one can note the -Vc ending in two items surviving in local Spanish that are likely morphologically complex, namely <maimenec> 'shut up' and <cuchumic> 'drunk'.

Evidence for prefixing is weaker. Essentially relevant also here is <cuchumic> 'drunk', which, if containing a diffused root <chum> (see chapter IX), showcases an additional initial element that may be a prefix specific to Quingnam. Furthermore, one can note the common sequence <cho-> in two items used in local Spanish with an adjectival meaning, namely <chomuńa> 'old' and <chollengue> 'lean, shabby'. While Salas García (2008a: 215-220; 2012: 123-129) argues that <munaos> 'ancestor mummies' has a Mochica etymology, Rita Eloranta (personal communication) points out the possibility of a relation between this term and <chomuña> 'old', which would be consistent with the identification of <cho-> as a separable element.

The fate of Quingnam

Quingnam went extinct early. According to Salas García (2010: 114-115), Mogrovejo (2006 [1593-1605]) reports that in the early 16th century Quechua was already spoken in various places of the Central Coast. In fact, since Mogrovejo visited the same coastal settlements at different points of time, one can actually trace the demise of the indigenous languages of the Pacific coast. For instance, while in 1593 he reports 'Yunga' to be spoken at Huarmey, in 1605 only the 'lengua general', i.e. Quechua, is mentioned. At Guaman in the Moche Valley, the indigenous inhabitants already spoke Spanish in 1582 (Castañeda Murga 1991: 39). The absence of Quingnam in a 1651 document describing the languages necessary for the evangelization of the North Coast (Rostworowski de Diez Canseco 1989: 270-271) does not necessarily imply that Quingnam was extinct yet, but that its importance had already diminished to the point that it was not considered relevant for the aims of the Spanish (Torero 1986: 537-538). The same is true regarding its absence in Martínez Compañón's (1985 [1782-1790]) 'plan' (Adelaar 1999: 213). The first definite statement regarding Quingnam's extinction indeed is found already some decades earlier: Feijoo (1763: 4-5) reports that only Spanish was spoken at the time of writing in the Trujillo region. ¹⁸⁹ Cerrón-Palomino (2004a: 99) assumes that Quingnam became extinct in the late 16th and early 17th century, and that this happened first in the Trujillo area and later further in the south.

Thirty years after Feijoo's declaration of the extinction of Quingnam, Lecuanda (1861a [1793]: 123), who provides a general description of the Trujillo area, repeats that the Indians of the region speak Spanish, but also offers an interesting passage that suggests that some knowledge of an indigenous language was still remaining at the end of the 18th century. In describing a cactus apparently closely related to the prickly-pear (see Figure 16), he explains (1861a: 152):

¹⁸⁹ Cerrón-Palomino (2004a: 99) takes this statement to refer to the extinction of Mochica.

The plant called maran is succulent, similar to the prickly pear. These locals know it also as higo pala, higo-chumbo, and tuna simarrona. They call its leaf penca, and with it they enclose the properties. The whitest one serves for ropes. The fruit it produces is similar to the prickly pear, and on it the cochineals grow, which they call pilcái in the native Indian language. 190

This Indian language from which the word <pilcái> derives is, despite Paz Soldan's (1862: 211) claim to that effect, not Ouechua. The naturalness with which Lecuanda speaks of the indigenous language from which the word stems may shed light on the linguistic situation in the Trujillo area at the end of the 18th century, with Spanish in general use, but a considerable body of local indigenous terminology remaining.

The principal reason for Quingnam's early demise is not entirely clear and may have differed from region to region. For Salas García (2010: 115), evangelization in Quechua was a major force, as there was little reason for the Spanish clerical administration to provide catechisms and gram-



Figure 16. A Mesoamerican Indian collecting cochineals from a cactus, called <pilcái> and <maran> respectively in the Trujillo region. From José Antonio de Alzate y Ramírez's Memoria sobre la naturaleza, cultivo, y beneficio de la grana. https://upload.wikimedia.org/wikipedia/com- mons/0/0b/Indian collecting cochineal.jpg>.

mars of Quingnam. For the Trujillo region, however, the devastating population losses caused by epidemics, which reduced the population "to almost null in the course of the second half of the 16th century" (Adelaar 1999: 213) appear to be relevant, too. Indeed, it is logical to speculate, as Adelaar (1999: 216) does, that the indigenous population of the Trujillo area, who had only some 60 years before the arrival of the Spanish become subjects of the Inca, would have initially welcomed the Spanish (and their language). Indeed, Adelaar (2007b: 9) suggests that survivors of the epidemic shifted to Spanish rather directly.

^{190 &}quot;La planta llamada maran, es carnosa, parecida á la tuna ; conócenla tambien estos naturales por los nombres de higo pala, é higo-chumbo, y tuna simarrona : á su hoja le dicen penca, y con ella suelen cercar las heredades. La mas blanca sirve para sogas : el fruto que da es semejante á la tuna, en ella se cria la grana ó cochinilla, que en idioma natural índico la llaman pilcái".

VIII. Previous classification attempts

This and the following two chapters deal with the outside relations of the languages of the Peruvian North Coast. In this chapter, I review previous classifications of the North Coast languages among themselves, their proposed connection to the languages of coastal Ecuador, and the hypothesis of a genealogical link of Mochica to the Uru-Chipaya languages of the Bolivian highlands and the Mayan languages of Mesoamerica. To anticipate the conclusion, it will turn out that, although the Ecuadorian connection is a priori not implausible, it so far lacks any factual basis linguistically. It results from a mix of pre-modern and discredited methods of linguistic classification in conjunction with confusion regarding names of languages appearing in colonial documents. Nevertheless, through a snowball effect of citations, it has made its way even into relatively recent classifications of the languages of South America. I will go into some detail explaining the history of these ideas and the original evidence presented in their favor, in the hope that an explicit and detailed re-evaluation of the purported evidence will help to debunk the idea. Of an entirely different quality is Stark's (1968, 1972) proposal of a link between Mochica and the Mayan and Uru-Chipaya languages. Even though Stark follows the methodological standards of comparative linguistics, the proposal has not been evaluated positively. For all we can know at present, therefore, the languages of the North Coast, including Quingnam, should be considered isolates. A possible genetic connection between Tallán and Sechura cannot be excluded but is also not demonstrable based on the available data.

The earliest classificatory statement regarding the languages of the North Coast known to me is that of Brinton (1891: 226), who groups Sechura, Tallán, Mochica and Quingnam together in a "Yunca linguistic stock". In fact, the classification is over-differentiated, because Brinton in addition mentions languages or language varieties which he labels Catacaos, Chancos, Chimus, Chinchas, Colánes, Etenes, Mochicas, Morropes, and Sechuras. His Mochicas are said to live "at Mochi, near Truxillo" and the Chancos on the coast south of the Mochicas". Part of the reason for the overdifferentiation is a statement in Markham (1864: xlii, fn. 5), according to whom Richard Spruce collected a wordlist of Mochica (called 'Yunca' by Brinton) in 1863 in Piura (more on this list, actually a sample of Sechura, in the discussion of sources for the Sechura language). Spruce indeed mysteriously labeled the list "Words in the language of Morrope, Colán, Eten, Sechura and Catacaos" (Morrope and Eten are locations in Peru where Mochica was spoken). There is no explicit statement making a case for a linguistic relationship between Sechura and Mochica on behalf of Spruce and thus the list is nowhere "proving",

¹⁹¹ Reference to the 'Chinchas' and 'Chancos' remains unclear. If the Chincha of Peru's Central Coast and the Chango of northern Chile are meant, this is a case of geographical, and subsequent linguistic, confusion. Adelaar (1998: 406) remarks that "[t]here was probably no such thing as 'Chinchan', a language invented in order to fill up part of the vacuum created by the denial of the existence of early Quechua along the coast".

as Brinton (1891: 226) says, such a relationship. The same of course goes for Colán and Catacaos, which, presumably by mere inference from geography, Brinton (1891) also groups with Mochica.

Rivet (1924: 678, 696) reasonably keeps Mochica apart from other North Coast languages, but merges Tallán and Sechura into a single family called 'Sek' (see also Rivet 1949). The "Yunka" family (i.e. Mochica), according to Rivet (1924: 696), comprises the language of the people of Morrope, Eten, the "Tšimu" near Trujillo, the "Motšika" or "Tšintša" at Moche and the "Tšanko" to their south. This list is clearly under the influence of Brinton (1891). At the same time, Rivet (1924: 651) is responsible for much confusion by proposing an "Atal'an" family. This grouping, however, does neither include Colán and Catacaos, i.e. the languages now commonly called Tallán, nor Sechura, but, in his orthography, comprises the language of the Manta, Huankavilka, Puna, and Tumbez. These are the presumed undocumented languages of the peoples of the Ecuadorian coast as well as that of Tumbes in northernmost Peru. As Stark (1972: 121) notes regarding such listings based on "tribes" distinguished in ethnohistoric sources, there is no linguistic data from these groups; in fact, there is often not even a basis for assuming that these languages then even existed. Rivet's (1924: 651) argument for grouping these languages together is also revealing: "I give this name to a language family in which I group a series of disappeared tribes of the Ecuadorian coast, which, ethnographically, appear related". 192

According to Mason (1950: 195), Rivet was the first to propose a language family on the Ecuadorian coast. 193 A point yet to be resolved is the reason for Rivet's (1924) choice to label his highly speculative Ecuadorian grouping 'Atal'an', which has been the source of much confusion and which, if only by name, suggests a certain linguistic connection between Ecuador and Northern Peru. I can only speculate here, but alongside a certain fuzziness in the reference of the term 'Tallán' (see chapter IV), a reasonable guess is that Rivet was influenced by an early colonial reference to the languages of the diocese of Quito by its bishop, Luis López de Solís. The statement is well-known among students of the pre-Columbian linguistic situation of present-day Ecuador, but not so much

^{192 &}quot;Je donne ce nom à une famille linguistique où je range une série de tribus disparues de la côte équatorienne, qui, ethnographiquement, paraissent apparentées".

¹⁹³ The idea of linguistic homogeneity on the Ecuadorian Pacific coast is found in Jijón y Camaaño (1997: 85-86) as well, although without making use of Rivet's designation. Jijón y Camaaño interprets a statement from Xerez (1891 [1534]) to the effect that there was a kind of 'Hanseatic League' on the Ecuadorian coast dominated by the Manteños who allegedly controlled the other coastal peoples. Jijón y Camaaño's direct witness, however, is Cieza de León (2005 [1553]: 146), who says that the inland is more diverse culturally than the coast around Manta and that more, and different, languages are spoken there. Note that there is no explicit statement to the effect that there is linguistic homogeneity on the coast, which Jijón y Camaaño seems to derive in large part from the political dominance of the Manteños. In fact, Oviedo y Valdés (1855: 222), whom Jijon y Camaano also quotes, speaks of linguistic diversity rather than homogeneity.

among those of Peru, even though the diocesis of Quito once extended into the territory of what is today northern Peru, including the lowlands of Piura and Lambayeque. López de Solís called in a synod with the goal of translating a standardized catechism to the languages of his diocesis, which he presumably surveyed during his trip to Quito to enter office. The relevant passage (López de Solís 1596) is as follows:

From experience we are sure that in our diocesis there is diversity of languages, for they don't have nor speak the language of Cuzco [= Quechua, MU] nor Aymara. So that they do not dispense with the Christian doctrine, it is necessary to have the catechism and confessionary translated to the proper languages. Therefore, conforming with what was been ordered in the last provincial council, having informed ourselves of the best linguists who could do that, we have opined to assign this work and care to Alonso Nuñez de San Pedro and Alonso Ruiz for the language of the plains and the Tallan language [la lengua de los llanos y tallana], and to Gabriel de Minaya, priest, for the Cañar and Puruhá language, and to friar Francisco de Xerez and friar Alonso de Xerez, from the Orden de la Merced, for the language of the Pastos, and to Andres Moreno de Zúñiga and N. Diego Bermudez, priests, for the Quillacinga language, to who we assign that they shall do it with utmost care and brevity. For our Lord will be served by that, and we will reward them on our part. Said catechisms made, they shall bring or send it to us, so that, seen and approved, they can use them. 194

Jijón y Camaaño (1997: 86) resolves the apparent contradiction between the statements of Cieza de León and Oviedo y Valdés by saying that in coastal Ecuador "there was an infinity of dialects of a single language, not that differentiated, which would have impeded understanding among those who spoke them". This, obviously, does not make much sense. Either there was a single language, which would mean that understanding was possible even though perhaps it was dialectally diverse, or there were several mutually unintelligible languages. For the statement to make sense, then, one would have to replace 'dialects' by 'languages' and 'language' by 'language family'. Furthermore, Jijón y Camaaño's theory assumes, as he himself says (1997: 85-86), that Oviedo y Valdés is here referring to the strip of the coast from the lands to the north of the Mira River in southernmost Colombia to Santa Elena. This is not entirely clear, however; it is true that immediately before the quotation Oviedo y Valdés occupies himself mostly with a description of Ecuadorian territory, but earlier in the same chapter, places in Central America as well as the city of Lima are mentioned. As a result, the areas of linguistic diversity mentioned by Oviedo y Valdés is not easy to locate. Much more damaging to Jijón y Camaaño's interpretation are the anonymous descriptions of Guayaquil and Puerto Viejo (Anonymous 1868a,b [-1605]) whose emphasis on linguistic diversity with clear reference to coastal Ecuador Jijón y Camaaño does not take into account either. In conclusion, the idea of a language family in coastal Ecuador is without factual foundation. Such a family may have existed, but we have no positive evidence for it.

194 "Por la experiencia nos consta en este nuestro obpado ay diuersidad de lenguas que no tienen ni hablan la del Cuzco, ni la aymara, y que para que no carescan de la Doctrina Christiana es necesario hazer traduzir el cathecismo y comfessionario en las proprias lenguas, comformandonos por lo dispuesto en el Concilio Provinçial Ultimo auiendonos informado de las mejores lenguas que podrian azer esto nos a parecido, cometer este trabajo y cuidado a Alonso Nuñez de San Pedro, a Alonso Ruiz para la lengua de los llanos y tallana y a Gabriel de Minaya Presbytero para la lengua cañar y Puruguay y a fray Francisco de Xerez y a fray Alonso de Xerez de la orden de la mrd, para la lengua de los Pastos y a Andres Moreno de Çuniga, y a Diego Bermudes Presbyteros la lengua Quillacinga a los quales encargamos lo hagan con todo cuidado y breuedad pues de ello sera nuestro Señor servido y de nuestra parte se lo gratificaremos y hechos los dhos catecismos los traygan, o enuien ante nos para q uistos y aprobados pueda usar de ellos".

Arrizabalaga Lizárraga (2008b: 47-48) has researched the occupations of Nuñez de San Pedro and Ruiz and concludes that "the language of the plains and the Tallan language" cannot be one and the same. The key evidence against this identity is that Nuñez was the priest of the Valley of Jayanca, today in the Lambayeque department of Peru, where Mochica was spoken. Thus, as Jijón v Camaaño (1997: 86) correctly suggested, the "lengua de los llanos" of the document refers to Mochica. 195 The Alonso Ruiz mentioned by López de Solís must be identical with Alonso Ruíz Calderón, who reappears in an anonymous document as the priest of Moscalaque, in the present-day province of Morropón in Piura (Arrizabalaga Lizárraga 2008b: 48).

Thus, one can affirm that neither the "language of the plains" nor the "Tallan language" mentioned in López de Solís's call for catechisms refers to a language spoken in the territory of present-day Ecuador. There is no support from López de Solís's statement for an extension of the Tallán languages this far north, and neither for a historical connection between Tallán and the languages of that region. Rivet's choice to label the hypothesized language family of coastal Ecuador 'Atal' an' may be based on a superficial interpretation of the Solís document. Perhaps unaware of the former extension of the diocesis of Quito into present-day Peruvian territory, Rivet may have placed 'Atal'an' in the Pacific lowlands of Central and Southern Ecuador rather than northern Peru. Unless there are other reasons for the association, there is hence no basis for an "ipso facto presumption of connection between Tallán and the extinct Atalán 'family' just to the north" (Mason 1950: 196), nor, in fact, for the existence of an 'Atal' an' family itself. 196

Once established, even without sufficient reason, the alleged association of the extinct languages of coastal Ecuador under the label 'Atal' an' or a similar designation was varied and/or amended in various ways: Paz y Miño (1961: 12) speaks of an 'Atallana' family (for which he also gives the variant names "Atalán, Atallanas, Atallanas, Tallán and Tallana") composed of the "dialects" "Wankawilka (Huancahuilca, Huancavilca, Huancavelica, etc.), Amay, Puná" and "Túnbe (Tumbes, Túmbez)". Again, this grouping does not include Colán and Catacaos. Rivet's terminological choice, which others have picked up, is the main reason for persisting confusion regarding the genealogical structure of the extinct languages of coastal Ecuador and northern Peru, as it led Mason (1950: 195) to correctly state that "[a]pparently Atalán and Tallán must be distinguished" and forced

¹⁹⁵ This is not the only time that Mochica is referred to as "lengua de los llanos". For instance, Mogrovejo (2006 [1593-1605]: 42) says regarding Túcume, in the Lambayeque province, that "Father Pacho and Father Hernando de la Carrera know the native language of these plains or that which the indios of these plains speak" ("el Padre Pacho y el Padre Hernando de la Carrera saben la lengua materna de estos llanos o que hablan / los indios de estos llanos").

¹⁹⁶ The deviant vowel-initial form 'Atal' an' (and variants) found in the classification of Rivet is attributed by Arrizabalaga Lizárraga (2008b) to a misreading of López de Sólis' call for catechisms on behalf of González Suárez (1890), where the spelling <atal'an> appears.

him to note that "[c]onfusion and disagreement are great", a quote recently repeated by Campbell (2012: 105). Mason (1950: 195) states that "[d]ialects of *Atalán* seem to be *Apichiquí*, *Cancebí*, *Charapoto*, *Pichote*, *Pichoasac*, *Pichunsi*, *Manabí*, *Jarahusa*, and *Jipijapa*", adding further names of ethnographically attested groups to the picture. About these, the same ontological comments made above for the coast of Northern Peru apply.

In spite of his cautionary remarks, Mason (1950: 193-196) added to the confusion by classifying a grouping very similar to Rivet's 'Atal' an' as part of a still wider unit. Here, 'Atalán' becomes a sister group of 'Yunca', i.e. Mochica, with a modified version of the traditional hyperdifferentiation of varieties "Yunga, Morropé, Eten (?), Chimu, Mochica (Chincha)" and "Chanco". But this is not yet all. The group made up of 'Yunca' and 'Atalán' is classified as the "South Group" of a still wider family called "Yunca-Puruhá", or alternatively "Yunca-Wancavilca" or "Puruhá-Mochica". Its "North Group" is made up of Puruhá and "Canyari (Cañari)", two extinct and essentially undocumented languages of highland Ecuador as well as "Manabita (Mantenya)". Sechura and Tallán are kept separate from this grouping. 197

The background of Mason's fortuitous grouping are claims made by Jijón y Camaaño (1940, 1997: 83) and/or Buchwald (1918: 233). Jijón y Camaaño linked the Puruhá and Cañari languages to Peru, claiming that they were related to Mochica. 198 What little is attested of the lexicon of the Cañari language comes mainly from the Relación que enbio a mandar su magestad se hiziese desta ciudad de Cuenca y de toda su provincia (Jiménez de la Espada 1965: 265-290), which describes the Cuenca region and provides etymologies for several placenames.¹⁹⁹ Jijón y Camaaño (1941: 6) offers far-fetched Mochica comparisons for many of these items, but admits that they are far from conclusive. The one he trusts most in is that of <necha> 'river', isolated from the toponym Tamalannecha which is translated as 'river which eats the Indians' in the Relación, with Mochica <nech> 'river'. Otherwise, the evidence consists of perceived similarities in toponyms and personal names, or ad-hoc etymologies of such names through Mochica (Jijón y Camaaño 1940: 418-556; see Stark 1968: 30). Jijón y Camaaño (1940: 413-414), who thus is led to propose a "Puruhá-Mochica" family, includes Manabita or Manteño, Puruhá, Huancavilca, Cañari, Yunga, and Mochica, and dialects of the Peruvian highlands, among them that of "Ancachs" [sic!], into this grouping. 200

¹⁹⁷ Mason erroneously thought that Tallán and Sechura were spoken in Ecuador, too.

¹⁹⁸ Earlier, Jijón y Camaaño (1919: 403-406) had suggested a Mochica presence in Ecuador, but not claimed a connection to Puhurá-Cañari.

¹⁹⁹ One source for learning more about Cañari phonology and lexicon is its substrate left in Cañar Quichua. An early attempt by Cordero Palacios (1981) is methodologically weak (Howard 2010), but this author makes important steps into this direction (see also Torero 1964; the idea is explored in full detail in Urban (2018b). Likely words of Cañari origin in Howard (2010: 132-133, Table 1), at any rate, do not add credibility to a Mochica connection of this language.

²⁰⁰ Jolkesky (2016: 242) offers some more comparisons, although they remain inconclusive as well.

Buchwald (1918: 233), on the other hand, offers a no less far-fetched argument to suggest an Ecuadorian connection of Mochica.²⁰¹ The evidence is as follows: Benzoni (1857 [1565]: 244) describes in some detail the chief of a coastal village in Huancavilca territory near Santa Elena, to whom he refers to as Colonchie.²⁰² Colonchie is said to have worn a sleeveless red shirt. Buchwald (1918: 233) clinged to this straw and compared the chief's name with Mochica <col> 'red' and <lutu, luty> 'shirt'. 203 He also provides Mochica 'etymologies' for four placenames of the Huancavilca region. ²⁰⁴ Just like the etymology of the chief's name, these are not convincing, for several reasons. For the sake of completeness, but also to make transparent the quality of the original evidence that gave rise to the idea of an association of Ecuadorian and northern Peruvian languages, I present these in Table 22.

Placename	Mochica comparison	Attributed meaning
Muey	<moix></moix>	'the dead'
Chongon	<chux-ong></chux-ong>	'tender algorrobo'
Chanduy	<chep-tug></chep-tug>	ʻhigh plain'
Jayá	<xaya></xaya>	'shell'

Table 22. Buchwald's (1918: 233) Mochica etymologies of Huancavilca toponyms.

As one can see, virtually all proposed etymologies involve a considerable degree of phonetic leeway, and, from a semantic point of view, do not yield plausible placenames. The one etymology that does, i.e. that of Chanduy as Mochica <chep-tug> 'high plain', is marred by the fact that the comparanda are not really similar under a standard phonetic interpretation and that Mochica consistently places modifying adjectives in front of the modified noun, not after it as would be necessary for Buchwald's etymology. There may have been a linguistic link between what is today Ecuador and Peru, but the scant evidence links the Puruhá and Cañari-derived toponymy of southern Ecuador rather with the 'Cat' language of the highlands (Torero 2002: 372).

²⁰¹ Lehmann (1920: 39) ponders whether the languages of northernmost Peru could have formed a link between Mochica and the languages of Ecuador, too.

²⁰² Probably not coincidentally, the name of the chief's village is Colonchi according to Benzoni (1857 [1565]: 243).

²⁰³ These are Buchwald's own data. As noted in chapter VI, Buchwald had conducted primary fieldwork on Mochica, but his notes were destroyed during a fire in Guayaquil.

²⁰⁴ Incidentally, Loukotka (1968: 262) states that four Huancavilca words are attested; however, this is referring merely to Buchwald's (1918) comparisons via Jijón y Camaaño (1919).

Whether based on Jijón y Camaaño or Buchwald, Mason's 'Yunca-Puruhá' group thus lacks an empirical foundation. However, having appeared once in print, very large language families linking Ecuador and Peru begin to be postulated rather commonly. A very similar family to that of Mason is posited by Loukotka (1968: 261-263). He calls it "Chimú". The major differences to the classification already discussed lie in the fact that his 'northern languages' subgroup has no internal structure and that the names of ethnohistorically attested groups whose languages it is said to comprise differ. It includes "Ayahuaca", "Calva", "Tumbi or Tumbez", "Puná or Lapuna", "Colonche", "Chanduy", "Tacame or Atacamez", "Chongón", "Coaque", "Manabi or Manta", "Huancavilca", "Canarí", and "Puruhá (or Puruguai)". The 'southern languages' are actually just one: "Chimú or Yunga or Chincha or Quingnam or Muchic or Mochica", with the "dialects" Eten, Mochica, Casma, and Paramonga (Loukotka 1968: 261-262). Again, neither Sechura nor the Tallán languages are associated with Loukotka's 'Chimú' family. Instead, Loukotka (1968: 260) groups Sechura (or 'Sec') with the 'Tallan' (or 'Atalan') language, of which he says that they were "once spoken in the department of Piura". 'Tallan'/ 'Atalan', however, must refer to one of the versions of the spectre of a coastal Ecuadorian family summoned by Rivet, since Colán and Catacaos are assigned to a separate 'Catacao stock'. As there is no evidence for a fourth language in the region (other than perhaps that of Olmos, which clearly is not implicated here), this is an unwarranted nomenclatural doubling of linguistic entities.

The history of the matter so far explains two further, more recent classifications, which appear to be mainly based on the earlier work discussed so far: Tovar & Larrucea de Tovar (1984: 169-170) have a "Yunga-Puruhá" stock, consisting of "Yunga" or "Yunca" (i.e. Mochica), Puruhá and Cañari, and "Sec, Sechura o[r] Tallán". Here, finally, Sechura and Tallán become lumped with the spurious large Ecuadorian-Northern Peruvian language family, something that was not proposed in any classification so far except Brinton (1891). As Stark (1968: 36) points out, however, the linguistic evidence for a relationship between Tallán and Sechura with Mochica is extremely weak, while a connection between Tallán and Sechura is possible but not demonstrable due to lack of data. A final result of the confusion caused by the early 20th-century work is that Migliazza & Campbell (1988: 316) have a "yunca" group, consisting of "chimu, muchic, chincha, puruha-canari" in Ecuador, and a "yunga", made up of "mochica, muchik, chimu, quingnam, eten" in Peru. The latter they (1988: 217-218) list among the "languages of uncertain or doubtful, but not unacceptable, affiliation with respect to Arawak", 205 together with Uru-Chipaya and Puquina (the Arawak affiliation of Uru-Chipaya appears to be repeated from Rivet 1924: 650).

There are also even wider proposals in earlier literature. One is the proposed connection of Mochica with the Barbacoan languages of Ecuador and Colombia, even though

^{205 &}quot;[...] lenguas de filiación incierta o dudosa, pero no inaceptable, con respecto a la arawak".

already Lehmann (1920), as Mason (1950: 194) says, "compared Mochica with Colorado without any result". Lehmann (1920: 38-39) got onto the track of this possible link mainly through a statement by Lorenzo Hervas, while correctly cautioning that the 'Yunga' this latter author mentions may have referred to any group of the Pacific litoral. Comparing linguistic material from Colorado (=Tsafiqui) with Mochica, he indeed found only three similar words. Stark (1968: 40-49) reevaluated the proposal and reached the same conclusion as Lehmann: the evidence for the connection is lacking.

By way of the alleged affiliation of Barbacoan with Chibchan, which is itself not demonstrated (Curnow & Liddicoat 1998: 384), Mochica has been linked indirectly also to those languages. The most inclusive grouping ever proposed is that of Mochica into a 'Chibchan-Paezan' group on behalf of Greenberg (1987), which, according to this author, is itself a subgroup of the vast Amerind family which comprises all languages of the Americas except Eskimo-Aleut and Na-Dene in the Northwest of North America. Within Chibchan-Paezan, according to Greenberg (1987: 106), the Paezan branch consists of "Allentiac, Andaqui, Atacama, Barbacoa, Betoi, Chimu, Choco, Itonama, Jirajara, Mura, Paez, Timucua, Warrau". 206 Geographically, this is a highly disparate grouping. It mostly includes isolates and small families reaching from Colombia and Venezuela to Chile and Bolivia, spoken in both highland and lowland habitats. Greenberg's comparisons leading to Chibchan-Paezan suffer from the same problems as his approach generally (Campbell 1988; Adelaar 1989). The problems include the lack of regular sound correspondences, unsubstantiated phonetic interpretation and transcription of data from pre-modern sources, arbitrary segmentations, wide semantic latitude of comparanda, and sometimes spurious forms or even data from languages which do not actually exist (see especially Curnow 1998). In addition, when dissecting Greenberg's construct and considering the evidence bilaterally for individual language pairs, comparative sets involving Mochica data can be as few as three, as is the case for Andaqui: Mochica <poi> : Andaqui <fi> 'give', Mochica <sinu, senu> : Andaqui <tunihi> 'mosquito', and Mochica <xione> : Andaqui <kifi> 'nose'. 207 For all these reasons, Greenberg's classification of Mochica should not be accepted as valid. Tallán and the Sechura language are assigned to a different subgroup of Amerind by Greenberg, 'Andean'. This includes, in Greenberg's (1987: 99) own terminology, "Alakaluf, Araucanian, Aymara, Catacao, Cholona, Culli, Gennaken (Pehuelche), Itucale (Simacu), Kahuapana, Leco, Mayna (Omurana), Patagon (Tehuelche), Quechua, Sabela (Auca), Sechura, Yamana (Yahgan), and Zaparo". This grouping indeed comprises most languages of the Central

²⁰⁶ Already in Greenberg (1960: 793) a Macro-Chibchan group, divided into Chibchan proper and Paezan, which includes "Choco, Cuaiquer, Andaki, Paez-Coconuco, Colorado-Cayapa, Warrau, Mura-Matanawi, Jirajira, Yunca, Atacameno, Itonama", is postulated, without mentioning any data in

²⁰⁷ The Mochica word for 'nose' is actually much more frequently transcribed as <fon> in the available sources.

Andes (but not Uru-Chipaya), some languages (once) spoken on their eastern slopes, as well as languages of Tierra del Fuego. Greenberg reckons that "[d]espite very limited material, the languages Catacao, Cholona, Culli, Leco, and Sechura clearly form a Northern subgroup". Much the same comments apply as for Chibchan-Paezan. For instance, the comparison Catacao <taguakol>, Colán <aguakol> : Sechura <unñiokol> : Tehuelche <kor> 'grass' is spurious, since, as discussed in the chapter on Tallán, the forms from the Peruvian Far North are complex forms meaning literally something like 'animal fodder', <kol> being the word for 'animal' (or specifically 'llama' or 'horse'). Kaufman & Berlin (1994: 64) appear to have found the connection between Sechura, Tallán and Leco particularly convincing, because they group these, but not other languages implicated by Greenberg, into a 'Macro-Lekoan cluster'. For them, a 'cluster' is a "hypothesized non-obvious genetic group of indeterminate time depth" (Kaufman & Berlin 1994: 32). Van de Kerke (2003) has evaluated Greenberg's comparisons for Leco, and reached the conclusion that the similarities Greenberg notes between Leco and other languages are due to geographical proximity (and hence, language contact) rather than common descent. Indeed, language contact may be responsible for some of the similarities observed by Greenberg which appear genuine. These also involve Mochica (see chapter IX).

Finally, Bouda (1960) attempts to connect Mochica with the Uralic languages, an extraordinary claim which requires extraordinary evidence in support. Bouda's comparisons, for which he relies exclusively on Middendorf (1892), however, suffer from arbitrary claims as to pre-Mochica forms (such as the claim that <pove> 'foam' is from *pobu), misrepresentations (<po> instead of accurate <pong> 'stone'), and other issues.

Stark's (1968, 1972) proposal of a link between Mochica and the Mayan languages of Mesoamerica has not been met with general enthusiasm either (Campbell 1997: 324). However, it does deserve serious consideration because, unlike all of the proposals considered above, Stark's proposal is based on an application of the comparative method of historical linguistics. At the time of Stark's work, however, Mayan historical linguistics was still in its infancy, and no detailed reconstruction of the proto-language was available. Stark therefore opted to compare Mochica with a single Mayan language, Ch'ol (in Stark 1972, some proto-Mayan comparisons are also made). While in principle a solid demonstration of a relationship between Mochica and Ch'ol would entail a relationship with the rest of the Mayan languages as well, a lingering problem is that proto-Mayan vintage of Stark's Ch'ol comparanda is not guaranteed. In addition, Stark's comparisons suffer from (i) a poorly motivated interpretation of Mochica phonology, (ii) arbitrary or erroneous

morphological segmentation of Mochica forms,²⁰⁸ and (iii) a low amount of semantically isomorphic comparisons (though the assumed semantic changes in the forms she compares are not unreasonable). Stark arrives at a list of 89 Ch'ol-Mochica comparisons with regular correspondences. In the late 60s and early 70s no major synthesis of proto-Mayan vocabulary was available, but with the appearance of works like Kaufman & Justeson (2003) it would now be possible to reassess the proposal.

Olson (1964, 1965) and Hamp (1967), meanwhile, attempt to demonstrate a relationship between Mayan and Uru-Chipaya. While this relationship has not commonly been supported by other scholars (an early critique is in Campbell 1973), Stark accepts it as valid. Hence, she must assume that Mochica and Uru-Chipaya are related as well.²⁰⁹ This is a logical necessity; exploration of the actual evidence in Stark (1968: 102-104) is cursory, but nevertheless leads her to the conclusion that Mochica and Uru-Chipaya form a subgroup within a larger family also involving Mayan.²¹⁰ I have reevaluated the Mochica-Uru-Chipaya hypothesis using, unless otherwise noted, mainly Carrera (1644) as the principal source for Mochica and Cerrón-Palomino & Ballón Aguirre (2011) for Chipaya, the best documented of all Uru-Chipaya languages. The reevaluation included a re-checking of Stark's data, but also went beyond towards a full new evaluation of the evidence. The resulting comparisons are listed in Table 23.

As one can see, there in fact are lexical similarities between the evaluated languages, including basic vocabulary items with supposed high diachronic stability. However, from a purely quantitative point of view, the comparisons are too meager to support a serious claim for common descent. Also, there is a lack of regularity in the correspondences observed in the data, which is detrimetral to the idea that Mochica and Uru-Chipaya are genealogically related.

²⁰⁸ I give just two examples here. Stark (1968: 64) isolates a supposed morpheme *ku* meaning 'finger' on the comparison of (in her orthography) *kičku* 'pinky' with *lečku* 'thumb'. She motivates this segmentation by saying that there is a morpheme *kič* 'little' and a morpheme *leč* 'greater' in the language. These are not attested, however. In fact, <lecu> is registered as 'head' in de la Carrera (1644), and <-cu>, the supposed form meaning 'finger', is a lexicalized derivational morpheme which also appears in lexical items having nothing whatsoever to do with fingers (Hovdhaugen 2004: 68). Further, Stark (1968: 64) says that "[p]robable components which, for lack of evidence, cannot be accurately described" were eliminated, citing the examples of (*pu*)*ku* 'owl' and (*či*)*ču* 'breast'. This is arbitrary and unmotivated linguistically; there is no indication that these forms were, synchronically or historically, morphologically complex.

²⁰⁹ According to Stark, this relationship had been argued for previously by Uhle (1896). However, Uhle merely expresses doubts regarding a previously proposed Arawakan affiliation of Uru-Chipaya.

²¹⁰ The same reasoning underlies Stark's (1973) claim of a 'Yucha' family, which comprises not only Mochica and Uru-Chipaya, but also Mapudungun. 'Yucha' as a whole is assumed to be a sister of proto-Mayan. Evidence for a relationship between Mapudungun and Mayan is presented in Stark (1970). Stark (1973: 103) speaks of 16% "cognates" between Mapudungun, Mochica and Uru-Chipaya, and 17% between Mochica and Mapudungun themselves, but does not provide the actual data and which forms exactly are assumed to be cognate. There are indeed lexical similarities between Mochica and Mapudungun (see also chapter IX in the present book as well as Jolkesky 2016), but it is doubtful that they reflect common descent.

Mochica	Chipaya	Gloss
<çop[æt]>	chhep(u)	'three'
<ef></ef>	ер	'father'
<çac>	chara	'hair'
<pochæc> 'liver'</pochæc>	phuch	'belly'
<xi></xi>	hiiz	'moon'
<kåts> 'ice' (Brüning 2004)</kåts>	qhat-ñi 'snow'	'ice, snow'
<chuka> (Middendorf 1892)</chuka>	čowksmari (Stark 1972)	'flea'
<jep> (Middendorf 1892)</jep>	zep'a	'root'
, <ōj> (Middendorf 1892)	uj	'fire'
<loc>, <jok> (Middendorf 1892)</jok></loc>	qhocha	'foot'
<ta->, <tan> (Brüning 2004)</tan></ta->	thon-z	'come'
<ssonæng> 'wife'</ssonæng>	<i>šon</i> (Stark 1972)	'(old) woman'
<sakpi> (Middendorf 1892)</sakpi>	zipz(a)	'beard'
<cætzhqu></cætzhqu>	kuchan-z	'send, order'
<cótschike> (Bastian in Salas García 2002), <koti> (Middendorf 1892)</koti></cótschike>	qoochi	'thin'
<kochki> (Middendorf 1892)</kochki>	zkicha	'frog'
<ton></ton>	kon-z	'kill'
<çốku, çỗku, tsỗku, tsỗku> (Brüning 2004)	ko 'white, salty residue on ground' (Stark 1972)	'white'
<tokji>(Middendorf 1892)</tokji>	tuxtha (Stark 1968)	'worm'
<joti> (Middendorf 1892)</joti>	khoči (Stark 1968)	'bone'
<næm> 'hear'</næm>	non-š	'to feel, hear'
<tuni> 'world', 'time' (Middendorf 1892)</tuni>	thuñi 'sun, day'	'sun, time, day'
<cangcqu></cangcqu>	škeña (Stark 1968)	'jaw'

Table 23. Mochica-Chipaya lexical comparisons; unless otherwise noted, Mochica data are from Carrera (1644) and Chipaya data from Cerrón-Palomino & Ballón Aguirre (2011). Some items also resemble Quechua and Aymara words, but are not clearly borrowed from either.

In contrast to the sometimes far-flung suggestions summarized above, more conservative recent statements emphasize the linguistic distinctiveness of the languages of the North Coast. The only genealogical relationship among the languages themselves that is seriously considered possible is that between Tallán and Sechura. Campbell (2012: 105) believes that the lexical similarities "offer a persuasive case for classifying Sechura and Tallán together in a single family", while Torero (1986: 532) considers Sechura to be an independent language which has been heavily intertwined with Tallán because of the languages' geographical proximity. Adelaar & Muysken (2004: 400) prefer to leave the question as to a genetic relationship between Sechura and Tallán open in light of the sparse material. Mochica, for the time being, is also still best considered an isolate. The connection of Mochica with Uru-Chipaya proposed by Stark (1968) receives little support from my reevaluation. Likewise, at present the evidence for the connection with the Mayan languages which the same author proposes cannot be considered as safely established because of the problems discussed above. A detailed reevaluation on the basis of comparative Mayan data would result in a more definite assessment of the proposal.

IX. Shared vocabulary items

Introduction

In the absence of demonstrable geneaological relations of the languages of the North Coast, there is one way in which external comparison can nevertheless be carried out. Such comparative work, however, does not aim at establishing language families, but language contact evidenced by shared vocabulary items among the languages of the North Coast themselves or items shared with languages spoken outside the region. This is the topic of this chapter.

The data are sorted according to which language of the North Coast they involve. This is sometimes repetitive, as some of the comparisons involve more than one of them, but it does provide the advantage of allowing easy and complete reference for those interested in one of the languages in particular. As a heading, I provide a canonical shape of the shared item in question as a mnemonic aid and to be able to refer to the set of words easily in further discussion. These canonical shapes are most emphatically not reconstructions, as they are not based on an application of the comparative method. Concomitantly, there is neither a claim that the words are evidence for a common ancestor of the languages. The canonical shape is preceded by a musical sharp symbol \$\psi\$ to indicate its status (see Hymes 1964: 455).

The sets are ordered according to the confidence I have in that they indeed reflect history, i.e. contact events, rather than chance.²¹¹ Those for which I have the greatest confidence are listed first. I also reproduce comparisons made by other authors that appear at least notable to me, while I omit others found in the same publications that I consider too far-fetched. Unless otherwise indicated, the sources of the forms cited are the following: for Mochica, de la Carrera (1644), for Sechura, Colán, Catacaos, and Culli, Martínez Compañón (1985 [1782-1790]), for Yurumanguí, Ortiz (1946), for Atacameño, Vaïsse, Hoyos & Echeverría i Reyes (1896), for Cholón, Alexander-Bakkerus (2005), and for Mapudungun, Augusta (1916).

Comparisons

Comparisons involving Tallan

1. *\$cum*(v) 'drink'

Colán <cũm>, Catacaos <conecuc> – Mochica <cūuma->, Quingnam (?) <cuchumic> 'you are drunk' (Zevallos Quiñones 1975), Culli <cumù>, Yurumanguí <chuma>

Note: The form *chumado* is widespread in Ecuadorian and northern Peruvian Spanish with the meaning 'drunk'. Adelaar & Muysken (2004: 61) suggest that the source of the Spanish form is Mochica and made its way from there to Yurumanguí, not mentioning the other forms of the Peruvian languages which suggest a more involved scenario (see Urban ms.).

²¹¹ Even though genealogical relations of the language of the North Coast are not recoverable, it is of course possible that the similarities in some of the items are actually not due to language contact, but remnants of such relations.

2. *♯*(*d*)*laca*

Colán <dlacati> 'die', Catacaos <lacatu> 'die' – Sechura <lactuc> 'die', Mochica <lalacti> 'the dead', Atacameño <latta[tur]> 'kill'

Note: The Mochica item is almost certainly the same as that given centuries later as <llallti> 'cadaver' by Middendorf (1892) as quoted in Salas García (2002). Although Salas García (2012: 33), who noted the similarities with exception of that with Atacameño, considers this item as proving the importance of Mochica in the region, it lacks a good Mochica etymology. The common root in Mochica for 'to die' is <lam-> in Carrera (1644), compare Martínez Compañón (1985) [1782-1790]) < limid> 'die', < lemícec> 'death'. <-ti> is attested as the final syllable in just a few other Mochica items to the effect that an identification as a suffix is not warranted (Rita Eloranta, personal communication). On the other hand, a Sechura origin is suggested by the fact that it is the only language where the form can be analyzed with reasonable security: <-uc>, as discussed in the section on Sechura morphosyntax, is a common verbal ending. Compare further Mapudungun *la*, Cholón *lam(a)* 'to kill'. As for the possible Atacameño connection, it is again Sechura which is best comparable because of the presence of an alveolar not found in the other languages.

3. #kol

Catacaos <ccol> 'meat' - Sechura <colt> 'meat', Mochica <col> 'horse', <col>, <cog> 'animal' (Martínez Compañón 1985 [1782-1790])

Note: The semantic difference between the forms is not too problematic. Arrizabalaga Lizárraga (2007b) adduces a passage from the chronicler Gonzalo Fernández de Oviedo y Valdés (1855: 215) which is relevant. Therein Oviedo relates secondhand information to the effect that 'sheep' are called "col in the lowlands, and in the highlands, one says *llama*". The latter term is Quechua and clearly identifies the 'sheep' as a camelid, perhaps the llama itself. In prehistoric times llamas themselves were bred on the North Coast (Shimada & Shimada 1985). While it is quite difficult to clarify the precise semantic range of the form both in Mochica and Tallán, the patterns of semantic associations or semantic shifts found when comparing the sources are not at all unnatural. The form may have been auto-hyponymous and have denoted both the class of animals generally and a particularly salient type of them, which the llama surely was in the Andean region (although the meaning 'animal' in Mochica given by Martínez Compañón may also result from referential indeterminacy in the elicitation situation). Later, semantic extension or shift from 'llama' (possibly with a further broad 'animal'-

^{212 &}quot;[...] col en la tierra llana, y en la sierra se diçe llama".

reading) to 'horse' is a natural process of linguistic acculturation. Likewise, at least in the Tallán languages, the form may have had both the sense 'meat', as given by Martínez Compañón, as well as '(kind of) animal'.

4. *\$chu(i)p* 'star'

Colán <chupuchup> – Sechura <chùpchùp>, Culli <chuip>

Note: May further be compared with Esmeraldeño <mu-chabla> 'stars' (Seler 1902: 55; see Urban 2014); <mu-> may be a classifying element having to do with fire and/or light. As Seler notes, Tsafiqui chabó (Moore 1966), without an apparent Barbacoan etymology, may be relevant as well.

5. #yaiy(VC) 'bird'

Colán <vaiau>, Catacaos <veya> – Sechura <vaibab>, Mochica <ñaiñ>

6. *♯ma*S*i*K(*a*) 'pain'

Colán <masic>, Catacaos <masic> – Waunana <maciga> (Holmer 1963: 218)

Note: First documented in Urban (2014). Holmer's (1963) <c> corresponds to Mejia Fonnegra's (2000) /ç/. It is a palatal fricative. A VCV verbal root with a partially similar shape meaning 'be sick' occurs widely in Tupi-Guaraní, compare Schleicher (1998: 157, 228, 250).

7. *♯du*L*u*

Colán <dlurum> 'earth', Catacaos <durum> 'earth' – proto-Chocó **'dura 'world, land' (Constenla Umaña & Margery Peña 1991: 182), Esmeraldeño <dula> 'earth' (Seler 1902: 55)

Note: First documented in Urban (2014). The form is also present in Matagalpa-Cacaopera in Central America. Compare further Allentiac < lturum> 'herbs' (Mitre 1894: 127).

8. #huCur 'fire'

Colán <huyur> - Atacameño <humur>, <hámur>

Note: <-mur> or <-mor> is a recurrent final syllable in Atacameño lexical items, e.g. <a href="<a href="<a> hackamur> 'firewood', <a href="<a href="<a href="<a>chackamur> 'moon, month'. Peyró García (2005: 32) interprets it as one of the allomorphs of the Atacameño "absolutive". This points to an Atacameño etymology.

9. *‡*∨*m*(∨)*u*N

Colán <amum>, Catacaos <amaun> 'sea' – Hibito <omium> 'wave' (Martínez Compañón 1985 [1782-1790])

Note: First documented in Greenberg (1987: 105), with the Hibito form erroneously attributed to Cholón.

10. *‡cu*T- 'sky'

Colán <cutuc-nap> – Sechura <cuchucyor>, Mochica <cuçia>, <cúcía> (Martínez Compañón 1985 [1782-1790])

Note: Mochica <-ía>, <-ia> is not explained. If the comparison is made nevertheless, Sechura <cuchuc> would be an instance of a notional noun bearing the suffix <-uc> more frequently associated with verbs.

11. $\sharp (hu) \gamma \nabla r(\nabla)$

Colán <huỹur> 'fire' – Sechura <yòro> 'sun', <yura> 'light' (Spruce)

Note: See Rivet (1949: 7-8).

12. *\$yu*B(**v**) 'water'

Colán <yūp>, Catacaos <yup> – Aguaruna yúmi (Wipio Deicat 1996: 148)

Note: See also Aymara uma with the same meaning.

13. $\sharp(a)\check{s}Vt$

Catacaos <aszat> 'man' - Cholón šot 'brother'

Note: First documented in Greenberg (1987: 101). The even more similar Cholón form <azot> found in Martínez Compañón and quoted by Greenberg features a 1st person possessive prefix (see Alexander-Bakkerus 2005: 169).

Comparisons involving Sechura

1. *♯*(*d*)*la*C*a*

Sechura < lactuc> 'die' – Colán < dlacati> 'die', Catacaos < lacatu> 'die', Mochica < lalacti> 'the dead', Atacameño < latta[tur]> 'kill'

Note: The Mochica item is almost certainly the same as that given centuries later as <llallti> 'cadaver' by Middendorf (1892) as quoted in Salas García (2002). Although Salas García (2012: 33), who noted the similarities with exception of that with Atacameño, considers this item as proving the importance of Mochica in the region, it lacks a good Mochica etymology. The common root in Mochica for 'to die' is <læm-> in de la Carrera (1644), compare Martínez Compañón (1985 [1782-1790]) | limid> 'die', <lemícec> 'death'. <-ti> is attested as the final syllable

in just a few other Mochica items to the effect that an identification as a suffix is not warranted (Rita Eloranta, personal communication). On the other hand, a Sechura origin is suggested by the fact that it is the only language where the form can be analyzed with reasonable security: <-uc>, as discussed in the section on Sechura morphosyntax, is a common verbal ending. Compare further Mapudungun *la*, Cholón *lam(a)* 'to kill'. As for the possible Atacameño connection, it is again Sechura which is best comparable because of the presence of an alveolar not found in the other languages.

2. #kol

Sechura <colt> 'meat' - Catacaos <ccol> 'meat', Mochica <col> 'horse', <col>, <cog> 'animal' (Martínez Compañón1985 [1782-1790])

Note: The semantic difference between the forms is not too problematic. Arrizabalaga Lizárraga (2007b) adduces a passage from the chronicler Gonzalo Fernández de Oviedo y Valdés (1855: 215) which is relevant. Therein Oviedo relates secondhand information to the effect that 'sheep' are called "col in the lowlands, and in the highlands, one says *llama*". ²¹³ The latter term is Quechua and clearly identifies the 'sheep' as a camelid, perhaps the llama itself. In prehistoric times llamas themselves were bred on the North Coast (Shimada & Shimada 1985). While it is quite difficult to clarify the precise semantic range of the form both in Mochica and Tallán, the patterns of semantic associations or semantic shifts found when comparing the sources are not at all unnatural. The form may have been autohyponymous and have denoted both the class of animals generally and a particularly salient type of them, which the llama surely was in the Andean region (although the meaning 'animal' in Mochica given by Martínez Compañón may also result from referential indeterminacy in the elicitation situation). Later, semantic extension or shift from 'llama' (possibly with a further broad 'animal'reading) to 'horse' is a natural process of linguistic acculturation. Likewise, at least in the Tallán languages, the form may have had both the sense 'meat', as given by Martínez Compañón, as well as '(kind of) animal'.

3. *♯chu(i)p* 'star'

Sechura <chùpchùp> - Colán <chupuchup>, Culli <chuip>

Note: May further be compared with Esmeraldeño <muchabla> 'stars' (Seler 1902: 55; see Urban 2014); <mu-> may be a classifying element having to do with fire and/or light. As Seler notes, Tsafiqui chabó (Moore 1966), without an apparent Barbacoan etymology, may be relevant as well.

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4. *‡puri(r)*

Sechura <puri>> 'rain' - Atacameño <puri>, <puy> 'water'

Note: Also noted by Torero (2002: 29) in a discussion of Andean *Wanderwörter*. Torero further compares the item with Pano *paru* 'river', Puquina *para* 'river', Huarpe (Allentiac and Millcayac) *polu* 'river', Kakán *wil 'course of water', Southern Quechua *para* 'rain' and Mapudungun *pire* 'snow, hail', Compare further proto-Tupí-Guaraní *paranã 'river' (Schleicher 1998: 254).

5. #CumaC 'maize'

Sechura <llumash> 'maize' – Copallén <chumac> 'maize', Sácata <umague> 'maize' (Torero 1993: 450)

Note: From Willem Adelaar (personal communication). Copallén and Sácata are extinct languages only known through few words from the *Relación de la tierra de Jáen*. They were spoken in the Jáen area of the Cajamarca department. Torero (1993: 460) wishes to compare the form further with proto-Arawak *mariki (Payne 1991: 399, erroneously *mariki in Torero), drawing attention to the fact that the medial syllable is without reflex in some languages.

6. *♯k*∨*t*(v)

Sechura <tutù>, <xoto> (Spruce) 'water' – Culli <quidā> 'sea', Hibito <cachi> 'water', Copallén <quiet> 'water' (Torero 1993: 450), Cholón *kot* 'water', Quechua *quĕa 'lake' (Parker 1969: 37), Aymara *quta* 'lake' (Huayhua Pari 2009), Uru <kót> 'lake' (Vellard in Muysken 2000: 104)

Note: First noted by Torero (1993: 459). Regarding the Sechura forms specifically, the difficulties lie in (i) the unclear value of <x> in Spruce's data, which could have represented [x] if he followed the Spanish orthographical tradition or [ks] if he did not and (ii) the question of how to account for the difference between the spellings of Martínez Compañón and Spruce. G. Taylor (1990: 133) identifies recurrent endings -gat, -gate, -gache, -cache, -gote in the Chachapoyas area with the tentative meaning 'water, river'; Adelaar & Muysken (2004: 407) further draw attention to Torero's (1989) 'Cat' language of Cajamarca. Torero (1993: 460) himself connects the forms to proto-Arawak *kaile[sa] (Payne 1991: 409, erroneously rendered *kaile[sa] by Torero).

7. #yaiy(VC) 'bird'

Sechura <yaibab> - Colán <yaiau>, Catacaos <yeya>, Mochica <ñaiñ>

8. #*cu*T−

Sechura <cuchucyor> - Colán <cutuc-nap>, Mochica <cuçia>, <cucua> (Martínez Compañón 1985 [1782-1790])

Note: Mochica <-ía>, <-ia> is not explained. If the comparison is made nevertheless, Sechura <cuchuc> would be an instance of a notional noun bearing the suffix <-uc> more frequently associated with verbs.

9. *‡yo* 'sun'

Sechura <yò[ro]> – Tsafiqui yo (Moore 1966)

Note: Sechura <-ro> is not sufficiently explained, though note <roro> 'sea' and the possible segmentability of <-ru> in <ñangru> 'moon' when it is compared with Colán <nag> and Catacaos <nam>. Also note that in both Sechura and Tsafiqui (as well as Colán) the word for sky is complex involving <yòro> and <yo>: <cuchucyor> and <cutuc-nap> respectively. This is true of Tsafiqui as well: yo quidó means 'firmament', compare yo 'sun', quido 'skin, bark, leather, shell' (Moore 1966).

10. $\sharp (hu) \gamma \nabla r(\nabla)$

Sechura <yòro> 'sun', <yura> 'light' (Spruce) – Colán <huỹur> 'fire' Note: See Rivet (1949: 7-8).

11. #Nos

Sechura <ños-ni>, <ños-ma> 'son, daughter' - 'Den' <nus> 'lady', <losque> 'young girl' Note: From Willem Adelaar (personal communication). The forms quoted for 'Den' are found isolated in a Spanish colonial document published by Espinoza Soriano (1977) from the 'Den' toponymic area identified by Torero (1989).

12. *♯(t)uma* 'head'

Sechura < teuma> – Quechua *uma 'head, top' (Parker 1969: 49)

Note: Suggested by Willem Adelaar (personal communication).

13. $\sharp pV(t)sa$ 'belly'

Sechura <puesa> – proto-Quechua I *pača

Note: Suggested by Willem Adelaar (personal communication), who further points out Aymara puraka (Huayhua Pari 2009: 176) and Mapudungun pütra (Augusta 1916: 408).

14. #svm(v) 'fish'

Sechura < jum>, < xuma> (Spruce) – Chayahuita sami (Hart 1988: 220)

Note: First noted in Greenberg (1987: 102). Original orthography restituted and different Chayahuita source used.

15 #-Na

Sechura <-no> 'nominalizer' – Puquina -no 'infinitive', -eno 'agent nominalizer' (Adelaar & van de Kerke 2009: 136), Cholón -(n)o 'future nominalizer', Tsafiki -n 'stative nominalizer', -nun 'nominalizer' (Dickinson 2002: 70, 73)

Note: In Cholón, the future nominalizer $-(\eta)o$ generally expresses obligation or possibility, but with a variety of further (sub-)functions (Alexander-Bakkerus 2005: 258-263). Note further that the Jivaroan language Aguaruna has a subject nominalizer -inu which "ascribes a propensity or habitual action to the referent" (Overall 2007: 430).

Comparisons involving Mochica

Note: this section does not mention in detail the comparisons effectuated by Jolkesky (2016), as these data would require (and indeed deserve!) an in-depth evaluation that goes beyond what can be offered here.

1. #yana 'servant'

Mochica <yanâ> - Quechua *yana

Note: First noted by Cerrón-Palomino (1989b: 51), borrowed from Quechua into Mochica.

2. #Katu 'square'

Mochica <catu> - Quechua *qatu

Note: First noted by Cerrón-Palomino (1989: 51b), borrowed from Quechua into Mochica.

3. #WaktSa 'poor'

Mochica <faccua> - Quechua *wakča

Note: First noted by Cerrón-Palomino (1989b: 51), borrowed from Quechua into Mochica.

4. \$llawtu

Mochica <llaftus> 'k.o. cloth, garment' (Span. toquilla) - Quechua *lawtu 'imperial

Note: First noted by Cerrón-Palomino (1989b: 51), borrowed from Quechua into Mochica.

5. #*m*∨*t*ſ*a*

Mochica <mæcha> 'adore' - Quechua *muča 'kiss, adore'

Note: First noted by Cerrón-Palomino (1989b: 51), borrowed from Quechua into Mochica.

6. *pampa* 'plain'

Mochica <pampa> (Middendorf 1892: 99) – Quechua *pampa

Note: First noted by Cerrón-Palomino (1989b: 52), borrowed from Quechua into Mochica.

7. *\$papa*

Mochica <papa> 'potato' (Middendorf 1892: 61) – Quechua *papa 'potato'

Note: First noted by Cerrón-Palomino (1989b: 52), borrowed from Quechua into Mochica.

8. *♯pa*Lar 'lima bean'

Mochica *<paxllær> – Quechua pallar (> Spanish pallar)

Note: See discussion in Salas García (2012: 55-59), borrowed from Mochica into Quechua. In Urban (2015c) I argue that the Mochica form posited by Salas García is actually attested in the name Francisco Palarref Cononciq[ue] in its function as a numeral classifier.

9. #Vpa

Mochica <opa(izti)> 'stupid' – Quechua *upa 'stupid, without reason'

Note: First noted by Cerrón-Palomino (1989b: 51), borrowed from Quechua into Mochica.

10. ♯tVKV 'window'

Mochica <toko> (Middendorf 1892: 62) – Quechua *tuqu (Cerrón-Palomino 1989b: 'alacena')

Note: First noted by Cerrón-Palomino (1989b: 52), borrowed from Quechua into Mochica.

11. *\$cum*(v) 'drink'

Mochica <cuuma-> - Colán <cũm>, Catacaos <conecuc>, Quingnam (?) <cuchumic> 'you are drunk' (Zevallos Quiñones 1975), Culli <cumù>, Yurumanguí <chuma>

Note: The form *chumado* is widespread in Ecuadorian and northern Peruvian Spanish with the meaning 'drunk'. Adelaar & Muysken (2004: 61) suggest that the source of the Spanish form is Mochica and made its way from there to Yurumanguí, not mentioning the other forms of the Peruvian languages which suggest a more involved scenario, see Urban (ms.).

12. $\sharp(d)laCa$

Mochica <lalacti> 'the dead' – Sechura <lactuc> 'die', Colán <dlacati>, Catacaos <lacatu>, Atacameño <latta[tur]> 'kill'

Note: The Mochica item is almost certainly the same as that given centuries later as <llallti> 'cadaver' by Middendorf (1892) as quoted in Salas García (2002). Although Salas García (2012: 33), who noted the similarities with exception of that with Atacameño, considers this item as proving the importance of Mochica in the region, it lacks a good Mochica etymology. The common root in Mochica for 'to die' is <lam-> in Carrera (1644), compare Martínez Compañón (1985 [1782-1790]) climid> 'die', <lemícec> 'death'. <-ti> is attested as the final syllable in just a few other Mochica items to the effect that an identification as a suffix is not warranted (Rita Eloranta, personal communication). On the other hand, a Sechura origin is suggested by the fact that it is the only language where the form can be analyzed with reasonable security: <-uc>, as discussed in the section on Sechura morphosyntax, is a common verbal ending. Compare further Mapudungun <code>la</code>, Cholón <code>lam(a)</code> 'to kill'. As for the possible Atacameño connection, it is again Sechura which is best comparable because of the presence of an alveolar not found in the other languages.

13. #kol

Mochica <col> 'horse', <cog*> 'animal' (Martínez Compañón [1782-1790]1985) – Catacaos <col> 'meat', Sechura <colt> 'meat'

Note: The semantic difference between the forms is not too problematic. Arrizabalaga Lizárraga (2007b) adduces a passage from the chronicler Oviedo y Valdés (1855: 215) which is relevant. Therein Oviedo y Valdés relates second-hand information to the effect that 'sheep' are called "col in the lowlands, and in the highlands, one says *llama*". The latter term is Quechua and clearly identifies the 'sheep' as a camelid, perhaps the llama itself. In prehistoric times llamas themselves were

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bred on the North Coast (Shimada & Shimada 1985). While it is quite difficult to clarify the precise semantic range of the form both in Mochica and Tallán, the patterns of semantic associations or semantic shifts found when comparing the sources are not at all unnatural. The form may have been autohyponymous and have denoted both the class of animals generally and a particularly salient type of them, which the llama surely was in the Andean region (although the meaning 'animal' in Mochica given by Martínez Compañón may also result from referential indeterminacy in the elicitation situation). Later, semantic extension or shift from 'llama' (possibly with a further broad 'animal'-reading) to 'horse' is a natural process of linguistic acculturation. Likewise, at least in the Tallán languages, the form may have had both the sense 'meat', as given by Martínez Compañón, as well as '(kind of) animal'.

14. *♯yaiy*(VC) 'bird'

Mochica <ñaiñ> - Colán <yaiau>, Catacaos <yeya>, Sechura <yaibab>

15. *♯m*∨к∨

Mochica <móko, moco> 'bent, hunchbacked' (Brüning 2004: 36, Span. 'corcovado') – Quechua *muqu 'knot, joint'

Note: First noted by Cerrón-Palomino (1989b: 52).

16. *♯ll* v(*k*)*lla*

Mochica < llella> 'coat' (Middendorf 1892: 62) – Quechua *ĨikĨa 'blanket'

Note: First noted by Cerrón-Palomino (1989b: 52), who considers this a possible borrowing only (1989b: 53); if so, the direction from borrowing is from Quechua into Mochica.

17. *\$lapa* 'basket'

Mochica <lapa> – Cajamarca-Cañaris and Chachapoyas-Lamas Quechua *lapa* (Quesada 1976: 53; Taylor 1979: 99)

Note: First noted by Salas García (2012: 51). Donor language is Mochica according to this author.

18. #*umu*

Mochica <umu> – Quechua *umu 'priest'

Note: First noted by Cerrón-Palomino (1989: 52). I have not been able to ascertain the source from which Cerrón-Palomino extracted the Mochica form.

19. **♯**KV*t*∫KV*t*∫

Mochica <koch koch> 'seaweed' (Middendorf 1892: 61) – Quechua *quča-quča (yuyu) Note: First noted by Cerrón-Palomino (1989b: 52), who considers this a possible borrowing only (1989b: 53).

20. #w*ak(a)*

Mochica <fak> 'ox' (Middendorf 1892: 54) – Quechua *waka (< Span. vaca)

Note: First noted by Cerrón-Palomino (1989b: 52), who considers this a possible borrowing only (1989b: 53). Salas García (2012: 76-80) believes it is a borrowing directly from Spanish in both languages.

21. *♯ku*K*uli*

Mochica <cucûli> 'k.o. dove' - Quechua *kukuli 'a type of large dove' (Parker 1969: 19), 'Cat' kukoli

Note: The Mochica-Quechua parallel was first noted by Cerrón-Palomino (1989: 54-55). The form is attributable to the 'Cat' language as well on the basis of the toponym Cucolicote (Torero 1989: 255). Even though the form is phonologically aberrant for Quechua, which suggests a non-Quechua origin, there are several scenarios regarding the direction of borrowing. See further Salas García (2012: 42-45).

22. \$\psi \text{SV} nt\text{V}(k)

Mochica <ssantek> 'lizard' (Middendorf 1892: 60) – Hibito < šontí> 'caiman' (Tessmann 1930: 459)

Note: First noted by Salas García (2012: 33), also in Eloranta (2017).

23. ♯VT ſo

Mochica <ûtzho> - Cholón očo 'something big'

Note: first noted by Salas García (2012: 33). Note, however, that the Mochica root is actually <ûtzh>, the final vowel representing a well-known suffix with somewhat unclear function (see the discussion on Mochica morphosyntax).

24. *♯poŋ*

Mochica <pong> 'stone, classifier for people, horses, goats, canes, and everything else not money or fruit' – Cholón pon 'classifier for groups of living beings' Note: First noted by Eloranta (2017).

25. *\$cu*T- 'sky'

Mochica <cuçia> <cúcía> (Martínez Compañón 1985 [1782-1790]) - Sechura <cuchucyor>, Colán <cutuc-nap>

Note: Mochica <-ía>, <-ia> is not explained. If the comparison is made nevertheless, Sechura <cuchuc> would be an instance of a notional noun bearing the suffix <-uc> more frequently associated with verbs.

26. *\$l* VT *∫* 'head'

Mochica < lecy> – Atacameño < lacksi> Note: First noted by Adelaar (2003).

27. ♯T ∫ V*t* A 'heart'

Mochica <cyæt[æss]> 'heart' – Atacameño <tchitack>

Note: First noted by Adelaar (2003).

28. #man

Mochica <man> 'eat, drink' – Atacameño <man-tur> 'swallow'

Note: First noted by Adelaar (2003), who also mentions Guambiano ma- 'eat', and Cholón -am-an 'carry in mouth'.

29. $\sharp t / it / V$ 'breast'

Mochica <chichu> - Quechua *čiči

Note: First noted by Cerrón-Palomino (1989b: 52), who considers this a possible borrowing only (1989b: 53). Given the high cross-linguistic frequency of similar terms for the same meaning, this similarity may be accidental.

30. #eC 'manioc'

Mochica <err> - Cholón el

Note: First noted by Salas García (2012: 33), also in Eloranta (2017).

31. *♯l*∨*c*

Mochica <palæc> 'classifier for hundreds' –Cholón lek 'ten'

Note: First noted by Eloranta (2017). Parts of Eloranta's analysis, in particular the idea of etymologizing <palæc> as deriving from Cholón <lec> with a prefixed superlative <pa-> conflicts with my own etymological analysis of <palæc> in Urban (2015c).

32. *♯m*V 'bring'

Mochica <met> - Atacameño <ma-tur> Note: First noted by Adelaar (2003).

Comparisons involving Quingnam

1. #tfolok 'soapberry tree'

Quingnam (?) <choloque> "[t]ree which has a fruit encased in a green-yellow shell" (Gillin 1945: 22) – Culli <choloc> 'soapberry tree'

Note: Pointed out by Willem Adelaar (personal communication). The word is attributable to Culli, among other things, on the basis of the toponym Cholocday, the "name of a mountain that overlooks the town of Otuzco" (Adelaar 1988: 116), which bears the typical Culli ending *-day* 'mountain'.

2. #maichill 'yellow oleander'

Quingnam (?) <maichill> 'kind of plant used in folk medicine' (Gillin 1945: 141) – Culli *maichill - maichil* 'Thevetia Peruana, k.o. woody shrub with yellow flowers, the dried nut-like fruits of which are used as bells in traditional dances' (Andrade Ciudad 2010: 167).

Note: Andrade Ciudad (2010: 167) considers it likely that the term can be attributed to Culli. Note also that According to Fernández Alvarado (2004: xii), Maichil is an alternative name for the Llonquinua river, which feeds into the Chancay, itself part of the Lambayeque-La Leche river system.

3. *♯cum(*v)

Quingnam (?) <cuchumic> 'you are drunk' – Colán <cũm>, Catacaos <conecuc> (?), Mochica <cuma->, Culli <cumù>, Yurumanguí <chuma>

Note: The form *chumado* is widespread in Ecuadorian and northern Peruvian



Figure 17. The maichill, from Martínez Compañón (1985 [1782-1790]) © Patrimonio Nacional, reproduced with permission.

Spanish with the meaning 'drunk'. Adelaar & Muysken (2004: 61) suggest that the source of the Spanish form is Mochica and made its way from there to Yurumanguí, not mentioning the other forms of the Peruvian languages which suggest a more involved scenario, see Urban (ms.).

4. #Cari 'one'

Quingnam <chari> - Timote-Cuicas <kári> (Jahn 1927)

Note: The form from Jahn (1927) is usually attributed to Cuicas specifically; see Urban (2015b) for the full set of attested Timote-Cuicas forms.

Discussion

Bearing in mind that the similarities are convincing to varying degrees and that some may be fortitous, an analysis of the spatial distribution of the shared vocabulary items between individual languages and their number leads to four observations.

First, there is a core of convincing items shared by the languages of the Far North and the North Coast languages south of the Sechura Desert. These include basic vocabulary items. If these items are not due to common descent, something that at this point cannot be proven, they bespeak intense language contact on the North Coast of Peru that transcends the supposed cultural boundary of the Sechura Desert.

Second, evidence for contacts between speakers of the North Coast languages with the adjacent highlands, even with the extremely poor state of documentation of virtually all compared languages involved, is detectable. The strongest case can be made for contact relations with speakers of Culli. However, there are also more vague similarities with other languages. These include the languages of the Jáen region along the low-altitude corridor of the Huancabamba transversal which was mentioned in chapter II. It is of special interest that the word for 'maize' is among the forms that betray similarities here, as the Huancabamba transversal may have been an important trajectory for the dispersal of cultivars across the Andes. 215 It is also interesting that some lexical items used in the Spanish of Piura as documented by Lecuanda (1861b [1793]) are also found in the Peruvian Amazon (Arrizabalaga Lizárraga 2007a based on Tovar 1966). At least one of these items, <murrucu[yes]> 'k.o. bee', is directly attested in Jivaroan languages, e.g. in Aguaruna as mujúshi 'k.o. black bee'. Arrizabalaga Lizárraga does not make a commitment as to whether these and other cases result from prehispanic borrowing or lexical diffusion which was only completed in colonial times.

Third, long-distance contact is suggested by some of the comparisons, most prominently those between the languages of the Far North, Waunana to their north in

²¹⁵ Of interest is also the formal similarity between the Tallán and Jivaroan words for 'water'. Some more, though quite vague, similarities, in particular with Aguaruna (Wipio Deicat 1996), the most divergent of the Jivaroan languages, can be noted. These are the following: Colán <nag>, Catacaos <nam> - Aguaruna nántu 'moon'; Colán <yatā[dlam]> 'man' - Aguaruna yátsut, yatsúg 'man's brother, cousin'; and Colán <dladla[pirám]>, Catacaos <lala[pechen]> 'bone' – Aguaruna tát(a) 'hard'. Kaulicke (2013: 24) relates Pandanche, the name of an early archaeological site in the sierra of Cajamarca with <macanche>, the name for a boa in the Lambayeque region, to Jivaroan languages.

Colombia, and Atacameño to their south in Chile and Argentina. 216 The extralinguistic contact scenarios which may have led to the existence of shared forms between these languages remains obscure, however. Nevertheless, as Isbell (2012: 227) notes, "northern Chile seems to have hosted intensive caravanning, with llama-drover traders navigating desert trails that connected places that today seem incredibly distant and remote". San Pedro de Atacama, on the edge of the Atacama Desert, was a particularly important nexus. While maintaining a distinctive ceramic tradition through time, its people without doubt partook in several trade spheres comprising among others northwestern Argentina, southwestern Bolivia and the Andean slopes around Cochabamba, and the Tiahuanaco polity in the Southern Andean highlands (Stovel 2002: 120). "[R]egular and intense interaction and exchange throughout the region during the Middle, Late Intermediate and Late Periods (AD 500 - 1500)" is in evidence (Stovel 2002: 147). With the exception of Berenguer's (1986) discussion of (possibly Tiahuanaco-mediated) Moche artistic influence at San Pedro de Atacama, however, I am not aware of any proposal that would involve trade with places as "incredibly distant and remote" as Peru's North Coast (Isbell 2012: 227).

Returning to the linguistic evidence, there are, fourth, some 'Pan-Andean' forms which also show up in the languages of the North Coast. These demonstrate the integration of North Coast languages into a Central Andean linguistic interaction sphere.

In summary, there is evidence for interaction between speakers of North Coast languages on (i) a micro-level, involving localized contact between two neighbouring languages, (ii) a meso-level, indicating that the entire North Coast is a linguistic interaction sphere as evidenced by shared forms found in all or most North Coast languages, ²¹⁷ and (iii) a macro-level that involves shared vocabulary between many languages of the Central Andes.

²¹⁶ There is a surprising amount of comparisons which can be made with the geographically distant Atacameño language of the Atacama Desert. Further possibly comparable items, which I have not listed above because they present formal and semantic differences which increase the likelihood of chance, are Sechura <collo> 'mouth' (Spruce) – Atacameño <ckooyo> 'neck' (this form from Spanish cuello?), <ckúlan> 'face'; Colán <chagasiñ> 'joy' – Atacameño <ckaya> 'good'; Sechura <tutù>, <xoto> (Spruce) 'water' – Atacameño <ttut[ur]> 'saliva'; Sechura <tut[uc]> 'to drink' – Atacameño <tutu> 'nipple', <tútu[tur]> 'suckle'; Sechura <loct> 'earth' – Atacameño <lickan> 'village', <lícan> 'land, village' (San Román 1890: 80).

²¹⁷ Of course, the emergence of the meso-level could potentially be accounted for in terms of cumulative micro-level interaction.

X.

Typological aspects of the North Coast languages

Introduction

Despite its scarceness, the available documentation has allowed to uncover some hitherto unnoted aspects of the grammatical structure of the languages of the North Coast. What can be stated about the phonological and grammatical structure of the languages, however, cannot be taken as definite and secure. For instance, some evidence to suggest that the Tallán languages had a system of three phonemic vowels was discussed. Evidence for a three-vowel system based on data such as those that are available, of course, is something very different epistemiologically from the demonstration of a three-vowel system by thorough phonological analysis of languages which are still spoken.

In this chapter, I attempt to tackle the question how the properties of the languages that have been tentatively carved out in previous chapters relate to the typology of South American languages in the adjacent highlands and Pacific lowlands to the north and south. In this sense, this chapter is complementary to the preceding one, which explores shared vocabulary. The features and properties surveyed directly mirror what could be said with some degree of likelihood about the languages of the North Coast. Hence, the selection of features is uneven, and major grammatical traits such as the alignment system and word order remain unaccessible.

Regarding the Pacific coast of South America specifically, there are to my knowledge only two studies that examine possible areal effects. Constenla Umaña (1991: 123-125) recognizes a very large linguistic area in the Andes which is divided into several subareas in which languages show even greater typological affinities. Tentatively, Constenla Umaña suggests that the Andes may have internally also been divided into a coastal and an interior subarea, the former, characterized by VO word order, including languages like Esmeraldeño, Mochica, and Mapudungun. The other relevant study is that of Aikhenvald (2007). An examination and comparison of the phonological and grammatical structures of Mochica with Chocó and Barbacoan languages leads her to conclude that "[t]here is hardly any recognizable 'Pacific coast of South America' language type" but rather a situation of typological diversity (Aikhenvald 2007: 199).

The data evaluated here for the languages of the Peruvian North Coast provide an excellent opportunity to evaluate, and possibly refine, both views. In her study, Aikhenvald concentrated, justifiably, on those languages of the Pacific coast for which reliable documentation is available. However, these may or may not be representative of the original linguistic diversity that presented itself on the eve of Spanish conquest.

²¹⁸ The nature of the material in fact appears to favor this type of work. Even though the North Coast languages clearly featured sounds which are unknown in Spanish, the phonetics and phonology of the languages appear to have made it relatively easy for a speaker of Spanish to provide a transcription. This must have been much more difficult for languages with phonetic properties such as vowel nasalization or tones, both of which are common features in the Amazon region.

As Constenla Umaña (1991) recognizes, it is necessary to consider also data from the poorly documented languages to arrive at the most inclusive picture possible.

Alongside the North Coast languages themselves, languages which are or once were spoken in the immediate and more distant vicinity are surveyed. These include Culli, once spoken in the Andean highlands of Northern Peru, Esmeraldeño, the extinct language of the Ecuadorian Esmeraldas province, and the Chocó language Waunana, spoken on the shores of the lower San Juán river in Colombia. To the south, languages included are Mapudungun and Atacameño (see also chapter IV). Comparisons were also effectuated with Quechua and Aymara, the major language families of the Central Andean highlands.

Root monosyllabism

There is a certain number of monosyllabic roots in all the poorly known languages of Northern Peru which were documented by Martínez Compañón (1985 [1782-1790]), including Tallán, Sechura, Mochica, and Culli. The predilection is particularly noticeable in the verb roots of Sechura. Quingnam fits this pattern reasonably well, in particular as far as the numeral list from Magdalena de Cao is concerned. A considerable number of personal names and vocabulary items consist of only one syllable, too, while in the regional vocabulary there are also many disyllabic terms. The predilection for monosyllabism appears to be present even in the initial elements of toponymic sets that cannot clearly be assigned to any particular North Coast language and that may accordingly reflect older linguistic distributions. This is prominently the case with those toponyms ending in -ura - -ora (see chapter IV). The trait may therefore be of considerable antiquity.

Even though there is no North Coast language which would rely exclusively on monosyllabic roots, their number is nevertheless elevated in comparison with the rather strict disyllabic root canons of Quechua and Aymara. Many lexical items are also longer than one syllable in Mapudungun. The situation in Atacameño is more difficult to assess. The vocabulary in Vaïsse, Hoyos & Echeverría i Reyes (1896) would suggest a dominantly polysyllabic lexicon, too, but possibly efforts at morphological decomposition could lead to the discovery of shorter morphological elements. The northern neighbours show a diverse picture, but generally languages are closer to those of Northern Peru than to Quechua or Aymara in terms of root structure. Reconstruced proto-Choco vocabulary in Constenla Umaña & Margery Pena (1991) shows a mixture of monosyllabic, disyllabic, and even longer roots. Esmeraldeño features monosyllabic items, too, but disyllabic word shapes appear to be more frequent than monosyllabic ones. In contrast, in Barbacoan languages, "the majority of the roots in the languages are monosyllabic" (Curnow & Liddicoat 1998: 392).

While a certain tendency towards monosyllabic roots on the North Coast of Peru is thus by no means unique within a broader Western South American context, it does constitute an important contrast between Northern Peru, including adjacent highlands, and more widespread Central Andean languages such as those of the Quechua and Aymara families.

Final plosives and syllable structure

A characteristic of the languages of the Peruvian North Coast is their apparent tolerance of plosives in word-final position. This can be observed unambiguously for Tallán, Sechura, Mochica, and Quingnam, as is evident from the Magdalena de Cao numerals as well as Moche toponyms and anthroponyms.²¹⁹

Related to this point is that North Coast languages are rather fond of closed syllables,

though none of the languages phonologically required all syllables to be closed. This preference can not only be observed in the linguistic data proper: <Pacrán> (Figure 18) is certainly a local Piuran variant of the word *pacarana*, which denotes a rodent species (*Dinomys branickii*, see Arrizabalaga Lizárraga 2007a: 67). Even though this term does not enhance our knowledge of the lexicon of the languages of Piura, it says a lot about their phonology, as do the elision of Quechua final vowels in the adaptation of borrowed numerals to the language of Magdalena de Cao (see the section on possible sources on Quingnam in chapter VII).

Judging from the available material, neither Culli nor Cholón (Alexander-Bakkerus 2005) or the language of Chachapoyas (G. Taylor 1990) had restrictions on word-final plosives either. Again, the languages of interior Northern Peru thus pattern with the coastal languages. Also, this commonality sets the languages of Northern Peru off from Quechua (roots).



Figure 18. A <pacràn>, from Martínez Compañón (1985 [1782-1790]) © Patrimonio Nacional, reproduced with permission.

²¹⁹ It is remarkable, though, that final <t> frequently alternates with another letter, as in <Guancarput> ~ <Guancarpur>.

In Quechua, at least /t/ is restricted from occurring at the end of roots, and the occurrences of /p/ may be due to fossilized suffixation (Willem Adelaar, personal communication). In Aymara, the clear majority of roots has CVCV(CV) and CVCCV shape, and suffixes are "overwhelmingly CV in shape" (Hardman 2001: 24, 25). To the south, Mapudungun prohibits plosives in final position, too (Smeets 2008: 42); however, distributional evidence suggests that final fricatives may result from lenition of stops.

Exploring the situation further to the north, one finds that in Esmeraldeño, there are a few items, such as <güequec> 'hill' (Seler 1902: 55), which must be interpreted as showing a final plosive. However, the language had a clear preference for open syllables (Adelaar 2005: 243). The Southern Barbacoan languages Cha'palaa and Tsafigui do not allow any stops in coda position (Lindskoog & Brend 1962: 37; Dickinson 2002: 38).²²⁰ In Chocó, Chamí Embera does not allow word-final plosives (Aguirre Licht 1999: 17), but Waunana does. The latter is a secondary development, resulting from the elision of final vowels before consonants (Constenla Umaña & Margery Pena 1991: 162-163).²²¹

It is quite possible that the permissibility of word-final plosives in North Coast languages caught the attention of colonial observers. This is because the trait not only contrasts with Quechua and Aymara, languages they may have been familiar with to some extent, but also with their native language Spanish (see Appendix E on the proliferation of open syllables in Spanish through time). It is even conceivable that the characterization of coastal languages such as Pescadora as 'guttural' or that of Olmos as 'short and difficult' allude to the presence of plosives in word-final position. Martín de Murúa (2008 [1613]: 311v) observes in the early 17th century that "the speech natively spoken on these plains is very diverse [in comparison with] that of the highlands and very difficult to pronounce [for] others than those [people of the plains] because the pronounciation is guttural (?)". 222 Note that de Murúas statement is indeed 'typological' in nature, since he emphasizes that North Coast speech ("lenguaje", not "lengua") is not uniform, but diverse. The characterization as "guttural" apparently applies generally.

Lexical reduplication

For the extinct and undocumented Quingnam language, a characteristic reduplicated structure of many personal names and toponyms can be observed (see also Zevallos Quiñones 1993a: 5). Cases in point are personal names like Coco, Cot Cot, Cuy Cuy, Muy Muy, Paspas, Pay Pay, Poc Poc, Qui Qui, Quin Quin, Sac Sac, Sol Sol, Suysuy

²²⁰ Diachronic loss of word-final plosives (or, in the case of *t, development to glottal stop) is in fact one of the developments that defines the subgroup (Curnow & Liddicoat 1998: 404).

²²¹ Further, Waunana plosives are not released word-finally, and the phonemic distinction between aspiration and voicing is neutralized (Mejía Fonnegra 2000: 87).

^{222 &}quot;El lenguaje que en estos llanos se habla propio y natiuo es muy diberso quel de la sierra y dificultosisimo de pronunciar otros quellos por ser la pronunciación guturre (?)".

(Zevallos Quiñones 1993a) and placenames such as Concon, Chichi, Llac llac (Zevallos Quiñones 1993b), and, of course, Chan Chan, the name of the capital itself.²²³ Local words such as <llalla>, <huiri huiri>, and others collected by Zevallos Quiñones (1975) exemplify this particular structure, too. There is no discernible semantic effect of reduplication, and there is no evidence to believe that the respective roots occur also in non-reduplicated form (though they may have). As far as personal names are concerned, Chachapoyas personal names are strikingly similar in structure to those of Quingnam (G. Taylor 1990: 124). Relevant Chachapoyas personal names include Acac, Huchuc - Hochoc (which Taylor considers questionable because syllable boundaries are unclear), Pispis, Samsam, and Solsol - Zolzol. Again, this suggests extensions of coastal structural patterns into the *sierra*.

Lexical reduplication is to some extent also found in the lexicon of Mochica. In this language, some of the reduplicated items cluster in certain semantic domains. Reduplication occurs for instance in distributives and quantifiers, e.g. <çifçif> 'everyone', <echech> 'all', <tunituni> 'much' (Carrera in Salas García 2002). Striking is also the clustering of reduplicated items in words which have to do with the respiratory apparatus: <pufpuf> 'lungs', <rrengreng> 'trachea', see also <lamlam> 'liver' (Carrera in Salas García 2002). But there are also many other cases: <semsem, somson> 'tail', <tektek> 'wing' (Middendorf in Salas García 2002), <çöpçöp> 'diarrhea', <téptep> 'wet', <šíkšík> 'k.o. fish', <kúngkung, kúnykuny> 'sweet' (Brüning 2004), and others more. Reduplication is not prominent in Mochica toponyms and anthroponyms. It is therefore possible that at least some of the Mochica lexical items exhibiting this structure actually are Quingnam loans.

How well lexical reduplication was embedded into the structure of the more northern Tallán and Sechura languages is hard to say, but cases like <chùpchùp> 'star' in Colán and <kilkil> 'hawk' and <roro> 'sea' in Sechura show that it was at least marginally present. The same is true of Culli (see <chuchú> 'flower').

For the Diaguita language, <colcol> 'owl' is attested (Nardi 1979), and regional words in Northwest Argentinian Spanish which likely originate from Diaguita include <tucotuco> 'k.o. insect', <plusplus> (and the possibly related form <uplus>) 'k.o. arachnid', <shujshuj> 'k.o. fish', <dildil> ~ <huilhuil> 'k.o. bird', <pajapaja> 'k.o. bird', <chalchal> 'k.o. plant', <puspus> 'k.o. plant', <sinasina> 'k.o. plant', and <joijói> 'k.o. song' (Nardi 1979). As is the case for the languages of the Far North and Culli, it is hard to say how representative these items are of the Diaguita lexicon as a whole. Where minor languages are somewhat better documented, at any rate, there is no overwhelming evidence for this type of reduplication, and it may also have been rather marginal in the

²²³ The etymology of the toponym Chan Chan is discussed in Urban (2017). Its earliest attestations suggest that the original indigenous pronunciation may have differed from the present one and that it may not have adhered to the reduplicated structure of the toponyms just mentioned.

poorly documented ones. Cholón has a few cases which are somewhat reminiscent (e.g. čočol 'to twinkle', tsotsok 'trousers', lyolyo 'tintinabulum', ušus ~ ušuš 'butterfly', yoy(o) 'to cry', Alexander-Bakkerus 2005), but my impression is that these have frequently a relatively obvious sound-symbolic component. Within Cholón grammar, reduplication is a rather marginal process.

In Quechua, reduplication is a productive process. For Tarma Quechua, Adelaar (1977: 240-242) discusses two different processes, called plain reduplication and resultative reduplication, which serve expressive or creative means. In addition, there is reduplication in the nominal domain as a word-formation process, in particular the formation of plant names, which is "not infrequent". Nevertheless, formally reduplicated nouns are not very prominent in the dictionaries, suggesting that they do not frequently conventionalize. In Quesada's (1976) dictionary of Cajamarca-Cañaris Quechua, chosen as a test case both for its geographic proximity to the North Coast as well as its manageable size, there are all in all about 15 fully reduplicated forms, which include terms related to motherese and, as in the coastal languages (and Diaguita), several fauna terms. There are also reduplicated adverbs (e.g. ashla-ashla 'little by little', from ashla 'little').

In Mapudungun, reduplication in the nominal domain is not a productive process, and nouns containing a reduplicated element fall into the domains of body-parts, plants, and animals. Both monosyllabic and disyllabic reduplicated roots are attested, such as kill-kill 'nightbird' and tranga-tranga 'jaw' (Smeets 2008: 119). All in all, Smeets counts 19 recorded cases, and one, luwa - luwa-luwa 'seaweed', in which both simplex and reduplicated forms appear. In addition, there are four adverbials with lexically reduplicated structure (Smeets 2008: 120). In the verbal domain, to the contrary, reduplication is a productive process in Mapudungun, in which case one of four stem formative suffixes appears in addition to reduplication, such as -tu- in anü-anü-tu- 'to pretend to sit down' from the verb anü- 'to sit down' (Smeets 2008: 304).

In summary, the evidence is too weak to posit a coastal pattern of lexical reduplication, especially because the evidence for the languages of the Far North is too insignificant. The pattern probably was strongest by far in Quingnam.

Headedness

In Tallán, left-headed and right-headed structures may have coexisted. If there were right-headed structures in the languages of the Far North, they would depart in this not only from Mochica (regarding the situation in Quingnam nothing can be said), but indeed also the bulk of Central Andean languages, including Quechua and Aymara.

The state of affairs in Tallán could be compared typologically with the languages of Northern Argentina, where the general order is modifier-head, but adjectives are placed after the nouns they modify. This is found not only in Atacameño, but also in Lule and perhaps in Diaguita (Adelaar & Muysken 2004: 380). The same pattern in the Quechua of Santiago de Estero may be a substrate effect from a language of this type. Left-headed and right-headed structures coexist in Mapudungun as well.

To the north, in Tsafiqui, order in compounds is dependent-head, whereas order of modifier with respect to the head in NPs is flexible (Dickinson 2002: 48, 69). The latter is also true of Esmeraldeño (Constenla Umaña 1991: 86). Waunana appears to be right-branching (see Holmer 1963: 114, 117). In sum, Tallán would appear to align typologically more with languages to the north and the south of the Central Andes than with Central Andean languages.

Affixes on nouns indicating person of possessor

For Sechura, there is quite robust evidence for suffixes on kinship nouns (except, curiously, those for 'father' and 'mother'). One interpretation that has been forwarded in the literature is that these suffixes code the person of the possessor in a head-marking fashion. Among the languages of the North Coast, Sechura is the only language for which evidence for this phenomenon exists. In adjacent regions, its presence is equally scattered. In the highlands, Culli may have featured similar affixes (Adelaar & Muysken 2004: 402). They are also a feature of Quechua languages and Atacameño (Adelaar & Muysken 2004: 380-381), while they are absent in Mapudungun (Smeets 2008: 133). In the north, the distribution of affixes on nouns that mark the person of the possessor is likewise inconsistent: they were present in Esmeraldeño (Seler 1902: 60), but are absent in Tsafiqui (see Dickinson 2002: 60) and Waunana (Holmer 1963: 104).

Voicing in plosives

The analysis for Sechura has brought to light evidence to believe that the language featured phonemic voicing in plosives, whereas for Tallán and Quingnam, the analyses were ultimately equivocal as different types of evidence pointed in different directions.

In Mochica, the situation is unclear as well, but if there was a voicing contrast, it was restricted to the alveolar position.

Voicing plays no phonemic role in plosives in other languages of the Central Andes. This is the case for Quechua and Aymara, as well as for Mapudungun and Atacameño further south (Adelaar & Muysken 2004: 380; Smeets 2008: 23).

In the Pacific lowland regions to the north, phonemic voicing in plosives is, in contrast, present: it is found in Tsafiqui as well as the Chocó languages (Dickinson 2002: 33; Constenla Umaña & Margery Pena 1991: 141-144). In Esmeraldeño, the presence of letters

b>, <d>, and<g(u)> in initial position do suggest a contrastive value of voicing (see Adelaar 2005: 243). On the other hand, <pi>piama> ~ <pi>piamara> 'snake' and

soma' (Seler 1902: 56) are almost certainly variant transcriptions of the same item, and if this is so, (free) variation in voicing is an alternative possibility.

The vowel system

In the discussion of the Tallán languages, the possibility that the languages had a threevowel system was observed. The suggestion arises from the rarity of mid-vowel letters <e> and <o> in Martínez Compañón's data and a predilection for their occurrence in personal names adjacent to letters representing back consonants. Such evidence was not found for Sechura, Mochica, and Quingnam. Nor was the evidence consistent in the Tallán data, especially as far as the personal names are concerned. From the transcriptions, there is no evidence that there was a velar-uvular distinction. If such a distinction was present, a similar phonological rule as that widely observed in relevant Quechua varieties could have been in action, whereby the presence of uvulars within roots triggers a lowering of high vowels. Alternatively, it may have been the case that back consonants generally caused adjacent vowels to lower to some degree. A three-vowel system is also characteristic of Aymara (Hardman 2001: 18), and, interestingly, perhaps of Culli, where Martínez Compañón's wordlist as well as toponyms show a very similar correlation between back consonants and mid-vowels as in the Tallán personal names (Adelaar & Muysken 2004: 402).²²⁴ In this sense, one observes again some potential typological similarities with the Northern Highlands, except that in this case the putative commonalities extend to the Quechua and Aymara-dominated central and southern highlands and that the feature, if it existed, was restricted to Tallán on the coast.

Apart from the mentioned languages, absence of phonemic mid-vowels is not observed in any of the languages in the coastal regions to the north and the south, nor inland. A very remote possibility is that in Esmeraldeño a comparable situation obtained on the basis of a casual evaluation of the data published in Seler (1902), but the evidence is weaker than for either Tallán or Culli.

Palatal nasals and laterals

Palatality, according to the phonological interpretations of Torero (1997, 2002) and Hovdhaugen (2004), plays a special role in the the phonology of Mochica. However, for the other North Coast languages we lack the data to assess the presence of a pervasive palatal – nonpalatal contrast on a phonemic level. With regard to palatal nasals and laterals, one can at least say that the diagnostic letters <ñ> and <ll> are present in all the languages of the North Coast, though in Sechura only in personal names and regional vocabulary. Sechura and Quingnam appear to share a restriction on these sounds in word-final position (or they are so rare there that they are not clearly attested in the available data). Likewise, in Culli, both letters are existent, though possibly only dialectally in the province of Pallasca and parts of Santiago de Chuco (Adelaar & Muysken

²²⁴ According to the same authors, rhotics appear to have had the same lowering effect in Culli.

2004: 403). In most Quechua varieties, both palatal nasals and laterals are present, as they were in the proto-language. The same is true of Aymara and Mapudungun.

More notable is the absence of these sounds in the north in Tsafiqui and Waunana (as well as in Aguaruna), and the rareness of <ll> in Seler's (1902) Esmeraldeño data. The Esmeraldeño situation is shared with Atacameño in the south.²²⁵ More generally, the distribution of the palatal lateral has a general west-east cline, being frequent in the Andes but virtually absent in the Amazonian lowlands (see Aikhenvald 2007).

The labiodental fricative [f]

Since the evidence for a labiodental fricative [f] in Quingnam is not strong, its absence in the toponymic record has been taken as one of the diagnostics to recognize a Quingnam presence. It is interesting to examine the occurrence of this consonant in South America more broadly, particularly on the Pacific coast. Viegas Barros (2014: 588) mentions a voiceless labiodental fricative /f/ as a possible areal feature of the Pacific fringe of Patagonia. It is present in Alacaluf, Yahgan, and Mapudungun, and appears to have been present in Chono, whereas in other, more easterly Patagonian languages it is nonexistent save for recent loanwords from Mapudungun and Spanish. 226 Yet this is just the southernmost end of a much wider area along the Pacific coast in which the sound was present: this area includes Diaguita (Nardi 1979: 4), Mochica, 227 Sechura (though not Tallán save for Spanish loanwords), and Esmeraldeño (compare Seler 1902). Coastal languages of the Barbacoan and Chocó families, which lack a labiodental fricative /f/, mark the northern boundary of the area (Curnow & Liddicoat 1998: 386-387; Lindskoog & Brend 1962: 33; Constenla Umaña & Margery Pena 1991: 141-144). It may be relevant, though, that the sound is present in Cofán and Camsá in the highlands. In addition, a bilabial fricative, which shares a range of articulatory properties with it, is a common characteristic of the languages of the Colombian and Ecuadorian Andes, including Barbacoan (Constenla Umaña 1991: 124).

That the labiodental fricative really has a decidedly coastal distribution is shown by examining the consonant inventories of languages in the interior: <f> is absent in Luis de Valdivia's grammars of the Huarpe languages Millcayac and Allentiac (see

²²⁵ Regarding the presence of a palatal nasal, Adelaar & Muysken (2004: 379) and Peyró García (2005:30) reach different conclusions.

²²⁶ The choice of the symbol /f/ conflicts with Viegas Barros's description of the sound as a voiceless labial fricative which would rather suggest /Φ/. Checking descriptions of the languages in question, it turns out that in Mapudungun and Yahgan, /f/ is labiodental (Smeets 2008: 25; Aguilera 2000: 235), while in Qawasqar (an Alacaluf variety), it is mostly realized as a labiodental, only sometimes as a labial (Clairis 1985: 365).

²²⁷ For Cerrón-Palomino (1995: 97), <f> in Carrera's (1644) grammar represents the bilabial fricative [Φ] rather than [f]. As support for this statement, Cerrón-Palomino (personal communication) adduces the replacement of /w/ by <f> in loans from Quechua.

Viegas Barros n.d.) and the available documentation of Atacameño (Peyró García 2005: 29-30). The sound is neither reconstructed for proto-Quechua (Adelaar & Muysken 2004: 196) nor proto-Aymara, and Pedro de la Mata's statement that "[i]n this language, the letters B, D, F, and R [...] are not pronounced"228 indicates that "the sounds these symbols normally represent in Spanish are not found in the Cholón language" (Alexander-Bakkerus 2005: 51). From Martínez Compañón's (1985 [1782-1790]) and Father González's Culli wordlists (the latter published in Rivet 1949: 4-5), there is no reason to believe that the sound was present. The letter is also not present in the toponyms of the 'Den' and 'Cat' languages of Cajamarca (Torero 1989: 254-256), although this must not be overinterpreted because the sound may have been replaced in the adaptation to an /f/-less language such as a Quechua variety.

Unlike Viegas Barros (2014: 588) himself thought, the labiodental fricative is not very frequent in South America as a whole, which makes the concentrated occurrence along the Pacific coast even more remarkable. The PHOIBLE database (Moran, McCloy & Wright 2014) contains 18 South American languages featuring the segment (not counting two creoles and three varieties of Quechua in which the sound only occurs in Spanish loanwords). Compared with the 49 % of all the world's 2,155 languages in PHOIBLE which have /f/, it becomes clear that this phoneme is underrepresented in South America (which, incidentally, also appears to be true of the Americas as a whole).

Discussion

The findings are hard to summarize. This very fact lends some support to Aikhenvald's (2007) emphasis of typological diversity rather than homogeneity on the Pacific coast of South America.

For micro-level typological convergence between two single languages of the North Coast to be discernible the data are simply too scanty.

Typologically, thus, the best evidence is for some degree of convergence on the meso-level in Northern Peru as a whole. The tendency towards monosyllabism in the lexicon give the languages of the Peruvian North Coast their distinctive character, but crucially, also link them to the Northern Highlands of Peru where Culli and Chacha were once spoken. Roughly the same picture pertains to word-final plosives. Both features contrast with the situation in Aymara, and to some extent also to that in Quechua. Regarding voicing in plosives and the nature of the vowel system, no consistent and unequivocal picture emerges for the North Coast itself, though it would appear that Tallán patterns with Culli and the Central Highlands in this case. This shows that the North Coast is not

^{228 &}quot;No se pronuncia en esta lengua las letras B, D, F, y la R, [...]", cited from Alexander-Bakkerus (2005: 51).

necessarily a typologically homogeneous zone that contrasts with the major languages of the highlands, Quechua and Aymara, in all regards.

On the macro-level, some broader affinities can be noted, but these do not yield a clearly delinated linguistic interaction sphere identified by a bundle of features. Hence, indeed the present survey has not found good indications for an overall 'Pacific coast linguistic type', even though the decidedly coastal distribution of the labiodental fricative is highly notable and may indeed be indicative of old areal-typological connections between the coastal languages of South America.²²⁹

²²⁹ Lexically, Englert (1936: 81-82) already points out some intriguing similarities among languages of the Pacific coast down to Yamana on Tierra del Fuego (as well as some languages somewhat further inland in South America) in the word for 'lightning'. While Urban's (2018a) search for lexical connections between languages of the Pacific coast in maritime vocabulary turned out as largely negative, there is one item, a word for 'mussle' or a specific type of mussle, that is potentially a very widespread coastal *Wanderwort* which is found from Mesoamerica down to southern South America.

XI. Language and the Prehistory of the North Coast

This chapter deals with the question to what extent the linguistic evidence presented in this book can be integrated into a more holistic interdisciplinary picture of the prehistory of the Peruvian North Coast.

One of the most relevant topics is to what extent the different languages of the North Coast, especially those to the south of the Sechura Desert, can be associated with archaeological cultures, and, if so, how. Assuming for the time being that this is a valid goal at all (and this has to be reconsidered if the association between ethnicity, polity, and language is nonexistent or weakly developed on the North Coast), it is useful to begin the consideration with the earliest historic times, moving back in time from this point of departure. In fact, the late prehistory of the North Coast, associated with the Chimor state, is not strictly speaking prehistoric but, as Shimada (2000: 49) puts it, "'protohistorical', because it is the earliest time period for which we have historical information, however fragmentary and tenuous". One such piece of information is provided by Calancha (1638: 549-550), in whose work also the name Quingnam for the language of the Chimor rulers is attested. While, as discussed in chapter III, this chronicler states that at the time of writing Quingnam was spoken in the Trujillo region, he at the same time indicates a wider distribution at an earlier point of time, associated explicitly with the expansion of the kingdom of Chimor:

[A] cacique of what is today called Trujillo, called the Chimo [...] was conquering the Yunga indians, and making the provinces of these plains from Paramonga to Paita and Tumbes tributaries [...] and with his power he was introducing his native language,²³⁰ which is the one spoken today in the valleys of Trujillo. It was Quingnam, the language of this lord [...] The vassals of Pacasmayo spoke his language as did the others as far as Lima, although with some words corrupted. The lords went to be called Chimos, and they attained extending their jurisdiction and vassalage up to Paramonga, thirty leagues and more separated from Lima.²³¹

A further document of high relevance is the anonymous history of Chimor published by Vargas Ugarte (1936). In chronological order, attested names of Chimor kings in this document are Taycanamo, Guacri Caur, Nançenpinco, Minchançaman, Chumun Caur, Guaman Chumo, Ancocoyuch, Caja Cimcim (later known as Don Martín), and finally Antonio Chayguar. These names do not have a Mochica origin (see Salas García 2012: 23).

^{230 &}quot;[...] with his power he was introducing his native language" is my somewhat free translation of "fuese introduciendo en magestad su legua natural." Another way to render this would be that he elevated his language to royal status.

^{231 &}quot;Un Cazique de lo que oy se llama Trugillo, llamado el Chimo [...] fue conquistando los Indios Yungas, i aziendo tributarias las Provincias destos llanos desde Parmunga, asta Payta i Tunbes [...] i fuese introduciendo en magestad su legua natural, que es la que oy se abla en los valles de Trugillo,era la Quingnam propria deste Reyezuelo [...] los vasallos de Pacasmayo dieron en ablar su lengua,i los demas asta Lima, aunque corronpidos algunos vocablos [...] Chimos se fueron llamando los señores, i llegaron a estender su juridicion i vasallaje asta Parmunca, treynta leguas i mas apartado de Lima [...]".

To the contrary, several of the elements in the names of the ruling dynasty are repeated in personal names from the areas under Chimor dominion, including the heartland in the Moche Valley (Zevallos Quiñones 1993a). Indeed, *-namo* is a very frequent ending in the Moche and Chicama valleys, and even occurs in the name Echenamo as far north as Chérrepe. What is more, a Don Francisco Sin Sin is attested as "Indio principal" of Huanchaco in 1597, and the variant spelling Sim Sim is attested in the same place. The name Nañçenpinco can be compared with Cheyenpinco attested in Mansiche in 1593. Anco was recorded as a personal name in Chicama in 1617 and may be related to the name of Ancocoyuch. Both elements of Guaman Chumo's name are frequent. Chumo probably is a variant of Chimo – Chimu; someone named Chumboguaman, whose name probably features an intrusive Quechua element *waman* 'hawk', was present in Trujillo in 1668.

Thus, there are conceptual links between (i) the Chimor rulers and the Quingnam language as reported by Calancha, (ii) the structure of the names of the ruling dynasty at Chan Chan and personal names in the Chimor realm, especially the Moche and Chicama valleys, and (iii) the indication of a presence of the Pescadora language (i.e. most likely Quingnam or a variety thereof) in just those areas in the more detailed colonial sources (see the pertinent section in chapter III). In sum, I have little doubt that both the names of the ruling dynasty and the personal names of the region have a common source, and that this common source is the Quingnam language (compare also Salas García 2012: 23). Based on these correlations, Quingnam may with some confidence be called the royal language of Chimor, i.e. that spoken by the high(est) elites in its heartland. One-to-one correlations of political units, language, ethnicity, and art styles must at the same time be avoided. I am not suggesting that Quingnam was the only language spoken in Chimor, especially in the later phases of expansion. For one, at least after the incorporation of the Lambayeque region into the state, it is more than likely that also Mochica speakers were subjects of Chimor.

In fact, indigenous terms used in discussions of the Chimor state by Middendorf (1894: 388-389) and Rowe (1948) stem not from Quingnam, but from Mochica. Both authors thought that Quingnam and Mochica are dialects of the same language. This erroneous identification, together with the fact that indeed Chimor at some point incorporated areas with a strong presence of Mochica speakers, appears to have led to the practice of using Mochica names to refer to Chimor institutions which has unfortunately caught up. Such usage of Mochica vocabulary in connection with Chimor is misleading because it not only suggests an erroneous *ipso facto* association of the Mochica language with Chimor, but more importantly also may distort Chimor cultural institutions by interpreting them through the lens of a conceptual system enshrined in a language foreign to its rulers and heartland. Mochica words do not necessarily reflect any aspect of the organization of Chimor society or its institutions. The ancient Greek concept of the *polis*, unique in the particular political system and institutions it

invokes, could not be felicitously applied to describe the Roman civitas, even though Greece and Roman cultures flourished in the same general area of the world, Greece had a profound cultural influence on Rome and was ultimately absorbed into the Roman Empire – a relationship roughly comparable with that between the Sicán and Chimor cultures in northern Peru. In this sense, the identification of Mochica as "the language of Chimor", made even by linguists like Stark (1968: 1) and Hovdhaugen (2005a: 139), is strongly misleading, and must be refined as indicated above.²³² As Cerrón-Palomino (1995: 46) dryly remarks, unless one assumes that the Chimú used Mochica to facilitate the submission of their northern neighbours, there is no reason that archaeologists and ethnohistorians make the Chimú speak Mochica in the absence of linguistic data of Quingnam. It is true, of course, that Mochica must also have been a language of Chimor in the sense that after its expansion northward it incorporated Mochica-speaking areas of Lambayeque: "peoples of diverse cultural tradition, political complexity, and language were incorporated into this far-reaching polity" (Lange Topic 1990: 177).

Even though Chimor rulers may well have introduced Quingnam as an administrative language in regions incorporated into their realm, we have no evidence that Quingnam was ever spoken north of the Jequetepeque-Chicama boundary with Mochica. Neither do we have any idea of the language policy of Chimor, if there was one. The only solid evidence we have is that the Mochica language continued to be spoken in the Lambaveque area after Chimor (and later Inca and Spanish) conquest, and that the indigenous languages of the Far North, whatever the precise nature of the Chimor presence in Piura, also survived into late colonial or early republican times.

Further back in time, ethnohistorical information such as that provided by Calancha for Chimor is lacking (except perhaps for the Naimlap legend, of which "most scholars suggest that [it] best relates to the Middle Sicán period", Jennings 2008: 186). Nevertheless, there is evidence from the linguistic geography of the Northern North Coast to suggest that the Mochica language has roots in the area that predate Chimor times. As Cerrón-Palomino (1995: 43) notes, it is reasonable to assume that Mochica was the language, or one of the languages, of the Sicán/Lambayeque culture since the area where Mochica was once spoken is virtually identical to the sphere of influence of this civilization. At least under the interpretation of Sicán as a unified state-level society, Sicán was as multiethnic as Chimor, including the Sicán ruling elites, ethnic Mochica in the Lambayeque region, and the Tallanes in the Far North (Shimada 2014). When following this interpretation, Mochica would most likely be associatable with the ethnic Mochica of Lambayeque (though see Mannheim 1991: 50 on the non-correspondence of ethnic and linguistic identity in the South-Central Andes, a possibility that must be

²³² In a similar vein, more recently Heggarty & Renfrew (2014: 1346) state that "the Mochica language [...] matches at least plausibly with the Late Intermediate Chimor 'culture'".

seriously borne in mind for the North Coast as well). A crucial piece of evidence not even considered by Cerrón-Palomino (1995) is the presence of Mochica in the Upper Piura Valley. As discussed in chapter III, Carerra (1644), to whom we owe a direct reference to the presence of the language in this area, mentions a spread of Mochica through Inca *mitmaqkuna*, but the scope of this statement is unclear. The extremely striking extension of Mochica to the Upper Piura that correlates precisely with that of the sphere of influence of North Coast civilizations from south of the Sechura Desert, beginning with the Moche presence, suggests that another, earlier, agent may have played a role.

Given the implication of the Moche culture, geography-based reasoning indeed could be projected further back in time: although numerous studies either implicitly or tacitly assume that Mochica was the language of the Northern North Coast in Moche times (e.g. Larco Hoyle 2001 [1939]: 129), this is not given. As Quilter (2011) notes at various points, what language 'the Moche' were speaking is not clear; Mochica may have been spoken on the Northern North Coast in Moche times (see Heggarty & Renfrew 2014: 1346) or it may not. That said, the presence of both the Moche culture and the Mochica language in the Upper Piura Valley is striking. But there is more to be said: the cultural differences of the Late Intermediate Period on the North Coast south of the Sechura Desert, with the boundary of the Pampa de Paiján, continue an earlier division in Moche times (see Alva Mendo 2004: 14). Hence, a linguistic boundary near the Pampa de Paiján in early colonial times correlates with a millennia-old cultural boundary.²³³ In sum, both the northern and southern limits of Mochica speech in early colonial times match the limits and internal divisions of Moche culture surprisingly well.

Given this evidence, how far can we project the linguistic boundary between Mochica and Quingnam and the linguistic zones of the North Coast in early colonial times more generally back in time? How old, in other words, is the presence of Mochica in the Upper Piura and when did the linguistic watershed near the Pampa de Paiján come into being? Is it warranted to date both to Moche times? One recent attempt to provide a holistic prehistory of the Andes based on archaeological and linguistic data (Beresford-Jones & Heggarty 2010), although centered heavily on the highland language families Quechua and Aymara, seeks to draw connections between the records of both disciplines, archaeology and linguistics, on three levels: the temporal, the geographical, and, most importantly, the causal. On the geographical level, as we have seen, there is a very high degree of correspondence between archaeological cultures and language extensions on the North Coast. The problem ist the temporal level of correlation in Beresford-Jones & Heggarty's (2010) scheme, since the extension of a linguistic isolate like Mochica cannot be theorized through time the same way the spread of a language family can.

²³³ The only slight mismatch between the Pampa de Paiján cultural boundary and the linguistic boundary is that Quingnam was spoken on the south shore of the Jequetepeque Valley.

One can, however, reexamine the nature of the presence of the relevant cultures - Moche, Sicán, Chimor - in the relevant areas and attempt to draw inferences from there. Regarding the situation in the Upper Piura, Montenegro Cabrejo's (2010) data suggest a weak presence of Sicán in the Upper Piura. This leaves either the original arrival of the Moche – egalitarian and peaceful – or the militaristic Chimu expansion, which, as Montenegro Cabrejo's data show, radically transformed or even disrupted local settlement patterns, as possible temporal anchorpoints for the arrival of Mochica to the Upper Piura. Then again, why should Chimor rulers have introduced Mochica to the Upper Piura rather than Quingnam, their royal language? All this would make one think in an indeed rather ancient presence of Mochica in the Upper Piura Valley, associated with the arrival of people who were the bearers of the Moche culture. However, the Mochica toponymy of the Upper Piura, with placenames like Morropón and Nańanique, are effortlessly interpretable through Lambayequan Mochica of the 17th century. If indeed Mochica arrived with Moche, this would date back to almost two millenia, more than enough time for Latin to evolve into the mutually unintelligible Romance languages under conditions of loss of mutual contact. If the local varieties of the language would have remained so similar through the entire timeframe, strong social cohesion between the Upper Piura and populations of the Northern North Coast would need to be invoked to prevent the languages from drifting apart – though incidentally, 'drift away' is exactly the word used by Castillo Butters & Uceda Castillo (2008: 711) to describe the evolution of the Vicús ceramic style from Moche.

Regarding the time depth of the Mochica-Quingnam boundary and their coexistence between the Jequetepeque and Chicama valleys, one can note that the North Coast south of the Sechura Desert has been influenced at various times by cultures and polities not originating there (e.g. Huari, Cajamarca) and yet, there is also a strong element of continuity in cultural development. Klaus (2014) demonstrates a continuity of local populations in the Lambayeque region through time (see the discussion in the introductory chapter on the geography and preshistory of the North Coast). Torero (1990), without even considering the archaeological evidence, believes that Andean languages were in their place as early as 500 AD – in other words, Moche times. ²³⁴ Cultural continuity is not only visible archaeologically. Donnan (1978) points out numerous aspects of *curanderismo* practiced in the ethnographic present that can be related to Moche iconography. A particularly intriguing example of nonmaterial continuities from Moche to colonial times is the story of the lousy wizard Mollep (which in fact means 'the lousy

²³⁴ Rostworowski de Diez Canseco (1985) interprets the onomastic evidence as showing the presence of coastal people in the Northern highlands as far back as Moche. Shimada (1994: 93) says about this: "Mochica artifacts in the Cajamaraca region are extremely rare [...] At present, there is no physical evidence to refute or support this hypothesis".

one' in Mochica) related by Calancha (1638), who told people that if they followed him they would reproduce as the lice on his body. Donnan (1978: 90) is able to link this story to two Moche vessels, one showing a seated figure with giant lice crawling on its body, the other showing a very similar figure where the giant lice are substituted for minute humans. Insofar, the idea of linguistic stability through time, without major language replacements taking place, appears plausible (even though, obviously, cultural continuity and linguistic discontinuity are not incompatible with one another either). This would also be in line with the linguistic ecology and the patterns of language use described in the South-Central Andes. As Mannheim (1991: 51) says:

In pre-Columbian polities, linguistically significant social differences were constituted within a larger organization, rather than in terms of temporary, contingent exchange relationships. [...] Members of one group could not, as individuals, appropriate the ritual practices or language of the other.

Indirectly, the structure of the Mochica language supports a long time of in situ development. Nichols (1992) has introduced a useful distinction between linguistic spread zones as opposed to residual zones. A spread zone is a geographical area (usually continent or subcontinent-sized in Nichols's typology) characterized by little genealogical diversity. Large but shallow families dominate the linguistic landscape in a spread zone. A residual zone, in contrast, is one with high genealogical diversity. The complexity and irregularity of languages in residual zones tends to be greater than in languages of spread zones. When applied to the Central Andes, i.e. a much smaller area than those considered by Nichols herself, the Quechua-dominated highlands of Central Peru have characteristics of a spread zone, while the Northern Central Andes, both coast and highlands, retain characteristics more in line with the properties of a residual zone, despite Quechua's spread into the Northern Andes.²³⁵ In Mochica, allomorphy has accumulated, with many irregularities and vowel suppression. This would give the impression of an endocentric language in terms of Thurston (1989). It would also suggest that, if there ever was a significant population of non-Mochica speakers who shifted to Mochica at some point in prehistory, this would have occurred far back in time, allowing enough time for the 'messy' profile of the language to build up again. Since the only data we have are from the Mochica of the Lambayeque region, caution must be exercized considering possible diatopic variation. What evidence is available, though, suggests a considerable period of *in situ* development for this morphological profile and the level of geneaological diversity to build up, too.

²³⁵ Aikhenvald (2007: 185) states that the genealogical diversity of the South American Pacific coast is low when compared with that of Amazonia and relates this, in addition to the catastrophic effects of the arrival of the Europeans, to the arid climate, which according to her "was not conducive to any large-scale migrations of population". This is a dubious statement, as it appears to assume incoming migrating groups as the principal mechanism for the build-up of linguistic diversity, while such events may equally spread a single language, thus reducing it.

The evidence from both linguistic geography as well as the morphological profile of Mochica, circumstantial as they are, both point to a situation of linguistic continuity and absence of large-scale language replacements on the North Coast south of the Sechura Desert. Both observations also match the cultural continuities both north and south of the Pampa de Paiján from Moche times onward. But what role, if any, did linguistic differences play in the formation of the Pampa de Paiján boundary and in its continuity through time in the first place? According to Netherly (2009: 140), the Mochica-Quingnam boundary zone goes "far to explain why the cultural trajectory of Lambaeque [sic!] and Jequetepeque differed even in Moche times from that of the Moche and Chicama valleys and why there was a late Moche center in each region". Netherly (2009) seems to suggest that in fact the linguistic situation explains – that is, can be posited as a relevant factor on the causal level of Beresford-Jones & Heggarty (2010) – the cultural differences to the north and south of the Pampa de Paiján. Under this interpretation, the Pampa de Paiján cultural boundary would reflect stylistic differences of groups within the same cultural sphere that can, under the linguistic continuity hypothesis, also be viewed as ethnolinguistically distinct.

Let us now expand the discussion to the Far North. Here, a different situation obtains. Ethnohistoric information suggests population movements in prehistory. An oral tradition of the Catacaos says that the Sechurans were foreigners who have come from the south during Chimor times (Cruz Villegas 1982: 54). The chronicler Cabello Valboa (2011 [1586]: 393) states that the Tallanes and the people of Olmos self-identify as coming originally from the sierra. While such information must be interpreted with great caution, a situation of less stability through time than for the North Coast is also suggested by the toponymy of the region. As discussed in chapter III, in the Far North, the toponymic record is not easily reconcilable with the distribution of languages in colonial times. This can be interpreted as evidence for the occurrence of prehistoric linguistic replacements, in contrast to the relative stable situation that suggests itself for the North Coast otherwise.²³⁶

Bearing in mind the differences between the Far North Coast and the North Coast south of the Sechura Desert, at the same time there is a copious amount of shared vocabulary items that can be discerned even with the little amount of available data (see chapter ix). These include words for a culturally basic animal such as the llama, the word for 'bird' as well as basic verbs such as 'to die' and 'to drink' (see chapter IX). Their existence points to continued interaction between speakers of the North Coast languages. Even Quingnam as well as highland languages such as Culli can be partially integrated into the picture of a single linguistic contact zone that connects the investigated subregions

²³⁶ But even this piece of evidence must be taken with caution: languages differ in the strength of the toponymic 'fingerprint' they leave in the landscape after they have disappeared.

into a larger whole. Speakers of the languages clearly interacted with one another and probably rather intensively and for a prolonged period of time, a conclusion supported by evidence from iconography (Cordy-Collins 2001). And, as seen in the discussion of colonial references to North Coast languages, the 1571 *Relación* of Piura (Jimenez de la Espada 1965) mentions that interpreters, i.e. bilinguals, are common. In the light of this, the linguistic record is nothing but expectable.

The evidence from shared vocabulary items is consistent with the observations made in chapter III on trade relations and, in some areas at least, patterns of exogamy. Together with late prehistoric political developments, these may be viewed as the extralinguistic background for the observed contact phenomena. The lexical evidence furthermore points to speech communities in contact with diverse peoples on the South American Pacific coast and the adjacent highlands. On the micro and meso-level, these could plausibly represent the linguistic result of resource sharing at different altitudinal levels and/or cyclical residency on the level of the household or kin group (Dillehay 2013: 300-301). The existence of possible shared lexical items between the coast and highlands of Northern Peru is a particularly interesting point against the geographical background of the Huancabamba transversal, thought to have formed a natural corridor between the eastern slopes of the Andes and the coast (see Kaulicke 2013, who posits such contacts at great antiquity). In addition, there are some typological features that the languages of the Far North and North Coast south of the Sechura Desert share, which include the allowance of plosives in final position (see chapter X). Some of the relevant traits extent into the highlands, too.

Regarding lexical items shared across large distances, importation of *Spondylus* shells and other exotic goods from the north that societies of the North Coast engaged in may be the extralinguistic factors that shaped the linguistic record. However, the evidence from the Tallán languages in particular, which has lexical lookalikes with Waunana of Colombia, suggests a stronger involvement of people from the Far North than commonly acknowledged. With respect to the impressive amount of material shared between Mochica and Mapudungun specifically (Jolkesky 2016), Shimada's (2000: 59) mentioning of rests of balsas found on the Chilean coast is extremely suggestive.

In sum, even genealogically isolated languages such as that of the North Coast are not 'isolated', but share lexical material and structural properties with their neighbors. Linguistically, there is also no support for a nearly-impassable geographic-cultural boundary formed by the Sechura Desert. To the contrary, there is positive evidence for intensive interactions across this formerly purported 'boundary'.

Finally, let me move to a more theoretical plane. With its characteristics of a residual zone dominated by linguistic isolates, the North Coast presents a challenge to a central tenet of the approach chosen by Beresford-Jones & Heggarty (2010: 62-64). According to these authors, the spread of language families is causally linked to some extralinguistic expansive process. This may take the form of technological advantages of speakers of certain languages or the expansion of the area of influence of polities as is suggested by Heggarty & Beresford-Jones (2010) for the spread of Quechua with the Huari state. Now, on the North Coast, there are at the present state of research no language families the distributions of which could be traced through time. In this sense, the North Coast brings to light that this 'expansionist' model of theorizing the prehistoric relationship between language and archaeology is limited to a set of very special cases, namely those in which there is an explanandum in the form of a language family distributed over geographical space. At the same time, the explanans in the form of large-scale polities, with a wide range of influence throughout the studied region is present on the North Coast at various times in prehistory, and a militaristic empire, although not long-lasting, is in evidence at least with Chimor. Generally, the case of the Peruvian North Coast, I believe, demonstrates that models integrating linguistic and archaeological evidence into a single whole need to be expanded, or newly developed, to be able to cope with situations that go beyond explaining the spread of language families through non-linguistic expansive processes. What should we expect linguistically in a situation in which state-level societies, such as those of the North Coast south of the Sechura Desert, continuously interact with peoples in non-state level societies such as those of the Far North? Conversely, what picture should we expect from archaeology in the case of a linguistic situation where several linguistic isolates share a relatively confined geographical space, and at the same time bear clearly detectable traces of intensive language contact? Answers to these questions will require both the look at other areas than the North Coast of Peru with which it can be compared inductively; here and elsewhere, it will require the collaboration of archaeologists. The record from linguistics, and, so I suppose, also that from archaeology, is much richer than the expansion of empires and language families in geographical space, and they require richer theories regarding their interaction. I have sketched here only some possible lines of reasoning; the development of a more inclusive theoretical framework is a task for the future.

XII.

Conclusion and possible directions for further research

This book represents my attempt at a general discussion of the lost languages of the Peruvian North Coast, couched into a more inclusive historical perspective which is also informed by ethnohistory and archaeology.

The comprehensiveness of such a discussion, obviously, depends crucially on the types of sources available. In this regard, the situation differs between the languages once spoken on the Peruvian North Coast, and somewhat different approaches were chosen accordingly. For the Tallán and Sechura languages of the Far North, comparison with colonial documentation of other languages proved important from a methodological point of view to tackle the phonetics and phonology of the languages. Where possible, comparative reconstitution (Broadbent 1957; Constenla Umaña 2000) should be effectuated. But this is only possible if two or more independent word lists are available, which is not the case for Tallán, and only to a very limited extent for Sechura. Nevertheless, through a comparison of the transcriptions of Martínez Compañón's (1985 [1782-1790]) and Spruce's data, some otherwise hidden aspects of that language's phonetic structure could be recovered. To some extent, comparison with other colonial works can mitigate the impossibility of the application of comparative reconstitution when it comes to clarifying the sounds that occurred in the languages under investigation. The available documentation, despite its scarceness, has also allowed bringing to light some hitherto unnoted aspects of the grammatical structure of the languages. In many cases, this cannot go beyond the mere identification of possible grammatical affixes with unclear function. In others, however, one can go beyond this and suggest a function. The very paucity of the available material actually favours the formulation of consistent or near-consistent hypotheses regarding the structures of the languages. With more material available, such consistent hypothesis formulation quickly becomes difficult due to an increased number of counterexamples to each proposal. This could be seen at several points when bringing hypotheses based on Martínez Compañón's and Spruce's materials to test against regional vocabulary and the record of personal names and placenames. Such discrepancies could be due to several reasons: it is possible that a certain amount of regional vocabulary assigned to the individual languages does not actually derive from these languages (see the remarks on the difficulty of doing so in chapter iv). Alternatively, the very different nature of the data could be responsible: dedicated linguistic documentation which, though imperfect, attempts to represent the language as it was spoken by native speakers is a more direct source than are remnants embedded in the Spanish which succeeded the indigenous language and have possibly been altered on many levels. Perfect correlations or exceptionless patterns are, at any rate, not to be expected with the data at hand. Finally, discrepancies could mean that the original hypotheses are simply wrong, in which case working with different data sources provides an important system of checks and balances which helps to avoid spurious interpretations.

For the language with the sparsest dedicated documentation available, Quingnam, I have suggested that variation in the onomastic record may be used as an analogon of comparative reconstitution. On the morphological plane, segmentation of Quingnam personal names has only been hinted at in the present book, and it remains a work for the future to identify individual constituents of the names (see Salomon & Grosboll 1986 for methodological principles).

For all languages, the corpus of possible lexical survivors in regional vocabulary could be enhanced for further analyses, but bearing in mind the above comments, it is most vital to continue the search for dedicated colonial materials of the languages in local archives. As has become clear in the overviews on available sources for the individual languages, only a subset of the once existing material is actually located and known to Andeanists, and there may even be more extant documentation than mentioned in sources, as the finding of Quilter *et al.* (2010) shows. For Tallán, Sechura, and Quingnam, even the translation of a catechism would constitute, at the present state of knowledge of the languages, a quantum leap which would dramatically improve our understanding of the grammar of these languages. Though Mochica is much better known, additional colonial grammars or dictionaries would be an important help in interpreting the description by Carrera (1644) which often remains ambiguous.

Beyond linguistic structures themselves, I have also attempted to explore the former geographical extent of the languages of the North Coast, the nature of the relation between them, and their role in elucidating the prehistory of the North Coast. While in broad outlines the former extent of use of the individual languages and the location of the boundaries between them on the north-south axis is known, their inland extension as well as the northern limit of Tallán and the southern limit of Quingnam are still quite unclear. It may or may not turn out that what are called here 'languages of the North Coast' in fact were also in use in the southern parts of present-day Ecuador and parts of Peru's Central Coast. Unless further early Spanish documents come to light that help to clarify the situation, the only way the question could be resolved is toponymic analysis. Given the difficulties I encountered in my attempt to delimit linguistic boundaries by this means in the Far North manually, such analysis would ideally be carried out by advanced methods of spatial analysis.

More precise delimitations of the areas where the languages were once spoken is particularly important because linguistic geography can be compared with the socio-political geography of the North Coast through time. This has been done in the chapter on language in relation to North Coast prehistory, albeit with the deficits just mentioned. The discussion has brought to light a remarkable correlation between the Mochica-Quingnam boundary zone and a cultural watershed on the North Coast through time. At the same time, Mochica's former presence in the Upper Piura Valley mirrors the presence of cultures from the Northern North Coast. Temporally, standard

models of linguistic expansion explained through extra-linguistic processes cannot be applied to the isolates of the North Coast. Nevertheless, there are striking correlations in space between the linguistic picture and that from archaeology. I have suggested that, in time, these may be going back to the Early Intermediate Period, but the temporal dimension, as the causal one, require novel collaborative efforts between linguists and archaeologists.

The lexical similarities that have been noted allow learning something about the relations the speakers had in the past. In the absence of reconstructable language families whose expansion can be tracked through time, these shared vocabulary items are an important source of information from linguistics on the pre-Columbian past of the North Coast. Linguist Johanna Nichols (quoted in McConvell & Evans 1997: 13) has compared such borrowing events, in case the donor language can be identified, with the finding of archaeological artifacts which have the fingerprints of the previous owners still attached. Jolkesky's (2016) data for Mochica specifically merit a close look in the future, as they have the potential to provide important insights into the various relations peoples of the North Coast entertained. Some of the shared lexical items suggest connections that archaeology has not yet been able to reveal, but they nevertheless need to be interpreted and cross-validated with the help of archaeology. Generally speaking, I hope that this book has shown that it is not a futile enterprise to bring the linguistic evidence from the North Coast, despite its scarceness, to bear on questions of prehistory, especially as a contribution to an interdisciplinary dialogue which will hopefully intensify in the future.



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Appendix A

Annotated wordlists from Martinez Compañón for Colán, Catacaos, and Sechura

Where two forms are separated by a slash, the first represents my reading of the Madrid list, the second that of the Bogotá list. Question marks in parentheses indicate that the reading is particularly uncertain. In cases where I am fairly certain as to morphological segmentation, morphs are separated in the usual way with a hyphen. Where segmentation is less certain, the hyphen is put in parentheses.

The column to the right of the linguistic data is used for annotations of various kinds. Borrowings and shared vocabulary items are also identified as such in this column. For forms which are clearly borrowed into Tallán and/or Sechura, the source language is indicated in the standard way preceded by the sign "<" with the meaning "borrowed from". Shared vocabulary items where the direction of borrowing is unclear are marked with "< >". If there is some evidence for a direction of borrowing but that evidence is insufficient to be sure, the less likely direction is put into parentheses. Thus, "< (>) Atacameño" indicates that the item is shared with Atacameño and that there is evidence that it is more likely, but not sure, that the item was borrowed into Tallán from Atacameño rather than the other way around.

	Sechura		Colán		Catacaos	
,god,	<dioós></dioós>	< Spanish	<ti><ti><ti><ti><ti><ti><ti><ti><ti><ti></ti></ti></ti></ti></ti></ti></ti></ti></ti></ti>	< Spanish	<thios></thios>	< Spanish
,man	<su(-)cda <suc(-)cla=""></su(-)cda>		<yatá(-)dlam></yatá(-)dlam>		<aszat></aszat>	<> Cholón?
, woman	<cuctum></cuctum>		<pre><pir-n> / <pi-m></pi-m></pir-n></pre>		<pre><pi-chi(-)m></pi-chi(-)m></pre>	
,soul	<alma-cchi></alma-cchi>	< Spanish	<alma></alma>	< Spanish	<alma></alma>	< Spanish
'body'	<cuerpo-cchi></cuerpo-cchi>	< Spanish	<cuerpo></cuerpo>	< Spanish	<cuerpo></cuerpo>	< Spanish
'heart'	<chusiopun(-)ma> / <chusiopun(-)mo> (?)</chusiopun(-)mo></chusiopun(-)ma>		<ńessini-m>		<ńiesińi-chi(-)m>	
'meat' / 'flesh'	<colt></colt>	<> Mochica	<carne></carne>	< Spanish	<ccol></ccol>	<> Mochica
'bone'	<ru></ru>		<dladlapi(-)rám>/ <dladlape(-)rám></dladlape(-)rám></dladlapi(-)rám>		<lalape(-)chen></lalape(-)chen>	
'father'	<jàchi> / <jáchi></jáchi></jàchi>		<ma-m></ma-m>		<pre><pateri></pateri></pre>	< Spanish
'mother'	<ńińa>		<nūn>/ <nuń> (?)</nuń></nūn>		<ni-chi(-)m></ni-chi(-)m>	
ʻson'	<ńos-ńi>		<hicu-m></hicu-m>		<ycu-chi(-)m></ycu-chi(-)m>	
'daughter'	<ńos-ńi>		<hicu-m></hicu-m>		<ycu-chi(-)m capuc=""></ycu-chi(-)m>	
'brother'	<sican-ńi></sican-ńi>		<pre><pua-m̄></pua-m̄></pre>		<pre><pua-chi(-)m></pua-chi(-)m></pre>	
'sister'	 <bapue-ñi> / <bapuē-ni> (?)</bapuē-ni></bapue-ñi>		<pre><puru-m̄></puru-m̄></pre>		<pre><pur-chi(-)m></pur-chi(-)m></pre>	
'eat'	<nu></nu>		<aguá></aguá>		<agua-chi(-)m></agua-chi(-)m>	
'drink'	<tut-uc></tut-uc>		$\langle c\tilde{u}-m \rangle / \langle cu\tilde{m} \rangle$ (?)	diffused	<conecuc></conecuc>	
'laugh'	<pre><pre><pre>cbus-uc></pre></pre></pre>		<chañar></chañar>		<chañac></chañac>	
'cry'	<nic></nic>		<nār> / <ñār> (?)</nār>		<ńar-acñaquitutin>	
'die'	<lact-uc></lact-uc>	(<)> Mochica	<dlacati></dlacati>	(<)> Mochica	<lacatu></lacatu>	(<)> Mochica
'joy'	<otm-uc></otm-uc>		<chagasiń></chagasiń>		<80z0>	< Spanish
, pain	<pre> chun-uc></pre>		<masic></masic>	<> Chocó	<masic></masic>	<> Chocó
'death'	<lact-uc-no></lact-uc-no>	(<)> Mochica	<dlacati></dlacati>	(<)> Mochica	<ynatac-lacatu></ynatac-lacatu>	(<)> Mochica

'clary					Calacaos	
SW.	<cuchuc-yor></cuchuc-yor>		<cutűc-nap></cutűc-nap>		<cielo></cielo>	< Spanish
ʻsun'	<yò(-)ro></yò(-)ro>	<> Tsafiqui?	<turi-nap></turi-nap>		<nap></nap>	
'moon'	<fi><fi>cfiang(-)ru>/ <fianoru> (?)</fianoru></fi></fi>		<nag></nag>		<nam></nam>	
'stars'	<chùpchùp></chùpchùp>	<> Culli	<chupuchup></chupuchup>	<> Culli	<estrellas></estrellas>	< Spanish
'fire'	<mort< td=""><td></td><td><huỹur></huỹur></td><td><(>) Atacameño</td><td><guanararac></guanararac></td><td></td></mort<>		<huỹur></huỹur>	<(>) Atacameño	<guanararac></guanararac>	
'wind'	<fi><fi></fi></fi>		<cuiat ńap="">/ <cuiat ńag=""></cuiat></cuiat>		<vic><</vic>	
'bird'	<yaibab></yaibab>		<yaiau></yaiau>		<yeya></yeya>	
'earth'	<loct></loct>		<dlurum></dlurum>	diffused	<durant< td=""><td>diffused</td></durant<>	diffused
ʻanimal'	<animblà></animblà>	< Spanish	<animal></animal>	< Spanish	<animal></animal>	< Spanish
'tree'	<nussuchu></nussuchu>		<arbol></arbol>	< Spanish	<chigua(-)sam></chigua(-)sam>	
'trunk'	<fucù> / <pucù>(?)</pucù></fucù>		<túcu-rám <tùcu-ram=""> (?)</túcu-rám>		<tucci-càs></tucci-càs>	
'branch'	<ra><rama></rama></ra>	< Spanish	<yabi-ti(-)ram> / <yabmram> (?)</yabmram></yabi-ti(-)ram>		<yabi-que></yabi-que>	
'flower'	<flor-ac></flor-ac>	< Spanish	<flor></flor>	< Spanish	<alhnaca></alhnaca>	
'fruit'	<fratio></fratio>	< Spanish	<fra>fruto></fra>	< Spanish	<cosecha-m></cosecha-m>	< Spanish
, grass'	<un(-)ñiò-còl>/ <unĩuò-còl></unĩuò-còl></un(-)ñiò-còl>		<agua-col></agua-col>		<t(-)agua-col></t(-)agua-col>	
'water'	<tutù></tutù>		<yw̃p></yw̃p>		<yup></yup>	
'sea'	<re><ro></ro></re>		<amum></amum>		<amaun></amaun>	
ʻriver'	<tufut></tufut>		<yũp></yũp>		<turn-yup></turn-yup>	
,waves	<caph></caph>		<lam(-)as></lam(-)as>		<olas></olas>	< Spanish
ʻrain'	<pre><purir> / <putir> (?)</putir></purir></pre>	<> Atacameño	<nuĝ></nuĝ>		<guayaquinum> / <guaraquinum> (?)</guaraquinum></guayaquinum>	
'fish'	<jum></jum>				<ll><ll></ll></ll>	

Appendix B

A new transcription of Spruce's Sechura wordlist along with a comparison to the version published by von Buchwald and Jijón y Camaaño

The transcription offered here follows the original, which is reproduced as a facsimile in Urban (2015a), rather closely. The only modifications are that I do not reproduce underscores and Spruce's Mochica comparisons. Also, I have replaced initial capitals in the original by lower case letters.

Original English gloss (reading Urban)	Transcription (reading Urban)		Translated Spanish gloss (von Buchwald, Jijón y Camaaño)	Transcription (reading von Buchwald)	Transcription (reading Jijón y Camaaño)
'man'	<recla></recla>	alternative: <reda></reda>	'hombre'	<recla></recla>	<rekla></rekla>
'woman'	<cucatama></cucatama>		'mujer'	<cucutama?></cucutama?>	<kukutama></kukutama>
'son' or 'daughter'	<ñosma>		ʻhijo', ʻhija'	<ñosma>	<ñosma>
'dog'	<tono></tono>		'perro'	<tono></tono>	<tono></tono>
'hawk'	<kilkil></kilkil>		'corazón'	<kikil></kikil>	<kikil></kikil>
'serpent'	<kon'mpar></kon'mpar>		'culebra'	<konmpar></konmpar>	<kommpar></kommpar>
'lizard'	<ludac></ludac>	alternative: <luctac></luctac>	ʻlagartija'	<lutal></lutal>	<lutal></lutal>
'fish'	<xuma></xuma>		'pescado'	<xuma></xuma>	<xuma></xuma>
'head'	<teuma></teuma>		'cabeza'	<teuma></teuma>	<teuma></teuma>
'stomach'	<puesa></puesa>		'estómago'	<puesa></puesa>	<puesa></puesa>
'foot'	<lava></lava>		ʻpie'	<lava></lava>	<lava></lava>
'eye'	<uchi></uchi>		ʻojo'	<uchi></uchi>	<uchi></uchi>
'nose'	<chuna></chuna>		'nariz'	<chuna></chuna>	<chuna></chuna>
'mouth'	<collo></collo>		'boca'	<collo></collo>	<kollo></kollo>
'hearing'	<tapa></tapa>	alternative: <fapa></fapa>	'arenque'	<tapa></tapa>	<tapa></tapa>
'water'	<xoto></xoto>		ʻagua'	<xoto></xoto>	<xoto></xoto>
ʻlight'	<yura></yura>		'luz'	<yura></yura>	<yura></yura>
'maize'	<ll>ash></ll>		'maíz'	<lumash></lumash>	
'sweet potatoe'	<chapru></chapru>		'camote'	<chepru></chepru>	<chepru></chepru>
ʻplantain'					
'road'	<yuvirma></yuvirma>		'camino'	<yuverma></yuverma>	<yuvuma></yuvuma>
'be quiet'a	<neshi></neshi>		'quieto'	<neshi!></neshi!>	<neshi></neshi>

^a This originally was "being quiet", but the "ing" has been crossed out by Spruce.

Original English gloss (reading Urban)	Transcription (reading Urban)		Translated Spanish gloss (von Buchwald, Jijón y Camaaño)	Transcription (reading von Buchwald)	Transcription (reading Jijón y Camaaño)
'come along'	<uchan></uchan>	alternative: <uchau></uchau>	'vamos!'	<uchan></uchan>	<uchan></uchan>
'no'	<shushca></shushca>		'no'	<shushca></shushca>	<shushka></shushka>
'yes'	<yé></yé>		ʻsi'	<ya></ya>	<ya></ya>
'turkey', 'buzzard'	<roncho></roncho>		ʻgallinazo'	<rancho></rancho>	<rancho></rancho>
'beach'	<coyu roro=""></coyu>		ʻplaya'	<coya roro=""></coya>	<koya roro=""></koya>
'cotton'	<sono></sono>	alternative: <suno></suno>	ʻalgodón	<sono?></sono?>	<sono></sono>
'devil'	<ñash>		'diablo'	<nash></nash>	<nash></nash>
'good day'	<amatióo></amatióo>	presumably the dot of the <i>> was dis- placed to the right. Either of the final two letters might repre- sent as well <v> or <u></u></v></i>	'buenos días!'	<amative></amative>	<amative></amative>
'how are you'	<ubrun Cuma></ubrun 		'Cómo están Uds.?'		<abrunkuna?></abrunkuna?>
'face'	<re></re>		ʻcara' (von Buchwald), ʻcasa' (Jijón y Camaaño	<ré></ré>	<ré></ré>
'sea'	<taholma></taholma>		'mar'	<taholma></taholma>	<tahohna></tahohna>
'pot'	<pillacala></pillacala>		ʻolla'	<pillacala></pillacala>	<pillakala></pillakala>
'father in law'	<ratichma></ratichma>	alternative: <rutichma></rutichma>	'suegro'	<zatchma?></zatchma?>	<zatchma></zatchma>
'mother in law'	<naminma></naminma>	the <i> lacks its dot, and there is some- thing which may be an apostrophe above the left part of the second <m></m></i>	'suegra'	<naninma></naninma>	<naninma></naninma>
'where is your husband'	<xamanmi recla></xamanmi 		'donde está su esposo'	<xamanmi recla></xamanmi 	<xananmi rekla></xananmi
'here it is'	<cha></cha>		ʻaquí está'	<cha></cha>	<cha></cha>

Appendix C

Lexical items of possible North Coast origin in local Spanish

I. Tallán

eyumalan>'k.o. fish'Lecuanda (1861b [1793]: 209)ecumbilulo>'coral snake'Lecuanda (1861b [1793]: 197)specifically Catacaos?echurucutula>'k.o. fish'Lecuanda (1861b [1793]: 206)earunchas>'k.o. guan, penelope sp.'Lecuanda (1861b [1793]: 198)with Spanish plural -as?expihas>'k.o. guan, penelope sp.'Lecuanda (1861b [1793]: 198)with Spanish plural -as?expihas>'k.o. bee'Lecuanda (1861b [1793]: 203)specifically Catacaos?exhucarumbas>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?etachungas>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?enimbuchez>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?equáltico>'k.o. tree'Lecuanda (1861b [1793]: 204)with Spanish plural -as?equáltico>'k.o. tree'Lecuanda (1861b [1793]: 204)with Spanish plural -as?exioque>'k.o. tree'Lecuanda (1861b [1793]: 212-213)exioque>'k.o. tree'Lecuanda (1861b [1793]: 212-213)exioque>'k.o. tree'Lecuanda (1861b [1793]: 212-213)exioque>'k.o. reed, said to make hair grow at Catacaos'Ramos Cabredo (1950)specifically Catacaos?ecuncun>, cuncún>, cuncún>Ramos Cabredo (1950)specifically Catacaos?echarán> chapapoya>'k.o. bean'Ramos Cabredo (1950)specifically Catacaos?exioqo>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?exiope>'k.o. shrub which provides	Form	Gloss	Source	Comments
cchurucutula>'k.o. fish'Lecuanda (1861b [1793]: 206) <arunchas>'k.o. guan, penelope sp.'Lecuanda (1861b [1793]: 198)with Spanish plural -as?<pp>spihas>'k.o. guan, penelope sp.'Lecuanda (1861b [1793]: 198)with Spanish plural -as?<pre>czoña>'long-tailed mockingbird, Minus longicaudutus'Lecuanda (1861b [1793]: 203)specifically Catacaos?<pre>ctachungas>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?<pre>ctachungas>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?<nimbuchez>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?<pre>cquáltico>'k.o. tree'Lecuanda (1861b [1793]: 204)with Spanish plural -as?<tatalis>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<tatalis>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<tatalis>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<tatalis>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<tateroico>'k.o. tree'Ramos Cabredo (1950)specifically Catacaos?<cuncuin>, cuncún>'plant used against bubonic plague'Ramos Cabredo (1950)specifically Catacaos?<cuncuin>, cenarin>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<croto>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<acharán></acharán></croto></cuncuin></cuncuin></tateroico></tatalis></tatalis></tatalis></tatalis></pre></nimbuchez></pre></pre></pre></pp></arunchas>	<pumalan></pumalan>	'k.o. fish'	Lecuanda (1861b [1793]: 209)	
carunchas>'k.o. guan, penelope sp.'Lecuanda (1861b [1793]: 198)with Spanish plural -as?cpihas>'k.o. guan, penelope sp.'Lecuanda (1861b [1793]: 198)with Spanish plural -as?long-tailed mockingbird, Mimus longicaudutus'Lecuanda (1861b [1793]: 203)specifically Catacaos?ctachungas>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?ctachungas>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?ctachungas>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?ctailis>'k.o. tree'Lecuanda (1861b [1793]: 212-213)ctailis>'k.o. tree'Lecuanda (1861b [1793]: 212-213)csioque>'k.o. tree'Lecuanda (1861b [1793]: 212-213)carerico>'k.o. tree'Lecuanda (1861b [1793]: 212-213)carerico>'k.o. tree'Ramos Cabredo (1950)specifically Catacaos?ccuncun>, cuncún>'plant used against bubonic plague'Ramos Cabredo (1950)specifically Catacaos?ccuncún>'k.o. bean'Ramos Cabredo (1950)specifically Catacaos?cretoco>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?csiope>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?cacharán> charán>'k.o. shrub which provides seeds used in coloring'Ramos Cabredo (1950)specifically Catacaos?clunguapo>'trees or shrubs the wood of which is used for construction'Ramos Cabredo (1950)specifically Catacaos?cucuamba>'beetle'Ramos Cabredo (1950) <td><cumbilulo></cumbilulo></td> <td>'coral snake'</td> <td>Lecuanda (1861b [1793]: 197)</td> <td>specifically Catacaos?</td>	<cumbilulo></cumbilulo>	'coral snake'	Lecuanda (1861b [1793]: 197)	specifically Catacaos?
equilitico> k.o. tree' Lecuanda (1861b [1793]: 198) with Spanish plural -as? **chiucarumbas> k.o. bee' Lecuanda (1861b [1793]: 203) specifically Catacaos? **chucarumbas> k.o. bee' Lecuanda (1861b [1793]: 204) with Spanish plural -as? **ctachungas> k.o. bee' Lecuanda (1861b [1793]: 204) with Spanish plural -as? **ctachungas> k.o. bee' Lecuanda (1861b [1793]: 204) with Spanish plural -as? **ctachungas> k.o. bee' Lecuanda (1861b [1793]: 204) with Spanish plural -as? **ctachungas> k.o. tree' Lecuanda (1861b [1793]: 204) with Spanish plural -as? **ctachungas> k.o. tree' Lecuanda (1861b [1793]: 204) with Spanish plural -as? **ctachungas> k.o. tree' Lecuanda (1861b [1793]: 212-213) **ctailis> k.o. tree' Lecuanda (1861b [1793]: 212-213) **carerico> k.o. tree' Lecuanda (1861b [1793]: 212-213) **carerico> make hair grow at Catacaos' **cuncun>, 'plant used against bubonic plague' Ramos Cabredo (1950) specifically Catacaos? **cuncun>, 'k.o. bean' Ramos Cabredo (1950) specifically Catacaos? **cretoco> k.o. plant' Ramos Cabredo (1950) specifically Catacaos? **cretoco> k.o. plant' Ramos Cabredo (1950) specifically Catacaos? **cacharán> k.o. shrub which provides seeds used in coloring' trees or shrubs the wood of which is used for construction' trees or shrubs the wood of which is used for construction' trees or shrubs the wood of which is used for contruction' beetle' Ramos Cabredo (1950) specifically Catacaos? **cuncumba> beetle' Ramos Cabredo (1950) specifically Catacaos? **specifically Catacaos?** **specifical	<churucutula></churucutula>	'k.o. fish'	Lecuanda (1861b [1793]: 206)	
czofias penelope sp. Lecuanda (1861b [1793]: 196) with Spanish plural -as: long-tailed mockingbird, Mimus longicaudutus' Lecuanda (1861b [1793]: 203) specifically Catacaos? lecuanda (1861b [1793]: 204) with Spanish plural -as: lecuanda (1861b [1793]: 212-213) lecuanda (1861b [1793]: 204) with Spanish plural -as: with Spanish plural -as: lecuanda (1861b [1793]: 204) lecuanda (1861b [1793]:	<arunchas></arunchas>	penelope sp.'	Lecuanda (1861b [1793]: 198)	with Spanish plural -as?
<zofia>mockingbird, Mimus longicaudutus'Lecuanda (1861b [1793]: 203)specifically Catacaos?<chucarumbas>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?<tachungas>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?<nimbuchez>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?<quáltico>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<tachungas>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<sioque>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<arerico>'k.o. reed, said to make hair grow at Catacaos'Ramos Cabredo (1950)specifically Catacaos?<cuncun>, <cuncun>, ('plant used against bubonic plague'Ramos Cabredo (1950)specifically Catacaos?<chapapoya> <id>'k.o. bean'Ramos Cabredo (1950)specifically Catacaos?<retoco> <id>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<acharán> - <chapitanas< td="">'k.o. shrub which provides seeds used in coloring'Ramos Cabredo (1950)specifically Catacaos?<la><acharán> - <chapitanas< td="">'trees or shrubs the wood of which is used for construction'Ramos Cabredo (1950)specifically Catacaos?<achapitanas< p="">'trees or shrubs the wood of which is used for contruction'Ramos Cabredo (1950)specifically Catacaos?<achapitanas< td="">'trees or shrubs the wood of which is used for contruction'Ramos Cabredo (1950)specifically Catacaos?</achapitanas<></achapitanas<></chapitanas<></acharán></la></chapitanas<></acharán></id></retoco></id></chapapoya></cuncun></cuncun></arerico></sioque></tachungas></quáltico></nimbuchez></tachungas></chucarumbas></zofia>	<pihas></pihas>	penelope sp.'	Lecuanda (1861b [1793]: 198)	with Spanish plural -as?
<tachungas>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?<nimbuchez>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -as?<guáltico>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<tailis>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<sioque>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<arerico>'k.o. reed, said to make hair grow at Catacaos'Ramos Cabredo (1950)specifically Catacaos?<cuncun>, 'plant used against bubonic plague'Ramos Cabredo (1950); Ramos Cabredo (1950)specifically Catacaos?<chapapoya>'k.o. bean'Ramos Cabredo (1950)specifically Catacaos?<rectoco>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<siope>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<acharán> - charán> - charán></acharán></siope></rectoco></chapapoya></cuncun></arerico></sioque></tailis></guáltico></nimbuchez></tachungas>	<zoña></zoña>	mockingbird,	Lecuanda (1861b [1793]: 203)	specifically Catacaos?
<nimbuchez>'k.o. bee'Lecuanda (1861b [1793]: 204)with Spanish plural -es'<guáltico>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<tailis>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<sioque>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<sioque>'k.o. reed, said to make hair grow at Catacaos'Ramos Cabredo (1950)specifically Catacaos?<cuncun>, cuncún>'plant used against bubonic plague'Ramos Cabredo (1950); Ramos Cabredo (1950)specifically Catacaos?<chapapoya>'k.o. bean'Ramos Cabredo (1950)specifically Catacaos?<retcoc>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<siope>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<acharán> - charán> - charán>'k.o. shrub which provides seeds used in coloring'Ramos Cabredo (1950)specifically Catacaos?<la><la><acharán> - charán> - charán>'trees or shrubs the wood of which is used for construction'Ramos Cabredo (1950)specifically Catacaos?<acharán> - charán> - charán>'trees or shrubs the wood of which is used for contruction'Ramos Cabredo (1950)specifically Catacaos?<acharán> - charán> - charán>'trees or shrubs the wood of which is used for contruction'Ramos Cabredo (1950)specifically Catacaos?<acharán> - charán> - cha</acharán></acharán></acharán></acharán></la></la></acharán></siope></retcoc></chapapoya></cuncun></sioque></sioque></tailis></guáltico></nimbuchez>	<chucarumbas></chucarumbas>	'k.o. bee'	Lecuanda (1861b [1793]: 204)	with Spanish plural -as?
cquáltico> 'k.o. tree'	<tachungas></tachungas>	'k.o. bee'	Lecuanda (1861b [1793]: 204)	with Spanish plural -as?
equatiticosk.o. tree'212-213) <tailis>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<sioque>'k.o. tree'Lecuanda (1861b [1793]: 212-213)<arerico>'k.o. reed, said to make hair grow at Catacaos'Ramos Cabredo (1950)specifically Catacaos?<cuncun>, <cuncún>'plant used against bubonic plague'Ramos Cabredo (1950); Ramos Cabredo de Cox (1958)specifically Catacaos?<chapapoya>'k.o. bean'Ramos Cabredo (1950)specifically Catacaos?<retoco>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<siope>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<acharán></acharán></siope></retoco></chapapoya></cuncún></cuncun></arerico></sioque></tailis>	<nimbuchez></nimbuchez>	'k.o. bee'	Lecuanda (1861b [1793]: 204)	with Spanish plural -es?
 k.o. tree 212-213) k.o. tree' 212-213) k.o. tree' 212-213) k.o. reed, said to make hair grow at Catacaos' Plant used against bubonic plague' Ramos Cabredo (1950); Ramos Cabredo de Cox (1958) k.o. bean' Ramos Cabredo (1950) specifically Catacaos? k.o. plant' Ramos Cabredo (1950) specifically Catacaos? k.o. plant' Ramos Cabredo (1950) specifically Catacaos? k.o. plant' Ramos Cabredo (1950) specifically Catacaos? k.o. shrub which provides seeds used in coloring' k.o. shrub which provides seeds used in coloring' k.o. shrub the wood of which is used for construction' kamos Cabredo (1950) specifically Catacaos? 	<guáltico></guáltico>	'k.o. tree'		
 k.o. tree 212-213) k.o. reed, said to make hair grow at Catacaos' cuncun>, cuncún> 'plant used against bubonic plague' Ramos Cabredo (1950); Ramos Cabredo de Cox (1958) chapapoya> 'k.o. bean' Ramos Cabredo (1950) specifically Catacaos' retoco> 'k.o. plant' Ramos Cabredo (1950) specifically Catacaos' siope> 'k.o. plant' Ramos Cabredo (1950) specifically Catacaos' cacharán> - (k.o. shrub which provides seeds used in coloring' 'trees or shrubs the wood of which is used for construction' reamos Cabredo (1950) specifically Catacaos' Ramos Cabredo (1950) specifically Catacaos' 	<tailis></tailis>	'k.o. tree'	212-213)	
<arerico>make hair grow at Catacaos?Ramos Cabredo (1950)specifically Catacaos?<cuncun>, (cuncún>)'plant used against bubonic plague'Ramos Cabredo (1950); Ramos Cabredo de Cox (1958)specifically Catacaos?<chapapoya>'k.o. bean'Ramos Cabredo (1950)specifically Catacaos?<retoco>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<siope>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<acharán> - (charán> - (charán>)'k.o. shrub which provides seeds used in coloring'Ramos Cabredo (1950)specifically Catacaos?<luquapo>'trees or shrubs the wood of which is used for construction'Ramos Cabredo (1950)specifically Catacaos?<paltajiro>'trees or shrubs the wood of which is used for contruction'Ramos Cabredo (1950)specifically Catacaos?<cucamba>'beetle'Ramos Cabredo (1950)specifically Catacaos?</cucamba></paltajiro></luquapo></acharán></siope></retoco></chapapoya></cuncun></arerico>	<sioque></sioque>	'k.o. tree'		
<cuncún>bubonic plague'Ramos Cabredo de Cox (1958)specifically Catacaos?<chapapoya>'k.o. bean'Ramos Cabredo (1950)specifically Catacaos?<retoco>'k.o. plant'Ramos Cabredo (1950)specifically Catacaos?<siope>'k.o. shrub which provides seeds used in coloring'Ramos Cabredo (1950)specifically Catacaos?<lackarán>'trees or shrubs the wood of which is used for construction'Ramos Cabredo (1950)specifically Catacaos?<paltajiro>'trees or shrubs the wood of which is used for contruction'Ramos Cabredo (1950)specifically Catacaos?<paltajiro>'trees or shrubs the wood of which is used for contruction'Ramos Cabredo (1950)specifically Catacaos?<cucamba>'beetle'Ramos Cabredo (1950)specifically Catacaos?</cucamba></paltajiro></paltajiro></lackarán></siope></retoco></chapapoya></cuncún>	<arerico></arerico>	make hair grow at	Ramos Cabredo (1950)	specifically Catacaos?
<retoco> 'k.o. plant' Ramos Cabredo (1950) specifically Catacaos? <siope> 'k.o. plant' Ramos Cabredo (1950) specifically Catacaos? <acharán></acharán></siope></retoco>				specifically Catacaos?
<siope> 'k.o. plant' Ramos Cabredo (1950) specifically Catacaos? <acharán></acharán></siope>	<chapapoya></chapapoya>	'k.o. bean'	Ramos Cabredo (1950)	specifically Catacaos?
<acharán> - (charán> (coloring) (coloring</acharán>	<retoco></retoco>	'k.o. plant'	Ramos Cabredo (1950)	specifically Catacaos?
<pre>claran></pre>	<siope></siope>	'k.o. plant'	Ramos Cabredo (1950)	specifically Catacaos?
 <lunguapo> wood of which is used for construction'</lunguapo>		provides seeds used in	Ramos Cabredo (1950)	specifically Catacaos?
<paltajiro> wood of which is used for contruction' Ramos Cabredo (1950) specifically Catacaos? <cucamba> 'beetle' Ramos Cabredo (1950) specifically Catacaos?</cucamba></paltajiro>	<lunguapo></lunguapo>	wood of which is used	Ramos Cabredo (1950)	specifically Catacaos?
· · · · · · · · · · · · · · · · · · ·	<paltajiro></paltajiro>	wood of which is used	Ramos Cabredo (1950)	specifically Catacaos?
<guanchaco> 'k.o. marsupial' Ramos Cabredo (1950) specifically Catacaos?</guanchaco>	<cucamba></cucamba>	'beetle'	Ramos Cabredo (1950)	specifically Catacaos?
	<guanchaco></guanchaco>	'k.o. marsupial'	Ramos Cabredo (1950)	specifically Catacaos?

Form	Gloss	Source	Comments
<titiguay></titiguay>	'wasp's nest'	Ramos Cabredo (1950)	
<ajango></ajango>	'netting to hang objects'	Ramos Cabredo (1950)	specifically Catacaos?
<collona></collona>	'roof of hut against rain, only partially covers the building'	Ramos Cabredo (1950)	specifically Catacaos? Last syllable reminiscent of Quechua instrument nominalizer - <i>na</i>
<shishuna></shishuna>	'hand-made tablecloth, white with narrow coloured hem'	Ramos Cabredo (1950)	specifically Catacaos? Last syllable reminiscent of Quechua instrument nominalizer - <i>na</i>
<copus></copus>	'traditional dish'	Ramos Cabredo (1950)	
<soroco></soroco>	"camotes en torrejas guardadas después de secarse al sol"	Ramos Cabredo (1950)	
<taca></taca>	ʻchicha grounds'	Ramos Cabredo (1950)	
<copé></copé>	'petroleum'	Ramos Cabredo (1950)	
<envachu></envachu>	'being in company of women'	Ramos Cabredo (1950)	
<guango></guango>	'flake'	Ramos Cabredo (1950)	
<guayanche></guayanche>	'rump of birds'	Ramos Cabredo (1950)	
<huachina></huachina>	'cord hanging from a beam, forming a trap to catch go-getters'	Ramos Cabredo (1950)	
<huapala></huapala>	ʻagricultural implement'	Ramos Cabredo (1950)	Quechua?
<huashuar></huashuar>	'seek refuge in a cave or hole dug in the slope of paths for protection from rain or wind'	Ramos Cabredo (1950)	
<jacar></jacar>	'contract disease or spell from touching objects belonging to witchers'	Ramos Cabredo (1950)	
<marcabel></marcabel>	'sojourner or commissionee, used in "Satacaos" [sic!]'	Ramos Cabredo (1950)	
<ñijes>	'persons with cleft lips'	Ramos Cabredo (1950)	
<picho></picho>	'lively child'	Ramos Cabredo (1950)	
<rungo></rungo>	'uncultivated person'	Ramos Cabredo (1950)	

Form	Gloss	Source	Comments
<shulines></shulines>	"gilgueritos"	Ramos Cabredo (1950)	with Spanish plural -es?
<tupature></tupature>	'stone (k.o.?)'	Ramos Cabredo (1950)	
<tuguyero></tuguyero>	'stone (k.o.?)'	Ramos Cabredo (1950)	
<zanora></zanora>	'small mudslide, heavy whitewater caused by strong torrential downpours'	Ramos Cabredo (1950)	

II. Sechura

Form	Gloss	Source	Comments
<chajear></chajear>	'for waves and balsa to move in same direction'	Huertas Vallejos (1999: 264-280)	probably with Spanish infinitive -(e)ar
<cadupar></cadupar>	'get stuck'	Huertas Vallejos (1999: 264-280)	probably with Spanish infinitive -ar
 dirbur>	'whirlwind'	Huertas Vallejos (1999: 264-280)	probably with Spanish infinitive -ar
<añustar></añustar>	'tie two or more strings together'	Huertas Vallejos (1999: 264-280)	probably with Spanish infinitive -ar
<chusgar></chusgar>	'navigate a single pole close to the shore, done by children to lose fear of the sea'	Huertas Vallejos (1999: 264-280)	probably with Spanish infinitive -ar
<chapirar></chapirar>	'advance with balsa, breaking the wave'	Huertas Vallejos (1999: 264-280)	probably with Spanish infinitive -ar
<ñolofe> ~ <ñuilofe>	'k.o. fish'	Huertas Vallejos (1999: 264-280)	
<mucus></mucus>	'pot to cook mote'	Huertas Vallejos (1999: 222)	
<mocus></mocus>	'k.o. vessel'	Huertas Vallejos (1999: 17)	
<tipira></tipira>	'small pot to make chicha'	Huertas Vallejos (1999: 264-280)	
<yantel></yantel>	'lintel'	Huertas Vallejos (1999: 264-280)	
<janco></janco>	'niche in the wall to put saints' figurines'	Huertas Vallejos (1999: 264-280)	
<chalique></chalique>	'thin <i>algarrobo</i> roots, used for thatching and other purposes in the absence of other materials for the same purpose'	Huertas Vallejos (1999: 264-280)	

Form	Gloss	Source	Comments
<umaz></umaz>	'k.o. big calabash with handle'	Huertas Vallejos (1999: 264-280)	
<toatín></toatín>	'k.o. plant used as fodder for livestock'	Huertas Vallejos (1999: 61)	
<chirri></chirri>	'k.o. fish'	Huertas Vallejos (1999: 65	
<piduche></piduche>	'k.o. fish'	Huertas Vallejos (1999: 65)	
<chápalo, chapalo></chápalo, 	'k.o. fish'	Huertas Vallejos (1999: 264-280)	
<chuchal></chuchal>	'shell mound'	Huertas Vallejos (1999: 264-280)	
<cuco></cuco>	'big calabash used to keep utensils of fiber craft'	Huertas Vallejos (1999: 264-280)	
<mulo></mulo>	'k.o. clay vessel to ferment chicha'	Huertas Vallejos (1999: 264-280)	
<guara></guara>	'broad oar'	Huertas Vallejos (1999: 166)	
<embergo></embergo>	'mast of balsas'	Huertas Vallejos (1999: 264-280)	
<gricero></gricero>	'hole of pulley'	Huertas Vallejos (1999: 264-280)	
<talingo></talingo>	'rope to tie an algarrobo pole to a stone, which together form the anchor of a balsa'	Huertas Vallejos (1999: 264-280)	
<cantuta></cantuta>	'balsa with sail'	Huertas Vallejos (1999: 264-280)	
<sayo></sayo>	'sound made by paddle touching upon rocks in the sea, transmitted by the wood to the ear of the fishermen put against the other end'	Huertas Vallejos (1999: 264-280)	
<macora></macora>	'floodgate of	Huertas Vallejos (1999: 186,	
~ <mocora></mocora>	irrigation ditch'	196, 274	
<chulaos></chulaos>	'fishermen living on the edge of the village'	Huertas Vallejos (1999: 264-280)	with Spanish plural -os?
<cabipore> ~</cabipore>	'necklace made from seeds found in prehispanic grave or sea shells'	Huertas Vallejos (1999: 218, 266)	
 biqui>	'strong cough with headache'	Huertas Vallejos (1999: 264-280)	
<bol> <bol> <br <="" td=""/><td>'k.o. snail'</td><td>Huertas Vallejos (1999: 264-280)</td><td></td></bol></bol>	'k.o. snail'	Huertas Vallejos (1999: 264-280)	

Form	Gloss	Source	Comments
<cagaló></cagaló>	'very tasty seafish, also called cabrillón'	Huertas Vallejos (1999: 264-280)	
<calolo></calolo>	'toad'	Huertas Vallejos (1999: 264-280)	
<chapiño></chapiño>	'instrument for weaving'	Huertas Vallejos (1999: 264-280)	
<charroncillo></charroncillo>	'k.o. reed'	Huertas Vallejos (1999: 264-280)	with Spanish diminutive -cillo
<checo></checo>	'plant the fruit of which is used to wash hair'	Huertas Vallejos (1999: 264-280)	
<chinchilito></chinchilito>	'small calabashes which are threaded on a hemp string and used as bracelets and adornments for children'	Huertas Vallejos (1999: 264-280)	with Spanish diminutive -ito. Otherwise Quechua?
<chinguió></chinguió>	'apparatus similar to a basket, used to pull certain small seashells from the sand'	Huertas Vallejos (1999: 264-280)	
<cirindana></cirindana>	'small bird resembling a hummingbird, hovers over waves of the sea'	Huertas Vallejos (1999: 264-280)	
<cocho></cocho>	'female genital'	Huertas Vallejos (1999: 264-280)	
<crespió></crespió>	'vine used as cattle fodder'	Huertas Vallejos (1999: 264-280)	
<incaló></incaló>	'sweet'	Huertas Vallejos (1999: 264-280)	
<karate></karate>	'k.o. ray'	Huertas Vallejos (1999: 264-280)	
<leucito></leucito>	'seagull'	Huertas Vallejos (1999: 264-280)	with Spanish diminutive -ito
<marara></marara>	ʻrain, garúa fogʻ	Huertas Vallejos (1999: 264-280)	
<manga></manga>	'shoal'	Huertas Vallejos (1999: 264-280)	
<mayatre></mayatre>	'section of woven cloth'	Huertas Vallejos (1999: 264-280)	
<merluza></merluza>	'powder put on art made from plaster to add softness'	Huertas Vallejos (1999: 264-280)	
	'women's pubis'	Huertas Vallejos (1999: 264-280)	with Spanish derivational suffix
<mochura></mochura>	womens publis		-ura?

Form	Gloss	Source	Comments
<morzal></morzal>	'fruit of the caper bush'	Huertas Vallejos (1999: 264-280)	with Spanish derivational suffix -al?
<ńata>	'k.o .ray'	Huertas Vallejos (1999: 264-280)	
<notol></notol>	'big black fly which drills quickly through balsa wood, leaving big tunnels and making it unusable'	Huertas Vallejos (1999: 264-280)	
<orsa orsa=""></orsa>	'pull sail in the direction of the wind'	Huertas Vallejos (1999: 264-280)	
<palas></palas>	'k.o. shell'	Huertas Vallejos (1999: 264-280)	with Spanish plural -as
<pasalla></pasalla>	'rope made from tree bark, used to construct roofs and to tie the logs of a raft together'	Huertas Vallejos (1999: 264-280)	
<pencas></pencas>	'block of salt'	Huertas Vallejos (1999: 264-280)	with Spanish plural -as
<putela></putela>	'k.o. ray'	Huertas Vallejos (1999: 264-280)	
<ribuque></ribuque>	'crossing of vertical and horizontal threads'	Huertas Vallejos (1999: 264-280)	
<sañate></sañate>	'boiled juice of the <i>algarrobo</i> fruit'	Huertas Vallejos (1999: 264-280)	
<sarragua></sarragua>	'women's dance'	Huertas Vallejos (1999: 264-280)	
<tamila></tamila>	'net for fishing close to the shore or in irrigation ditches'	Huertas Vallejos (1999: 264-280)	
<tomasín></tomasín>	'plant used as fodder'	Huertas Vallejos (1999: 264-280)	
<tongo></tongo>	'swimbladder'	Huertas Vallejos (1999: 264-280)	
<tuya></tuya>	'k.o. fish related to the manta'	Huertas Vallejos (1999: 264-280)	
<yabago></yabago>	'k.o. ray'	Huertas Vallejos (1999: 264-280)	
<yepe></yepe>	'thin, bent'	Huertas Vallejos (1999: 264-280)	
<yibur></yibur>	'support used in the construction of quincha walls'	Huertas Vallejos (1999: 264-280)	
<humax></humax>	'k.o. vessel'	Huertas Vallejos (1999: 209)	

III. Quingnam

Form	Gloss	Source	Comments
<ch(-)ari></ch(-)ari>	' 1'	Quilter et al. (2010: 362)	see chapter VII for justification of the segmentation
<m(-)ari-an></m(-)ari-an>	'2'	Quilter et al. (2010: 362)	see chapter VII for justification of the segmentation
<ap(-)ar></ap(-)ar>	'3'	Quilter et al. (2010: 362)	see chapter VII for justification of the segmentation
<tau></tau>	' 4'	Quilter et al. (2010: 362)	< Quechua <i>tawa</i>
<himic> [?]</himic>	' 5'	Quilter et al. (2010: 362)	
<sut></sut>	<i>'6'</i>	Quilter et al. (2010: 362)	< Quechua suqta
<canchen></canchen>	' 7'	Quilter et al. (2010: 362)	< Quechua <i>qanchis</i>
<mata></mata>	'8'	Quilter et al. (2010: 362)	
<yuc-an></yuc-an>	·9·	Quilter et al. (2010: 362)	see chapter VII for justification of the segmentation
<ber>bencor></ber>	'10'	Quilter et al. (2010: 362)	
<maribencor chari tayac></maribencor 	'21'	Quilter et al. (2010: 362)	
<apar bencor=""></apar>	'30'	Quilter et al. (2010: 362)	
<chari pachac=""></chari>	'100'	Quilter et al. (2010: 362)	
<mari pachac=""></mari>	'200'	Quilter et al. (2010: 362)	
<chimo></chimo>	'powerful'	Feijoo (1763: 3)	
<pacatnamu></pacatnamu>	'common father', 'father of all'	Calancha (1638: 546)	
<vini></vini>	'God'	Calancha (1638: 368)	perhaps rather 'huaca'?
<patà></patà>	name of a constel- lation	Calancha (1638: 553)	
<munaos></munaos>	'ancestor mummies'	Arriaga (1621: 14)	Salas Garciá (2008a: 215-220; 2012: 123-129) argues for a Moch- ica etymology
<morpis></morpis>	'punishing gods'	Arriaga (1621: 24)	
<yale></yale>	'kind of strong chicha offered to the huacas'	Arriaga (1621: 44)	
<ñaca>	'hair cut off to offer to the huacas'	Arriaga (1621: 34)	

Form	Gloss	Source	Comments
<pre><guaxme>, <guachemin[es]>, <uachime></uachime></guachemin[es]></guaxme></pre>	'fishermen'	Santo Tomás (1560b: 85), Anonymous (1865 [~1560]: 22), Guaman Poma (1615/1616: 1083)	
<pez></pez>	'reed plantation', 'reed plant' (?)	Mogrovejo (2006 [1593-1605]: 37)	
<saucha></saucha>	'reed plantation', 'reed plant' (?)	Mogrovejo (2006 [1593-1605]: 37)	
<machira></machira>	'swordfish'	Lecuanda (1861a [1793]: 147)	
<chita></chita>	'kind of edible fish'	Lecuanda (1861a [1793]: 143)	
<sinamon></sinamon>	'cypress'	Lecuanda (1861a [1793]: 151)	
<taparte></taparte>	'kind of shrub'	Lecuanda (1861a [1793]: 153)	
<maran></maran>	'kind of cactus'	Lecuanda (1861a [1793]: 152)	Prob. <i>opuntia</i> sp.; quite possibly shared with Pacaraos Quechua
<pilcái></pilcái>	'cochineal'	Lecuanda (1861a [1793]: 152)	
<choloque></choloque>	"[t]ree which has a fruit encased in a green-yellow shell"	Gillin (1945: 22)	shared with Culli (Willem Adelaar, personal commu- nication)
<taya></taya>	'net rope'	Gillin (1945: 33)	perhaps < Span. tralla (Hammel and Haase 1962: 214)
 biquín>	'kind of crab'	Gillin (1945: 36)	
<quirana></quirana>	"binding with which the reeds composing a roll or bundle is bound in the reed raft used for fishing in Huanchaco"	Gillin (1945: 164)	
<chuńo></chuńo>	"sprouted maize kernels"	Gillin (1945: 163)	
<zavarriala></zavarriala>	'kind of plant used in folk medicine'	Gillin (1945: 95)	perhaps of Spanish origin
<toro></toro>	'kind of plant used in folk medicine'	Gillin (1945: 124)	·
<hunguay></hunguay>	'kind of plant used in folk medicine'	Gillin (1945: 124)	
<simora></simora>	'kind of plant used in folk medicine'	Gillin (1945: 124)	
<huaringa></huaringa>	'kind of plant used in folk medicine'	Gillin (1945: 125)	
<hórgamo></hórgamo>	'kind of plant used in folk medicine'	Gillin (1945: 129)	perhaps of Spanish origin

Form	Gloss	Source	Comments
<chocho></chocho>	'kind of plant used in folk medicine'	Gillin (1945: 140)	
<corpusuay></corpusuay>	'kind of plant used in folk medicine'	Gillin (1945: 140)	perhaps of Spanish origin
<maichill></maichill>	'kind of plant used in folk medicine'	Gillin (1945: 141)	
<cahuan>, <cahuán></cahuán></cahuan>	'net to fish in river or lagoon', "dip net for catching shrimp, crabs, etc."	Zevallos Quiñones (1975), Gillin (1945: 163)	
<caban></caban>	'bag-shaped net to catch crustaceans'	Zevallos Quiñones (1975),	probably identical to above
<carrahuay></carrahuay>	'small crustacean'	Zevallos Quiñones (1975)	
<huacala></huacala>	'kind of seafish'	Zevallos Quiñones (1975)	
<huabina></huabina>	'freshwater fish'	Zevallos Quiñones (1975)	
<huiri huiri=""></huiri>	'kind of ray'	Zevallos Quiñones (1975)	
<chomuña></chomuña>	ʻold'	Zevallos Quiñones (1975)	Virú
<llalla></llalla>	'perhaps kind of yarn used to weave sacks'	Zevallos Quiñones (1975)	
<chollenque></chollenque>	ʻlean, shabby'	Zevallos Quiñones (1975)	
<maimenec></maimenec>	'Shut up!'	Zevallos Quiñones (1975)	
<chanque></chanque>	'Chilean abalone'	Zevallos Quiñones (1975)	
<pacan></pacan>	'ghost crab'	Zevallos Quiñones (1975)	
<budu></budu>	'kind of pidgeon'	Zevallos Quiñones (1975)	
<coycoy></coycoy>	'liqueur'	Zevallos Quiñones (1975)	
<churuco></churuco>	'hidden and lost treasure'	Zevallos Quiñones (1975)	
<chapis></chapis>	'buttocks'	Zevallos Quiñones (1975)	
<pus></pus>	'branch of the <i>espino</i> bush'	Zevallos Quiñones (1975)	
<chepon></chepon>	'gluttonous person'	Zevallos Quiñones (1975)	
<chipipe></chipipe>	'something almost unusable'	Zevallos Quiñones (1975)	
<chonte></chonte>	'mechanical blow between stones or seeds'	Zevallos Quiñones (1975)	
<chuchir></chuchir>	ʻboil seafood or squid'	Zevallos Quiñones (1975)	
<omo></omo>	'acerbic taste'	Zevallos Quiñones (1975)	
<chancullay></chancullay>	'small freshwater fish living on the ground'	Zevallos Quiñones (1975)	

Form	Gloss	Source	Comments
<capusa></capusa>	ʻ "molting" muy muy, used as bait'	Zevallos Quiñones (1975)	
<cayachipe></cayachipe>	'marine animal'	Zevallos Quiñones (1975)	
<cholleca></cholleca>	'beach crab'	Zevallos Quiñones (1975)	
<ansumo></ansumo>	'sea otter'	Zevallos Quiñones (1975)	
 bracay>	'k.o. feline'	Zevallos Quiñones (1975)	
<pinuquil></pinuquil>	'small heap of sand, common in the dunes'	Zevallos Quiñones (1975)	
<misho></misho>	'k.o. thin fish'	Zevallos Quiñones (1975)	
<monengue></monengue>	'freshwater fish, living on ground'	Zevallos Quiñones (1975)	
<meñoca></meñoca>	'beach crab, places its eggs deep into the sand'	Zevallos Quiñones (1975)	
<puquion></puquion>	'very small crab'	Zevallos Quiñones (1975)	
<miňuňio></miňuňio>	'beach flea'	Zevallos Quiñones (1975)	
 dinchin>	'k.o. songbird; seeing or hearing it is con- sidered a bad omen'	Zevallos Quiñones (1975)	
 bircoya>	'k.o. bird whose singing is considered a sign for death or pestilence'	Zevallos Quiñones (1975)	
<cochipe></cochipe>	'nocturnal bird of prey'	Zevallos Quiñones (1975)	
<cocho></cocho>	'pelican'	Zevallos Quiñones (1975)	
<chirro></chirro>	'sea and land bird, of various sizes'	Zevallos Quiñones (1975)	
<sarupico></sarupico>	'sea and land bird, of various sizes'	Zevallos Quiñones (1975)	
<chuita></chuita>	ʻguano-producing bird with yellow beak and feet'	Zevallos Quiñones (1975)	
<chimbil></chimbil>	'cactus fruit, has to ripe in silence according to legend to obtain pleasant taste'	Zevallos Quiñones (1975)	
<chuyano></chuyano>	ʻguano-producing bird, also called piquero'	Zevallos Quiñones (1975)	

Form	Gloss	Source	Comments
<paucay></paucay>	'shrub found on dry land, used to dye nets and ponchos'	Zevallos Quiñones (1975)	
<puc></puc>	'very small black songbird'	Zevallos Quiñones (1975)	
<chipa></chipa>	'plant found in lagoons and pools, used to make mats'	Zevallos Quińones (1975)	
<mandaco></mandaco>	'thorny creeping bush'	Zevallos Quiñones (1975)	
<pichucho></pichucho>	'fragrant shrub from whose fruit a coloured liquid is extracted'	Zevallos Quiñones (1975)	
<araso></araso>	'very strong cross- wind on open sea, dangerous for balsillas'	Rodríguez Suy Suy (1997: 89)	
<ler></ler>	'ray without sting but with spine on the back'	Rodríguez Suy Suy (1997: 89)	
<luya></luya>	'ray with short tail'	Rodríguez Suy Suy (1997: 89)	
<masquerito></masquerito>	'small calabash with neck, can hold one or two bottles of liq- uid: tea or herbal tea which the fisherman takes with him when leaving for fishing'	Rodríguez Suy Suy (1997: 90)	obviously with Spanish diminu- tive <i>-ito</i>
<ogalón></ogalón>	'when processed fish meat gets a jellyish consistence and smells strongly'	Rodríguez Suy Suy (1997: 90)	with Spanish augmentative -ón?
<pasayas></pasayas>	'fibres used to tie together parts of watercraft'	Rodríguez Suy Suy (1997: 90)	with Spanish plural -as?
<tasca></tasca>	'strong wave capable of turning around a balsa or balsilla'	Rodríguez Suy Suy (1997: 90)	
<toroco></toroco>	'dry sweet potato'	Rodríguez Suy Suy (1997: 90)	
<potossis></potossis>	'thin and transparent white clouds which appear in the Milky Way, seen in cloudless nights without moon, announce abundance of fish'	Rodríguez Suy Suy (1997: 90)	

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'k.o. chicha'	Castañeda Murga (1991)	
	Custameda marga (1771)	Virú
'k.o. chicha'	Castañeda Murga (1991)	Virú
'k.o. textile used to store maize in holes in the sand for pres- ervation and later to sieve it'	Castañeda Murga (1991)	Virú
'k.o. calabash'	Castañeda Murga (1991)	Virú
'k.o. plant used in folk medicine'	Castañeda Murga (1991)	Virú
'k.o. tree'	Castañeda Murga (1991)	Virú
'flour'	Castañeda Murga (1991)	Virú
'k.o. animal used in folk medicine'	Castañeda Murga (1991)	Virú
'k.o. bird used in folk medicine'	Castañeda Murga (1991)	Virú
	'k.o. textile used to store maize in holes in the sand for preservation and later to sieve it' 'k.o. calabash' 'k.o. plant used in folk medicine' 'k.o. tree' 'flour' 'k.o. animal used in folk medicine' 'k.o. bird used in	'k.o. textile used to store maize in holes in the sand for preservation and later to sieve it' 'k.o. calabash' 'k.o. plant used in folk medicine' 'k.o. tree' Castañeda Murga (1991) Castañeda Murga (1991) 'flour' Castañeda Murga (1991) 'k.o. animal used in folk medicine' Castañeda Murga (1991) Castañeda Murga (1991) Castañeda Murga (1991) Castañeda Murga (1991)

Appendix D

Personal Names of the Far North

Wherever clear, I have removed personal names of Spanish origin from the lists, although I can neither exclude that I have successfully identified all of them nor that I did not accidentally identify an indigenous name as Spanish by mistake. The lists have not been scanned systematically to identify cases of last names that are indigenous but have etymologies through languages other than Tallán or Sechura, e.g. Quechua. Therefore, the lists are best thought of as lists of indigenous names rather than specifically names of Tallán or Sechura origin.

It was not always easy to assign the names to localities. For instance, Sechura is multiply polysemous, referring most narrowly to the settlement of Sechura itself (several times refounded), the broader administrative unit comprising the parcialidades of Sechura and Muñuela, and then, in modern times, the Sechura province and, within it, the Sechura district. Errors in the assignment of individual names because of this multiplicity are also possible.

Generally, names are quoted only from one source even though some appear in more than one. Where this is the case, preference has been given to that source which allows to pin down the precise origin and/or present location of the person bearing the name.

The data for the Sechura area mainly have colonial sources, in particular protocols of inspections to the area in 1572 and 1592. They report the inhabitants according to parcialidades; this system has been retained in the present rendering of the data. Data from other sources were added where possible (names for which no specific parcialidad was implicated are given in a separate section). There are some spelling differences between the names as they appear in the tables in Huertas Vallejos (1995: 135-136) and the text of the inspection protocol itself in Huertas Vallejos (1995: 265-269). Where spelling differs, I present first the name in the form as it appears in the tables and then, separated by a slash, as they appear in the text of the inspection protocol.

The data for the Tallán area mainly come from Ramos Cabredo de Cox's (1950, 1958) compilation. Although Ramos Cabredo de Cox (1950) specifies for each name where it occurs, it is not always clear whether Ramos's statements apply to the level of district or province in the cases where they are autohyponymous as e.g. Sechura is. Here, I provide the data ordered according to provinces and districts, and with supplementary data where available. For the specific case of Catacaos, I have merged Ramos Cabredo de Cox's information with the considerable number of names attested in further colonial sources from the erstwhile *reducción* at Catacaos. Hence, the present compilation merges names of diverse sources and from diverse times. This way to proceed, along with the several layers of administrative restructuring and resettlement the region has experienced (see chapter II) is something which must be borne in mind in their evaluation.

The following abbreviations are used for the consulted sources:

B Brüning (1929)

DH Diez Hurtado (1988)

LC 1622 testament of Luis de Colán in Rostworowski de Diez Canseco (1989)

FV Fernández Villegas (1990)

CP 1693 testament of Sebastián de Colán y Pariñas in Lequernaqué (2007)

HV5 assorted names appearing in Huertas Vallejos (1995)
 HV9 assorted names appearing in Huertas Vallejos (1999)

RC Ramos Cabredo de Cox (1950: 21-25) RCC Ramos Cabredo de Cox (1958: 24-25)

RD Rostworowski de Diez Canseco (1961: 25-42)

VL 1572 *visita* of Bernardino de Loayza in Huertas Vallejos (1995: 133-134; 259-264) Note: there are some differences in spelling between the names as they appear in the tables in Huertas Vallejos (1995: 133-134) from the reproduction of the text of the *visita* in Huertas Vallejos (1995: 259-264). The versions from the latter follow the former after a slash.

VA 1592 anonymous *visita* in Huertas Vallejos (1995: 135-136; 265-269).

I. Personal names of the former Tallán-speaking area Paita Province

Colán district

Chig (RC), Chuica (RC), Chuna (RC), Itache (RC), Latacina (Rostworowski de Diez Canseco 1999: 296), Lisama (RC), Machare (RC), Machay (LC), Mangualú (RC), Nismo (RC), Nores (RC), Palazalede (Rostworowski de Diez Canseco 1989: 198), Puchulán (RC), Quineche (RC), Velcuari (RC), Yaquelupú (RC), Yequerlupú (RC).

Amotape district

Canva (RC), Carnaqué (RC), Copis (RC), Cutivalú (RC).

Paita district

Colán (RC), Pinday (RC).

Unspecified/not clearly assignable

Achitiga (possibly contrived, HV5 226), Chanapixana - Pixana (LC), Lacachacuyobra (RD 32), Latacina (RD 32), Macazcachire (DH 33), Melchora (CP 155), Miguaçucatil (LC), Palazalede (DH 33), Payanmipa (LC), Piaulupu (LC), Puchulan (LC), Puycatil (LC), RRonco (LC), Savalu (LC), Tallicha (from Zaruma, LC), Yquixulca (LC), Yunchere (DH 33).

Personal names of Catacaos District / old reducción of Catacaos

Adanaqué (RCC), Ancajima (RCC), Ayalaqué (RCC, hybrid Spanish-Catacaos according to RCC), Belupú (RCC), Canapai (from Narihualá, CP 155), Canapaynina (from Narihualá, RD 25), Capatero (from Mecache, RD 31), Cordalupú (RCC), Coveñas (RC), Culupú (RCC), Cutivalu (possibly contrived, HV 226), Chanduvi (RC), Changanaqué (RCC), Changanaqui (RCC, also in Lambayeque according to RC), Chapilliquén (RCC), Chapilliqués (RCC), Chira (RC), Eduptangar (from Narihualá, RD 28), Chiroque (RC), Guaylupo (RC), Huiman (RC), Icanaqué (RCC), Ipanaqué (RCC), Junco (FV), Lachira (FV), Lalupú (RCC), Lancherre (RCC), Lanches (RCC), Lecarnaqué (RCC), Lequernaqué (RCC), Lisama (RCC), Lupuche (RCC), Macalupú (RCC), Macarlupú (RCC), Mecomo (from Mecomo, RD 31), Megualora (from Narihualá, RD 30), Melipis (from Narihualá, RD 33), Menalora (from Narihualá, RD 28), Mesoconera (HV5 163), Mesocoñera (RD 27), Metal (Diez Hurtado 2006: 112), Mispai (HV5 107), Mixeran (RD 30), More (Hocquenghem et al. 1987: 383), Namuche (RCC), Nima (RCC), Nisama (RCC), Pacora (RCC, also in Chiclayo according to RC), Paico (RC), Pacherre (RCC), Pariña (Diez Hurtado 2006: 113), Pasache (RCC), Poicón (RCC), Puchupac (from Narihualá, RD 28), Pulache (RCC), Quepupac (from Narihualá, RD 29), Queravelú (RC), Querevalú (RCC), Quinde (RCC), Rumiche (RCC), Salupú (RCC), Sernaqué (RCC), Sirlupú (RCC), Sique (RCC), Socola (Narigualá, HV5 202), Sullón (RCC), Susanaqué (RCC, hybrid Spanish-Tallán according to RC), Tezén (RC), Timaná (RCC), Tirlupú (Diez Hurtado 2006: 115), Tocto (RCC), Tume (RCC), Tupucherre (RCC), Tuyepac (from Narihualá, RD 28), Vilcherres (RCC), Vite (RCC), Yamunaqué - Llamunaquen - Llamunaque - Llamunaq - Mullunge (FV), Yarlequé (RCC), Yovera (RCC), Yuncatil - Iuncatil - Uncatil (from Narihualá, FV).

II. Personal names of Sechura

Parcialidad de Sechura

Alicha - Aliche (VA), Anto - Antu (VL), Arana - Araña (VL), Azaña - Araña (VL), Belez (VL), Buiche (VA), Caca (Huertas Vallejos: should be read Caza) - Calca (VA), Caja (VL), Cala (VL), Calla (VL), Capullana (VL), Cata (VL), Catarsuchur (VA), Catil (VA), Cazalla ~ Caralla (VL), Cesto (VA), Coco (VL), Colenir (VL), Coni (VL), Cuco (VL), Cucuche (VA), Cuchur (VA), Cuia (VL), Culeamin (VL), Culmín ~ Culmun (VL), Cullo (VA), Coni (VL), Cupa (VL), Cupian - Cupián (VL), Cupuy - Capuy (VA), Curacatil (VL), Cutmassa (RD 37), Cutmassa (RD 41), Chajo - Chap (VL), Chanduy (HV5 146), Chapilliquen (VL), Chapilliquén (HV9 154), Chapelliquén (HV9 87), Chatra (VL), Cheque (VL), Cherre (HV5 32), Cheve (VL), China (VA), Chio (VL), Chite (VL), Chito (VL), Choco (VL), Chucupai (VL), Chuinaca (VL), Chul (VL), Chuli (VL), Chulli (VA), Chunga (VA), Chupo - Chup (VL), Chupun (VL), Chura (VL), Churi (VA), Chusi (VL), Dado (VL), Dedio (HV5 194), Dueteresercio (?) (VA),

Eca (HV9 124), Ece (VL), Eche (VL), Enche - Euche (VA), Faro (VL), Fredi - Frelio (VL), Guanu (VL), Guasido (VA), Guimendi - Gumende (?) (VL), Guyumaillapian (VA), Imacati ~ Ymacati (VL), Ipa (VL), Itamallín ~ Mallin (VL), Lachajo (VL), Lachere - La Chere (VA), Lara (HV5 146), Launcap (VA), Lebanlluchhur - Lebanilluchur (VL), Leipiam - Leimpian (VL), Licapi (VA), Lincapia (VA), Lochap (VL), Lup (VA), Lupuńaque (VA), Llamani (VL), Llampe (VL), Llapian (VA), Llimlluchur - Iumlluchur (?) (VL), Maco (VL), Mala (VL), Malu (VL), Mama (VL), Mandi (VL), Manecha (VL), Mata (VL), Meque (VL), Meyecha (VL), Minalluchur (VL), Minieche - Mineche (VL), More (HV9 117), Muli (VL), Muma (VL), Mundro - Muncio (?) (VL), Muniquilan (VA), Naculluchur (VL), Nacheo (VL), Nicha (VL), Nija (VL), Nocatil - Nocatili (VL), Noto - Noto (VL), Nucaci (VA), Nuncal (VL), Nunco (VL), Ornucha (VA), Paiva ~ Payba (HV5 99/HV5 223), Pales (VA), Pancantil (HV5 32), Panta (VL), Paña (VL), Pardo (VA), Pasacha (VL), Pasaccha (RD 41), Pasno - Pasño (VL), Pati (VL), Peña (VA), Pericha (VL), Pez (VA), Picopay (VA), Picha (VL), Pichi (VL), Pide (VL), Pinaque (VL), Pira (VL), Pirica (VL), Pit - Piti (VL), Piupus (?) (VL), Piuque (VL), Poipán - Porpan (VL), Preni (VL), Puchu (VL), Puella (VA), Pupo (VL), Purilla -Purillas (VL), Purisaca (VL), Putiche (VA), Queche (VL), Quede (RD 41), Quere (RD 41), Quetenbacul (VL), Quipa (VL), Quirocas (VL), Raca (VA), Rengo ~ Vengo (VL), Ruische (VA), Rumicha ~ Ruimicha (VL), Ruz (VA), Sana (VL), Saña (VA), Saracha (VA), Sava ~ Sana (VL), Sereso ~ Serrep (VL), Seta (VL), Sinlluchur (VL), Sucatil (VL), Sucum (VA), Suicantil (VL), Suicatil (VL), Sulla (VL), Sullachini - Sullachani (VL), Sullucha (VL), Tacupus (VA), Taluna (HV5 146), Tanaquen (VA), Tapacum - Tapucun (VA), Tavil (VL), Temoche (HV5 32), Tep (VA), Tipaesna (VA), Tire (VL), Toacha (VA), Toliva (VA), Tucatil (VL), Tulpo ~ Julpo (VL), Tume (VL), Tumi (VL), Tupay (VA), Tupo (VL), Tura (VA), Turinacum (VA), Vengas (VL), Villo (VL), Xaia (VL), Ximi (VL), Xurta (VL), Yabilluchur (VL), Yemarap - Yamarap (VA), Yequercalla (RD 41), Ynima (VA), Ytan (VA), Yucatil ~ Iucatil (VL), Yucarsunti (RD 41), Yuman (VA), Yuso ~ Yuno (VL), Yutu ~ Yuto (VL).

Parcialidad de la Muñuela (Muñiquilá)

Atara (VL), Banca ~ Eanca (?) (VL), Bancayán (HV5 103), Caina ~ Aina (VL), Curo (HV9 117), Chagapais (VL), Choxo (VL), Chup (VL), Chur (VL), Chuxul (VL), Ier (VL), Llope ~ Llape (VL), Micucha (VL), Nunucha (VL), Ollo (VL), Paiaco (VL), Paiaxija ~ Paiachixa (VL), Paiaguaden (VL), Puchu (VL), Puchupal ~ Puchupai (VL), Purizaga (HV5 194), Sapa (VL), Sivar (VL), Suncalta ~ Sincalla (VL), Velasco (VL).

Parcialidad de Nonura

Amusi (VA), Año (VA), Axapian ~ Axappian (VA), Calamacas (VA), Catilpia (HV5 244), Caxalluchur (VA), Cono (VA), Cosuico - Casuico (VA), Cumu (VA), Curenchoch -Curenchoc (VA), Chacun (VA), Chasna (VA), Chico (VA), Churcmaca - Churuc Maca (VA), Faro - Farro (VA), Felcun - Feelcun (VA), Fenpum - Fempum (?) (VA), Guaxal (VA), Loro (VA), Mallo (VA), Muca (VA), Navica (VA), Nonura (VA), Nuyurnaque (VA), Panya (VA), Pianlupo (VA), Picanfen - Picafen (VA), Quede (VA), Quelli (VA), Quepe (VA), Solco (VA), Ulque (VA), Xabo (VA), Xanaque (VA), Xinticatil (VA), Xucacas (VA), Xuello (VA), Ymbra (VA), Yuduc (VA).

Parcialidad de Pisura

Ali (VA), Asa (VA), Ayacha (VA), Bayo (VA), Casduque (VA), Casta (VA), Castaguar (VA), Ceja (VA), Cola (VA), Colánduchur (VA), Chapna ~ Capna (VA), Cheque (VA), Chila (VA), Chimpian (VA), Chinpian (VA), Chivi (VA), Choro (VA), Chup ~ Chip (VA), Daxi (VA), Lalucha (VA), Lequeran - Laqueran (VA), Llaca (VA), Llamuc (VA), Llinlliquin - Llilliquin (VA), Llulluchur (VA), Maca (VA), Macique - Maciqui (VA), Mamachi (VA), Maxandual - Mayandual (VA), Mache (VA), Macho (VA), Nipi (VA), Nixa (VA), None (VA), Pacaalgo (?) (VA), Parungo - Porongo (VA), Peño (VA), Pisura -Pesura (VA), Pudes (VA), Puticas (VA), Sereche ~ Sureche (VA), Suri (VA), Tequencalgo (VA), Tuque (VA), Tute (VA), Vayo - Bayo (VA), Vicha (VA), Vina (VA), Vio (VA), Vividiza - Vivi (VA), Xulca (VA), Yancatil (VA).

Unspecified

Bayona (Hocquenghem et al. 1987: 383), Belupú (HV9 79), Biera (HV5 284), Capuñay (RCC, also in Chiclayo according to RC), Chapa (HV9 79), Chapas (HV9 79), Chuper (HV9 18), Curatil (HV5 105), Curo (RCC, also in Cuzco according to RC), Chancay (HV9 18), Chanta (HV5 271), Charnaque (HV5 105), Chulliyachi (HV9 18), Chumo (RCC), Chusís (HV9 18), Eche (HV5 103), Falla Pardo (HV5 284), Guanca (HV5 284), Huerequeque (HV9 18), Lebanichur (HV5 105), Letirá (HV9 18), Lupunaque (HV5 105), Llengue (HV5 103), Llicuar (HV9 18), Mallco (RCC), Nibardo - Nivardo (HV5 284), Nucuyuchur (HV5 105), Napique (HV9 18), Paiba (RCC), Paiva (HV5 103), Paico (RCC), Panta (HV5 167), Parachique (HV9 18), Periche (RCC), Pingo (RCC), Puescas (HV5 103, also in Lambayeque according to RC), Purisaca (HV5 103), Querevalú (RCC), Queravelú (RC), Quino (RCC), Ranu (from Muñiquilá, HV9 116), Reaño (HV5 284), Rumiche (HV5 103), Saba (HV9 79), Sabalú (RCC), Sinllychur (HV5 105), Taluna/Taluña (HV5 209), Temocha (HV5 271), Teque (HV5 103), Tezén (RCC), Tucutil (HV5 105), Tume (Hocquenghem 1987: 383), Vecará (HV9 18), Vice (HV9 79), Vize (HV5 1995: 311), Vise (RCC), Vite (RCC), Yabichur (HV5 105), Yapato (HV9 18), Yenque (HV5 196), Yerquén (RCC), Yesquén (RCC), Zeta (HV9 79).

III. Personal names of Olmos

Tancum (B 1929: 61), Fonquen (B 1929: 61), Serqúen (B 1929: 63), Uchuparco (B 1929: 63), Chuson, Chuzon (B 1929: 64, 63), Nuquez (B 1929: 64), Pachón (B 1929: 64), Eslof (B 1929: 64), Usllón (B 1929: 62), Mío (B 1929: 67), Augulla (B 1929: 67), Llogna (B 1929: 68).

IV. Personal Names of Ayabaca

Amaningo (RCC), Carhuahual (RCC), Carhuajalca (RCC), Carguacóndor (Lequernaqué 2013: 234), Carhuachinchay (RCC), Carguachinchay (Lequernaqué 2013: 231), Carguachuray (Lequernaqué 2013: 231), Carhuarendoy (RCC), Carhuarondoy (RC), Carhuapoma (RCC), Culcuicondor (RCC), Cungaraché (RCC), Cungarachi (RC), Cunya (RCC), Chancatray (RC, nickname), Chigualú (RCC), Chinday (RCC), Chuquiguanca (Lequernaqué 2013: 231), Huacchillo (RC), Huamán (RCC), Lisamo (RCC), Liviapoma (Huertas Vallejos 1996: 100), Llacsaguache (RCC, Llacsahuachue in RC), Llacsa'uanga (RCC), Llacsahuanga (RC), Llacsaguanca (Lequernaqué 2013: 231), Liviapoma (Lequernaqué 2013: 234), Lloclla (RCC), Manchay (RCC), Maschay (RCC), Mika (RCC), Nonajulca (RCC), Paicar (RCC), Quispe (RCC), Remayema (RCC), Rimaicuna (RCC), Serquén (RCC), Siancas (RCC), Tocto (RCC), Tocti (RCC), Tomapasca (RCC), Yapapasca (RCC), Yangua (RCC), Yaguana (RCC), Yllactanta (Lequernaqué 2013: 231) - Yllatamta (Lequernaqué 2013: 233).

Appendix E

Aspects of Spanish orthography and diachronic phonology Introduction

As large parts of the New World were discovered, conquered, and settled by the Spaniards, their language had just undergone or was in the process of undergoing some significant changes in its system of consonant phonemes. From the Middle Ages onward, several sound changes took place. For the most part, the relevant changes had their point of origin in northern Castile and only later spread to the south or failed to do so at all. For demographic reasons, it is these southern dialects that are of special interest in the context of American Spanish, because Andalusians and Extremadurans are numerically overrepresented among Iberian emigrants to the new World (which in turn has to do with economic factors).

Since the changes were to various extents ongoing still as the first efforts at documentation of indigenous languages set in, and since, even in times where they were already completed, educated Spaniards were familiar with the erstwhile distinctions because of spelling differences that were maintained, the changes are of immediate relevance for the interpretation of colonial documentary materials on indigenous languages. One particularly striking example for the importance of Spanish orthography and pronunciation is that Carrera (1644) recruited letters that were at that point systemically superfluous in Spanish orthography and restituted their original value to come to grips with representing the multitude of Mochica sibilants (see Torero 2005: 98-99).

For these reasons, I provide a brief, simplified, and selective discussion of the relevant bits of the historical phonology of Spanish, with particular attention to the sibilants. In even broader strokes, also other pertinent aspects are covered. The discussion is based on Lloyd (1987) and Penny (2002). The aim is to help readers with no background knowledge in Spanish linguistics or philology to understand those passages of the present book in which Spanish phonetics, phonology, or orthography plays a role.

The point of departure is the system of consonant phonemes of Old Spanish, which roughly corresponds to the stage of development of the language in the Middle Ages. Based on Penny (2002: 96, Table 2.21), the system looked like this.

	labial	dental	(dento-) alveolar	prepalatal	mid- palatal	velar
voiceless plosive/affricate	/p/	/t/	/t ^s /			/k/
voiced plosive/affricate	/b/	/d/	/d²/			/g/
voiceless fricative			/s/	/ <u>s</u> /		/h/
voiced fricative	/β/		/z/	/3/	/j̃/	
nasal	/m/		/n/	/ɲ/		
lateral			/1/	/٨/		
Vibrant			/r/			
flap			/ <u>r</u> /			

Old Spanish consonant phonemes, from Penny (2002: 96, Table 2.21).

Sibiliants

As one can see in the preceding table 16, in Old Spanish (or rather, the form of Old Spanish that was codified in writing as a literary norm), a rather complex system of sibilants existed. Each of the sibilants was associated with a conventionalized spelling leading to a fairly strong grapheme-phoneme correspondence. The phoneme-grapheme correspondence is as follows (adapted from Penny 2002: 98-99, with orthographic representations referring to the intervocalic position):

voiceless	alveolar	dento-alveolar affricate	prepalatal	
	/s/ <ss></ss>	/t ^s / <c, ç=""></c,>	/ʃ/ <x></x>	
voiced	/ <u>z</u> / <s></s>	/d²/ <z></z>	/ʒ/ <j, g=""></j,>	

The sibilant system was in the following centuries affected by a series of changes. In the first place, the affricates underwent deaffrication, a process that started perhaps in popular speech in the 13th century and that appears largely completed by the end of the 16th. While pronunciation changed, the system of phonological contrasts remained intact.

The further fate of the implied phonemes differs from dialect to dialect. In Seville and large parts of Andalusia, and as a consequence also in American Spanish, orthographic <ss> and <s> begin to alternate with <ç> or <z> respectively in the 15th and 16th century. These alternations are an indication of a phonological merger of the alveolar with the dento-alveolar fricatives (which reflect the former affricates). In terms of pronunciation, the new phonemes were realized as alveolar [s] and [z].

Now, in Castile as a whole, voiceless and voiced sibilants merged. The change apparently commenced in the north and reached the south during the 16^{th} century. As a result of the above changes in conjunction, the number of contrastive sibilant phonemes in Andalusian shrinked from six to just two: old Castilian $|s_i|$, $|z_i|$, $|t^s|$, and $|d^z|$ merged into one phoneme, while |f| and |f| converged in another. Since spelling had been standardized before the occurrence of the mergers, in writing the original quality of the sounds involved could still be recognized if the writer was knowledgable and careful. In the spelling of less careful (or educated) writers, however, |f| and |f| is pronounced as a dental sibilant in central Andalusia and in America, while in more coastal areas of Andalusia |f| is more common. These different pronunciations are commonly known as *seseo* and *ceceo* respectively.

A third change which affected the Old Spanish sibilant system concerns the backing of the palatal to yield a velar fricative [x]. In southern Andalusia and the Americas, the retraction can be even stronger, yielding [h]. The onset of this change is somewhat hard

to pin down, but the velar pronunciation became common by the second half of the 16th century and appears to be standard by the mid 17th century. According to Torero (2005), only during the first few decades of the Spanish presence in Peru was the conservative pronunciation prevalent. Now, in southern Spain the more extreme backing of the palatal series led to yet another merger, namely of former /ʃ/ with /h/. /h/ had already been lost in the more innovative northern Castilian dialects at the relevant point of time, but was still pronounced in southwest Castile including Andalusia and Extremadura. Before vowels it is, in fact, still retained in some dialects of Spain and Latin American Spanish.

Stops

There was also some reorganization as far as voicing in stops is concerned as the Spanish language developed. Simplifying and putting the complex developments in a nutshell, before the emergence of Old Spanish former geminate consonants degeminated in intervocalic position. Perhaps triggered by this, the original voiceless stops were voiced intervocalically. That, in turn, would have led to a merger in that position with the preexisting voiced stops, had these not fricativized. In the modern language, at any rate, there is a contrast between voiceless and voiced stops, which latter undergo lenition in a number of position, notably after vowels. Voiced stops /b, d, g/, spelled v,² d, g/gu> respectively,³ are thus pronounced as voiced fricatives $[\beta, \eth, \gamma]$ in this context.

For instance, in the very first documents mentioning the name in the context of the capture of Inca Atahuallpa, Cajamarca is spelled <Caxamalca>; that it must have been pronounced with a palatal fricative at that point of time is made clear by the Quechua etymology of the place name which involves kasha 'thorn, thorny shrub' (see Torero 2005: 90).

The spelling alternation results from a merger of earlier /b/ and β (spelled $\langle v \rangle$) that was completed by the 16th century.

One orthographic peculiarity is that /k/ is spelled <qu> and /g/ spelled <gu> before front vowels /i/ and /e/. Before /a/ and /o/, <gu>> serves another role, namely to represent a velar stop or fricative followed by a [w] which is considered an allophone of /u/.

The author

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His postdoctoral work focused on the historical linguistics of the Central Andes and sought to investigate the use of different types linguistic information - the areal distribution of linguistic features, place and personal names, substrate effects, other contact phenomena including lexical and grammatical borrowing, and the spread of language families – as windows to the prehistory of this culture area.

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Ibero-Amerikanisches Institut Preußischer Kulturbesitz

> ESTUDIOS INDIANA 12 LOST LANGUAGES OF THE PERUVIAN NORTH COAST

This book is about the original indigenous languages of the Peruvian North Coast, likely associated with the important pre-Columbian societies of the coastal deserts, but poorly documented and now irrevocably lost Sechura and Tallán in Piura, Mochica in Lambayeque and La Libertad, and further south Quingnam, perhaps spoken as far south as the Central Coast. The book presents the original distribution of these languages in early colonial times, discusses available and lost sources, and traces their demise as speakers switched to Spanish at different points of time after conquest. To the extent possible, the book also explores what can be learned about the sound system, grammar, and lexicon of the North Coast languages from the available materials. It explores what can be said on past language contacts and the linguistic areality of the North Coast and Northern Peru as a whole, and asks to what extent linguistic boundaries on the North Coast can be projected into the pre-Columbian past.

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