Preliminary Report on the Earthenware Pottery from Ille Cave and Rockshelter, Palawan, Philippines

Yvette Balbaligo[1]

Abstract

Between 2004 and 2008, approximately 12,600 earthenware pottery sherds were excavated at Ille Cave and Rockshelter, a multi-period burial and occupation site and one of several cave complexes in El Nido, Palawan, the Philippines. The report presents the results from the first systematic analysis of the pottery. It gives details of pottery quantities, describes fabric and form, and discusses manufacture and decoration styles.

Introduction

This paper reports on the preliminary results of analysis on the earthenware pottery excavated at Ille Cave and Rockshelter, Palawan, the Philippines, between 2004 and 2008 (Figure 1). This is the first systematic study of the Ille earthenware since they were excavated. This report provides a description of fabric and form, and discusses the decorative variability. The analysis of the earthenware forms part of the results for PhD research currently in progress.

Fieldwork at Ille Cave and Rockshelter started in 1998 by the National Museum of the Philippines and the University of the Philippines-Archaeological Studies Program (UP-ASP) (Hara and Cayron 2001). In the early years, ceramics were found mostly on the surface and at shallow

[1] Institute of Archaeology, University College London, 31-34 Gordon Square, London WC1H 0PY UK.
Email: y.balbaligo@ucl.ac.uk

Hukay Volume 15, pp. 1-20

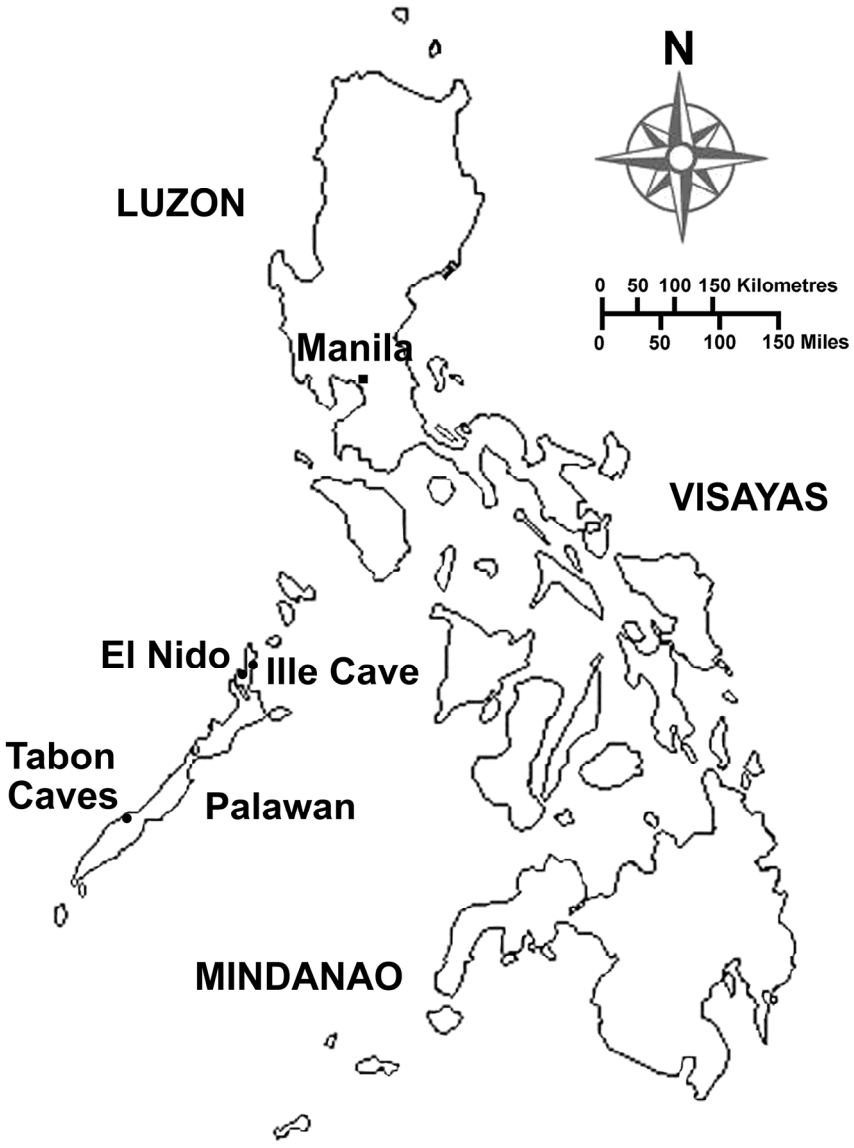

Figure 1. Map of the Philippines showing Ille Cave and Rockshelter site, El Nido on Palawan Island.

depths and included decorated and undecorated earthenware, stoneware and porcelain sherds (Hara and Cayron 2001). However, none of the finds could be associated with confidence to any of the surfaces recognised at the site as there had been so much large scale turbation (human and natural) in the upper layers where the sherds were recovered. It was assumed that all these artefacts were in secondary deposition; mostly as part of fills for burial pits dug through the centuries (ASP 2005-2006; Paz and Ronquillo

2004). In 2004, the UP-ASP with an international collaboration, resumed excavations at the site and a new recording system was implemented. The trenches were trowel excavated in single contexts and recorded. This ensured that in successive years, all artefacts recovered were from a secure context and recorded and accessioned systematically. This research examines the earthenware found in the five-year period from 2004 to 2008. As a standardised recording system has been used since 2004, the pottery excavated in these years can be confidently associated to the stratigraphy of the site.

There is a long history of pottery studies in the Philippines and Southeast Asia. The most notable study on Philippine ceramics has been by Solheim (2002 [1964]) who proposed four pottery complexes—Sa Huynh-Kalanay, Novaliches, Bau-Malay and Loboc—based on excavations and museum collections. As this is the biggest body of work carried out, many researchers since have attempted to fit or associate pottery excavated in the Philippines to one of these categories. With the Ille assemblage, in previous years, it has been reported that "the earthenware ranges from numerous examples and varieties of elaborately decorated sherds in the Sa Huynh-Kalanay pottery tradition, through to more simple incised or impressed wares and completely plain wares… It has been proposed that the elaborately incised Sa Huynh-Kalanay vessels were used exclusively in ceremonial contexts" (Kress 2006:25). However, this research to date indicates that while the earthenware might have been for ritual use, some of the decorations may not in fact be from the Sa Huynh-Kalanay pottery tradition. Some of the styles are similar and there may be some relatedness between designs but the Ille earthenware does not have the dominant style traits associated with the Sa Huynh-Kalanay pottery tradition.

The decorated sherds show various designs, "based on comparisons with previous archaeological studies, some of the designs have been traced back to time depths of 4500 to 3000 years ago" (ASP 2005-2006:29). A variety of the designs, mostly geometric forms, are usually associated with what is conventionally called the Metal Age Period in Philippine archaeology, c.2500 to 1500 years ago (ASP 2005-2006). Cord marked, basket marked and paddle impressed designs might even be earlier as these designs are found in Southeast Asia and associated with the Neolithic (see Solheim 2003). In contrast to the vast amounts of earthenware excavated, only few tradeware pottery sherds have been found on the surface and in sub-surface fills and there was a limited presence of tradeware pottery found in the Dewil Valley. Tradeware,

comprising stoneware, celadon and porcelain, range from 10th century CE to 14th century CE (ASP 2005-2006; Paz and Ronquillo 2004). During excavations, tradeware sherds were found in the same contexts as earthenware, but tradeware were not found in all contexts (Balbaligo 2009). Separate investigations are needed on the tradeware at Ille and in the Dewil Valley.

Methodology

An initial typology was created to classify and quantify the Ille earthenware stored at the UP-ASP. The typology was based on diagnostic sherds which were sherds with surface decorations and clear morphologies. These were immediately recognisable amongst the many sherds in the assemblage by macroscopic observation. These preliminary categories were: (1) Plain body sherds—i.e. non-decorated and morphologically non-diagnostic; (2) Decorated body sherds; (3) Rims; (4) Carinations; (5) Bases; and (6) Others. Body sherds were divided into plain sherds (1) without decoration or 'plain ware' and decorated sherds (2). These body sherds did not have any other diagnostic morphological features, such as rims or bases. The plain body sherds category also contained plain neck sherds which had distinct concave necks. Necks are defined by Rice (1987:212) as a "restriction of the opening of a vessel, beginning above the point of maximum diameter of the body, that is at some point on the shoulder". Decorated sherds, refers only to incised and impressed designs and not surface treatments, such as slips, glazes or paints. With the rim category (3), the sherds were not divided into plain and decorated. It was also difficult differentiating between lip and foot rims. In this analysis, they were not distinguished and placed in the same category. The carinations (4) and bases (5) categories were not divided into plain and decorated sherds. The others category (6) comprised forms which did not fit into any of the above categories. By using these six tentative pottery types, it is possible to provide an overall description of the basic characteristics of the assemblage.

After the sherds were sorted into the six categories above, the sherds were counted. All care was taken to ensure that the count was correct and that no other non-earthenware artefacts were included. After the sherds had been classified and counted, they were then taken out of their categories and grouped into the stratigraphic contexts in which they were excavated. The sherds which did not have context numbers were sorted into groups for the East and West mouth trenches. This was done to

examine: how many sherds were excavated within a context; the variation of sherds types within a context, and the variation of surface decorations that occurred within a context. The results generated by this analysis will be used to map where the sherds occur within the stratigraphy and what other artefacts were found in that context. This will contribute towards an interpretation of the depositional history for each context. It will also be useful for dating the pottery relative to other artefacts in the same context and where the pottery occurs within the Ille cultural sequence.

A macroscopic analysis was then carried out on a sample of the earthenware. This sample was selected to construct a more detailed typology. The sample comprised: a total sample of all decorated earthenware, carinations and unusual, unique or notable forms; a stratified sample of the majority of the rims; and a stratified sample of a range of fabric colours. Where possible, samples came from a secure context. 1000 sherds were analysed. Attributes such as size, thickness, temper were recorded on to a database and will be used to create types. These results will be published at a later date.

Results

Quantities

The total number of earthenware sherds excavated between 2004 and 2008 is 12,629 (Table 1). Though this count aimed to be conclusive, it may be incomplete due to sherds being kept by other researchers for examination and not declared.

Table 1. Total number of earthenware sherds found between 2004 and 2008.

Category	Diagnostic type	Number of sherds
1	Plain body sherds	10,652
2	Decorated body sherds	626
3	Rims	1066
4	Carinations	216
5	Bases	56
6	Others	13
Total number of sherds		12,629

Fabric

The condition of the sherds varied. Generally the sherds were worn with details still visible and clear. A brief macroscopic observation of fabric was carried out, taking into account physical characteristics of the fired clay to provide a basic description and a convenient naming system. This was mostly based on the colour of the clay and firing characteristics. A partial naming system already exists for the Ille earthenware based on colour and this naming system will continue to be used. Three fabric categories based on dominant colours were distinguished. These were: grey ware; brown ware; and red ware. However, there are also variations in these classes of colour. Many red ware sherds were red-slipped, however, not all red coloured sherds were slipped. Red ware ranged from light reddish oranges (Reddish Yellow 5 YR 5/6, Munsell Color Company 2000) to dark reddish browns (Dark Reddish Brown 5 YR 3/2). Similarly grey and brown wares ranged between darker and lighter shades. Colour, disregarding slips and paints, is determined by the type of clay, the mineral composition—the kinds and amounts of iron compounds and organic matter—and how it reacts on firing. These observations did not take into account surface treatments such as slips, glazes, polishes or paints which might have given the vessel a different colour in parts, therefore sherds were categorised by the majority colour. Some sherds' exteriors were a different colour to the interior depending on exposure during firing. However, sherds were categorised according to the exterior. While colour is useful in the first instance to categorise earthenware, colour is not always an indicator of common clay source for similar sherds, and pottery made from the same clay source may not be of the same colour as clays change on firing depending on condition. This will be taken into consideration in further analyses.

The earthenware contained a variety of inclusions. Carlos (2006) has already identified organic tempers, such as grass and woody materials in the sherds, and possibly rice. The inclusions in other sherds were mostly coarse fluvial sand comprising angular quartz grains and angular rock fragments. The angularity of the inclusions suggests that they were crushed and added to the clay as temper. A few sherds with coarse clay contained whole gastropods which were still present because of low firing temperatures. Grog may also be present but this requires further investigation. Thin-sections of a selection of the earthenware are being prepared and will be petrographically analysed.

As this pottery is termed 'earthenware' it is evident that the pottery

was fired at a low temperature. The earthenware may have been fired between 350° and 900–1000° centigrade (Rice 1987:5). No evidence of earthenware firing, such as kilns or remains of open fires/bonfires, have been found in the Dewil Valley, however, it is likely that open fires were used. Certain attributes of the sherds attest to this, such as the porosity of the sherds and the cores. Most of the red wares have oxidised exteriors, unoxidised cores and oxidised interiors, where the core is greyish black and is the part of the sherd which was the least exposed during firing. Orton *et al*. (1993: 69) state that "pots whose cores are black or dark grey probably contain carbon derived from the incomplete burning of organic material in the fabric. As this carbon is burnt it will take oxygen and this can lead to local reduction of the fabric and hence a grey colour". Furthermore, Orton *et al*. (1993) show that sherds with sharp cores margin have reduced and are cooled rapidly in air. This is the case with some of the Ille earthenware.

Form

Certain aspects of a vessel's form are determined by its intended function (Orton *et al*. 1993). However, at Ille, no whole intact vessels were found except for one small jarlet excavated in 2006 (see Eusebio 2006) and in 2008, at least three broken whole vessels were excavated. With the Ille assemblage it is difficult to infer form, height and diameter, and thus, difficult to ascertain function. The majority of the sherds were small morphologically non-diagnostic body sherds. No refitting exercises of small sherds have taken place due to time constraints. Wall thickness also relates to the size of the vessel and provides evidence of intended use. This will be examined at a later date. Forms ranged from vessels with restricted orifices with protruding everted and outcurving lips and distinct convex necks; to unrestricted inverted and incurving orifices which suggests neckless jars or shallow vessels, for examples bowls or dishes (for example see Figure 2). The rim category (3) comprised mouth and foot rims. At this stage in the process, it is difficult to say with certainty whether some rims are mouths or foot rims/bases. Rim sherds were the second most frequent sherds in the Ille assemblage and can provide the most information for assessing the size and shape of the vessel. By fitting the curve of a rim to a standard diameter-measurement template, the orifice diameter can be calculated as well as the percentage of the total rim circumference. While the orifice diameter varied according to the many sizes of the different vessels, the majority of the rims sherds ranged from 5% to 30% of the total vessel orifice circumference. Rim forms will also be examined at a later

date. The rims in the Ille assemblage can be broken down into three categories; plain rims; decorated rims; and rims with decorations on the lips. The majority of the rims were plain and undecorated. Some of the lip rim edges were distinctly blackened which may have been the result of a surface treatment to the lip which blackened on firing or where the lip was more exposed as the extremity of the vessel when fired. This occurred on plain as well as decorated vessels.

Carinations are a clear diagnostic characteristic. At the corner point, the direction of the tangent changes at an angle and abruptly shows a sharp change in contour. This sometimes marks a fixed division in the vessel (Shepard 1956) or marks a change in decoration. The sherds in the carination category (4) showed sharp carinations where the angles ranged from 84° to 155°. However, the assemblage also contained rounded carinations where the angle was less sharp and created a more rounded curve. Carinations can be found on decorated and undecorated vessels. Figure 3a has a conventionally sharp corner point at 107°. This sherd is discussed further below. Figure 3b show a decorated carination with stamp marks typical of the Ille assemblage. The carination is rounded with a wide angle at 125°. This decorative style is also discussed below. The base category (5) was the smallest category of diagnostic sherds. The bases consisted of completely flat bottoms, rounded bottoms, and footed vessels of pedestal bowls where it was clear that the rim of the vessel was a base.

Figure 2. IV-1998-P-43411-43418, west mouth, context 1517, almost complete plain red-slipped shallow bowl.

Figure 3. ***Left 3a:*** IV-1998-P-43003, west mouth, context 75, decorated carination with red paint, impressed with punctates. ***Right 3b:*** IV-1998-P-42619, west mouth, context 705, decorated red-slipped carinated sherd.

Rice (1987) defines the base (sometimes called the foot) as the underside of a vessel, touching the surface it rests on during normal use. However, while this is self-evident for flat-based vessels, for round-based vessels it is hard to distinguish the base from the side. With round-based vessels, even when the entire lower portion does not touch the surface, it is still called a base. Of the many plain body sherds that were small and curved concavely, it was hard to distinguish whether these sherds were part of the body or the curve of a base. For example, the only whole jarlet (Eusebio 2006) is small and slightly ellipsoid. If broken, it would be difficult to tell which sherds were from the bottom of the vessel. Amongst some of the sherds in the others category (6) were the only square lid excavated (ASP 2005-2006), a few appliqué handles and the whole and almost complete vessels.

All of the earthenware vessels were hand-formed and some were slab-built and slab-layered – where a layer of clay had been added to a pre-existing layer. The paddle-and-anvil technique was used and could be seen on many of the sherds as they had bumps and an uneven interior where the vessel had been struck by a paddle and shaped by an anvil. The paddle also smoothed the exterior and was sometimes decorated (see below). Some sherds showed straight and even horizontal lines which look like incisions around the exterior of the vessel, especially near the rim. These are marks from stone polishing. However, this smoothing technique was not burnishing.

Decoration

The plain body sherd category (1) refers to sherds which did not have incised or impressed decorations. However, they may have had surface treatments, such as slips, glazes, polishes or paints, but this was not investigated. Without conducting a microscopic examination, it was difficult to distinguish with certainty any surface treatments on the sherds. The majority of the earthenware sherds were plain body sherds. This is to be expected as for most vessels, far more sherds result from the breakage of the body which has a greater surface area than from the proportionately smaller rim and base regions (Rice 1987). However, this does not mean that most of the vessels were plain as some vessels may have had sections which were plain and decorated and depending on where the vessel broke, the sherd would show either the decorated or undecorated part of the vessel. Therefore, the amounts of plain wares and decorated sherds are not representative of the amount of plain and decorated whole vessels that may have been present at Ille.

The decorated body sherds category (2) included impressed designs; with a paddle or a stamp impressed into the wet clay; incised designs where vessels were incised with an implement; or a mixture of impressed and incised designs—which is more common. Rice (1987:244) states that "for archaeologists, styles—especially pottery styles—have long been important in reconstructing the histories and cultural relation of peoples who occupied archaeological sites." Furthermore, Rice (1987:244) says that "styles are generally considered visual representations, specific to particular contexts of time and place, that at the least transmit information about the identity of a society that produced the style and about the situation or location it appears". In Philippine archaeology, decoration and style have been one of the most explored aspects of pottery and has been the primary attribute for categorisation (*cf.*, Solheim 2002).

Impressed designs have a sense of repetition and uniformity due to the implement used. The common designs which were impressed, evenly or irregularly upon the bodies of vessels, were made with cord, vine and basket bound paddles. Sometimes the impressions crossed over themselves, while carved paddles formed squares of various sizes. Figure 4a shows a grey sherd with standard cord marked paddle impressions. The cords are visibly tight and twisted and show ribs and clear grooves. This is a common design across Southeast Asia (Solheim 2003) and at Ille, this design only occurs on grey ware. Similar designs and methods of decoration can be seen in the Tabon Pottery Complex which may

Figure 4. ***Left 4a:*** IV-1998-P-41591, west mouth, context 1844, grey ware, cord-bound paddle impressed sherd. ***Middle 4b:*** IV-1998-P-42399, west mouth, context 1899, brown ware, vine-bound paddle impressed sherd. ***Right 4c:*** IV-1998-P-20126, east mouth, no context, grey ware, carved paddle impressed sherd.

demonstrate they were manufactured in a similar way. The cord impressions show they were made with a bound paddle. Fox (1970: 83, after Solheim 1964) says the cord impressions were achieved by "wrapping a paddle with twine of various sizes and spacings. The cord design was then transferred to the plastic surface of the vessel by paddling which produces negative impressions." Figure 4b shows a vine impressed brown sherd, however, unlike the cord marked sherd, the vines are loose with bigger gaps between the grooves and the impressions are fainter. This design occurs on both grey and brown sherds. This decoration is the second most occurring in the assemblage but much less frequent than the cord marked impressions. Figure 4c shows a carved paddle impression of squares.

Other frequently occurring impressed designs are what look like c stamps and s stamps impressed into the wet clay and made with the circular tip of reeds or small bamboo. There are only four permutations of these stamps found at Ille; (1) consecutive c stamps either horizontal, vertical or diagonal (the most common occurring stamp pattern—see Figures 5a and 5b); (2) s stamps formed from two joining c stamps (see upper carination of Figure 3b); (3) continuous alternating joined c stamps (see lower carination of Figure 3b); and (4) facing c stamps. This particular design occurs only on red-slipped vessels and has been interpreted as Metal Age pottery (ASP 2005-2006; Paz and Ronquillo 2004). The implications of these particular designs are discussed below. Many of these

c stamps occur across the rim of the vessel. They are usually delimited by horizontal bands which separate it from other sections of the design or creating registers across a vessel.

Other designs which occur in registers include incised lines. The incised Ille earthenware show a variety of lines at varying depths incised into the wet clay. Some examples of incised designs include straight lines in varying styles; diagonals; cross-hatchings; and some parallel to each other as well as forming geometric shapes such as triangles and rhombuses. Punctations also occur with these patterns and are impressions made with a simple tool, a pointed instrument such as bamboo or wood, and vary in size, depth and precision.

In some sherds, especially the red-slipped, where incisions and impressions have been made, between some of the grooves and in the impressed c shapes and s shapes, the designs contained a white mineral substance most likely lime, white clay (ASP 2005-2006; Paz and Ronquillo 2004) or shell. This white substance effervesced when exposed to dilute hydrochloric acid (HCl) which indicates it is a form of calcium carbonate.

Figure 5. ***Top 5a:*** IV-1998-P-38020, west mouth, no context, decorated red-slipped rim sherd with white inlay. ***Bottom 5b:*** IV-1998-P-35996, west mouth, context 883, decorated red-slipped rim sherd.

Other decorative styles include paint applied to the exterior of the sherd though this is very rare. Figure 3a shows a carination with red paint which might be red ochre made from hematite. The punctates are very roughly impressed which is rare in the assemblage as they are usually more neatly impressed.

With the decorated rims (3), no paddle impressed designs were found on necks or lips of rims. The most frequently occurring designs were incised lines, punctates, triangles shapes and c and s stamps. Most of these stamped designs were found very close to the rim edge which suggests an unrestricted vessel and possibly a foot rim. There are fewer instances of decorations on lips. These decorations are usually impressed with fingernails, thin sticks, tools or baskets. Figure 6a shows one layer of a cross-hatched pattern across the lip forming rhombus patterns. Figure 6b shows a lip with diagonal lines impressed with a fingernail. Diagonal lines can be 'positive' or 'negative'. Figure 6c shows an imprint of a basket across the lips. The practice of decorating rim lips is widespread in many different locations in Peninsular and Island Southeast Asia and western

Figure 6. ***Top left 6a:*** IV-1998-P-42456, west mouth, context 1844, brown ware rim with decorated cross-hatching on lip. ***Top right 6b:*** IV-1998-P-15341, west mouth, context 227, brown ware rim with diagonal lines made with fingernails on lip. ***Bottom 6c:*** IV-1998-P-14562, east mouth, context 63, brown ware rim with basket impressions on lip.

Micronesia (Solheim forthcoming).

Special earthenware finds

Only one whole vessel has been recovered at Ille so far (Eusebio 2006). However, for the first time, in 2008, more almost complete vessels were excavated in the deep pit of the West mouth. An almost complete plain shallow bowl was found (Figure 2), broken into nine friable pieces and dried and refitted at UP-ASP. The bowl has only one fragment missing which was not recovered during the excavation. However, this means that the cross-section is fully visible which will allow for comparative studies of rim forms. Similarly, a complete plain foot stand (accession numbers IV-1998-P-43272-43273) was found with a section of the foot rim broken which allows a view of the foot rim in profile and can be compared to other similar vessels. The foot stand would have had an offering bowl above the foot, but this does not survive. A similar ritual vessel with a different morphology was found; a tall red-slipped pedestal bowl (IV-1998-41685-P-41693) with incised geometric shapes and punctate decorations typically found on red-slipped pottery. It would have been a very large vessel as the body must have extended further and the only surviving bowl fragment, with c stamps are large. Unfortunately no other pieces of the vessel were recovered. An unusual thin red-slipped vessel (IV-1998-P-41586-41587) with typical Ille incised lines, punctates and c stamps was recovered. It is unusual as it is tall and cylindrical. As this is the biggest surviving piece, it is unknown how common this type of vessel was in the assemblage. It is probable that these large surviving vessels were for ritual purposes. Another almost intact vessel is the ellipsoid pot with thin walls and a rounded carination towards the base of the vessel (IV-1998-P-41681). It completely lacks a rim but it was probably a restricted vessel. Another completely unusual and unique sherd was found with an everted rim, a carination that curves downwards—which is not seen in carinated forms at Ille—and more anomalously, it has a decorated handle appliqué with a hole in the middle of the handle (Figure 7). Only few handles have been found in the Ille assemblage but none are of this form or are still attached to the body of the vessel.

Discussion

The preliminary results laid out in this report are from the first comprehensive examination of the Ille earthenware and gives details and provides evidence for what has previously been described in excavations

reports. Research so far has quantified the pottery, which can later be compared to quantities found in other sites in Palawan to see if there is any correlation, relatedness or significance; it has attributed the earthenware to

Figure 7. IV-1998-P-41521, west mouth, no context, plain body sherd with rim, carination and handle.

contexts which will be used to situate the pottery within the site's chronology and cultural sequences, and it can also be used to see to what extent other cultural materials can be associated with the pottery; and it sets out a starting point for analysing fabric and forms which can be compared to other forms and fabrics in Palawan, the Philippines and wider Southeast Asia. It has also described one set of decorative style which preliminary research so far suggests might be unique and has further implications.

As stated, it was previously thought that the pottery was decorated in the Sa Huynh-Kalanay style. However, while the decorated Ille earthenware shares some similar traits, the majority of the decorations may not be from the Sa Huynh-Kalanay pottery tradition. One of the ways Sa Huynh-Kalanay has been diagnosed is through pottery forms and decoration. More specifically, Solheim's 2002 [1964] work has been used as the point of comparison. Decorations from Southeast Asian pottery have been compared to the variety of decoration from the Iron

Age Kalanay Cave site. Solheim (2002) illustrates the majority of the decorations found. However, none of the main diagnostic designs from the Kalanay Cave, and thus the Sa Huynh-Kalanay pottery tradition, are actually found at Ille. For example, the most dominant repeating motifs in Solheim's 2002 work are curvilinear scrolls, rectilinear scrolls, impressed or carved scallop decorations, crenelations, herring bones, zoomorphs and carved cut ring stands. These are not present in the Ille decorated assemblage. Furthermore, the dominant patterns and styles from Ille do not occur in the Sa Huynh-Kalanay decoration types.

One set of motifs from the Ille earthenware assemblage that do not appear in Solheim's 2002 work on the Sa Huynh-Kalanay pottery tradition are the c and s stamps on red-slipped earthenware. Many semi-circle and closed circle stamps are found ubiquitously across the Philippines and Southeast Asia. For example from Batanes, the Philippines, closed circle stamps are common (De Leon 2008) and in Sulawesi, Indonesia, there are various semi-circular designs (Simanjuntak 2008). However, as seen in Figures 3b, 5a and 5b, the Ille c stamps are not semi-circles or closed circles, and no semi-circles or closed circle stamps have been found at Ille. So far, this design seems unique to Palawan. The only other excavation that has recovered c stamped earthenware sherds is at the Linaminan site, Sofronio Española, central Palawan (Szabó *et al.* 2006). Solheim (2008) notes the presence of red-slipping and impressed circles inlaid with lime in the early pre-Sa Huynh Kalanay Pottery, and he now categorises these as Sa Huynh-Kalanay. However further investigation is needed to state categorically whether this design belongs to the Sa Huynh-Kalanay pottery tradition. Though cord, vine and basket bound paddle impressed pottery is also claimed to be Sa Huynh-Kalanay, these techniques predates the notion of the Sa Huynh-Kalanay pottery tradition and these styles were also ubiquitous in Southeast Asia. Therefore it is questionable whether 'Sa Huynh-Kalanay' as an all encompassing term for a pottery tradition is useful. While the Ille assemblage and decorations from the Sa Huynh-Kalanay pottery tradition—and indeed earthenware pottery found in Southeast Asia—do share is some themes, such as linear horizontal bands, triangle patterns and some geometric shapes, the Ille assemblage looks distinctly different. Pottery across all of Southeast Asia shares some relatedness, but it is possible that they are not all Sa Huynh-Kalanay. Though Ille shares some motifs, rather than categorising them directly as from the Sa Huynh-Kalanay pottery tradition, at this stage if they are to be related to Sa Huynh-Kalanay, it would be more prudent to call them a Sa Huynh-Kalanay 'type', as they do not share the style traits of Sa Huynh-

Kalanay.

A possible working hypothesis at the moment is that this variation comes from localised pottery production, which might have been adapted from other pottery traded or exchanged into the region. However, it is not known whether any vessels were locally made, as no kiln or open firing sites have been found in the vicinity, or whether they were traded/ exchanged. The closest evidence of pottery firing which the Ille pottery can be compared to comes from Fox's (1970:78) study of the Tabon Caves pottery complex. He states that "the ethnographic record from Palawan and from elsewhere in the Philippines suggests that the pottery, after drying, was merely fired on top of the ground with fuel stacked and heaped around the vessels. The cross-sections of sherds, particularly from the larger vessels, show unoxidised carbonaceous matter, and the interiors tend to have dark browns, grey-browns, and red-browns—are highly variable and uneven and fire-clouding occurs. The characteristic difference in the colours of the pastes and surfaces of the vessels, even of the same vessel, and hardness indicate variation in both clay preparation and relatively little control over firing". The cores and the unevenness of the exteriors show that the pottery might have been fired in the open. Local geological deposits and soils have not yet been explored as a potential for local raw clay sources. However, results from the petrographic analysis will be the starting point for understanding the composition of the pottery and can be related to deposits in the area. An examination of the manufacturing processes will also help establish whether there is common pottery-making technology across the assemblage or if variation suggests other influences.

Further unknowns about the pottery lie in its context and function. At this stage, it is most probable that the Ille pottery was used in ceremonial contexts. Its location and some of the designs would suggest this. Although no primary jar burials have been found (Kress 2006), Ille is undoubtedly a burial site as many inhumations have been found. The extent to which Ille was also a habitation site is unknown, as no domestic features have been found (Kress 2006). Furthermore, a secure chronology and periodisation has not yet been established. This is difficult due to the turbation in the upper layers at the site. Design will be a starting point for chronology, as stated above cord marked and red-slipped pottery can be dated in other parts of Southeast Asia and this can be used comparatively with the Ille assemblage, as well as using the site stratigraphy as a means of relative dating and to establish a pottery sequence. To aid regional

comparison, the typologies and dating will be linked to other pottery typologies found in the Philippines, wider Southeast Asia. The results generated so far are the foundations for further investigation.

Author's note

At the time of going to press, the Palawan Workstation in Villadolid Hall, University of the Philippines, was established as a new repository and permanent work room for all materials excavated at Ille Cave and the surrounding areas. A box of excavated sherds unseen by the author in previous years was found. This box comprised mostly earthenware body sherds with diagnostic pieces and a range of tradeware. These sherds have been counted, contexts noted and a sample examined. A few previously unseen designs and forms were found however they do not contradict or compromise existing research and these sherds are consistent with the earthenware found in previous years. This brings the total of earthenware sherds to approximately 17,690. All artefacts from Palawan are now in one place and there should be no other outstanding unaccounted sherds.

Acknowledgements

Many thanks to Prof. Victor Paz, Prof. Solheim and Dr. Grace Barretto-Tesoro for all help and support, Dr. Helen Lewis and Dr. Ethan Cochrane who read drafts of this report and to the UP-Anthropology students and UP-ASP staff and students who accommodated me and helped with my research. Thanks also to the anonymous reviewers of this report for their comments, and to the UCL Institute of Archaeology and the UCL Graduate School who awarded fieldwork grants which made research trips possible.

References

Archaeological Studies Program (ASP) 2005-2006. *Report on the excavation at Dewil Valley, El Nido Palawan*. Unpublished report. Archaeological Studies Program, University of the Philippines.

Balbaligo, Y. 2009. Notes on the 2008 tradeware ceramics from Ille Cave, Palawan, the Philippines. *Test Pit*, 14: 15-16.

Carlos, J. 2006. Exploring the 'landscape' of a pottery sherd: notes on the Ille Cave rice imprints. *Test Pit*, 8: 27-28.

De Leon, A. S. 2008. *Pottery and cultural interaction from 3000 to 600 BP*

Batanes, Northern Philippines. Unpublished Masters Thesis. Archaeological Studies Program, University of the Philippines.

Eusebio, M. S. 2006. Notes on the Earthenware Jarlet from the West Mouth. *Test Pit*, 8: 28.

Fox, R. 1970. *The Tabon Caves: Archaeological explorations and excavations on Palawan Island, Philippines*. Manila: National Museum.

Hara, Y. and J. G. Cayron. 2001. A preliminary report on the excavation of Ille Cave, El Nido, Palawan. *Hukay*. 3:(1) 81-92.

Kress, J. 2006. "The cemetery, West mouth excavations and notes on the early levels of the site." In Lewis, H. A., V. Paz, J. Kress, M. G. Lara, J. G. L. Medrana, A. J. Carlos, P. Piper, V. Hernandez, H. Barton, E. Robles, T. J. Vitales, A. Ragragio, W. G. Solheim II, and W. Ronquillo. *Early occupation at Ille Cave, New Ibajay, El Nido, Palawan, Philippines: Report on the 2005 excavation season*. Unpublished report. British Academy, NERC/Orads & National Museum of the Philippines, 22-28.

Munsell Color Company 2000. *Munsell Soil Color Charts*. New York: New Windsor.

Orton, C., P. Tyers and A. Vince. 1993. *Pottery in archaeology*. Cambridge: Cambridge University Press.

Paz, V. and W. Ronquillo. 2004. *Report on the Palawan Island Palaeohistoric Research Season for 2004*. Unpublished report. Archaeological Studies Program, University of the Philippines.

Rice, P. M. 1987. *Pottery analysis: A source book*. Chicago: University of Chicago Press.

Shepard, A. O. 1956. *Ceramics for the archaeologist*. Washington: Carnegie Institution of Washington.

Simanjuntak, T. (ed.) 2008. *Austronesian in Sulawesi*. Depok: Center for Prehistoric and Austronesian Studies.

Solheim, W. G. II. 2002 [1964]. *The archaeology of Central Philippines: a study chiefly of the Iron Age and its relationships*. Quezon City: University of the Philippines Press.

Solheim, W. G. II. 2003. "Southeast Asian earthenware pottery and its spread," in *Earthenware in Southeast Asia: Proceedings of the Singapore Symposium on Premodern Southeast Asian Earthenwares*. Edited by J. N. Miksic, pp. 1-21. Singapore: Singapore University Press.

Solheim, W. G. II. 2008. The Pre-Sa Huynh-Kalanay Pottery of Taiwan and Southeast Asia. *Hukay*, 13: 39-66.

Solheim, W. G. II. Forthcoming. *Report on Gua Sirih*.

Szabó, K., E. Dizon, L. Lacsina, L. Batoon, A. Peñalosa, P. Piper, J. Ochoa and T. Vitales. 2006. *Report on the excavation of Linaminan, Barangay Isumbo, Sofronio Española, Palawan*. Unpublished report. A joint project of the National Museum of the Philippines and the Australian National University.