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The Ceramic Typology of Bagunte.

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The Ceramic Typology of Bagunte

by

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Abstract

The Ceramic Typology of Bagunte

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In its broadest sense this Master Thesis focuses on a question of far-reaching implications for economic anthropology and social archaeology: How does colonization affect patterns of indigenous production before and after imperial expansion, through the actions and agency of both local producers and colonizers? More specifically, this thesis will ask how the Roman Empire promoted or hindered local production of ceramics in northwestern Portugal after Roman expansion into Iberia. In its narrowest sense this thesis will develop an open-ended ceramic typology based on the ceramic materials from the Civitatis of Bagunte, a fortified hillfort settlement located on the northwestern coast of Portugal. This typology will use comparative materials from other hillfort settlements sites (*castros*) in northwestern Portugal to identify differences in form and function at different sites and possible patterns of exchange.

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Chapter 1: The Bagunte Site

The Cividade of Bagunte is a Late Bronze Age/Iron Age/Roman Period hillfort settlement located about 30 km from Porto and about 12 km from Vila do Conde. The site has the following coordinates: Lat. 41 23' 08" N and Long. 8 39' 16" W (Serviços Cartográficos do Exército (SCE), Carta Militar de Portugal 1:25.000). The archaeological site is 206 meters above sea level and occupies about 32 acres of forested land. The high hill, with a viewshed that includes the Atlantic Ocean as well as various *castros*, is oriented NE/SW and on the north escarpment runs parallel to the River Este, an affluent of the River Ave (Dinis, 1993: 46). At the present, and in accordance with the excavations undertaken at the site at various times, Bagunte is dated from the Late Bronze Age through the 4th century CE at least. Recent excavations

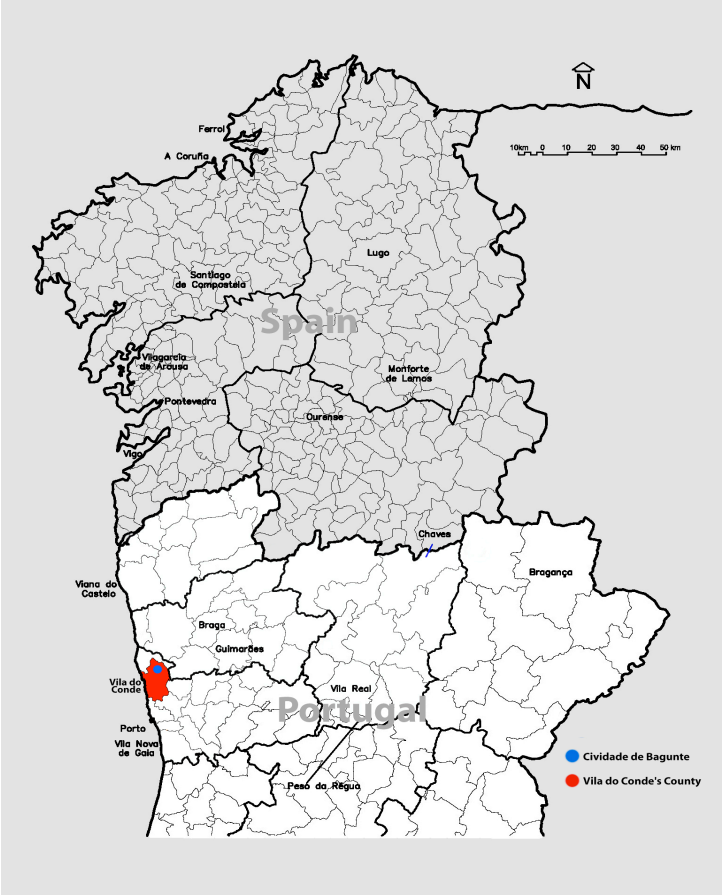


Figure 1: Map of Spain and Portugal. Gabinete de Arqueologia

at the bottom of the hill on the east side uncovered a Late Bronze Age site though no radiocarbon dates are available as yet.

Historical and Archaeological Background

The Cividade of Bagunte, *Civitatis Bocunti* or Monte da Cividade was mentioned in medieval documents (Cortez 1949: 287) and in the 1758 *Memórias Parochiaes* (Azevedo as cited in Dinis; 1993:47). In the 1880s, Ricardo Severo and Artur Cardoso dug a 50 cm deep trench through one of the Civitatis' visible mounds in the acropolis. They found abundant ceramics, undecorated and similar to those of the Castro of Sabroso (Severo-Cardoso, 1886: 136-145). In 1910, the Cividade was classified as a National Monument. In the 1940s Fernando Russel Cortez undertook several excavation campaigns and uncovered most of the acropolis' structures visible today. Except for brief articles on his campaigns, Cortez apparently left no notes on his methodology, excavations and findings, but he did mention the presence of hearths in granite or clay inside the dwellings, as well as ovens located outside of the structures (Cortez, 1948:269-281; 1949: 270-288; 1949a, 409). No excavations were undertaken after the 1940s though five silver torques were found; today these are housed in the Centro de Memória of Vila do Conde.

The establishment of the Office of Archaeology of the Municipality of Vila do Conde led to the consolidation and conservation of the excavated structures at the acropolis and to several cleaning and unsystematic survey campaigns during the 1990s and early 2000s. These campaigns resulted in the surface collection of several hundred ceramic fragments, some of which will be discussed in this thesis. In 2009, the

Municipality of Vila do Conde and its Office of Archaeology entered into a research partnership with the University of Texas to excavate Bagunte. Since then excavations at the site have been managed as an Archaeological Field School led by Dr. Mariah Wade from the University of Texas at Austin, and first, by Dr. Paulo Pinto and now Dr. Pedro Brochado of the Office of Archaeology of the Municipality of Vila do Conde. As of March 2015, the Municipality of Vila do Conde has officially acquired 16 acres of the Cividade. That acreage includes the acropolis and the areas where excavations are undergoing.

Bagunte's original environment, flora and fauna have undergone great alterations since the Iron Age and Roman occupation. Cutting of original vegetation, oak tree logging, mining for wolfram during WW II, tapping for irrigation and clogging of natural springs, and since the 1950s plantation and harvest of eucalyptus for paper pulp have changed the biota of the area. Robbing of the site's stone fortified walls and structures for private fences and buildings also caused significant damage to and deterioration of architectural features. In the last decades, the Vila do Conde Municipality and the Office of Archaeology have consistently intervened to prevent further destruction of the site. Recently, the Portuguese Government together with the Municipality have engaged employees to systematically clean the underbrush, repair access to the site, protect the structures and begin to diminish the presence of invading trees and bushes.

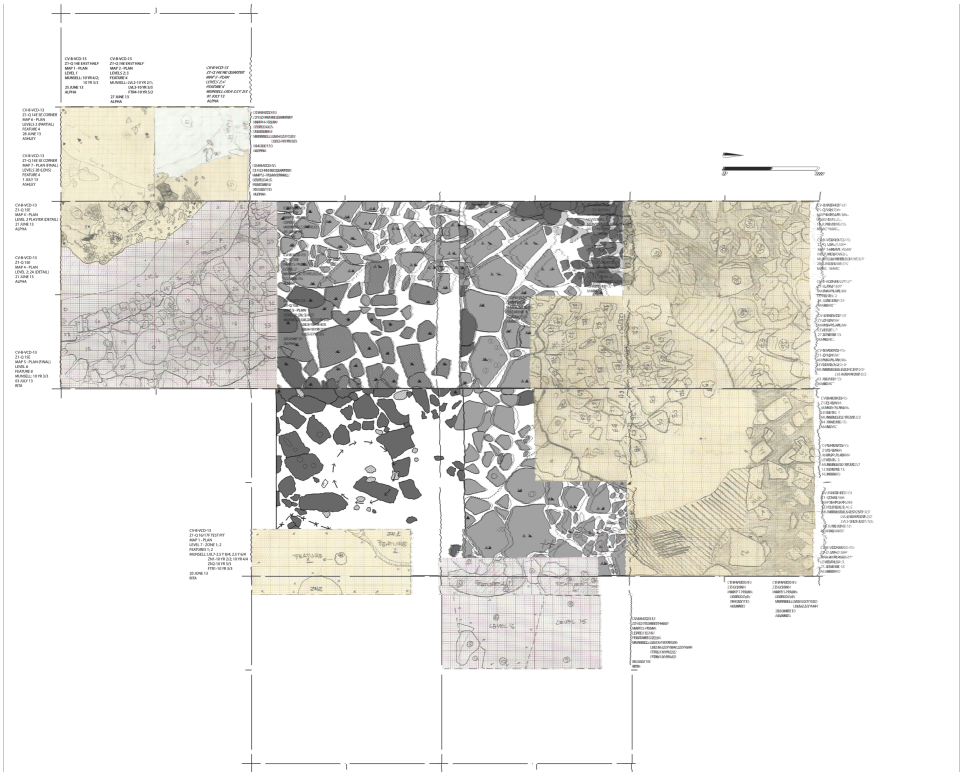


Figure 2: Site map of Bagunte prepared by Rita Filipe

Presently, the University of Texas excavations are located on the main slope of the Cividade (zone 3), where field school excavations took place during the 2009, 2011 and 2013 summer seasons. Since 2009, these excavations have produced reasonable quantities of ceramic materials, most very fragmentary, one almost complete storage vessel found *in situ*, a couple of non-diagnostic bronze and iron pieces, two fragments of Roman glass and abundant architectural materials. As of 2013, the excavations uncovered what appears to be a typical Iron Age *castro* household: a set of structures with a common patio linking the areas on both sides. Some of the ceramics discussed in this thesis come from this area, (units 14, 15, 16, 17 E, F, G, H), while others came from two units excavated at the bottom of the slope (fig.2). The cultural material from units 48 and 49 located at the bottom of the slope (not shown on fig. 2) is mostly eroded from the

upper elevations on the site (acropolis and eastern slope). These ceramics as well as those found during the unsystematic site surveys are problematic in terms of context, but are certainly representative of the ceramic vessel forms known from previous investigations. According to the conventions the Office of Archaeology all archaeological work, including artifact collections use the acronym: CB-B-VCD-year (Cividade of Bagunte-Bagunte-Vila do Conde-respective year of excavation).

Present Dates and Analyses

Thus far, three samples obtained at Bagunte have been subjected to Carbon-14 dating:

Sample 1. Specimen (D-AMS-006167) was found in context in unit 6G, layer 3. This nut was calibrated resulting in a date of AD 392-429 (1 sigma); 358-362 (2 sigma). Sample 2. Specimen (D-AMS 006168) was found in context in unit 15G, layer 3. This carbon fragment resulted in the calibrated date of AD 1494-1527 (1 sigma); 1479-1640 (sigma 2). Sample 3. Specimen (D-AMS 006169) was found in context in unit 15F, layer 3. This carbonized seed resulted in the calibrated date of AD 433-458 (1 sigma); 428-499 (2 sigma). Because of the discrepancy of sample 2, it is premature to assign a date to layer 3 (Wade and Brochado, 2014).

Samples from ceramics found at Bagunte were subjected to LA-ICP-MS to determine the elemental composition of these materials. The laboratory of the Chicago Natural History Museum conducted the analysis. Ceramic samples for this study were taken from several different contexts. However, the outcome of the analysis of the pottery from Bagunte found that these items are richer in mica (Li and Sn).[1] In comparison, similar analyses on ceramic materials from the site of Terroso, a *castro* located in Póvoa de Varzim 10 kms from Bagunte, concluded that the elemental composition was richer in calcium (Ca and Sr). These ceramic analyses discriminated clearly between the two sites, though the sample size from Terroso was smaller than that from Bagunte.

Figure 3: Map of Bagunte and surrounding *castros*. Prepared by Jordan Bowers

Using the same type of analysis, the laboratory of the Chicago Natural History Museum analyzed two glass fragments found during excavations at Bagunte. Sample 23 was found in context in unit 16H, layer 6 and sample 24 comes from unit 15G, layer 2. Both fragments "have a high composition of lime and soda, indicating that they were manufactured possibly using bicarbonate soda" (Wade and Brochado, 2014). More

[1] Additional ceramic materials have been sent from Bagunte, as well as other sites, but the results have not yet been received.

interestingly, according to the report of Dr. Laure Dussubieux, this type of manufacture "is characteristic to Syrian-Palestinian production centers from the 8th century BCE until the 8th century CE." Sample 24 has a high amount of manganese, indicating that the addition of manganese was probably used for bleaching. The addition of manganese for bleaching became normal from the 2nd century BCE until the 3rd century CE, and after this time manganese was the only form of bleach added (Wade and Brochado, 2014). Currently, these results are consistent with two dates obtained by Carbon-14. However, it is also a possibility that this technique used in the manufacture of glass resulted from difficulty in obtaining the preferred materials after the 2nd century BCE.

Table 1[2]
Northwestern Portugal up to the Roman Conquest

c. 10th century BCE	**Start of Final Bronze Age**
c. 6th/5th century BCE	**Start of Early Iron Age**
2nd century BCE	**Start of Late Iron Age**

[2] Dates referenced from Little, 1990.

Bronze and Iron Age Investigations

The rise of the Atlantic Bronze Age cultures in northwestern Iberia marks a time of rapid expansion and changes in settlement patterns. Agricultural practices from this region intensified as population increased, creating economic activity that stimulated communication between culture groups (Queiroga, 1992: 1). The interest in Castrejan material culture and architecture throughout sites in northwestern Portugal began under excavations Martins Sarmento led. His work pioneered the basic principles of Castrejan settlement patterns and of *castro* archaeology (Little, 1990: 19). *Castro* sites are located most commonly at elevations between 300 and 500 meters above sea level. The majority of *castros* are fortified by megalithic-style concentric stonewalls that encompass terrace levels that hold single-room dwellings or structures.

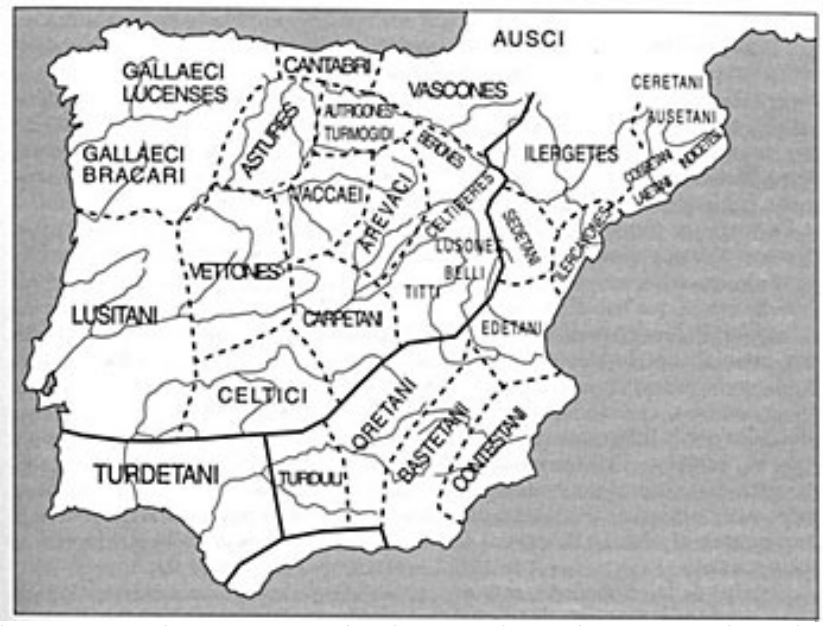


Figure 4: The main pre-Roman regions in the Iberian Peninsula (e-Keltoi, vol. 6)

Archaeological evidence at Bagunte has yielded massive stonewalls surrounding the acropolis and the upper areas of the site as well as smaller, stone-built walls and houses that correspond to Ferreira de Almeida's phases of Castro Culture. At other *castro*

sites these smaller walls may have acted as barriers for agricultural practices and territory markers, but such evidence is not available for Bagunte. A few excavations in northwestern Portugal show evidence of open-air structures and reinforced mud brick huts during the late Bronze Age and Early Iron Age, providing evidence for isolated and independent community-based dwellings (Parcero and Cobas, 2004: 30). Yet, as these cultures transitioned into the Middle Iron Age, and the introduction of domestic structures constructed only of stone became prevalent, it could be assumed that Middle Iron Age Castro Cultures became more permanent and developed urban centers (Parcero and Cobas, 2004: 31). These changes have created a possible timeline for the development of more urban settlements within the region. Specifically, the phases of architectural innovation that was enabled by expansion and economic growth, such as agricultural intensification from the Late Bronze Age to the Middle of the Iron Age. An example of this has been studied at sites such as, San Juan de Paluezas located in the Bierzo, León region of Spain, where structural changes in buildings shifted from single

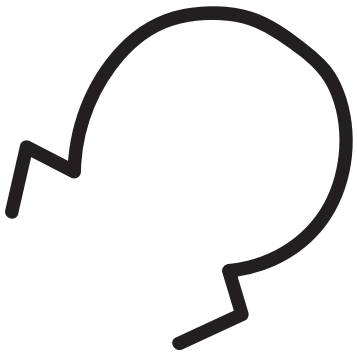


Figure 5: Round houses with vestibules in the shape of crab-pincers

room dwellings, to one room dwellings with another room or space for storage (Parcero and Cobas, 2004: 33). Some time in the Iron Age, Bagunte's one-room dwellings were modified and a storage, or working area, was added to the outside of the dwelling structure. These spaces, commonly called crab-pincers because of their typical shape (Fig. 5), are about one meter wide with an opening that coincides with the opening of the dwelling. In a few cases, baking ovens were found within them, and it is assumed that they served also to keep small-domesticated animals, such as sheep or goats, though no evidence has been found to substantiate this claim.[3]

Figure 6: Roman territories in the northwestern Iberian Peninsula (e-Keltoi, vol. 6)

Since architecture is the most distinctive aspect of Castro Culture sites, Ferreira de Almeida proposed several divisions of the Castrejan period based on it (Little, 1990: 19). He begins with the *Período de Formação*, or formative period, which is classified as Pre-Castrejan. During this phase, stone structures are not present, but the remains of postholes and mud bricks indicate the existence of structures made of perishable materials (Little, 1990: 19). He dates this phase to the 6th- 4th centuries BCE (Ferreira de Almeida, 1983: 70-74). Next, round stone houses define the *Período*

[3] Discussions of these added spaces during the 2014 season.

Castrejo Antigo, or the Early Castrejan Period, which dates from the 4th-1st centuries BCE. In the *Período Casstrejo Médio*, or Middle Castrejan Period, the houses retain the same circular style, but the stones used for construction are larger and better worked. It is suggested that this phase corresponds to the first contacts with Rome during the 1st century BCE (Little, 1990: 19). Almeida's *Período Castrejo Recente*, or Late Castrejan Period, dates to the Augustan period from the 1st century BCE to the 1st century CE. During this phase, houses are arranged in groups and the overall settlement structure of a site becomes more urban (Ferreira de Almeida, 1983: 70-74). This division of the Castrejan Period has been widely established, however the dating is not completely accepted (Little, 1990: 20).

The Landscape

Analysis of the landscapes of territories the Romans conquered in the ancient world can help archaeologists identify processes by which space was claimed, appropriated, and transformed—as well as the ideological, social, economic, and administrative structures of the people laying claim to it (Orejas and Sánchez, 2002: 581). For example, in Roman Italy, this mechanism of territorial expansion, in which spatial organization was key to controlling resources and population, can only be observed by understanding the process of landscape change and use (Orejas and Sánchez, 2002: 581). In the case of the Iberian Peninsula, Roman occupation and exploitation left visible marks of productive intensification and diversification of the landscape. These changes eventually created morphological standardization in socioeconomic relations, settlement

and land use, but most important they brought changes in technology. This form of standardization allowed for mechanisms and institutions of political control (Queiroga, 1992: 11).

Table 2[4]
Roman Campaigns into northwestern Iberia

138-136BCE	**Campaign of D. Iunius Brutus**
96-94 BCE	**Campaign of P. Licinius Crassus**
61 BCE	**Campaign of C. Iulius Caesar**
26 BCE	**Augustus Caesar begins final conquest**
19 BCE	**Final defeat of tribes in northwest Iberia**

The significance of Roman occupation in northwest Portugal can be seen in the rich deposits of artifacts that bespeak the complexity of Roman rule and the indigenous population's responses. In the early phases of Roman contact, there is a high proportion of indigenous ceramics and other artifacts at all sites in the surrounding region. These types of wares are found in contexts of the Republic; however, the second half of the 1st century BCE marks a significant shift from mostly indigenous forms to Roman ones (Orejas and Sánchez, 2002: 584). The diffusion of Graeco-Italic amphorae can be viewed as significant in identifying settlements associated with mining in northeast Portugal, as well as rural and coastal sites susceptible to the arrival of Roman people and models (Orejas and Sánchez, 2002: 582-584).

[4] Dates referenced from Little, 1990.

Of the Classical authors who mention Castro Culture, Strabo is probably the most important. Despite the fact that he never visited Iberia and used second-hand information, his books, specifically the *Geography,* were written during the reigns of Augustus and Tiberius, making him a key chronicler of the Roman expansion and its effects on Castro Culture (Queiroga, 1992: 8). Commenting on the Roman occupation of Iberia, Strabo says,

> The Romans call the whole indifferently Iberia and Hispania, but designate one portion of it Ulterior, and the other Citerior. However, at different periods they have divided it differently, according to its political aspect at various times. (Strabo, *Geography*, 3.4.20).

Strabo's information on the environment and crops is too generic to elucidate what the northwestern Portuguese coastal environment was like and the subsistence practices of pre-Roman indigenous populations. He states,

> Iberia produces a large quantity of roots used in dyeing. In olives, vines, figs, and every kind of similar fruit-trees, the Iberian coast next the Mediterranean abounds, they are likewise plentiful beyond. Of the coasts next the ocean, that towards the north is destitute of them, on account of the cold, and the remaining portion generally on account of the apathy of the men, and because they do not lead a civilized life, but pass their days in poverty, only acting on the animal impulse, and living most corruptly. They do not attend to ease or luxury, unless any one considers it can add to the happiness of their lives to wash themselves and their wives in stale urine kept in tanks, and to rinse their teeth with it, which they say is the custom both with the Cantabrians and their neighbors. (Strabo, *Geography* 3.4).

As Roman mining declined throughout northeastern Portugal in the second half of the 1st century BCE, the last quarter of the century appears to have registered a period of Roman expansion or migration into rural and agricultural sites (Orejas and Sánchez,

2002: 584-586). Thus, as mining settlements declined in both production and population, rural sites experienced an increase in population as well as in infrastructural changes (Parcero and Cobas, 2004: 42-43). Pliny the Elder discusses the abundance of mines throughout the region and the presence of mining activities:

> We then come to the river Limia, and the river Durius, one of the largest in Spain, and which rises in the district of the Pelendones, passes near Numantia, and through the Arevaci and the Vaccæi, dividing the Vettones from Asturia, the Gallæci from Lusitania, and separating the Turduli from the Bracari. The whole of the region here mentioned from the Pyrenees is full of mines of gold, silver, iron, and lead, both black and white. (Pliny, *Natural History* 34.20).

Eventually, Rome organized communities within Iberia into *civitates*. These new centers formed the basis for new socioeconomic and political relationships, including new forms of land acquisition. This acquisition of territory allowed for the *civitates* to formally become Roman territorial units. Moreover, "these *civitates* were directly dependent on the three *conventus* capitals of the northwest: Asturica Augusta, Lucus Augusti and Bracara Augusta" (Orejas and Sánchez, 2002: 590). This type of administrative handling would have allowed for tribute to be paid, as well as for communities to be permitted to organize territory as they wished. Pliny's description of the demographic information regarding the *conventus* of the northwest reflects the role of the *civitates* as taxpaying units, suggesting that Rome was only concerned with knowing the total amount of taxable land, but not with internal matters or divisions. As Pliny noted,

> The ancient form of the Nearer Spain, like that of many other provinces, is somewhat changed, since the time when Pompey the Great, upon the

> trophies which he erected in the Pyrenees, testified that 877 towns, from the Alps to the borders of the Farther Spain, had been reduced to subjection by him. The whole province is now divided into seven jurisdictions, those of Carthage, of Tarraco, of Cæsar Augusta, of Clunia, of Asturica, of Lucus, and of the Bracari. To these are to be added the islands, which will be described on another occasion, as also 293 states which are dependent on others; besides which the province contains 179 towns. Of these, twelve are colonies, thirteen, towns with the rights of Roman citizens, eighteen with the old Latian rights, one confederate, and 135 tributary. (Pliny, *Natural History* 4.3).

Despite their nonurban atmosphere, these *civitates,* including Bagunte, were Roman administrative centers and had a territorial dimension understood by Rome solely in terms of boundaries for taxation (Orejas and Sánchez, 2002: 590-591). However, while they seem to have lacked a local senate, an aristocracy, or public buildings, the mechanisms Rome used to control these sites persisted as well-developed administrative apparatus (Orejas and Sánchez, 2002: 591). Like Bagunte, these town-like settlements were located in the most fertile areas and retained their indigenous architectural styles. Occasionally they occupied hillforts (*castros*), morphologically similar to the pre-Roman ones, but these stood next to new open villages in the Roman-settlement model (Orejas and Sánchez, 2002: 590). This model of smaller villages associated with *castros* or *civitates* may, or may not, be applicable to the Portuguese northwest coastal hillforts as no comprehensive land survey has been undertaken and the overall region has been under intensive agricultural cultivation for centuries and urban development since the 1960s. For Bagunte in particular, the earliest occupational zones uncovered show their indigenous character through the use of local building materials, techniques, and

morphology of structures as well as overall layout of the settlement. Traditional, or pre-Roman, pottery is found in high proportion- roughly 70%.[5]

Despite these discoveries, there are few reliable chronometric dates for the site[6] and these refer to much later occupational periods. The development of a typology will help create a relative chronology for the site that could provide details for identification and guidance as to cultural change in practices. At present, the ceramic collection includes thousands of fragments of vessels of which probably one third can be identified by form. However, because most of the ceramics are from surface collections or have no provenience, it is impossible to create a chronology based on context.

[5] Based on rough statistical analysis and assessment from the 2014 Season

[6] Dates mentioned in the historical background section.

Chapter 2: Methodology: Taxonomic Classification System

Introduction

The development of typological groups through the use of modes based on form, function and specific attributes is essential for the analysis of ceramic assemblages. It is also an important aspect of the archaeological record for any site. Identifying the chronology for ceramic production within Bagunte is key to understanding the history of the site and the possible changes that occurred before and after Roman colonization. Due to the social changes that took place within this environment from the 6th century BCE until at least the 5th century CE, it is necessary to classify modifications and changes that occurred over time in ceramic production. This includes creating modes by identifying form and function and categorizing taxonomic stylistic attributes, as well as the materials used for manufacture. The archaeological record at Bagunte indicates a gradual but evident change in ceramic styles, including forms and paste that hint not only at Roman influence, but also at the processes local craftsmen followed to adapt to new and emerging styles in the post-Roman occupation.

The most significant aspect of the ceramics from Bagunte is the clays and temper used for their construction. The geologic landscape of Portugal has an abundance of fine clays. Color, composition and granulation vary throughout the region, producing unique combinations of regional wares. Additionally, materials used for temper vary from an intensive use of medium to large mica inclusions, to the use of finely ground mica, grog,

quartz and sand.[7] This variation in physical appearance has created a fairly distinct recognition system that defines regional styles. However, in regions such as northwestern Portugal, variation is less clear, as archeological sites present wares in similar colors and styles.

In addition to this problem, it is not clear whether indigenous groups were in close communication with one another, or if expansive trade networks created mixed assemblages of ceramic wares at various sites. As excavations continue in northwest Portugal and specifically at Bagunte, the need to identify characteristics that may be associated with particular *castro* production centers becomes ever more necessary.

Methodology

A taxonomic classification system designates material, shape, or decoration as cultural traits, ignoring a closer examination of the chemical or elemental attributes altogether (Rouse, 1960: 316). This is an effective mode of classification for researchers who have only just begun to work directly with a ceramic assemblage, and who are dealing with an assemblage created over multiple generations. This approach helps tease out patterns of production, or stylistic variations that may have originated in one region and remained isolated, or that diffused into other communities (Orton et. al., 1993: 132-133). Utilizing this system, archaeologists have been able to identify modes of production and practices indicative of specific regions, communities and groups. A taxonomic classification system is the most appropriate approach at this point in my investigation because it allows for a loose and flexible research plan to be developed. As no

[7] Analysis of the inclusions from the ceramic material done during the 2014 season.

publication exists concerning the ceramics from Bagunte, I only have preliminary field notes from Bagunte and typologies from surrounding sites to study. However, characteristics such as most common paste colors and diagnostic attributes allow for a general procedure to create a classificatory system that maintains effectiveness without adhering to a successive, all-inclusive system (Rouse, 1960: 316).

For the purposes of creating a typology for Bagunte, I will first create modes that focus on separating pottery by paste color. This will generate four distinct groups: Castreja grey, Castreja brown, Castreja-Roman, and imported wares. After this, I will create sub-modes by selecting diagnostic sherds and establishing categories that differentiate between paste, color and diagnostic sherd type. For example, I will place all of the imported rims together, and all of the grey or brown bases together. By doing this, I hope to highlight or discover modes that acted as customary markers that governed production based on social conformity and expectation (Rouse, 1960: 316). I chose this system because it focuses on the concept of 'modes'. Rouse defined conceptual modes as material, shape and decorative characteristics that can designate one or more attributes as diagnostic (Rouse, 1960: 315). This is particularly important because it allows my study to remain constant, even if my initial research ideas prove to be incorrect or adjustments have to be made. It also allows for new artifacts to be added into the classification system as excavation continues in the future, creating a flexible and adaptive form of identification.

A more obvious approach would be to first separate assemblages into varieties of shapes rather than pastes. However, preliminary reports from previous seasons have

demonstrated that the majority of ceramics found are small, non-diagnostic sherds that are fairly simple in both design and decoration; thus they could not be classified according to shape. Yet every sherd can be initially classified according to the three distinct pastes. By taking these simple categories as a point of departure, I will be able to identify and focus more attention on several modes that appear to be universal (Orton et. al., 1993: 132). Also at this point in my research, it is best to identify larger modes or 'types' rather than small or less prevalent variants. This allows for the initial classification to be comprehensive without having to select specific traits that may not be as prominent, or that further subdivide the typology to accommodate exceptions (Rouse, 1960: 315-16).

To build a taxonomic classification system that is actually useful it is essential that I focus on the manufacturing aspects associated with the Bagunte ceramic assemblage as well as on the macroscopic traits of the sherds. The potter operates within a narrow range of physical, chemical and economic constraints that dictate his or her range of choices in vessel morphology. Arguing from this point of view, it is clear that learning how to construct a pot, start to finish, is a social category of behavior. Because technology is socially embedded, the vessel shapes produced become explainable by cultural preferences and social mediating factors that are principally historically relative (Arnold, 2008: 4). This includes the availability and choice of resources necessary to produce ceramics, as well as the types of clays preferred for aesthetic and practical purposes. Feedback from the consumer or user expresses the relationship between materials and humans, and determines the success or failure of a ceramic ware. More

important, if production is a learned skill, then it seems obvious that the repeated use of certain clay sources is intentional for product management and reliability (Arnold, 2008: 10-11). This furthers my hypothesis that the ongoing similarities in the pastes used for ceramic production at Bagunte were intentional, and that potters were in fact utilizing several of the same clay sources for multiple generations.

Manufacture, construction and decorative techniques

There are a few differences in the ceramic material between the Late Iron Age and the Indigenous-Roman period. However, these differences are slight and may not be considered as a break from one form of production to a newer form. It should be noted, that the use of the term "Castreja" when referring to ceramics found at Bagunte is an identifier for indigenous pottery produced locally, and before Roman colonization. Still, it is unclear how Castreja pottery is different from pottery made during the early Roman occupation in terms of paste. The objective difference is in vessel morphology. Throughout the region and generally in the Late Bronze Age and Early Iron Age, pottery was constructed without the use of a potter's wheel. This is evident in the analysis and observation of pinholes in vessel walls, as well as the absence of pottery with markings from the use of a wheel in the ceramic assemblages from sites around northwest Portugal (Parcero and Cobas, 2004: 17). Yet, during the Middle Iron Age, new forms appear that have changes in modeling techniques indicating the use of the potter's wheel (Silva, A.C.F. 1983).

The use of mica as a main form of temper is apparent in Castreja pottery. Sizes range from fine, to large inclusions that vary from platy and angular, to rounded in shape.

Additionally, the presence of quartz and sand as tempering materials is also frequent but proportionally less so than mica. Grog is included in the later Iron Age forms and certainly in the Romanized forms. Its addition is very evident in vessels but particularly in the Roman tiles found on site.

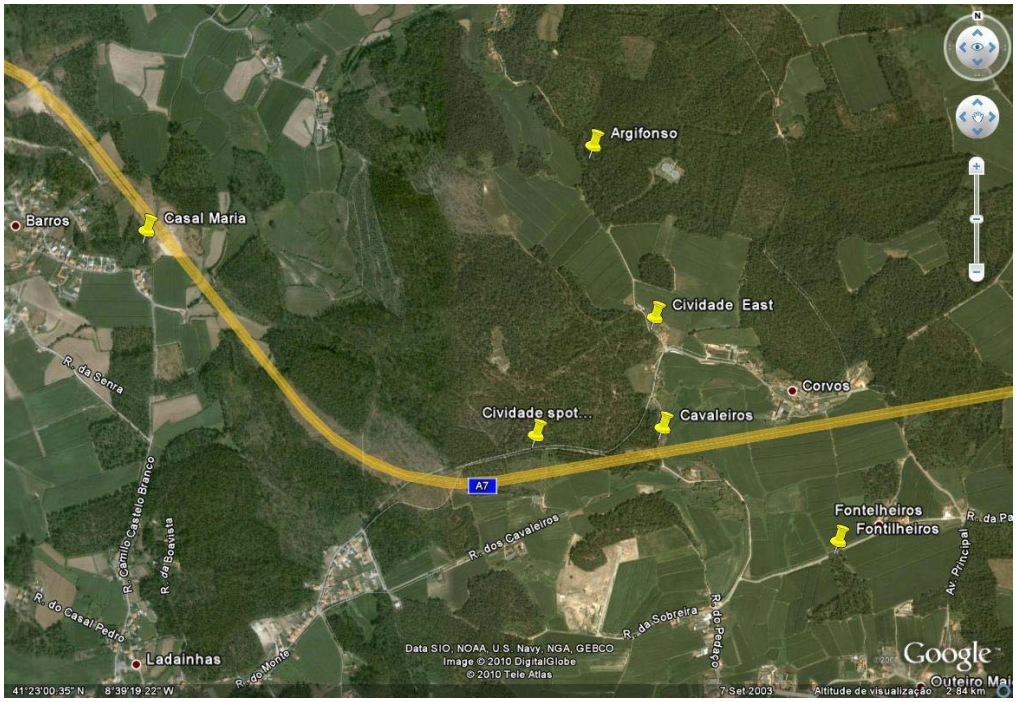


Figure 7: Some sites near Bagunte from which clay samples were taken

From previous studies done on ceramic assemblages from the surrounding region, several phases of firing techniques occurred. However, regardless of the firing environment, temperatures used ranged from 800 and 1000 degrees Fahrenheit (Parcero and Cobas, 2004: 18, 34; Little, 1990: 37). During the earliest periods of ceramic production, firing was done in a reduction atmosphere. This created uneven coloring and clouding on the external surface of vessels (Cobas and Parcero 2004: 18). In contrast, during the Late Iron Age and the Roman Period, firing was mostly done in an oxidizing

environment. Dark brown wares in a range of hues are the most common color of ceramics from these periods and there is little to no clouding on external surfaces (Cobas and Parcero, 2004: 34; Gomes and Carneiro, 1999: 136-137).

Bagunte's Iron Age and Roman Period ceramics show evidence of smoothing, application of a wash or slip, and burnishing, though this last finishing technique is less prevalent than the others. However, there appears to be no correlation between the finishing technique and vessel form. Bagunte's vessel forms include handles whose size and location depends on the vessel. They are generally circular or oval and with the underside of the horizontal handle sometimes flattened.

The assemblage from Bagunte has yielded many decorated ceramic sherds, but at present we do not have any whole vessels with decorations. Stamping, geometric incised line decorations, and pie crusting have been found on body, rim and handle sherds. However, all are characterized by fairly simple and repetitive decorative applications (Little, 1990: 24-25).

Prudence Rice developed a model for the evolution of ceramic specialization that identified and created four stages (Rice, 1987: 183). The first is household production, where there is little technical uniformity. This essentially allows for morphological and stylistic similarities, but with differences in the final product (Rice, 1987: 184). The skill level of the potter or producer causes these differences. The second stage applies to small household industries, where better production is observed. It should be noted that Rice considers this stage relevant for raw material collection, where potters closer to sources produce pottery for those farther away. Stage two vessels have more uniformity in

production, both stylistic and technologically. The third stage involves experienced and specialized potters who create elite wares or more technologically and stylistically specialized wares (Rice, 1987: 184). Finally, the fourth stage is determined by total elite control, where pottery can be produced in surplus to be claimed for tribute. However, in the case of the ceramic assemblage from Bagunte, this methodology is flawed because it does not consider social changes that occurred at the site and how these changes might have affected specialization or demand. It should also be noted that most northwestern Iberian sites do not expressly indicate the presence of an elite group or governing body that would require surplus or tribute payments (Little, 1990: 32).

Dating and Chronology

The difficulty in understanding this particular collection is that, as with other *castros*, Bagunte's collection consists of unassembled fragments. For now, the materials from Bagunte include unsystematic surface collections since 1992, as well as the ceramics excavated during the Bagunte field school project over the last 5 years. Thus, while the use of contextual evidence is key to understanding the chronology of a site, but in the case of Bagunte that evidence is as yet limited.

To complicate matters further, it is not clear whether there was any interaction between *castro* sites within the region from the end of the Bronze Age until the 1st century BCE. However, the local individuality of indigenous, Castreja pottery suggests that each site may have been responsible for producing enough pottery to meet its own

needs and that individuals or families specialized in ceramic manufacturing (Ferreira de Almeida et. al., 1981).

It should also be noted that one of the reasons why creating a typology for sites within northwest Portugal has been so difficult for many scholars is the homogeneity in types, pastes and materials. Such homogeneity seems to indicate that the same modes of production are being used through the utilization of local raw materials and the abundance of mica as temper (Queiroga, 1992: 7). Unlike Bronze Age or Roman pottery found in northwest Portugal, the pottery produced in the region during the Iron Age consequently displays a uniquely shiny appearance. Late Bronze Age pottery has almost no mica and Roman Period and Romanized forms have mica inclusions that are much finer and considerably better distributed. It could be argued that mica was added as a general temper, but the large amount of mica used in these wares in fact reduces breakage strength and thermal resistance; thus its use may have been an aesthetic, not technical, choice. Another difficulty in addressing the temper found in ceramics from Bagunte is that we are not sure how the raw materials used for production were collected and how the wares were constructed. The predominance of mica can be understood in two ways: the clay mined was naturally high in mica, or mica was added in the clay preparation process (Parcero and Cobas, 2004: 17). Regardless, it is possible to assert that the large and angular nature of the inclusions found in most pottery implies that the clays were not well wedged.

It is assumed that at any one time, one or more ceramic workshops existed within Bagunte, all producing wares characteristic of Bagunte. The most telling properties of

ceramics are the resources used in pottery manufacture. Generally, large reserves of clay and tempering materials were not kept on hand, as storing clay can be difficult and sometimes wasteful. Furthermore, the distance potters will travel to obtain their resources typically is minimal; they tend to work close to their resources (Rice, 1987: 116). Thus, clay sources can indicate not only where potters were mining their clay, but may offer some assurance that potters worked nearby (Rice, 1987: 115). For these reasons, I intend to study the ceramics of Bagunte and the clay deposits located nearby. In fact, preliminary research has shown that several large clay deposits surround the site (Fig. 7). They are assumed to be the sources mined for ceramic production at Bagunte. However, comparative analyses of samples from these deposits and Bagunte's ceramics have yet to be done. Such analyses could prove invaluable to understanding the craftsmanship, the ceramic production and the economy of Bagunte.

Historical records show that this area was made into a Roman colony as late as the early 2nd century CE, but maintained most of its independence throughout (Little, 1990: 21-22). The occurrence of typical Roman shapes corresponding to the orange-red clay found at most sites under Roman control has proved to complicate the assemblages mostly because Celtic motifs and indigenous vessel shapes maintain their presence in the Roman period. This results in a mixed assemblage of Roman-style, hybrid shapes and *castro* ceramics crafted from clays treated in different ways (levigated) and under different firing conditions. These indigenous artifacts, alongside the presence of Roman forms, can offer valuable information concerning the differences in production practices, and the economies associated with each group. Identifying the relative chronology for

ceramic production within Bagunte is key to understanding the history of the site and the nature of the interaction between colonizers and colonized.

The development of typological groups based on function and form is a common feature in the analysis of ceramic assemblages. The following typology has been divided into four basic and distinct functional categories: cooking, drinking, food preparation and storage. Additionally, I will consider the size of vessels as certain forms and sizes may be indicative of commensality and communal preparation of meals, while carefully made small vessels may be indicative of household activities. I will also pay close attention to Roman forms found within the site, as well as to vessels and objects missing from the site such as lamps, and smaller personal vessels that may be indicative of votive practices. Within each category, specific forms have been identified. Other categories include vessels presumed to have been locally made or imported ones that can be used to make general comparisons with other *castro* sites and that, in some cases, might provide dating ranges. The ceramic material identified in later sections of this typology has been uncovered not only during the Bagunte field school over the last five years, but also through extensive surface collections that spanned the decade of the late 1990s.

Chapter 3: Terminology

For the purposes of creating a typology for Bagunte, I will first focus on separating pottery by paste color. This will create four distinct groups: Castreja grey, Castreja brown, Castreja-Roman, and imported wares. After this, I will create sub-modes by selecting diagnostic sherd forms to establish categories using these four distinct color groups. As previously mentioned, I chose this system because it focuses on the concept of 'modes'. As previously mentioned, Rouse defined conceptual modes as material, shape and decorative characteristics that can designate one or more attributes as diagnostic (Rouse, 1960: 315). This is particularly important because it allows my study to remain constant, even if my initial research ideas prove to be incorrect or adjustments have to be made. It also allows for new artifacts to be added into the classification system as excavation continues in the future, creating a flexible and adaptive form of identification.

A taxonomic classification system designates material, shape, or decoration as production traits, ignoring a closer examination of the chemical or microscopic attributes altogether (Rouse, 1960: 316). This approach helps tease out patterns of production, or stylistic variations that may have originated in one region and remained isolated, or that diffused into other communities (Orton et. al., 1993: 132-133). Utilizing this system, archaeologists have been able to identify modes and production practices indicative of specific regions, communities and groups. Using modes for a taxonomic classification system reveals the macroscopic traits that are present in any assemblage. By focusing on the shape, and paste materials (modes), I am setting up the basis of preliminary research that will aid in creating a much larger typology in the future.

The following categories are representative of the modes created from the ceramic assemblage from Bagunte. They are divided first by group name, or by the identifying color, and then are given their descriptive Munsell identifications. These divisions do not represent specific ware types (i.e. fine wares, coarse wares), but the mode identified by paste color and other physical characteristics such as temper materials, manufacture and applied motifs. Additionally, the specific divisions mentioned in the following section represent a small portion of the ceramics found at Bagunte; they are some of the most diagnostic pieces that embody the forms prevalent not only at Bagunte, but also in northwest Portugal.

Ceramic Groups:

1) Castreja brown: All vessels of this type are earthenware. They range from large, coarse wares to finer, thin-walled vessels. There appears to be no correlation between vessel type or specific use for vessels of this type. Temper ranges from fine to very coarse, silver or white mica (muscovite), with occasional vessels using black mica (biotite). Additionally, the use of white or brown grog is often found in medium grain sizes. Vessels of Castreja brown paste are manufactured both by hand and with the wheel. It is estimated that about 25% of this group is wheel-made, but some sherds appear to have been washed or smoothed, eliminating any traces of wheel markings, so this percentage may be higher. Additionally, some pieces have been found with incised line decorations or stamping, however the fragmentary nature of the sherds does not allow for a complete identification of where these decorative motifs were applied. While there are fragments of varying sizes of Castreja brown, no specific forms seem to be associated

with this type of paste. But examples of ceramics that are found in high proportion with this type of paste are Phase II S-curved vessels and cooking vessels.

Typical color range for this type of ceramics in Munsell colors: 5/2 7.5YR-BROWN; 5/2 10YR GREYISH BROWN; 5/3 7.5YR BROWN; 5/4 5YR REDDISH BROWN; 5/4 7.5YR-BROWN; 6/4 5YR LITE BROWN; 6/4 7.5YR LITE BROWN; 6/4 10YR LITE YELLOWISH BROWN.

2) Castreja grey: All vessels of this type are earthenware. They range from large, coarse vessels to finer, thin-walled vessels. There appears to be no correlation between vessel type or specific use for vessels of this construction. Temper ranges from fine to very coarse silver or white mica, with occasional vessels using black mica. The use of white, red and dark grey grog is often found in fine to medium grain sizes. Vessels of Castreja grey paste are manufactured primarily with the wheel. It is estimated that about 45% of this group is wheel-made, but some sherds appear to have been washed, burnished, or smoothed, eliminating any traces of wheel markings, so this percentage may be higher. Additionally, some pieces have been found with horizontal and vertical incised line decorations applied to either the widest part of the body or around the neck and rim of the vessel. While there are fragments of varying sizes of Castreja grey, only a few specific forms seem to be associated with this type of paste. For example, Phase III S-curved vessels are a ceramic type that is always constructed from this paste, and smaller cups or tableware (50%) are manufactured using this paste.

Typical color of ceramics found of this type range in Munsell colors:

3/1 7.5YR VERY DARK GREY; 5/2 5YR REDDISH GREY; 4/1 5YR DARK GREY; 4/2 5YR DARK REDDISH GREY; 6/1 5YR GRAY; 5/2 10YR GREYISH BROWN.

3) Castreja or Roman red: All vessels of this type are earthenware. They range from large, coarse wares to finer, thin-walled vessels. There appears to be no correlation between vessel form and specific use for vessels of this construction. Temper ranges from very fine to fine silver or white mica with very fine red-orange, grey or brown grog. These sherds are the most interesting ceramics found at Bagunte. They are particularly difficult to understand because most were constructed using styles displaying both indigenous-Castreja and Roman motifs and forms. What is more important is that examples from this group are constructed from either Castreja grey pastes, with extremely fine, rounded inclusions or red-orange clay with small, sub-angular inclusions. This orange-red clay is indicative of Roman pottery production and differs from the pink or yellow-brown pastes found on imported wares possibly from non-Roman sites around the Mediterranean. While there are some examples with decorative motifs, they remain only in the form of incised lines; yet the most important examples of applied stylistic motifs are Double Barrel handles and more elaborate and delicate rims. Most examples appear to have been wheel-made (roughly 65%) and of the remaining vessels of this category, burnishing, smoothing or a wash was applied that eliminated traces of wheel-marks.

Typical color of ceramics found of this type range in Munsell colors:
5/4 5YR REDDISH BROWN; 5/6 5YR YELLOWISH RED; 7/6 5YR-REDDISH YELLOW.

4) Imported: All vessels of this type are earthenware. They range from large, semi-coarse wares to medium thin-walled or well-constructed vessels. Sixty percent appear to be wheel-made, with more elaborately constructed handles, rims or body shapes. Temper ranges from very fine to fine red-orange or brown grog, as well as fine to medium-grain white quartz. Additionally, a slip or wash has been applied to a few fragments, although most have a plain wash and are undecorated. Examples from this group are all wheel-made and are evenly constructed with thin walls and more elaborate bases and rims. These sherds represent items that are either obvious Roman fine ware, such as sigillata, or vessels that may have come from areas outside of northwest Portugal and Rome.

Typical color of ceramics found of this type range in Munsell colors: 4/8 2.5YR RED; 5/8 2.5YR RED; 6/4 5YR LITE REDDISH BROWN; 6/6 2.5YR PINK; 6/6 7.5YR REDDISH YELLOW; 7/6 7.5YR REDDISH YELLOW.

Descriptive Terminology

Bases

"Base" is used, but "foot" is used occasionally.

Ring base: Perhaps made separately, or trimmed pre-firing. It may appear convex or concave from external view, or more angular when molded.

Rounded base: The bottommost part of the base is rounded, and cannot sit flat on a surface. Typically molded with the vessel itself.

Flat base: Base sits completely flat on a surface. There is no concave or convex ring or groove around the base and appears to be made with the vessel itself.

Body, Shoulder, and Neck

Groove: Shallow, perhaps from fingers or smoothing over a wash or a slip.

Soft angle: The break from the neck and shoulder is rounded and organically molded into the body of the vessel.

Harsh angle: The break from the neck and shoulder is more angular and less organically molded into the body of the vessel.

"Rim" is used, but "lip" is used occasionally.

Projecting: horizontally projecting

Downturned: projecting and sloping down to outside.

Rolled: thickened by rolling the clay internally

Thickened: thickened by rolling clay externally

Flaring: or outturned, flaring to outside

Inturned: or incurved, curving to interior

Upturned: turned up, appears vertical

Rilled: having wheel-run grooves, or intentional finger grooves

Handles

Forms

Lug: solid handle, typically horizontally fastened

Horseshoe: solid, shallow handle, fastened completely onto the body

Strap: simple strap handle

Double Barrel: made of two vertical coils, rounded in profile

Chapter 4: The Ceramic Typology

Amphorae

CB-B-VCD/11, Z1-QD-17G, SUP; CB-B-VCD/13, Z1-Q-15H, EST. 2; LOT 177: K; CB-B-VCD/13-Z1-Q-16/17F, COL SUP; CB-B-VCD/11,Z1-Q-49G, EST. 3, LOT 21: K; CB-B-VCD/09, Z1-Q-49G, EST. 3, LOT 21; CB-B-VCD/13, Z1-Q-16H, EST. 4, LOT 180:E

To the ancient world, the *amphora* was one of the most essential vessels. Amphorae were used to transport the most necessary staples in the classical world, such as grain, olive oil, wine, and fish. These vessels facilitated trade that governed the way of life and guided economic and political control (J.T. Peña, 2007: 62). They were transported in bulk throughout the Mediterranean. The Latin word *amphora* was used during the 1st century BCE onward as an identifier of the principal Roman liquid measurement. Each *amphora* carried a little less than 26 liters (J.T. Peña, 2007: 61-65). Studies of *amphorae* throughout the Mediterranean offer a wealth of potential information that is vital to our understanding of the ancient world.

Bagunte has yielded an interesting collection of *amphorae*. However, due to the fragmentary condition of most of the sherds found, it is not always clear whether these pieces are from transport or table amphorae. The table *amphora* is always smaller, has a ring foot, ovoid body, and two strap handles; it stands without support. The transport *amphora* has an elongated and thin body, generally with a longer neck. Its mouth has a diameter small enough to be sealed. Its most distinctive trait, however, is its base, known as the toe. Toes come in a variety of styles that extend from the bottom of the vessel;

their shape is generally rounded with a small concave indentation in the center. Unlike table *amphorae*, transport *amphorae* do not stand alone without support.[8] Their shape allowed for easy transport and storage of large quantities of solids or liquids.

Toes and bases have been found in different contexts from rims and handles, making it hard to assess whole vessel-types at Bagunte. The fabric on almost all examples is of red or orange clay, with medium to large-size inclusions. Temper includes grog, quartz and sand, with little to no mica present. The vessel walls for transport *amphorae* are thick and evenly constructed; for table *amphorae,* thin and evenly constructed. All examples have striation markings indicating wheel-made manufacture. Moreover, the lack of mica in these vessels suggests that they were brought in from outside. The presence of foreign imported vessels offers clues concerning the economy of ancient sites. For example, considering the vast numbers of *amphorae* sherds found at Bagunte, it is easy to conclude that there was a significant amount of trade taking place, or that Mediterranean products were being imported to Bagunte during Roman occupation. More important, *amphorae* have been found in contexts with typical Castreja vessels used for food preparation and production. Unit 16/17F Test Pit, EST. 1, LOT 130, has yielded table amphorae fragments alongside large bowls commonly used for food preparation and serving.

CB-B-VCD/13-Z1-Q-16/17F, COL SUP is one table *amphora* rim found at Bagunte. The construction of the vessel is evenly made, with thin walls and a delicately

[8] The transport amphora was generally designed to facilitate handling or stacking, either on ships or in storerooms.

molded rim. The rim itself is slightly outturned, but has an interior curve with a slight groove to facilitate a stopper. Since there are no handles or body fragments associated with this particular piece, it is impossible to tell how large the vessel was. However, because of the shape of the rim that flares out at the neck, it is certain that this was a table *amphora*.

CB-B-VCD/13, Z1-Q-15H, EST. 2; LOT 177: K is an example of a transport *amphora*. While no rim and very little of the body remains, the length of the neck and flaring shoulder indicate that this is a transport and not a table *amphora*. Additionally, the vessel walls are too robust and coarse to be used as tableware. The paste of this particular piece is the red-orange clay that is typical of Roman transport *amphorae*. Tempering material is medium to large and subangular, consisting of grog and quartz with no mica present. The internal and external walls are extremely coarse, but striation markings are present, suggesting that this vessel was done on the wheel. Additionally, on the external wall, above the handle, evidence of a red wash remains but the condition is extremely worn.

S-curved vessels

Vessels of this type found at Bagunte present an interesting chronology of production and technological advances. These ceramics have been divided into two types at other sites such as Terroso, Sanfins and Briteiros, Phases II and III (Gomes, J.M.F. et. al, 1999). Considering the fragmentary state of examples found at Bagunte, I will follow this classification system in order to maintain a universally understood typology for vessels of this type found at sites in northwestern Portugal. Most important, while the

shapes of the vessels appear to have remained the same, the main differences between the two phases are in production, paste homogeneity and firing conditions.

It should also be noted that while vessels of this type were commonly used as tableware, for serving or were used as cups, they are found at Bagunte in contexts alongside other vessels. Sherds from large bowls used for processing and serving food, and small bowls have been found together with S-curved vessels in unit 48H, EST. 4, LOT 102. From this, it might be assumed that S-curved vessels were primarily associated with the preparation, processing and consumption of foodstuffs.

Phase II vessels **(CB-B-VCD/09 SUP: B; CB-B-VCD/11, Z1-Q-48H, EST. 3, LOT 101: A)** have a much darker paste color, typically Castreja grey. They are formed by hand and have a less evenly made construction with diameters ranging from 10 to 19cm. The temper of these vessels is primarily mica, with grog sometimes added, and inclusions range from small to medium, sometimes even large. The overall coloring range is due to the firing conditions, and most of these vessels show exposure to heat or baking sources. While some examples found show evidence of wheel-markings, most appear to have been constructed without the use of the wheel.

Phase III vessels **(CB-B-VCD/11-Z1-Q16/17TP, EST. 1, LOT 130:B, CB-B-VCD/09; SUP: F; CB-B-VCD/11, Z1-Q-49H, EST. 5, LOT 38: G; CB-B-VCD/11, Z1-Q-48H, EST. 5, LOT 109: F),** in comparison to Phase II vessels, have a much lighter paste color, ranging from Castreja brown to a light red color. They are wheel-made and indicate even construction, with diameters ranging from 9 to 23cm. The paste is homogenous throughout. The temper used is primarily mica, although a much larger

percentage of grog is added compared to Phase II vessels. Inclusion size also changes, ranging from fine to small. The paste color on these vessels remains consistent throughout because of the firing conditions.

While the two phases have obvious differences, there also are similarities that remain consistent throughout. For example, in all cases, the external walls have a shiny or smoothed appearance. Some vessels appear to be burnished, while others have a wash applied on the external surface. Clouding around the base also occurs on both types, although much more commonly on Phase II vessels. Because of the shape and size of these vessels, it is easy to assume that clouding was caused during firing and not from cooking.

Apparently there is no set form or size for all of the S-curved vessels found at Bagunte. Ceramics found have rims that are slightly outturned, with either a rolled or upturned edge. Bases all appear to have a flat resting surface. However, the lip of the base ranges from rolled to squared, or nonexistent. At sites such as Terroso the body of these S-curved vessels ranges from soft-curved to hard-curved, creating either a globular shape around the bottom half of the body or a concave curve around the middle of the body. Neck size ranges dramatically from short and wide to long and narrow. Vessel size ranges in overall height and diameter (9-23cm), but all the forms can be classed as either small storage vessels or bowls (Gomes, J.M.F. et. al, 1999).

Because of the fragmentary condition of most of the finds at Bagunte, it is impossible to tell whether these vessels had any form of decoration. Other sites within the region have yielded S-curved vessels with vertical or horizontal incised line decorations

(Silva, A.C.F. 1986: 149). Within the region, assemblages from other sites have decoration on vessels of this type that are universally applied to the widest part of the body, between the neck and shoulder. Yet, it appears that these decorations have mostly been found on Phase III, and almost none on Phase II vessels (Gomes, J.M.F. et. al, 1999, fig. 3; Silva, A.C.F. 1986: 149).

S-Curved Jugs or Pitchers

The collection of jugs found at Bagunte presents an interesting assembly of one general shape, the round-mouth jug. Because this shape lacks significant stylistic changes, and is constructed in various sizes, it is easy to recognize its dominance. Unlike other pitchers and pouring vessels, which underwent significant morphological changes over time, the round-mouth jug, perhaps because of its practicality and simplicity, maintains its presence in both indigenous Castreja pottery and Roman pottery. The shape of the jug retains the typical S-curve profile, with globular body. However, because the wall thickness appears to be greater than it is on smaller S-curved vessels, it can be assumed that this type of vessel was meant to store and carry a larger amount of liquid.

We have one example of a strap handle attached at the neck of the vessel. (**CB-B-VCD/11, Z1-Q-49G, EST. 2, LOT 3: H)** Although it is fragmentary, the size and thickness of both the handle and the vessel wall indicate that the handle belonged to a much smaller vessel than an *amphora* or large storage jug. Examples of this type have been found throughout the region at sites such as Terroso and Briteiros (Silva, A.C.F. 1986: 139-40). These represent both a taller pitcher and a more squat pitcher, thus leading us to conclude that the fragment found at Bagunte represents one or the other.

Cooking vessels:

The change of cooking vessels in Castreja ceramics has been documented throughout sites in northwestern Portugal. Cooking vessels from Bagunte and from other northwestern *castro* sites are generally understood to have been used either for cooking or processing of food (Queiroga, 1992: 64). For the cooking vessels, it appears that there are two categories: vessels that sit on a hearth surface and vessels that are suspended or placed over a hearth. Some cooking vessels from Bagunte have been found with decorative motifs, **CB-B-VCD/11, Z1-Q-15G, EST. 2, LOT 127**, while others are plain **CB-B-VCD/11, Z1-Q-48H, EST. 5, LOT 109: G**, but there does not appear to be any correlation between decorated vessels and their use. These cooking vessels have been found in contexts alongside containers used for serving, processing and food consumption throughout the site. The abundance of this type of mixed assemblage demonstrates the fact that Bagunte was an agricultural center for processing foodstuffs, as seen through the presence of *amphorae* and other storage vessels in context with vessels used for food preparation. It may also indicate that individual households or structural units were in fact centers for independent food preparation and consumption.

Vessels for processing or serving food are also found, and they follow a unique and fairly standard shape (**CB-B-VCD/13, Z1-Q-16H, EST. 6, LOT 199:E; CB-B-VCD/11-Z1-Q-16/17FTP, EST.1, LOT 100: E; CB-B-VCD/09, Q-17F, EST. 4, LOT 87:G; CB-B-VCD/11-SUP: M**). The construction of these vessels is generally fairly coarse, although most of them appear to be wheel-made. The diameters range from 20 to 46cm and all seem to have a fairly deep bowl. The rims are rolled, with a beveled interior

edge, and the exterior lip is slightly downturned. The interior walls of these sherds have wheel-marks around the rim and some vessels appear not to have been burnished or smoothed.

CB-B-VCD/09, Z1-Q-49G, EST. 2, LOT 3 is an example of a base from one of these large vessels for processing or storing food. The base is constructed of Castreja grey paste, with medium to large, silver, angular mica inclusions. The exterior surface is slightly coarse, with a harsh or uneven texture. The base has a flat resting surface, with robust walls. The external profile of the base is flat, and the base curves immediately into the vessel wall. The diameter of this piece is roughly 36cm. The vessel appears to have been fairly shallow, and thus may have been a serving bowl or basin.

Although they are not present in this typology, it is essential to note that some Bronze Age cooking vessels had bases with convex resting surfaces. This shape would have been ideal for placing them on top of embers or on a fire for cooking. Evidence for this type of food preparation is seen through the charring or burning on the base of the vessel. Although none have been recorded at Bagunte, they are one of the most characteristic shapes of Castreja pottery for the Bronze Age.

During the Iron Age we see an almost total abandonment of these rounded bases and the adoption of flat, robust resting surfaces on cooking vessels. Although fragmentary, examples from Bagunte can be identified by the presence of charring on the internal walls and burning on the external surface, but little to no burning on the base. The presence of soot and charring is typical of vessels that sat atop a hearth, with embers set around instead of beneath them. Situating the vessel on top of a hearth allowed for a

better and more efficient heat transfer, eliminating the need for the vessel to sit directly on top of the heat source. Also, it is typical to see on the internal surface of these vessels scratches or abrasions that result from utensils for stirring or for consumption. This indicates that vessels of this type were used for food preparation, and not just for boiling water.

It should be noted that convex bases remained during the Iron Age, but only on cooking vessels with internally placed handles. These vessels are unique to Castro Culture, and remained in use until the 1st century AD (Silva, A.C.F. 1986: 120). However, while the shape of the vessels itself is unique, what is most important is the general context in which they are found and the high proportion of vessels of this type uncovered at sites (Queiroga, 1992: 64). This suggests that their use may have been for special or ritual purposes, and not for general household food production. These vessels also show long-term exposure to a direct heat source, and it has been suggested that the internally placed handles were used for suspending the vessel over an open fire (Ferreira de Almeida, 1983: 19).

Handles

Because of the fragmentary nature of the ceramic assemblage from Bagunte, it is difficult to assign certain types of handles to specific vessels. While there are some examples of handles still attached to body sherds, most examples found are fragmentary and disassociated from a vessel. However, the presence of many types of handle forms is significant and can help identify certain traits present on wares found at Bagunte. This

collection represents both local, indigenous pottery of Castreja brown and grey paste, and imported or Roman vessels found throughout the site.

Rolled Horizontal Handle

The most typical indigenous-Castrejan shape found is the rolled horizontal handle (**CB-B-VCD/13, COL SUP**). The body of the handle is formed by a rolled, inner structure that spirals outward to attach to the body of the vessel. Unlike the *lug* handle, is it typically fairly long and slender and appears to project further out from the vessel body. The angle at which it is manufactured suggests that this handle type is always attached on a horizontal plane and not vertically. The handle's flat underside would be ideal for grasping. Based on the size and overall structure of the examples found at Bagunte, as well as on museum displays, these handles attached to large, open vessels such as basins, bowls or skillets. They are clearly not wheel-made, and the paste varies from Castreja brown to Castreja grey.

Lug Handle

Lug handles at Bagunte are often found separate from the vessels to which they once were attached **(CB-B-VCD/11, Z1-Q-49H, EST 7, LOT 55: A)**. Typically, they are thick, evenly constructed and have a coarse surface. Because of the size of the handles found at Bagunte, it appears they were constructed to fit large, coarse-ware vessels, such as a cooking vessel, storage vessel or large pot. The most compelling example is a large, coarse handle that still has part of the vessel wall attached. The paste is Castreja grey, with mica and grog added as temper. Although no rim is present, the wall fragment appears to be from a fairly flat vessel with a large diameter. The wall is thick, indicating a

large vessel that could sustain a heavy load. Most important, because of the rounded shape of the handle, with a flat underside, it was almost always placed horizontally on a vessel such as on skillets or *panelas*.

Double-Barrel Handle

Handles of this type are similar to strap handles (**CB-B-VCD/09, SUP: E; CB-B-VCD/11, Z1-Q-16G, EST.5, LOT 116**), and are almost always oriented vertically on vessels. While most examples of strap handles found at Bagunte are categorized as Castreja grey, some examples of decorated strap handles have been found in other paste colors. The one example of a double-barrel handle found at Bagunte appears to have been of Roman production, as this style is indicative of Roman pottery styles more broadly (**CB-B-VCD/09, SUP: E**). The handle's fabric is the red-orange clay typical of Roman ceramic manufacture, using sand and quartz as the main temper. The handle itself is constructed in a way that creates two vertically rolled or molded coils. For no evidently functional reason, the underside of the handle is flat. It is not possible to say precisely to which vessels these handles belonged to, but in the Roman repertoire they are almost always found on *amphorae* or jugs.

Bases

Like handles found at Bagunte, bases are either found in a fragmentary condition, separated from the vessel entirely, or in a context disassociated from the vessels to which they potentially belonged. Yet, despite this setback, the collection of bases does allow for a general assessment of shape and style. The assemblage represents mostly Castreja forms and a wide variety of both production and stylistic motifs. **CB-B-VCD/11, Z1-Q-**

15G/16G, EST.1/EST.2, Lot 100/127:A is a restored base of two pieces found in separate contexts. It is constructed of the typical Castreja grey clay with a high percentage of mica used as temper. The resting surface is completely flat, with a slightly rolled exterior profile. The diameter of the base is 12cm. There is a small curve from the external walls of the base that creates a globular vessel shape. The external surface of the base has evidence of burnishing, with a smooth and shiny appearance. There is no soot on the vessel walls, indicating that it was some sort of jug or storage vessel not used for food production. The internal surface of the base shows evidence of striation marks, indicating that it was produced on the wheel.

In comparison, **CB-B-VCD/09, Z1-Q-17G, EST. 5, LOT 131:I and CB-B-VCD/11-Z1-Q-16/17FTP, EST. 1, LOT 130:H**, are smaller and more coarsely made bases. The resting surfaces are flat. The external shape of these bases is rolled, but the vessel wall lacks any vertical curvature, indicating a tall, straight body shape. **CB-B-VCD/09, Z1-Q-17G, EST. 5, LOT 131:I,** is constructed in the typical Castreja brown paste, and does appear to have been smoothed, creating an even external surface. Mica is used as a temper, but the presence of quartz and grog is more abundant and inclusions are larger, and more angular. The diameter of the base is 9cm. Because there is no soot present on the external vessel wall, this piece also appears to have been used for storage, and not for food preparation. The internal and exterior walls do not appear to have any striation marks, indicating that the wheel was not used during manufacture. **CB-B-VCD/11-Z1-Q-16/17FTP, EST. 1, LOT 130:H**, is constructed of Castreja grey, but

retains the same physical characteristics, such as a coarse texture and plain exterior. What is interesting about this base is the lack of any vessel walls attached to the sherd. Around the interior resting surface of the base there is a clear indication of where a wall used to be, but it has since broken off, leading to the conclusion that the base of the vessel and the body were constructed separately and then molded together. This, alongside visible striation markings indicate that it was manufactured on the wheel.

CB-B-VCD/09, Z1-Q-49H, EST. 2, Lot 10:D is an example of a base found at Bagunte that came from a cooking vessel. The wall is extremely thick, and has a coarse, unfinished surface texture. The diameter of the base is roughly 24cm. This particular piece was constructed using Castreja brown paste and large mica and grog inclusions. The resting surface is flat, with a slightly concave shape towards the middle. The external profile of the base is rolled, and meets an almost vertical body wall, indicating that this base belonged to a large vessel. The external wall surface and the resting surface have evidence of burning and soot, a product of use over an open fire. Additionally, there is no sign of striations on the internal and external surface of the vessel, demonstrating that the manufacture was not done using the wheel.

There are two examples of imported bases found at Bagunte, **CB-B-VCD/11, Z1-Q-16/17F Test Pit, EST. 1, Lot 130:F, CB-B-VCD/09, Z1-Q-49G, EST. 2, LOT 3: I and CB-B-VCD/09, Z1-Q-49H, EST. 4, Lot 31: B.** All are constructed of either red-orange clay or orange-yellow clay. The inclusions on the bases are fine subangular quartz or sand particles. The external surface on both is also unburnished, but with evidence of a wash with a rough texture. **CB-B-VCD/09, Z1-Q-49H, EST. 4, Lot 31: B** is constructed

of the typical red-orange clay used in Roman terracotta production. The resting surface is completely flat, with an external base that is slightly rolled. It meets a vertical wall with no curvature. **CB-B-VCD/11, Z1-Q-16/17F Test Pit, EST.1, Lot 130:F and CB-B-VCD/09, Z1-Q-49G, EST. 2, LOT 3: I** are smaller bases, with a thinner wall. The resting surfaces are completely flat, but the external base profiles are thickened and meet a curved body wall. The diameter of the bases is small (9-11cm), and the wall thicknesses are fairly thin, with little evidence of soot on the internal walls, demonstrating that the vessels were most likely from small cups or bowls not used for food preparation.

Fine wares and Imported Vessels

Of the fine or imported wares found at Bagunte, there are several examples that stand out. Sigillata is a specific type of plain or decorated tableware made in the Roman Empire. Sigillata vessels are characterized by their glossy surface, with applied red slip that creates a lustrous and shiny appearance. The color of these vessels ranges from a bright red-orange, to a darker red that is evenly applied throughout the interior and exterior walls of vessels. Sigillata was produced on an industrial scale at many centers within the Roman Empire and exported widely throughout the Mediterranean and Atlantic worlds (Roberts, 1997: 189). To create this type of slip, potters used fine levigated clay. Once the mixture of clay and water settled, separating the large from the fine particles of the clay, the slip was applied in one of two ways: to an unfired vessel, where after drying, the surface was burnished or polished, or after application of the clay wash, the vessel was finished within a low-fire range (Roberts, 1997:190-192).

CB-B-VCD/13,Z1-Q-16H, EST. 4, LOT 180:A is an example of Roman sigillata found at Bagunte. The construction of the piece is uniform and very well executed. The lip of the rim is squared; half of the rim is a vertical wall, and at the midline it flares out. The interior surface shows evidence of wheel markings, indicating that the potter did not use burnishing or polishing, but fired the vessel at a low temperature. Since sigillata is manufactured both by molding and on the wheel, if there is an absence of wheel-markings, then it could be concluded that they were removed during polishing or burnishing after the vessel had dried, pre-firing. The paste used is well levigated with no visible inclusions and a chalky texture that is uniform throughout the break lines. The diameter of this rim can be calculated to 20cm, which is consistent with other examples of bowls used as tableware found throughout the Atlantic and Mediterranean world.

Another type of Roman fine ware that has been found at Bagunte is plain, undecorated pottery with a red wash. **CB-B-VCD/11,Z1-Q-49H, EST. 3, LOT 25: C** is an example of an extremely fine and small Roman vessel. The interior is plain, but the exterior surface has an evenly applied red wash that shows no evidence of burnishing or polishing. Regardless, the color of the sherd as well as its thin profile suggest that it was a fine-ware vessel used for purposes other than food production or storage. The diameter of the sherd, less than 4cm, is too small to draw any firm conclusions, but it appears to have been from either a small bowl or cup.

Another example of a small, imported vessel found at Bagunte is **CB-B-VCD/11, Z1-Q-49H, EST. 3, LOT 25: C**. The wall is extremely thin and evenly constructed. The rim is upturned with a black or dark brown slip applied, and the internal

and external walls have an applied red wash. Although the sherd is fragmentary, and has been badly worn, it does appear to have been smoothed, as no wheel markings are present. Like other examples found, the surviving rim diameter is too small to draw any solid conclusions (3cm), yet the sherd size does indicate that it was most likely a small cup or bowl.

Castreja Fine Ware

Castreja fine ware represents a collection of vessels found that are all wheel-made, have evidence of burnishing, washing or smoothing on both the internal and external surfaces and have a unique shape or form. **CB-B-VCD/09, Z1-Q-17G, EST. 4, LOT 40**, is an example of a rim for a small bowl or tableware. The bowl is evenly constructed, but the walls are fairly robust for its size. The rim is thickened and outturned, creating an almost horizontal profile. The exterior is smoothed and the paste used has small to medium subangular mica inclusions. The paste color is of the typical Castreja grey, with no evidence of soot or charring on the external surface of the vessel walls. The interior walls have striation marks, indicating that this piece was manufactured on the wheel.

Of the bases found for Castreja fine-ware, **CB-B-VCD/09, Z1-Q-17G, EST. 5, LOT 61: A** is an excellent example of local Castreja brown vessels made on the wheel. The tempering material is fine to small, rounded mica and sand. The diameter is 12cm, with a flat resting surface and extremely thin walls. The external profile of the base is slightly flaring, and has a deep groove between the base and the vessel body. The external surface is smoothed, with an applied wash, but the base appears to have been

burnished. The interior of the bowl has striation markings, indicating that the vessel was wheel-made, and that the wash was not applied there. **CB-B-VCD/09, Z1-Q-49G, EST. 3, LOT 21** is another example of Castreja fine-ware, but this vessel was constructed of Castreja grey paste. Small to medium, sub-angular, silver mica was used in high proportion as a temper. The external walls are smoothed and evenly constructed. The base has a flat resting surface and the external profile is rolled. The vessel walls appear almost completely vertical from the base and are fairly thin. The diameter of this base is roughly 13cm. Because of the shape and size of the piece, specifically because of the vertical walls, this vessel would have been a small bowl.

While most Castreja fine-wares found at Bagunte are from small vessels, there is evidence of larger Roman-influenced vessels. **CB-B-VCD/09 SUP: F** is an example of a larger, wheel-made vessel with an applied red wash. The most significant aspect of this rim sherd is the Roman and Castreja characteristics it has. Post-deposition has worn down the wash on the sherd, but the interior wall still retains much of the red-orange color. The rim is outturned, and the vessel walls are evenly manufactured, with evidence of wheel and finger marks on the interior and the exterior of the neck, indicating that no burnishing or polishing occurred. What is most interesting about this piece is the presence of large mica inclusions alongside the Roman red-wash. Typically Roman vessels show little evidence of mica used as temper, but this sherd does. This is one of the best examples of an indigenous-Roman vessel manufactured after Roman colonization and this particular piece combines both traditions. The overall manufacture of the piece suggests that it was tableware, or that it was used for purposes other than food production or storage.

Strainers

CB-B-VCD/11, Z1-Q-49G, EST. 2, LOT 3: D; CB-B-VCD/11, Z1-Q-49G, EST. 2, LOT 3: F; CB-B-VCD/11, Z1-Q-49H, EST. 2, LOT 10: F; CB-B-VCD/11, Z1-Q-49H, EST. 2, LOT 10: H. Strainers were often used for food production, and are commonly found at archaeological sites. They had many purposes, like making cheese or straining wine and oils. Examples found at Bagunte are coarsely constructed and although fragmentary, they do retain at least half of one of the strainer's hole. Unlike other vessel fragments found with semicircle cutouts or punctures near a rim, these sherds do not show any presence of a rim or lip. More important, none of these small sherds has any curvature; thus they likely were part of the flat bottom of a strainer. Because strainers were used all over the Mediterranean and for a long period of time and because of the fragmentary condition of examples found at Bagunte, it is impossible to assign a date or a specific form. However, the presence of mica as a temper indicates that indigenous potters made these vessels and they were locally produced. Of the examples found, the paste color ranges from Castreja brown to Castreja grey, and they do not appear to have been burnished, smoothed or washed. They also do not show signs of wheel-marks. These characteristics are fairly typical of strainers, as the most important aspect of their construction was the well-executed puncture holes and not overall surface smoothness.

Chapter 5: Conclusions

As previously mentioned, the difficulty in understanding this particular collection is that, as with other *castros*, Bagunte's collection consists of unassembled fragments. For now, the materials from Bagunte include unsystematic surface collections since 1992, as well as the ceramics excavated during the Bagunte field school project over the last five years. Thus, while the use of contextual evidence is important to understand the chronology of a site, in the case of Bagunte that evidence is as yet limited.

For the purposes of this thesis research, the primary aim was to identify particular traits that are associated specifically with the ceramics from the Civitatis of Bagunte. A comprehensive analysis of a ceramic assemblage can yield vital information assisting the understanding of: the kinds of activities that took place throughout the site; the timeframe of a particular context, occupation layer, or overall habitation; as well as the economic relationships (trade and distribution) and the social organization.

What is most significant is the merging of imported and Roman ceramic shapes into Castreja pottery production, specifically in the manufacture of Indigenous-Roman wares that appear after Roman expansion into the area. It is clear from this typology, and from the assemblage that there was an influence of Roman ceramic shapes and forms, but that the manufacture of these wares was done following typical Castreja traditions. The presence of *amphorae* that were imported into the region, along with locally manufactured, foreign vessel shapes are compelling for both the influence of colonization, as well as of the local Castrejan identity, expressed in the fact that foreign shapes were incorporated into the Castrejan ceramic manufacturing process. Moreover,

the presence of imported or Roman vessels found in context with typical Castreja shapes indicates that while production of foreign shapes was occurring, total abandonment of indigenous shapes did not occur. This, alongside the Classical texts referring to Iberia, helps to create an understanding of how the networks in northwest Portugal facilitated a change in *castro* identity, production of ceramics, and overall way of life.

While it is clear that there was a merging of Indigenous-Roman ceramic traditions in production and use, what is still problematic for this collection is the absence of specific types of material culture. For example, among the present assemblage, there is no evidence of lamps or votive objects. Considering the presence of sigillata, and other imported fine wares, together with the evidence for Romanization of the site, it is peculiar that such material culture would be absent from the site. While there were no Roman administrative buildings or temples constructed at Bagunte, the lack of such necessary and typical materials is curious.

The development of typological groups based on form, function and specific attributes is essential for the analysis of ceramic assemblages. It is also an important aspect of the archaeological record for any site. Identifying the chronology of ceramic production within Bagunte is key to understanding the history of the site and the possible changes that occurred before and after Roman colonization. This process includes creating modes by identifying form and function and categorizing taxonomic stylistic attributes as well as the materials used for manufacture. The archaeological record at Bagunte indicates a gradual but evident change in ceramic styles, including forms and

paste that hint not only at Roman influence but also at local craftsmen adapting to new and emerging styles in the post-Roman occupation.

This mode-based taxonomic classification of the pottery establishes a system that will be comprehensive and flexible, allowing for future inclusion of unexpected elements missing from my preliminary research. Separating the pottery into four distinct groups: Castreja grey, Castreja brown, Castreja-Roman, and Imported wares—and then sub-dividing these into varieties based on shape ensures that future finds can be added as excavations continue, while maintaining strong and easily identified categories into which to classify ceramic materials. The expressed purpose of this thesis is to attempt to understand some of the major macroscopic characteristics present in the Bagunte assemblage and to use those traits as an identifier for Castreja pottery. Further, this study aims to begin to understand the social factors that drove potters to both incorporate foreign shapes into their manufacture, as well as maintain the production lines of typical and locally manufactured ceramics. While this particular body of research discusses only a small percentage of the ceramic material found at Bagunte, it represents the basic modes of production and manufacture of pottery present on the site. As excavations continue, future ceramic material can be studied within the four groups created, or within groups yet to be identified to create a larger, more comprehensive typology.

Appendix A Images and Profiles

Illustration 1: Strainers

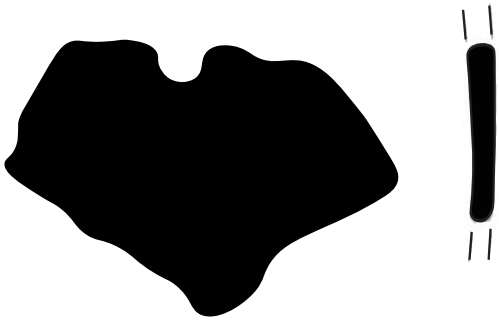


Figure A1: CB-B-VCD/11,Z1-Q-49G, EST 2, LOT 3- F

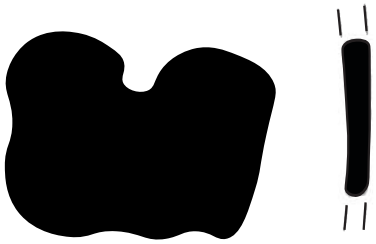


Figure A2: CB-B-VCD/11,Z1-Q-49H, EST 2, LOT 10- H

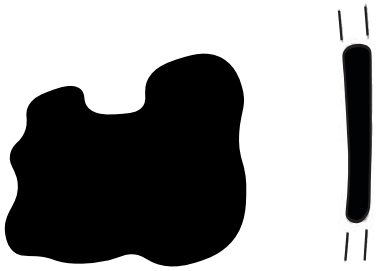


Figure A3: CB-B-VCD/11,Z1-Q-49H, EST 2, LOT 10- F

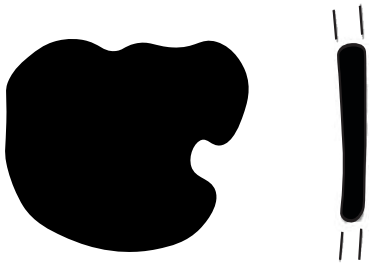


Figure A4: CB-B-VCD/11,Z1-Q-49G, EST 2, LOT 3- D.

Illustration 2: Rim Profiles

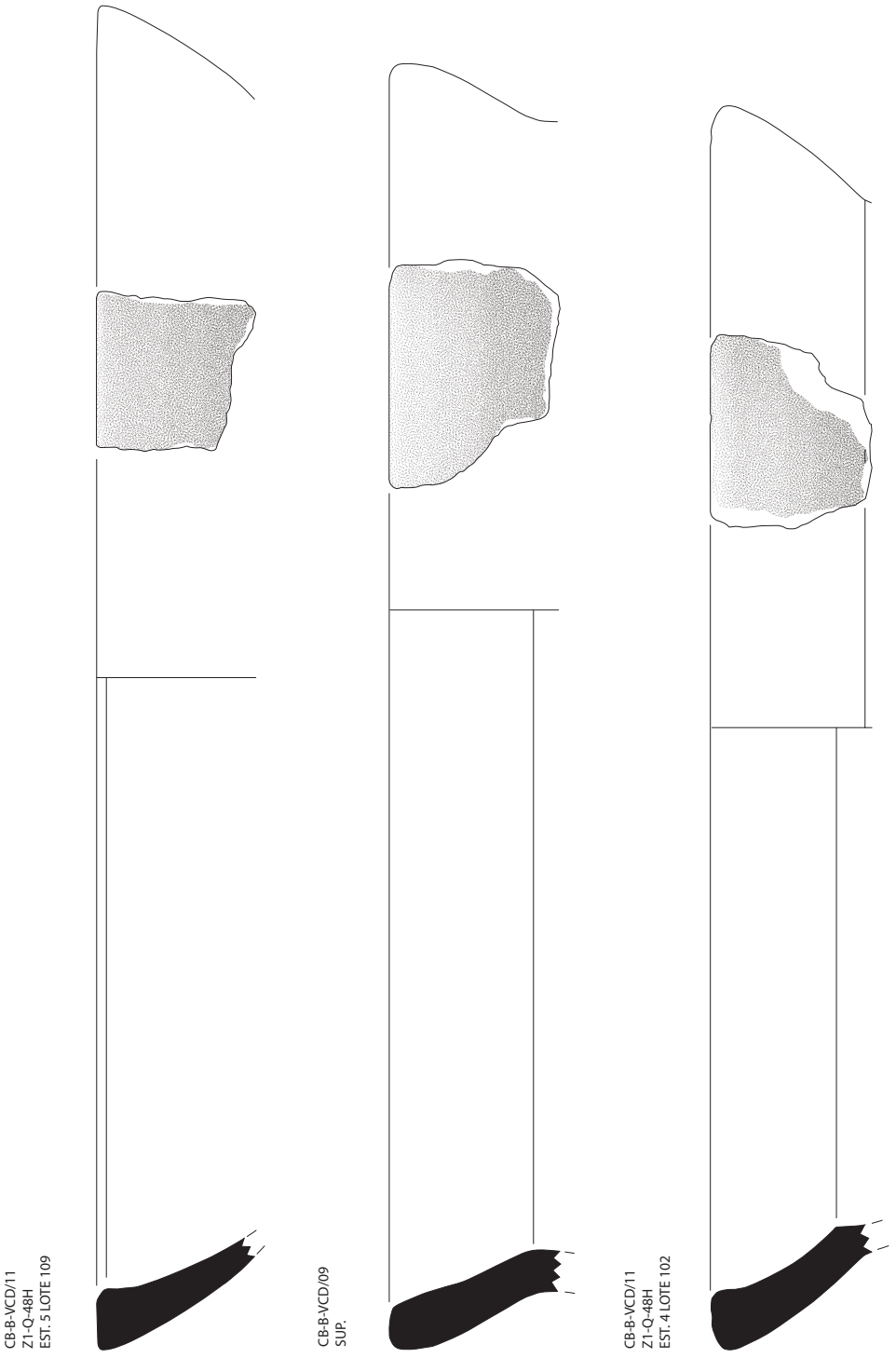


Illustration 3: Rim Profiles

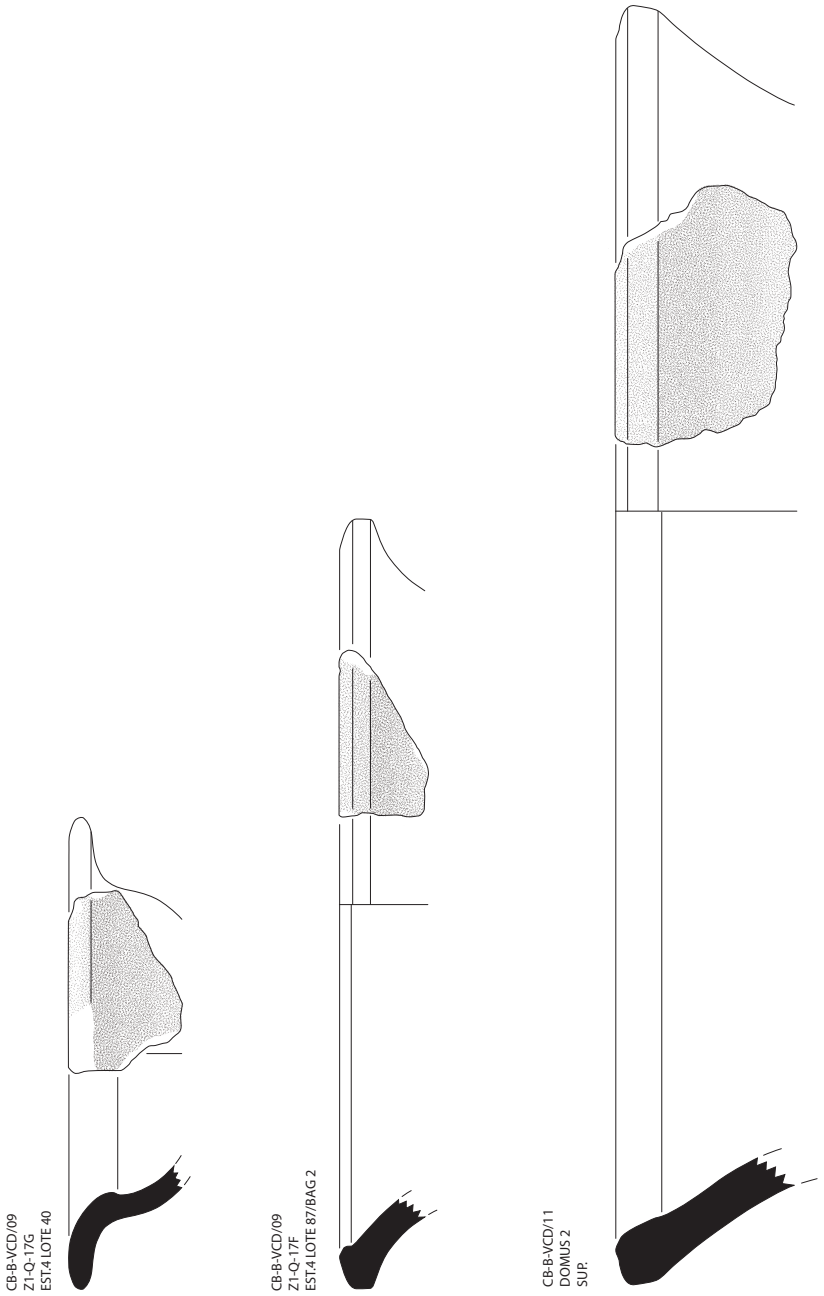


Illustration 4: Bases

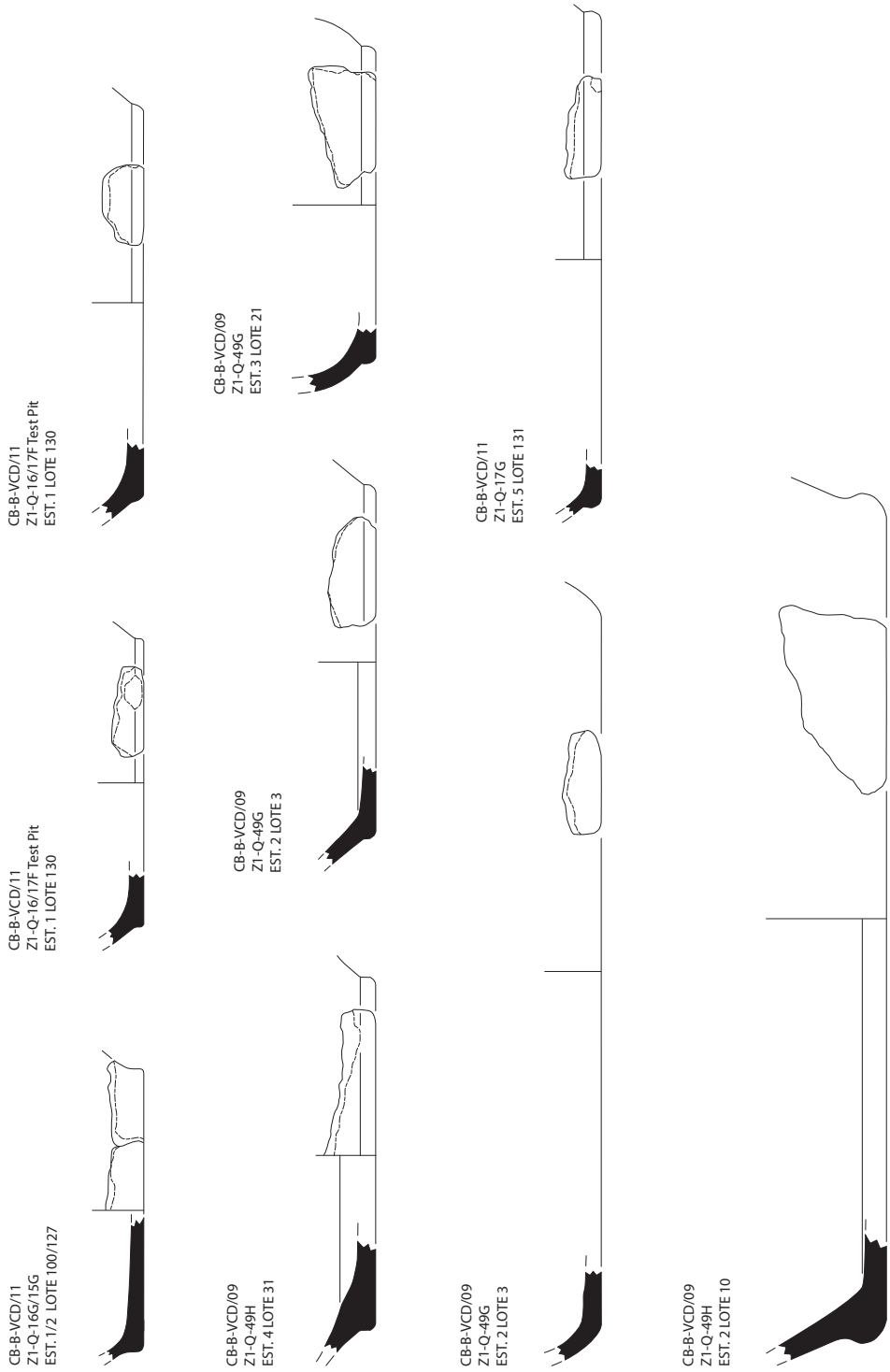


Illustration 5: Handles

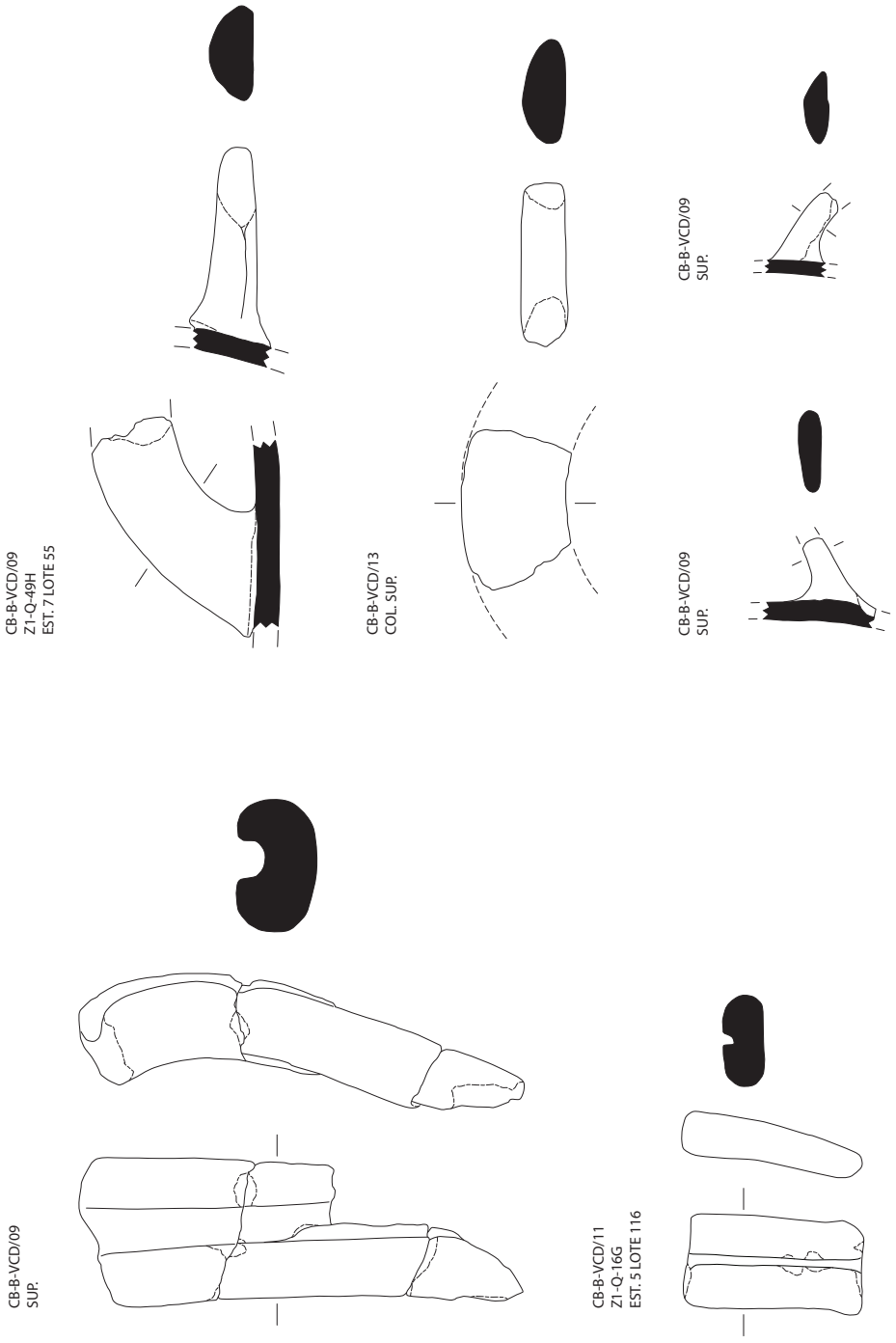


Illustration 6: Rim Profiles

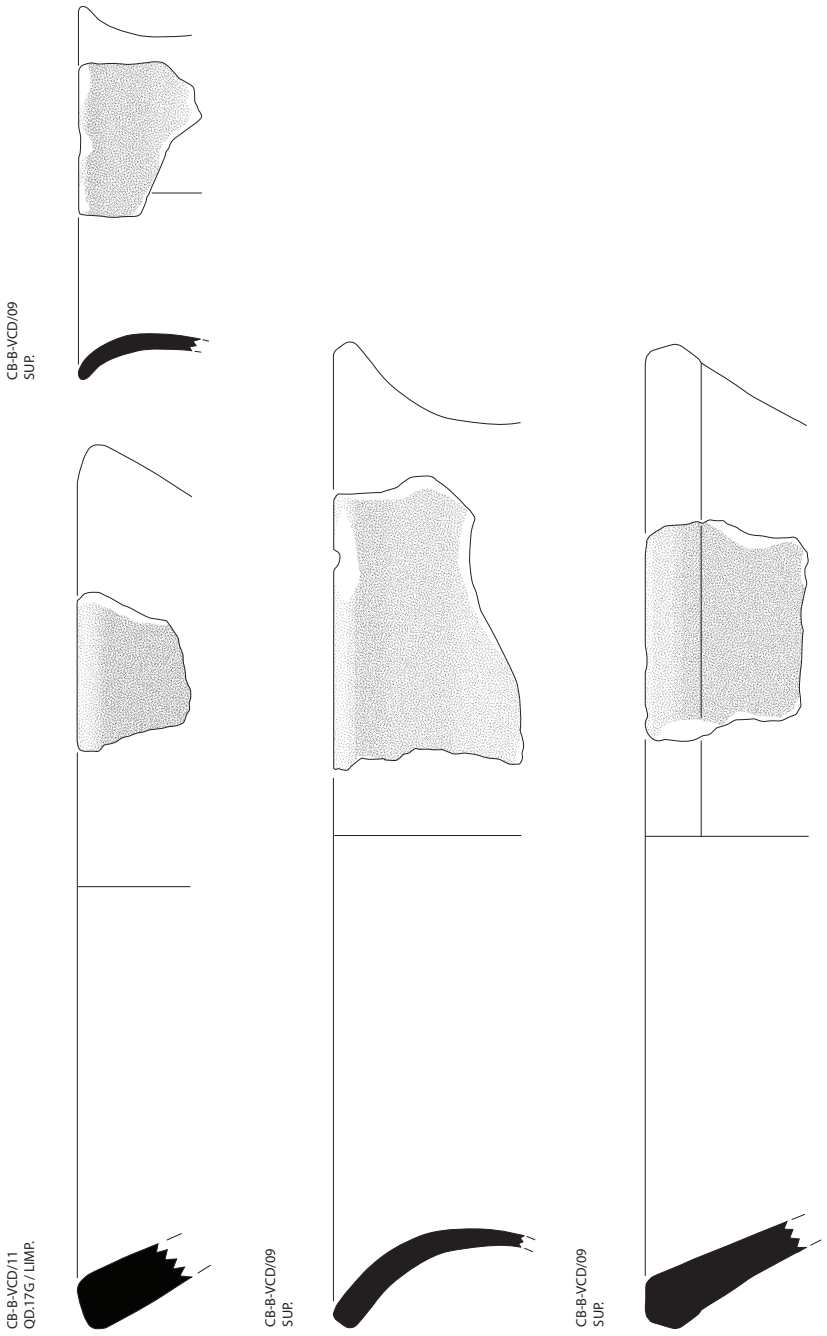
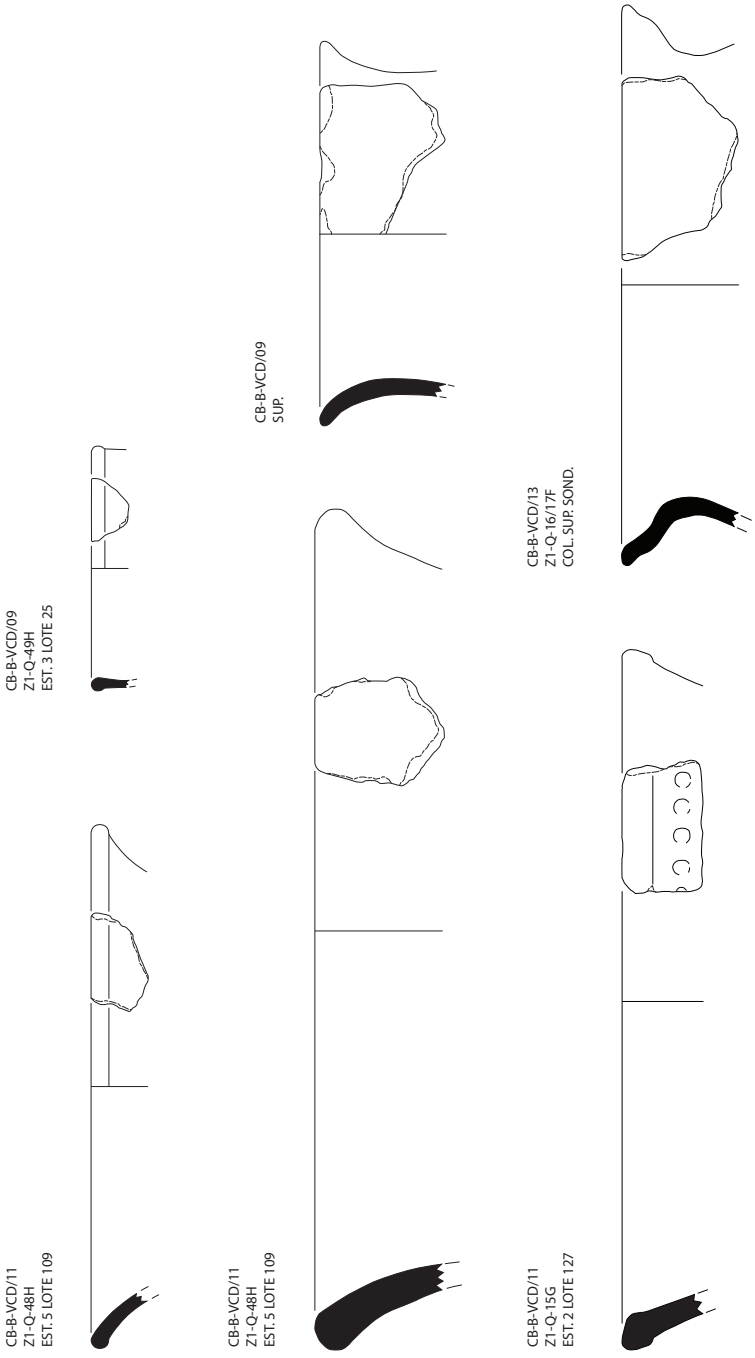


Illustration 7: Rim Profiles



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