

MAT IMPRESSED POTTERY FROM YARINACocha, PERU

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Archaeological studies in lowland South America are generally limited to analyses of pottery and its distribution on the site because organic materials usually decay quickly under tropical forest conditions. However, casts of perishable goods occasionally are preserved on pottery. The careful study of these impressions will provide additional information about prehistoric technologies in the tropical lowlands. Meggers, for example, has emphasized that twilled basketry is one of the outstanding characteristics of Tropical Forest culture.¹ It is curious that coiled basketry is unknown or very rare in the Amazon Basin even though it is common in Tierra del Fuego and along the west coast into the Central Andean region.² However, we do not have an explanation for the absence of coiled basketry in the Amazon Basin, nor do we know if this absence is a recent phenomenon. The study of basket or mat impressed pottery from the Tropical Lowlands may provide an answer to this question and may also shed some light upon other cultural practices.

This paper provides evidence about prehistoric basketry technology from Yarinacocha, Peru. It also explores the implications of this evidence for the ceramic technology with which it was associated. The field work upon which this paper is based was done in 1964 while the author was a Research Assistant to Donald W. Lathrap on a grant from the National Science Foundation, number GS 310. The laboratory work was done in the Museo Nacional de Antropología y Arqueología then under the direction of the late Dr. Jorge C. Muelle, while the author was a Fulbright-Hayes Fellow for Advanced Study Abroad.

The Evidence

Several of the ceramic complexes from Yarinacocha are characterized by flat bases on many vessel forms. While studying the characteristics of base form I noticed that whereas the vast majority of bases were smoothed in the same fashion as other portions of the vessel, a few were irregular; and one or two were rough almost to the point of being jagged. More careful examination of these sherds revealed that they bore impressions which were probably made by mats or baskets. The various probabilities will be discussed following the presentation of the evidence.

Yarinacocha Complex

Out of the 401 base fragments recovered from the Yarinacocha component at UCA-34,³ just four had basketry impressions. The sherds included in this count represented not only a part of the base but also a part of the lower body wall. Three more fragments, presumably from the base but without the basal junctures also bore mat impressions. Thus, there are seven mat impressed sherds (Table 1) out of a total of 17,990 sherds.

Wickerwork. Two examples bear the impressions of open wickerwork in which relatively large and stiff elements are passed over and under one another. The rounded shape of the impressions suggests that twigs rather than cut splints were employed. In one case (fig. 1) the spaces between the elements were open squares, roughly 3.5 cm. on a side. In the other example (fig. 2) the open spaces were rectangular, 2.5 x 8.0 cm. The twigs employed were between 0.3 and 0.5 cm. in diameter.

Checkerwork or diagonal weave. The other five mat impressed bottoms (figs. 3-7) displayed either a checkerwork or a diagonal weave, which differ only in the angle of the weaving to the selvage. Without the selvage, the question of which weave was used cannot be decided. Both techniques may be represented in the sample. In all five examples, a relatively broad element was employed for both warp and weft. The split leaves of the yarina palm, frequently grown around modern Shipibo villages on the Ucayali and Aguaytía rivers, would leave just such an impression. In each of the five cases some of the elements were separated by open spaces but on three of the mats (figs. 5-7) one element was placed immediately adjacent to one parallel element but on the other side. If this were done purposefully, some kind of rectilinear design might have resulted. Generally, all warp and weft elements were approximately the same width but in one case (fig. 7) considerable variation is found. On this piece individual elements vary from approximately 0.8 to 2.2 cm. If this variation was purposeful, rather than simply sloppy workmanship, it would have provided another source of decoration.

Only three of the vessel bottoms which bore mat impressions had measurable arcs. The base of the checkerwork impressed bottom measured 36 cm. while the wickerwork impressed bases had diameters of 38 and 64 cm. (see Table 1). The entire profile of this last vessel is present (fig. 2b). It is apparently a comal such as is used to cook bitter manioc in the Northwest Amazon. The vessel may have been manufactured by pressing a pad of clay into shape, then building up the low walls either by simply raising the edges of the disc, or by coiling which was the manufacturing technique used for most other vessels of the Yarina-cocha Complex. Such rough bottoms are also found on comals from the Northwest Amazon on exhibit in the Field Museum of Natural History, Chicago. The bottoms of the smaller vessels may have been manufactured in the same manner or they may have become impressed simply by the weight of the vessel that rose above them.

Cashibocaño Complex

Out of 3,397 sherds of the Cashibocaño Complex at UCA-10,⁴ just one bore mat impressions. The impression is of wickerwork, but very different from the wickerwork found in the Yarina-cocha Complex in that the horizontal elements are closely spaced (fig. 8). Warp and weft elements seem to have been twigs about 0.3 cm. in diameter.

Cumancaya Complex

In the analysis of 2,784 Cumancaya sherds from UCA-7, -10 and -33 one possible example of mat impressions was identified from UCA-33.⁵ Unfortunately the imprints were so faint that the weave could not be determined but the character of the impressions suggests that palm leaves were employed.

Discussion

The appearance of mat impressions on vessel bottoms suggests that sometimes, at least, vessels were built on mats to provide a good working surface. The practice is continued by the modern Shipibo who sometimes construct large brewing urns on palm leaf mats.⁶ These mats are constructed from a frond of yarina palm by slitting the stem, then folding the leaves of one side across those of the other side. These leaves are then interwoven by a simple one over-one under technique in such a fashion that the leaves run at a 45° angle to the split stem. The selvage at the ends of the leaves is roughly parallel to the main stem so that mats constructed in this way are of the diagonal weave. While there is no assurance that mats of the Yarinacocha Complex were constructed in this manner, it is a simple technique which would produce a utilitarian mat with a minimum of effort. The wicker mats of the Yarinacocha Complex might have been intended for fire grates or simply for trays to move the large, heavy piece of unfired pottery to the fire.

Cashibocaño wickerwork differs from Yarinacocha wickerwork in that one set of elements is much closer together on the Cashibocaño specimen which may be the impression of a basket rather than a wicker tray. Patricia J. Lyon points out that Wachipaeri baskets are made with a technique which is almost identical to the impressions on the Cashibocaño piece. She reports that Wachipaeri baskets are made from the tamshi vine.⁷ "Generally, when used for basket making, the vine is split and may be thinned by removing part of the inside, but only the outside (curved on one surface) is used, since the strips taken from the inside don't hold together."⁸

In spite of their simplicity, wickerwork and checkerwork seem to be rare techniques in South America, certainly much rarer than twilled work according to the information available to Métraux⁹ who evidently was not fully informed about basketry from the Peruvian montaña where both techniques are practiced by modern tribes.

Tessmann's study of material culture in the Peruvian montaña¹⁰ revealed that wickerwork is widespread and that diagonal weave and checkerwork are also found (see Table 2). In the sample available for the Yameo and Chebero, diagonal weave is recorded only near the selvage of mats while the rest of the mat is constructed with the twilled technique. Tessmann's distribution maps reveal that woven fire fans, sitting mats and sleeping mats are widespread in the Ucayali drainage. The illustrations which accompany the maps depict twilled sleeping mats, twilled and diagonal weave sitting mats, and diagonal weave fire fans.¹¹ Consequently, the fact that the mat impressions on the bottom of Yarinacocha pots

are either diagonal weave or checkerwork contrasts with most of the evidence from the ethnographic present. Unfortunately, the material culture of the ethnographic present is so poorly known that the significance of this observation is questionable. However, it does illustrate the great need for material culture studies in order to understand the significance of the archaeological record. Since a great deal of raw data is available in the museums of the world, important studies could be undertaken without additional fieldwork. Even the analysis of collections in a single large museum would be a significant contribution to knowledge.

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NOTES

¹Meggers, 1975, p. 152.

²O'Neale, 1946, pp. 76-77; Nordenskiöld, 1920, p. 168; Métraux, 1930, carte 17.

³Lathrap, 1970, p. 129.

⁴Myers, 1970.

⁵Myers, 1970.

⁶Documented by a photograph taken at San Francisco de Yarinacocha in 1964.

⁷Editor's note, P.J.L. The identification of this vine, and even the pronunciation of its common name, are problematical. Szyszlo (1955, pp. 55, 127, 285, 287-288) makes a consistent distinction between "tamishi," a term used in Loreto for a species of Heteropsis, and "tamshi," which he identifies as either Carludovica trigona (pp. 55, 285) or C. plicata (p. 127); both tamishi and tamshi have similar uses. I doubt that such a distinction is viable on close scrutiny and suspect that either term covers several genera and species.

⁸Personal communication, March 30, 1976.

⁹Métraux, 1930, p. 444, carte 1.

¹⁰Tessmann, 1930.

¹¹Tessmann, 1930, Kartogramme 9, 10, 11. Since the maps were not designed to illustrate the distribution of particular weaving techniques, we should not read too much into the map illustrations.

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TABLE 1

Sherds with Mat Impressions

<u>Cultural Complex</u>	<u>Provenience</u>	<u>Material</u>	<u>Weave</u>	<u>Base Diameter</u>	<u>Vessel Form</u>	<u>Figure Reference</u>
Yarinacocha	UCA-34, D19/4	twig	wicker	64 cm.	comal	figure 1
	UCA-34, F/13	twig	wicker	38 cm.	-	figure 2
	UCA-34, D13/4	palm leaf	checker or diagonal	36 cm.	-	figure 3
	UCA-34, C3/3	palm leaf	checker or diagonal	*	-	figure 4
	UCA-34, D18/2	palm leaf	checker or diagonal	-	-	figure 5
	UCA-34, D20/7	palm leaf	checker or diagonal	-	-	figure 6
	UCA-34, F/15	palm leaf	checker or diagonal	-	-	figure 7
Cashibocãño	UCA-10, A4/4	twig	wicker	-	-	figure 8
Cumancaya	UCA-33, surface	palm leaf?	-	-	-	not shown

* Basal arc was too small to permit accurate measurement.

TABLE 2

Basket Making Techniques Employed in the Peruvian Montaña*

	<u>Wicker</u>	<u>Twill</u>	<u>Lattice</u>	<u>Checker</u>	<u>Diagonal</u>
Cocama	x		x		
Campa	x				
Kashibo		x	x?	x	
Bora			x		
Uitoto	x		x		
Chiwaro	x		x		
Aguano	x	x	x		x
Chebero	x	x	x		x
Ssimaku	x	x	x		x
Yameo	x	x	x	x	x

* Compiled on the basis of photographs published by Tessmann (1930, Tafeln 6, 54, 68, 69, 75, 91, 94). Other tribes also make baskets and it should not be presumed that this is a complete inventory even for the tribes listed.

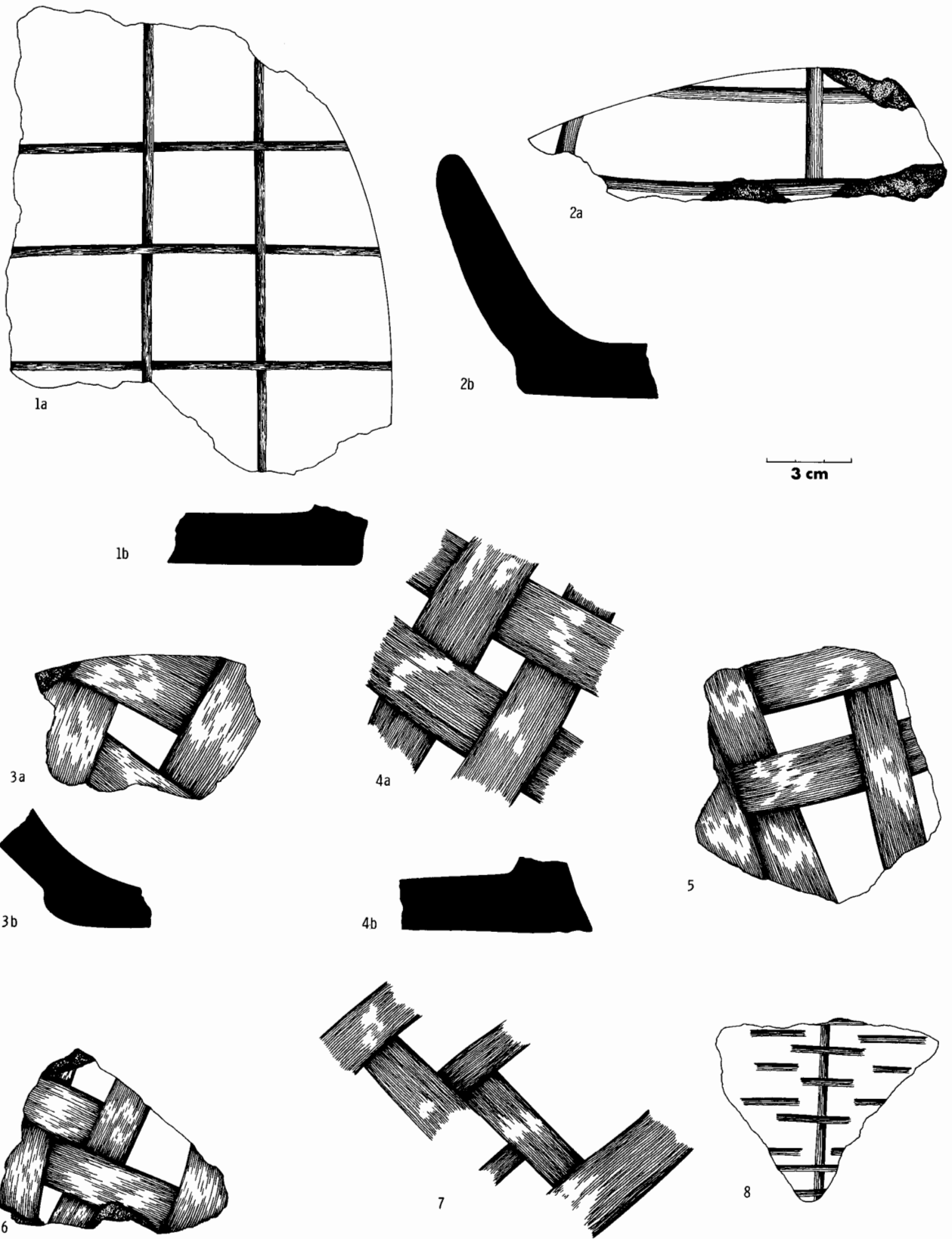


Plate XXIII. Figs. 1-8, artist's reconstruction of mat impressed bases from Yarinacocha, Peru.