The Panzaleo Puzzle: Non-Local Pottery in Northern Highland Ecuador

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One of the most intriguing ceramic wares of the northern Ecuadorian highlands is a distinctive, thin-walled pottery commonly known as Panzaleo. Though widely dispersed throughout the northern highlands, it rarely, if ever, forms the sole or even primary element of archaeological site assemblages in this region. The ubiquity of this ware has led to considerable discussion about its nature and significance. The basic characteristics of this ware are reviewed, along with the results of two separate compositional analyses of Panzaleo sherds from the Guayllabamba-El Quinche region of northern highland Ecuador and the Cosanga region of the eastern montaña. A comparative study of sherds from the two different regions demonstrates a high degree of similarity in the paste composition of pottery samples from the highlands and the eastern montaña. The mineralogy of the ware points to the eastern foothills of the Andes as the probable locus of its production, suggesting the existence of prehistoric relations of exchange between northern highland and eastern lowland groups. Separate morphological and contextual analyses of Panzaleo pottery lead to several hypotheses regarding the significance of the ware that relate, in part, to its association with lowland cuisine and feasting ritual.

Introduction

One of the most intriguing elements of northern Ecuadorian ceramic assemblages is a distinctive, thin-walled ware known variously as Panzaleo, Thinware, Cosanga-Píllaro, and Cerámica Fina. This plethora of labels reflects the general lack of agreement among archaeologists regarding the origins and significance of this pottery. Thin vessel walls, ash-colored paste, and micaceous inclusions distinguish this ware from other pottery in the northern highlands and render it readily recognizable to even the casual observer.

Jijón y Caamaño (1920), the first to systematically study this pottery, christened it "Panzaleo" after a little-known ethnic group that historically occupied the region between Quito and Latacunga in the north central highlands where he felt it had originated. Many years later, Porras (1975) re-named the ware "Cosanga-Píllaro" based on his own ideas about its cultural significance and origins. I retain the original nomenclature as "Panzaleo" is still the most widely recognized referent. As used here, the label carries no geographical or ethnic connotations.

In this paper, I suggest that Panzaleo pottery is a trade ware that likely reflects prehistoric exchange relations between northern highland and eastern lowland groups. While the importance of ties between coastal and highland populations has long been recognized, links to tropical forest cultures east of the Andes have often been downplayed or ignored (though see Lathrap 1970, 1971, 1973a, 1973b for a notable exception). Ethnic groups occupying the eastern slopes and Amazonian lowlands have instead been construed as geographically isolated and outside of mainstream Andean history (cf. Renard-Casevitz, Saignes, and Taylor 1988). The significance of long-distance exchange and commercial activities in Andean prehistory similarly has been overlooked, though the existence of such relations has been been amply documented for various regions and time periods (Bruhns 1989; Burger and Asaro 1979; Lathrap 1971, 1973a, 1973b; Paulsen 1974; Pollard 1984; Ramirez 1982; Rostworoski 1970, 1975; Salomon 1978, 1986). The emphasis historically placed on the redistributive aspects of the Andean economy has undoubtedly obscured, to some extent, the role of mercantile elements in regional prehistory.

Panzaleo pottery provides evidence of the historical depth and ritual significance of exchange relations and highland-lowland interaction in the equatorial Andes. After reviewing the basic features of this ware, including its physical attributes, geographical distribution, and temporal associations, the results of a compositional analysis are presented. The mineralogy of the Panzaleo ware points to

the foothills of the eastern cordillera as the probable locus of production, suggesting a long history of economic interaction between northern highland and eastern lowland groups. Following this discussion, a morphological classification scheme of Panzaleo vessel forms is developed. A functional analysis of the different vessel categories, incorporating both ethnographic analogy and archaeological evidence, allows for an interpretive assessment of the possible roles and uses of Panzaleo pottery in the northern sierra. To gain further insight into the possible emic importance of this ware, a quantitative comparison was made of vessel types found in different archaeological contexts in the País Caranqui. These various analyses lead to several hypotheses regarding the significance of Panzaleo in the equatorial Andes, which revolve around its association with tropical lowland cuisine and ritual feasting.

Distribution and Chronological Position of Panzaleo Pottery

Panzaleo pottery has a wide but irregular distribution throughout much of northern Ecuador (cf. Athens 1980; Francisco 1969: 137; Jijón y Caamaño 1952: 311; Porras 1970, 1975: 154, 1984: 212; Uhle 1933: 46–47) (see FIG. 1). Yet no "pure" Panzaleo sites have ever been reported. In most cases, Panzaleo pottery is found only in minor quantities in the context of regionally and temporally diverse ceramic assemblages. In the Chota-Mira river valley, for instance, Panzaleo has been found in association with both Capulí and Tuza ceramics (Echeverría and Uribe 1981; also Porras 1972) (see FIG. 2 for regional chronology). In Pichincha province, small quantities of Panzaleo pottery have been recovered at Regional Developmental sites (300 B.C.–A.C. 800) near Quito (Buys and Domínguez 1988: 15; Uhle 1926). In the central highlands, Panzaleo co-occurs with local ceramic styles such as Tuncahuán (Regional Developmental period), and Elén-Pata (Integration period, ca. A.C. 800–1500) at sites near Píllaro and Ambato (Jijón y Caamaño 1920: 80–81, 1927; Porras 1975). Panzaleo vessels have also reportedly been found in association with Inca materials in a cemetery near Píllaro (Porras 1970: 242) and in Quito (Jijón y Caamaño 1952: 114).

In the País Caranqui (see FIG. 3), Panzaleo pottery has been found at numerous mound sites including Socabamba (Athens 1975, 1980; Goff 1980; Uhle 1889), Cochasquí (Oberem 1981; Schoenfelder 1981), and Urcuquí (Jijón y Caamaño 1920: 79–82). Mound sites in the País Caranqui generally date to the late prehistoric period. In the southern sector of Caranqui territory in the Guayllabamba-El Quinche region, Panzaleo pottery was recovered at 42 of the 111 archaeological proveniences identified during a regional survey (Bray 1991). Systematic surface collections at these locations produced a total of 186 fragments of Panzaleo pottery. The density of Panzaleo pottery at sites in this region ranged from 0.001 to 0.014 per sq m and typically comprised less than 2% of any given site assemblage. This is consistent with quantities reported at other sites in the region in the few cases for which quantitative information is available (cf. Almeida R. and Jara C. 1984: 54; Schoenfelder 1981).

Panzaleo is generally thought to be diagnostic of the later prehistoric period owing to its documented association with mound sites in the País Caranqui. One context for which there are fairly secure radiocarbon dates is burial mound "n" at the site of Cochasquí, which produced seven Panzaleo vessels. The dates obtained range from A.C. 900–1300 with the majority clustering around A.C. 1000 (Oberem 1981: 127–138).

At the Regional Developmental period site of La Chimba, located near the eastern edge of the País Caranqui, finds of Panzaleo pottery were reported from stratified deposits dated (uncalibrated) to 150 b.c. (Goff 1980), however. Recent excavations at this high altitude site produced Panzaleo pottery to a depth of nearly 3 m below surface and yielded a basal date range just below 594–346 b.c. (Athens 1990: 42–68).[1] Bell (1965) also reported finding Panzaleo pottery at several sites in the Chillos Valley, near the southern border of the País Caranqui, for which he obtained radiocarbon dates of 110 and 220 B.C. Unfortunately, he neglected to publish a description of his pottery, and Porras (1975) later challenged his ceramic identifications.[2] At the nearby site of Cumbayá, Uhle (1926: 21) reported that a thin-walled trade ware (identified by Jijón y Caamaño [1952: 210] as Panzaleo I) was a common element in the burial lots he had excavated there. Judging from Uhle's descriptions of these assemblages, the burials likely date to the late Regional Developmental/early Integration period (roughly A.C. 400–1000).

The 13 uncorrected radiocarbon dates that Porras obtained from carbonized remains recovered from excavations in the Quijos region would give Panzaleo pottery a time span of nearly 2000 years, from approximately 300 b.c. to a.c. 1550 (Porras 1975: 146–148). Despite inconsistencies in the stratigraphic ordering of these dates, there is some justification for accepting Porras' periodization of the ware. The majority of the evidence seems to indicate

1. Athens explicitly refers to this pottery as Cosanga in his more recent work (see also Athens 1992: 209).

2. Porras based his rejection of Bell's findings on the fact that a subsequent surface survey he conducted failed to produce more than a few pieces of Panzaleo pottery in the vicinity of Bell's excavations (Porras 1975: 151–152).

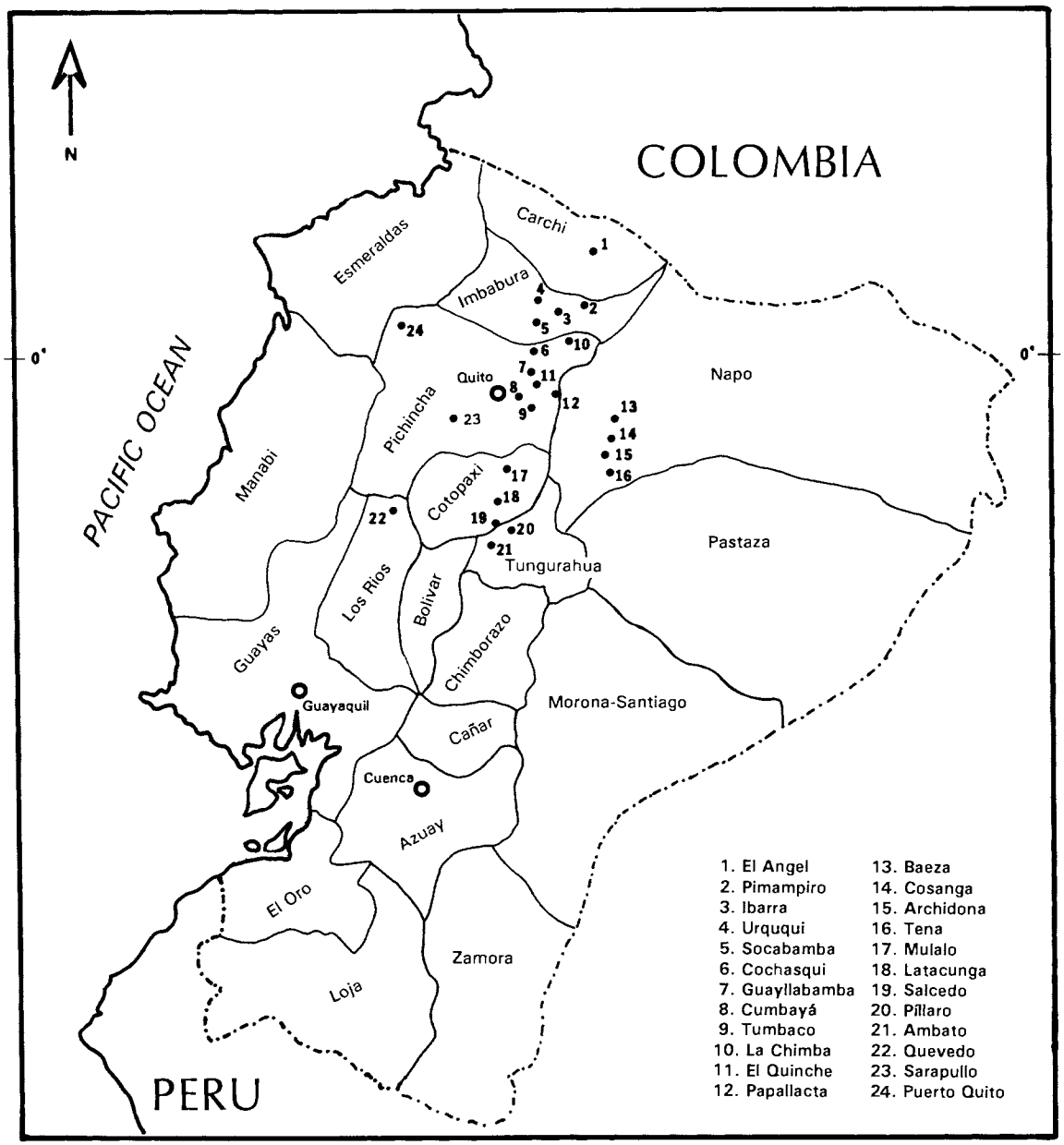


Figure 1. Documented finds of Panzaleo pottery in Ecuador.

that Panzaleo was a common, if minor, constituent of both Regional Developmental and Integration Period sites in the northern Ecuadorian highlands.

Decoration as a Temporal Marker

Prior to the advent of absolute dating techniques, Jijón y Caamaño (1952) had divided Panzaleo into three phases based primarily on the presence or absence of certain decorative attributes. Panzaleo I was characterized by negative painting and the trademark "rolled" or "folded" rim. In Panzaleo II, negative decoration was replaced by positive painting in one or two colors. Panzaleo III was distinguished by the use of plastic decoration that included punctations and small appliqued human and animal heads. Linear red and white painted design continued throughout this last phase as well. This general scheme, though it remains essentially valid, requires some modification based on more recent evidence.

Punctated decoration, for instance, which appears as a double or single row of small holes on top of the rim, directly under the rim, or on an applique strip around the

	PERIOD	ATHENS' PHASES	PASTO REGION		PAIS CARANQUI	QUITUS REGION
1500-	*Inca*	Inca	Inca		Inca	Inca
1450-	*Integration*	Late	Capulí	Tuza	Caranqui (Cochasqui Phase II)	Quitus
1250-				Piartal		
1000-		6			Cochasqui Phase I	
750-	*Regional Developmental*	5			Socapampa Mnd 19	
500-		4			Late La Chimba	Chilibulo
250-						Chaupicruz
-0-		3			Middle La Chimba	
250-		2			Malchinguí	Jardín del Este
500-	*Formative*				Early La Chimba	
750-		1			IM-11	
1000-						
1250-						Cotocollao
1500-						
1750-						
2000-						El Inga

Figure 2. Regional chronological framework for northern highland Ecuador.

body, is consistently associated with earlier deposits at sites in the northern highlands. Athens recovered a Panzaleo bowl with punctation under the rim in a level dated to 150 b.c. at La Chimba (Athens 1975: 3). Schoenfelder, working with the materials from Cochasquí, assigned vessels with punctated decoration to the initial Cochasquí Phase I period (see Schoenfelder 1981: Tafeln III, XIV, XV, XVIII), which he believes may have begun as early as A.C. 700 (1981: 256–259). Lumbreras, on the basis of a re-analysis of Porras' materials, similarly concluded that punctated decoration is diagnostic of the earlier part of the Panzaleo sequence (1990: 56–58).

Working with Porras' Cosanga Phase (Panzaleo) materials from six sites on the outer slopes of the eastern cordillera, Lumbreras (1990) noted that certain decorative techniques occurred in patterned sequence with respect to one another in the excavated units. After re-organizing the 10 cm levels from Porras' different test units stratigraphically and radiometrically, Lumbreras constructed a presence/absence table of the decorative styles associated with each level (Lumbreras 1990: cuadro 7). While some decorative elements such as ring stamping, punctation, and negative paint appear to be temporally diagnostic, other techniques such as the use of white slip, red-on-white painting, red painted bands, and white painted bands seem to be present in all levels. This is in contrast to findings in the highlands, where both Athens (1980: 134) and Schoenfelder (1981: 256) have used the appearance of painted Panzaleo pottery as an important transition marker between their earlier and later phases, dating its initial occurrence to approximately A.C. 1000. This would suggest that painted Panzaleo ware may have made its first appearance in the lowlands.

At sites identified in the Guayllabamba-El Quinche region of the País Caranqui, 13% (n = 25) of the Panzaleo sherds recovered in systematic surface collections were decorated (Bray 1991). This is more than twice the percentage of decorated pottery reported by Porras from the Cosanga region (Porras 1975: 144–145). Two-thirds (n = 17) of the decorated sherds in the Guayllabamba-El Quinche assemblage have painted designs. The different types of painted decoration found in this region are illustrated in Figure 4. The remainder of the decorated wares are embellished using plastic techniques such as punctation or applique.

While neckless jars, or simple restricted vessel forms, constitute only 14% (n = 12) of the Panzaleo assemblage

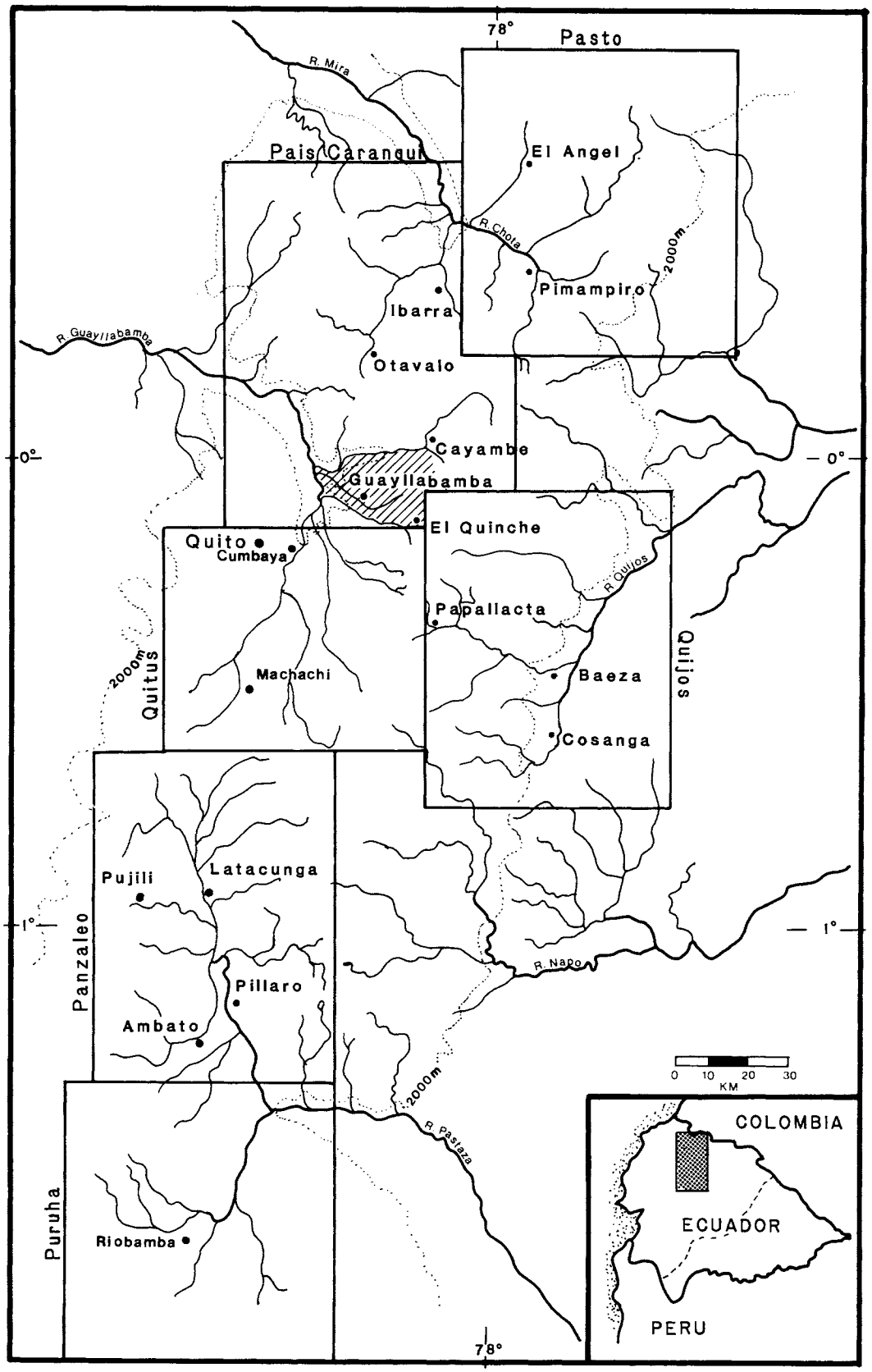


Figure 3. Map of northern highland Ecuador indicating approximate boundaries of proto-historic ethnic groups (after Lumbreras 1990: 119).

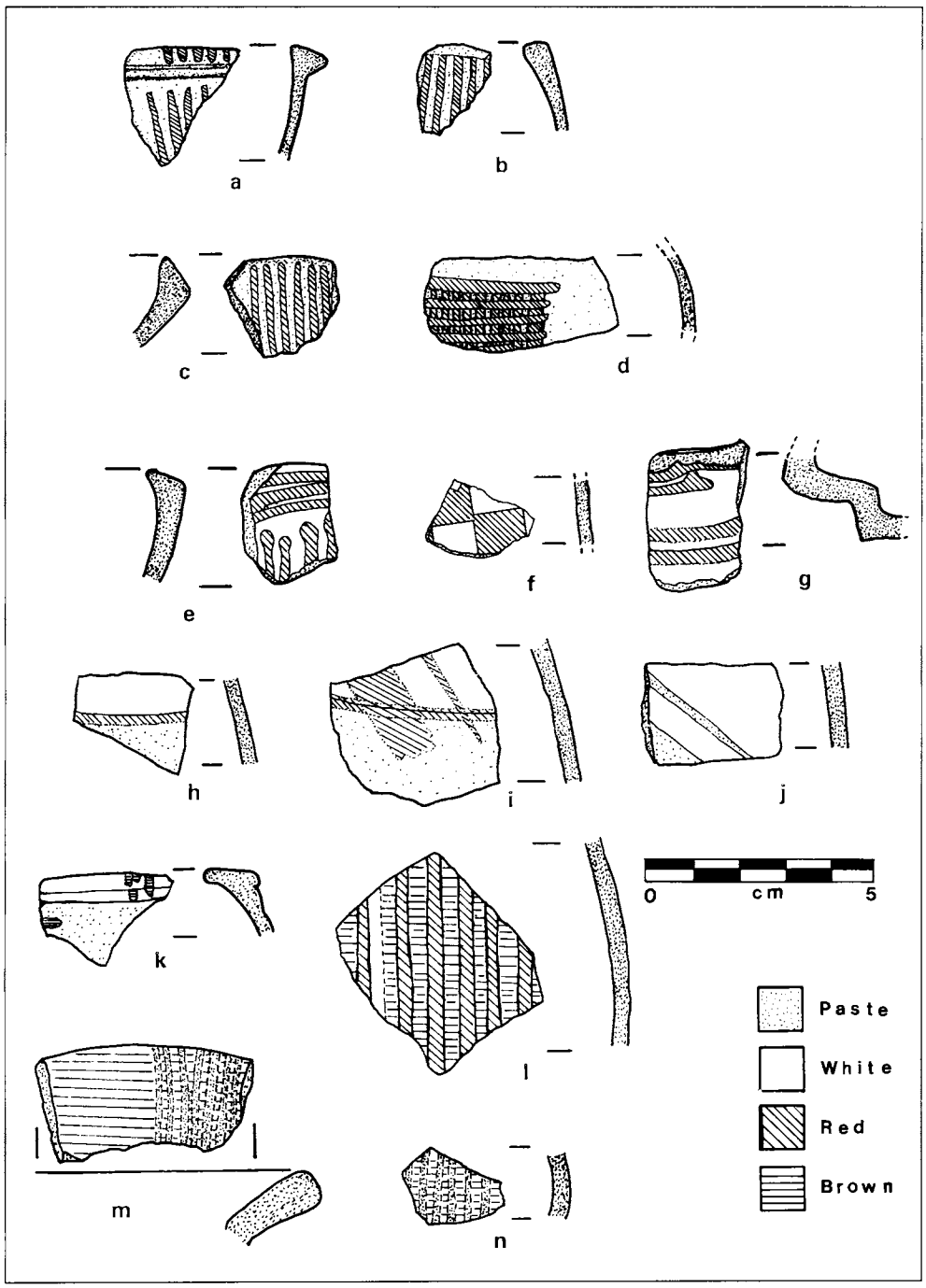


Figure 4. Decorated Panzaleo pottery from the Guayllabamba-El Quinche region (after Bray 1991: 265).

from the Guayllabamba-El Quinche region, 40% (n = 4) of all decorated rim sherds were associated with this vessel category. Conversely, only two of the necked jar (independent restricted vessel form) rims, which comprise more than half of the total assemblage (n = 43), were decorated. This suggests that simple, restricted vessels, which likely represent pedestal-based bowls or compoteras in this region, were more commonly decorated than necked vessels. This pattern is statistically significant at $p < .02$.[3]

3. Frequency of decorated rim sherds by vessel shape category in surface assemblage from the Guayllabamba-El Quinche region: Unrestricted vessels (n = 29), 4 decorated; Simple Restricted vessels (n = 12), 4 decorated; Independent Restricted vessels (n = 43), 2 decorated. Chi-square statistics: Value = 7.51; *DF* = 2; $p = .02$.

The Origins of Panzaleo

The highly dispersed nature of Panzaleo pottery has given rise to much speculation about its origins and significance. Jijón y Caamaño (1920: 80–82, 1952: 209) attributed its widespread distribution to trade. He proposed the Ambato-Latacunga region of the central Ecuadorian highlands as the probable locus of production based on the large quantities of Panzaleo pottery recovered from this region.[4] Jijón also saw parallels between the prehistoric ware and the style, paste, and mode of distribution of modern pottery from the Ambato area, specifically that produced in the town of Pujilí (Jijón and Caamaño 1920: 81). Both Jijón y Caamaño and, more recently, Lumbreras (1990) have suggested that Panzaleo may have been distributed by professional traders similar to the specialized long-distance traders (*mindaláes*) mentioned in early ethnohistorical accounts (see Salomon 1978, 1986).

Porras (1975) offers a different theory to account for the distribution of the Panzaleo materials. He suggests that the inhabitants of the sub-tropical eastern Andean slopes, or montaña, were the original producers of Panzaleo pottery (Porras 1975, 1984: 206–213, 277–285). Porras' theory involves the forced migration of the montaña population from their homeland in the Quijos River valley into the highland basins. The gradual exodus and ensuing dispersal of the makers of this ware would then account for the diffuse distribution of the materials observed in the sierra.

Compositional Analysis

A compositional analysis of Panzaleo pottery from the País Caranqui in the northern highlands and the montaña zone of the Quijos Valley sheds new light on the debate surrounding the origins, and ultimately, the significance of Panzaleo pottery. Twenty-three sherds from the highlands and 12 from the montaña were selected for study.[5] The sample sherds were chosen to reflect the range of vessel types, decorative techniques, and geographical sub-zones found within the two regions. Both petrographic and instrumental neutron activation analyses were performed as part of the compositional characterization study.

Instrumental neutron activation analysis (INAA) is a technique that involves the irradiation of stable atomic nuclei to effect a transformation that produces radioactive isotopes. Analysis of the gamma rays emitted during the process of radioactive decay provides information on the elemental content of the sample material. INAA yields precise determinations for approximately 20 major, minor, and trace elements under routine conditions. The advantages of this technique are that it combines great analytical sensitivity with relatively small sample requirements (Bishop et al. 1988: 320; Bishop n.d.).

INAA was used to assess and compare the chemical composition of a total of 23 sherds from northern Ecuador, including 11 from the País Caranqui and 12 from the site of Cosanga in the eastern montaña. The analysis was carried out by Ronald L. Bishop of the Conservation Analytical Laboratory, Smithsonian Institution. For each sherd, a 200–400 mg sample of ceramic paste was dried to a constant temperature, weighed, and encapsulated. These samples were then packed with a standard reference material of known elemental concentration and irradiated. A more detailed discussion of the INAA irradiation and counting procedure can be found in Bishop, Harbottle, and Sayre (1982) (see also Blackman 1986; Harbottle 1976, 1982; and Perlman and Asaro 1969). For the Panzaleo sample, reliable concentration determinations were obtained for the following elements: Na, K, Sc, Cr, Fe, La, Ce, Sm, Eu, Yb, Rb, Cs, Lu, Ta, Hf, and Th.[6]

The chemical compositional analysis of the Panzaleo sherds from the two different regions indicates a high degree of similarity in the raw materials used in their manufacture. The more reliable elements, among them cerium, chromium, europium, iron, lanthanum, lutetium, rubidium, samarium, scandium, tantalum, thorium, and ytterbium, show very little overall variation (TABLE 1). These data could indicate either that the regional geological environment is so homogeneous as to preclude the possibility of discriminating between local sources of raw materials, or that the Panzaleo pottery recovered from the montaña and highlands derived from a single source.

The mineralogical composition of Panzaleo and Caranqui wares from the northern highlands points to the latter conclusion. Twelve Panzaleo sherds were analyzed within the context of a larger study of prehistoric pottery from the Guayllabamba-El Quinche region of the País Caranqui (Bray 1991).[7] Thin-sections of nine of the 12 Panzaleo sherds were prepared and examined under a polarizing microscope; the three others were ground into a powder and subjected to X-ray diffraction techniques.

4. Porras (1984: 277), in another context, states that 80% of the Panzaleo materials found in Ecuadorian museums is from this zone.

5. Porras' Cosanga collection is stored at the National Museum of Natural History of the Smithsonian Institution. Permission to include a sample of Porras' material in the present study was graciously provided by Dr. Betty Meggers.

6. Elemental concentrations are available from the author.

7. This study was facilitated by the generous assistance of the German technical mission to Ecuador at the Instituto Ecuatoriano de Minería (INEMIN). Several students at the Polytechnical University in Quito as well as specialists at the State University of New York lent their expertise in mineral identifications. Special thanks is extended to Russell Weisman, Cheryl Coursey, and David Jenkins for their assistance.

Table 1. Mean elemental concentrations for Panzaleo sherds from the highlands vs. the montaña region. All data given in parts per million (PPM), except for Na, K, and Fe, which are given in percentages. Numbers in parentheses represent one standard deviation expressed as percent of mean value.

Element	*Highlands* *n = 11*	*Montaña* *n = 12*
Yb	3.28 (6.7)	3.04 (10.0)
Rb	117.00 (7.4)	112.00 (8.3)
Cs	5.74 (11.7)	5.47 (18.2)
Lu	0.48 (10.5)	0.43 (12.8)
Ta	1.18 (6.6)	1.20 (7.4)
Hf	5.55 (11.9)	5.22 (10.0)
Th	16.00 (3.4)	16.70 (7.0)
Na	1.05 (13.8)	1.09 (10.9)
K	1.66 (12.6)	1.54 (10.9)
Sc	15.80 (2.7)	15.50 (5.8)
Cr	83.20 (6.5)	87.30 (9.0)
Fe	4.61 (6.9)	4.52 (6.4)
La	48.60 (4.0)	48.80 (9.1)
Ce	86.80 (4.2)	85.90 (9.1)
Sm	6.82 (4.8)	6.49 (8.6)
Eu	1.33 (2.5)	1.25 (9.8)

X-ray diffraction is a semi-quantitative analytical technique that can be used to identify mineralogical constituents of ceramic wares. In the three Panzaleo specimens examined, quartz formed the major crystalline component of two sherds and a minor component of the third; plagioclase was the primary constituent of the latter sample. Muscovite and hornblende were present as accessory minerals in all three specimens.

The mineralogy of these Panzaleo sherds contrasted sharply with that of Caranqui pottery from the same region, which is presumably of local manufacture (Bray 1991: 134–136). Fourteen sherds from the Caranqui ware group were subjected to X-ray diffraction. Plagioclase feldspar was the most common component in all specimens examined, while hornblende was regularly associated as an accessory mineral, and quartz was present only in minor quantities. Muscovite, a common accessory mineral in the Panzaleo wares, was notably absent from the larger Caranqui sample. These data indicate that sufficient variation does exist in this region to permit discrimination between local sources of raw materials.

Thin-section analysis provided additional information on the range and relative abundance of minerals present in the Panzaleo ware. As the study was descriptively oriented and exploratory in nature, the emphasis was on mineral identification rather than quantification, and point counting was not undertaken. Comments about the relative abundance of minerals are therefore based on estimates.

In the nine Panzaleo specimens thin-sectioned, plagioclase feldspar, pyroxene, quartz, and muscovite were the most abundant minerals. Micaceous schist, hornblende, biotite, apatite, epidote, and opaques (hematite and magnetite) were identified as accessory minerals (TABLE 2). While volcanic minerals were common constituents of the Panzaleo ware, it is important to note the presence of a metamorphic component in these sherds as well. Micaceous schist, a common metamorphic rock, was present in four of the nine specimens examined (TABLE 2). Muscovite, while found in both igneous and metamorphic environments, does not occur as a primary mineral in extrusive igneous rocks such as those found in the Ecuadorian Andes. Epidote and apatite are also associated with metamorphic environments, though the latter mineral is not diagnostic of such conditions.

The mineralogical composition of the Panzaleo pottery provides an interesting and informative contrast with the local Caranqui ware (TABLE 2). The primary difference is in the presence of metamorphic materials. The Caranqui wares are composed exclusively of minerals and rock fragments of volcanic origin. In the 20 specimens analyzed petrographically, plagioclase feldspar and hornblende constituted the two most common mineral species, while pyroxene, biotite, chlorite, quartz, and opaques were identified as accessories. The mineralogical composition of the Caranqui wares is comparable to that of the Ecuadorian andesites found throughout the northern sierra (Wolf 1975 [1892]: 374–375).

The presence of a metamorphic component in the Panzaleo ware is highly significant with respect to the question of its origins. In Ecuador, the two cordilleras, which are known as the Cordillera Real and the Cordillera Occidental, were formed through different geodynamic processes and are characterized by rocks that are chemically and mineralogically distinct (Zeil 1979: 54). The western range is dominated by a series of basalts and ultra-basic, low-silica volcanic rocks and sediments that are collectively known as the "Basic Igneous Complex" (Zeil 1979: 54–57). Metamorphic materials are notably lacking in the Cordillera Occidental. The interandean basins, underlain by igneous rocks and filled in over the millennia with sediments and pyroclastic materials, similarly lack metamorphic elements.

In contrast, the basement rock in the eastern cordillera was mobilized from silica-rich sections of the earth's crust and is composed primarily of granites and metamorphic rock series (Zeil 1979: 36, 82). Zeil notes that in Ecuador, "coherent metamorphic basement rock outcrops only in

Table 2. Mineralogical composition of sample sherds from the Guayllabamba-El Quinche region based on petrographic analysis (Bray 1991). Key to abbreviation of mineral names: Pl = plagioclase; Hb = hornblende; Pr = pyroxene; Qz = quartz; VL = volcanic lithics; La = labradorite; Ab = albite; Ol = oligoclase; Sn = sandine; Au = augite; Bi = biotite; Mv = muscovite; MS = micaceous schist; Ch = chlorite; Hm = hematite; Mg = magnetite; OP = opaques; VG = volcanic glass; C = carbon; Ap = apatite; Gn = garnet; Ep = epidote.

Specimen No.	*Site*	*Pl*	*Hb*	*Pr*	*Qz*	*VL*	*La*	*Ab*	*Ol*	*Sn*	*Au*	*Bi*	*Mv*	*MS*	*Ch*	*Hm*	*Mg*	*OP*	*VG*	*C*	*Ap*	*Gn*	*Ep*
Caranqui																							
3	Z3-B1-030	X	X	–	–	X	X	X	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–
16	Z3-B1-X36S	X	X	X	X	X	–	–	–	–	–	–	–	–	–	–	X	X	–	–	–	–	–
1	Z3-B1-X6	X	X	–	–	X	–	X	–	–	–	X	–	–	–	–	X	–	–	–	–	–	–
9	Z3-B1-X19	X	X	X	–	X	–	–	–	–	X	X	–	–	–	–	X	–	–	–	–	–	–
17	Z3-B1-X41	X	X	X	X	X	X	–	–	–	–	–	–	–	X	X	X	–	–	–	–	–	–
2	Z3-B1-X14	X	X	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–
4	Z3-B1-X14	X	–	–	X	–	–	–	–	–	–	X	X	–	–	–	–	–	–	–	–	–	–
5	Z3-B1-X14	X	X	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–
22	Z3-B1-052	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
14	Z3-B1-030	X	X	–	–	–	–	–	–	–	–	X	X	–	–	–	–	–	–	–	–	–	–
24	Z3-B1-061	X	X	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–
37	Z3-B1-062	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
39	Z3-B1-040	X	X	–	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
7	Z3-B1-017	X	X	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
38	Z3-B1-062	X	X	X	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
350	Z3-B1-X19	X	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
27	Cochasqui	X	X	–	X	X	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
29	Cochasqui	X	X	–	X	X	–	–	–	X	–	–	–	–	–	–	–	–	X	–	–	–	–
30	Cochasqui	X	X	X	–	X	–	–	–	–	–	–	–	–	X	X	–	–	–	–	–	–	–
32	Cochasqui	X	X	X	X	–	–	–	–	–	X	–	–	–	–	–	–	X	–	–	–	–	–
Panzaleo Ware																							
6	Z3-B1-016	–	–	X	–	–	–	–	X	–	–	–	X	–	–	X	–	–	–	X	–	–	–
70	Z3-B1-048	X	X	X	X	X	–	–	–	–	–	X	X	X	–	–	–	X	–	–	X	–	X
257	Z3-B1-029	–	X	X	X	X	–	–	–	–	–	X	X	X	–	–	–	–	–	–	–	–	–
194	Z3-B1-062	X	X	X	X	X	–	–	X	–	–	–	X	X	–	–	–	–	–	–	–	–	X
40	Z3-B1-040	X	–	–	X	X	–	–	–	–	–	–	X	–	–	–	–	X	–	–	–	X	–
502	Z3-B1-X36S	X	–	X	X	X	–	–	–	X	–	X	X	–	–	–	–	–	–	–	X	–	–
33	Z3-B1-062	X	–	X	X	X	–	–	–	–	–	–	X	X	–	X	X	X	–	X	–	–	–
12	Z3-B1-028	X	X	X	–	X	–	–	–	–	–	–	–	–	X	X	X	X	–	X	–	–	–
28	Cochasqui	X	–	X	X	X	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–

the eastern Cordillera" (1979: 80; also Wolf 1975 [1892]: 264). This formation, which runs the length of the eastern range, outcrops on the exterior flank of the Cordillera Real. Given this situation, it is likely that eroded metamorphic materials would be found primarily in the foothills and drainages of the eastern montaña. The geology of the northern highlands thus suggests that the Panzaleo wares were most likely to have been produced with materials from the eastern side of the Cordillera Real.

These conclusions are in accord with those reached by three other sets of researchers. Fritz and Schoenfelder (1987), who examined two Panzaleo sherds from the site of Cochasquí, and De Paepe and Buys (1990), who included two Panzaleo sherds in a larger study of ceramic materials from Cumbayá, similarly refer to the presence of metamorphic minerals as a basic distinguishing feature of Panzaleo in comparison with the local ceramics. In another study that included four Panzaleo (Cosanga) sherds from Baeza and four from a site near Píllaro, the investigator concluded that the raw materials used in the manufacture of all eight samples came from the montaña region in the vicinity of Baeza (Arellano 1987). Both the mineralogical and the chemical data from these compositional analyses point to the eastern montaña as the locus of Panzaleo pottery production and support the notion of significant contact between the highlands and the eastern lowlands throughout much of the Precolumbian era. While these data seem to support Porras' ideas with respect to the general source area of Panzaleo pottery, they have no bearing on his theory of *how* this ware was distributed throughout the northern highlands.

Vessel Morphology

The range of vessel forms within the Panzaleo complex appears to be fairly limited. Schoenfelder (1981), working with approximately 50 complete vessels from the site of Cochasquí, divided them into two basic categories: 1) "*vasijas ventrudas*" (globular-bodied vessels that typically have restricted openings), and 2) *compoteras* (hemispherical bowl forms attached to conical pedestal bases of varying

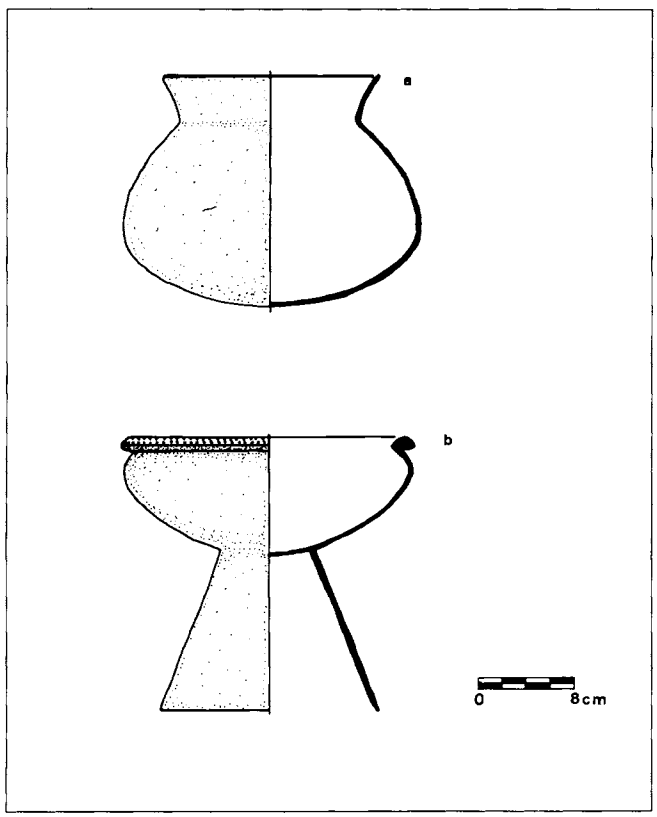


Figure 5. Basic Panzaleo vessel forms: a. globular-bodied jar, b. compotera (after Schoenfelder 1981).

heights) (FIGS. 5A and 5B, respectively). Schoenfelder subsequently identified 16 different rim types in the collection of 224 Panzaleo rim sherds from Cochasquí (Schoenfelder 1981: 196–214). These were in turn assigned to one of his two basic categories. Variations in vessel form were inferred from variations in rim forms.

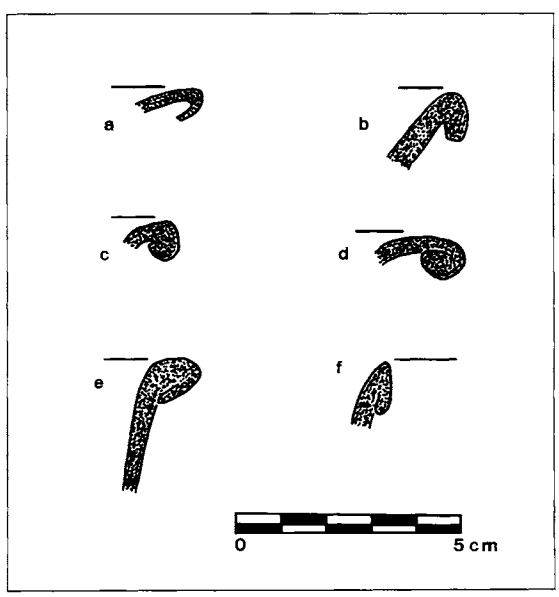
Included in the Panzaleo assemblage from the Guayllabamba-El Quinche region of the País Caranqui are 87 rims, 14 base fragments, and 85 body sherds. A morphological classification scheme based on the geometric criteria of vessel structure and contour type was adopted for the local Panzaleo pottery assemblage (Bray 1991: 178–184, 270–296). Following Shepard (1980: 224–248), vessel forms were divided into three basic structural or shape categories: unrestricted (I), simple restricted, or dependent (II), and independent restricted (III).

Nineteen different rim types were identified in the local assemblage on the basis of shape, orientation, and treatment of the lip (Bray 1991: 273–296). The majority of these are found on Caranqui vessels as well, but three forms appear to be uniquely associated with Panzaleo pottery in the northern highlands. One of these is the rolled or "folded-under" rim, the most common form in the local assemblage and a hallmark of Panzaleo pottery vessels in general. This rim is characterized by a style of construction that involves folding the lip under or over itself and compressing the two parts together to effectively bolster the vessel orifice (FIG. 6). Nearly half (n = 41) of the Panzaleo rim sherds recovered within the survey area were produced in this manner. The folded rim is associated with all three shape classes. The other two rim types unique to Panzaleo pottery in this region are variations on an incurving form associated with a simple restricted vessel form.

Panzaleo rim sherds were assigned to a vessel structural class on the basis of orientation and upper wall profile. Within each of the three classes, rims were further subdivided by general shape and grouped accordingly. When the rim types from the Guayllabamba-El Quinche region were sufficiently similar to those from Cochasquí, Schoenfelder's (1981, 1989) descriptions and drawings were employed to suggest the specific vessel forms. Jijón y Caamaño's collection of Panzaleo pottery housed at the Catholic University in Quito was also useful in this regard.

Ten categories of vessel forms were created as a result of this procedure (Bray 1991: 282–296). They include three variations on unrestricted vessel forms (FIG. 7, A–C), two simple restricted forms (FIG. 7, D–E), and five independent restricted forms (FIG. 7, F–J). The total number of vessels in each category was calculated on the basis of the number of

Figure 6. Variations on the Panzaleo folded rim technique observed in Guayllabamba-El Quinche region (after Bray 1991: 279)



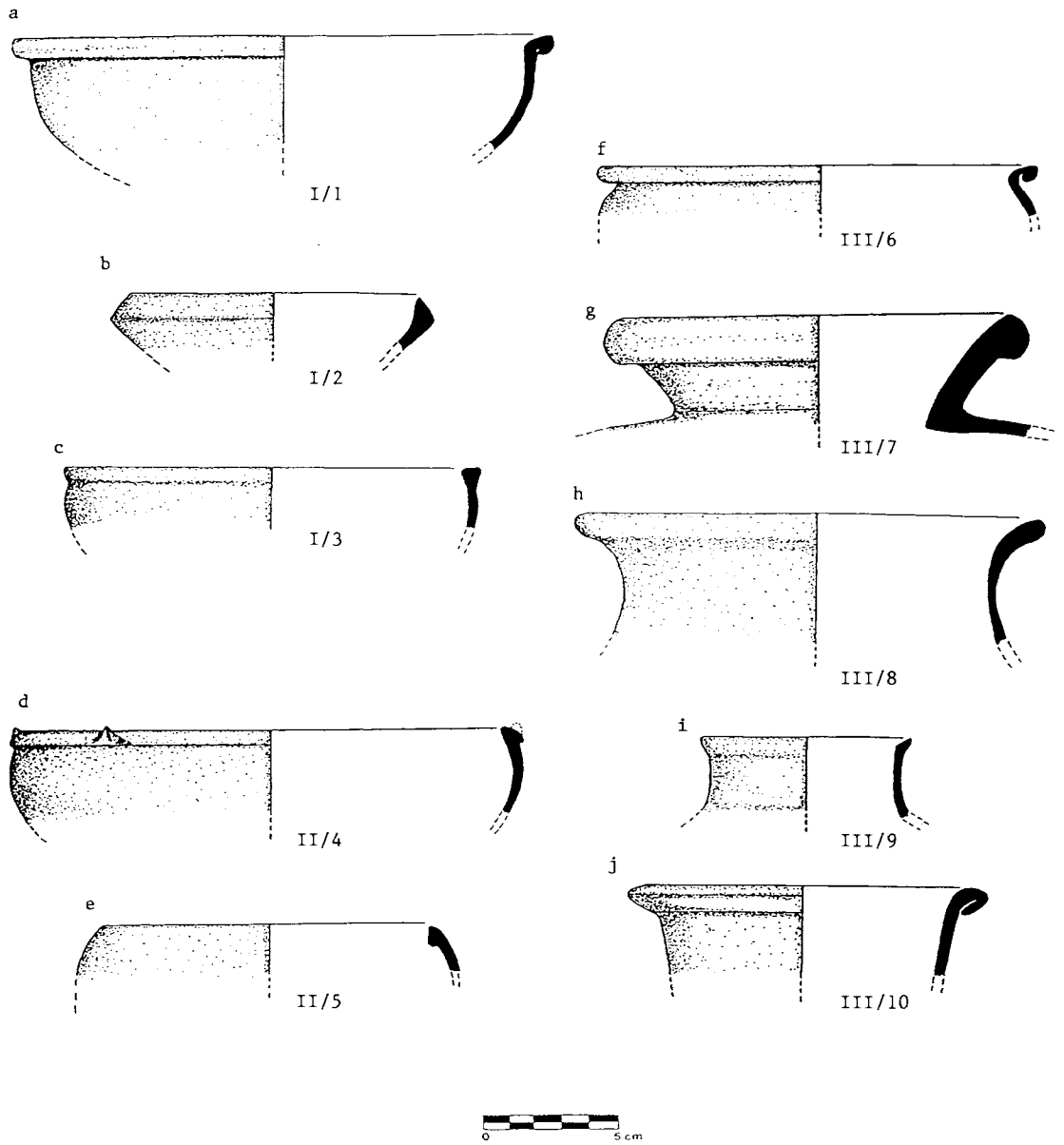


Figure 7. Panzaleo vessel forms: a. Form I/1 Simple, ledge-rimmed bowl (compotera); b. Form I/2 small, carinated bowl; c. Form I/3 Simple, flat-lipped bowl (compotera); d. Form II/4 Simple restricted, bead-rimmed bowl (compotera); e. Form II/5 neckless olla; f. Form III/6 short-necked, wide-mouthed jar; g. Form III/7 short, flared-neck jar with bolstered rim; h. Form III/8 tall-necked, wide-mouthed jar; i. Form III/9 tall-necked, narrow-mouthed jar; j. Form III/10 tall flared-neck jar.

diagnostic rims, bases, and neck sherds per site. Few of the 27 sites in the study area with morphologically diagnostic pieces contained more than one of the same variety of rim or base sherd. In the cases where this did occur, the items in question were compared in terms of orifice diameter, wall thickness, paste color, degree of oxidation, and surface treatment, including the presence or absence of decoration. A wide margin of difference in one or more of these categories was required to reject the more conservative assumption that they represented a single vessel.

In the Panzaleo assemblage from the Guayllabamba-El Quinche region, the restricted vessel forms (n = 55) are nearly twice as common as the unrestricted forms (n = 29). Just over half (n = 43) of the identifiable vessel forms belong to the independent restricted class of necked ves-

sels. Specific forms in this category include both a short and a tall-necked variety of wide-mouth vessel (Forms III/6 and III/8, respectively) (FIG. 7F, 7H), a globular-bodied restricted form with a short flared neck (III/7) (FIG. 7G), and two rarer restricted forms with narrow necks (III/9 and III/10) (FIG. 7, I-J). Over half (n = 25) of the independent restricted forms have bolstered (folded) rims. Panzaleo vessels from Cochasquí with rims similar to those of Form III/6 are typically provided with pedestal bases while the remainder of the independent restricted vessel forms probably had round or annular bases (cf. Schoenfelder 1989: 200–207).

One-third of the Panzaleo assemblage from the Guayllabamba-El Quinche region (n = 29) are unrestricted vessel forms (FIG. 7, A–C). Based on comparisons with the Cochasquí materials, it seems likely that these hemispherically-shaped bowl forms rested on conical pedestal bases. Pedestal-based vessels, known as compoteras, are quite common in the northern Andes. Thirty-four percent (n = 11) of the rim sherds in this vessel category are of the "folded-under" variety.

The class of simple restricted vessels comprises only 14% of the local Panzaleo assemblage (n = 12). Comparative materials suggest that vessel form II/4 (FIG. 7D) probably also had a pedestal base. The rarity of Form II/5 (n = 2), a spherically-shaped vessel (FIG. 7E), suggests that it was more restricted in use and/or had a more specialized function.

In the Panzaleo assemblage from the Guayllabamba-El Quinche region, the total number of compoteras (Forms I/1, I/2, I/3, I/4, and III/6) is substantially higher than the total number of vessels with round or annular bases, which in Schoenfelder's (1981) classificatory system come under the heading of globular-bodied jars (n = 51 versus 33, respectively). At Cochasquí, Panzaleo compoteras are nearly twice as common during Phase I (A.C. 950–1250) as Phase II (A.C. 1250–1550) (n = 92 versus 48, respectively). Compoteras are also twice as common as the globular-bodied jars at Cochasquí during Phase I (n = 92 versus 48, respectively), though the distribution becomes more even in Phase II (globular jars = 43, compoteras = 48) (Schoenfelder 1989). These patterns are statistically significant at $p < .05$. Furthermore, double row punctation, one of the earlier decorative techniques, is associated exclusively with Schoenfelder's Rim Type 10, the most common compotera rim form in the Panzaleo collection from Cochasquí (Schoenfelder 1989: 199). These data suggest that compoteras initially comprised the more popular or important Panzaleo vessel form at Cochasquí and perhaps at other sites in this region as well.

Vessel Function

Drawing upon the ethnographic literature, previous ethnoarchaeological research, and global comparative studies of vessel form and function (i.e., Braun 1983; Hally 1986; Henrickson and MacDonald 1983; Smith 1985), it is possible to make some suggestions about the role and uses of the different vessel categories identified within the Panzaleo assemblage. The physical attributes of the compotera, for instance, most closely approximate those expected of individual serving vessels. Serving vessels typically have wide mouths for visibility, ease of access, and manipulation of contents. The interior surfaces are usually smooth to facilitate the removal of vessel contents. Containers for serving individual portions are most often small to medium in size.

All three unrestricted forms in the Panzaleo assemblage as well as Form II/4, are small to medium-sized shallow bowls with vessel orifices ranging from 8 to 21 cm in diameter. Form I/1 has a horizontally everted rim, while Forms I/3 and II/4 have flattened, symmetrically or exteriorly thickened lips. Neither Form I/1 or I/3 are particularly well suited to pouring liquids. In addition, the rims of these vessels are often embellished with appliqued conical nubbins or punctate decoration. These decorative elements, which offer additional impediments to drinking, seem to place the emphasis, instead, on presentation. The morphological features of these vessels suggest that they would be best suited for serving solid or semi-solid foods.

The use of pedestal-base bowls for food serving and eating has been documented ethnographically among the Jivaro, Sarayacu and Canelos Quichua, and Achuar in the eastern lowlands of Ecuador (Karsten 1935: 101; Kelley and Orr 1976: 26; Whitten 1976: 201; Zeidler 1984: 353). Among the Quichua, these vessels are known as *callana*. Kelley and Orr (1976) refer to the callana vessels as soup bowls. These are distinguished from the Sarayacu Quichua drinking bowls by the vertical orientation of the vessel walls, a short everted rim with incised decoration, and a distinctive surface treatment that involves the purposeful reduction of the vessel during the last stages of firing (Kelley and Orr 1976: 26). The rims of the Sarayacu drinking bowls are direct, smoothed but not further elaborated (Kelley and Orr 1976: 17).

Archaeological data tend to support the interpretation of the compotera's use as a food serving vessel as well. Porras (1984: 280), for instance, notes that several Panzaleo compoteras recovered in grave lots near Píllaro in the central highlands contained the bones of *cuyes* (guinea pigs). Uhle (1926: 14) made a similar observation regard-

ing the contents of some compoteras found in association with burials at Cumbayá.

The small globular-bodied, neckless olla (II/5), as mentioned above, is not a common vessel type in the Panzaleo assemblage.[8] The average orifice diameter in this vessel category is 12.5 cm. The overall form is well adapted for containment and the reduction of losses through spillage or evaporation. The curved form, restricted opening, and low center of gravity might indicate a cooking function, but the vessel's rarity and lack of exterior sooting argue against this interpretation. A storage function might also be suggested, though vessel capacity is limited and the walls are thin. This form is as rare ethnographically as it is archaeologically.

The necked vessels that constitute the third structural class of independent restricted forms in general emphasize containment over accessibility. Form III/6 is a globular-bodied, wide-mouth container with a very short neck. This vessel form apparently comes in a variety of sizes; the orifice diameter ranges from 11–28 cm, with a mean of 17.5 cm. Three size modes are suggested. The vessel is characterized by a short, flared rim that is often embellished with stamped or punctate decoration. The technomorphological features of this vessel, including the wide but restricted orifice, broad body, and decorative treatment, emphasize the use-related properties of containment, accessibility, stability, and presentation. Such features could be indicative of either a serving or food processing function.

Form III/7 is also a globular-bodied vessel. It has a short flared neck and an exteriorly thickened rim. The orifice diameter is quite restricted ranging from 9 cm to 13 cm in size with a mean of 10.5 cm. The thickened rim would have facilitated the securing of vessel contents by allowing a cover to be tied on. The formal characteristics of this vessel suggest its possible use as a temporary container for liquids.

The tall-necked, wide-mouth Panzaleo jar (Form III/8), unlike its counterpart in the Caranqui assemblage, is extremely rare. The mean diameter of the vessel orifice is 17 cm. The rim on this Panzaleo vessel is flared and the lip is rounded, both features that facilitate pouring. The tall neck, flared rim, and rounded lip suggest that the vessel may have been used as a container for liquids or some other pourable foodstuff. A similar function is suggested for Form III/9, a straight-necked vessel with a much smaller orifice diameter (7–11 cm). Given that the removal of vessel contents could only be achieved by pouring, the container was most likely used in the transport or temporary storage of liquids. The small size and relative rarity of the form might suggest its association with special liquids. The final Panzaleo form in the independent restricted class is a tall, narrow-necked container with a slightly thickened rim (III/10). The orifice diameter of this vessel ranges from 9 cm to 13 cm in size. A similar function as a container for liquids is posited for it as well.

Ethnographic information indicates that jars typically constitute one of the most numerous vessel categories in indigenous households. Kelley and Orr's (1976) descriptions of Sarayacu Quichua pottery from the Ecuadorian lowlands indicate that storage jars for fermented beverages comprise the largest component of the domestic assemblage. Zeidler (1984: 350–359) reports that jars for *chicha,* a fermented beverage typically made of manioc or maize, accounted for 23% of the pottery assemblage in one Achuar compound in SE Ecuador. Karsten (1935: 100) states that the most highly valued vessels in the Jivaro's culinary assemblage are the "great urns or jars with bulging sides, narrow neck, and wide mouth in which they keep the manioc substance from which the manioc beer is prepared."[9] In the Otavalo district of the northern Ecuadorian highlands, jars known as *pondos* constitute one of the most important elements of the domestic assemblage (Lamas 1985: 106–107). The smaller sized pondos are used for the transport of liquids such as water and chicha, while the larger vessels serve as storage containers for liquids and grains (Lamas 1985: 106–107).

In a discussion of 17th-century subsistence practices in the Andes, Cobo notes that the native population had more accoutrements for making and storing chicha than for any other purpose: "To produce, store, and drink this beverage, they [the Indians] had more instruments and vessels than they did for their foods. They use clay jars, the largest being four and six *arrobas,*[10] as well as other smaller ones; they use a great quantity of large and small jugs, and three or four types of cups and glasses" (Cobo 1964 [1653]: Bk. 14, chap. 4, p. 242).

Given the status of chicha as the pre-eminent native drink, I would suggest that Panzaleo jars, like those of local manufacture, were associated primarily with the temporary storage, and possibly the serving, of this beverage. The small number of Panzaleo jars recovered in the País Caranqui, however, makes it clear that these were not the only

8. The form is equally rare in the local Caranqui assemblage.

9. The Jivaro jar pictured by Karsten (1935: plate XX) is similar in form to the Achuar jars illustrated by Zeidler (1984: 351–352) with strongly excurvate walls, insloping neck, and short flared rim.

10. An *arroba* is a Spanish measure roughly equivalent to 25 lbs or, in liquid measure, approximately four gallons.

vessels used in this capacity. Indeed, Caranqui jars, which include the large diameter vessels likely to have been used in the chicha production process, account for more than half of the regional assemblage (Bray 1991: 229–235). The relative rarity of the Panzaleo jars, as well as their somewhat unusual shape *vis-à-vis* local types (cf. Bray 1991: 191–237), suggests a special, perhaps more restricted, usage. A look at the contexts in which Panzaleo vessels occur provides further insight into the possible roles of this non-locally produced ware in the northern Ecuadorian highlands.

Context of Panzaleo

Given the array of cultural and temporal associations of this ware, it is not surprising to note that Panzaleo pottery is also found in a variety of archaeological contexts. For present purposes, these are collapsed into domestic versus burial contexts. With respect to the former, Panzaleo has been recovered from house floors and refuse middens at the sites of Cochasquí (Schoenfelder 1981), Baeza (Porras 1961, 1975), Pimampiro (Porras 1972), La Chimba (Athens 1990), and Cumbayá (Buys and Domínguez 1988), among others, in northern Ecuador.

In a mortuary context, Panzaleo has been found in deep shaft tombs in the province of Carchi (Uhle 1933: 46–47), in numerous burial pits near Cumbayá (Uhle 1926), and at an isolated grave site in Papallacta (Porras 1961: 54–55). Porras also claims to have excavated 30 tombs near the town of Píllaro that reportedly contained an average of 10 Panzaleo vessels apiece (Porras 1984: 279). Panzaleo has also been recovered in burial contexts at the mound sites of Cochasquí (Schoenfelder 1981, 1989) and Socapampa (Athens 1980). In grave lots as in domestic assemblages, Panzaleo is always accompanied by local style pottery.

The quantitative information available reveals some interesting differences with respect to the ratios of Panzaleo vessel types found in domestic vs. burial contexts. As noted previously, the overall ratio of pedestal-based bowls to globular-bodied jars in the Panzaleo assemblage from the Guayllabamba-El Quinche region was approximately 5:3 (n = 51 vs. 33). The surface scatters from which these materials derive are assumed to represent domestic assemblages, as the range of vessel types observed generally replicates that found in midden contexts at other sites in the northern sierra (i.e., Cochasquí, Socapampa, etc.). At Cochasquí, the ratio of compoteras to jars recovered in non-burial contexts was roughly 2:1 (n = 140 vs. 76) (Schoenfelder 1989). Counts of rim sherds from Porras' excavations near Cosanga on the eastern slopes of the Cordillera Real indicate a 1:2 ratio of pedestal-base bowls to jars, but the tabulations may include materials from grave lots as well as household contexts (Porras 1975: 112–113).[11]

Quantitative data from mortuary contexts are somewhat more abundant. Table 3 presents vessel counts by general ware type (Caranqui and Panzaleo) for a series of burials from the northern highlands that date approximately to the Integration Period (A.C. 800–1500). The counts are based on written descriptions and, in a few cases, illustrations of materials recovered from mortuary contexts at Cochasquí (Oberem 1981; Schoenfelder 1981, 1989), Cumbayá (Uhle 1926), Socapampa (Athens 1980), Papallacta (Porras 1961, 1975), and the Convento de Santo Domingo (Buys, Domínguez, and Zambrano 1990). Unfortunately, little information is available on the sex or age of the interred individuals.

Approximately 40% of the burials included in the analysis contain one or more Panzaleo vessels (see TABLE 3). The overall ratio of Panzaleo pedestal-based bowls to jars found in mortuary contexts is quite different from that observed in domestic contexts. Whereas the proportion of bowls to jars is roughly 2:1 in the latter context, Panzaleo jars are found to be eight times more common than Panzaleo bowls in funerary assemblages. In fact, there are only three documented instances of Panzaleo compoteras associated with burials.[12] At least one of these dates to the earlier part of the Integration period (A.C. 760) (Athens 1980: 213). The rarity of Panzaleo compoteras in grave lot assemblages also contrasts with the relative abundance of Caranqui compoteras in these same burials. In the general mortuary assemblage, precisely half of the 32 burials are provided with compoteras. This vessel category constitutes approximately 25% of the total number of vessels recovered in burial contexts.

Provisioning the dead with food and drink for their journey into the afterlife was a common practice among Andean peoples according to various chroniclers of native cultures (Anónimo 1965 [1573]: 225–226; Benzoni 1572: 168; Cobo 1964 [1653]: Bk. 3, Chap. 6, pp. 114–115). Today, the modern Canelos Quichua of the Ecuadorian Oriente bury their dead with food, chicha, cooking,

11. No attempt was made to correct for variability in the orifice diameter of bowl and jar forms as the metric data available indicate no radical differences in size between the two. In the Panzaleo assemblage from the Guayllabamba-El Quinche region, the mean orifice diameter is 15.5 cm for pedestal-based bowls (n = 44) and 12 cm for necked vessels (n = 26). The mean orifice diameter of the nine Panzaleo jars from Cochasquí for which measurements were given is 11.5 cm (Wentscher 1989: 135–170).

12. Porras (1984: 279) states, in passing, that the vessels recovered from tombs near Píllaro consisted primarily of compoteras and jars, with the former typically outnumbering the latter by a ratio of four to one. Occasional references to the Píllaro burials are highly provocative, but a report on the site has, unfortunately, never been published.

Table 3. Vessel types associated with Integration Period burials in the País Caranqui.

		Panzaleo			*Caranqui*						
Site	*Burial ID*	*Compotera*	*Small jar*	*Large jar*	*Compotera*	*Bowl*	*Small jar*	*Large jar*	*Tripod*	*Olla*	*Total*
Socabamba	Mnd 18-2	–	1	–	–	–	–	–	1	–	2
(Athens 1978)	Mnd 19-6	1	–	–	4	1	–	–	–	–	6
Cumbaya	1	–	2	–	–	–	–	–	–	–	2
(Uhle 1926)	2	–	–	–	–	–	–	1	–	1	2
	3	–	1	–	–	–	1	–	–	–	2
	4	–	–	–	2	–	–	–	–	–	2
	5	–	–	1	–	–	–	–	–	–	1
	6	1	–	–	1	–	1	2	–	–	5
	9a	–	–	–	1	–	–	–	–	–	1
	9b	–	–	–	–	–	2	–	–	–	2
	9c	–	–	–	–	4	–	–	–	–	4
	16	–	–	–	–	–	–	–	1	2	3
	18	–	–	–	–	–	1	–	–	1	2
	21	–	3	–	1	4	–	–	–	2	10
	24	–	–	–	1	1	–	–	–	–	2
Cochasqui	3	–	–	–	1	–	–	1	–	–	2
(Schoenfelder	5	–	–	–	1	–	–	–	2	–	3
1981, 1989)	6	–	1	–	1	–	–	–	1	–	3
	1	–	1	–	–	–	–	–	2	–	3
	Acq. 15	–	–	–	1	–	–	–	2	–	3
	2	–	–	1	1	1	–	–	1	–	4
	7	–	–	–	2	–	–	–	1	–	3
	Mnd a	–	–	4	–	–	–	–	–	–	4
	Mnd n	–	2	6	2	4	–	–	2	–	16
	Mnd m	–	–	–	1	–	–	2	–	–	3
	Fea 6	–	–	–	–	–	–	–	1	–	1
	Fea 54	1	1	–	–	1	–	–	2	–	5
	Fea 63	–	–	–	1	1	–	–	1	–	3
Papallacta (Porras 1961, 1975)	1*	–	1	–	–	–	2	–	–	1	4
Convento Sto.	1*	–	–	–	–	1	–	–	–	1	2
Domingo (Buys,	2*	–	–	–	1	–	–	–	–	–	1
Dominguez, and Zambrano 1990)	3*	–	–	–	–	–	–	–	–	1	1
Total		3	13	12	22	18	7	6	17	9	107

*Burial numbers assigned for purposes of analysis.

eating, and drinking vessels, clothes, adornments, and exchangeable tokens (Whitten 1976: 138; also Karsten 1935: 458–460). In the northern sierra, the indigenous inhabitants of Punyaro have a similar custom of placing dishes, spoons, and gourds in the caskets so that the deceased may eat and drink (Rubio Orbe 1956: 368).

The vast majority of the Panzaleo vessels found in northern highland grave lots (89%) are globular-bodied jars and more than one third (n = 12) of the burials included in the analysis were provided with such vessels. Ten burials contained Panzaleo jars, five contained Caranqui jars, and two had both Caranqui and Panzaleo jars associated. Panzaleo jars obviously constituted an important element of the funerary assemblage in this region. Based on ethnographic and ethnohistoric information, it is not unreasonable to suggest that the jars placed in burials contained offerings of chicha. Thus it would seem that Panzaleo jars were the preferred container for that beverage in a mortuary context. Conversely, the use of Panzaleo compoteras in funerary assemblages was apparently considered inappropriate.

Discussion

Archaeological evidence suggests strong ties between the sierra and the eastern lowlands during the pre-Columbian period (Francisco 1971: 212–215; Myers and Brouillard 1974). Trade networks between the two zones were well established by the time of the Spanish Conquest (see Borja 1965 [1582?]: 246; Caillavet 1983: 17; Gonzalez

Suarez 1890–1903: 56–57; Oberem 1974). One administrator reports that highland Indians obtained slaves, parrots, monkeys, medicinal herbs, and dyes from the Amazonian region in exchange for dogs, woven shawls, and salt (Borja 1965 [1582?]: 246). Linkages between highland and montaña populations were further developed through the judicious arrangement of trans-zonal marriages and the creation of kin networks (Oberem 1974: 347).

In many parts of the eastern montaña, the zone from which Panzaleo pottery likely derived, chicha made of manioc root is still the basic staple of the local population (Whitten 1976: 83–88). The Canelos Quichua continue to produce and serve this fermented beverage using traditional methods. Among the lowland Quichua, the production and consumption of chicha is associated with its own pottery complex (Kelley and Orr 1976: xiv; Whitten 1976: 83–89; Whitten and Whitten 1988: 20). The vessels utilized, which include large jars for fermentation and storage, everyday drinking bowls, and special occasion drinking bowls, are produced in a distinctive polychrome ware. This ware exists side by side with a more ordinary blackware pottery made of a heavy grade clay that is used for cooking and food serving vessels (Whitten 1976: 90–95). This ethnographic example of a specialized pottery complex associated exclusively with chicha production and consumption offers an interesting analogy with respect to the possible relationship between Panzaleo and local style wares in the highlands.

Chicha is an integral part of Andean subsistence and ceremonial practices. In prehistoric times, in both highland and lowland areas, chicha was one of the most important elements of social and ceremonial gatherings where ritual drunkenness was often obligatory (Lathrap 1970; Rowe 1946: 292; Salomon 1986: 75–79). In the tropical lowlands, manioc beer is the staple. In the highlands, chicha made from maize was the most common type of fermented beverage. As one administrator in 16th-century Quito wrote, ". . . the daily fare [of the Indians] is wine made of maize that the Spanish call chicha and the natives call azua" (Anónimo 1965 [1573]: 226).

It is possible, however, that chicha made from manioc root was also utilized in the sierra. Sixteenth-century sources report that manioc was cultivated in sheltered valleys of the highlands such as those associated with the Chota-Mira and Paute Rivers (Estrella 1988: 147). Well into the Colonial period, *masato* (fermented manioc pulp) was offered for sale at the market in Quito (Perez 1947: 39). Archaeological data offer some support for this notion as well.

During recent investigations in the País Caranqui (Bray 1991: 237–239; Ontaneda and Navarrete n.d.: 11), a limited number of perforated sherds of local Caranqui manufacture were recovered. These sherds are commonly referred to as colander fragments in the literature (Julien 1983; Lathrap 1970; Raymond, DeBoer, and Roe 1975). Ceramic colanders were presumably used for straining or steaming vessel contents. Lathrap (1970: 139), noting the higher frequency of these sherds in the Amazon basin, suggests that perforated vessels were used for straining fibers from manioc beer. Some support for this hypothesis is found in ethnographic descriptions of colanders made from gourds by the modern Shuar who use them to strain chicha (Bianchi 1976: 90–91). It is possible that the perforated sherds recovered in the País Caranqui could be associated with the production of manioc beer in this region as well. As such sherds are rare in the highlands, it seems unlikely that they could have been a regular component of the corn-beer production assemblage given the probable level of consumption.

As indicated earlier, Panzaleo pottery was most likely produced in the montaña zone of the eastern cordillera. Its presence in the highlands in all likelihood represents relations of exchange between these two zones. The significance of Panzaleo pottery in the northern highlands likely derived from its connection with tropical forest cultures. Given the linkages between the two regions, the similarities in patterns of ritual activity, and the high regard in which the magico-religious knowledge of lowland peoples was held (see Lathrap 1971; Renard-Casevitz, Saignes, and Taylor 1988; Tello 1943), I would suggest that Panzaleo pottery was associated with ritual/festival activities in the highlands in much the same way that polychrome pottery functions today among the lowland Quichua.

Manioc root was the staff of life in the lowlands and may well have been a symbol of tropical forest cultures for highland dwellers. It is possible that Panzaleo jars may have been specifically associated with manioc chicha in the sierra, though further studies are needed before such a hypothesis can be taken further. Although the elaborate drinking bowls used in the ritual consumption of chicha to the east of the Andes are absent from the highland Panzaleo assemblage, it is possible that the small Panzaleo jars (see FIG. 8)[13] associated primarily with burials in the País Caranqui may have functioned in this capacity. As noted earlier, Panzaleo jars were an important component of

13. This small Panzaleo jar was recovered by a local farmer near the town of El Quinche. While the context of the find was not recorded, it is identical to several vessels recovered in burial features at the site of Cochasquí (cf. Schoenfelder 1981). No other rim sherds in the Panzaleo assemblage from the Guayllabamba-El Quinche region match the rim on this vessel, indicating that this vessel type was not common in local domestic assemblages, which most of the surface scatters recorded in the project area are presumed to represent.

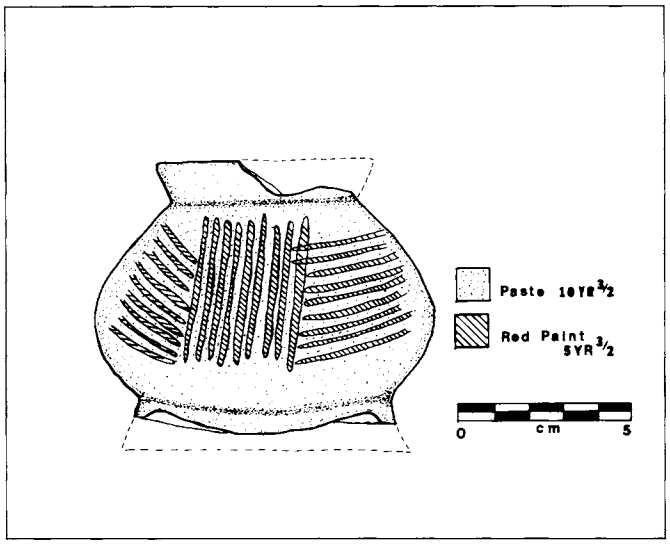


Figure 8. Small Panzaleo jar recovered near El Quinche, Ecuador (private collection).

funerary assemblages in the northern highlands. This would suggest a connection between a particular beverage or liquid associated with tropical forest cultures, possibly chicha, and burial rites.

Panzaleo compoteras, which are functionally suited to the serving of solid or semi-solid foods, are rarely associated with grave lots. Their relative frequency in other contexts, however, suggests that the presentation of foodstuffs may have been an important aspect of some ritual/festival activities in the highlands. As the contention of this paper is that Panzaleo pottery was connected both literally and figuratively with tropical lowland cultures, I would again speculate that the foods presented in the Panzaleo compoteras had some association with lowland cuisine. Further archaeological research in the region together with more specialized studies in such areas as mortuary and residue analysis will provide new data against which to evaluate the suggested relationships between Andean and eastern montaña cultures outlined in this paper.

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[Footnotes]

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