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NEW SERIES, NO. 31

The Early Ceramics of the Inca Heartland

Brian S. Bauer

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This work is dedicated to Luis Barreda Murillo, friend and teacher.

(Photograph courtesy of Gordon McEwan.)

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Back cover: Fragment of a Paruro Formative flaring bowl.

This study presents a new pottery sequence for the Cuzco region in the south central Andes of Peru. The investigation was based on surface collections and test excavations conducted in the Cuzco region from 1984 through 1987. The archaeological survey, covering more than 600 square kilometers, recorded the locations of approximately 250 sites, which contained a total of 450 cultural components. A new ceramic chronology for the Inca heartland is proposed in the conclusion to the study.

Preface and Acknowledgments

This work explores the ancient ceramic traditions of the Cuzco region, Peru. Ceramic studies are critical tools in the modeling of pre-historic and historic cultural developments. Relatively little archaeological research can be conducted without them. The first ceramic sequence for the Cuzco region was proposed by John H. Rowe in 1956. This general sequence divided the pre-Hispanic period of the region into six broad temporal-ceramic classifications. There have been no systematic attempts to update it in 40 years. Although much of the current archaeological research in the Cuzco region has focused on describing and analyzing its pre-Inca cultures, few new ceramic styles have been formally proposed. The lack of descriptions and illustrations for the Cuzco ceramic styles has handicapped the development of archaeological research in the southern Andes of Peru.

During the late 1980s and early 1990s, the Cuzco ceramic sequence was intensively and independently studied by Mary Glowacki, Julinho Zapata, and myself. We have each arrived at slightly different reconstructions of the sequence, which is reflective of our different research areas, reference collections, and expertise. As each of these studies is published, our understanding of the region's complex ceramic sequence will grow. Similarities in the three sequences will serve as areas for discussion, and differences in the sequences can serve as points for debate. That three alternative models can be constructed is not surprising because the available data are still fragmentary. Although our understanding of the Cuzco ceramic sequence is just beginning, it is clear that the sequence includes a remarkable combination of local production centers and complex, regional exchange networks. Additional research will no doubt allow the redefinition of various ceramic styles and perhaps even suggest different evolutionary sequences.

Many individuals and organizations have aided me in completing the study and the book. Most important, Luis Barrera Murillo took great care to teach me much of the Cuzco Valley ceramic

sequence during my first stays in Cuzco, and I continue to learn from him today. Without his help, understanding, and support, this project would never have been started. I would also like to thank Mary Glowacki, who helped me classify and describe the Middle Horizon styles in my collections. Without her help, the manuscript would not have been completed.

My understanding of Cuzco ceramics has been improved by conversations with members of the Universidad San Antonio Abad del Cuzco, including Raymundo Béjar Navarro, Manuel Chávez Ballón, José Gonzales Corrales, Italo Oberti Rodríguez, Alfredo Valencia Zegarra, and especially Julinho Zapata. Likewise, my research has benefited from contact with members of the Instituto Nacional de Cultura in Cuzco, including Percy Ardiles Nieves, Fernando Astete Victoria, Arminda Gibaja Oviedo, Wilbert San Roman Luna, and Wilfredo Yépez Valdez.

Members of the survey crews included Melissa Baker, Tamara Bray, Silva Lopez Arangurí, Martina Munsters, Leslie Ranken, Nilo Torres Poblete, Wilbert Torres Poblete, and Wilbert Vera Robles. Edmundo de la Vega and Wilbert Torres Poblete helped direct the test excavations, and Eliana Gamarra Carrillo and Marlene Piñares supervised the processing of the artifact collections in Cuzco. I thank Michael Malpass, Dean E. Arnold, Mary Glowacki, Frances Hayashida, and Charles Stanish for their critical readings of the manuscript. Various chapters have also been read by Karen Mohr-Chávez, Chad Gifford, Paul Goldstein, Sara Lunt, and Martina Munsters. Their criticisms and suggestions are gratefully acknowledged.

Permission for the project was granted by the Instituto Nacional de Cultura (INC): Lima and Cuzco. Funds and support were provided by the L. J. Skaggs and Mary C. Skaggs Foundation, the Fulbright-Hays Fellowship Committee, the Organization of American States, the Institute for New World Archaeology, and the University of Chicago Housing System. I thank them for their aid.

Portions of some chapters appeared in slightly

different versions in previous publications. Parts of Chapter 1 appeared in Bauer, *The Development of the Inca State* (University of Texas Press). Parts of Chapter 2 appeared in the same publication and in Bauer and Stanish, *Killke and Killke-Related Pot-*

tery from Cuzco, Peru, in the Field Museum of Natural History (Field Museum of Natural History, Chicago). Grateful acknowledgment is made to these publishers for permission to reuse material.

The Inca in Cuzco

The Cuzco region of the south central Andean highlands of Peru is famous as the heartland of the Inca Empire (ca. A.D. 1400–1532). This empire, perhaps the largest to develop in the New World, was the product of thousands of years of cultural development (Map 1-1). Prior to the Inca, the Cuzco region underwent various periods of foreign influence and indigenous development.¹ The Ayacucho-based Wari Empire controlled parts of the region from about A.D. 550 to 900, and recent research indicates that the Tiwanaku Empire, and other earlier polities from the Lake Titicaca region, may have also had an impact on the region. Before, during, and after these periods of outside influence, Cuzco was home to thriving and diverse local societies.

John H. Rowe began systematic archaeological research in the Cuzco region in the early 1940s with test excavations at several sites in and near the city of Cuzco and exploratory visits to many other sites in the region. Building on this work and on excavation data generated by the Cuzco archaeologist Manuel Chávez Ballón, in 1956 Rowe began to develop a pre-Hispanic ceramic sequence for the region that would include seven broad temporal–ceramic classifications. These classifications span from latest to earliest: Classic Inca, Killke, Wari (Huari) and contemporary regional styles, Huaru, Derived Chanapata, Chanapata, and Marcavalle (Fig. 1-1).

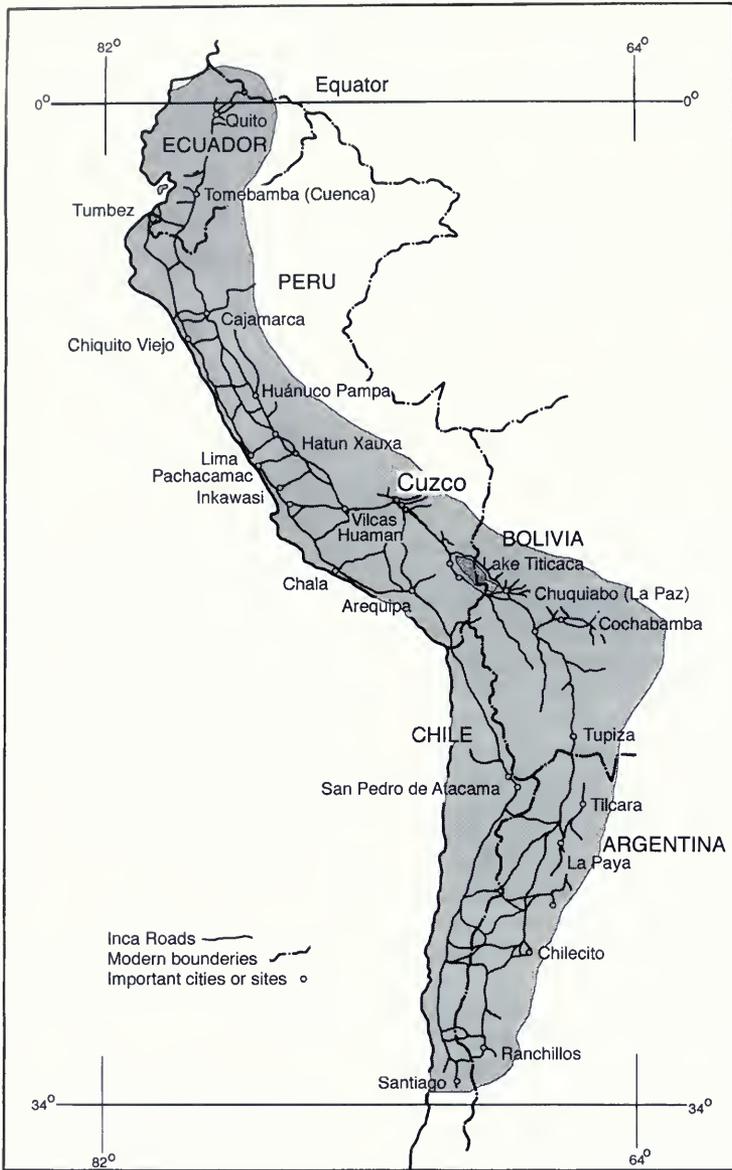
Over the past 40 years, a number of researchers have conducted large-scale exploration, survey,

and excavation projects in the Cuzco region. These projects have improved our understanding of known ceramic types and have recovered evidence of several new ceramic styles. In addition, a host of radiocarbon dates have been recovered that are critical for updating the Cuzco ceramic sequence. It is the goal of this work to establish a ceramic chronology for the Province of Paruro (Department of Cuzco) and to use this chronology, along with the results of other recently completed projects, to revise the ceramic sequence for the Inca heartland.

The Research Area and Research Methods

In this work, the prehistoric ceramic sequence for the Province of Paruro is described and analyzed. The investigation has direct implications for the cultural history of the Inca because the Province of Paruro is located immediately south of the city of Cuzco (Map 1-2). Surface collections and test excavations were conducted in the Province of Paruro from 1984 through 1987 under the auspices of the Pacariqtambo Archaeological Project. The archaeological survey covered more than 600 square kilometers. The locations of approximately 250 sites, which included a total of 450 occupations, were recorded during the project. The sites ranged from small, isolated scatters of ceramics to the large nucleated center of Maukallaqta, which measures nearly 6 hectares (Bauer, 1992a, pp. 65–108, 1992b). Surface col-

¹ The term “Cuzco region” is defined as the area approximately 60 aerial kilometers in radius from the city of Cuzco (Bauer, 1992a).



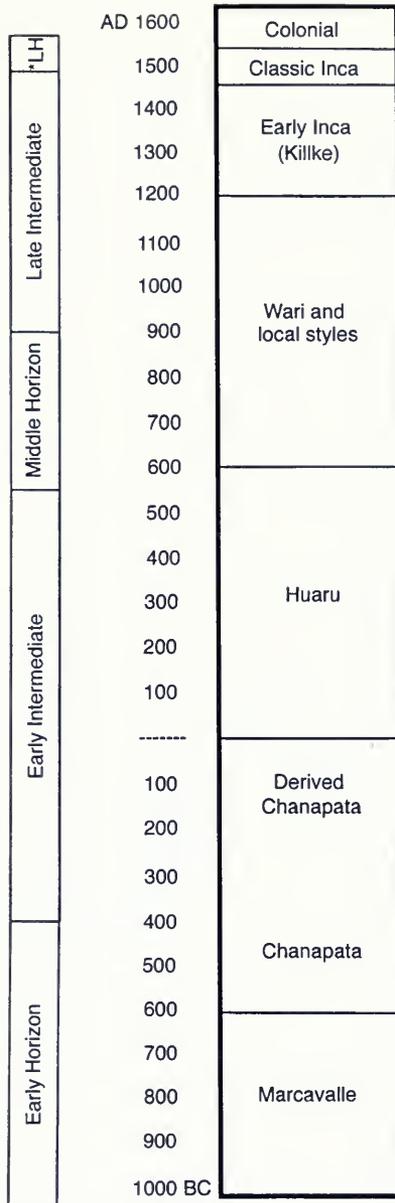
MAP 1-1. The Inca Empire in 1532.

lections were made at each site to determine their occupational history. Test excavations were conducted at 15 sites during 1986 and 1987. The Paruro surface and test excavation collection is one of the largest systematically collected samples of ceramics so far recovered in the Cuzco region.

The Province of Paruro is separated from the Cuzco Valley in the north by the Huanacauri ridge, which rises over 4,000 meters above sea level (masl) and forms the watershed between the

Urubamba and Apurimac rivers (Map 1-3). The southeastern and southwestern borders of the province are defined by the Apurimac and Santo Tomás rivers, respectively. The southern boundary is drawn across a high (more than 4,000 masl) *puna* region to the north of Livitaca.

The province is divided into nine districts: Yaurisque, Huanoquite, Pacariqtambo, and Paruro, which are north of the Apurimac River, and Colcha, Pillpinto, Accha, Ccapi, and Omacha,

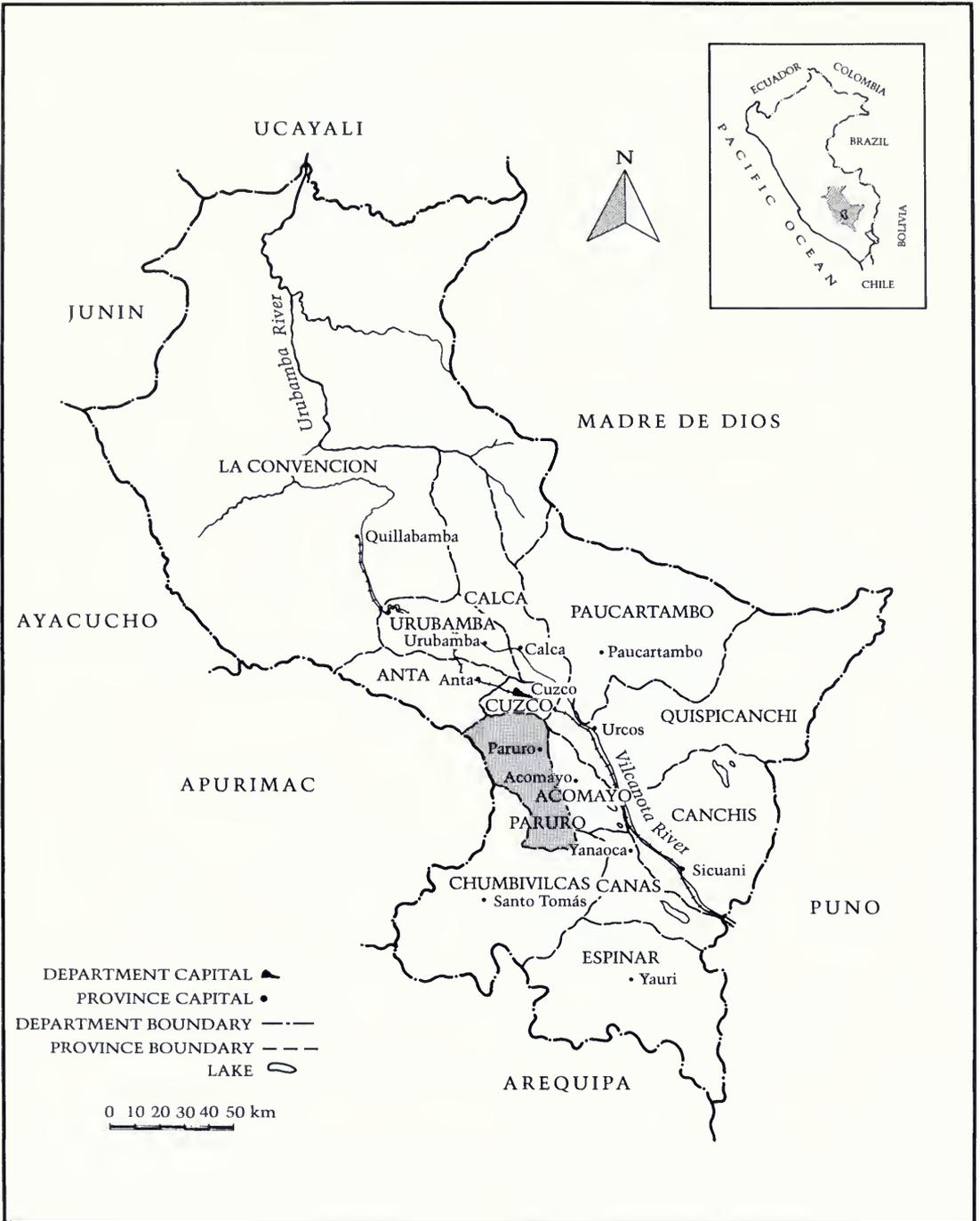


*LH = Late Horizon

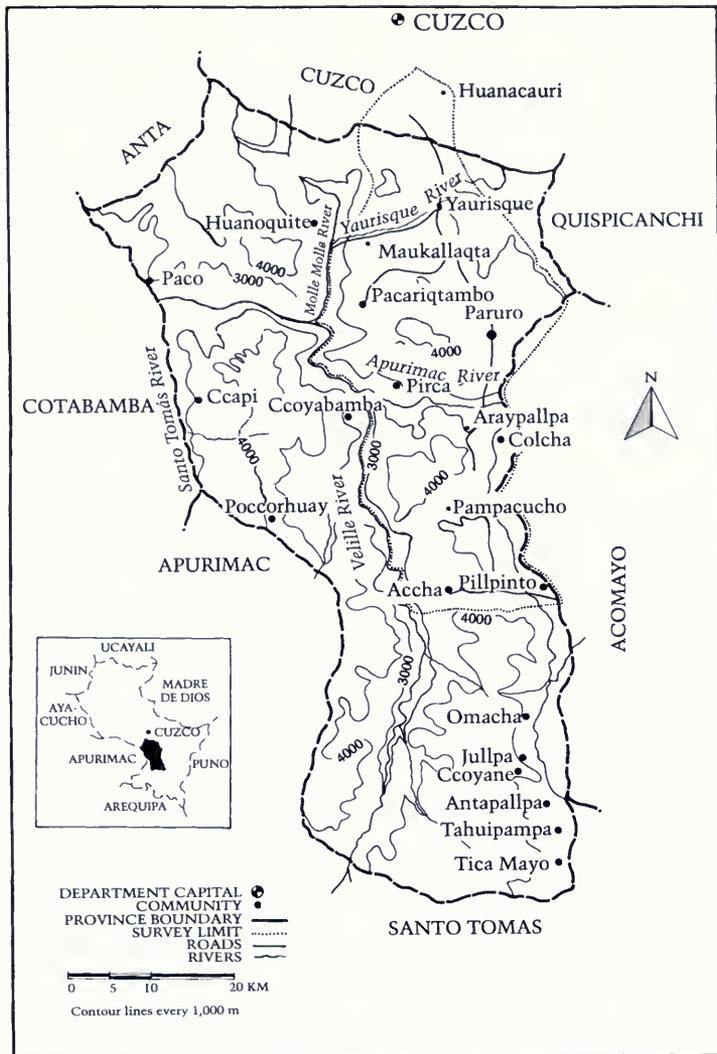
FIG. 1-1. The standard ceramic sequence for the Cuzco Valley.

which are south of the Apurimac River. This river and its major tributaries form the internal political boundaries for these nine districts. The Apurimac River crosscuts the province, with one-third of the territory lying to the north and two-thirds lying to the south of the river. The northern third of the province is subdivided by the Molle Molle River

and the Paruro River, two tributaries of the Apurimac. The Molle Molle River enters the Apurimac near the village of Nayhua (2,400 masl) and forms the boundary between the districts of Huanquite and Pacariqtambo. The Paruro River is located east of the Molle Molle River and enters the Apurimac River near the village of Cusibamba



MAP 1-2. The Department of Cuzco.



MAP 1-3. The Province of Paruro.

(2,775 masl). The Paruro River Valley is wider than the Molle Molle valley and contains the most productive agricultural land in the province. Now as in antiquity, the Paruro River Valley contains the highest population concentration of the province.

The southern two-thirds of the province is divided in half by the Velille River. The isolated district of Ccapi is situated south of the Apurimac River and west of the Velille River. Between the Velille and the Apurimac rivers lie the districts of Colcha, Accha, Pillpinto, and the southernmost district of Omacha. The largest community in the

southern two-thirds of the province is the town of Accha.

The modern population distribution of the province is largely localized into the district capitals of Yaurisque, Huanoqueite, Pacariqtambo, Paruro, Colcha, Accha, Ccapi, Omacha, and Pillpinto. This settlement pattern is a direct reflection of the Spanish *reducción* (reduction) policy, which began in 1571 (Gade & Escobar Moscoso, 1982). In an effort to more efficiently extract tribute, land, and labor, as well as to promote religious indoctrination of native peoples, Viceroy Francisco de Toledo implemented a systematic reorganization

of the Andean demographic landscape, forcing the local inhabitants of the Andes to abandon their traditional settlements. The scattered populations of the highlands were resettled into newly created towns called *reducciones*, and the former settlements were frequently destroyed to prevent their reoccupation. This resettlement policy marked the end of indigenous systems of settlement placement in the Andes. As a result, the current population distribution and settlement pattern of the Province of Paruro does not reflect indigenous systems of spatial, social, or economic organization, and the prehistoric regional settlement patterns of the Province of Paruro are best discerned through archaeological investigations.

Survey Boundaries and Research Methods

The survey area represents approximately one-third of the Province of Paruro. It extends from the ruins of Huanacauri near Cuzco to the town of Accha, 42 aerial kilometers to the south. The area is delineated on the west by the Velille and Molle Molle rivers. On the east it includes the drainage system of the Paruro River, and further south it is bounded by the Apurimac River (Map 1-4). Systematic survey work conducted in this portion of the Province of Paruro covered most of the territory thought to have been controlled by the Masca, Chillque, and Tambo ethnic groups (Bauer, 1992a).

The archaeological survey followed guidelines provided by Parsons and Hastings (1977) for regional survey work in the Andes. The goal of the survey was to identify the locations of all prehistoric habitation sites and support facilities in the research zone. To conduct the survey, teams of two to three persons, spaced at 50 to 150-m intervals, walked assigned areas and identified the locations of prehistoric settlements and related features, such as roads, terraces, and bridges.

The general state of site preservation in the Province of Paruro is not as outstanding as in many other regions of the Department of Cuzco. For example, the Urubamba River Valley, some 60 kilometers north of Cuzco, contains Inca and pre-Inca sites with well-preserved stone masonry (Fejos, 1944; Kendall, 1974, 1976, 1984, 1985). In contrast, the majority of the Inca and pre-Inca sites in the Province of Paruro are represented only by concentrations of ceramic fragments on the surface of plowed fields or on the sides of eroding ridges. Only a few archaeological sites in

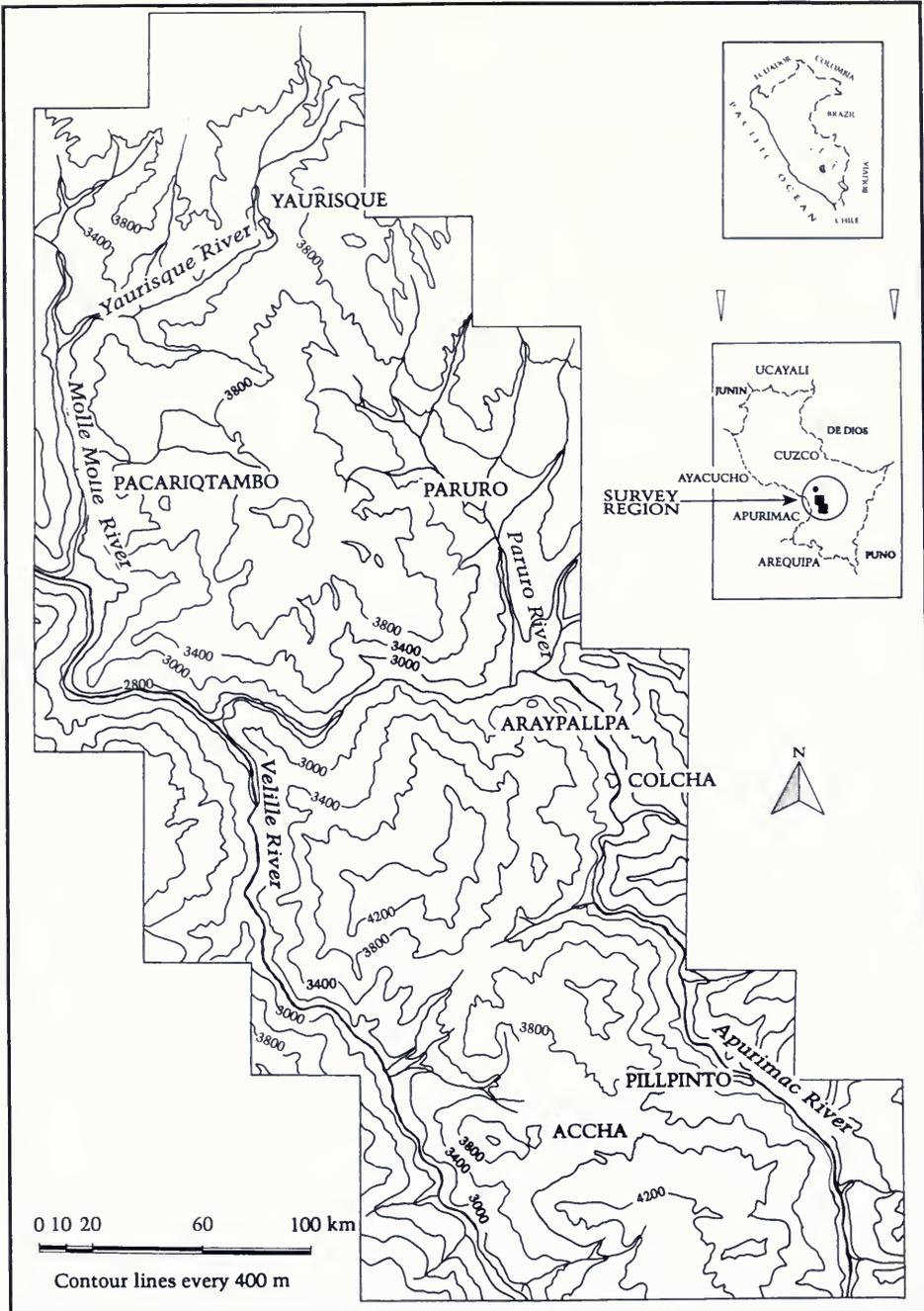
the region contain visible architectural remains. When a site was found, its location was recorded on enlarged aerial photographs (approximate scale 1:10,000), and on topographic maps (scale 1:25,000), survey forms were completed, and photographs were taken. If the site had structural remains, they were mapped with the aid of Brunton pocket transits and 25-meter measuring tapes.

Regional Coverage

The survey was designed for 100% coverage of the study region. As in the work of Parsons and Hastings (1977, p. 11) in the Upper Mantaro region, this survey of Paruro systematically covered the valley floors and lower valley slopes, the ridges and mountaintops and their upper adjacent slopes, and the low- to medium-gradient slopes of the region. The steep slopes, which were dangerous to cross, were not systematically examined, except where access could be gained through trails. The exclusion of these areas from the fieldwork probably does not present a significant bias in the data collection, because the steepness of the slopes, which discouraged survey work, would have also limited prehistoric activities or occupations.

The implementation of a systematic regional survey in the Andes is complicated by variations in surface visibility in different ecological zones. Territory in grain-producing zones generally provides good to excellent conditions for surveys. The land is relatively free of ground-covering plants such as grass, and large areas are cultivated with scratch plows, which bring artifacts to the surface. Other ecological zones present very different surface conditions that complicate locating and dating sites. For example, ridges and mountaintops are rarely cultivated, and their surface artifacts are constantly exposed to the weather (Parsons & Hastings, 1977, p. 12). The eroded nature of surface ceramics at these locations frequently makes cultural identification of the sites difficult. Furthermore, much of the high *puna* area of the region is covered with thick wild grasses, leaving few ground areas visible. While researching in high ecological zones for evidence of prehistoric occupation and land use, surveyors frequently deviated from their survey lines to examine streamcuts and to inspect scattered patches of earth where the grass had eroded away and the soil was exposed.

Another difficulty in achieving a true 100%



MAP 1-4. The research region.

coverage of the study region was the presence of several relatively large towns and numerous small villages. As a result of modern construction and land use, only limited areas within the commu-

nities could be surveyed. To support the limited coverage of these locations, interviews were held concerning archaeological finds in each community. In some of the towns, such as Accha, and in

several of the small villages, such as Ccoipa, archaeological sites were identified and surface collections were made, although the exact dimensions of these sites were difficult to estimate. Because the areas covered by the modern communities represent a small proportion of the total research region, and because limited surface surveys were conducted in the majority of them, their presence does not seriously affect the overall data base for the region.

Ceramic Collections

Ceramic collections were made at each site and then analyzed to determine the periods of site occupation. During the collection process, a team of surveyors systematically walked over the surface of the site in parallel lines, approximately 5 meters apart. If the site contained architectural units or field boundaries, separate collections were made in each unit. The collections were then examined at the site. Diagnostic shards were retained, while nondiagnostic fragments were left at the site. This preliminary sort was necessitated by the remoteness of the research area and the difficulties in transporting the collections by horse to the nearest road and then by trucks to Cuzco. Exceptions were made at sites that contained a relatively small number of surface fragments. In these cases, all shards were retained. At the close of the project, all artifacts were deposited at the Instituto Nacional de Cultural in Cuzco for permanent storage.

Excavations

To provide complementary information to the regional survey data, a test excavation program was conducted in the Province of Paruro. In 1986, several rooms were excavated at the site of Maukallaqta (1)² to collect information concerning the room functions and to test for pre-Inca remains (Bauer, 1991, 1992a, 1992b). These excavations were conducted using arbitrary 10-cm levels until stratigraphy was identified and excavations continued to the level of the sterile subsoil. A 1 × 1-m grid system was laid out in large structures, and a 50 × 50-cm grid system was used in the smaller rooms.

² Numbers beside site names refer to site numbers as catalogued during the regional survey.

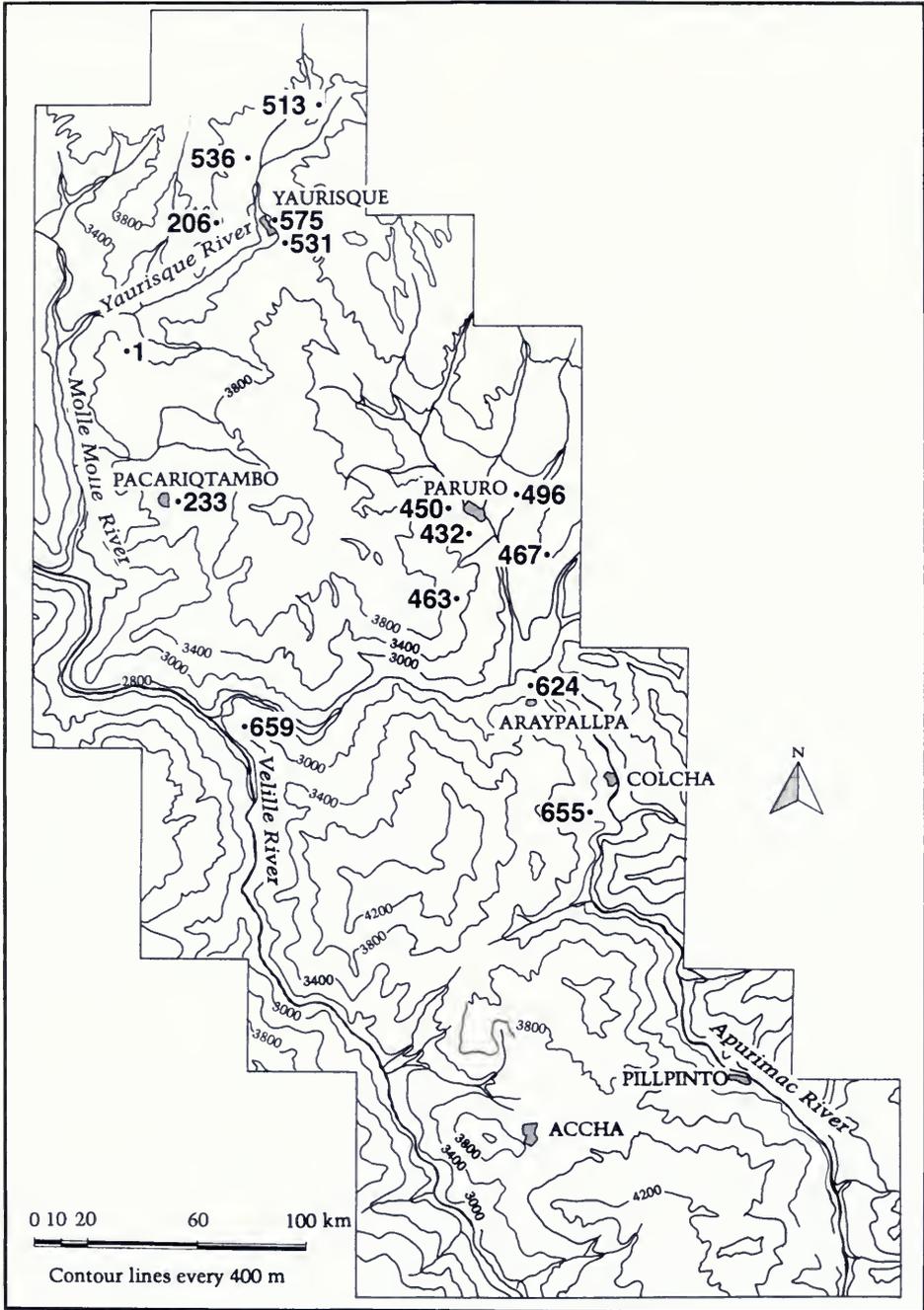
During the course of the investigations in the Paruro region, test excavations were also conducted at 14 other sites, including Bandera Moqo (206), Aqachkar (233), Muyu Roqo (432), Roqo Cassa (450), Qachir (463), Sutic (467), Tejahuasi (496), Castilla Moqo (513), Cruz Moqo (531), Muyu Orco (536), Llactaccata (575), Marcapata (624), Mollerada (655), and Ccorpina (659). The excavations consisted of 2 × 2-m or 2 × 4-m pits in fields or along ridge tops, and these were tested for subsurface remains (Map 1-5). These test excavations, like those at Maukallaqta, used 10-cm levels and were terminated when sterile subsoil was reached. All artifacts recovered during the excavations were transported to Cuzco for laboratory analysis.

Ceramic Analysis

The classification scheme used in this study to characterize the different ceramic styles of the Cuzco region is a type-variety system. The development of the Paruro ceramic sequence began with the systematic collection of surface ceramics from sites in the region and their transportation to Cuzco for analysis. In the laboratory, the decorated shards were separated into homogeneous groups based on wares, design elements, pigment colors, and surface treatments. These groups were then further subdivided according to vessel forms. Later excavations at both single-component and multicomponent sites provided information on the relative dates of the styles. Carbon and bone samples recovered from reliable cultural contexts during the excavations provided absolute dates for some styles.

Classic Inca Ceramics

The best-known ceramic style from the Cuzco region is Classic Inca (also called Inca, Late Inca, and Cuzco Inca). Although this style is poorly dated, it is generally believed that its production began around A.D. 1400 and that Classic Inca ceramics continued to be produced until shortly after the Spanish Conquest (A.D. 1532). Rowe (1946, pp. 246–247) suggests that the production of Classic Inca ceramics took place within the Cuzco Valley. The most likely locus of imperial ceramic production is between the modern communities of San Sebastián and San Jerónimo, in



MAP 1-5. Test excavated sites.

the adjacent areas of Larapa and Sanyo (clay).³ Archival sources support this suggestion by noting that settlements of *olleros* (potters) lived in this area of the valley (Archivo General de la Nación, Archivo Agrario, Miscelanea: Hacienda Larapa, 1596).

Many of the world's major museums obtained substantial collections of Classic Inca ceramics during the 19th century (Seler, 1893; Valencia Zegarra, 1979; Bauer & Stanish, 1990). The systematic reporting and analysis of this ceramic style began, however, with the earliest archaeological expeditions into the south central highlands of Peru in the early 20th century. Perhaps the most famous collection was made during Hiram Bingham's work at Machu Picchu. Utilizing materials recovered from numerous cave burials surrounding Machu Picchu and, to a lesser extent, finds recovered during his excavations, Bingham (1915) developed a vessel typology that is still widely used today. The physician on Bingham's expedition, George Eaton (1916, Plates V–XIV), also provided a large number of illustrations of the Machu Picchu material. There are also several early reports on Classic Inca ceramics found in the Cuzco Valley. For example, Luis E. Valcárcel (1934, 1935) supplies a discussion of the Classic Inca ceramics recovered at Sacsahuaman, and Luis A. Pardo (1938, 1939, 1957) outlines various museum pieces. In addition, Rowe's landmark work on the archaeology of Cuzco contains a detailed discussion of Classic Inca ceramics, including classifications of different substyles (Rowe, 1944, pp. 47–49).

The post-World War II era has witnessed an increasing number of references to Classic Inca ceramics by researchers working in the Cuzco region. This is not surprising, because Classic Inca ceramics are present at most sites in the region. Recent reports that incorporate significant descriptions and illustrations of Classic Inca ceramics include Ann Kendall's (1976) studies in the lower Urubamba River Valley. Her work (Kendall, 1974, 1985, p. 347) also provides one of only three radiocarbon dates published for Classic Inca ceramics from Cuzco (see Appendix 2, p. 155). Excavations by Kendall at the site of Ancasmарca yielded Inca ceramics within a context dating to 482 ± 91 B.P. ([BM 930] A.D. 1468 ± 91). Sara Lunt's (1984, 1987, 1988) study of Inca and Killke ceramics from this same region offers the

first detailed examination of late-prehistoric ceramic wares from the Cuzco region. Dean Arnold's 1972–1973 excavations at the site of Qata Casallacta (Liu, Riley, & Coleman, 1986, p. 108), on a mountain shelf near the city of Cuzco, yielded examples of Classic Inca ceramics as well as a radiocarbon date of 370 ± 80 B.P. ([ISGS 545] A.D. 1580 ± 80). A report by Alcina Franch and colleagues on excavations at Chinchero, a large Inca site north of Cuzco, contains many illustrations of Classic Inca ceramics (Alcina Franch et al., 1976). Heffernan (1989) furnishes numerous examples of this style found in the Limatambo area, located west of Cuzco. Unfortunately, a carbon sample recovered with Classic Inca ceramics near Limatambo provided a radiocarbon date of 200 ± 80 B.P. ([ANU 5838] A.D. 1750 ± 80), and two carbon samples (ANU 5839 and ANU 5840) from the fill of an Inca terrace in the same area provided equally unhelpful dates (Heffernan, 1989, p. 539). There are also several descriptions of Inca ceramics found outside the Inca heartland, ranging from Ecuador to Argentina (see Jijón y Caamaño & Larrea 1918; Jijón y Caamaño, 1934; Meyers, 1975; Baca, 1974, 1989; D'Altroy & Bishop, 1990; Calderari, 1991; Calderari & Williams, 1991; D'Altroy 1992). Since the beginnings of a broad-based literature on Classic Inca ceramics have been established and the basic vessel forms for this style have been identified, no further discussion of Classic Inca ceramics will be made in this report. This is not, however, to suggest that additional research on Inca ceramics is unnecessary. On the contrary, a large, systematic study of Classic Inca ceramics from Cuzco is an important project that remains to be done and that would be an enormous asset to researchers working in all parts of the former Inca empire.

Other Contemporary Styles

We know that other types of ceramics were imported into the Cuzco region during the period of imperial Inca rule. Fine black Chimu ceramics have been found in excavations at Sacsahuaman (Valcárcel, 1946, p. 181), at Qotakalli (P. Lyon, pers. comm. 1992), and in the city of Cuzco itself (Carmen Farfan Delgado, pers. comm. 1994). Furthermore, Bingham recovered a non-Inca vessel during his excavations at Machu Picchu, which, based on its stirrup handle, appears to be imported from the north coast (Eaton, 1916, plate XIV, fig-

³ This region continues to be exploited for its clay resources today.

ure 1). The recovery of north coast materials in Cuzco is not surprising, because the Inca dominated that area for several generations.

Other areas of the Inca domain, especially the Lake Titicaca region, are also represented in surface collections from Paruro. Fragments of Sillustani (Tschopik, 1946), Urcosuyu (Rowe, 1944, p. 49; Tschopik, 1946), and Pacajes (Rydén, 1957; Albarracín-Jordan & Mathews, 1990) ceramics have been recovered at several sites. Sillustani ceramics are composed of a white paste that has been called "kaolin" and were fabricated in the Department of Puno in the Lake Titicaca basin. Urcosuyu vessels are believed to have been produced in the same general region. Pacajes ceramics were made in the Tiwanaku region on the southern end of Lake Titicaca. There is no doubt that other imported styles from other parts of the Inca Empire will be recovered as additional research is conducted at sites in the Cuzco region.

Although numerous research projects have been conducted in the Cuzco region over the past 40 years, its pre-Inca ceramic styles are still poorly understood. Because adequate definitions, descriptions, and illustrations of ceramic styles are essential tools in modeling and assessing prehistoric cultural developments through time, it is important that attempts be made to update the Cuzco ceramic sequence.

This investigation into the pre-Inca ceramics of the Inca heartland is divided into five chapters. The following three chapters describe the different ceramic styles found in the Province of Paruro according to time periods. Chapter 2 examines the Late Intermediate period (A.D. 1000–1400) styles

of Killke and Colcha. In Chapter 3, the styles of the Middle Horizon (A.D. 600–1000), including Wari, Wari-style, Arahua, Qotakalli, Ccoipa, and Muyu Orco, are presented. The Early Intermediate period (200 B.C.–A.D. 600) and the Early Horizon (1400–200 B.C.) styles of Derived Chanapata, Chanapata, and Marcavalle are described in Chapter 4. The period chronology used in this study is based on that developed by Rowe (1967). To make it of practical use for the Cuzco region, the dates of the periods, originally developed for the prehistoric occupations of the Ica Valley, have been slightly altered.

In Chapter 5 the ceramic sequence for the Province of Paruro and the ceramic findings from research projects conducted elsewhere in the Cuzco region are compared and integrated to produce a revised ceramic chronology. This revised chronology builds on Rowe's initial ceramic sequence and on the results of projects that have been conducted since then (Rowe, 1956). Research in the Province of Paruro supports the general temporal-ceramic classifications advanced by Rowe for the Cuzco region. The systematic recovery of a larger ceramic sample and the publication of other research findings since that time, however, permit the delineation of a more complex ceramic sequence. This revised Cuzco sequence is, by necessity, tentative, because there are still broad spans of time for which we have little or no information. Critical examinations of the ceramic styles and ceramic sequence introduced here will result in a better defined ceramic classification for the Inca heartland and will enable archaeologists to better understand the development of complex societies in this important area of the Andes.

Ceramics of the Late Intermediate Period (A.D. 1000–1400)

The development of the early Inca state in the Cuzco Valley is generally associated with the development of Killke ceramics. This ceramic style spans the time between A.D. 1000 and 1400, or what can be called the Late Intermediate period. Despite the importance of Killke ceramics in the cultural history of the Cuzco region, few detailed descriptions or illustrations of them have been published. The surface collections and test excavations from the Province of Paruro provide a wealth of new information on this style. Research in this area has also documented the widespread presence of a new Killke-related style named Colcha.

Killke Ceramics

Among the earliest known scientific excavations conducted in the Department of Cuzco were those of Max Uhle (1912), at the site of Q'atan in the Urubamba River Valley. The work carried out by Uhle in the Cuzco region produced ceramics of a different style from that typically associated with the Inca. Because little was known of the pre-Inca ceramics of the Department of Cuzco, Uhle could only suggest that this new style dated to a pre-Inca but post-Tiwanaku period, and he proposed a time frame of broadly A.D. 800 to 1400. Soon after Uhle's discovery, the research of Jijón y Caamaño and Larrea (1918) reproduced Uhle's findings. Later, Jijón y Caamaño (1934) again reproduced some of Uhle's material and

presented additional examples of similar ceramics that he had found in the Cuzco region and in museum collections. Like Uhle, Jijón y Caamaño suggested a broad pre-Inca, post-Tiwanaku time period for the production of this style. These isolated finds by Uhle and Jijón y Caamaño were later classified as Killke-related ceramics and were dated to the immediate pre-Classic Inca period of the Cuzco region (Rowe, 1944, pp. 61–62).

In 1941, Rowe began his work in the Cuzco Valley with a series of test excavations. Although earlier research in the region had focused on explorations and site descriptions, Rowe's work represented the first systematic archaeological research project within the Department of Cuzco. One goal of his research was to identify and describe the pre-Inca ceramic sequence for the Cuzco region (Rowe, 1944, p. 61). He conducted test excavations in a courtyard of the monastery of Santo Domingo, near the Inca "Temple of the Sun" (Coricancha), and these excavations revealed an undisturbed deposit containing ceramic materials similar to those previously found by Uhle and Jijón y Caamaño (Rowe, 1944, pp. 61–62).¹ Surface collections made by Rowe later that year at a number of sites showed that this new ceramic style was widely distributed throughout the Cuzco Valley.

¹ Additional excavations conducted by Barreda Murrillo (pers. comm. 1992; Lynch, 1973, p. 241) and by Valencia Zegarra (pers. comm. 1993) have confirmed the presence of Killke ceramics at the Coricancha.

Rowe performed test excavations in and around the city of Cuzco during 1942 and 1943 to further investigate the new style, which by then had been named Killke.² The recovery of large quantities of Killke ceramics at the site of Sacsahuaman, just north of the city, was especially important in this research. Through the use of the Sacsahuaman materials, Rowe developed a broad stylistic typology for what he called the "Killke Series" (Rowe, 1944, pp. 60–62). Although he did not find stratified Killke and Inca deposits, he inferred, on the basis of surface collections, that Killke ceramics were the antecedents to Inca ceramics in the Cuzco Valley (Rowe, 1944, p. 61).

The identification of an Early Inca ceramic type in the Cuzco Valley had a profound impact on the study of the Inca. Classic Inca ceramics of the Cuzco region had long been recognized (Bingham, 1915; Eaton, 1916; Valcárcel Vizquerra, 1934, 1935; Pardo, 1938, 1939). The discovery of a precursor to this style provided a means to identify sites occupied during the early development of the Inca state. Future surface collections and excavations at sites containing Killke ceramics would yield information on the social and economic conditions in which state development took place (Dwyer, 1971; Bauer, 1990, 1992a).

Soon after Rowe's identification of the Killke style, Muelle led an expedition into the Province of Paruro. Near the Hacienda of Ayusbamba in the District of Pacariqtambo, Muelle identified three sites that contained ceramics similar to the Killke materials identified by Rowe in the Cuzco Valley (Muelle, 1945). Muelle's recovery of Killke materials outside the Cuzco Valley suggested that they were distributed throughout the entire region. Despite this discovery and the immediate academic acceptance of Killke as the Early Inca ceramic style in the Cuzco region, an extensive study of Killke ceramics was not begun for another 20 years.

From 1966 to 1968, Edward Dwyer conducted excavations at three sites in the Cuzco region: Minas Pata in the Lucre Basin, Pucara Pantillijilla, near Pisac, and Sacsahuaman. The purpose of Dwyer's research was to further investigate the Killke Series as earlier defined by Rowe. Of the three sites selected for excavation, Sacsahuaman

again provided the largest sample of Killke ceramics, and carbon extracted from a hearth in a Killke context yielded a radiocarbon age of 770 ± 140 B.P. ([Gak 2958] A.D. 1180 ± 140). Dwyer (1971, p. 140) used this radiocarbon date to set the beginning of Killke ceramic production slightly earlier than Rowe's date, writing, "Killke culture was probably dominant in the Cuzco Valley from around 1100 A.D. until the establishment of the Inca empire."

Since Rowe's (1944) initial work and Dwyer's (1971) detailed study of Killke ceramics, other researchers have recorded the presence of Killke and Killke-related ceramics in the Cuzco region. Rivera Dorado (1971a, 1971b, 1972, 1973), for example, describes Killke and Killke-related materials recovered in excavations at the sites of Cancha-Cancha and Chacomogo in the Chinchero area. Heffernan (1989), working in the Limatambo area west of Cuzco, has found Killke and Killke-related materials at a large number of sites. Kendall (1974, 1976, 1985) and Lunt (1983, 1987, 1988) present examples of Killke and Killke-related ceramics recovered during excavations and surface collections in the Cusichaca Valley, in the lower drainage system of the Urubamba River. Kendall's excavations at the site of Ancamarca provide a carbon sample that yielded a radiocarbon date for Killke materials of 660 ± 60 B.P. ([UCLA 1676M] A.D. 1290 ± 60). In addition, Barrera Murillo (1973, pp. 70–71), Gibaja Oviedo (1983), and McEwan (1983, pp. 239–243; 1984, p. 215; 1987) have reported Killke ceramics in the Lucre Basin, southeast of Cuzco, as well as the presence of a poorly defined, Killke-related style named "Lucre." Gibaja Oviedo (pers. comm. 1992) also reports finding Killke ceramics at Pisac and Ollantaytambo, in the Urubamba River Valley, while Gonzáles Corrales (1984a, 1984b) has described finding Killke materials in the city of Cuzco. Furthermore, Valencia Zagarra, Chávez Ballón, and Oberti Rodríguez have each identified Killke remains in the Cuzco region (pers. comm. 1987). From these various studies, it can be concluded that Killke and Killke-related ceramic styles are widely distributed across the Cuzco region; however, the nature of the distribution remains to be investigated.

Description

Bauer and Stanish (1990, pp. 1–2) have outlined the basic ware, design elements, and surface

² The ceramic style found by Rowe in his excavations in the monastery of Santo Domingo was first named "Canchon" (Rowe, 1944, p. 46). After his 1942–1943 fieldwork, Rowe renamed the style "Killke" after a site located on the outskirts of the city (Rowe, 1944, pp. 60–61).

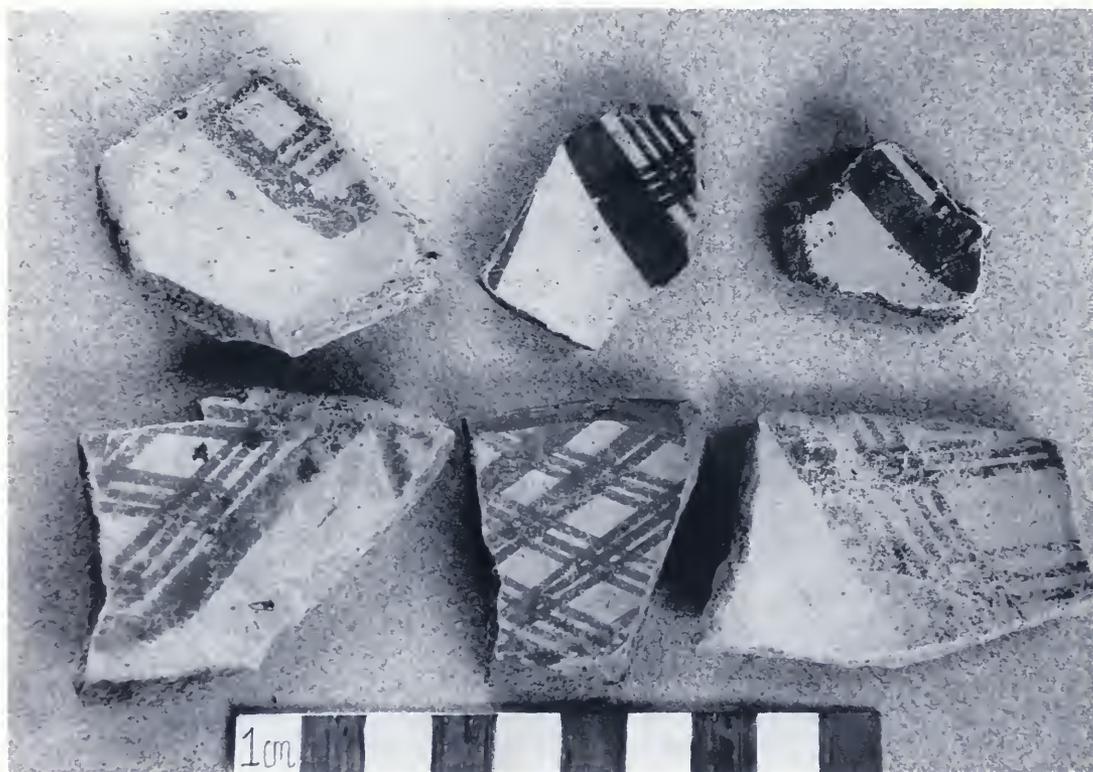


FIG. 2-1. Common Killke bowl designs.

treatment criteria used to identify Killke ceramics. These definitional characteristics, built on descriptions provided by earlier researchers, including Rowe (1944), Dwyer (1971), Kendall (1976), and Lunt (1987, 1988), are presented below, along with new information on Killke vessel forms and design compositions. The definitional characteristics of Killke ceramics are then compared with those of Colcha, a Killke-related style of the Province of Paruro.

WARE—Killke pottery is composed of a medium-coarse fabric containing a moderate quantity of nonplastic inclusions varying in size from 0.01 to 0.25 mm. These inclusions vary in color from an ashy white to a dull, dark gray. The inclusions appear to be high in feldspar, although the presence of quartz and chert, as well as of andesite, amphibole, arkose, and syenite has also been noted (Lunt, pers. comm. 1987). The clean clay matrix suggests that the clay was washed, and a bimodal grain size distribution of the nonplastic inclusions suggests that temper was added (Lunt, pers. comm. 1989). The ware is medium hard, and the surface of the vessel frequently fires to a buff

or salmon-pink color. (For a detailed discussion of the ceramic wares of the Cuzco region, see Lunt [1987].)

Design Elements, Color, and Surface Treatment

The exterior and interior surfaces of Killke bowls and the exterior of other Killke vessels are covered with a slip of smoothed body clay. The surfaces are then burnished, producing a medium-gloss effect (Dwyer, 1971, p. 87). The decorations on Killke vessels are generally geometric in form and composition. Narrow lines, thicker bands, triangles, and diamonds are the most common elements. Black is the most frequently used color, followed by red and, rarely, white. Dwyer (1971, p. 104) writes, "The white and black colors are uniformly consistent, and the red varies from deep purple to pink depending upon conditions of application and firing. There are never two shades of red on one vessel. These colors are all painted on unpigmented buff slip background. The only

exception to this rule is the occasional use of white as a background.”

Among the wide variety of design motifs used in Killke ceramics, the most frequent are broad red or occasionally black bands outlined by one to three narrow black lines. Other motifs include sets of nested triangles that often alternate in color from red to black, linked ovals with central dots, linked rectangles with solid interior ovals, large areas covered with black cross-hatching, cross-hatched diamonds, and pendant rows of solid or cross-hatched triangles (Figs. 2-1 and 2-2, Drawings 2-1 and 2-2; Dwyer, 1971; Rowe, 1944, Fig. 19, pp. 11–21; Kendall, 1976).

Designs on Killke ceramics frequently display low to medium color-tone contrast. This appears to result from the use of watery pigments. In addition, the edges of Killke designs are often blurred, a characteristic that may be caused by a slight absorption of the thin pigments by the surface of the vessel (Lunt, pers. comm. 1988). There is also what Rowe has called a certain “characteristic carelessness of execution” compared to the Classic Inca ceramics that most likely developed out of the Killke style (Rowe, 1944, p. 49). This is most apparent in the broad and apparently quickly executed brush strokes of the designs, which often leave undulating bands, as well as in the frequent overlapping of adjacent designs.

Vessel Forms

Forms of Killke vessels have been presented by Dwyer (1971) and Bauer and Stanish (1990). Killke bowl forms include both straight- and curved-sided as well as incurving bowls. Three different types of medium-sized, single-handled jars have also been identified: jars with high-arching handles, jars with faces portrayed on their necks (face neck jars), and jars with conical necks (Dwyer, 1971; Bauer & Stanish, 1990). Large Killke jars frequently have ovoid bodies, concave necks, and paired handles. In addition, straight-sided drinking vessels (also called “tumblers” [Dwyer, 1971, p. 100]) are found in Killke collections.

To aid future research on Killke ceramics, I have provided a description of common design compositions found in the vessel form categories, as reflected in the Paruro collections. This is not to suggest, however, that these common design compositions appear exclusively on the described vessel forms or that the decoration of the de-

scribed vessels is strictly limited to these designs. An examination of Killke ceramics in Rowe (1944), Dwyer (1971), Rivera Dorado (1971a, 1971b, 1972, 1973), Kendall (1976), Lunt (1984, 1987), as well as in Bauer and Stanish (1990) suggests that a wide range of design compositions exist within most vessel form categories.

STRAIGHT- AND CURVED-SIDED BOWLS—The variation in Killke bowl forms is considerable. The most common bowls have straight or convex-curved sides that flare upward from a flat base. The diameter of these vessels is greatest at the rim. They range from having nearly flat sides and almost no depth, in which case they resemble plates, to having sides that extend sharply upward and that have a depth of 10 centimeters or more (see also Dwyer, 1971, pp. 88–93, 99).

The exteriors of the bowls are rarely decorated. Rim decorations are, however, common. The most frequent rim decoration consists of a simple black band that covers the rim and its immediate borders or a similar band containing a series of small pendant triangles.

There are a large number and a wide range of interior bowl designs (Dwyer, 1971, Figs. 32–60, 226–228, 239–246). One of the most common interior design arrangements, especially among the straight-sided bowls in the Paruro collections, consists of four large pendant triangles that are evenly spaced around the interior rim. The borders of the triangles are generally defined by thick lines, whereas the interior spaces of the triangles are filled with various geometric designs made with finer lines. Frequently, the large triangles will contain a closely drawn cross-hatched design (Fig. 2-3, Drawing 2-3; Rowe, 1944, Fig. 19, pp. 11, 16). Occasionally, circles are suspended from the apexes of these cross-hatched triangles (Drawing 2-3E; Dwyer, 1971, Fig. 60). In other examples, a loose cross-hatch design, made with sets of three to four fine lines, fills the triangles (Drawing 2-4). The large triangle motifs on the bowls may also contain two to eight thin lines that intersect at the apex of the triangle. These triangles occasionally contain curved lines (Drawing 2-5B–C) or linked ovals (Drawing 2-6).

A different design motif found on Killke bowls consists of two to three parallel red bands running diagonally across the interior of the vessel. The red bands are outlined with thin black lines. Curving black lines are drawn either on the red bands or between them (Drawing 2-7).

Designs may also run parallel to the rim of the vessel. One common design contains a red band



FIG. 2-2. Common Killke designs.

outlined by thin black lines. Between the rim and the red band are wavy lines (Drawing 2-8). A similar motif includes sets of thin vertical lines running between the vessel rim and the red band (Drawing 2-9).³ The center of these vessels frequently displays a row of llamas. The llamas can be so stylized that they simply appear as X's (Drawings 2-9 and 2-10). A related motif is described by Dwyer: "One common motif is to have

³ Other research collections show that the area between the rim and the outlined red band can be filled with cross-hatching or nested triangles (Rivera Dorado, 1971b).

the bowl divided by one or two parallel red bands which are outlined in black, and which pass from the rim down over the bottom and continue to the opposite rim. The areas on either side of these bands are filled with geometric designs formed by thin black lines usually filling outline triangles with cross-hatching, or various combinations of thin black lines and wider bands" (Dwyer, 1971, p. 89). These central bands, which are also common motifs in Classic Inca ceramics and transitional Killke-Inca pieces (Drawing 2-10), are frequently extensions of the rim design (Drawing 2-9E).

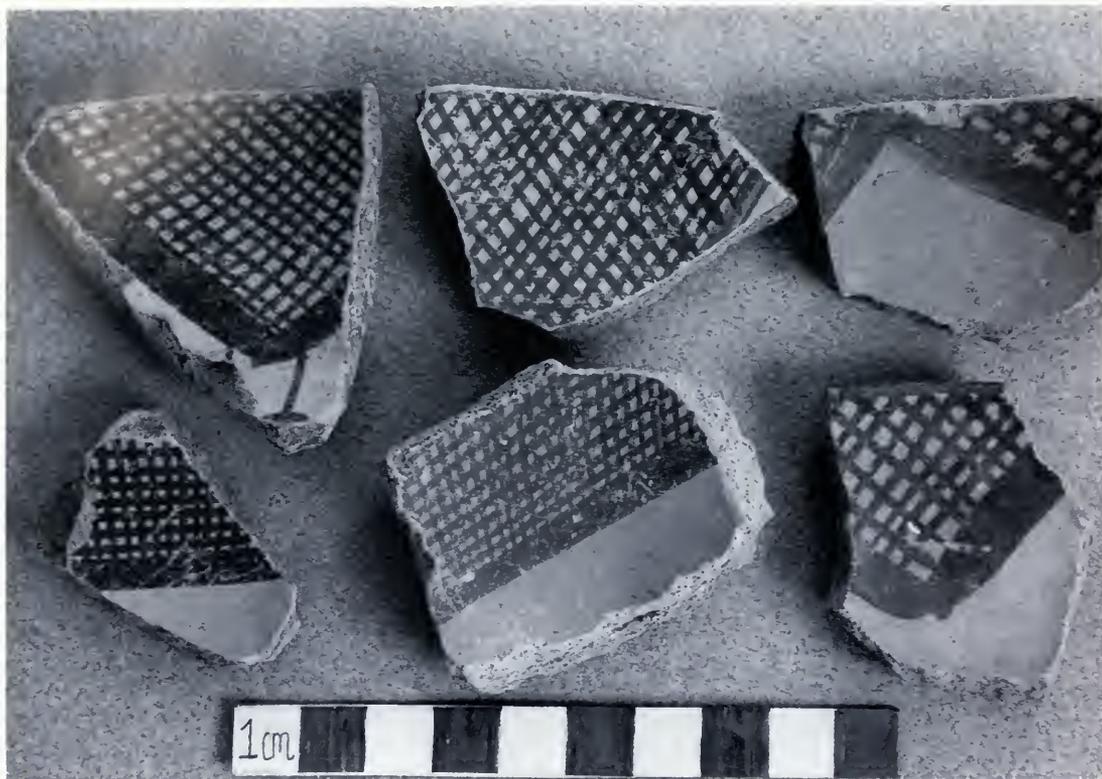


FIG. 2-3. Common Killke bowl designs.

INCURVING BOWLS—This vessel form category consists of shallow bowls with vertical to incurving lips. The incurving bowls in the Paruro collections are decorated with a limited range of design motifs (Drawings 2-11 and 2-12). Their exteriors generally possess a thick black band on the rim and lip. One to two centimeters below the lip and running parallel to it is a second black band, normally of equal width. The area between the two bands is filled with tightly clustered, finely drawn geometric designs. These designs usually consist of triangles separated by rows of thin lines, although cross-hatched diamonds and wavy lines have been noted. The interior of the vessels are not generally decorated, except for the interior rim, which is frequently painted black (see also Rowe, 1944, Fig. 15; Dwyer, 1971, Figs. 61–64, 284–287). One specimen in the Paruro collections however, contains two black lines, with a red line between them, across the interior of the bowl (Drawing 2-11D). As observed by Dwyer (1971, p. 93), these bowl types are “consistently finer in terms of surface finish, wall thickness and vessel symmetry than other bowls. Decoration was ap-

plied with more precision than usual on any other Killke vessels.”

LARGE JARS—The large jar forms for Killke ceramics are difficult to reconstruct from the fragments in the Paruro collections. It appears that most had a flat base, ovoid body, and concave neck. Paired handles were set either horizontally on the lower body of the vessel or vertically between the vessel rim and shoulder. A thick, dark line or a series of pendant triangles is commonly found on the rim of the large jars. The exterior, upper necks of the vessels are frequently painted with simple red or black designs characteristic of other geometric motifs found on Killke ceramics (see Dwyer, 1971, Figs. 74–110).

SINGLE-STRAP-HANDLE JARS—These vessels have globular bodies that gradually swell outward from a flat base. A single vertical handle runs from the rim of the vessel to its lower neck or shoulder (Lunt, 1987, p. 25). From observations of museum collections, it appears that a wide variety of subtypes exist in this general vessel form classification (Dwyer, 1971, Figs. 288–292; Bauer & Stanish, 1990). Surface collections and exca-



FIG. 2-4. Single-strap-handle face neck jar.

variations of Killke ceramics from the Province of Paruro support these observations. Two major subtypes are described here: face neck jars and jars with conical necks.

Face Neck Jars—One of the most distinctive single-handled jar subtypes in Killke ceramics is the face neck jar (Dwyer, 1971, Figs. 291, 292). Numerous examples were found in the Paruro collections. These jars have a flaring rim with a rounded lip and a straight to slightly convex neck. A face is portrayed on the neck of the jar, opposite the strap handle. Occasionally the cheeks of the face are decorated with sets of nested triangles or linked diamonds. Above the face, on the vessel's rim and upper border section, is either a headdress or a cap (*chullo*); (Bauer & Stanish, 1990, pp. 8, 9, 12, 14). The bodies of the jars frequently contain broad bands of red outlined by black lines, which divide the exterior surface into panels. These panels are sometimes decorated with detailed geometric figures and other times left blank. The headdress is depicted by a series of wide, evenly spaced bands that run vertically down from the rim (Fig. 2-4, Drawings 2-13 through 2-

17). The bands are outlined on each side by two or three lines. The headdress terminates in a head-band motif, which may be portrayed by a row of nested triangles or solid diamonds. The *chullo* design differs from the headdress in the depiction of ear flaps that extend down from the cap on both sides of the face and in the absence of a headband (Seler, 1893, Lam. 6, Fig. 6; Jijón y Caamaño, 1934, Fig. 54; Bauer & Stanish, 1990, pp. 9, 12, 14).

Jars with Conical Necks and Single Handles—This jar subtype is represented by jars with necks that are straight to slightly convex on the sides; the necks slope inward from the throat to the rim. The rims of the vessels flare outward, and the handle is attached to the jar just above the midsection line and to the rim. Only a few examples of this jar type were identified in the Paruro collections, although complete examples are known from museum collections (for examples, Dwyer, 1971, pp. 97–98, Figs. 289, 290; Bauer & Stanish, 1990, pp. 9, 15).

STRAIGHT-SIDED DRINKING VESSELS—These ceramics are narrow, flat-bottomed drinking vessels

with straight sides and slightly flared lips. Fragments of straight-sided drinking vessels were relatively rare in the Paruro collections. Common designs on these vessels include horizontal bands and vertical rows of finely cross-hatched diamonds. The rim and base of the vessel are frequently painted with a single black line (for examples, see Dwyer, 1971, Figs. 118–120 and 126–127).

Dating

Understanding the time period during which Killke ceramics were produced is critical in assessing prehistoric cultural developments in the Cuzco region. Rowe (1944, p. 61) has suggested that the transition from Killke (or Early Inca) to Classic Inca ceramic production occurred during a period of rapid state development. This transition period has been equated with the rule of Pachacuti Inca Yupanqui, which is generally believed to have begun in A.D. 1438. Employing the dynastic list of Inca kings provided by Cabello Balboa (1952 [1586]), Rowe (1944, p. 57) has also written that the mythical founding of Cuzco by Manco Capac took place around A.D. 1250. He then proposes this A.D. 1250 date as the beginning of the Killke ceramic tradition.

The advent of radiocarbon dating now offers a method to date Killke ceramic production independent from information presented in the Spanish chronicles. Currently, three radiocarbon samples exist from reliable Killke contexts in the Cuzco region: one sample from Dwyer's (1971) work at Sacsahuaman, another sample from Kendall's (1974, 1985) excavations at the site of Ancasmарca, and finally one sample from Bauer's (1990, 1992a) excavations at the site of Tejahuasi. The radiocarbon dates for these three carbon samples fall between A.D. 1010 ± 140 and 1290 ± 60 (see Appendix 2, p. 155).

Despite the small sample size and the large standard deviations of some samples, it appears that Killke ceramic production began earlier than the A.D. 1250 estimate currently suggested in the literature. After all, this A.D. 1250 date was first established in 1944 to mark the mythical founding of Cuzco by Manco Capac (see Bauer 1992a, pp. 36–48). It is reasonable to reassign the beginning of Killke ceramic production to approximately A.D. 1000. Furthermore, until additional carbon work can be conducted concerning the transition between Killke and Classic Inca ceramics, and un-

til more dates are published from Killke and Classic Inca contexts, A.D. 1400 may be selected as the date for the termination of Killke and the beginning of Classic Inca production in the Cuzco region.

Colcha Ceramics

While we were conducting archaeological surveys in the Province of Paruro, it became apparent that besides Killke ceramics a second style, closely related to Killke ceramics, was present in the region. As the District of Colcha was surveyed, the density of sites with this new style increased; thus, the style was named "Colcha."

Description

The new ceramic style of Colcha is defined as a Killke-related style because it shares many stylistic similarities with Killke. Colcha ceramics can, however, be distinguished from Killke ceramics by (1) a much coarser paste than was used in the Killke ceramics, (2) a chalky, white slip, and, to a lesser extent, (3) the use of design motifs that have not been identified in Killke ceramics. The differences and similarities between Killke and Colcha ceramics are outlined below.

Ware

Killke ceramics have been described as containing a medium-coarse fabric with nonplastic inclusions that vary in size from 0.01 to 0.25 mm. Colcha ceramics contain a sharply contrasting paste with a coarse fabric and a large quantity of nonplastic inclusions. Granitic inclusions are the most frequent in Colcha ceramics and range in size from 0.01 to 2.0 mm. The paste of Colcha ceramics is of moderate hardness and contains scattered single grains of black and gold mica, as well as free quartz, feldspar, and biotite. Many casts are altered, and tiny clay pellets are present (Lunt, pers. comm. 1989). The vessel surface frequently fires to a red or orange color.

Design Elements, Color, and Surface Treatment

Geometric design elements predominate in Colcha ceramics. The most common elements are

wavy and straight lines, thicker bands, triangles, diamonds, and cross-hatching. These design elements are similar to those found on Killke ceramics, but Colcha ceramics also exhibit the frequent use of dots, a design that is rarely seen on Killke ceramics.

While Killke and Colcha ceramics share common inventories of basic geometric design elements, there are differences in the manner in which they are applied to the surface of the vessel. Both Rowe (1944, p. 60) and Dwyer (1971, p. 104) note that Killke designs are generally applied to unpigmented, frequently burnished surfaces. The exception to this rule is the occasional use of a white slip. In contrast to Killke ceramics, a dominant feature of Colcha ceramics is the presence of a white slip. Because of this slip, the surfaces of Colcha vessels, unlike those of Killke, are not burnished. The use of a white slip and thicker pigments in Colcha ceramics produces stronger tonal contrasts than are found in Killke ceramics. In addition, the slip (which lends a very chalky surface to Colcha ceramics) seals the porous surface of the vessels and prevents the absorption of the decorative designs and the edge blurring that are frequently observed in Killke ceramics.

The two styles also vary in their selective use of colors. In Killke, for example, narrow black lines arranged in geometric designs and applied directly to a buff or pink surface are common. In Colcha, however, black is rarely used. Far more common in Colcha is the use of medium- to dark-brown lines painted on white slip. The Paruro samples also indicate that the broad red bands outlined by narrow black lines, which are a hallmark of Killke ceramics, are not present in Colcha ceramics. Red, when it is used on Colcha vessels, simply appears in narrow, straight, or wavy lines.

Vessel Forms

No complete Colcha vessels were found during the work south of Cuzco. As a result, reconstruction of vessel forms is a difficult and highly speculative task. From the recovered Colcha shards it appears, however, that many of the Colcha vessel forms closely resemble those of Killke ceramics.

STRAIGHT- AND CURVED-SIDED BOWLS—Fragments of straight- and curved-sided Colcha bowls are common in the Paruro collections. The rims of these vessels are generally decorated with a brown or occasionally a red line. The interiors exhibit a variety of motifs. Frequently, one or two

curving lines running parallel to the rim are used (Drawing 2-18). Another common rim motif is a thick brown line located 1–2 cm below the painted rim of the vessel and running parallel to it. The space between the rim and the line can be filled with cross-hatchings (Drawing 2-19A and C–F), pendant triangles (Drawing 2-19B), a wavy red line (Drawing 2-20), or nested triangles (Drawing 2-21A and C). The space may also contain sets of thin lines running perpendicular to the rim (Drawings 2-21D and 2-22). Colcha bowls, like those of Killke, may also contain stylized llamas below these border decorations (Drawing 2-21). Figures 2-5 and 2-6 show some combinations of these elements.

One of the designs most frequently observed on Colcha bowls is similar to, although generally less well executed than, a design found on Killke bowls. The design includes four large pendant triangles that are evenly spaced around the interior of the vessel. The pendant sides of the triangles are formed with relatively thick lines, and the interior of the triangle may contain a series of thin secondary lines running parallel to their sides and intersecting at the apex (Drawing 2-23). Wavy lines are occasionally painted within or between the pendant triangles. When the wavy lines occur in pairs, they are generally executed in red and brown (Drawings 2-24A–C and 2-25). The large triangle motifs of the bowls may be filled with cross-hatching (Drawing 2-24E–F).

Another decoration frequently found on Colcha bowls, but one not widely found among the published examples of Killke bowls, consists of a painted rim followed by one or two wavy lines, which are often painted red and brown. Below the wavy lines is a thin, brown band running parallel to the rim. Below this thin band is a series of large, linked diamonds. The borders of the diamonds are made with relatively thick lines, whereas their interiors are filled with thin cross-hatching. A second thin brown band, running parallel to the rim, appears to have been drawn beneath the linked diamonds (Drawing 2-26). A similar band and linked diamond design may be found on other bowls, but rather than running parallel to the rim of the vessel, the bands and diamonds cross from rim to rim through the center of the bowl.

Dots, a design element rarely found in Killke ceramics, are a strong component of the Colcha design repertoire. A single row of dots or, more frequently, double lines of dots are found running parallel to the painted rim of certain bowls (Fig.



FIG. 2-5. Common Colcha bowl designs.

2-7, Drawing 2-27A, E-F). Double lines may also be seen descending toward the center of the bowl (Drawings 2-27B and 2-28), or they are used as space fillers (Drawing 2-27C-D).

INCURVING BOWLS—No fragments of incurving bowls were identified in the Colcha collections.

LARGE JARS—Several Colcha jar rims were recovered during the course of research in the Province of Paruro. As on the Killke jars, the interior rims of the Colcha vessels frequently display a thick dark line, or a series of small pendant triangles. The exterior rims of the vessels are usually painted with a thick dark line, and the necks are covered with various geometric designs, including cross-hatched diamonds, triangles filled with alternating red and brown lines, ovals with dots in the center, and many other designs (Drawing 2-29).

SINGLE-STRAP-HANDLE JARS—No single-strap-handle jars occur in the Colcha collections. The lack of these jars may be the result of the small fragments recovered rather than of the absence of this vessel form in the Colcha ceramic inventory. Further investigation is necessary to clarify this

point. Nevertheless, it is important to point out that no Colcha fragments are recorded that resemble the Killke face neck jars. Since this single-strap-handle subtype is readily identifiable in Killke collections, it appears likely that no parallel subtype exists within the Colcha assemblage.

STRAIGHT-SIDED DRINKING VESSELS—Several straight-sided drinking vessel fragments have been identified among the Colcha shards. The most common motif on these vessels is composed of horizontal bands of linked, cross-hatched diamonds. Below and above these diamonds run thick brown lines (Drawing 2-30).

The Relationship Between Killke and Colcha Ceramics

The temporal and spatial relations between Killke and Colcha ceramics need to be examined to determine whether these two styles represent an evolutionary sequence or two ceramic styles produced during the same period. Either one of



FIG. 2-6. Common Colcha bowl designs.

these possible relationships between Killke and Colcha ceramics can have important implications for archaeological research in the Cuzco region. If Colcha ceramics are found to predate Killke ceramics, new evidence might be presented for a developmental Killke style. The discovery of an antecedent to Killke ceramics south of Cuzco might, in turn, support literal readings of the chronicles, which suggest that ancestors of the Inca migrated to the Cuzco Valley from the Province of Paruro (Brundage, 1963 pp. 15–18). It is also possible that Colcha ceramics developed after Killke ceramics and that they represent a relatively late-prehistoric style in the Cuzco region, perhaps concurrent with Inca ceramic production.

Alternatively, Killke and Colcha ceramics may not represent an evolutionary sequence but may instead be two contemporaneous styles. Killke ceramics have a long association with the Cuzco Valley, and the assumption is that they were produced there. It is possible that Colcha ceramics represent a southern style that was made in the Province of Paruro contemporaneously with Killke ceramics. Identifying a second production

center in the Cuzco region, but outside of the Cuzco Valley, during Killke times would lend insight into the production and distribution of regional styles during the Late Intermediate period. It would also help to answer questions concerning the Incas' relationships with other regional groups during the period of state formation.

Test Excavation Results

During 1987, test excavations were conducted in the Province of Paruro to further develop the ceramic sequence for the Cuzco region. One particularly important issue was the chronological relationship between Killke and Colcha ceramics. Test excavations were conducted at multicomponent sites in the areas of Yaurisque, Paruro, Pacariqtambo, and Colcha. Unfortunately, like other researchers working in the Cuzco region, I found that most of the sites we sampled were badly disturbed (Kendall, 1974). Inca construction activities, centuries of plowing, and extensive erosion had reduced the contents of the upper soil levels



FIG. 2-7. Common Colcha bowl designs.

to undifferentiated mixtures containing Inca, Killke, and Colcha ceramics. The disturbed nature of these and other sites in the Cuzco region continues to make interpretations of the late-prehistoric ceramic sequence difficult.

The most conclusive evidence concerning the relationship between Killke and Colcha ceramics was found during test excavations at the site of Tejahuasi (492). This site is located on the property of the Paruro-based kin group (*ayllu*) Cucuchiráy and is located at an altitude of 3,200 masl on a long, narrow ridge near the town of Paruro. Although no structural remains are visible on the

surface of the ridge, its slopes are covered with dense concentrations of ceramics.

A series of test excavations, each measuring 2 × 4 m, was carried out along the western side of the site. The excavations proceeded first through a 20-cm-deep plow zone and then through a deposit of compacted earth that was approximately 30 cm deep. The remains of a low-standing stone and clay wall were found in one of the test units at a depth of 56 cm. On the northern side of the wall foundation, a floor of packed earth, small cobbles, and flat stones was identified. A deposit of compact dark brown soil, 30 cm deep, was en-

countered beneath the floor and above the natural subsoil of the ridge. The deposit contained both Killke and Colcha ceramics. A carbon sample from this compact layer of dark brown soil provided a radiocarbon age of 940 ± 140 B.P. ([B-27494] A.D. 1010 ± 140), a date similar to that obtained by Dwyer (1971) during his excavations of Killke materials at the site of Sacsahuaman near Cuzco.

The stratigraphic sequence at Tejahuasi provides information for establishing provisional dates for Killke and Colcha production. The stone and clay wall and the adjacent floor represent the last occupational phase of the site, which dates to the Inca period. Most important to this analysis is the absence of Inca materials below the structure and the sealing of a pre-Inca deposit, one containing both Killke and Colcha ceramics, by the construction of a packed earth and stone floor. It should be noted, however, that these observations come from test excavations that, because of their limited coverage, do not always provide definitive results. In addition, the single radiocarbon sample from Tejahuasi has yielded a large standard deviation. Nevertheless, the presence of both Killke and Colcha ceramics in a context beneath a floor indicates that these two related styles may have been both used and produced during the Late Intermediate period.

Surface Survey Evidence

During surveys in the Province of Paruro, 102 sites were found that contained Killke or Colcha ceramics. Of these sites, 56 contained Killke ceramics and 79 contained Colcha ceramics. Both Killke and Colcha ceramics were found in 33 of the 102 sites. Because a large number of Killke and Colcha sites were found during the survey work, statistical analyses can be conducted to investigate the spatial relationship of these two styles.

The preliminary excavation data from Tejahuasi indicate that Colcha and Killke ceramics may represent two contemporary styles. Given this provisional finding, we might ask whether these two styles are the products of a single center of ceramic production or of two separate centers. If the two styles were produced in two widely separate centers (e.g., one in the Cuzco Valley and another in the Province of Paruro), then it is probable that their distribution patterns south of Cuzco would not be identical. If, on the other hand,

Killke and Colcha ceramics were produced by a single production center, the distribution patterns of the two styles might appear similar in the archaeological record.

To compare the distribution patterns of these two styles in the Province of Paruro, the distance of each site containing Colcha or Killke ceramics from Cuzco was calculated (Figs. 2-8 and 2-9).⁴ The Killke and Colcha site number—distance observations were then mathematically compared in a Kolmogorov–Smirnov test to determine if the two styles present similar or different patterns in the Province of Paruro. The results of the test rejected the null hypothesis (i.e., that there is no significant difference between the two samples) at a 0.05 level of confidence. In other words, the Kolmogorov–Smirnov test found a significant difference between the distribution patterns of Killke and Colcha ceramics. This finding supports the suggestion that these two styles represent the products of two separate centers of production.

The suggestion that Killke and Colcha ceramics were produced in two separate centers can be further explored by comparing the density of sites containing these styles in the survey region. A number of researchers have examined the distribution of various styles from their centers of distribution or production, and various studies indicate that the spatial occurrence of most styles declines as a function of distance from their source (Hodder, 1974, 1980; Hodder & Orton, 1976; Renfrew, 1975; Orton, 1980; Arnold, 1980; Rice, 1987, pp. 198–199).

The mathematical relationship between the density of sites containing Killke and Colcha ceramics and their distance from Cuzco was examined in a series of regression analyses. If the production of Killke or Colcha ceramics took place in the Cuzco Valley, then the density of sites with these ceramic styles should be greatest in the northern part of the survey region and should decrease further south, and as the distance from Cuzco increases. The Killke ceramic analysis indicates that the Yaurisque region has the highest

⁴ Because many of the sites in the Province of Paruro are small and yielded limited collections of surface ceramics, I have selected to use a "presence-absence" measure of Killke and Colcha ceramics in this study rather than to discuss the relative quantities of these ceramic styles (or specific attributes) present at each site. Thus, until additional research is conducted in the region, to include a large-scale excavation program at a number of different sites and an expanded program of surface collections, these results should be considered as provisional.

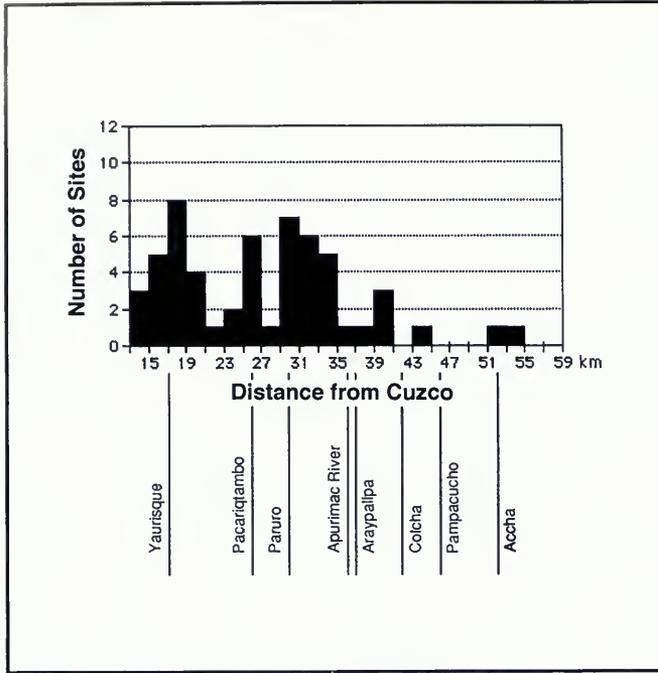


FIG. 2-8. Distance from Cuzco of sites with Killke ceramics.

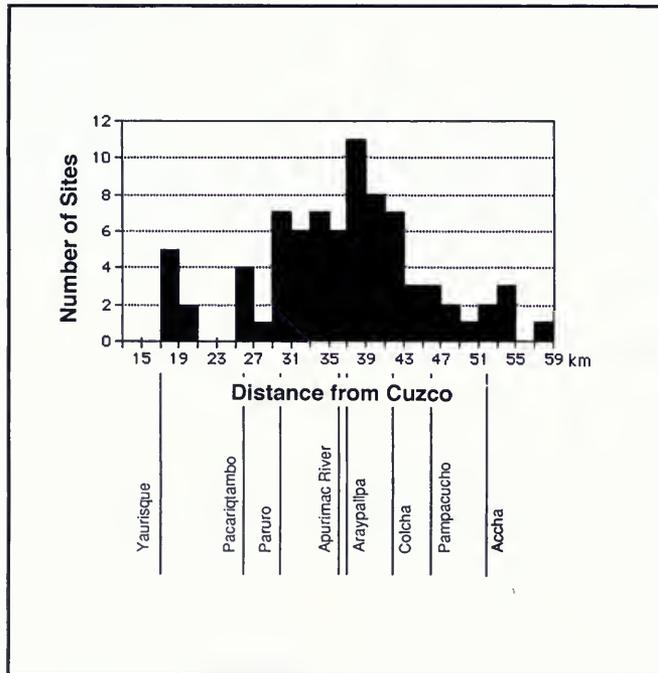


FIG. 2-9. Distance from Cuzco of sites with Colcha ceramics.

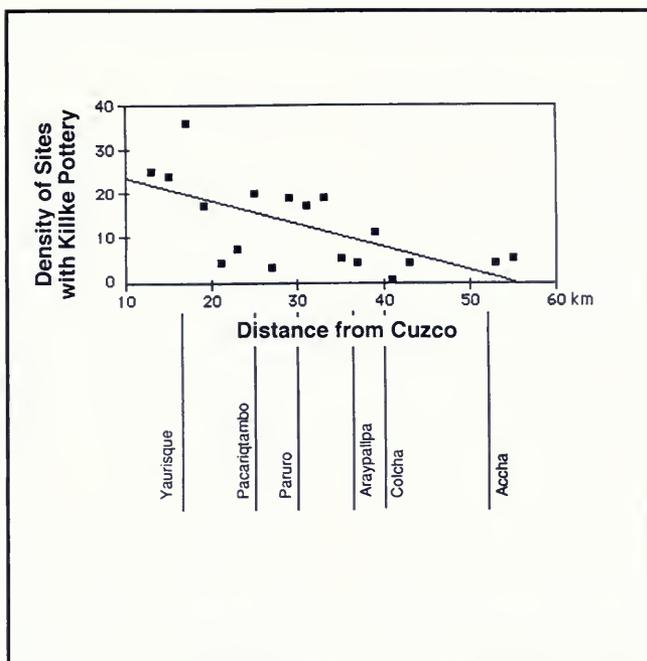


FIG. 2-10. Density of sites with Killke ceramics and distance from Cuzco.

density of sites with Killke ceramics (Fig. 2-10). This particular section of the survey area is closest to Cuzco. The density of Killke sites drops steadily as the distance from Cuzco increases.⁵ Since the discovery of Killke ceramics near Cuzco by Rowe in the early 1940s, it has been assumed that their ceramics were produced somewhere in the Cuzco Valley. The inverse relationship between the density of sites having Killke ceramics and their distance from Cuzco implies that the Cuzco Valley was indeed the production area of Killke ceramics.

Colcha ceramics, however, present a very different distribution pattern from that of Killke ceramics. Although sites with Colcha ceramics can be found in the northernmost reaches of the research area, near the town of Yaurisque, as well as at the southern limits, near the town of Accha, the density of sites with Colcha ceramics is greatest near the community of Araypallpa. If the production of Colcha ceramics took place in or near the village of Araypallpa, the density of sites containing this style should decrease as a function of distance from this suggested manufacturing locus. To test this hypothesis, the distance of Colcha

sites from the Araypallpa area was calculated and submitted to a regression analysis (Fig. 2-11). The results suggest that the density of sites having Colcha ceramics declines rapidly as the distance from Araypallpa increases.⁶ These findings support the hypothesis that the Araypallpa area was the center of Colcha ceramic production during the Late Intermediate period. As discussed below, ethnographic and historical evidence also supports this conclusion.

Ethnographic and Historical Data on Ceramic Production in the Province of Paruro

Ethnographic data from the Province of Paruro indicate that the community of Araypallpa, located just south of the Apurimac River, is the only village in the survey area that has retained a tradition of ceramic production. Currently, the villagers of Araypallpa are best known for their production of large, undecorated *chicha* (corn beer) fermentation jars that stand approximately 1 m high. These items, like other vessels manufactured

⁵ The coefficient of correlation (R) for this sample is 0.4.

⁶ The coefficient of correlation (R) for this sample is 0.7.

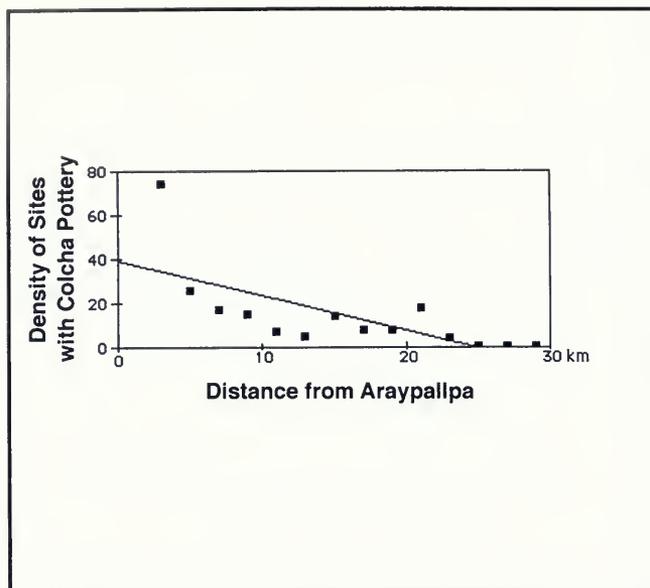


FIG. 2-11. Density of sites with Colcha ceramics and distance from Araypallpa.

in Araypallpa, are frequently called “Chillque.”⁷ Chicha vessels of this kind, manufactured in Araypallpa, were observed in every community within the research region. Villagers in communities as far away as Mollebamba and Yaurisque describe these vessels as the preferred storage containers for *chicha*, and many informants remarked that their vessels were three or more generations old. In addition, older informants recalled arduous 2- to 3-day journeys that they undertook as youths to transport these large vessels from Araypallpa to their community. These ethnographic data indicate that the village of Araypallpa was a widely recognized regional center for ceramic manufacture until the middle of the 20th century and support the suggestion that it may also have been an important production center in the more distant past.

Further evidence that the villagers of Araypallpa were important potters before and during the Spanish Conquest is preserved in colonial docu-

⁷ Poole, during her ethnographic studies in Paruro and Colcha, discusses another vessel produced in the village of Araypallpa that is still widely used in the Paruro region during festivals (Poole, 1984, p. 293). She describes this vessel as “A round, unpainted ceramic bowl with one very small handle,” manufactured only in the community of Araypallpa, and used only during August and Carnival.” When Poole (1984, p. 468) asked why the vessel was called Chillque (or Ch’ellqe), she was told, “because it was made in Araypallpa.”

ments. The name Chillque was applied to the group that occupied the region south of the Apurimac River during the late prehistoric and early historic periods. The center of this group was the community of Araypallpa (Poole, 1984, p. 468). The name Chillque is currently applied to the vessels that are manufactured in this same village. Thus, there appears to be a recognizable link between the production of ceramics in the area south of the Apurimac River and the Chillque who inhabited that region. This link is made explicit by the indigenous chronicler Guaman Poma de Ayala (1980, p. 96 [1615:118]) in a description of the nature of various groups in the Cuzco region:

In the law of the Inca they ordained to be King, “Capac Apu Inca”. Inca does not mean king. But as Inca there are low status people like *Chillque Inca potter*; Acos Inca cheater; Uaroc Inca Llulla Uaroc liar. . . [emphasis added]⁸

In sum, based on the preliminary results of ceramic distribution studies in the Province of Paruro, and in light of ethnographic and historical data that complement the archaeological findings, there is strong evidence to suggest that Araypallpa was

⁸ En la ley de los Yngas se ordenave para ser rey, Capac Apo Ynga. Ynga no dezir rey cino que ynga ay gente uaja como Chilque ynga ollero; Acos ynga enbustero; Uaroc ynga Llulla Uaroc mentiroso . . . [Guaman Poma de Ayala 1980:96 (1615 f. 118)].

the center of Colcha ceramic production during the Late Intermediate period.

Summary and Discussion

Archaeological investigations in the Province of Paruro have documented the widespread presence of Killke ceramics and a new, Killke-related style named Colcha. The two styles are stylistically similar, sharing a common repertoire of geometric design elements and vessel forms. They differ, however, in paste composition and slip type, as well as in some designs, colors, and application techniques.⁹

Test excavations were conducted in the survey region to determine the chronological relationship between these two styles. Excavations at the site of Tejahuasi found both styles in a sealed context, with a radiocarbon date of 940 ± 140 B.P. The recovery of both styles within a single, undisturbed context is conditional evidence that Killke and Colcha ceramics were used contemporaneously.

Sites containing Killke ceramics are concentrated in the northern reaches of the study zone nearest Cuzco, and their numbers decrease further south. Killke ceramics have, however, been found near the community of Araypallpa, as well as near the southern limits of the survey zone, in the Acha region. The presence of Colcha ceramics in surface collections decreases with distance from the village of Araypallpa. Examples of Colcha ceramics have nevertheless been identified in surface collections as far north as Yaurisque and in the southern reaches of the survey zone, in Acha.¹⁰ From the archaeological survey data, it is possible to suggest that Killke ceramics were produced in the Cuzco Valley, and it appears likely, based on archaeological, ethnographic, and historical data, that Colcha ceramics were manufactured in the region of Araypallpa. However, the social mechanisms through which the ceramics were traded or exchanged or the potters themselves moved remain to be investigated once further archaeological and historical work has been completed in the region.

⁹ For additional information on Killke ceramics and regional ethnic groups, as well as on the emergence of the Inca state, see Bauer (1992a, pp. 89–94).

¹⁰ Luis Barreda Murillo (pers. comm. 1990) recovered two nearly complete Colcha vessels during excavations at the site of Wimpillay on the edge of the city of Cuzco.

Killke Period Ceramic Styles and Regional Ethnic Groups

Historical evidence suggests that the Cuzco Valley and the region immediately south of the Valley were inhabited by at least four separate ethnic groups. The Inca controlled the northern end of the Cuzco Valley. The Chillque occupied the region south of the Apurimac River near the present-day communities of Araypallpa and Colcha and may have controlled parts of Paruro and Ccochirhuay. The Masca and Tambo were located in the areas of Yaurisque and Pacariqtambo, between the Chillque to the south and the Incas to the north. The Masca were concentrated around Yaurisque and perhaps dominated areas as far south as Paruro and as far west as Huanquite, whereas the Tambo appear to have been centered in and around the Pacariqtambo area (Bauer, 1992a). The Chillque, Masca, and Tambo were simply three of the many groups that surrounded the Inca capital, which collectively can be called *Incas de Privilegio* (Inca of Privilege).

The identification of two contemporaneous, regionally produced, Killke period ceramic styles in the area directly south of Cuzco raises an important question: Can the exact boundaries of the region's ethnic groups be identified through the distribution of these pottery styles? If the territorial boundaries of the Inca, Chillque, Masca, and Tambo were important factors in the distribution of Killke and Colcha pottery, then the distribution curves of the Killke and Colcha pottery types could be expected to display a series of "plateaus and kinks" reflecting the trade of ceramic vessels in and across ethnic territories (Hodder, 1980, p. 152). On the other hand, if the various ethnic boundaries of the region did not affect the distribution of Killke or Colcha ceramic materials, then the frequency of sites containing these ceramic types might simply decline as the distance from their sources of production increases. An analysis of preliminary archaeological survey data from the Province of Paruro indicates that the frequencies of sites containing Killke and Colcha pottery styles display relatively smooth and uninterrupted fall-off curves from their suggested centers of production. These findings suggest that both the Inca of the Cuzco Valley and the Chillque of the Araypallpa area primarily, although certainly not exclusively, used pottery produced within their own territory. The archaeological survey has recorded both Killke and Colcha ceramic styles distributed across the territories of the Masca and

Tambo, and to a lesser extent, these two ceramic styles appear to have entered into each other's region of production. The recovery of Killke and Colcha pottery in the territories of all four ethnic groups living in Cuzco and immediately to the south implies that the boundaries of these groups were not critical features in the distribution of Killke or Colcha pottery, and that archaeologically, ceramic styles in the Cuzco region do not appear to reflect elements from which ethnic identity might be inferred.

Killke Period Ceramic Styles and the Emergence of the Inca State

Although the distribution of Killke and Killke-related pottery styles south of Cuzco cannot be used to identify the boundaries of separate groups of *Incas de Privilegio*, such as the Chillque, Masca, and Tambo, their distribution patterns and methods of manufacture may provide important insights into the chronology and mode of state emergence in the Cuzco region. The use of nearly identical design elements and motifs in Killke and Killke-related pottery styles, such as Colcha, suggests that strong social contacts existed between the various centers of pottery production. In addition, the overlapping distribution networks of Colcha and Killke pottery imply that a high level of trade and exchange existed between various *Incas de Privilegio* groups during the Killke period. From these overlapping ceramic distribution patterns and their associated lines of communication, it may be tentatively proposed that the Killke period in the Cuzco region was typified by regional accordance and exchange.

Although Killke and Colcha pottery appear to be stylistically very similar, and although they share overlapping distribution networks, the distribution ranges of the two pottery styles from their separate centers of production are markedly different. The distribution radius of Colcha pottery appears to be approximately 25 aerial kilometers from its area of production (Fig. 2-9). The distribution radius of Colcha pottery is very limited when compared to that of Killke pottery, which extends more than 60 aerial kilometers from the Cuzco Valley (Fig. 2-8). The greater distribution range of Killke pottery than of Colcha pottery may be of some importance. From these observations, it is possible to suggest that regional exchange relationships had already begun to develop a Cuzco-centric focus during the Killke pe-

riod and that the Cuzco Valley may have been emerging as a regional center of production during this same period.

Further evidence indicative of regional centralized authority developing in the Cuzco Valley during the Killke period may be observed in technological attributes of Killke pottery production. For example, Killke pottery is slightly more sophisticated in decoration complexity and in wear manufacture than other Cuzco regional styles. In addition, the widespread distribution of Killke pottery suggests that it was produced in far greater quantities than any other Killke-related style. The emergence of what appears to be large-scale craft production in the Cuzco Valley may reflect the development of full-time specialists in ceramic production during the Killke period. Although superior quality and greater quantities of craft production do not necessarily indicate that a high level of sociopolitical organization existed in the Cuzco Valley, when this evidence is combined with the distribution information of Killke pottery, it suggests that the Cuzco Valley was a regional center for exchange, and was perhaps the central authority, by the Killke period.

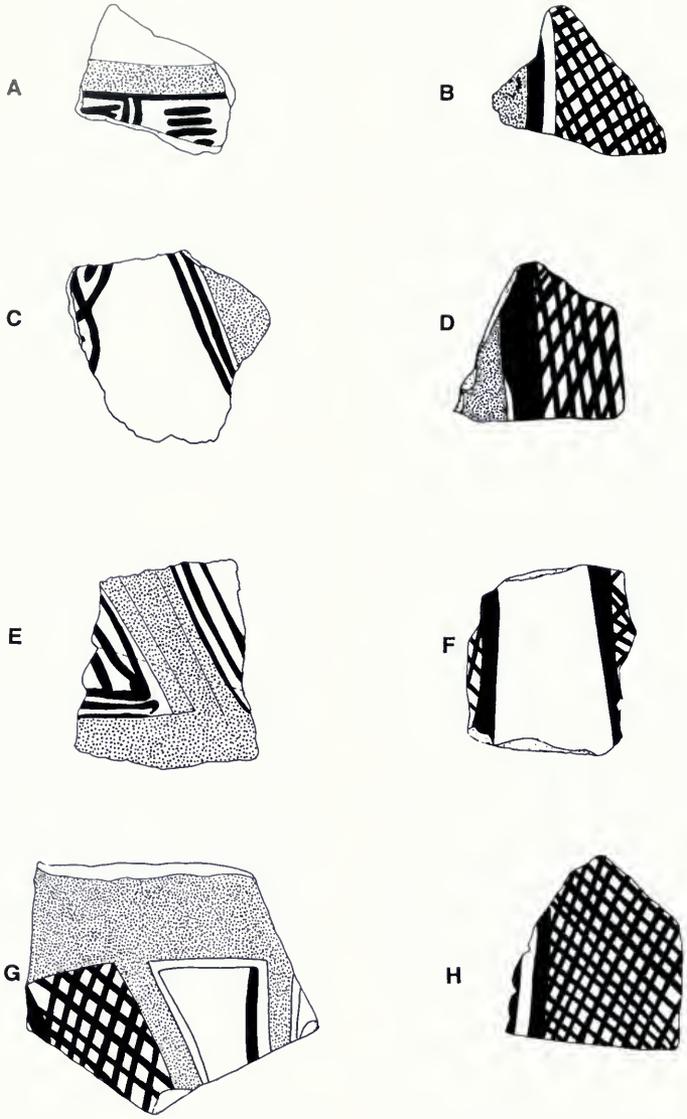
The ceramic distribution patterns south of Cuzco may show further evidence of regional exchange relationships during the Killke period, indicative of the unification of the region under a single Cuzco-based political authority. Systematic regional surveys conducted in Accha, 52 aerial kilometers from Cuzco, revealed a light presence of Killke pottery. Four days of survey work in the more southern region of Omacha, approximately 70 aerial kilometers from Cuzco, produced no evidence of Killke pottery, suggesting that the area between Accha and Omacha forms the frontier for Killke pottery distribution to the south of Cuzco. The chronicles suggest that this same region also represented the outer limits of the *Incas de Privilegio*. The apparent correlation between the distribution of Killke pottery and the distribution of groups absorbed into the Inca state as *Incas de Privilegio* indicates that Cuzco-centric distribution networks may have united Cuzco with surrounding ethnic groups during the period of state development.

If Cuzco emerged during the Killke period as a dominant power in the region, with a level of social and political organization unsurpassed by other regional ethnic groups, it is possible that its elevated status might be reflected in various pottery designs produced by the Incas. There is provisional evidence to suggest that this may have

occurred. In the Killke ceramic tradition, a highly stylized figure is frequently depicted on the single-handled jars (Drawing 2-13). This figure can be identified through a set of standardized motifs, including (1) a headdress or cap (*chullo*) depicted by a series of wide, evenly spaced bands outlined on each side by two to three narrow lines located on the vessel's rim and upper border section, (2) a headband motif, which is most frequently depicted as a row of nested triangles, and (3) a series of linked diamonds or triangles on the figure's cheeks. The human qualities of the figure stand in contrast to the pantheon of mythoreligious figures represented in earlier ceramic traditions, such as Wari, which have been found in the Cuzco region. The standardized headdress, the elaborate headband, and the painted cheeks are suggestive of emblems of power and authority. The appearance of this stylized figure during the Killke period, and the conspicuous absence of other figures on Killke pottery vessels, suggest that it may be a symbolic representation of an institutionalized ruler or elite class. The appearance of this figure on pottery thought to have been manufactured in the Cuzco Valley hints at the possibility that the institution of the "Inca" as a paramount ruler or a dominant social class had begun to coalesce by the Killke period. Although the very suggestion that certain pottery designs may in some way reflect the sociopolitical order that produced them is extremely speculative, the appearance of this kinglike figure on Killke pottery during the period of early Inca state development does concur with

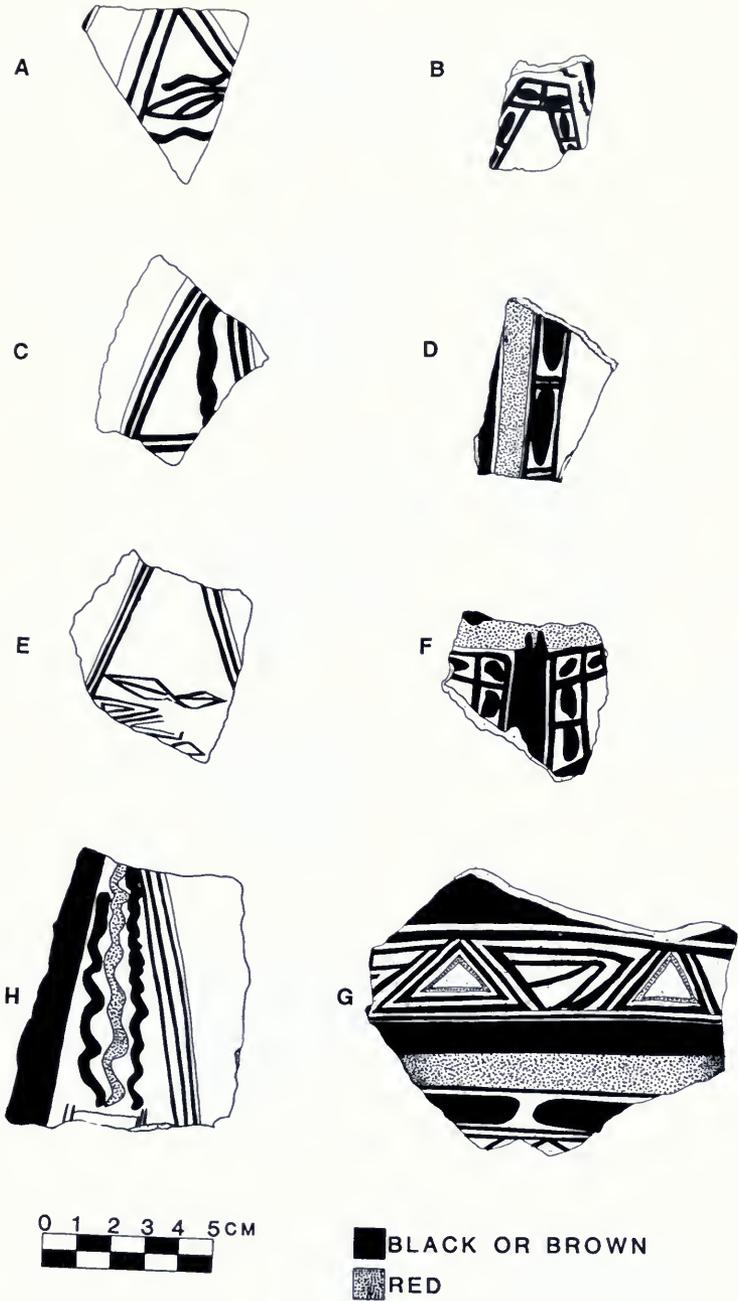
other preliminary conclusions drawn from the ceramic distribution data.

Under the traditional model of state formation in the Cuzco region, presented in the Spanish chronicles and accepted by many Andean ethnohistorians and archaeologists, the Killke period was a time of fierce regional conflict: a volatile world of raids, competing polities, and political fragmentation. The traditional model suggests that political and economic unity was achieved in the Cuzco region only after Pachacuti Inca Yupanqui's victory in the mythohistorical Chanca war. Archaeological data presented in this chapter concerning the production of pottery in the Province of Paruro during the Killke period does not, however, conform to our expectations of a fragmentary and competing social landscape. Instead of being a time of regional conflict, the Killke period may have been characterized by widespread regional exchange. Rather than competing with other ethnic groups, the Incas, may have already dominated the local social and political organizations of the region during the Killke period. In addition, the Inca may have unified the Cuzco area, and Cuzco may have already become the center of economic, and perhaps political, influence during this same period. In other words, it is possible that unification of the Cuzco region did not simply occur during the Killke period but came about specifically under Inca dominance. In addition, it is possible that during this period the hierarchical relationships that the rulers of Cuzco would hold over the members of other regional ethnic groups at the time of the Spanish Conquest were in formation or were already present.

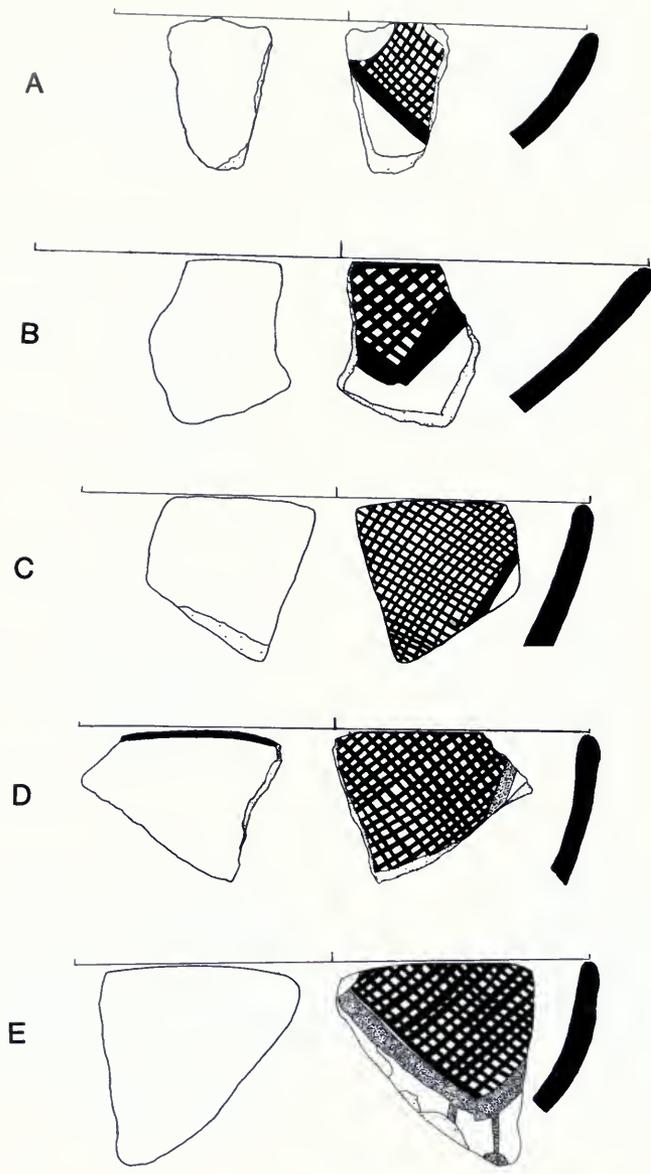


BLACK OR BROWN
 RED

DRAWING 2-1. Common Killke designs.

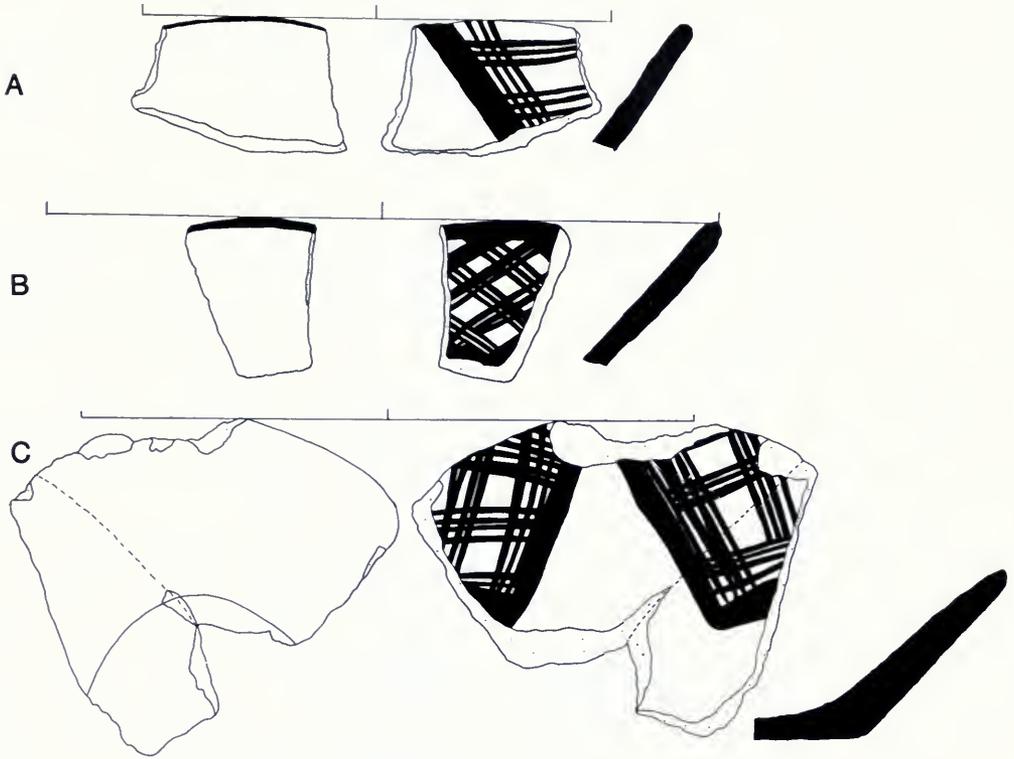


DRAWING 2-2. Common Killke designs.



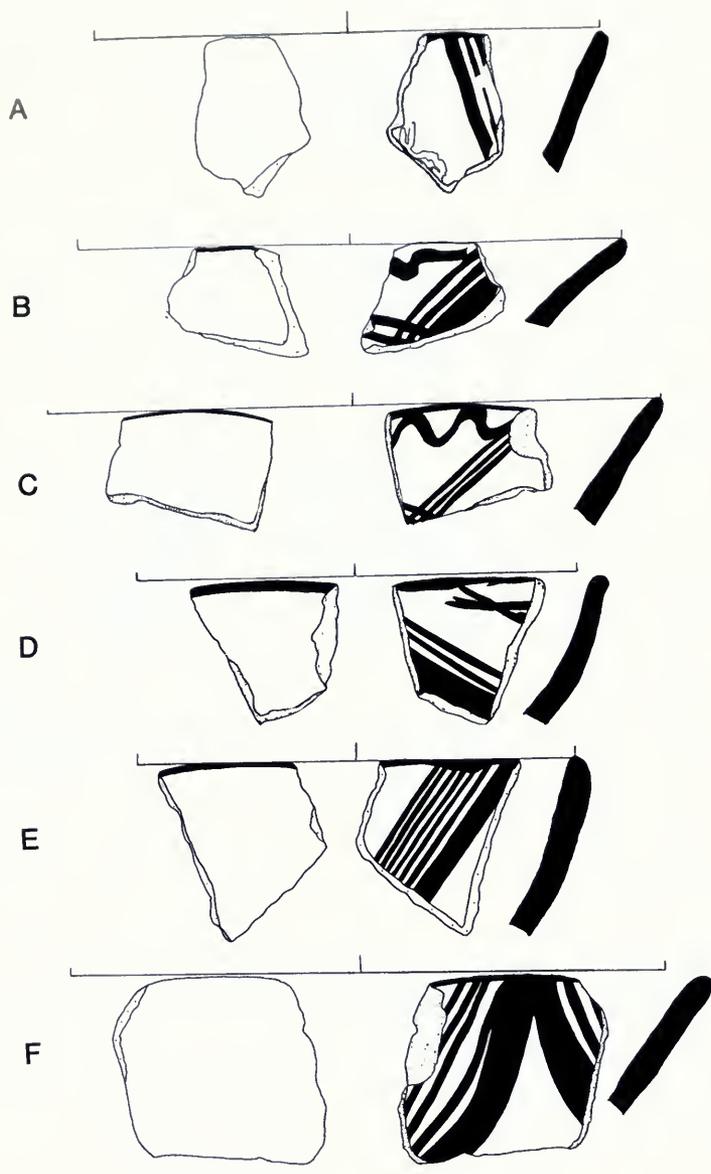
■ BLACK OR BROWN
 ■ RED

DRAWING 2-3. Common Killke bowl designs.



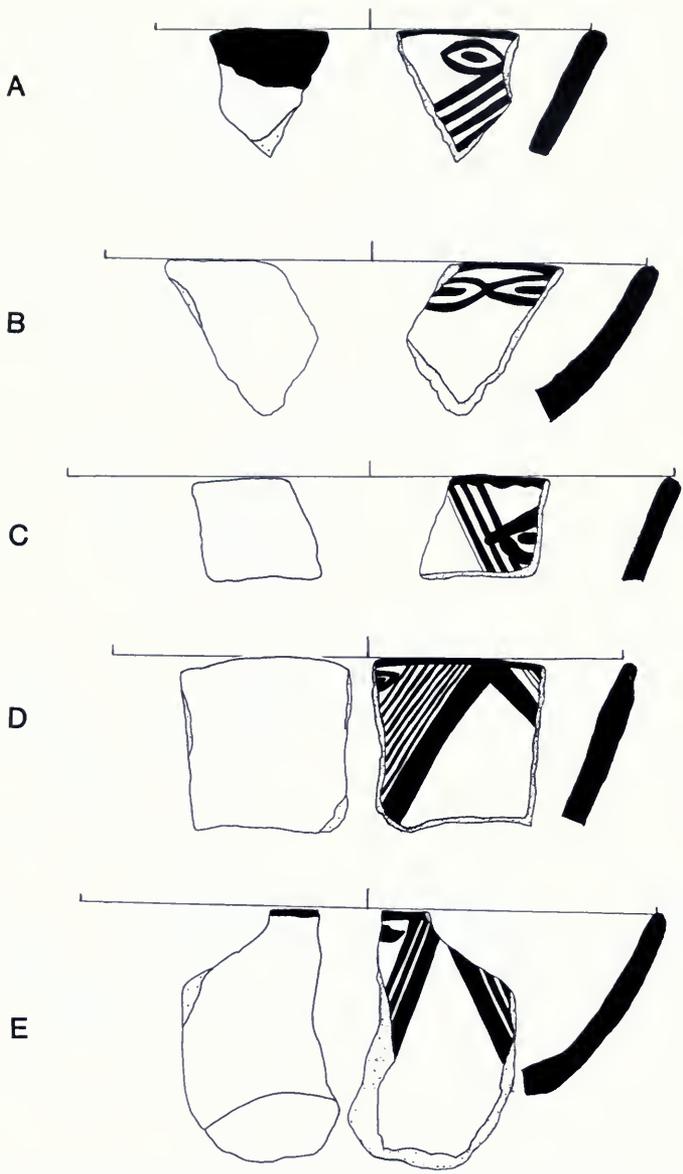
■ BLACK OR BROWN

DRAWING 2-4. Common Killke bowl designs.



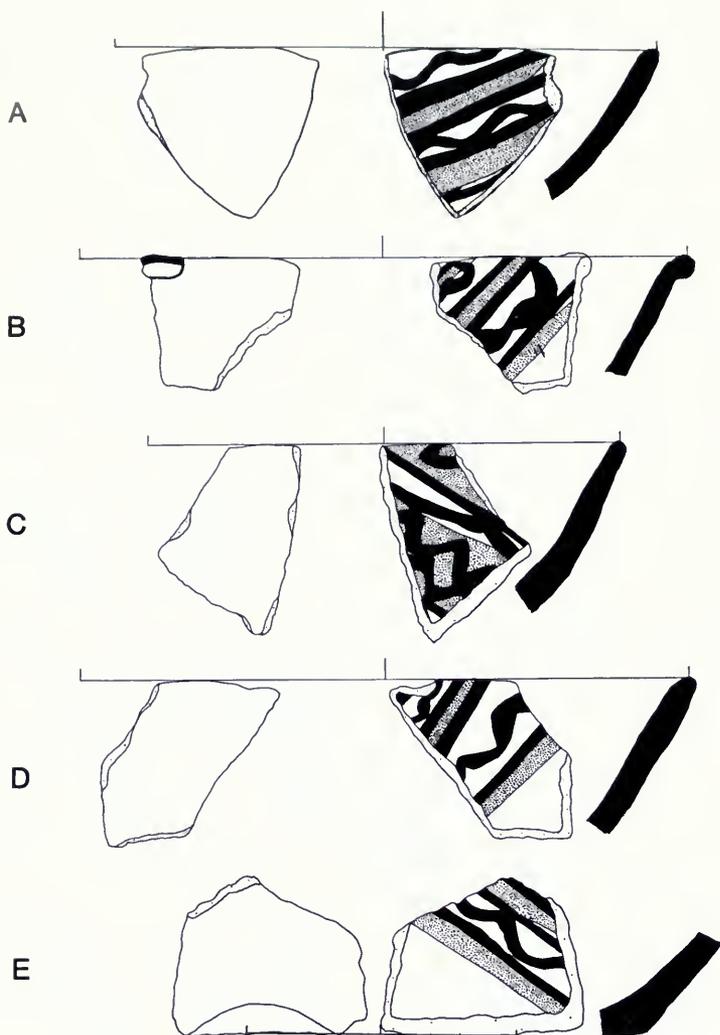
BLACK OR BROWN
 RED

DRAWING 2-5. Common Killke bowl designs.

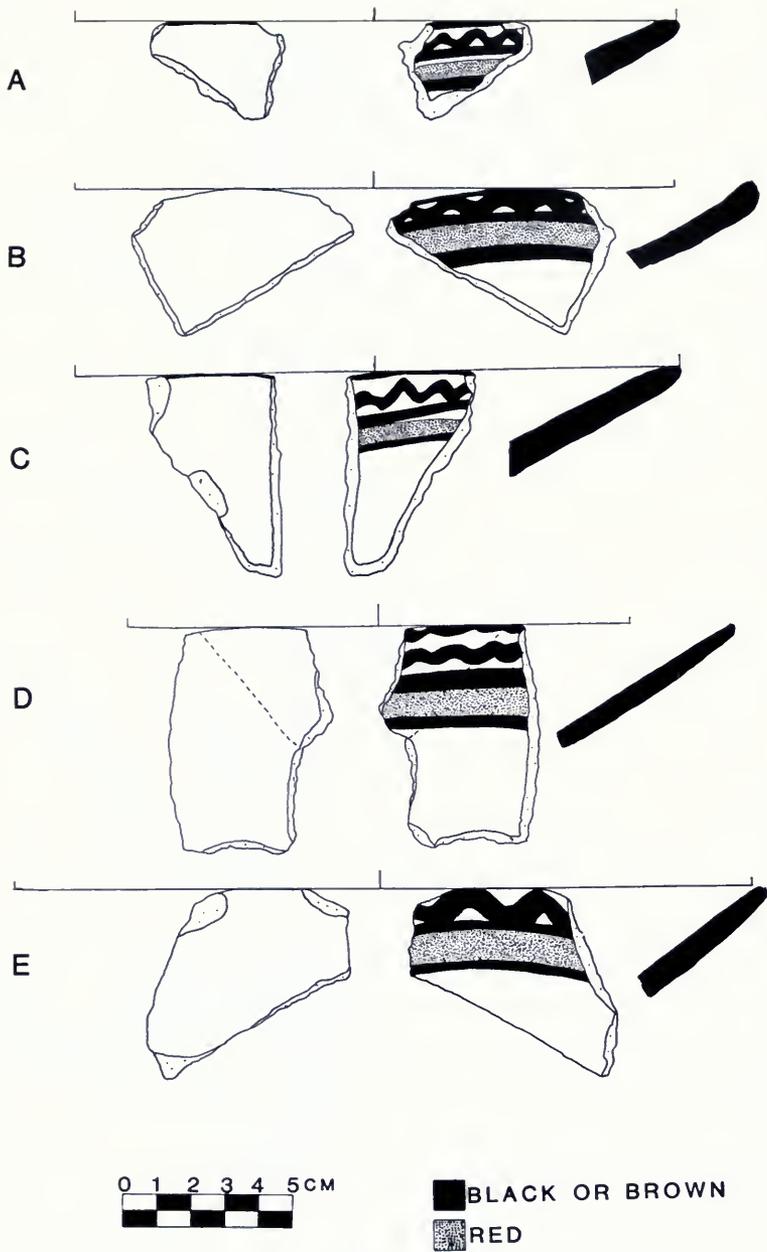


BLACK OR BROWN
 RED

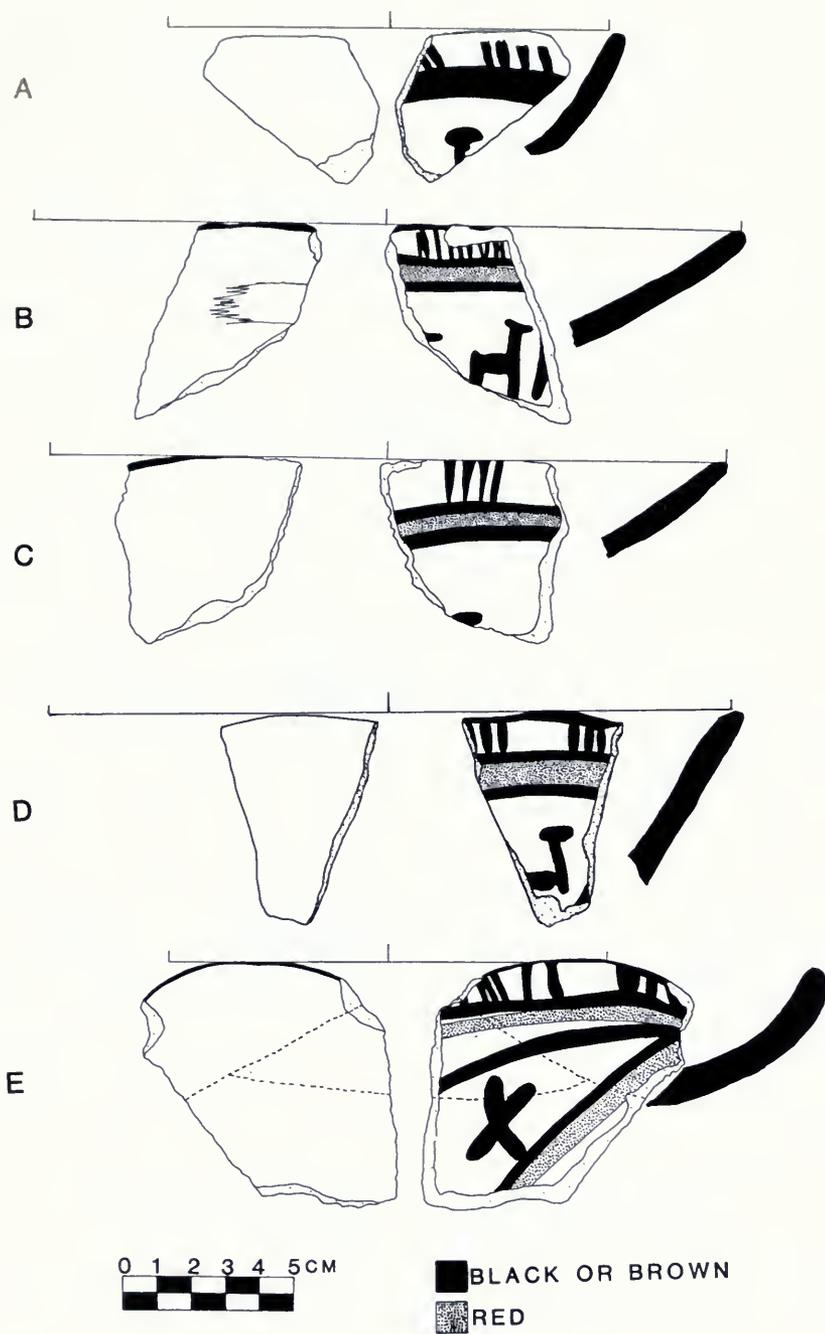
DRAWING 2-6. Common Killke bowl designs.



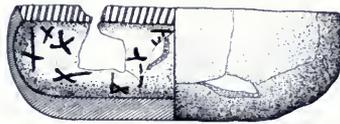
DRAWING 2-7. Common Killke bowl designs.



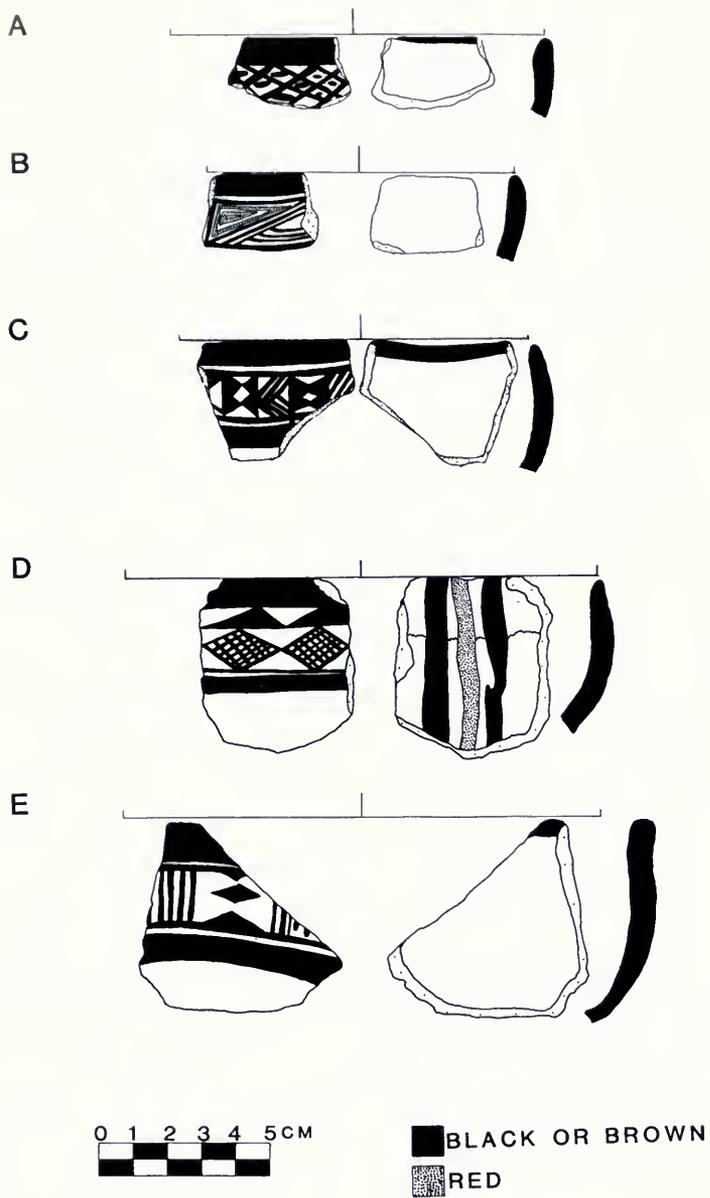
DRAWING 2-8. Common Killke bowl designs.



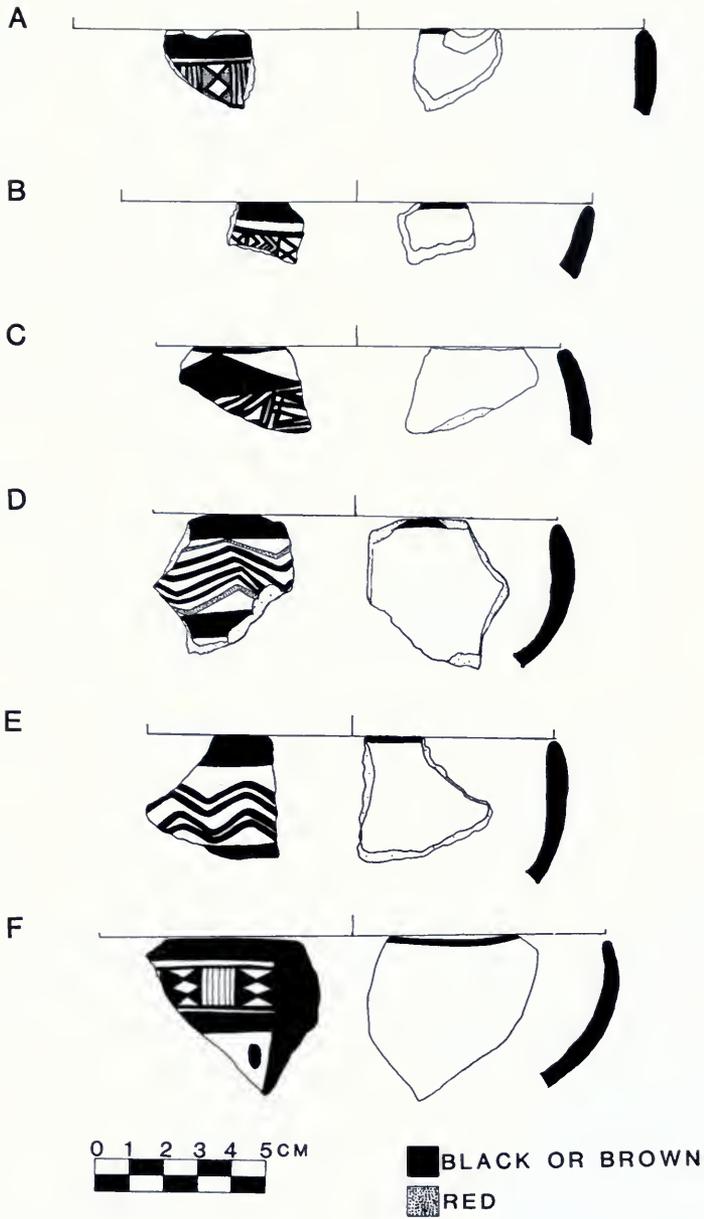
DRAWING 2-9. Common Killke bowl designs.



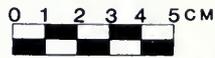
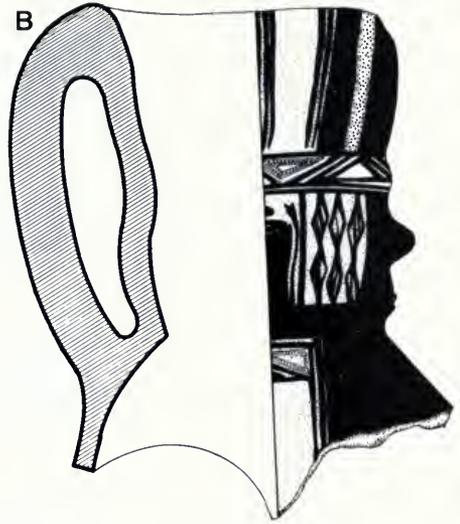
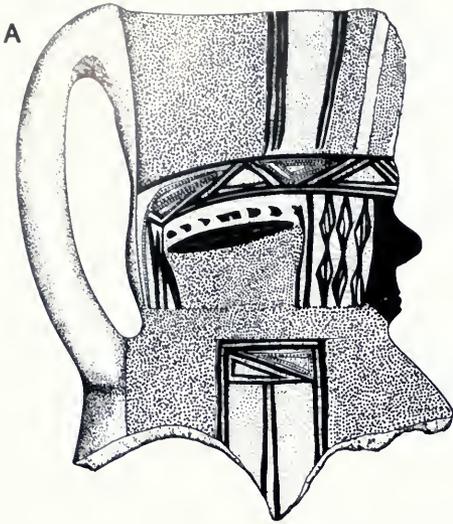
DRAWING 2-10. Transitional Killke-Inca bowl.



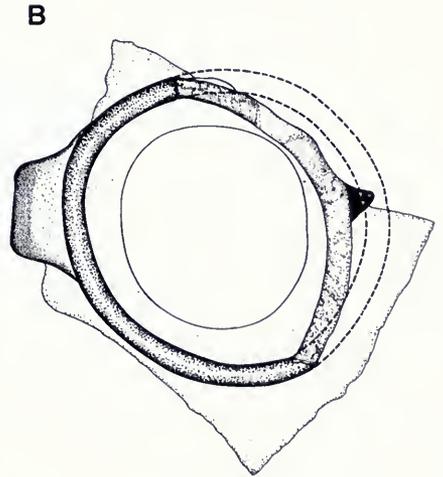
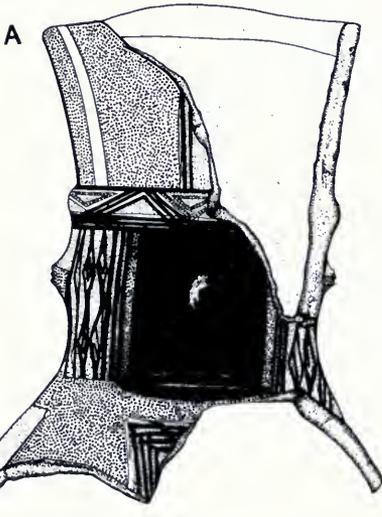
DRAWING 2-11. Common incurving Killke bowl designs.



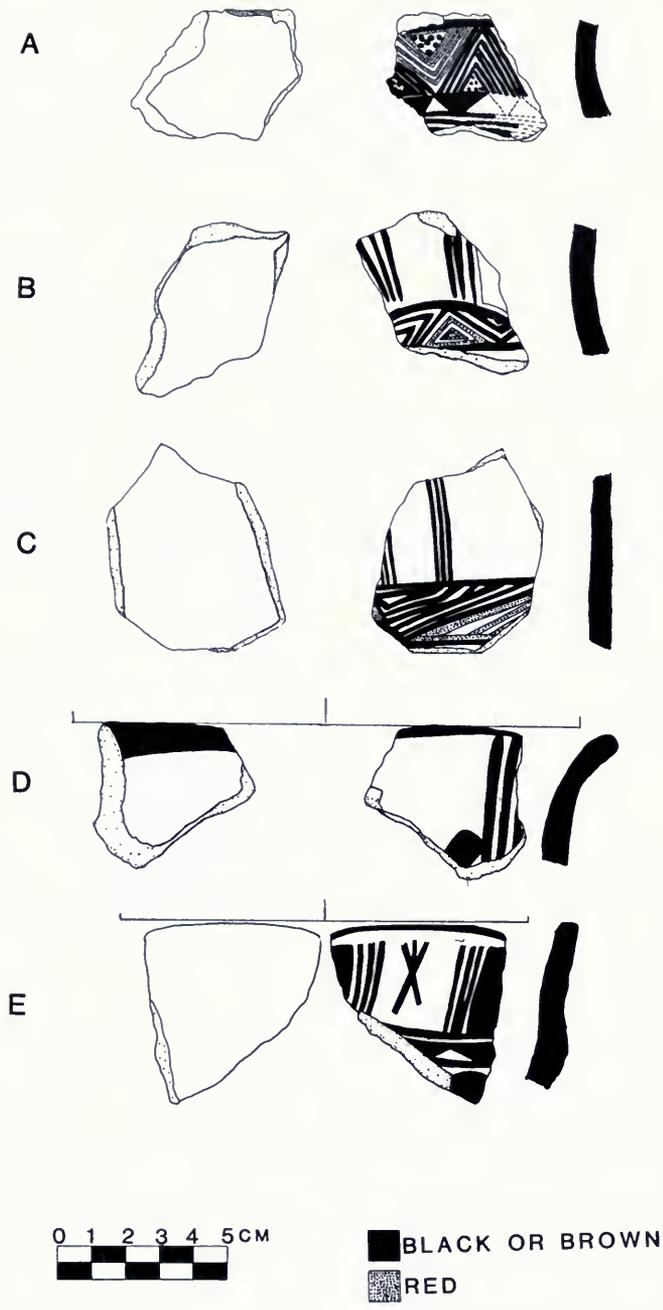
DRAWING 2-12. Common incurving Killke bowl designs.



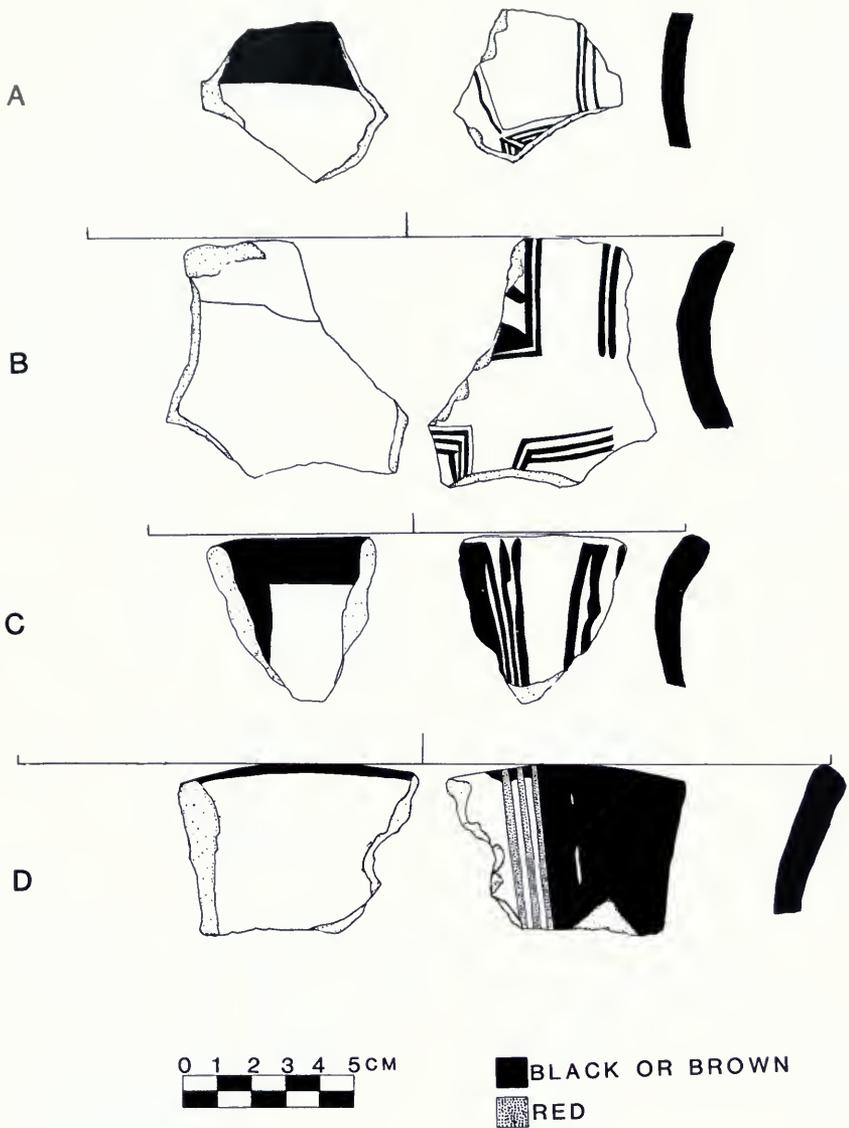
DRAWING 2-13. Single-strap-handle face neck jar.



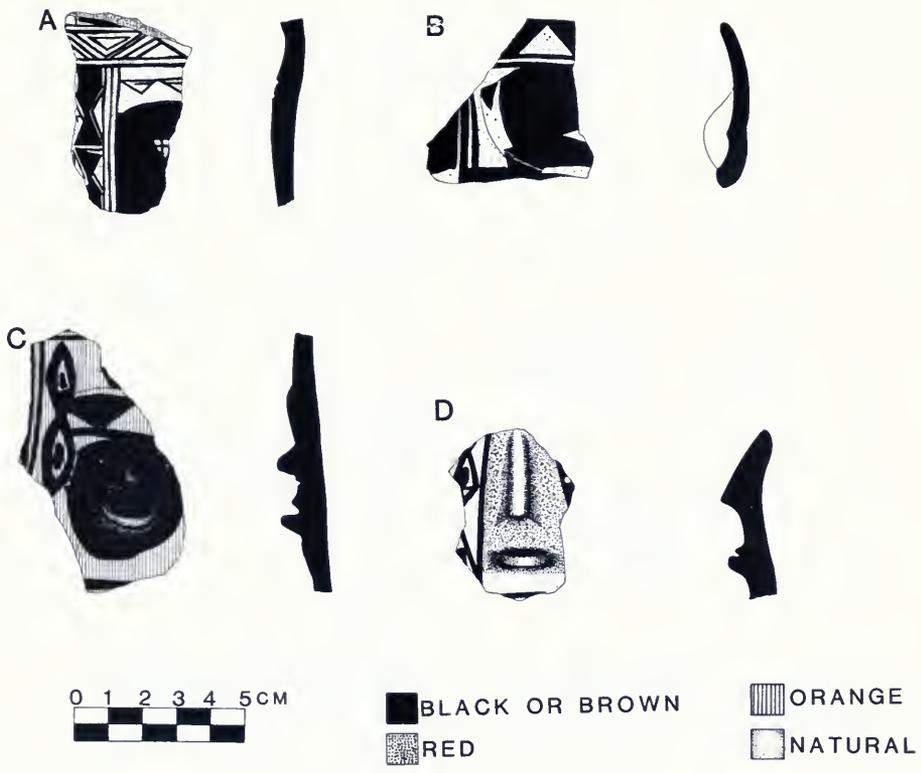
DRAWING 2-14. Single-strap-handle face neck jar.



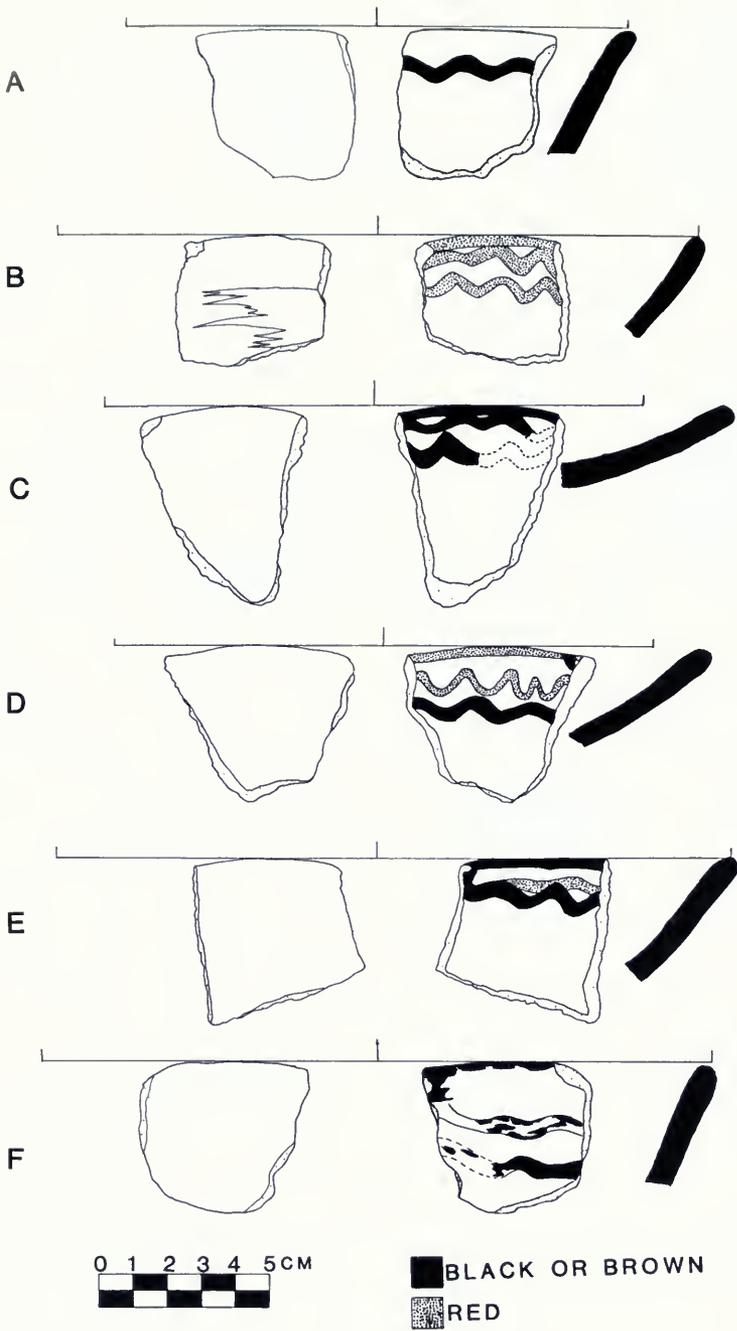
DRAWING 2-15. Single-strap-handle face neck jars.



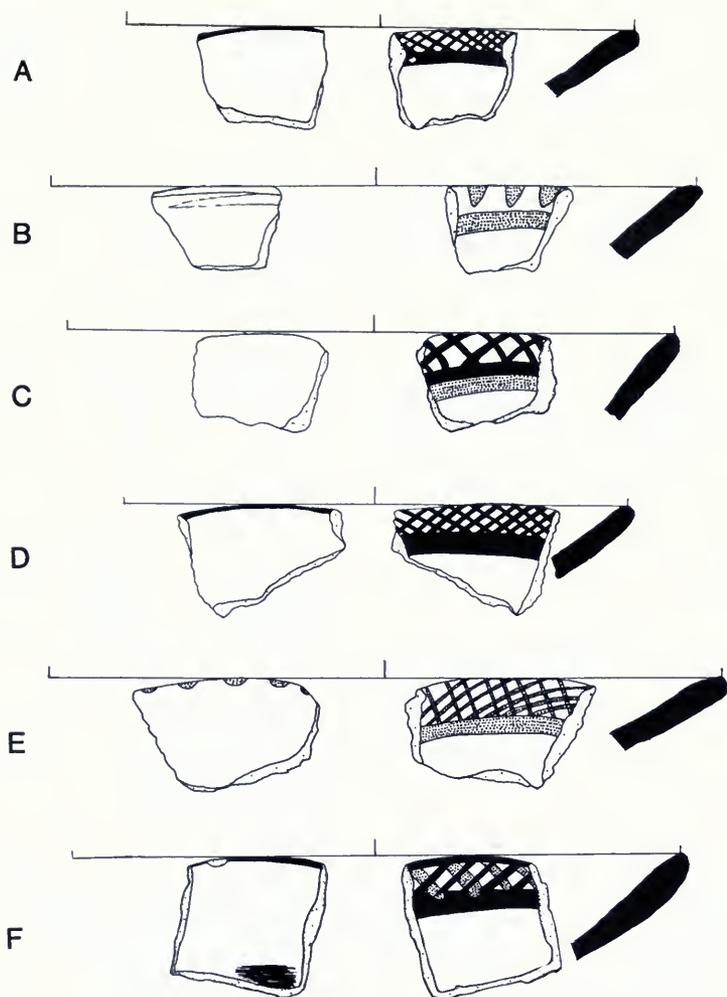
DRAWING 2-16. Single-strap-handle face neck jars.



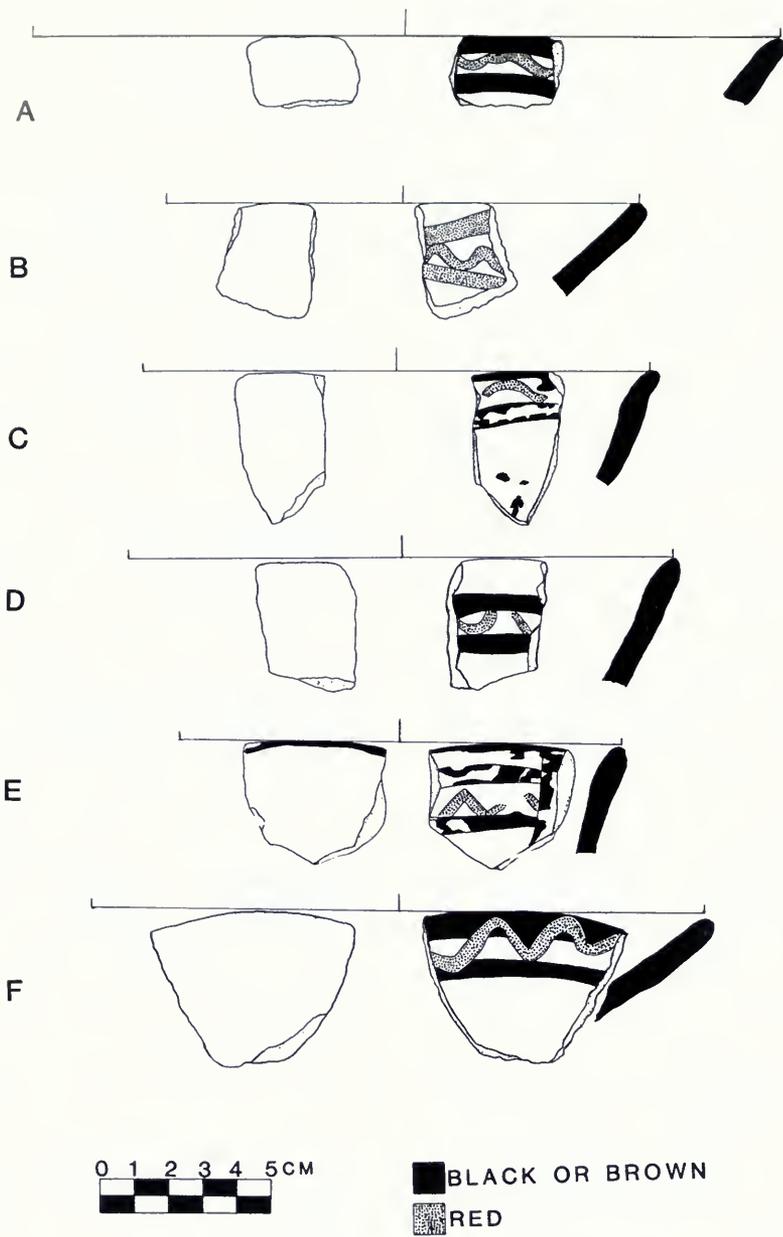
DRAWING 2-17. Single-strap-handle face neck jars.



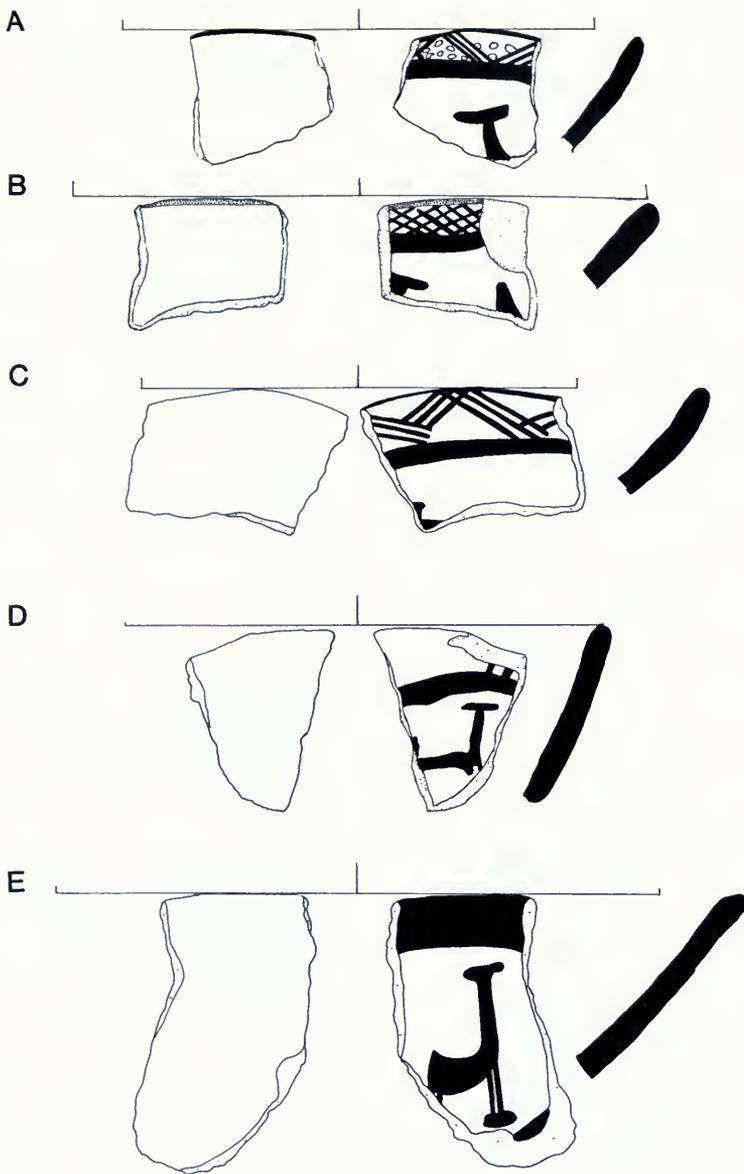
DRAWING 2-18. Common Colcha bowl designs.



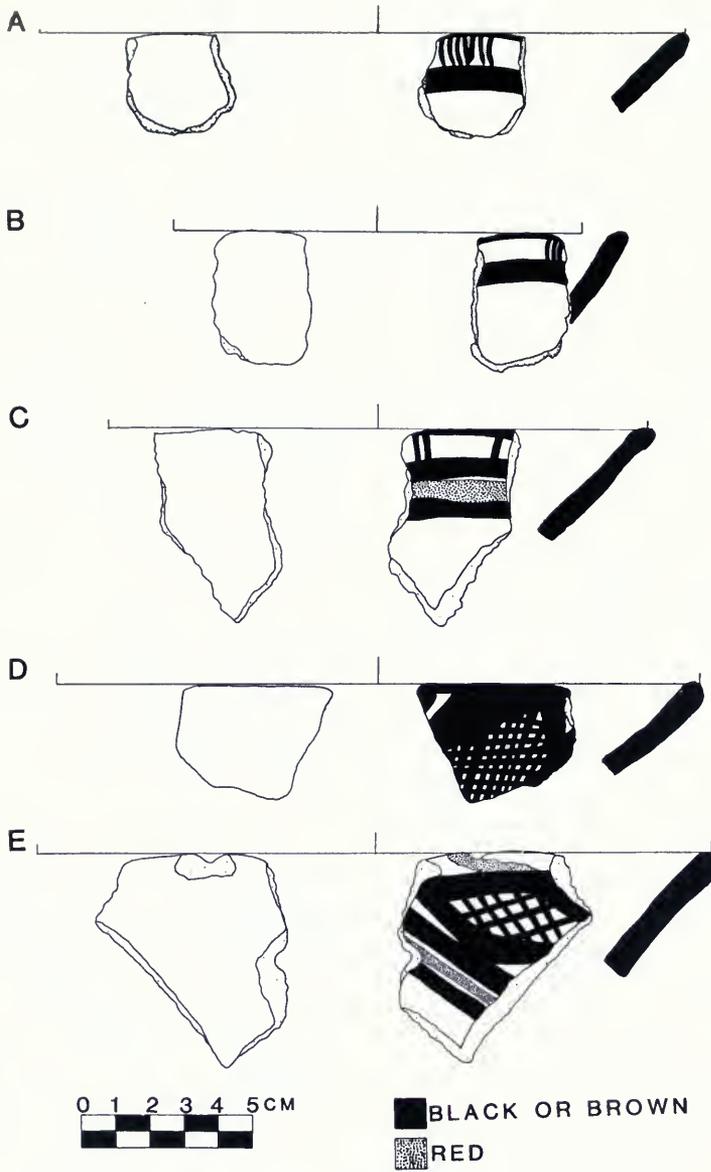
DRAWING 2-19. Common Colcha bowl designs.



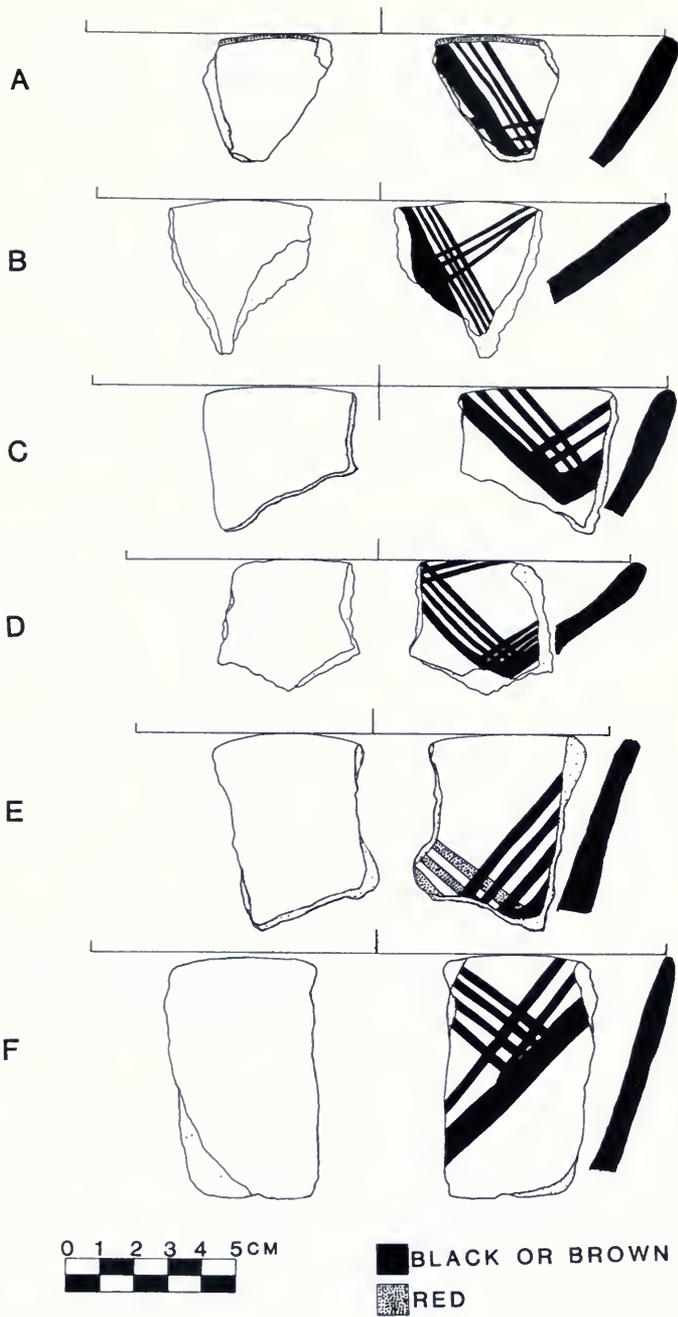
DRAWING 2-20. Common Colcha bowl designs.



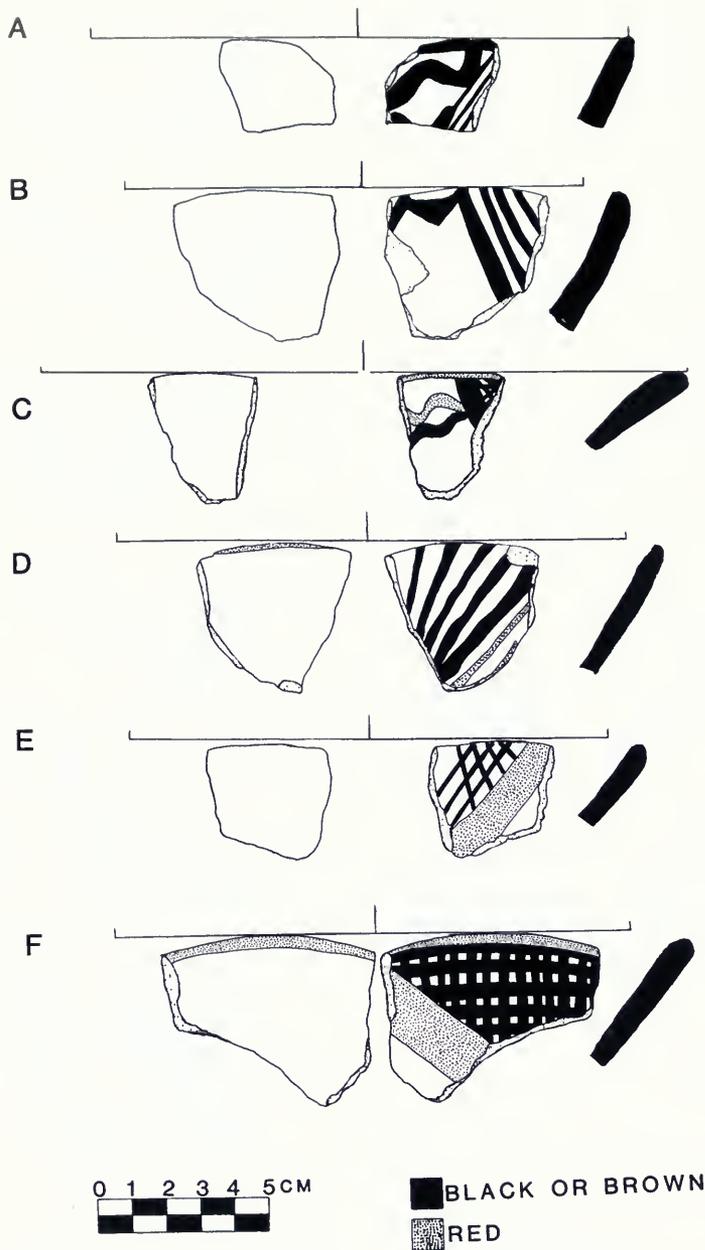
DRAWING 2-21. Common Colcha bowl designs.



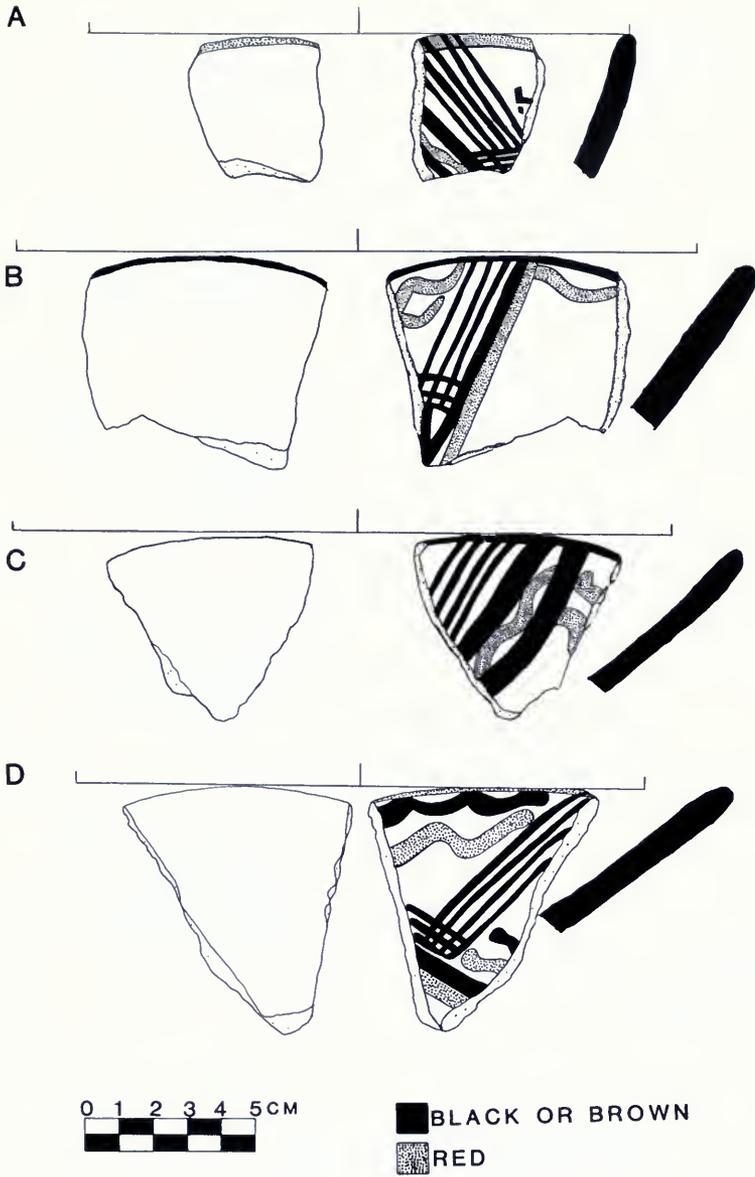
DRAWING 2-22. Common Colcha bowl designs.



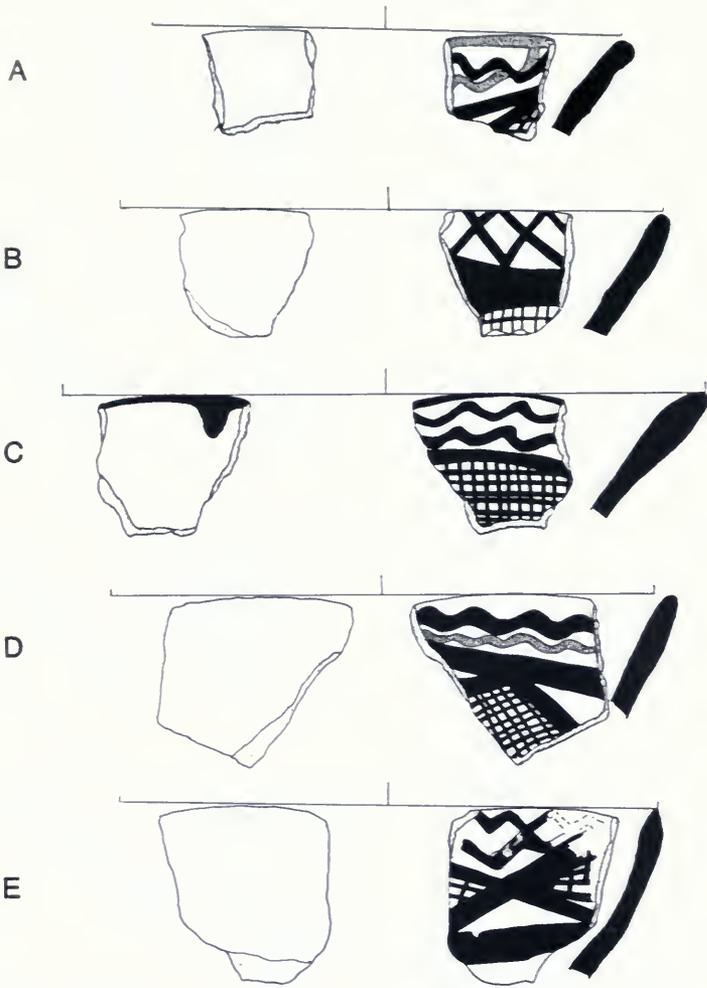
DRAWING 2-23. Common Colcha bowl designs.



DRAWING 2-24. Common Colcha bowl designs.

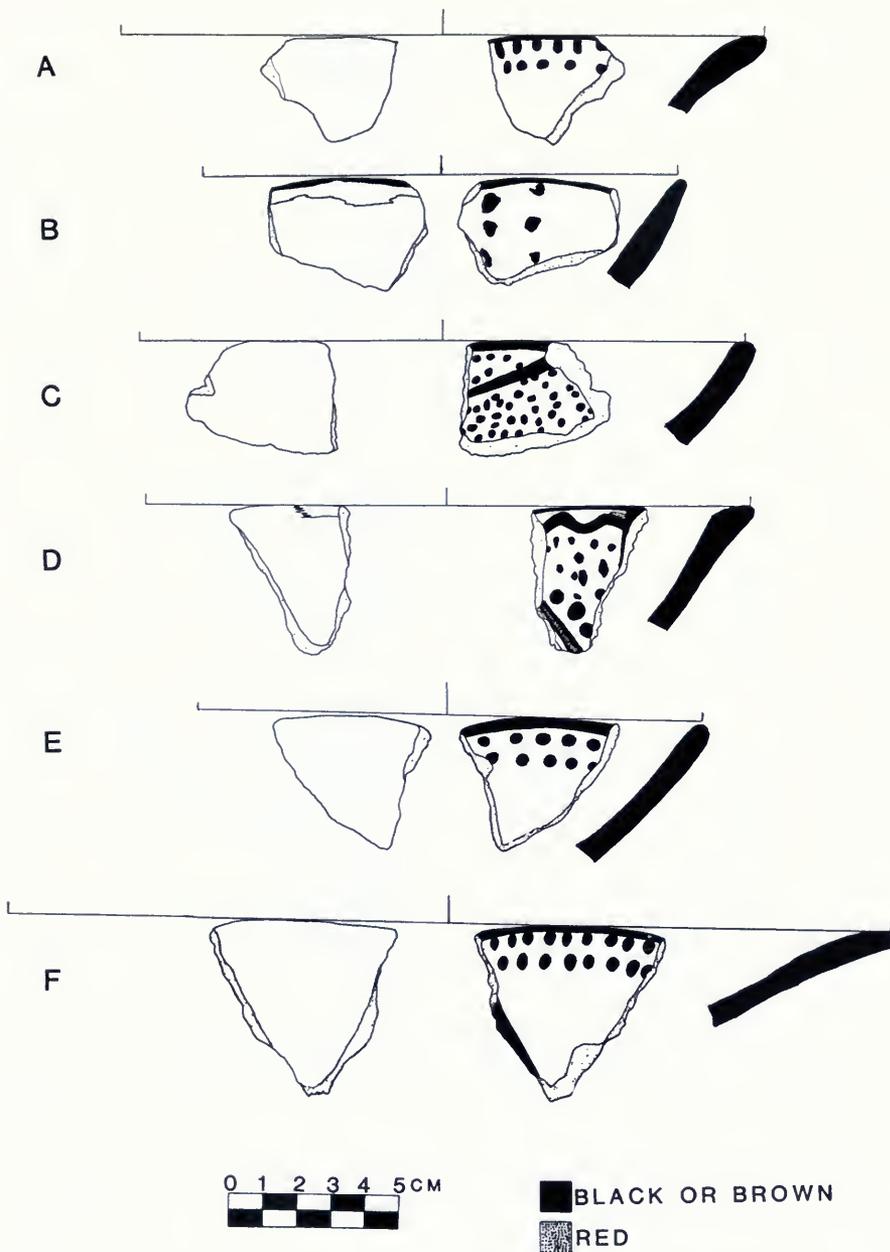


DRAWING 2-25. Common Colcha bowl designs.

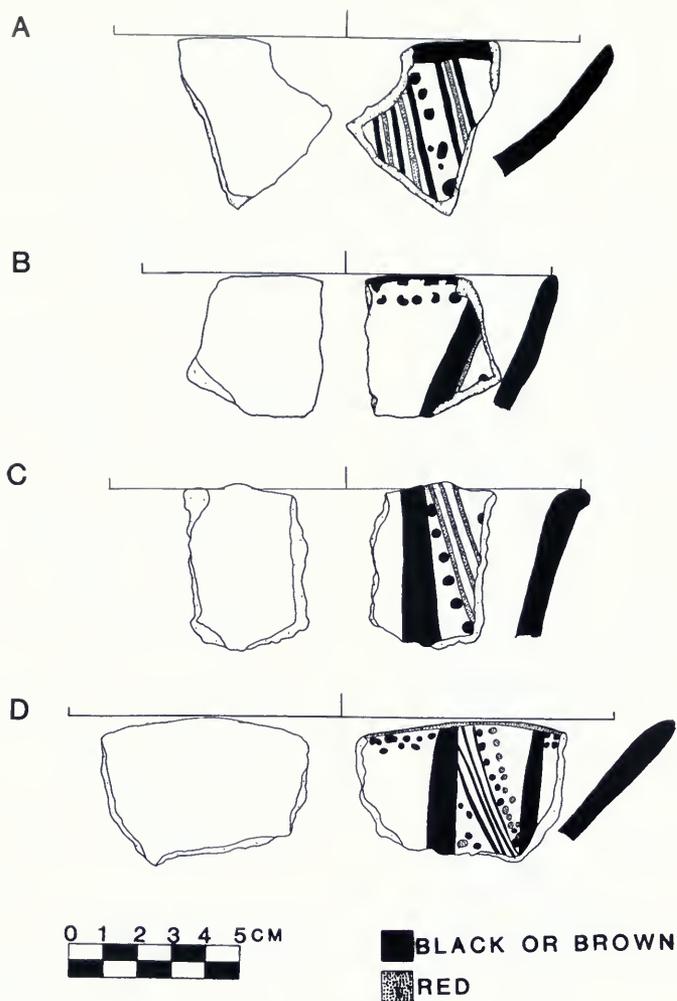


BLACK OR BROWN
 RED

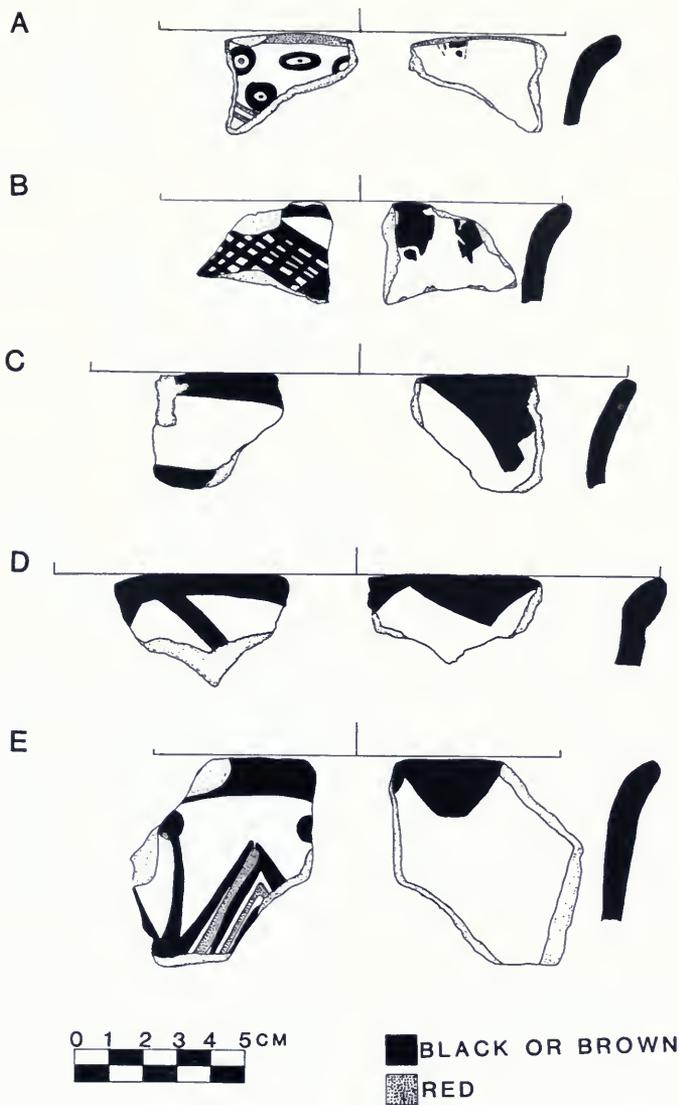
DRAWING 2-26. Common Colcha bowl designs.



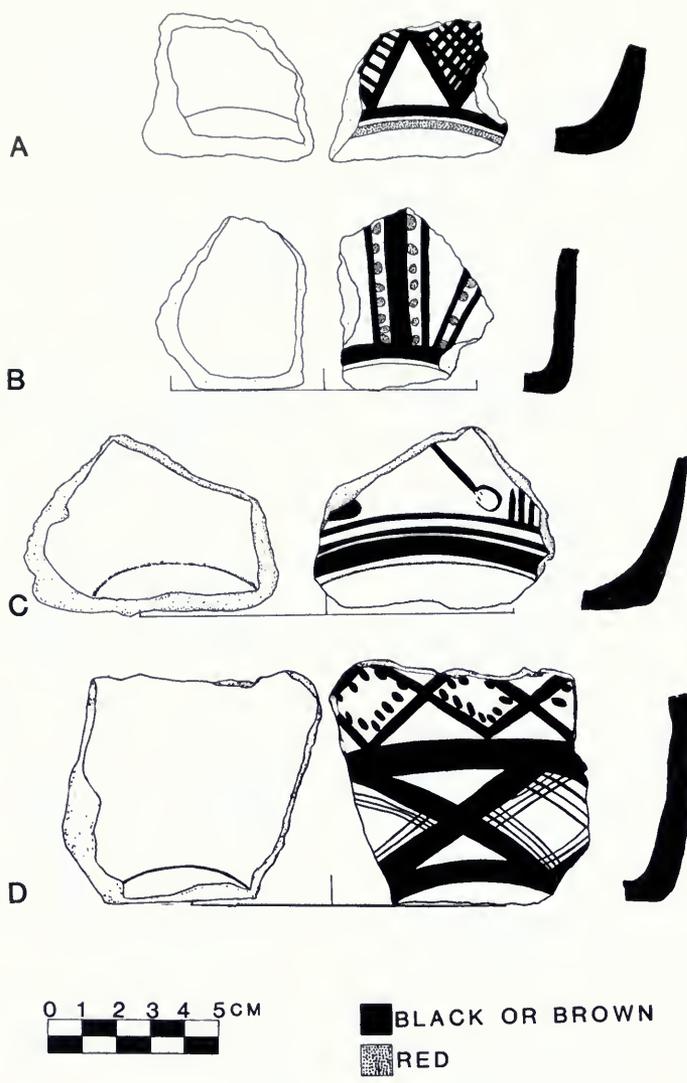
DRAWING 2-27. Common Colcha bowl designs.



DRAWING 2-28. Common Colcha bowl designs.



DRAWING 2-29. Common Colcha jar designs.



DRAWING 2-30. Colcha straight-sided drinking vessels.

Ceramics of the Middle Horizon (A.D. 550–1000)

The Middle Horizon encompasses a broad span of time during which much of the central and south central Andean highlands came under the control of two great states, Wari and Tiwanaku. Current research suggests that the Wari began to expand from their traditional power base in the Ayacucho region of Peru around A.D. 550. Excavations at Wari sites outside the Ayacucho region indicate that state expansion continued through at least A.D. 850, after which the state appears to have collapsed. Less is known concerning the development of Tiwanaku; however, it seems that by A.D. 300 the city of Tiwanaku, near the southwestern shore of Lake Titicaca in Bolivia, was of considerable importance. Expansion of Tiwanaku may have begun around A.D. 500 and waned, like Wari, near the end of the first millennium (Kolata, 1993, pp. 85–86).

Researchers have long noted the presence of Wari-style materials in the Cuzco region, and it is generally recognized that the Wari controlled the Cuzco Valley for several centuries (McEwan, 1987, 1989, 1991). Furthermore, when Rowe established the first Cuzco ceramic sequence in 1956, he realized that local cultures in the region must have produced ceramics during the Wari occupation and that some of these styles would have been influenced by Wari ceramic traditions. One of these local, Wari-related styles was identified and called “Lucre” by Chávez Ballón (Rowe, 1956, p. 142; McEwan, 1989, p. 55). This style remains poorly understood, and there are only a

few published examples of it (McEwan, 1984, pp. 13; 15, 1987, pp. 58, 102–104).¹

Ceramics from the Province of Paruro have helped to define other styles that were manufactured in the Cuzco region during the Middle Horizon, including Arahuaq, Qotakalli, and perhaps Ccoipa. Furthermore, ceramics from the Province of Paruro indicate that some degree of Tiwanaku influence was felt in the Cuzco region during this period.

Wari and Wari-Style Ceramics

Wari influence in a region can be inferred from the presence of Wari, Wari-style, and Wari-related ceramics in the archaeological record. Definitions and explanations of these three terms are necessary before an analysis of the Paruro materials can begin. For the purposes of this study, “Wari ceramics” are characterized as ceramics that were actually produced in the Ayacucho area and were later imported into the Cuzco region. These include the Ayacucho styles of Chakipampa, Ocos, Viñaque, and Rubles Moco (Knobloch, 1991; Glowacki, 1996). “Wari-style ceramics” are de-

¹ It should be noted that both Chávez Ballón and Barreda Murillo have named different ceramic styles of the Cuzco region “Lucre.” Chávez Ballón’s “Lucre,” as reported by Rowe (1956, p. 142), is a Wari-related style, where Barreda Murillo’s (1973, 1991) “Lucre” is a Killke-related style.

defined as styles of ceramics that imitate the style of one of the above-mentioned Wari ceramics but were not produced in the Ayacucho region. An example is the Ocros-style ceramics of Pikillacta (Knobloch, 1991, pp. 253–254), which imitate the Ocros ceramics of the Wari homeland but were presumably produced in the Cuzco region. Finally, “Wari-related ceramics” are ceramic styles that were influenced by Wari ceramics but do not directly imitate them. The clearest case in the Cuzco region is that of Arahua ceramics, a Cuzco ceramic style that reflects features of Wari ceramics and Wari-style ceramics.

Wari influence in the Cuzco region was first suggested by Theodore D. McCown and Rowe in the early 1940s (Rowe, 1944, p. 53). It was confirmed by Chávez Ballón and Rowe in the early 1950s during their examination of excavation and surface collections from a number of archaeological sites east of the city of Cuzco (Rowe, 1956, p. 142). The most important information came from the site of Batán Orco, a small knoll that juts out into the Vilcanota River Valley near the town of Huaró (Reichlen, 1954; Rowe, 1956, p. 142). The discovery by looters of an elite tomb at Batán Orco in 1952 brought the site to the attention of Cuzco officials as well as of the general public (Comercio, 1952a–k; Reichlen, 1954). Chávez Ballón (pers. comm. 1990) dug at the site that same year, but his collections were destroyed before he could finish his analysis. Additional excavations were conducted at Batán Orco by Barreda Murillo in 1952 (Barreda Murillo, 1973), and surface collections were made there by Patterson and Rowe in the 1960s (Patterson, 1967). Initially the finds at Batán Orco were classified as Tiwanaku related (Reichlen, 1954). Further examination of the materials by Chávez Ballón and Rowe suggested, however, a closer relationship to the Ayacucho state, Wari, than to Tiwanaku. This conclusion is supported by recent work at Batán Orco by Zapata (pers. comm. 1992, 1997), which revealed an elite cemetery with numerous Wari-related vessels.

The center of Wari influence for the Cuzco region was the site of Pikillacta, located in the Lucre Basin approximately 30 km east of the city of Cuzco. This well-preserved site was visited by Cieza de León (1976, p. 261 [1551, Pt. I, Ch. 97]) soon after the European invasion, and centuries later by Squier (1877, pp. 419–422) who commented on its large size and apparent antiquity.²

Among Pikillacta’s many notable features are walls that once stood 5 m high and a central zone of structures approximately 500,000 m² in area. The site is constructed on an impressive grid system containing more than 700 individual buildings (McEwan, 1987, p. 24, 1991, p. 93).

Looting at the site in the early 1920s produced two caches of turquoise figurines, the subject of a recent study by Anita Cook (1992). Several individuals have conducted research at the site, including Harth-Terrè (1959), Sanders (1973), and Barreda Murillo (1973, 1991). Recent work at Pikillacta by McEwan (1983, 1984, 1987, 1991) has produced a site map. According to McEwan, Pikillacta most likely functioned as the southern provincial administrative center for the Wari empire and was supported by satellite communities in the Lucre Basin. Excavations by McEwan in Pikillacta and in trash middens outside the massive city walls indicate that its occupants used several different Wari, Wari-style, and Wari-related ceramics (Knobloch, 1991, p. 253; Glowacki, 1996) as well as a few exotic vessels imported from Nazca and Cajamarca (McEwan, 1990; Glowacki, 1996). Most of the decorated vessels of the site can, however, be classified as Ocros style, which is characterized by a light orange slip (Knobloch, 1991, p. 253; Glowacki, 1996).

A detailed analysis of the ceramics from Pikillacta has just been completed by Mary Glowacki (1996). It provides a ceramic baseline with which the Wari-style and Wari-related ceramics from other sites in the Cuzco region can be compared. Within her study, Glowacki also discusses many of the styles that are presented in this study and presents her views on their evolutionary sequence.

Pikillacta is not the only site in the Cuzco region to yield Wari and Wari-style materials. The site of Choquepuquio, located some 2 km west of Pikillacta, contains a series of massive structures and Wari-style ceramics (Gibaja Oviedo, 1973, 1983; McEwan, 1983, 1984, 1987). McEwan (1984, 1987) has also found a number of small sites in the Lucre Basin that contain Wari and Wari-style ceramics. Other researchers have reported finding Wari-style materials elsewhere in the Cuzco region. These include the sites of Batán Orco, 12 km southeast of Pikillacta, and Ccoto-

² Both Cieza de León and Squier called Pikillacta “Muyña.” Squier (1877, pp. 419–422) referred to the Inca gateway of the Cuzco Valley, currently known as “Rumi Colcha,” as “Piquillacta.” Cieza de León (1976, p. 261 [1551, Pt. I, Ch. 97]) mentions Rumi Colcha, but does not give it a name.

cotuyoc, near Urcos. There are other sites containing Wari-style materials in the nearby Andahuaylillas and Huarro Valleys (Zapata, pers. comm. 1992, 1997). Moreover, Wari-style ceramics have been found near the city of Cuzco at Coripata (Zapata, pers. comm. 1991), Arahauy (Torres Poblete, 1989), Aqomoqo, Qotakalli, and Wimpillay (Espinoza Martínez, 1983), west of Cuzco in the Plain of Anta,³ and to the south in the Province of Paruro (Bauer, 1992a; p. 155 n. 16).

Wari and Wari-style materials have also been reported elsewhere in the Department of Cuzco. Rowe and his colleagues found Wari-style ceramics at several sites near Sicuani (Rowe, 1956, pp. 142–144). Sergio Chávez (1985, 1987) reported on an elaborate collection of 141 Wari-style metal objects from the Pomacanchi area. Within this collection were also two ceramic vessels, one of which was classified by S. Chávez (1987, p. 8) as Chakipampa B; the other appears to be a local style. Excavations conducted by Wilbert San Román Luna (1979, 1983) at the site of K'ullupata in Pomacanchi have yielded various Wari-style artifacts. Other isolated Wari-style finds have been recovered still further to the southeast of Cuzco in the Province of Chumbivilcas by S. Chávez (1987, 1988) and Lantaron Pfoccori (1988) and in the Province of Espinar by Meddens (1989).

Despite the growing awareness of the importance of the Wari influence in the Cuzco region, few examples of Wari or Wari-style artifacts found in this area have been published. Among those currently available are samples from McEwan's (1983, 1984, 1987, 1991) and Barreda Murillo's (1973, 1991) excavations at Pikillacta, Espinoza Martínez's (1983) material from Aqomoqo, Torres Poblete's (1989) work at Arahauy, as well as Chávez's (1987, 1988) and San Román Luna's (1979, 1983) work in Pomacanchi. It should be noted, however, that S. Chávez's (1987, p. 17) study of a large collection of Wari-style metal objects recovered in the Pomacanchi area suggests that these objects may also reflect some Tiwanaku influence. Furthermore, S. Chávez indicates that he has found a provincial Wari-style beaker from Chumbivilcas that also exhibits some Tiwanaku features. These findings emphasize that there were most certainly people living in transitional zones, such as the high altiplano regions

south of Cuzco, who were not directly controlled by either Wari or Tiwanaku but were influenced by both of these emerging states.

Ocros-Style Ceramics of the Province of Paruro

Research in the Province of Paruro recorded examples of various Wari-style ceramics at nine sites. At all but one of these sites, the Wari-style materials represented an extremely small percentage of the ceramic inventories (generally between one and four Wari-style shards per site). The exception was the site of Muyu Roqo (432), located on a mountain slope immediately west of the town of Paruro. Surface collections from this small site, which measures approximately 50 × 50 m, provided a large number of Ocros-style fragments. Test excavations at the site yielded hundreds more, as well as nearly 2,000 camelid bone fragments. Because this site is exceptional, its ceramic remains are discussed here.⁴

Ware

The ware of the Ocros-style ceramics recovered at Muyu Roqo is made up of a fine fabric that includes a moderate quantity of minute inclusions ranging in color from white to dark gray. The ware varies from a light orange to a dark brick red, or sometimes is a dull black as a result of firing in an oxygen-reducing atmosphere.

Vessel Forms, Design Elements, Color, and Surface Treatment

The interior and exterior of most of the Ocros-style materials at Muyu Roqo are covered with a thin slip of smooth body clay. The interior and exterior of the bowls are carefully burnished. The exterior and approximately the upper third of the interior of the drinking vessels are also burnished. The interior, and occasionally the exterior, of the bowls and the exterior and the upper lip portions of the painted drinking vessels are colored red (Munsell 2.5YR 5/6), or what can also be called light orange. The designs drawn over this red

³ In 1992, the Casa de Garcilaso had several fragments of Wari ceramics collected from the Plain of Anta on display.

⁴ For a comparison of Muyu Roqo ceramics and those found at Pikillacta; see Glowacki (1996).

(light orange) background were placed on the vessels with considerable care.

As will be discussed in greater detail below, the painted Ocros-style pieces of Paruro exhibit a limited number of design elements and motifs, and the designs and vessel shapes in the collection are uniform. The most frequent design elements on drinking vessels are horizontal bands, which may be either painted with one solid color or contain a latticework that is normally white. Bowls, on the other hand, are frequently decorated with rectangle pendants in a variety of colors, looping designs, or dependent cross-hatched triangles.

A wide range of colors is used on the Ocros-style materials, including cream (or white), yellow (or orange), gray, and burgundy-maroon. Black is also used, but only in thin lines that either outline bands and pendants or pass through the center of the pendant rectangles in the bowls.

Beside painted fragments, surface collections and excavations at Muyu Roqo provided a large number of black, incised drinking vessel fragments decorated with horizontal bands and incised circles. Similarly incised vessels have not been reported in large quantities at other Cuzco area sites yielding Wari, Wari-style, or Wari-related materials.

Test Excavation Results

The surface materials collected at Muyu Roqo were markedly different from those recovered at other archaeological sites in the survey region. Rather than providing just a few or, more commonly, no Wari-style artifacts, the slopes of this small mountain shelf yielded an unprecedented number of relatively high-quality Ocros-style materials. Test excavations were dug there during 1987 to better understand the nature of this unusual site. These excavations provided no evidence of stratified remains, although they did yield a large number of ceramic fragments (more than 1,000) and large mammal (most likely camelid) remains (more than 1,900).⁵ Although some isolated Chakipampa-style pieces were identified in the excavation collection, the vast majority of the fragments were from Ocros-style vessels.

The vessel shapes identified in the Muyu Roqo inventory are limited. A small number of incurving bowls, made of either orange or black ware

(Drawing 3-1), were found, as were the remains of some earthenware jars. The rest of the reconstructible vessels were from straight-sided, flaring bowls and tall drinking vessels, the latter of which were either painted or incised.

The straight-sided, flaring bowls of Muyu Roqo have flat bases. The angle of the rims are fairly constant and contain finely rounded but slightly thinned lips. Occasionally, on what appear to be large bowls, the lips are flattened. The exterior of the bowls are not decorated, other than being occasionally painted orange. The interiors of the bowls display a variety of designs. The most common are pendant rectangles, outlined in black, which can contain a single black curving or straight line through their center. The pendants are generally colored white or yellow (or orange), although black and gray are occasionally used. While the majority of the pendants are monochrome, examples of bi- and polychrome pendants have been noted (Fig. 3-1, Drawings 3-2 through 3-4).

Other designs found on the interiors of the straight-sided, flaring bowls include a white, dendritic, split-V pattern (Drawing 3-2B) and a series of white U-shaped curves (Drawing 3-3B) that border the interior rim. The U-shaped curves appear alone or on vessels with the pendant rectangle motif. A large cross-hatched pendant triangle, generally painted in white, has also been noted on several bowl fragments.

Besides straight-sided, flaring bowls, work at Muyu Roqo recovered another vessel type in large numbers that has not been described elsewhere. These are drinking vessels, at least 15 cm high, with slightly flaring rims. The rims of the vessels sometimes narrow at the top and are rounded. Their bases are flat, and their sides tend to be straight to slightly concave. The exterior surface is always slipped, and the upper interior surface of the vessel is frequently slipped.

The drinking vessels recovered from Muyu Roqo were divided into two general ware categories, orange and black. The upper two-thirds of the orange-ware drinking vessels is decorated with geometric designs. Although a variety of orange-ware drinking vessels designs were noted in the collection, there is a dominant decorative pattern (Drawings 3-5 through 3-8). This pattern includes a narrow, horizontal gray band, outlined in black approximately 0.5 cm below the undecorated rim. Below this gray band is a wide horizontal band painted with a repetitive "X-and-dot" design, which is generally executed in white (Fig.

⁵ Bone fragments over 2 cm in length are included in this count.



FIG. 3-1. Straight-sided flaring bowls from Muyu Roqo.

3-2, Drawing 3-5C). The lower, decorated section of the drinking vessel is covered by two to four bands, outlined in black (Fig. 3-3). A number of colors are used in these bandings, including white, gray, yellow, orange, and burgundy-maroon.

The black-ware drinking vessels are similar in shape to the orange-ware ones, although their rims appear to be slightly more flared (Drawings 3-9 through 3-11). The use of decorative space on the black-ware and orange-ware drinking vessels is similar; the upper two-thirds of the exterior is decorated, while the lower third remains unmodified. The exteriors of the black-ware drinking vessels are incised with fine lines. These drinking vessels exhibit a wide, dominant horizontal band 1–2 cm from the rim. This band contains a series of incised circles, concentric circles, half circles, triangles, and dots (Fig. 3-4). The composition of this band varies. A narrow band is found below the dominant one. This lower band may be free of decorations or it may have an additional series of designs. In a few cases, the dominant band of these vessels is decorated in white with the same X-and-dot design found on the orange-ware ves-

sels (Drawing 3-12). In still rarer cases, the dominant band is actually raised from the surface of the vessel (Drawing 3-9B).

The Muyu Roqo ceramic collection suggests that the site may have had an unusual function. The proportion of finer-ware (i.e., orange and black) to earthenware vessels is different from what is found at most domestic sites, where earthenware vessels greatly outnumber the finer-ware vessels. At Muyu Roqo, only 16% of the shards were earthenware, with the remaining 84% divided between the finer orange-ware (60%) and black-ware (24%). Furthermore, bowls and drinking vessels dominated the finer-ware vessel forms. Of the finer ware, 19% of the fragments could be attributed to bowls and 49% to drinking vessels. The remaining 32% included pieces that were either too small to determine their original vessel form or were other vessel shapes, such as incurving bowls. The high percentage of finer-ware items at Muyu Roqo suggests that Muyu Roqo was a nondomestic site. The high percentage of bowls and drinking vessels implies that extensive eating and drinking activity took place there. This

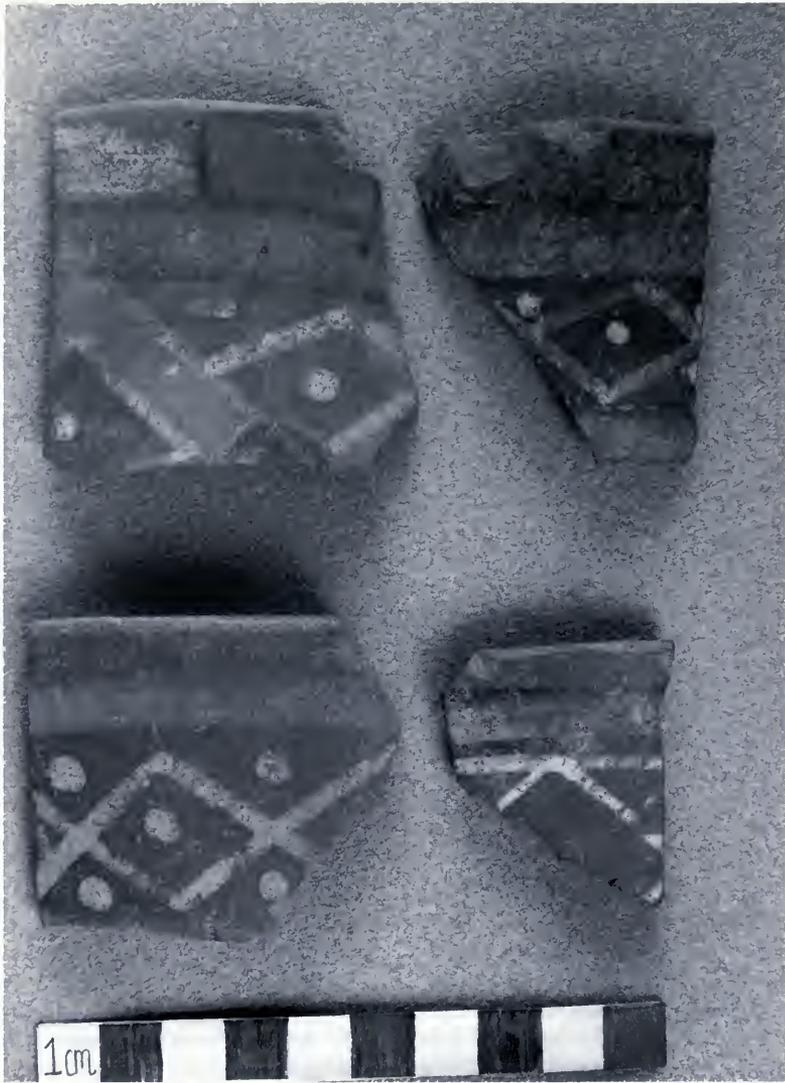


FIG. 3-2. Orange-ware drinking vessels from Muyu Roqo.

interpretation is reinforced by the great number of large mammal bones recovered at the site. In sum, although the exact nature of Muyu Roqo cannot be determined until additional excavations take place there, the current evidence suggests that this site was used for ritual activities during the Middle Horizon.

Dating

Dating at Muyu Roqo is not yet possible owing to the lack of carbon samples. McEwan's (1987, pp. 42, 43, 80, 89) work at Pikillacta, however,

does provide a number of radiocarbon samples to date the Wari occupation of the Cuzco Valley. Two samples from the lowest excavation levels of Pikillacta yielded radiocarbon dates of 1430 ± 90 B.P. ([TX 4751] A.D. 520 ± 90) and 1350 ± 60 B.P. ([TX 4750] A.D. 600 ± 90). As noted by Knobloch (1991, p. 253) and Glowacki (1996), these excavations also provided examples of Ocos-style ceramics. Two additional samples from vines within the matrix of walls yielded radiocarbon dates of 1140 ± 60 B.P. ([TX 4247] A.D. 810 ± 90) and 1100 ± 60 B.P. ([TX 3996] A.D. 850 ± 60). These radiocarbon dates suggest that initial occupation of Pikillacta may have occurred be-



FIG. 3-3. Orange-ware drinking vessels from Muyu Roqo.

tween A.D. 600 and 650, and construction continued until at least A.D. 800 or 850. McEwan (1987, p. 80) believes that the abandonment of Pikillacta might have occurred as late as A.D. 1000. Accordingly, until more dates become available, the period of Wari influence in the Cuzco region is tentatively established at A.D. 600–1000.

Distribution

Only nine sites in the survey area provided Ocros-style ceramics, and with the exception of Muyu Roqo, each yielded an extremely small number of such fragments (Map 3-1). Nevertheless, the distribution pattern of sites with Ocros-style ceramics is unlike that found for any other ceramic style in the Province of Paruro. Six of the nine sites are located in the Paruro Valley, while the other three are situated to the south of the Apurimac River.

The Lucre Basin, which holds the Wari center of Pikillacta, is located approximately 20 km northeast of the Paruro Valley. These two areas

are connected by several large trails; the journey on foot takes 6–8 hours. Although truck transportation between the community of Paruro and the city of Cuzco now dominates the regional exchange networks, some trading still takes place between the inhabitants of Paruro and Lucre. The close clustering of sites containing Ocros-related materials in the Paruro Valley suggests that the Paruro–Lucre exchange networks were more extensive in prehistory. If this is the case, then we can expect to find Paruro-produced styles, such as Colcha and perhaps Ccoipa (see below), at sites in the Lucre Basin.

Arahuay Ceramics

Arahuay ceramics take their name from the site of Arahuay, located approximately 2 kilometers south of Cuzco on the valley slope. The site was excavated by Nilo Torres Poblete in 1989, and the style was defined in his Licenciado thesis (Draw-



FIG. 3-4. Black-ware incised drinking vessels from Muyu Roqo.

ing 3-13).⁶ Further examples of Arahua ceramics have been identified in the ceramic collections of Pikillacta (McEwan, 1990; Glowacki, 1996)⁷ and by Zapata (pers. comm. 1994, 1997) in tombs with Wari-related vessels at Batán Orco. Although additional research is needed to further define this new style, enough is known to conclude that there is a light presence of Arahua ceramics in the Province of Paruro.

A variety of vessel forms have been identified in Arahua collections, but the most common fragments are from straight-sided, flaring bowls (Drawings 3-13 and 3-14; Torres Poblete 1989, pp. 59–61, 94–95, Fig. 16). Some of the bowls are decorated with broad horizontal red bands, outlined with black lines, running several centimeters below the rim. Areas between the horizontal red band and the rim have been marked off with vertical red bands outlined with black lines.

⁶ Excavations near Arahua at the site of Tarawi were conducted by Rowe and Lyon in 1975 (K. Chávez 1980, p. 215; Lynch 1975, p. 230).

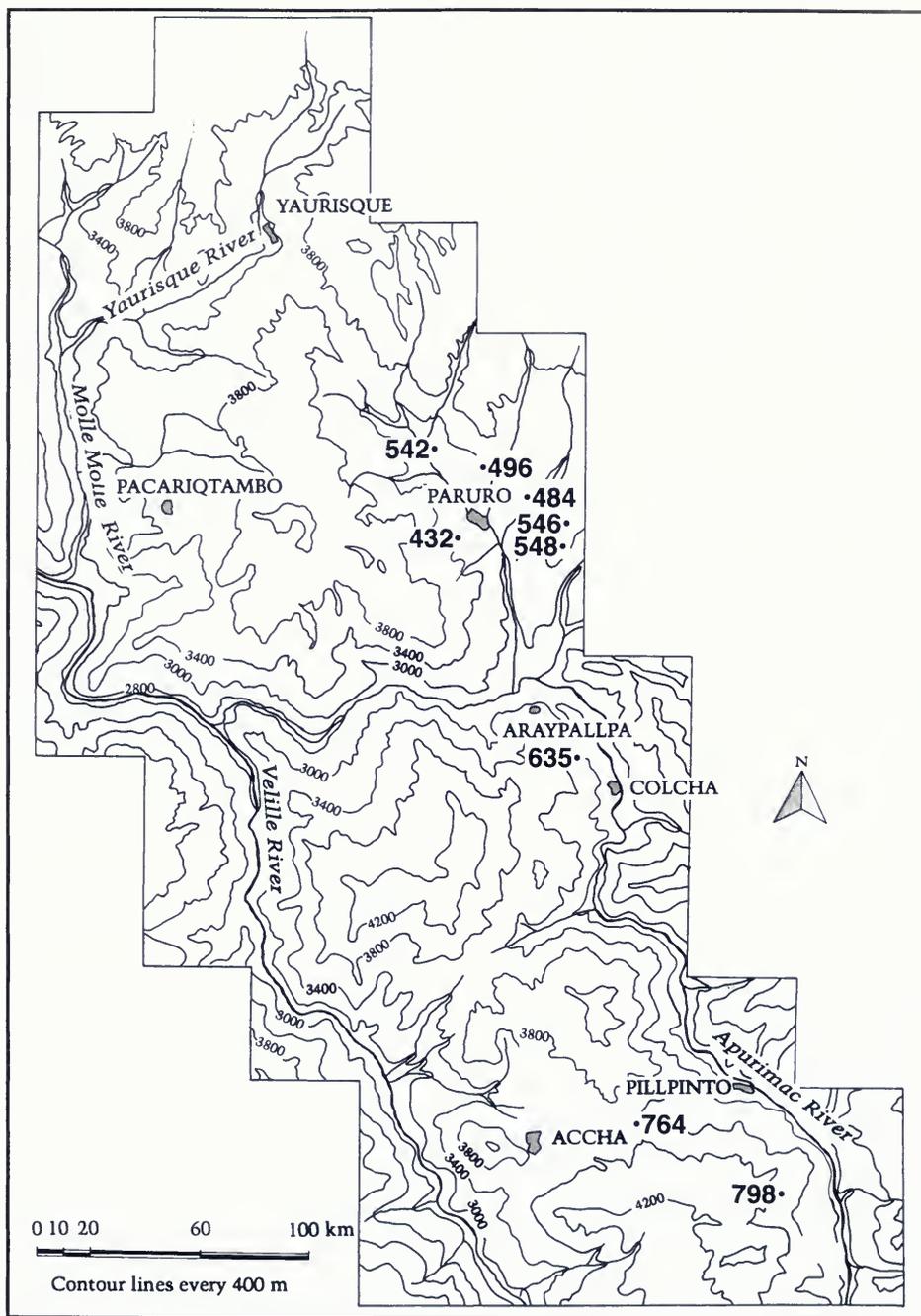
⁷ Glowacki (1996) prefers to call this style Arahua/Wamanga.

Small decorative motifs can also be found on Arahua ceramics. Checks are common; however, curving lines and X's have also been noted. The interior of the bowls can also be decorated with pairs of vertical straight black lines with a curving red line between them.

Both the design compositions found on Arahua ceramics and the vessel shapes are reminiscent of Ocros-style ceramics, particularly the straight-sided, flaring bowls. There are also some similarities between Arahua and Killke ceramics. One of the most notable characteristics of Killke ceramics is the broad red band outlined in black. This same feature also appears to be a distinctive characteristic of Arahua ceramics. Outlined bands are found on both Arahua jars and bowls. Like their counterparts in Killke vessels, these bands run horizontally and vertically and at times are used to define panels that are filled with geometric designs.

Dating

Arahua ceramics have been recovered from two sites in the Cuzco region in Wari contexts:



MAP 3-1. Distribution of sites with Wari-style ceramics.

Pikillacta (McEwan, 1990; Glowacki, 1996) and Batán Orco (Zapata, pers. comm. 1994, 1997). The stylistic similarities that are shared by Ocros-style and Arahuay materials imply that Arahuay ceramics were influenced by Wari ceramic

traditions and that they were produced during the Wari occupation of the Cuzco region.

Arahuay ceramics introduced to the Cuzco region include vessels decorated with broad red bands outlined with black lines. The use of out-

lined red bands continues in later Killke as well as in Classic Inca ceramics. Based on these observations, I propose the following hypothesis: (1) the production of Arahua ceramics began after the establishment of a Wari presence in the Cuzco region, and (2) Arahua ceramics influenced, or could be the direct antecedent of, Killke ceramics. Furthermore, if Killke ceramics did develop from Arahua traditions, I would then propose that the transition between Arahua and Killke ceramics occurred after the abandonment of Pikillacta in the early part of the Late Intermediate period.

Distribution

Fragments of Arahua ceramics have been recovered in surface and excavation contexts from eight sites in the Paruro region (Map 3-2). Most notable is the recovery of Arahua ceramics from beneath Inca remains at Maukallaqta (Bauer, 1992b; Drawing 3-17A–B). The number of sites in the Province of Paruro with Arahua ceramics may increase as this new style becomes better understood.

Because Arahua is a newly identified ceramic style, little is known concerning its distribution in the Cuzco region. The type site of Arahua, located just outside the city of Cuzco, contains a large number of fragments, and additional remains have been recovered at Pikillacta and Batán Orco. Systematic regional surveys in the Province of Paruro have, however, provided only a few sites with this ceramic style. Although too few sites have been found with Arahua ceramics to define the style's pattern of distribution with certainty, current evidence suggests that the largest sites with this ceramic style are located in the Cuzco Valley and the Lucre Basin. Accordingly, it is possible, although highly speculative, to propose that Arahua ceramics were produced somewhere within the valley area that connects Cuzco and Pikillacta and from there were traded southward into the Province of Paruro.

Qotakalli Ceramics

Qotakalli ceramics, another Middle Horizon ceramic style, were first identified by Lyon and Rowe (1978). The type site is situated south of the modern airport across the Huatanay River. A description of Qotakalli ceramics was published

by Barreda Murillo in 1982. Since that time, Qotakalli ceramics have been found at several sites in the Cuzco region (Espinoza Martínez, 1983; Valencia Zegarra, 1984; McEwan, 1984, p. 12, 1987, pp. 19, 58, 98, 99, 1990; Torres Poblete, 1989, pp. 56–59, 92–93, Fig. 14; Zapata, pers. comm. 1994, 1997; Glowacki, 1996).

Description

Lyon and Rowe (1978), and later Barreda Murillo (1982), have described the Qotakalli ceramics collected during their investigations in the Cuzco region. Building on these works, and on the large sample of Qotakalli materials recovered during archaeological research in the Paruro region, I have provided an expanded description of this style.

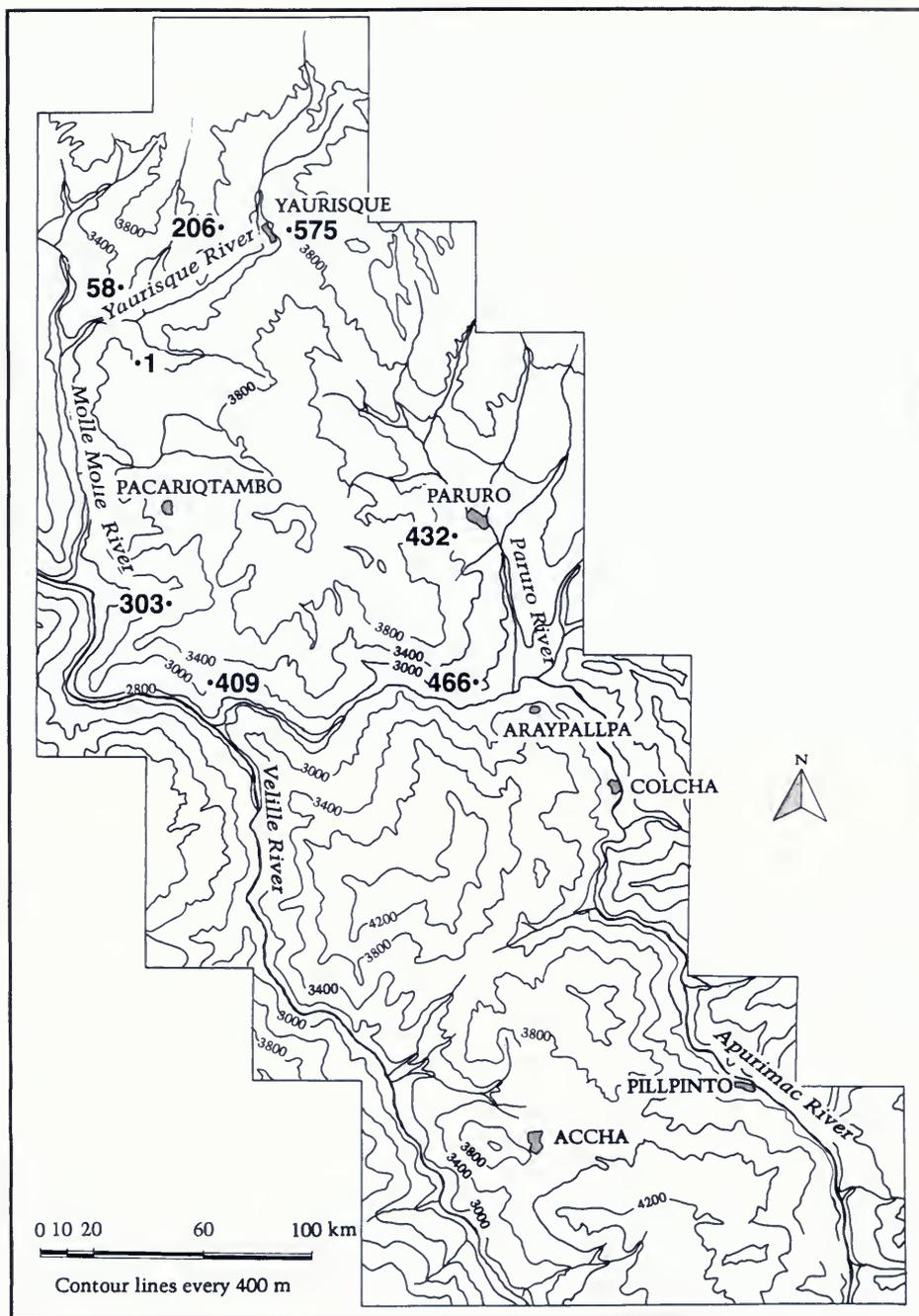
Ware

The ware of Qotakalli ceramics varies in that it tends to be composed of a fine fabric with minute white and gray inclusions. The fine nature of the clay paste suggests that a ground temper was added (Lunt, pers. comm. 1989). It is a medium-hard ware that frequently fires to a light orange or pink.

Design Elements, Color, and Surface Treatment

Qotakalli ceramics contain a limited variety of geometric decorations (Drawings 3-15 and 3-16). The most common elements are straight horizontal and vertical lines, zigzagging lines, diamonds, triangles, and dots (Fig. 3-5). Several variations of Qotakalli ceramics have been identified, including monochromes (black on cream or, more rarely, red on cream [Drawings 3-17 and 3-18]) and bichromes (black and red on cream). The major designs are generally defined in black, while the minor ones are executed in either red or black. The straight and zigzagging lines tend not to appear singularly but in parallel groups of two to five lines. In the bichrome vessels, these lines frequently alternate between black and red. The interior of the diamonds is commonly cross-hatched or contains nested diamonds. The interior of the triangles is at times painted solid, at times filled with nested triangles or dots.

The exteriors of most currently recognized Qot-



MAP 3-2. Distribution of sites with Arahuay ceramics.

akalli vessels have a cream or white slip and are well burnished. The slip provides a flat surface on which the decorations are painted and ensures relatively strong color-tone contrasts. Although the

color of the black pigment does not differ greatly between fragments, the color of the red pigment varies from pink to red to dark orange. The lines used to form the designs can be as wide as 0.5



FIG. 3-5. Common Qotakalli designs.

cm, but they are more typically 0.2–0.3 cm in width. In general, the bichrome examples tend to have thinner lines than the monochrome ones and are more extensively burnished. Many of the designs on Qotakalli ceramics are executed with considerable care, and there is little overlapping of lines or design motifs.

Vessel Forms

Lyon and Rowe (1978) and Barreda Murillo (1982) indicate that frequently found Qotakalli vessels include bowls, deep dishes, and flat-based pitchers with round bodies and straight necks. Perhaps the most distinct vessel form is a steep-sided, tripod bowl with legs that vary in length from 1 to 3 cm (Drawing 3-19A–C). The base of these bowls is rounded and the sides are slightly flared. Another common vessel is similar to the steep-sided, tripod bowl except that it contains a flat base and stands on a rim that is approximately 0.5 cm high (Drawing 3-19D–E). These steep-sided, rim-based bowls are interesting be-

cause this form is relatively rare in Wari ceramic collections but is present in many Tiwanaku collections.

If broken, the upper portions of the two steep-sided bowl forms cannot be distinguished (Drawings 3-20 and 3-21). The rims of both steep-sided bowl forms may continue the gentle outward slope of the vessel side or may display a more pronounced flair. The lips generally terminate in a fine point, like the lips of most Qotakalli vessels. The exteriors of the steep-sided bowls tend to be covered with decorations. The interior rims are frequently decorated with nested or cross-hatched triangles, which may alternate in color (Fig. 3-6). More rarely, the entire interior surface of the steep-sided bowls is covered with geometric designs.

Another common bowl form is gourd shaped, with straight to inward-curving sides and a small, flat or slightly curved base (Drawing 3-17A). The exterior of this type of bowl is frequently decorated on the upper half, while the interiors are not decorated.

Qotakalli ceramic inventories can also include

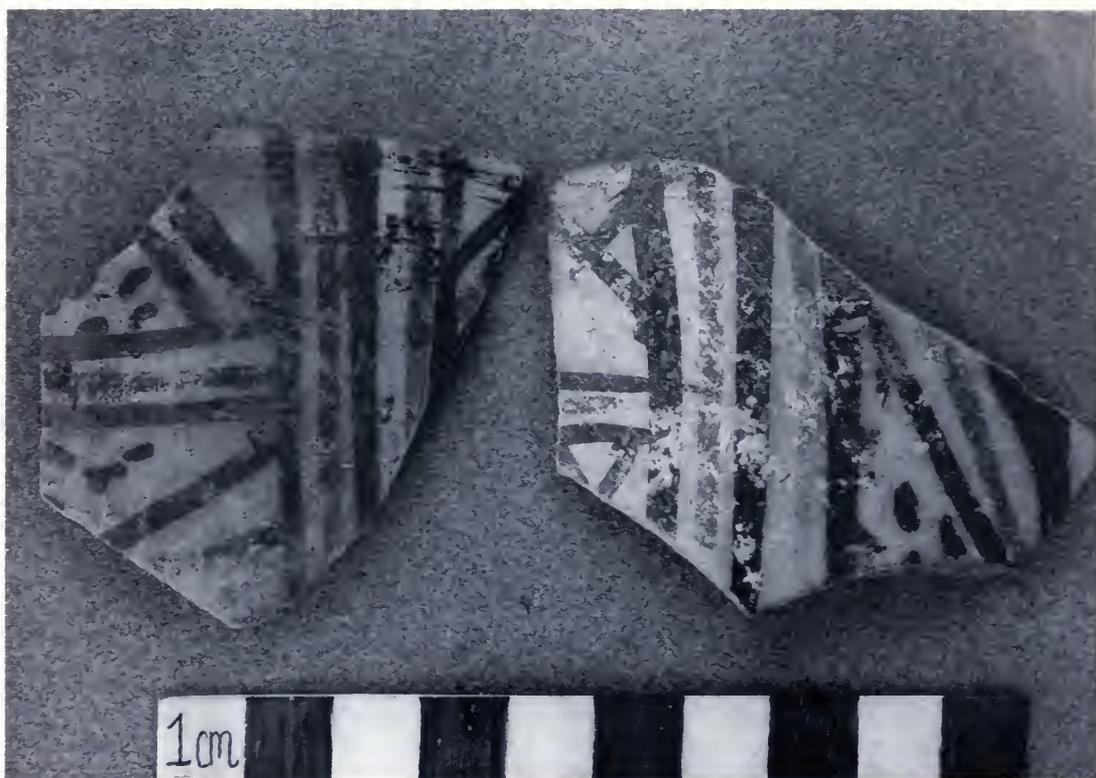


FIG. 3-6. Qotakalli rims from steep-sided bowls.

large vessels with modeled and applied humanistic features that are painted in two colors with straight or curving lines (Barreda Murillo, 1982, p. 21). The ware of these vessels tends to be coarser than that of other Qotakalli vessels. Furthermore, these modeled vessels are generally not covered with a cream or white slip.

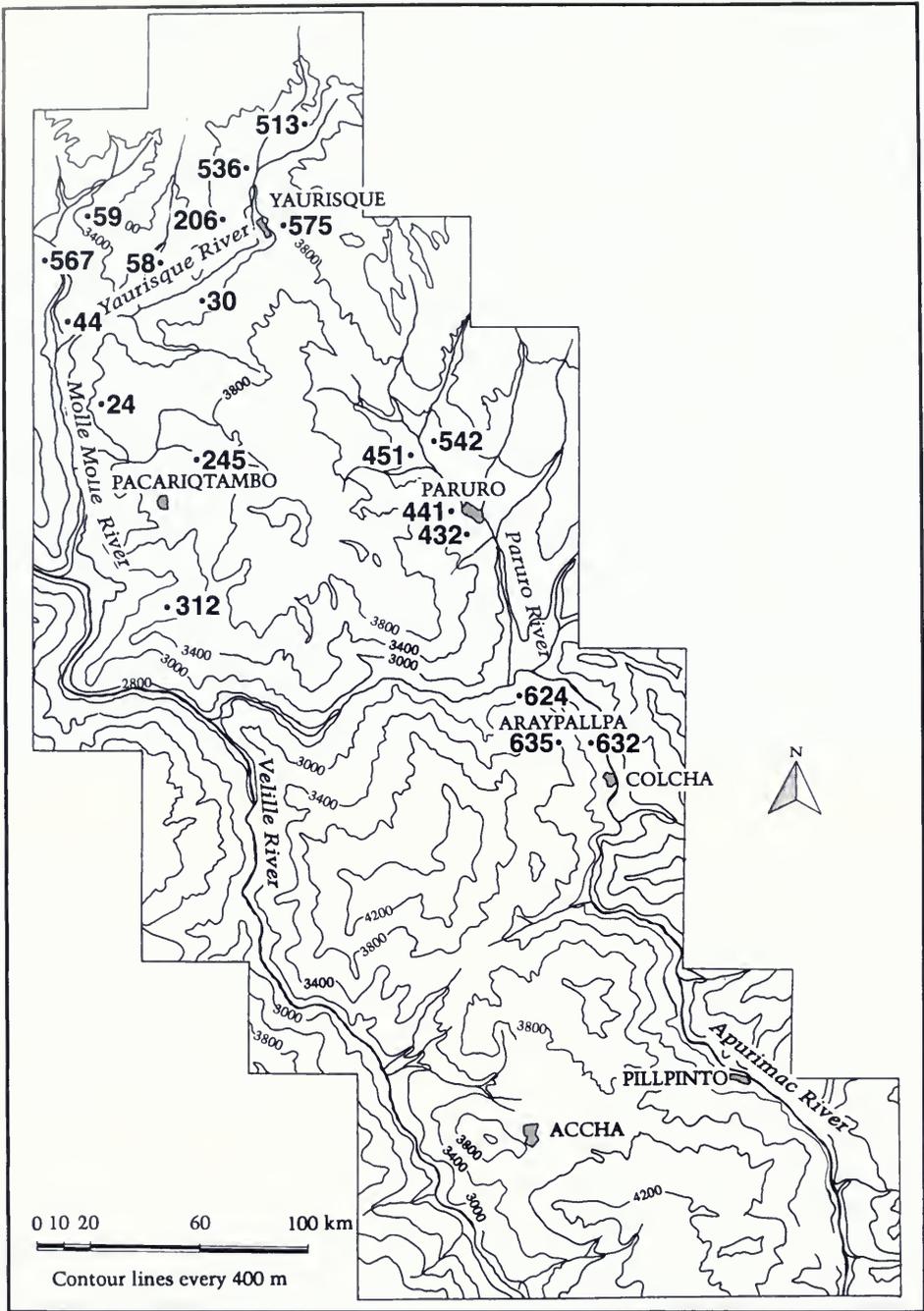
Dating

Although Qotakalli ceramics have been found at numerous sites in the Cuzco region, there is little information on their production dates. Barreda Murillo (1982, p. 14) indicates that he recovered Qotakalli ceramics while excavating at Pikillacta. The presence of Qotakalli materials at Pikillacta has been confirmed by McEwan (1984, p. 12, 1987, pp. 98, 99, 1990) and Glowacki (1996). In the course of his work at this large Wari center, McEwan found examples of monochrome (black on white) Qotakalli ceramics on the floor of a few structures. Excavations in trash middens on the edge of the ancient city also produced ex-

amples of both monochrome and bichrome Qotakalli ceramics (Glowacki, 1996). Additional Qotakalli finds have been recovered by Zapata at Batán Orco in burials that also contained Wari-related materials. The recovery of Qotakalli fragments in the structures and refuse middens of Pikillacta and in burials at Batán Orco suggests that this style was produced during the Wari occupation of Cuzco. More precise dating awaits further research on this important style.

Distribution

Qotakalli ceramics were found at 19 sites in the Province of Paruro (Map 3-3). The density and distribution of sites containing Qotakalli-ceramics are markedly different from those of sites containing other Middle Horizon pottery styles. The density of the Qotakalli sites is greatest in the northern sectors of the research region, near Yaurisque, and declines as one progresses to the south. Sixteen of the Qotakalli sites are located north of the Apurimac River, which divides the survey re-



MAP 3-3. Distribution of sites with Qotakalli ceramics.

gion in half. The other three sites are situated along the southern bank of the Apurimac. No examples of Qotakalli ceramics were found in the southern sections of the survey region, near Ac-

cha or Pillpinto. Although the number of Qotakalli sites is too small for statistically valid density-distance tests to be conducted, the concentration of Qotakalli sites in the northern part of the region

suggests that ceramics of this style may have been traded into the Province of Paruro from the Cuzco Valley.

Ccoipa Ceramics

Another possible Middle Horizon ceramic style is Ccoipa. Ccoipa ceramics were first identified in 1984 at a site immediately south of the village of Ccoipa (District of Pacariqtambo) and were named after the village (Bauer, 1989). The Ccoipa type site (312) is situated on a ridge south of the church of Ccoipa. This small site, measuring less than 2,500 m², is cut by the only road that passes through the village. The northern slope of the ridge rises up from the edge of the village. This slope, currently under cultivation, provided the best area for surface collections during the 1984–1985 field seasons in the region. The top of the ridge and its other slopes are covered with grass and eucalyptus trees. These areas yielded few fragments.

Description

A definition of Ccoipa ceramics is developed from surface collections made at the village of Ccoipa and from other samples of Ccoipa ceramics recovered during survey and excavation work in the Province of Paruro.

Ware

Ccoipa ceramics are composed of a medium-coarse fabric containing some fine- to medium-sized (<1.0 mm) nonplastic inclusions. Most of these inclusions consist of white or cream grains, although black, matte red, or lustrous grains, as well as gold mica, are also present. Occasional large examples of these grains, not exceeding 2.0 mm, have been noted. The oxidized paste color is generally a reddish yellow.

Vessel Forms, Design Elements, Color, and Surface Treatment

Most of the Ccoipa material so far collected consists of straight-sided drinking vessels with nonflaring rims (Figs. 3-7 and 3-8). However,

fragments of drinking vessels with flaring rims, deep, straight-sided flaring bowls, shallow, curve-sided bowls, and global pots have also been identified. Both the interiors and the exteriors of Ccoipa vessels are generally burnished.

Only three colors appear on Ccoipa ceramics—red, black, and white. Of these, red and black are considerably more frequent than white. There is also a limited variety of designs on Ccoipa vessels. The most common designs are sets of nested rectangles alternating in color between red and black. The nesting terminates with a red dot within the innermost rectangle (Drawings 3-22A–B and 3-23A–B). At times this design is rotated 90°, forming sets of diamonds (Drawings 3-23B, 3-24D, 3-27B, and 3-28A, E, and I). The designs on the bowls appear to be more varied than the designs on the drinking vessels (Drawing 3-26).

The lip of Ccoipa vessels is generally painted with a red or black line, and black inverted triangles may be suspended from the rim on the exterior (Drawings 3-24A and C and 3-25A and C). On some of the finest made vessels, the bottoms of the black inverted triangles are outlined in white (Drawings 3-22B and 3-24C). In some examples, a red band, varying greatly in width, is found on the interior rim of the vessel (Drawings 3-22A, 3-23C, 3-24C, and 3-25E), while in others the entire interior surface is painted red.

Another common design is a row of linked, horizontal diamonds (or ovals) formed by the intersecting of two zigzagging lines. The linked diamonds are painted black. Red dots are placed in the centers of these linked diamonds, and occasionally other red dots are placed on their exteriors near the intersection points (Drawings 3-27A, C, and E and 3-28C). The area of linked diamonds is highlighted by wide black or red bands that run above and below them. On a few samples the diamonds are painted on a slightly raised band of clay.

Although nonlinear designs are rare, they do occur (Drawing 3-23C). Animal motifs are also rare; however, one drinking vessel, with red and black llamalike animals encircling its base and with red and black birds (condors?) that hover above the animals (Drawing 3-23D), has been recovered.

The decorations on Ccoipa ceramics are informally applied: the widths of lines vary as they undulate across the vessel surface, corners formed by two intercepting perpendicular lines are often poorly executed, and there is frequent overlapping of design motifs.



FIG. 3-7. Ccoipa straight-sided drinking vessels.

Test Excavation Results

Test excavations at two sites in the Province of Paruro, Rokeccasa (450) and Ccorpina (659), provided important information on Ccoipa ceramics.

ROKECCASA—The site of Rokeccasa is located at the end of a small, steep ridge west of the town of Paruro. There is a terraced area, measuring approximately 20×8 m, near the summit of the ridge on its northern slope. Surface collections were made at the site in 1985 and 1987. These collections provided a few Inca and Killke fragments as well as numerous (more than 60) examples of Ccoipa ceramics.

In 1987 test excavations were conducted at Rokeccasa. This site was selected for excavation over the Ccoipa village site because much of Rokeccasa has never been cultivated, and the site is generally better preserved. Several test squares dug on the slopes of Rokeccasa provided additional examples of Ccoipa materials but no stratified deposits.

Two test excavations were also dug near the center of the terrace area of Rokeccasa, because

this appeared to be the most likely place to find architectural remains. One of these 2×2 m excavations yielded significant information. The first 40 cm of this test pit provided no cultural artifacts. However, at a depth of 41–42 cm scattered ceramic fragments were found, and at slightly lower levels the tops of several stones began to appear. At a depth of 50 cm it was clear that the northeast quarter of this excavation contained a wall foundation. The test excavation was then expanded 1 m north and 1 m east.

The excavations revealed an oval structure (approximately 3×5 m), perhaps with a doorway on its northern side.⁸ A number of burnt earth patches containing flecks of carbon were found on the floor, along with several small ceramic concentrations. One of these concentrations contained the remains of a straight-sided bowl (Drawing 3-

⁸ A shallow pit was found approximately 10 cm below the floor level. This pit contained part of a human pelvis, an articulated right hand, and two articulated feet (the left placed over the right). These remains appear to represent an earlier burial that was partly destroyed with the construction of the oval structure above it.



FIG. 3-8. Ccoipa straight-sided drinking vessels.

29), another yielded two decorated Ccoipa ceramic fragments, and a third concentration contained a spindle whorl. A number of deer bone fragments were also recovered. The largest fragment, found near the northeast "corner" of the building, at the intersection of the wall and the floor, was submitted for radiocarbon dating (accelerator mass spectrometry). The sample provided a radiocarbon age of 730 ± 55 B.P. ([AA 8936] A.D. 1220 ± 55). The modest construction of the structure, the light scatter of bone and ceramic fragments across its floor, and the concentrations of burnt earth suggest that it was a domestic dwelling.

CCORPINA—The site of Ccorpina is situated on a steep ridge that descends to the Apurimac River just west of the community of San Lorenzo. The ridge contains the low foundations of several circular structures and a dense scatter of ceramics. Surface collections at the site in 1987 provided examples of Inca, Killke, Colcha, and Ccoipa fragments. Excavations were conducted there during the same year. These excavations yielded Ccoipa ceramics in a stratum of earth, at a depth

of 61–75 cm, directly below the floor of a structure containing Colcha ceramics.

Dating

The period of Ccoipa manufacture is not well established. As noted above, a bone sample from Rokecassa provided a radiocarbon age of 730 ± 55 B.P., suggesting that Ccoipa ceramics were being produced during the Late Intermediate period. I am uneasy with this relatively late date. Excavations at Ccorpina produced Ccoipa material in a stratum of earth below a structure with Colcha ceramics, suggesting that Ccoipa production began before that of Colcha ceramics. Furthermore, the design motifs of Ccoipa ceramics, especially the nested rectangles of alternating color, support a Middle Horizon classification. Although significantly cruder, the designs of Ccoipa ceramics are more closely related to those displayed on Qotakalli ceramics, dated by excavations at Pikillacta and Batán Orco to the Middle Horizon, than to

the Late Intermediate period styles of Colcha and Killke. From its stylistic qualities and its stratigraphic position in the Ccorpina excavations, I believe that Ccoipa ceramics were produced during the Middle Horizon. This hypothesis needs to be tested through additional excavations and radiocarbon dating.

Distribution

Ccoipa ceramics are relatively unsophisticated in their design and manufacture features. They have been found at 35 sites in the research region (Map 3-4), the majority of which are located in the areas of Yaurisque, Pacariqtambo, Paruro, Colcha, and Accha. These areas contain the best agricultural land in the region and have always supported the largest populations. The widespread presence of this ceramic style in the Province of Paruro suggests that it may have been a dominant style for the region immediately south of Cuzco during the Middle Horizon.⁹

Muyu Orco Ceramics

During survey work in Paruro it became evident that a new ceramic style, characterized by bright white, black, and orange paints over a polished, dark red pigment, was present in the collections. The style was named Muyu Orco, after the site where it was most common (Bauer, 1989). At the close of the project, Muyu Orco ceramics had been recovered from 14 sites in the research region. Since that time, similar ceramics have been recovered from other archaeological sites in the Cuzco region. For example, fragments of what appear to be Muyu Orco ceramics were collected by Héctor Espinoza Martínez (1983) during excavations at Acomoqo (Pueblo Joven, Primero de Mayo), by Torres Poblete (1989, pp. 59–61, 93–94, Fig. 15) during his work at Arahua, and by Zapata (pers. comm. 1994, 1997) at Batán Orco.

Description

The site of Muyu Orco (536) is located between the villages of Yaurisque and Pumate at the sum-

⁹ In 1987, I identified a site with Ccoipa material on the Huanquite plain just west of the study region, and in 1991 and 1994, I found Ccoipa fragments at several sites in the Cuzco Valley.

mit of a prominent, round hill.¹⁰ The site is approximately 30 minutes on foot north of Yaurisque along the Royal Road of Cuntisuyu, in the direction of Cuzco. A definition of Muyu Orco ceramics has been developed from materials collected on the surface and in test excavations at this site.

Ware

The composition of Muyu Orco ceramics is similar to—although slightly finer than—that of Ccoipa ceramics. They are composed of a medium-coarse fabric containing some nonplastic inclusions. As in Ccoipa ceramics, these inclusions consist of fine- to medium-sized (<1.0 mm) white to cream grains. Occasionally, however, large examples of these grains, not exceeding 2.0 mm, are present. Also as in Ccoipa ceramics, fine inclusions of black, matte red, or lustrous grains or gold mica are occasionally present. The paste generally fires to a dark red color.

Design Elements, Color, and Surface Treatment

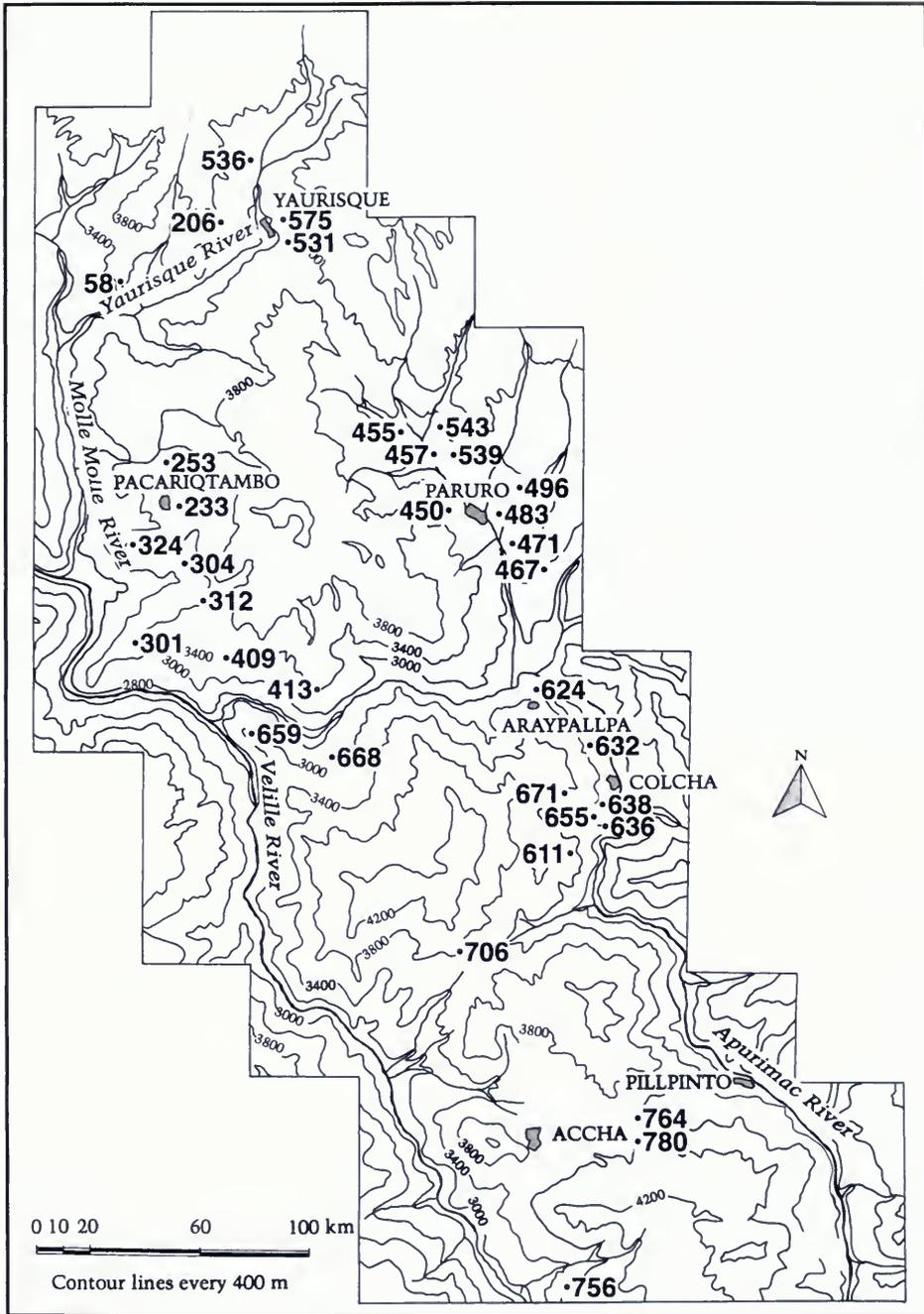
Muyu Orco ceramics contain a distinct range of pigment colors, including dark red, black, white, and orange. In addition, one fragment has patches of gray. The dark red is used as a background on which other colors are applied (Drawings 3-30 and 3-31). The interior and the exterior surfaces of Muyu Orco ceramics are heavily burnished. The black, white, and orange pigments are relatively thick, often with little absorption into the vessel (Fig. 3-9).

Vessel Forms

Few recovered fragments of this style were large enough to suggest specific vessel forms. The vessels forms that have been reconstructed include straight-sided drinking vessels, steep-sided bowls, and annulated bowls.

A number of complex Muyu Orco fragments were recovered that deserve individual descriptions. One piece, the remnant of a straight-sided drinking vessel, is especially interesting because

¹⁰ The name Muyu Orco (round mountain) is a common toponym in the Cuzco region.



MAP 3-4. Distribution of sites with Ccoipa ceramics.

it has a front face god motif (Drawing 3-32). The nose of the face has been raised approximately 1 cm from the surface of the vessel, while the eyes have been raised approximately 3 mm. A dark red

pigment covers the exterior and interior surfaces of the vessel. Thick black lines divide the front of the drinking vessel into panels, which have been filled with nested orange and white rectan-



FIG. 3-9. Muyu Orco ceramics.

gles. The vessel probably stood on three or four small pedestal feet, although only one remains.

A second interesting Muyu Orco drinking vessel has a convex, horizontal band several centimeters below its rim (Drawing 3-33). The band is outlined by a series of black, white, and orange lines, and the band itself holds a complex zigzag design. The rest of the vessel's exterior is dark red, while its interior is free of paint.

The remains of a slightly concave, steep-sided bowl were also recovered from Muyu Orco (Drawing 3-34). This bowl stands approximately 7 cm high. Along its base is a horizontal black line outlined by two adjacent white lines. The vessel is otherwise undecorated.

Further excavations yielded an elaborately decorated annulated bowl with concave sides (Drawing 3-35). The exterior of the vessel contains a dark red background, while the interior remains unpainted. Thick black lines divide the exterior into panels, in one of which there is a white, triangular latticework and a series of three orange circles. A second panel is free of design. The vessel stood on a hollow pedestal base. The rim of

the vessel originally displayed a series of scallops, of which only one remains. Several other scallops were recovered in surface collections and excavations in the Province of Paruro (Drawing 3-30A-B), which suggests that they are a relatively common feature of Muyu Orco ceramics.

Test Excavation Results

Test excavations at Muyu Orco (536) focused on assessing the temporal relations of the many styles found on the surface of the site. The upper 30 cm of the excavations, representing the plow zone of the site, yielded an undifferentiated mix of Inca, Killke, Ccoipa, Qotakalli, Muyu Orco, and Paruro Formative ceramics. Beneath the plow zone, a much darker and more compact stratum was encountered that yielded a mixture of Qotakalli and Muyu Orco and occasionally Paruro Formative ceramics. The deeper excavations terminated with a thin level of Paruro Formative ceramics above the natural subsoil. The recovery of Muyu Orco ceramics below the Inca- and Killke-

yielding plow zone and above the deposits of Formative materials suggests that this style was produced sometime between the end of the Early Horizon and the beginning of the Late Intermediate period.

Quantities of Muyu Orco ceramics were also found at the site of Marcapata (624), a small ridge south of the Apurimac River near the village of Araypallpa. Surface collections at this site provided examples of Inca, Colcha, Qotakalli, Ccoipa, Muyu Orco, and Formative materials. Excavations at Marcapata yielded samples of Muyu Orco ceramics below the Inca and Killke plow zone. Muyu Orco ceramics were most frequently found mixed with Qotakalli shards, and to a lesser extent with Ccoipa shards.

Dating

Because no carbon remains suitable for dating were recovered, tentative dating of Muyu Orco ceramics must be made from their stratigraphic position in excavations and from similarities with other ceramic styles. Excavations at the site of Muyu Orco produced Muyu Orco ceramics mixed with Qotakalli ceramics above a Formative level and below a plow zone containing Inca and Killke remains. Excavations at Marcapata produced Muyu Orco ceramics mixed with Qotakalli and Ccoipa materials. It must be stressed, however, that the ceramic samples from both of these sites come from excavation units with no clear cultural context and thus have a limited value for dating this style. Nevertheless, the excavation results suggest that Muyu Orco ceramics were made during the Middle Horizon.

Three excavations in the Cuzco region have yielded what appear to be fragments of Muyu Orco ceramics. Zapata has recovered Muyu Orco vessels from burials at the site of Batán Orco (pers. comm. 1994). Torres Poblete (1989, pp. 59–61, 93–94, Fig. 15) reports recovering a new ceramic style, and from his illustrations this style appears to be Muyu Orco. Vessels found by Torres Poblete include a drinking vessel with a convex, horizontal band and a straight-sided side bowl with scallops. He classifies these fragments as “Araway—5”, or “Wari de Araway” (Wari of Araway), suggesting a relationship with the Wari occupation of the Cuzco Valley.

Muyu Orco ceramics, along with Qotakalli shards, may also have been recovered in 1978 at the site of Aqomoqo, located within the modern

city of Cuzco, by Espinoza Martínez (1983). Espinoza Martínez, like Torres Poblete, equates this style with the Wari occupation of Cuzco, calling it “Wari de Aqomoqo” (Wari of Aqomoqo). Although additional research may prove Espinoza Martínez and Torres Poblete correct in their classification of Muyu Orco ceramics as Wari-related, in the conclusion of this chapter it will be proposed that Muyu Orco is a Tiwanaku-related style.

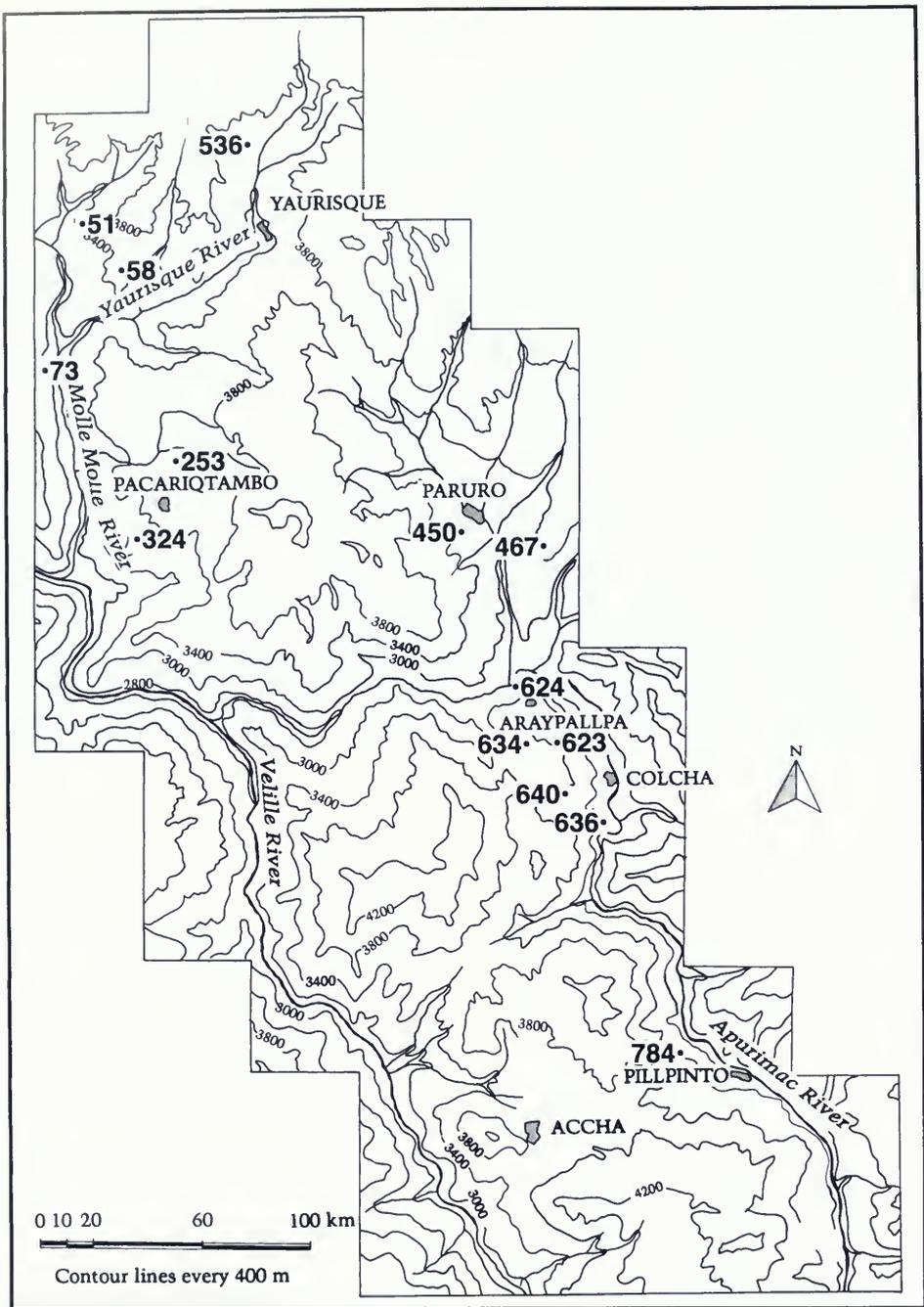
Distribution

The distribution of the 14 sites containing Muyu Orco ceramics in the research area is marked on Map 3-5. There is a Muyu Orco site near the southern limits of the research region, near Pillpinto, as well as one on the northern boundary, close to Yaurisque. There are also clusters of Muyu Orco sites near Colcha, Paruro, and Pacariqtambo. In other words, Muyu Orco ceramics are not limited to or concentrated in any one zone of the research area, and research by other investigators has yielded similar vessels in the Cuzco Valley.

Horizontally Incised Drinking Vessels

Archaeological research in the Province of Paruro provided numerous fragments of horizontally incised drinking vessels (Fig. 3-10). Examples of these vessels were recovered at sites with Ccoipa ceramics, including the Ccoipa village site and Rokeccasa. Horizontally incised drinking vessels were also found with fragments of Ocos-style ceramics at Muyu Roqo and with Arahway ceramics in the lower excavation levels at Maukallaqta. Additional samples of horizontally incised drinking vessels have been recovered in burials with Wari-related vessels at Batán Orco by Zapata (pers. comm. 1994, 1997). Although these findings suggest that horizontally incised drinking vessels may have been produced during the Middle Horizon, additional research is needed before their cultural and temporal affiliations can be stated with certainty. Nevertheless, for the benefit of future research in the Cuzco region, I will provide a brief description and illustrations of these vessels.

The exterior of the vessels is burnished and incised (Drawings 3-36 through 3-38). In rare cases, the remains of white pigment can be seen along the rim (Drawing 3-37A). The upper centimeters



MAP 3-5. Distribution of sites with Muyu Orco ceramics.

of the interior surface are burnished, while the lower portions are left unmodified. The sides of the vessels tend to be straight or slightly flaring; however, some lyrelike examples have been re-

covered (Drawing 3-37D). The rims generally are slightly more flared than the vessel sides. The rims themselves are usually thickened, although some straight examples have been found. Char-

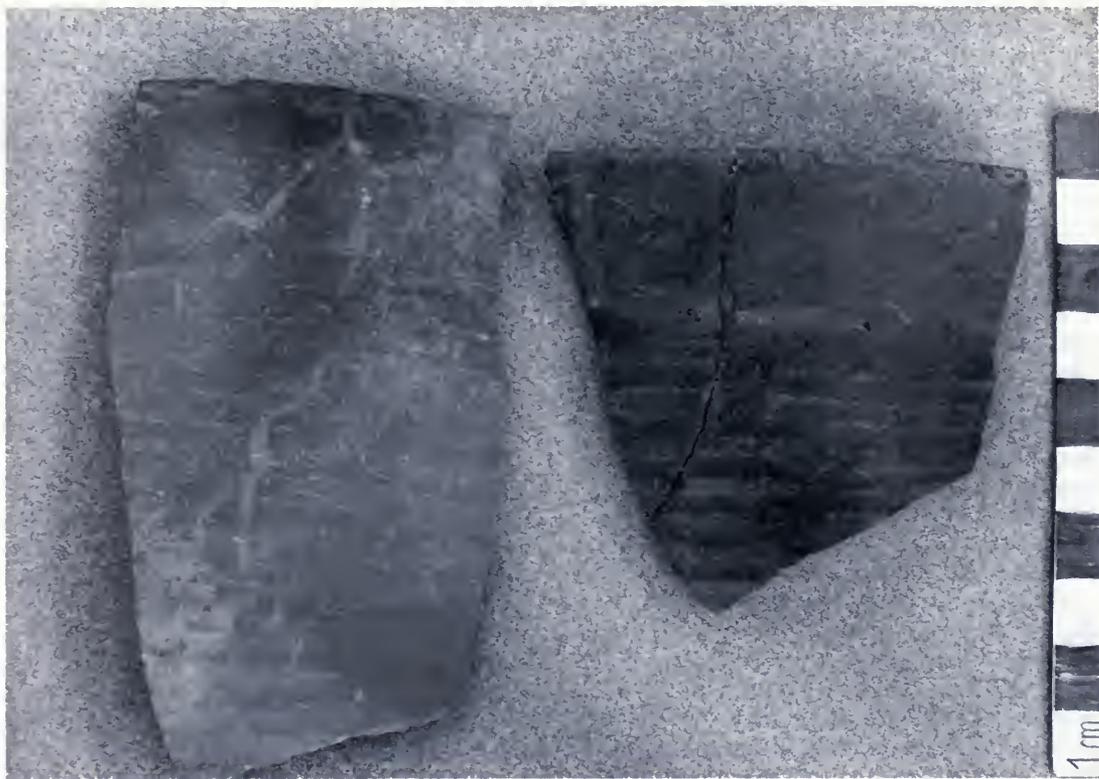


FIG. 3-10. Horizontally incised drinking vessels.

acteristically there is a relatively deep horizontal band incised on the interior of the vessel 2–3 cm from the lip. The exterior of the vessel may carry a similar incised band, although not necessarily at the same level as the interior incision.

Although the exterior body of the vessel may be left undecorated, it is more commonly covered with a series of horizontally incised lines. These incisions tend to be roughly parallel, and their quantity and quality vary from vessel to vessel. Some horizontally incised drinking vessels have incisions that are only slightly deeper than the burrishing, while others have incisions several millimeters deep. The ware appears to be similar to Ccoipa wares. Examples of horizontally incised drinking vessels were recovered at 15 sites distributed throughout the Province of Paruro (Map 3-6).

Summary and Discussion

Several different ceramic styles in the Cuzco region are believed to date to the Middle Horizon,

and the complexity of their temporal relations is only now beginning to be addressed (see Glowacki, 1996). Middle Horizon ceramic styles recovered in the Province of Paruro include Qotakalli and Ccoipa. Qotakalli ceramics are relatively well made. Finer Qotakalli pieces are recognized by their white slip and complex geometric decorations. Examples of this style have been found at numerous sites in the Cuzco region. The recovery of Qotakalli ceramics at the site of Pikillacta and in burials at Batán Orco indicates that they were produced during the Wari occupation of the region. Regional research in Paruro also identified a widespread ceramic style called Ccoipa. The dating of this style is currently problematic, although it may have been produced during the Middle Horizon and early Late Intermediate period.

A limited number of Chakipampa and Ocos vessels were imported into the Cuzco region from the Wari heartland during the Middle Horizon. Wari influence is also reflected, however, in what appears to be the large-scale local production of

Ocros-style ceramics in the Cuzco region.¹¹ The distribution of Ocros-style ceramics in the Province of Paruro indicates that Wari influence varied greatly across the Inca heartland. There are several sites with Ocros-style materials in the Lucre Basin, including the large site of Pikillacta. Several sites, east of Pikillacta in the Vilcanota River Valley, including Batán Orco and Ccotocotuyoc, also contain quantities of Ocros-style materials. These findings suggest that Pikillacta controlled, or had considerable influence over, much of the east-west-running valley between the cities of Cuzco and Urcos. On the other hand, only a few sites examined in the research region had any Wari-style ceramics. The scarcity of Wari-style ceramics in the Province of Paruro is surprising, given its close proximity to the Lucre Basin. From these data, I conclude that Wari influence was substantially less to the south of Pikillacta than it was to the east and west.

It is important to note that the Paruro Valley also holds the extraordinary site of Muyu Roqo. This small site has yielded a large quantity of bones and Wari-style vessels, many of which can be further classified as Ocros-style. Surface collections and test excavations at Muyu Roqo yielded an unusually high percentage of fine-quality bowls and drinking vessels and a low percentage of utilitarian vessels. These findings imply that ritual activities, including large-scale eating and drinking ceremonials, took place at the site. The exact nature of these activities and the purpose for which the fine ceramics were used and then abandoned at the site remain to be investigated.

The Wari presence in the Cuzco region influenced the development of new ceramic styles, the best example being Arahua ceramics. The colors and vessel forms of this style reflect features of Wari ceramics, especially those of Ocros. Although little is known about Arahua ceramics, I have proposed that their production began shortly after the establishment of Pikillacta and that they influenced, or were the direct antecedent of, Killke ceramics.

Wari was not the only state to develop during the Middle Horizon. Tiwanaku, located close to the southwestern shore of Lake Titicaca, also rose to prominence during this period. It is generally

believed that the Tiwanaku influence ended somewhere near the pass of La Raya (the traditional boundary between the Quechua speakers of the Cuzco region and the Ayamará) and did not reach into the Inca homeland. Research in the Province of Paruro, however, recovered a ceramic style called Muyu Orco, which I believe reflects Tiwanaku influence in the Cuzco region.

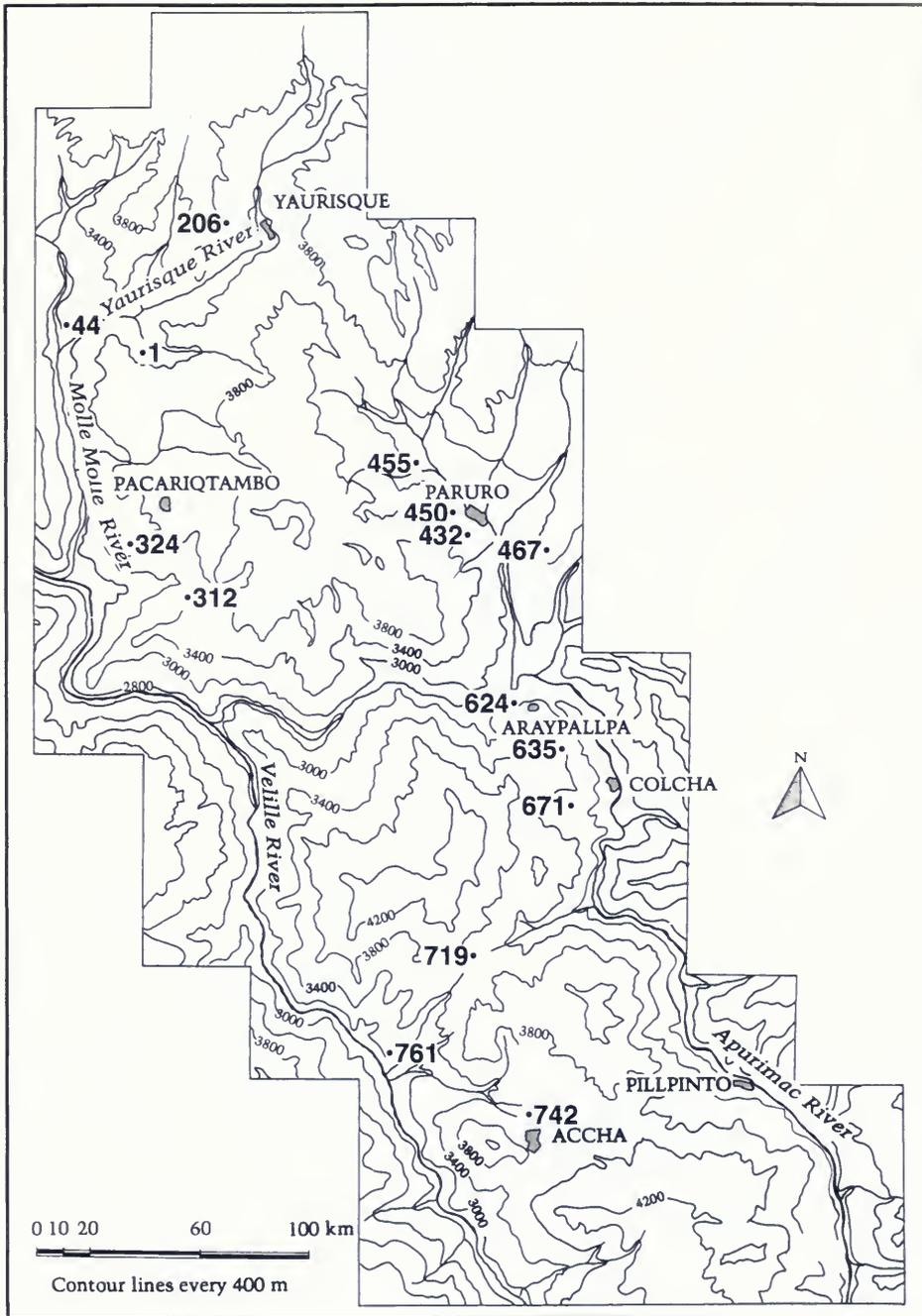
The classification of Muyu Orco ceramics as a Tiwanaku-related style is based on the following observations. First, Muyu Orco ceramics are painted with bright black, white, and orange figures over a dark red background. Although these colors are found in Wari and Wari-related collections, they are a hallmark of Tiwanaku ceramics. Second, vessel attributes also indicate a relation between Muyu Orco and Tiwanaku ceramics. For example, several scallops have been found among the Muyu Orco fragments. Such scallops frequently appear on the rims of Tiwanaku bowls but are rarely found on Wari ceramics. Third, one of the Muyu Orco vessels is a banded drinking vessel and another is a steep-sided bowl standing on a raised base. Both of these vessel forms are common components of Tiwanaku collections (although they do occur, less frequently, in Wari collections).

Furthermore, I suggest that the colors and vessel forms of Muyu Orco ceramics recovered thus far suggest a late Tiwanaku (Tiwanaku V) rather than an early Tiwanaku (Tiwanaku III) influence in the Cuzco region. This suggestion is supported by the understanding that late Tiwanaku ceramics are associated with the expansion of the state from the Lake Titicaca region, whereas early-style Tiwanaku is more closely associated with the period of state formation. Late Tiwanaku ceramic production is thought to have begun around A.D. 750 and to have ended around A.D. 1000. If Muyu Orco is a Tiwanaku-related style, then these dates can be tentatively used to suggest a possible production period for Muyu Orco ceramics, until more concrete data become available.

It should be stressed that Muyu Orco ceramics differ significantly in paste and design motifs from classic Tiwanaku V ceramics. These differences suggest that Muyu Orco ceramics were not imported into the Cuzco region from the Tiwanaku heartland. The similarities that exist between Muyu Orco ceramics and late Tiwanaku ceramics may indicate that Tiwanaku influence spread from the Lake Titicaca Basin into the Cuzco region.

Although the Wari influence in the Cuzco region is clearly established, the influence of Tiwanaku on Cuzco is still tentative. Because ar-

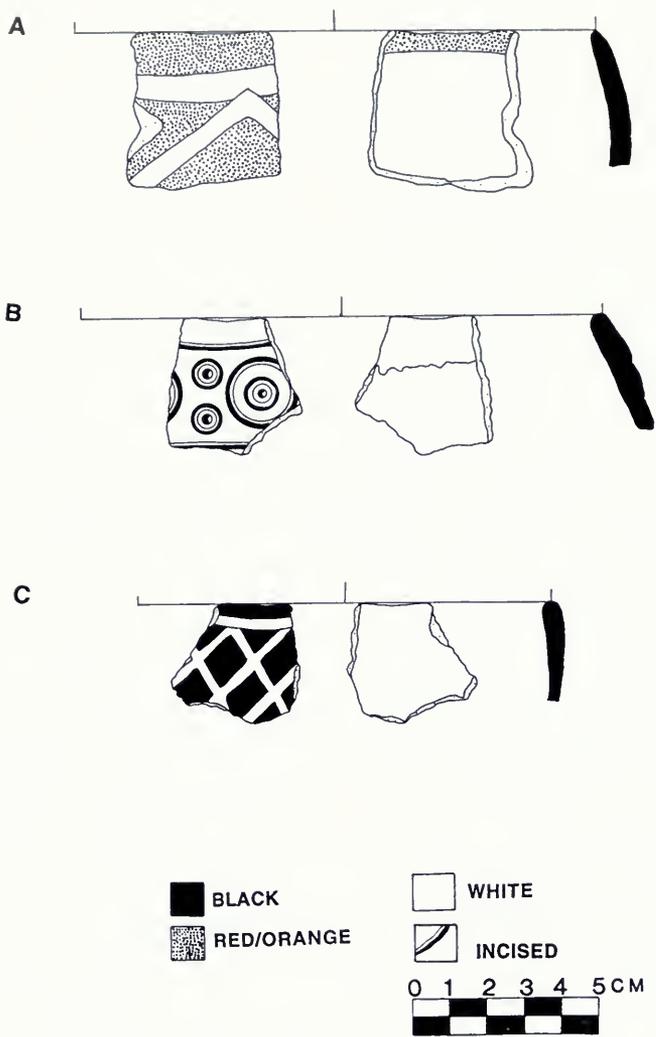
¹¹ Ocros ceramics (especially straight-sided, flaring bowls) are found in large numbers at the site of Wari itself (Brewster-Wray, 1990), and Ocros-style vessels have been recovered at numerous sites across the Andes (Knobloch, 1991; Glowacki, 1996).



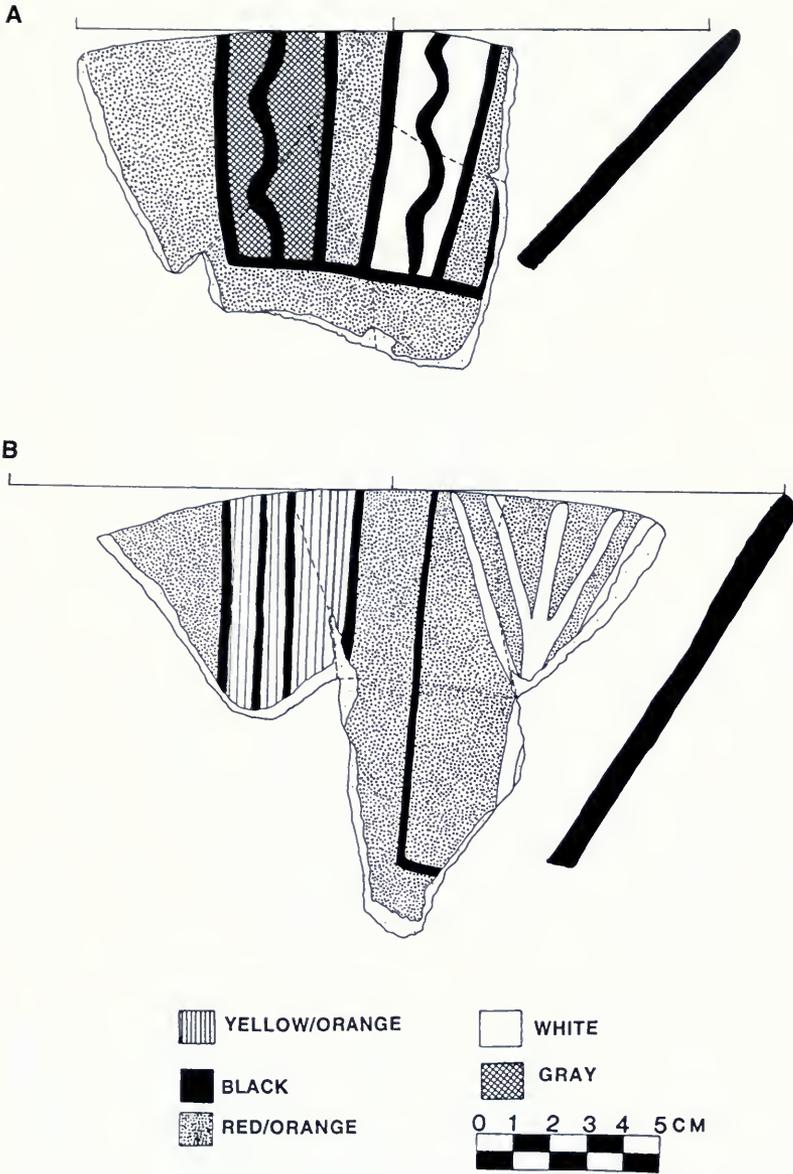
MAP 3-6. Distribution of sites with horizontally incised drinking vessels.

archaeological research began in the south central highlands, evidence for early Cuzco-Tiwanaku interactions has been suggested on several occasions but has been proved unreliable after further research. Most notably, fragments of Wari and

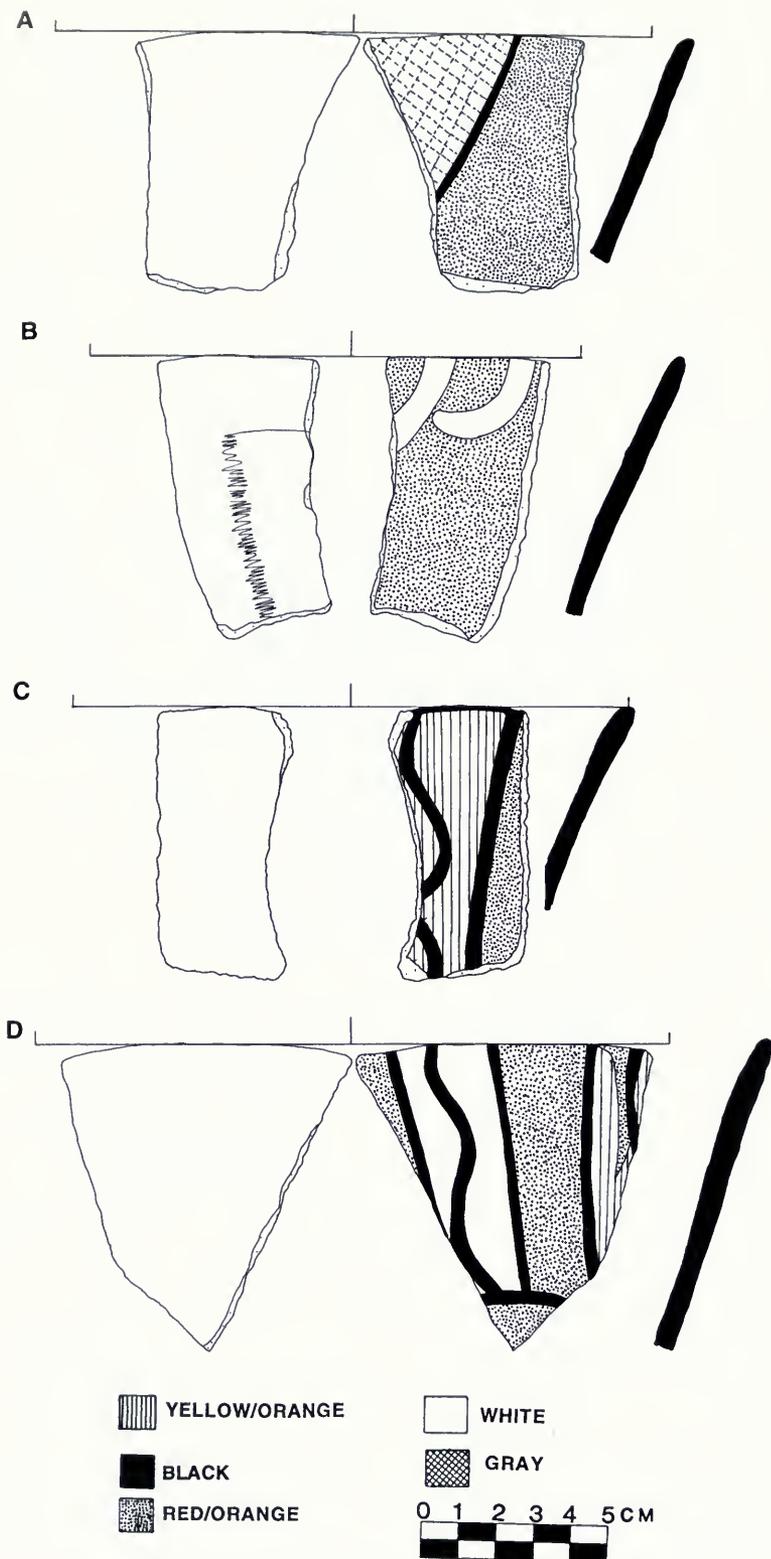
Wari-style ceramics in Cuzco have been misidentified as Tiwanaku. I encourage additional research on Muysu Orco ceramics to test the proposition that they reflect a Tiwanaku rather than a Wari influence in the region.



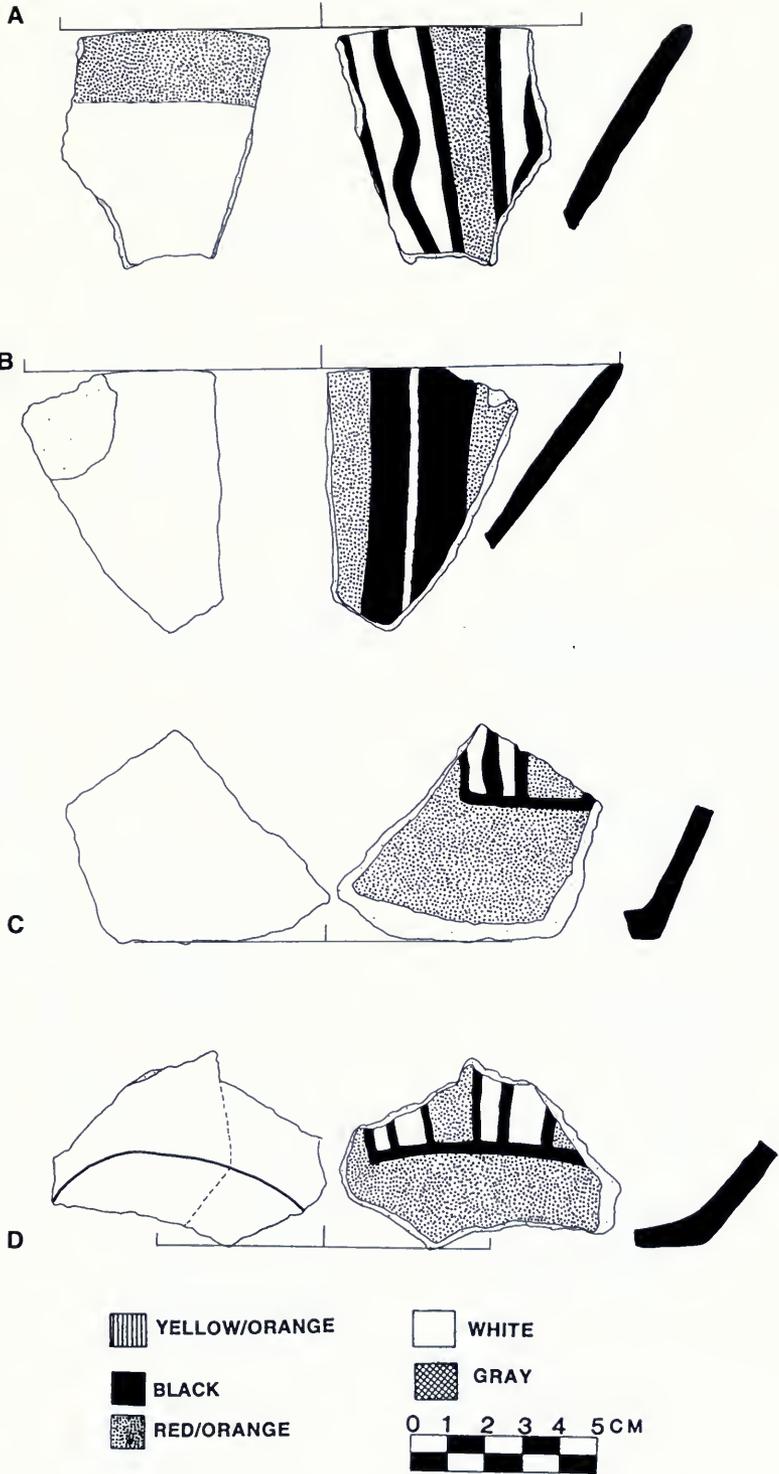
DRAWING 3-1. Incurving bowls from Muyu Roqo.



DRAWING 3-2. Straight-sided, flaring bowls from Muyu Roqo.



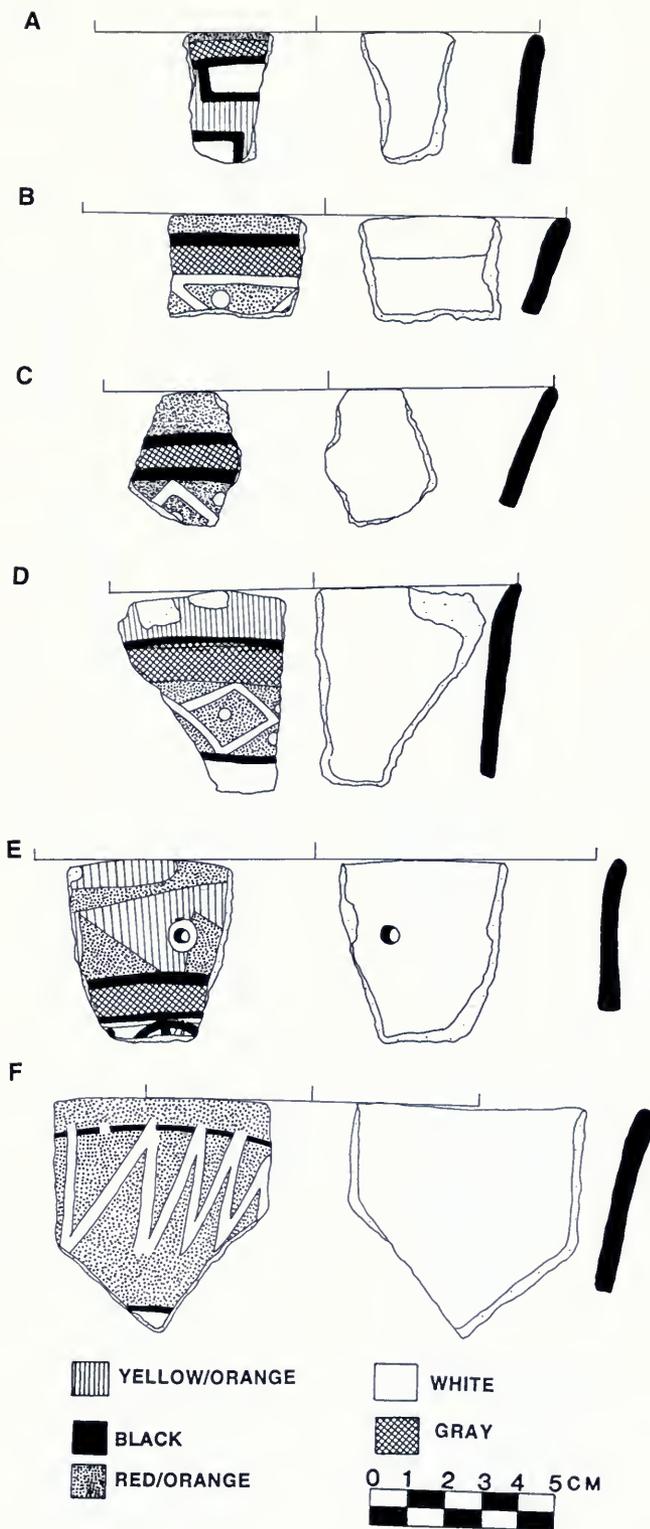
DRAWING 3-3. Straight-sided, flaring bowls from Muyu Roqo.



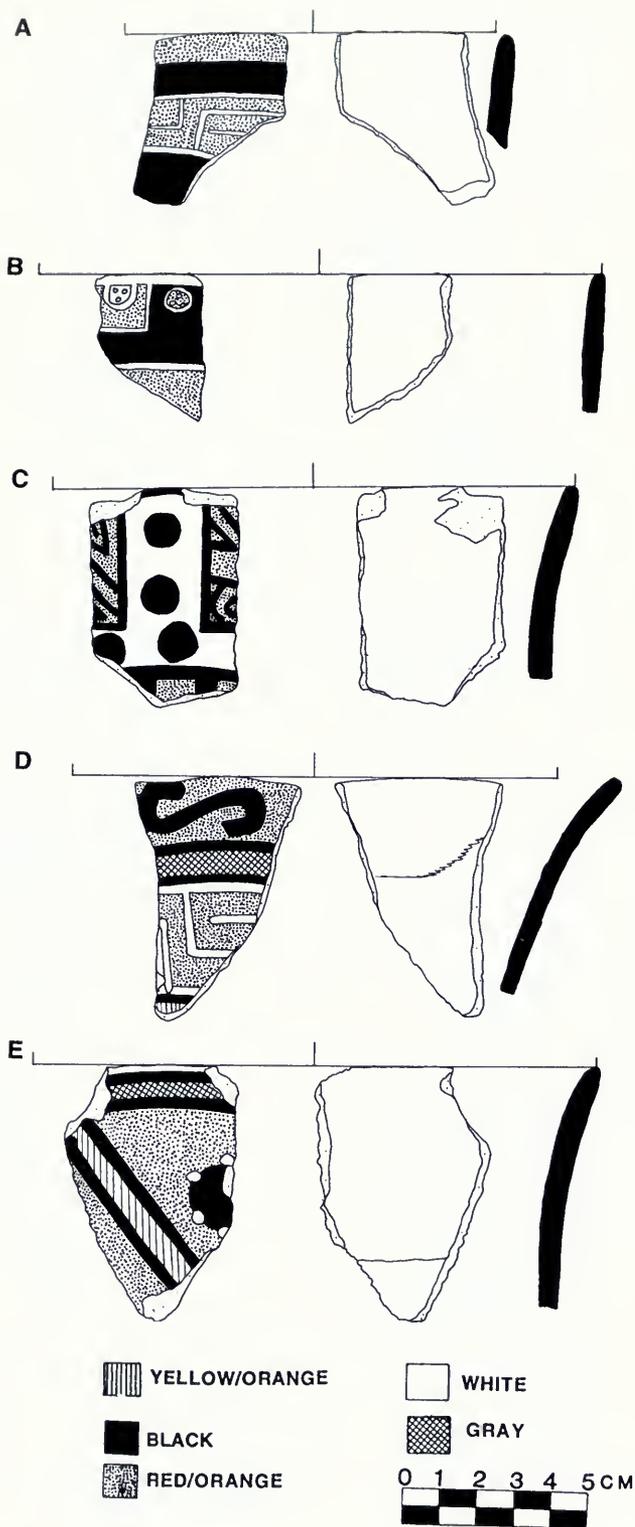
DRAWING 3-4. Straight-sided, flaring bowls from Muyu Roqo.



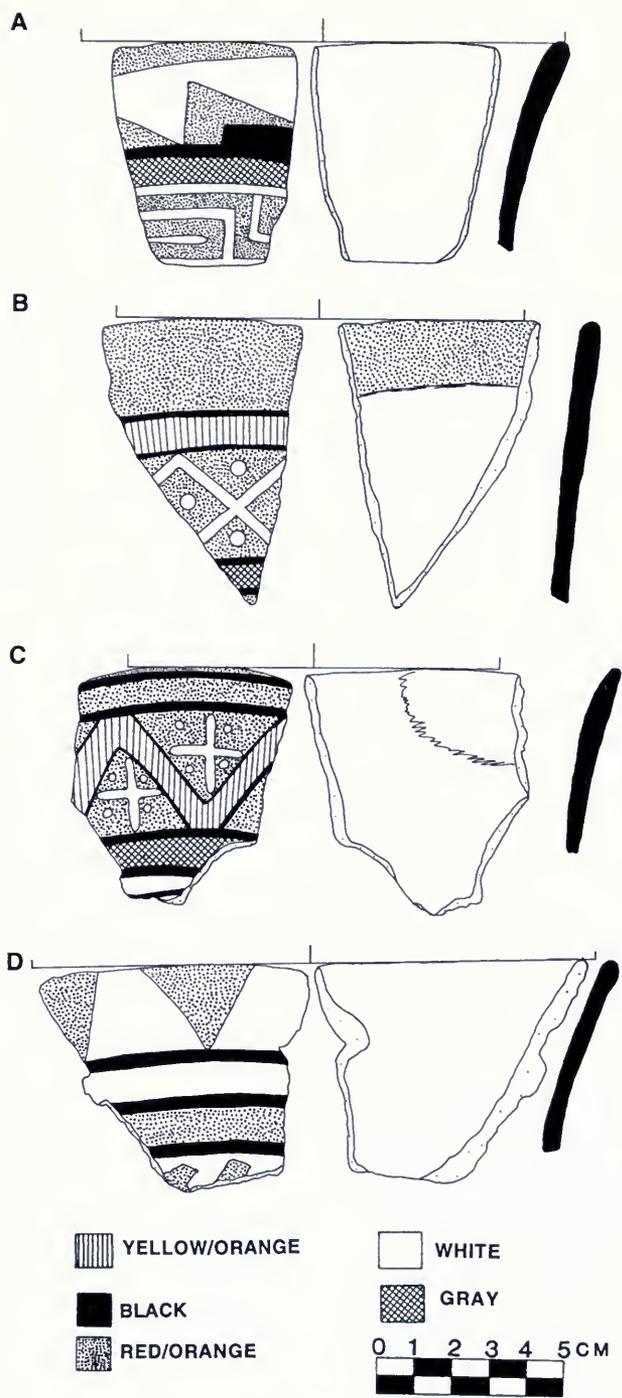
DRAWING 3-5. Orange-ware drinking vessels from Muyu Roqo.



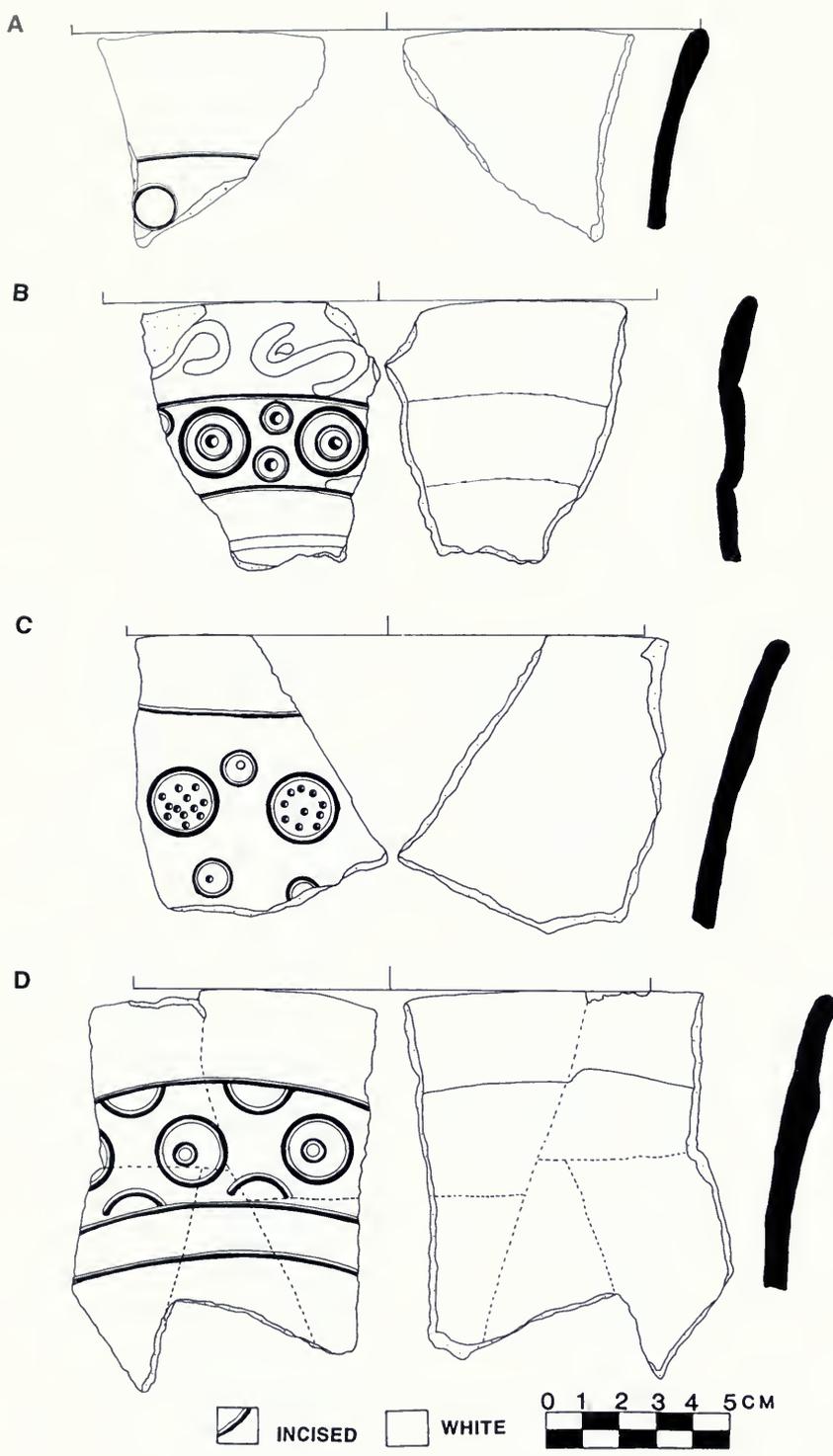
DRAWING 3-6. Orange-ware drinking vessels from Muyu Roqo.



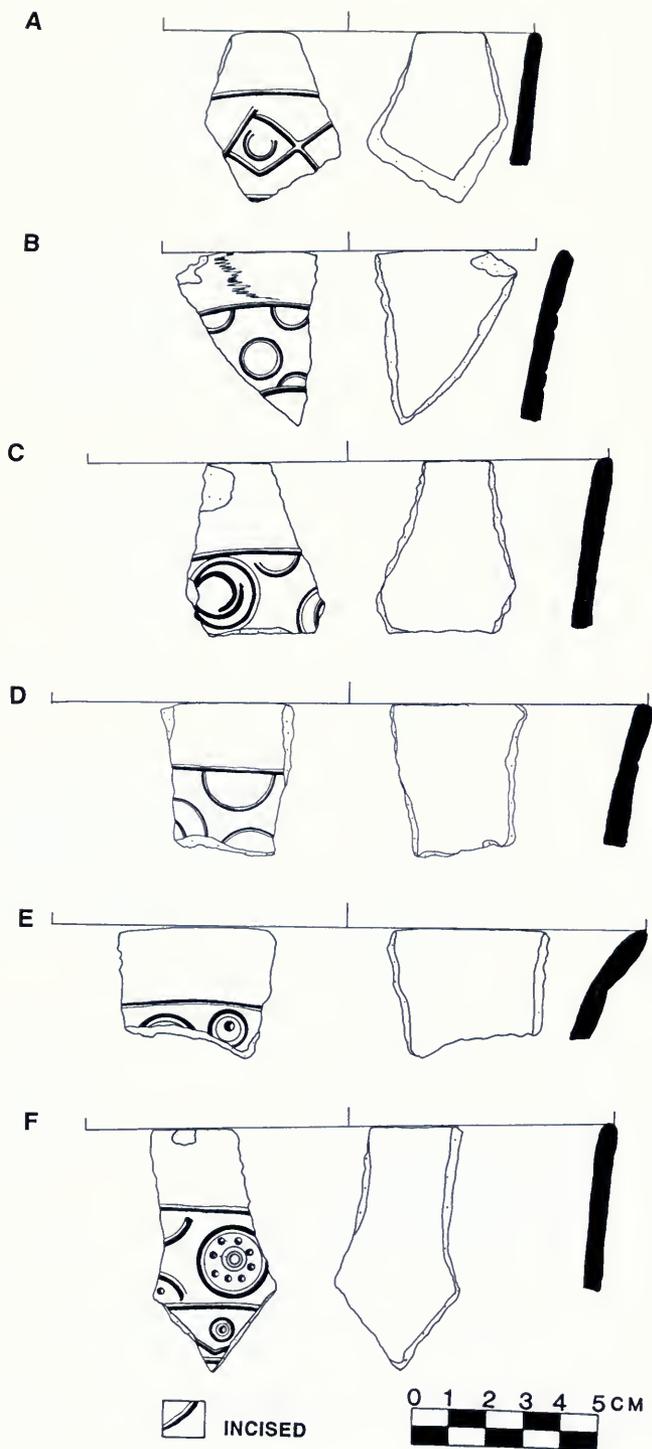
DRAWING 3-7. Orange-ware drinking vessels from Muyu Roqo.



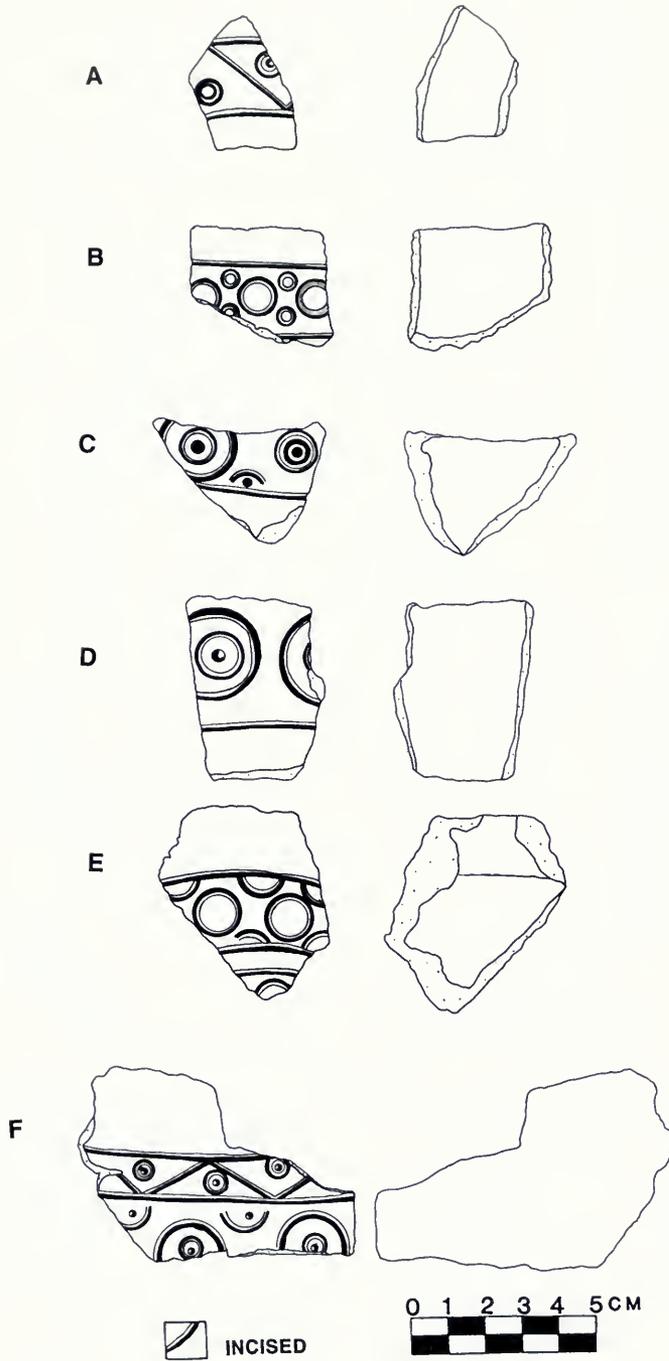
DRAWING 3-8. Orange-ware drinking vessels from Muyu Roqo.



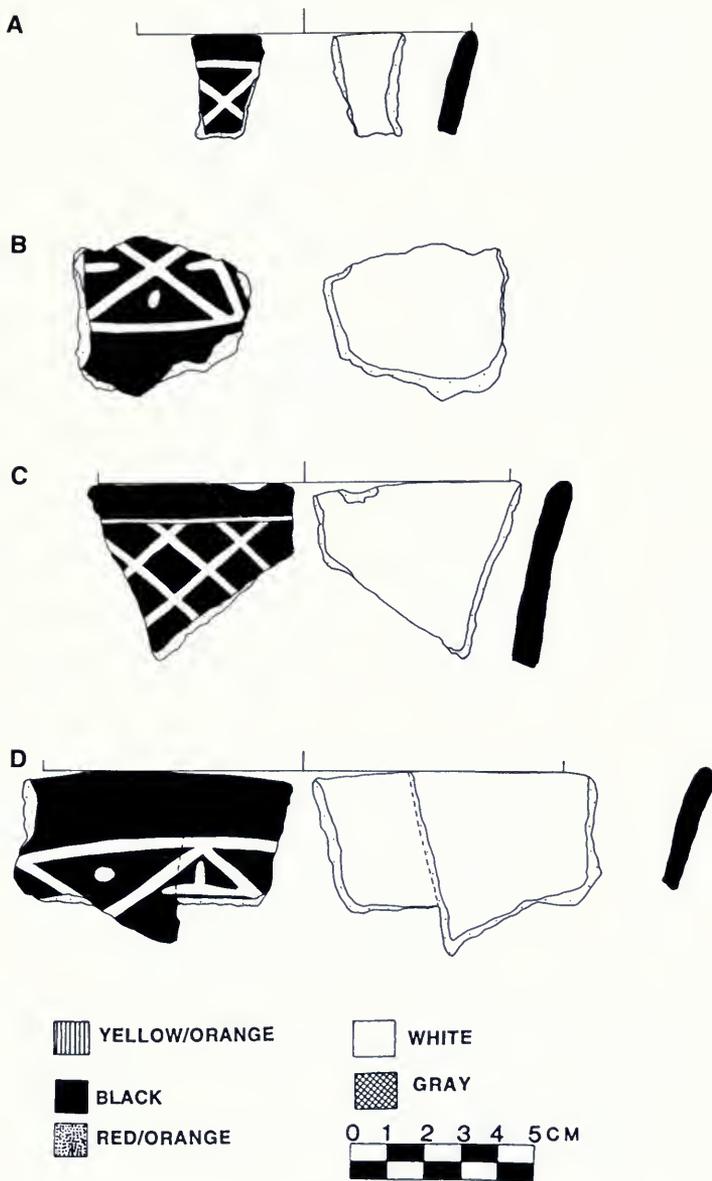
DRAWING 3-9. Black-ware incised drinking vessels from Muyu Roqo.



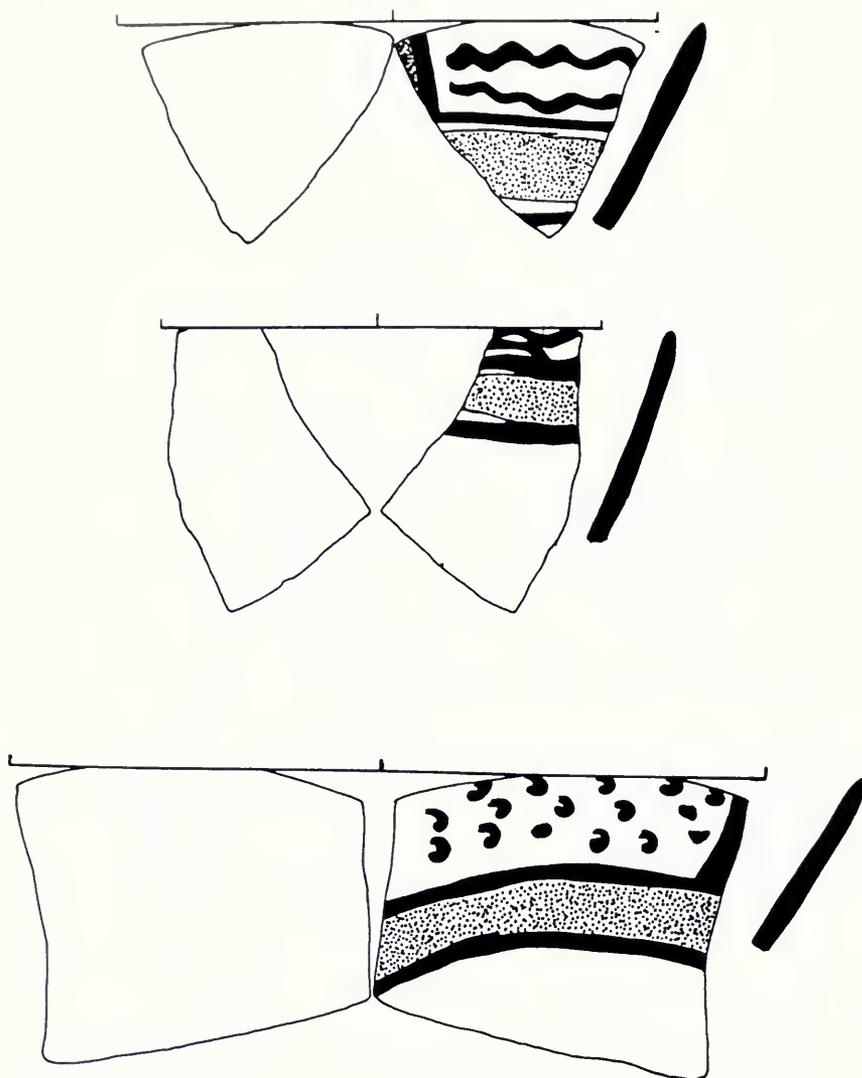
DRAWING 3-10. Black-ware incised drinking vessels from Muyu Roqo.



DRAWING 3-11. Black-ware incised drinking vessels from Muyu Roqo.



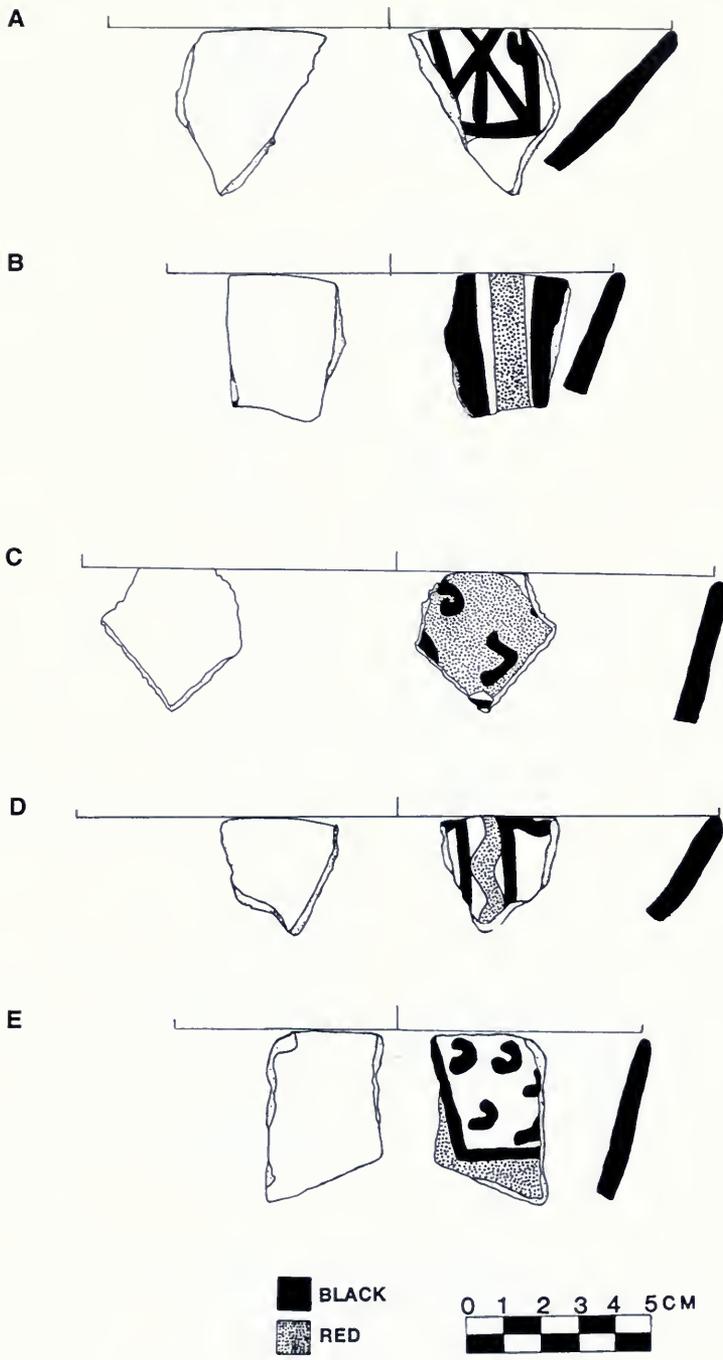
DRAWING 3-12. Black-ware drinking vessels from Muyu Roqo.



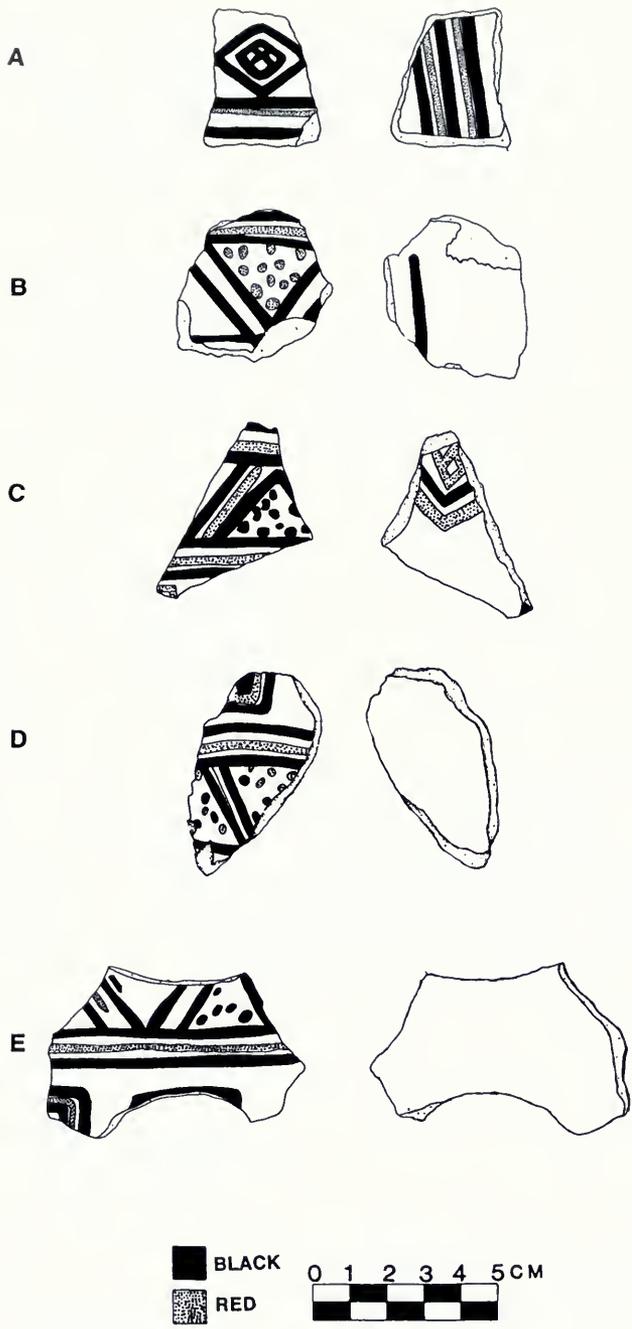
 BLACK
 RED



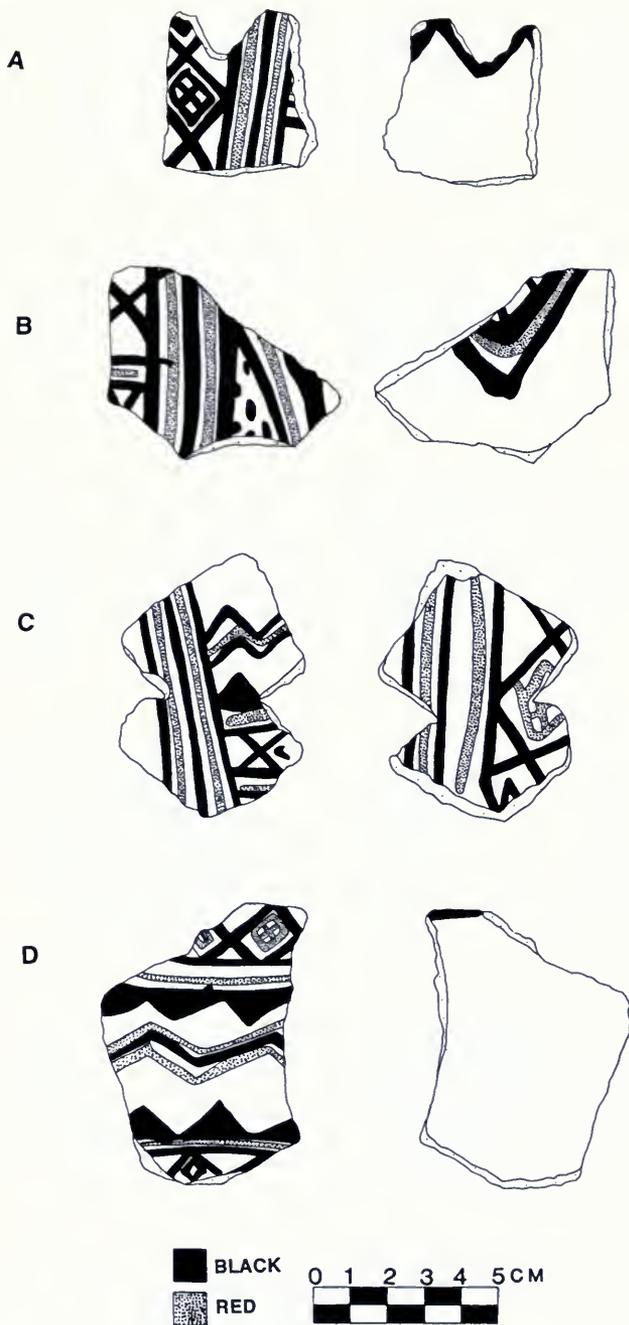
DRAWING 3-13. Arahuy bowl designs (courtesy of Nilo Torres Poblete and Luis Barreda Murillo).



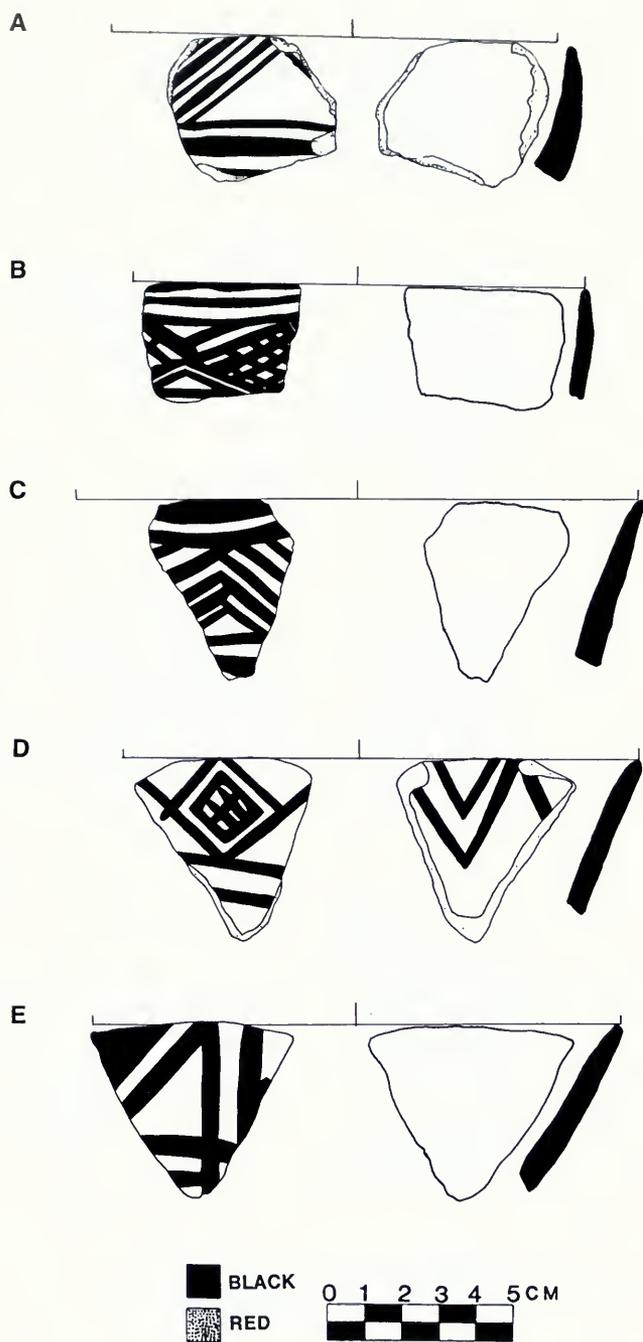
DRAWING 3-14. Arahua bowl designs.



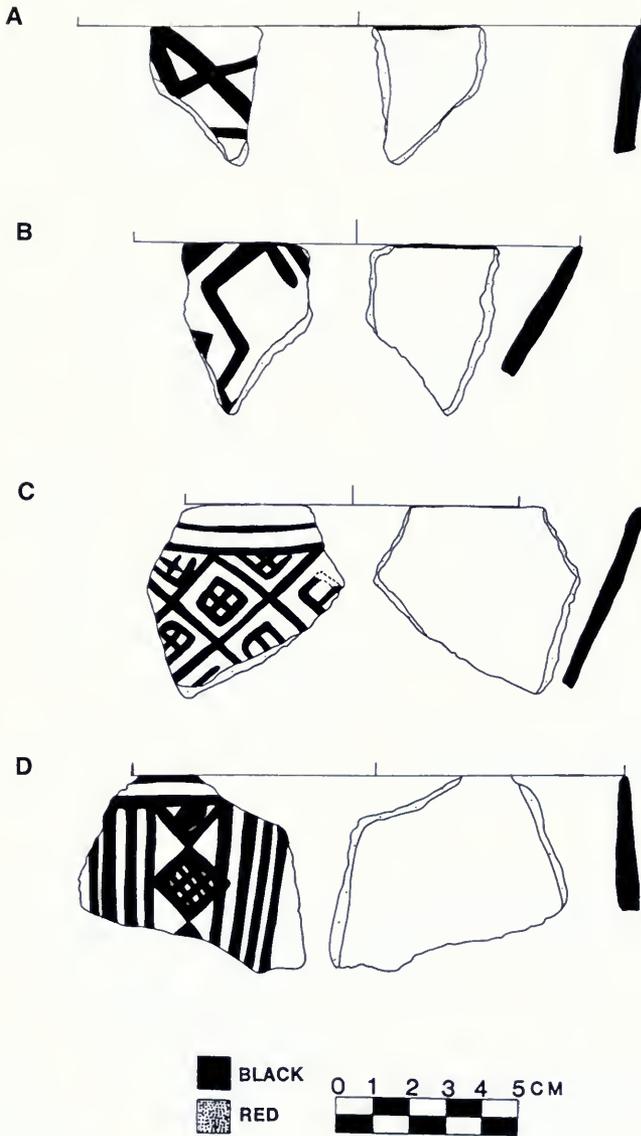
DRAWING 3-15. Common Qotakalli designs.



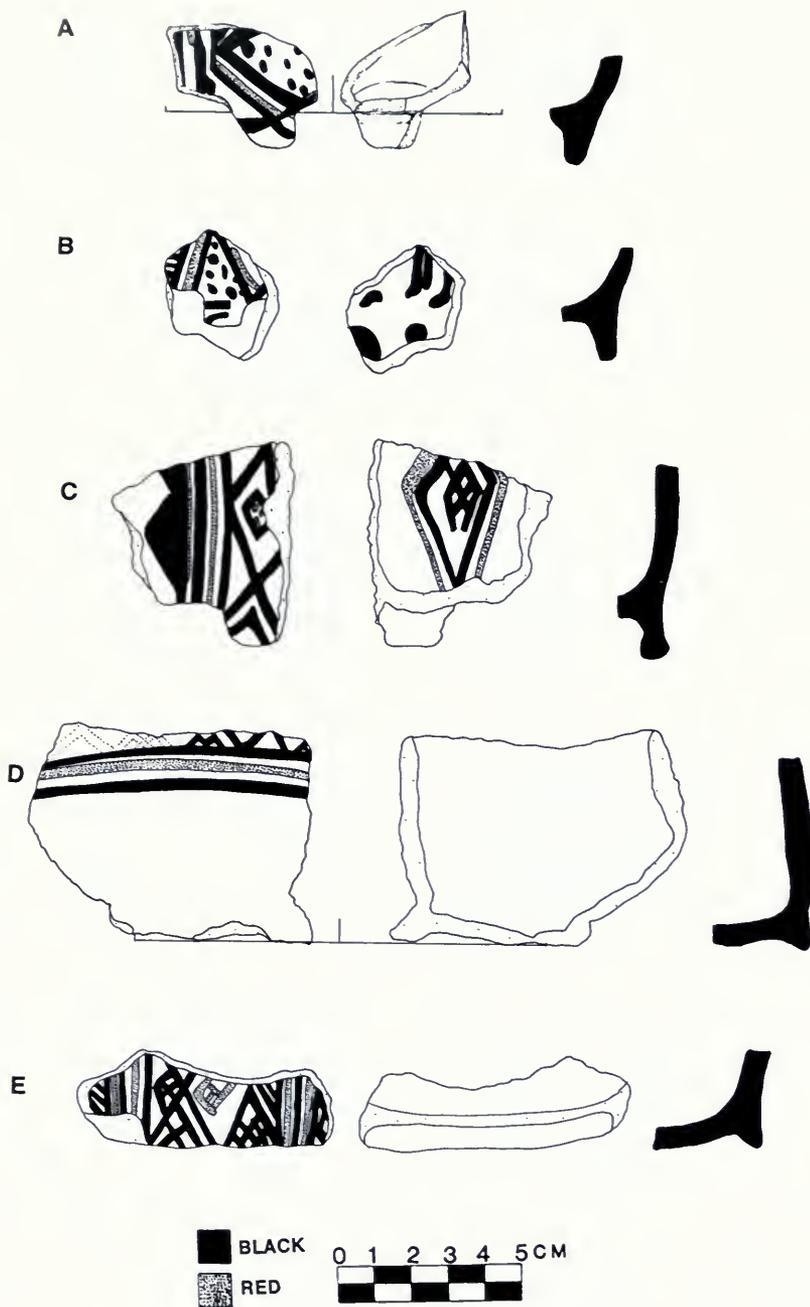
DRAWING 3-16. Common Qotakalli designs.



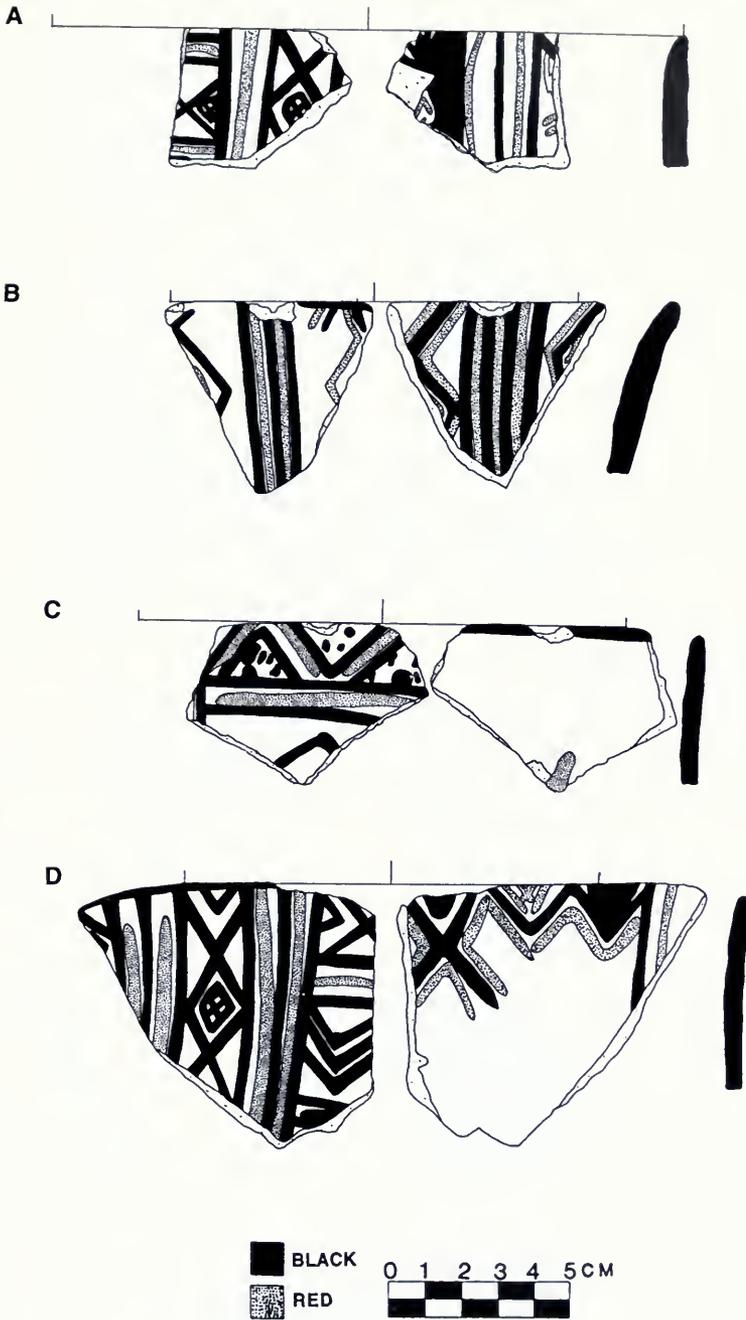
DRAWING 3-17. Monochrome Qotakalli ceramics.



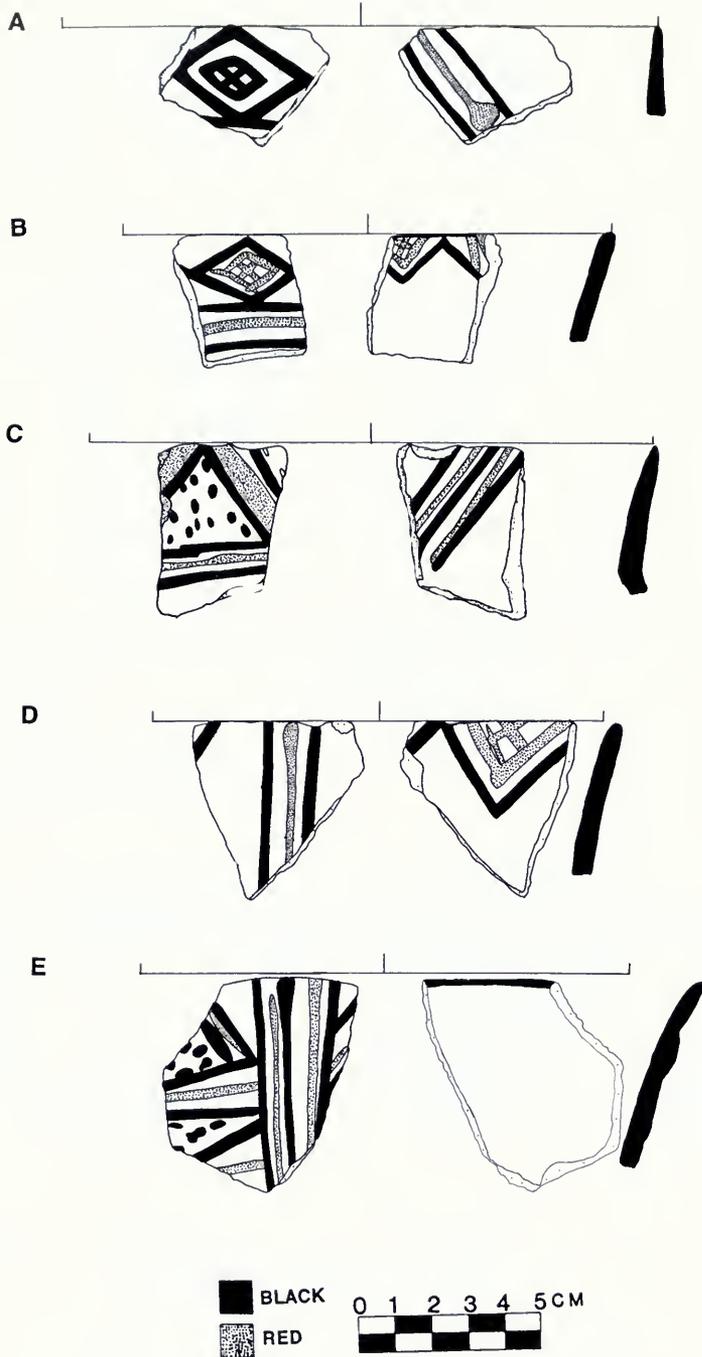
DRAWING 3-18. Monochrome Qotakalli ceramics.



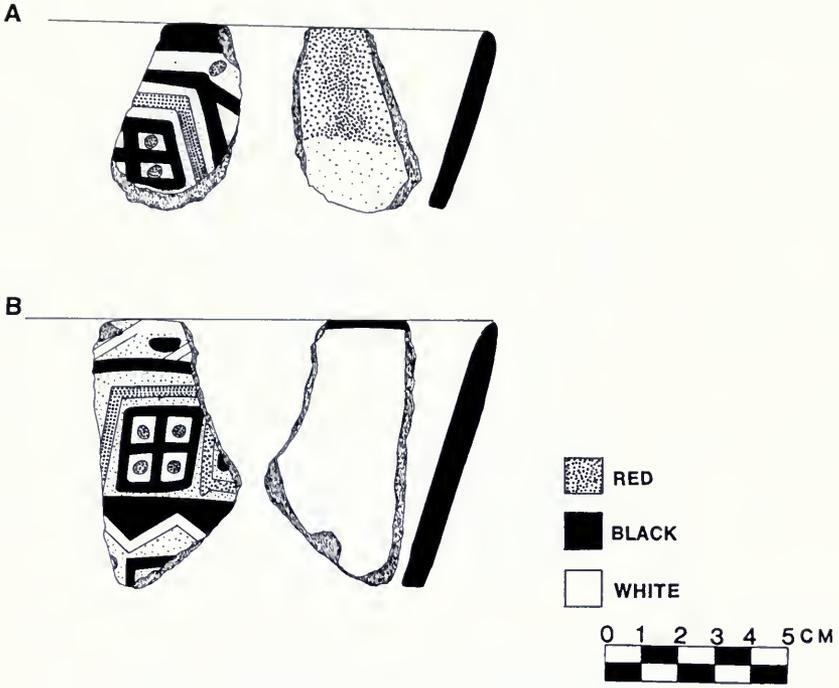
DRAWING 3-19. Qotakalli bases from steep-sided bowls.



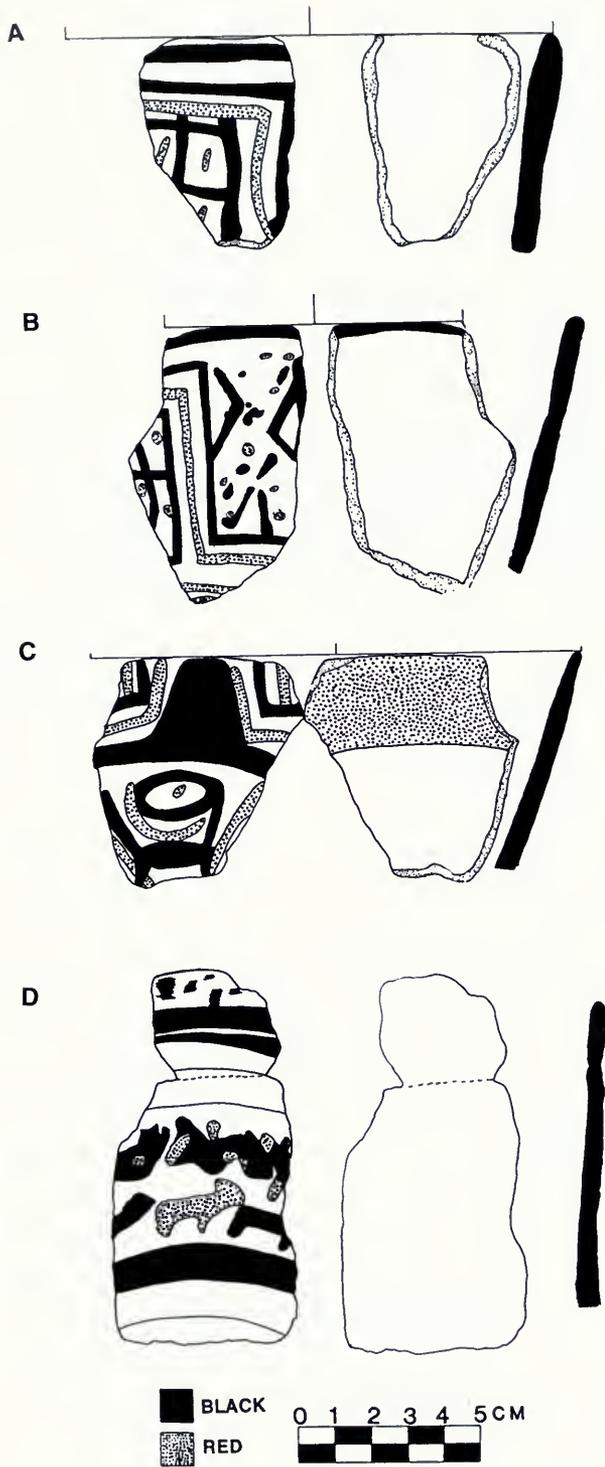
DRAWING 3-20. Qotakalli rims from steep-sided bowls.



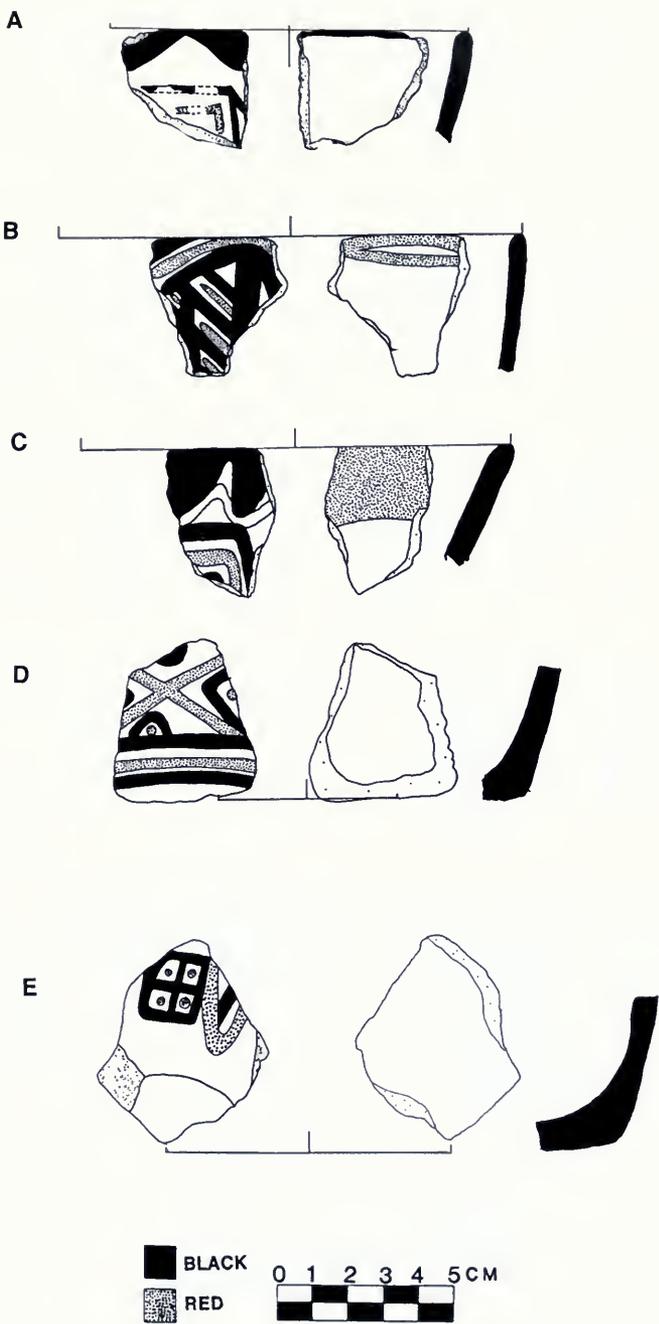
DRAWING 3-21. Qotakalli rims from steep-sided bowls.



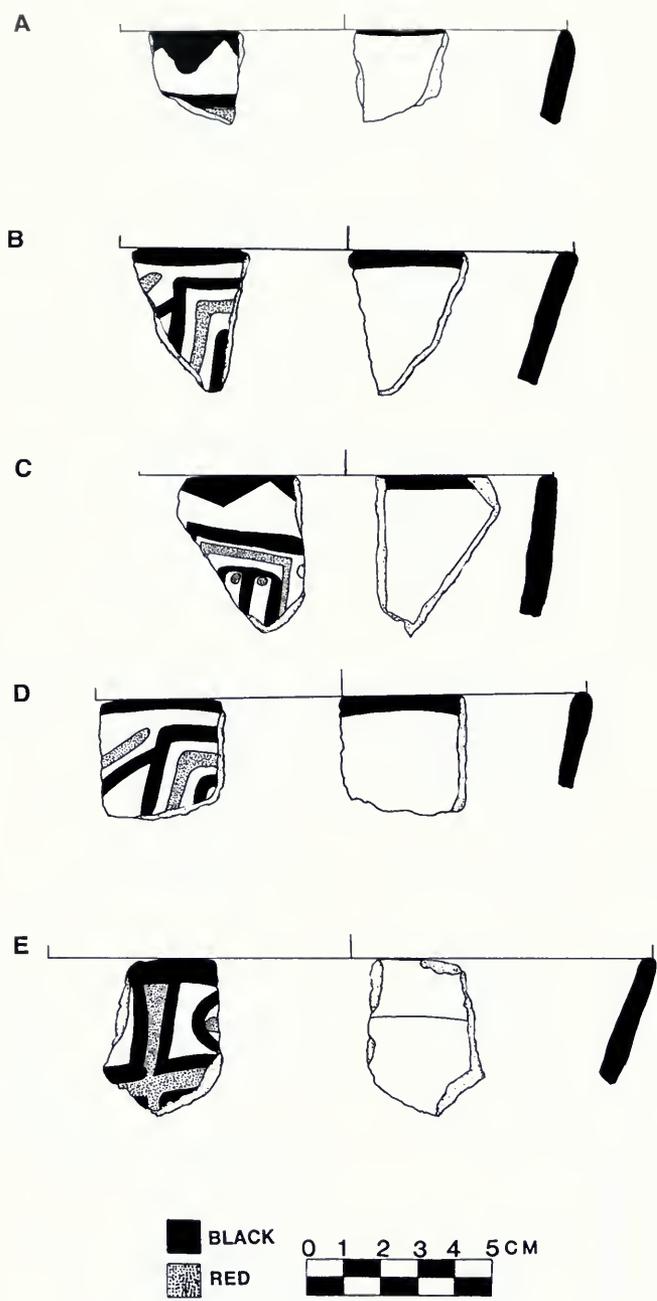
DRAWING 3-22. Ccoipa straight-sided drinking vessels.



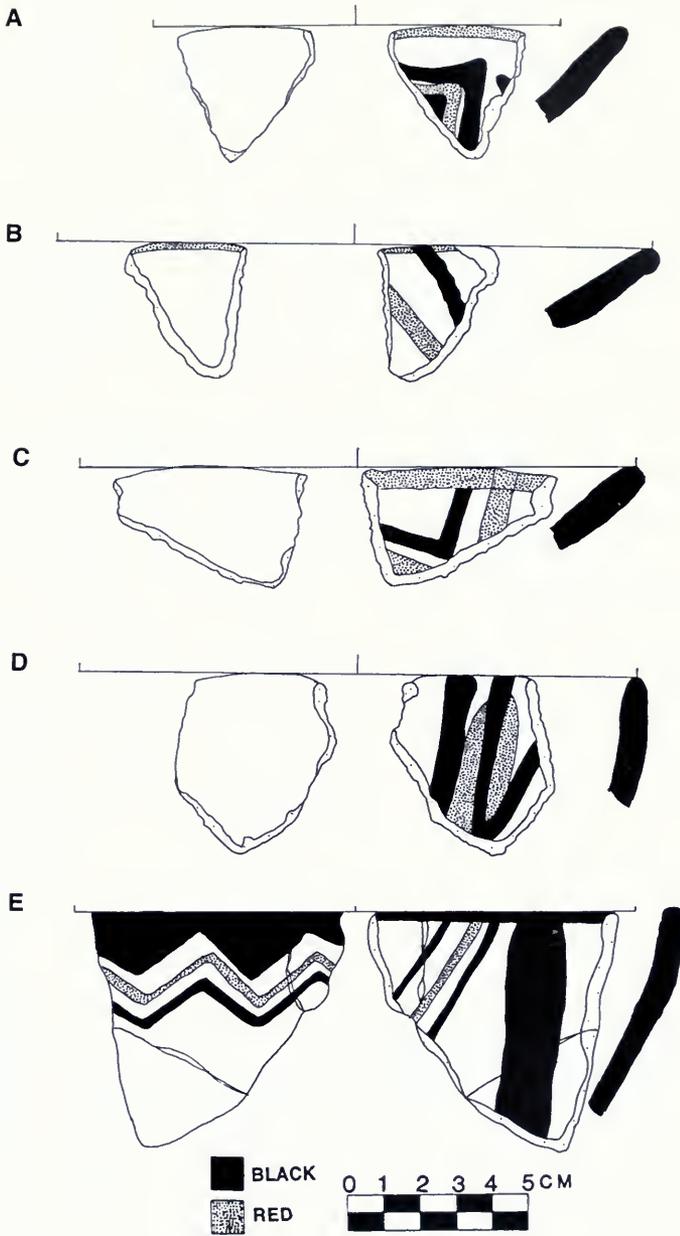
DRAWING 3-23. Ccoipa straight-sided drinking vessels.



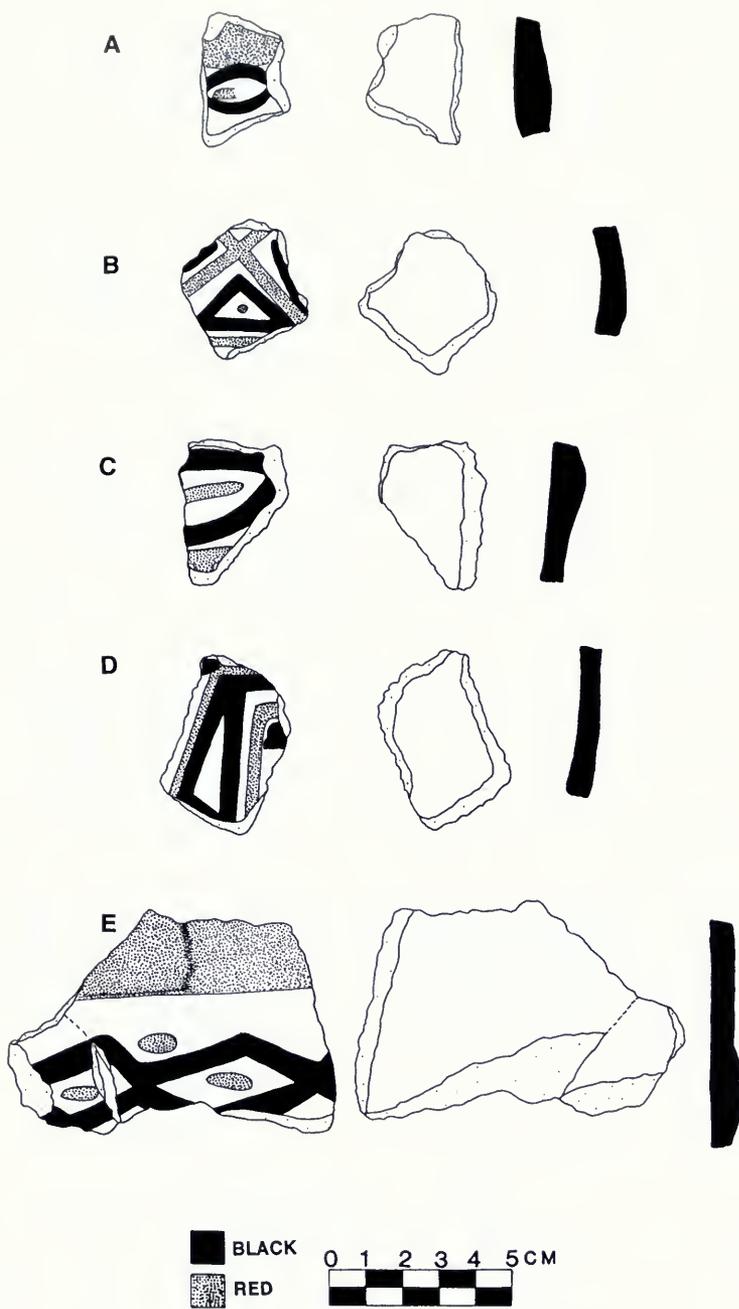
DRAWING 3-24. Ccoipa straight-sided drinking vessels.



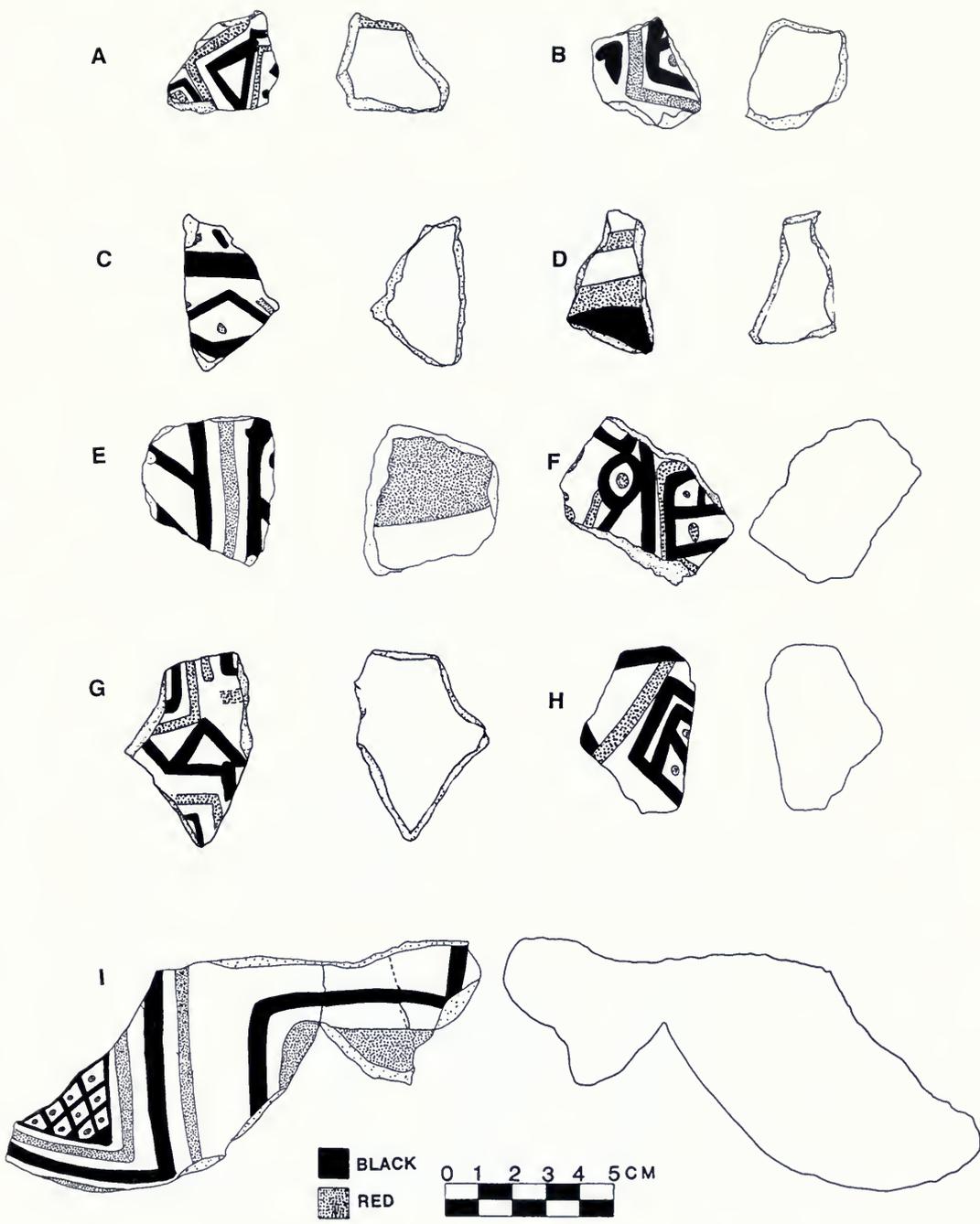
DRAWING 3-25. Ccoipa straight-sided drinking vessels.



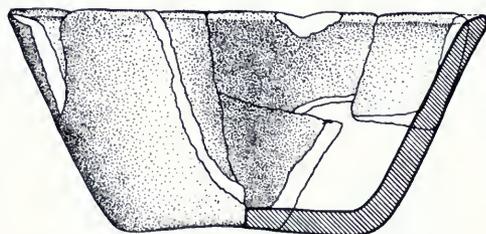
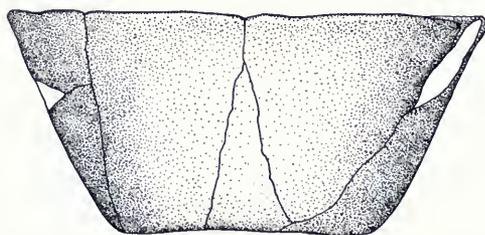
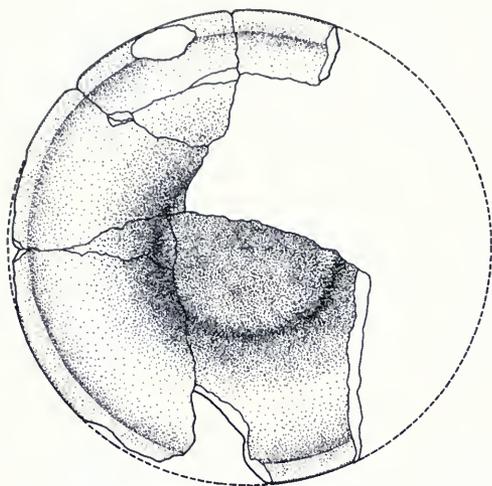
DRAWING 3-26. Ccoipa bowls.



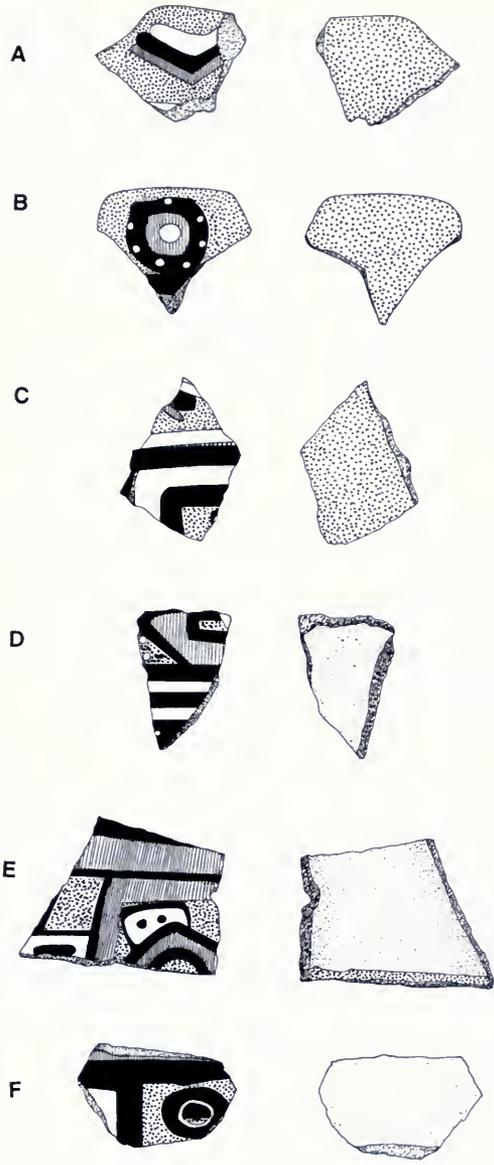
DRAWING 3-27. Common Ccoipa designs.



DRAWING 3-28. Common Ccoipa designs.

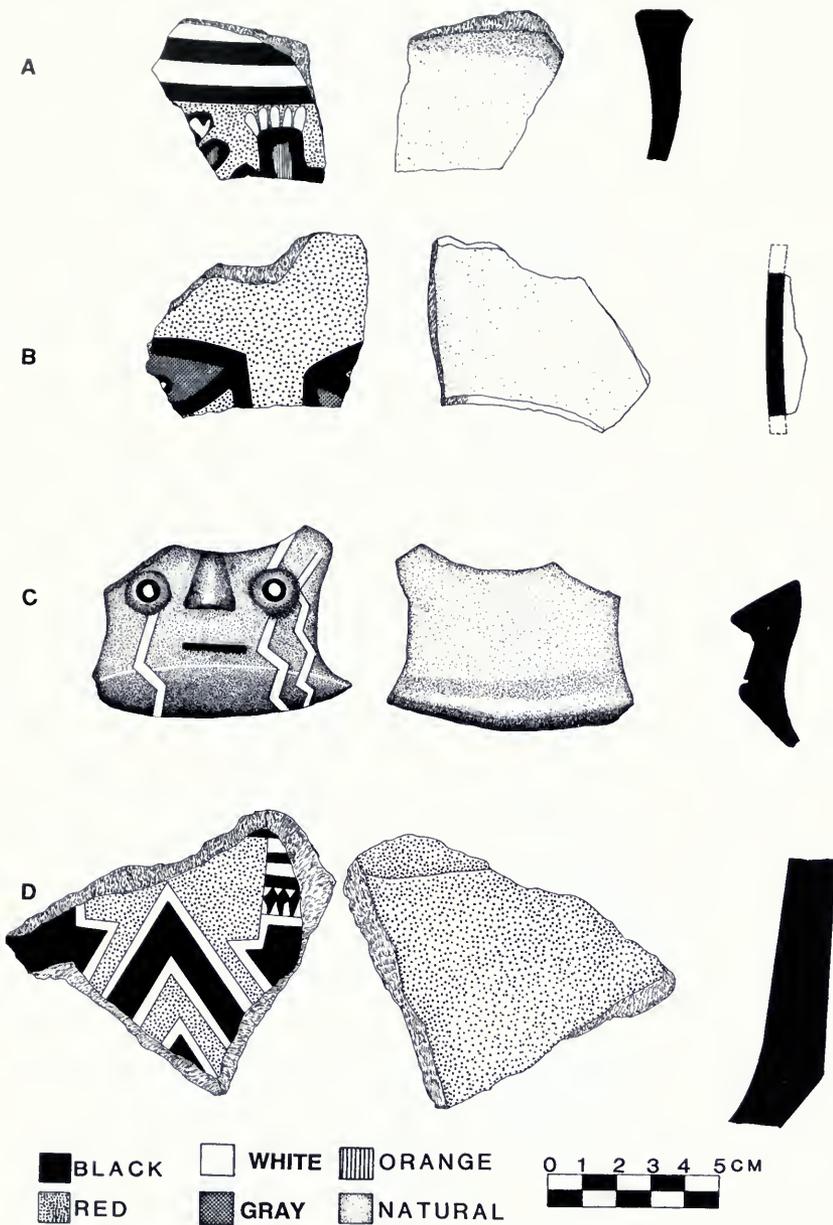


DRAWING 3-29. Ccoipa bowl.

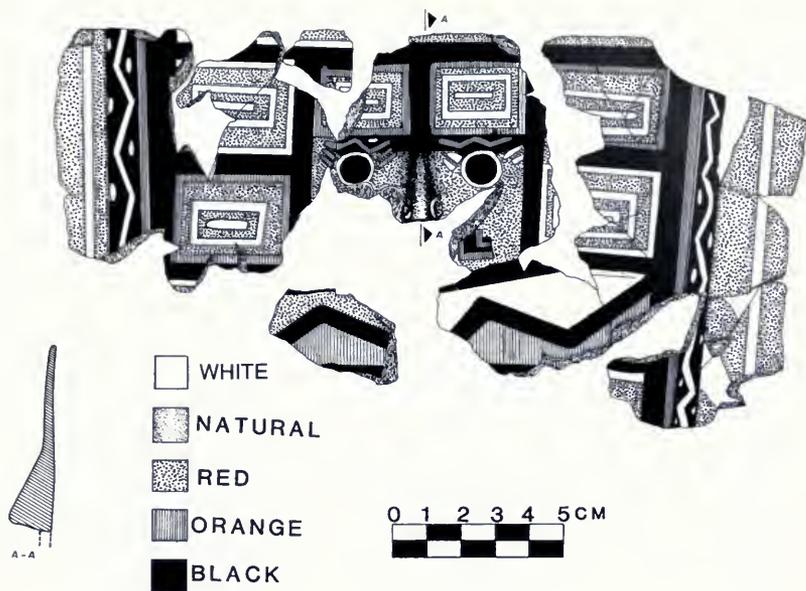


- BLACK OR BROWN
- RED
- WHITE
- ORANGE
- NATURAL

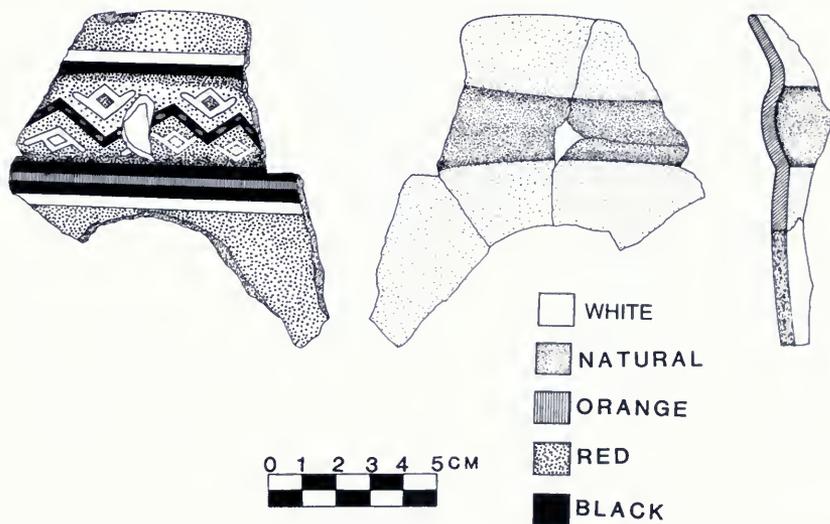
DRAWING 3-30. Muyu Orco ceramics.



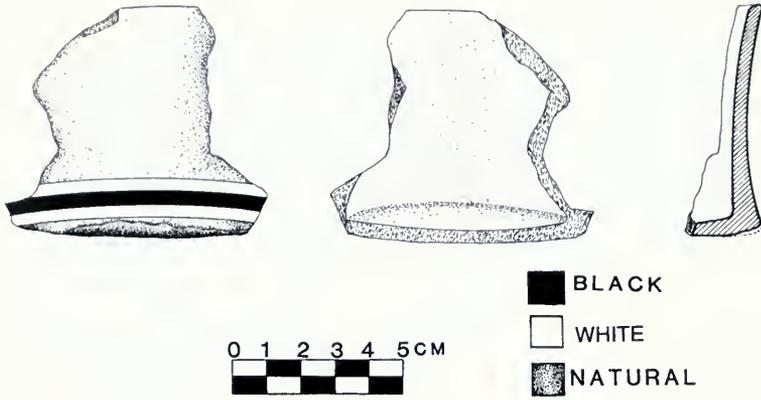
DRAWING 3-31. Muyu Orco ceramics.



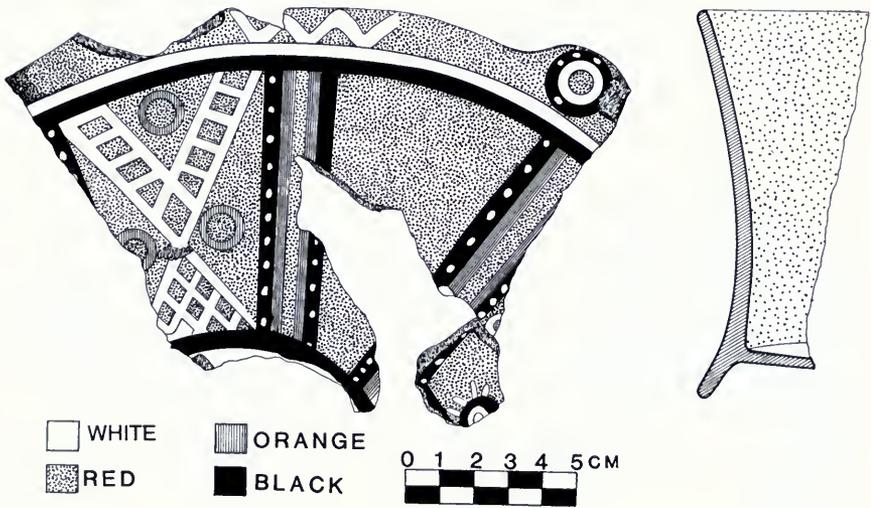
DRAWING 3-32. Muyu Orco straight-sided drinking vessel with front face god motif.



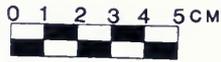
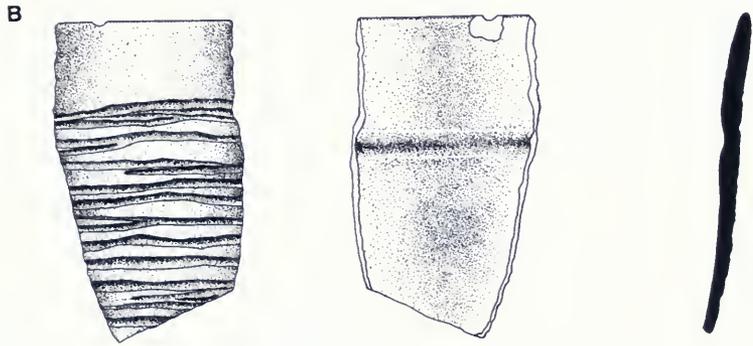
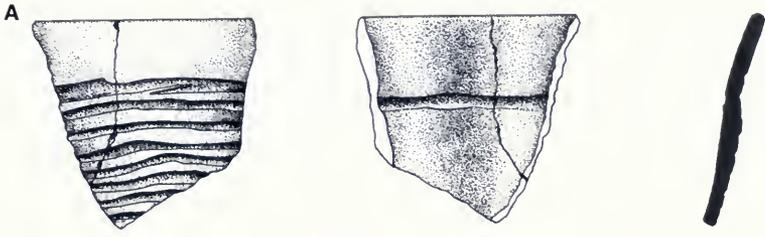
DRAWING 3-33. Muyu Orco straight-sided drinking vessel with a convex, horizontal band.



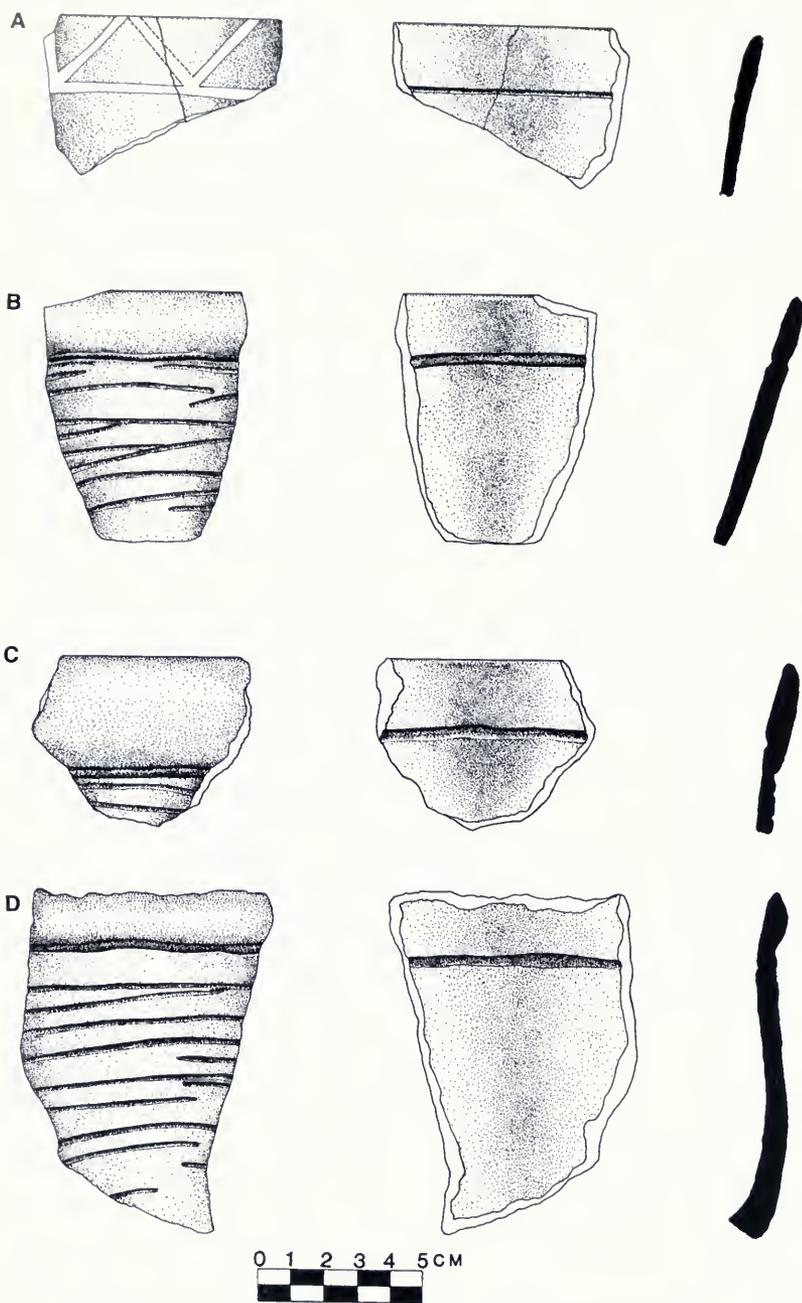
DRAWING 3-34. Muyu Orco slightly concave, steep-sided bowl.



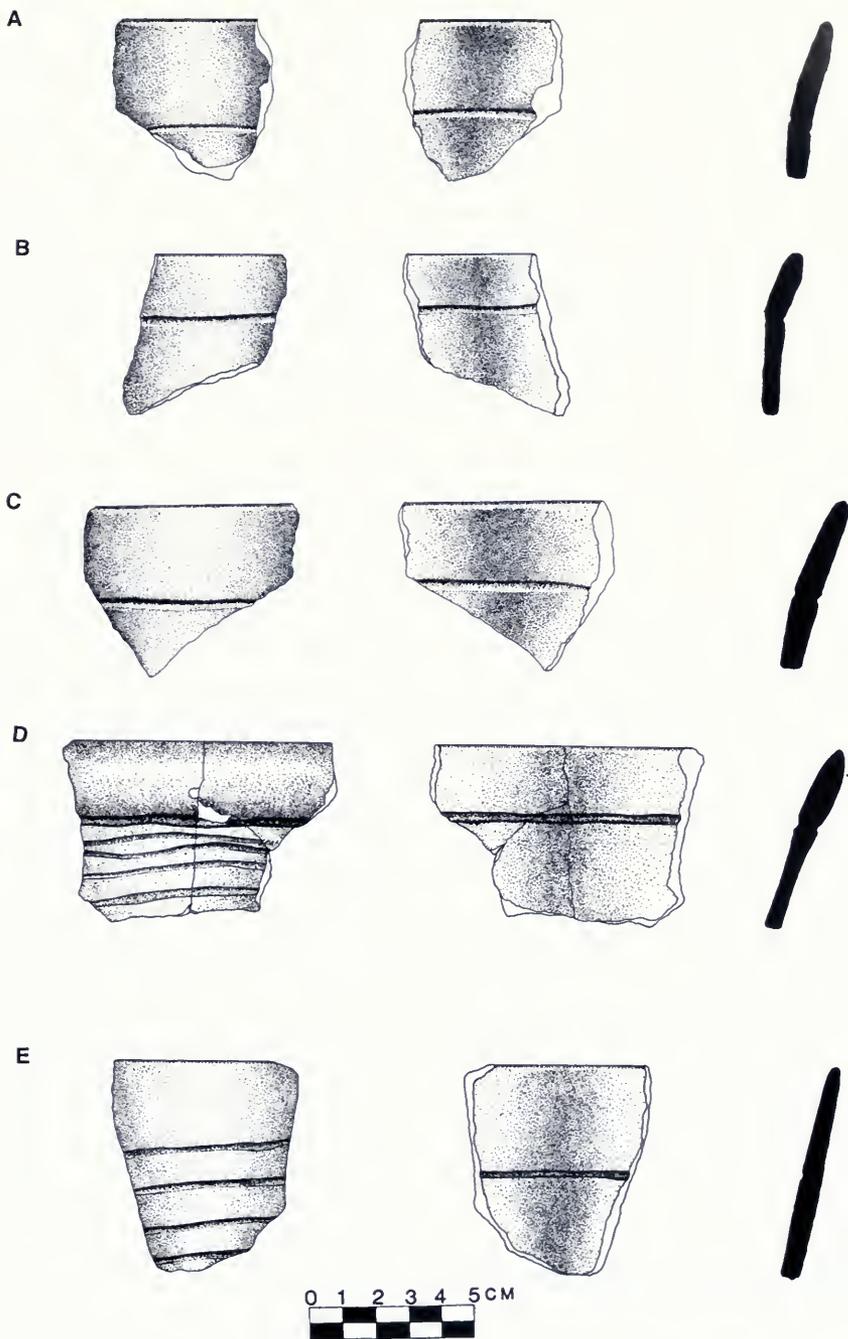
DRAWING 3-35. Muyu Orco annulated bowl with concave sides.



DRAWING 3-36. Horizontally incised drinking vessels.



DRAWING 3-37. Horizontally incised drinking vessels.



DRAWING 3-38. Horizontally incised drinking vessels.

Ceramics of the Early Intermediate Period and the Early Horizon (1000 B.C.–A.D. 550)

The era before Wari expansion and after the beginnings of ceramic production in the Cuzco region (ca. 1000 B.C.) is traditionally divided into two time periods: the Early Intermediate period (400 B.C.–A.D. 550) and the Early Horizon (1000 B.C.–400 B.C.). In the first section of this chapter, I review the ceramic styles of these two time periods for the Cuzco region: Huaru, Pucara, Chanapata, Derived Chanapata, and Marcavalle. In later sections, the survey and excavation findings for what are called “Paruro Formative” ceramics are presented, and information is provided on the distribution of incised, early Tiwanaku-related vessels.

The Early Intermediate period ceramic styles are the least understood styles of the Cuzco region. The period preceding Wari influence in the Cuzco region is associated, in the traditional ceramic sequence, with a style called “Huaru” (or Waru). This style was identified in 1952 by Chávez Ballón during his excavations at Batán Orco. Huaru ceramics are thought to resemble a style of ceramics called “Carmenca,” identified by Rowe (1944, pp. 19–20) in the early 1940s at the site of Chanapata (Rowe, 1956, p. 142). Huaru materials remain virtually unknown, however, because neither a description nor a single illustration of Huaru ceramics has been published (see Appendix 1).

During the Early Intermediate period, the site of Pucara, located approximately 200 km south-east of Cuzco in the Lake Titicaca Basin, reached

its largest area of influence as the center for one of the earliest complex societies in the southern Andes (Kolata, 1993, pp. 70–78). Pucara ceramics, characterized by incised vessels with complex yellow and black figures painted on a dark red background (Kidder, 1943; Rowe & Brandel, 1971) have been found in the upper Vilcanota and Apurímac River drainages. Reconnaissance by Núñez del Prado Béjar (1972), S. Chávez (1988), and Lantaron Pfoccori (1988) recovered examples of Pucara ceramics throughout the Province of Chumbivilcas, some 75 km south of Cuzco. Most recently, Zapata’s (pers. comm. 1994) excavations at Batán Orco have provided clear examples of Pucara ceramics. The completion of his work will most certainly change our views on the relations between the Cuzco and Lake Titicaca regions during this early period of cultural development in the Andes.

Chanapata and Derived Chanapata Ceramics

The next ceramic styles in the standard Cuzco sequence, following that of Huaru, are called “Chanapata” and “Derived Chanapata.” The division between these two related styles is based on the relative frequency of fine black and red wares in the collections. The earlier Chanapata materials are marked by a predominance of fine

black wares. This situation is reversed in the later Derived Chanapata collections, in which there is a higher percentage of fine red wares.

Chanapata ceramics were first identified by Rowe (1943, 1944, pp. 10–23) during his early 1940s research in Cuzco. The style is named after the site of Chanapata, located just north of Cuzco in the suburb of Santa Ana, where Rowe excavated in 1942. During his initial Cuzco research, Rowe found examples of Chanapata ceramics at three other sites, two in the Cuzco Valley (Picchu and Limpillay [Wimpillay]) and one near the community of Maras (Pacallamocco), 30 aerial kilometers from Cuzco.

Rowe's 1942 work at Chanapata was remarkable because it defined the first pre-Inca ceramic type of the Cuzco region. The excavations recovered a large sample of Chanapata materials. Rowe writes:

The pottery characteristic of the pre-Inca levels at Chanapata is so distinctive that even its plain sherds can be readily recognized when not too worn. The bulk of it is cooking ware, more or less globular ollas, plain or decorated with punctuate incision or pattern burnishing. The finely made pottery is mostly plate and bowl shapes with a polished surface, and decoration in incision or applied modeling (adornos). A small percentage has rather simple painted decoration, either by itself or combined with incision. (Rowe, 1944, p. 15).

The surface treatment of Chanapata ceramics includes burnishing and incising. The intensity of the burnishing can vary from vessels that have only a few narrow strokes on the exterior to items that have been carefully polished inside and out. The most common decoration found on Chanapata vessels consists of punctations around the base of the neck or around the bulge of globular bodies. Fine incisions are also common designs and generally form simple straight-line geometric patterns, although some cases of curved lines have been found (Rowe, 1944, p. 16).

The excavations at Chanapata yielded examples of both black and red wares. Using decoration and ware-type characteristics, Rowe divided his Chanapata collection into several subtypes: plain, incised plain, punctated, pattern burnished, polished black, incised black, polished red, and incised red. Examples of painted ceramics were also recovered at Chanapata. However, because painted pieces were more numerous at the site of Pacallamocco, Rowe classed these fragments as Pacallamocco white on red and Pacallamocco red on buff. Chanapata ceramics were also found to con-

tain a variety of modeled animal and human figures as well as small figurines on their handles and other exterior surfaces. These aspects of Chanapata collections have been studied by Jorge Yábar Moreno (1972, 1982) and Dwyer (1972).

As one of the earliest sites in the Cuzco Valley, Chanapata has received considerable archaeological attention. In 1960, Chávez Ballón excavated there with members of the Tokyo University Scientific Expedition to the Andes. Additional studies at Chanapata have been conducted by Jorge Yábar Moreno (1959, 1972, 1982), Frederick Engel, Barreda Murillo, and various other faculty and students of the Universidad San Antonio Abad del Cuzco. The site has been destroyed by Cuzco's expansion.

Continued research by Rowe in the Cuzco region in the mid-1950s identified several Chanapata sites that contained a greater frequency of fine red ware than of black ware. These findings caused Rowe to review his data from Chanapata, and he found that there was a decrease in the frequency of polished black ware from the bottom to the top of the excavations. Rowe (1956, p. 143) writes, "This situation suggests that the sites with red fired ware only are later than the main occupation at Chanapata. We gave the name 'Derived Chanapata' to the newly identified red phase. . . ."¹ Radiocarbon dates from the sites of Chanapata and Marcavalle support the proposition that there is a shift from black to red wares through time in the Chanapata sequence. Despite this shift, many of the vessel forms for Derived Chanapata appear similar to those found in Chanapata. One important exception to this statement has been found by Patterson (1967, p. 143), who notes that perhaps the most typical features of Derived Chanapata collections "are thickened rims on enclosed vessels and thick beveled or flat rims on open plates and bowls."

Because Rowe's initial report on the archaeology of Cuzco contained an extensive description and numerous drawings of Chanapata ceramics, this style is relatively well understood and has been found at various sites in the Cuzco region. Chanapata ceramics have been identified by Chávez Ballón (pers. comm. 1992), Barreda Murillo (pers. comm. 1992), and Zapata (pers. comm. 1992) in their separate excavations at Batán Urco, and by Dwyer (1972) at Minas Pata. Work at the site of Marcavalle by Chávez Ballón in 1953, Bar-

¹ Derived Chanapata is at times called Pacallamocco (Patterson, 1967, p. 143).

reda Murillo and Lyon in 1963, and K. Chávez between 1966 and 1968 has also yielded numerous examples of Chanapata and Derived Chanapata ceramics. These styles have also been found at Wimpillay (Valencia Zegarra, pers. comm. 1992), at Pisac (Gibaja Oviedo, pers. comm. 1992), on the Pampa de Anta, and at Pacallamocco (Zapata, pers. comm. 1992), as well as at various sites in the Cusichaca region (Kendall, 1976, 1982; Hey, 1984; Lunt, 1984) and the Lucre Basin (McEwan, 1987, pp. 9–21).

Dating Chanapata and Derived Chanapata Ceramics

Two dates are available for Derived Chanapata materials from K. Chávez's (1980, p. 241) excavations at the site of Marcavalle (Lawn, 1971, p. 373). The first is 2131 ± 55 B.P. ([P 1560] 181 ± 55 B.C.) and the second is 2096 ± 51 B.P. ([P 1561] 146 ± 51 B.C.).

There are several radiocarbon dates from excavation levels with Chanapata ceramics. Work done in 1960 by Chávez Ballón at Chanapata furnished two dates (Yamasaki et al., 1966, p. 337). The first sample dated to 2520 ± 150 B.P. ([N 89] 570 ± 150 B.C.). The second yielded the less useful date of 2360 ± 760 B.P. ([N 90] 410 ± 760 B.C.), owing to a small sample size. Another sample (Gak ?) from the site is mentioned by Patterson (1967, p. 143) as dating to 2600 ± 150 B.P. (650 ± 150 B.C.). A sample submitted by Engel (Krueger & Weeks, 1966, p. 155) from Chanapata provided a date of 3330 ± 240 B.P. ([GX 203] 1380 ± 240 B.C.), which seems too early, in light of the other dates from the site. Kendall's work in the Cusichaca region has supplied another sample with a date of 2380 ± 70 B.P. ([BM 1633] 414 ± 70 B.C.) from the site of Huillica Raccay (Burleigh et al., 1983).

General time estimates for the production of Chanapata and Derived Chanapata ceramics in the Cuzco region can be offered from these limited dates. It seems that Chanapata production began around 700 or 800 B.C. Derived Chanapata may have started about 500 years later, around 300 B.C. The duration of Derived Chanapata is difficult to estimate, because there are no dates from deposits with Huaru ceramics, or any other Early Intermediate period ceramic style, from the Cuzco region.

Marcavalle Ceramics

The site of Marcavalle is located between Cuzco and San Sebastian on the west bank of the Cachimayu River. The prehistoric occupations at this site were first noted by Chávez Ballón and Yábar Moreno in 1949. Chávez Ballón and Rowe conducted surface collections there in 1954 (K. Chávez, 1980, p. 211). In his 1956 article, Rowe concluded correctly that the site contained Chanapata as well as pre-Chanapata remains. The pre-Chanapata ceramics of the site are now called Marcavalle.

The first excavations at Marcavalle were directed by Barreda Murillo and Lyon in 1963 and 1964. The preliminary results of that work are presented in Barreda Murillo (1973), along with the first detailed description of the ceramics from the site. K. Chávez (1980, p. 213) reports that various other surface collections and excavations were conducted at the site during the 1960s and 1970s by members of the Cuzco academic community, including Leandro Zans Candia, Jorge Yábar Moreno, María Luisa Núñez del Prado de Guzmán, and other professionals such as Edward P. Lanning, John Rowe, Tom Patterson, and Frederic Engel. Despite its unique position in the cultural history of the Cuzco region, the site is now nearly destroyed. Valencia Zegarra and Gibaja Oviedo (1991) have chronicled the destruction of Marcavalle and have pleaded for its preservation.

The largest study at Marcavalle was supervised by K. Chávez from 1966 through 1968. Her research is described in a number of publications (K. Chávez, 1977, 1980, 1981a, 1981b, 1982). On the basis of extensive attribute study, K. Chávez defined 10 major vessel forms (*ollas*, bowls, square bowls, jars, shallow bowls, carinated bowls, spouted bottles, oval bowls, incurved bowls, and double bowls) and divided the Marcavalle collections into four phases (A through D). She also provided descriptions of 8 surface finishes, 16 paste-temper groups, and numerous decorative techniques (paint [cream on brown, black on cream, plum red on cream], specular hematite coloring, punctations, grooves, incisions, fillets, pattern burnishing, and zoomorphic motifs).

As K. Chávez (1980, p. 204) notes, Marcavalle ceramics precede Chanapata ceramics, representing not only the earliest pottery-using inhabitants of the Cuzco Valley but also, according to current research, the first occupants of the area. Unlike Chanapata, Marcavalle ceramics have not been

found elsewhere in the Cuzco region and appear to be limited to the valley. As the earliest known ceramic style in the Cuzco region, considerable effort has been made to date Marcavalle. A carbon sample (GX 0453) from Barrera Murillo's and Lyon's 1963 excavations yielded a date of 695 ± 115 B.C. (Patterson, 1967, p. 143; Lawn, 1971, p. 373).² K. Chávez furnished five dates for Marcavalle ceramics: 2571 ± 45 B.P. ([P 1562] 621 ± 45 B.C.), 2661 ± 46 B.P. ([P 1563] 711 ± 46 B.C.), 2685 ± 49 B.P. ([P 1564] 735 ± 49 B.C.), 2860 ± 47 B.P. ([P 1566] 910 ± 47 B.C.), and 2916 ± 55 B.P. ([P 1567] 966 ± 55 B.C.). These dates indicate that the production of Marcavalle ceramics began around 1000 B.C. and continued until about 700 B.C.

Paruro Formative Ceramics

Marcavalle ceramics are recognized as the earliest form of pottery in the Cuzco region and have been dated from 1000 B.C. until 700 B.C. by K. Chávez (1982, p. 2). Chanapata ceramics, and a broad spectrum of related ceramics called Derived Chanapata, follow Marcavalle. The early ceramics of the Province of Paruro share closer similarities to Derived Chanapata ceramics, as described by Rowe (1944, 1956), than to Chanapata or Marcavalle ceramics. Nevertheless, it should be noted that the early Paruro ceramics are not identical to the Derived Chanapata ceramics found in the Cuzco Valley. Accordingly, they will be classified as "Paruro Formative" ceramics.

Ware

The formative ceramics from Paruro contain a coarse fabric with a substantial quantity of white nonplastic inclusions that vary greatly in size from 0.01–0.30 cm. There is a considerable presence of gold and black mica as well as numerous matte, black inclusions. The ware is medium soft in hardness and fires to orange, red, or, more rarely, black.

² K. Chávez (1980:214) reports that two additional dates (I-3093 and I-3094) were obtained by Engel at the site in 1966.

Design Elements, Color, and Surface Treatment

The formative ceramics of Paruro tend to be extensively burnished on their exteriors, yet the quality of the burnishing varies. Some pieces are casually burnished and present a loose matrix of vertical and horizontal lines, while others are extensively burnished with their exteriors retaining a medium gloss. Even among the finest pieces, however, individual burnish strokes can be identified.

Some of the Formative fragments recovered in Paruro contain the remains of a dark red paint, and the possible remains of white pigment have been noted on a few additional pieces. Fine incisions and other carvings appear on the exteriors of vessels, and in a few cases, punctations were noted along the neck of the jars.

Vessel Forms

Because no whole or reconstructable formative vessel was recovered during research in the Province of Paruro, it is difficult to discuss specific vessel forms. From the available fragments, it appears that the most common vessels were globular and were produced with a wide variety of shoulder, neck, and rim forms (Drawing 4-1). Many of these globular forms contain short flaring rims with distinct points of inflection (Drawing 4-2). It is not uncommon for the interior lips of these short flaring rims to be flattened (Drawing 4-2A–C). Other vessels contained long, slightly flaring necks (Drawings 4-3 and 4-4A) or short abbreviated necks (Drawing 4-4B–C).

Small incurving bowls have been found (Drawing 4-4E), as have numerous examples of large, straight-sided flaring bowls. The lip of some of these flaring bowls has been pinched 1 or 2 cm from the rim (Drawing 4-5A–C), while others have a bulbous lip that has been flattened on the interior (Drawing 4-5D–F). More rarely, the entire surface of the interior lip may contain elaborately incised designs (Drawing 4-6). These straight-sided, flaring bowls are similar to the Derived Chanapata vessels described by Patterson (1967, p. 143) as open plates and bowls with beveled or flat rims.

There is also a wide variety of bowls with vertical or straight flaring sides in the Paruro Formative collections (Drawing 4-7). The interiors of some of these bowls are incised (Drawing 4-7B–



FIG. 4-1. Paruro Formative vessel with molded face.

C) or carved (Drawing 4-7E), and others have raised bands (Drawing 4-7A). The lips of several bowls are recovered with oval impressions (Drawing 4-7D), and some bowls have lug handles incised with short parallel lines (Drawing 4-8A-B).

Flat slab figurines, long noted among Chanapata collections in the Cuzco region (Dwyer, 1972; Yábar Moreno, 1982), have also been recovered in the Paruro region (Drawing 4-8C). Furthermore, some vessel necks were found to be modeled with human faces that have coffee bean-like eyes and raised ears and mouth (Fig. 4-1, Drawings 4-9 and 4-10).

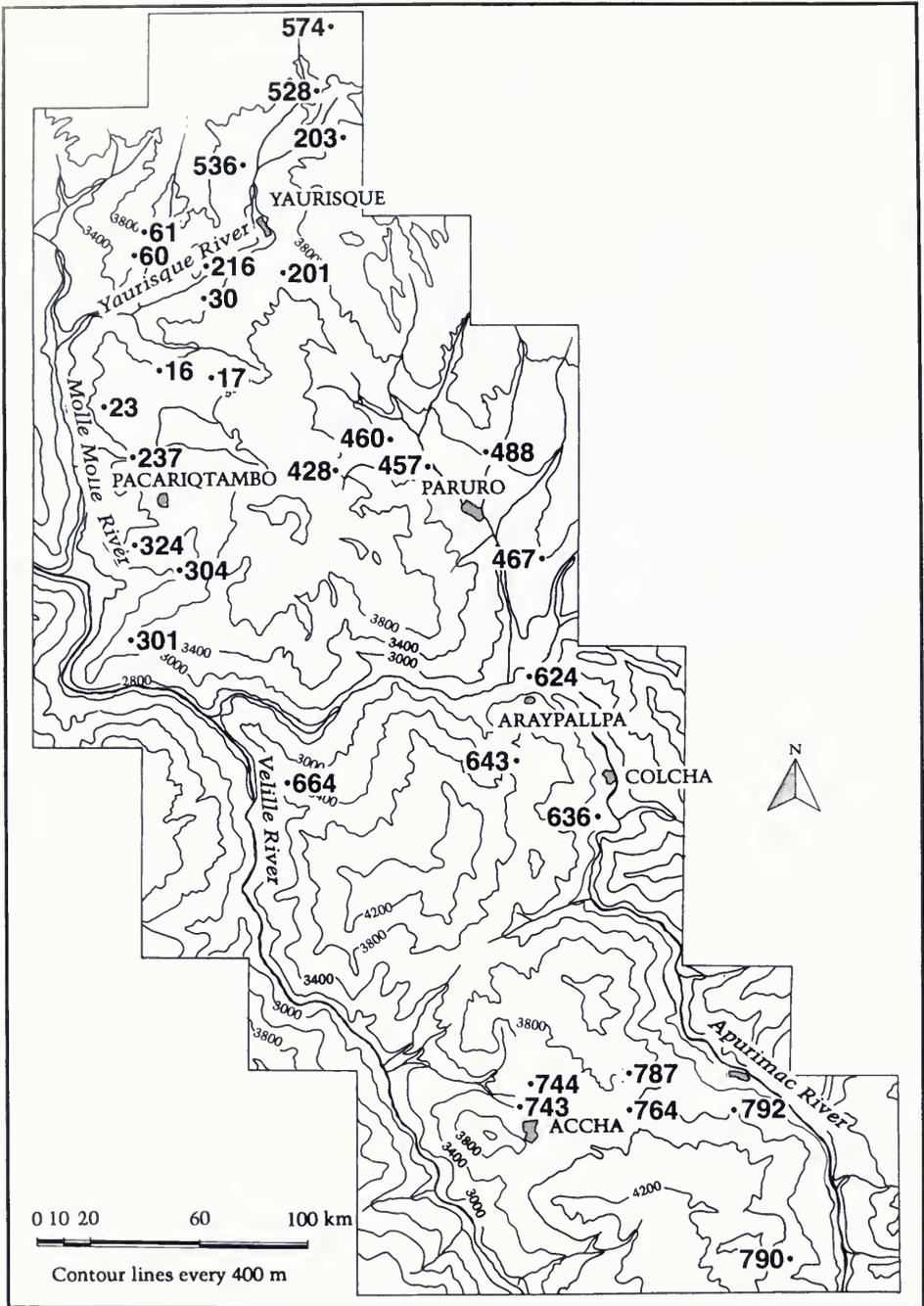
Distribution and Dating

Although there are currently no radiocarbon dates for the Paruro Formative materials, the similarities they share with Derived Chanapata ceramics of the Cuzco Valley suggest that they were produced at approximately the same time. Formative ceramics have been found at 31 sites in the research region (Map 4-1). These sites tend to

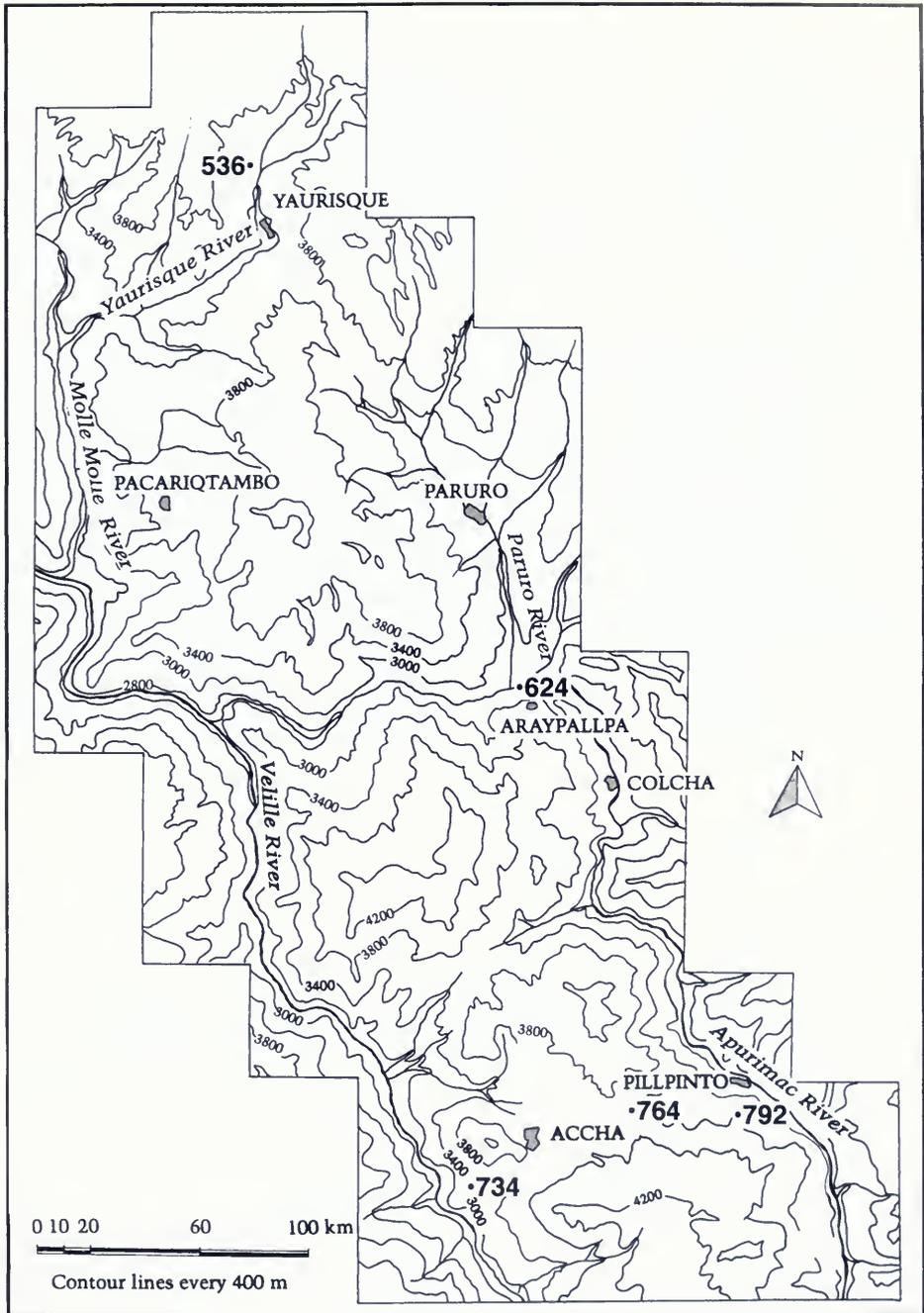
be located on the upper slopes of the valleys, frequently on hilltops, knolls, promontories, and the ends of ridges. These findings are not inconsistent with those of other researchers working elsewhere in the Cuzco region. For example, the largest Chanapata-related site in the Cusichaca region, Huillca Raccay, is located on a high promontory (Hey, 1984), and the site of Chanapata is on a small knoll well off the floor of the Cuzco Valley. It should also be noted that there is considerable variation in the vessel forms and attributes within the Paruro Formative materials. This suggests that there may have been a number of local areas of ceramic production during this period.

Incised, Early Tiwanaku-Related Vessels

Muyu Orco ceramics are not the first Tiwanaku-related ceramics to be identified in the Cuzco region. K. Chávez (1985) has noted the widespread distribution of incised *incensarios* frag-



MAP 4-1. Distribution of sites with Paruro Formative ceramics.



MAP 4-2. Distribution of sites with incised, early Tiwanaku-related ceramics.



FIG. 4-2. Incised, early Tiwanaku-related ceramics.

ments, or ceremonial burners, at sites between the Cuzco Valley and Lake Titicaca.³ Chávez's work documents what appears to be early Tiwanaku influence in the Cuzco region.

Systematic surface collections and excavations in the Province of Paruro recovered fragments of incised, early Tiwanaku-related ceramics (Drawing 4-11) from five sites (Map 4-2)⁴. Of these sites, Muyu Orco (536), which is situated less than 15 aerial kilometers from the city of Cuzco, yielded the largest number of fragments. This fact is particularly interesting because this site also provided the largest collection of Muyu Orco ceramics, which are believed to reflect late Tiwanaku influence in the region.

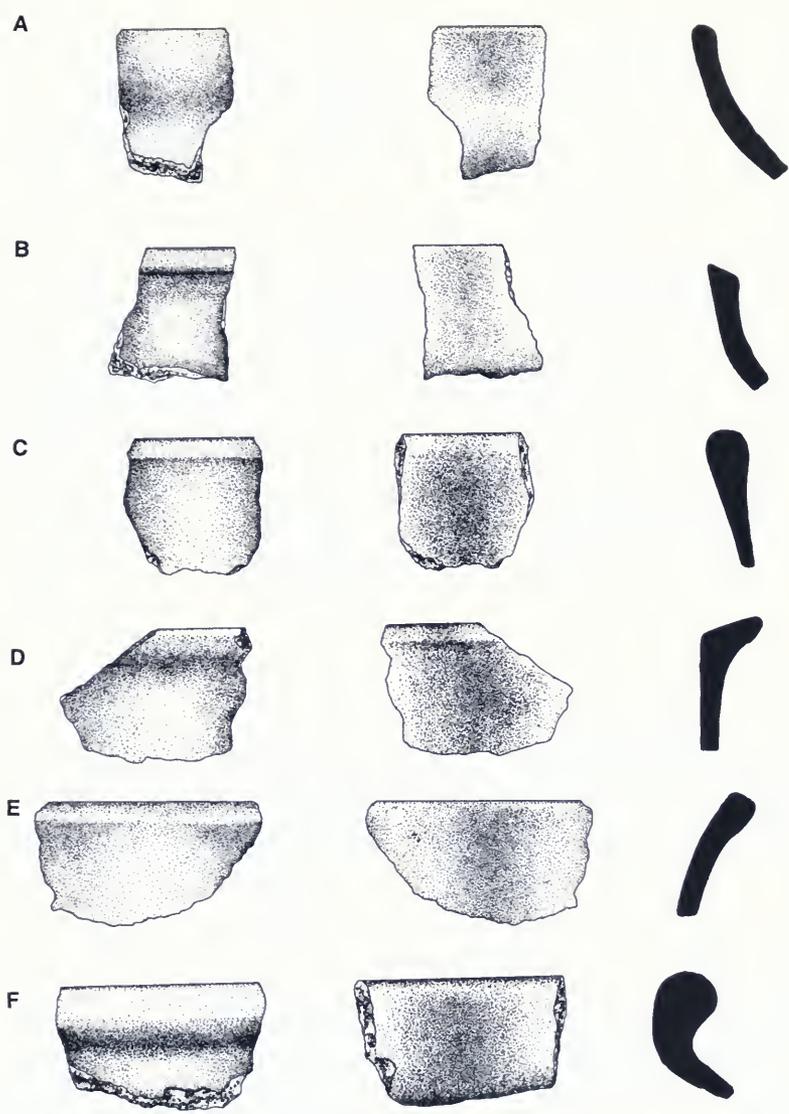
The designs on the incised, early Tiwanaku-related vessels tend to be geometric (Fig. 4-2). Circles are made with a hollow tool, which leaves a raised, solid area in their centers (K. Chávez, 1985, p. 138). The lines are made by dragging a

U-shaped tool across the vessel's surface. Their exteriors are roughly burnished, whereas the interiors have simply been smoothed. Two of the fragments appear to be rim scallops (Drawing 4-11F–G), one of which is decorated with a series of circles (Drawing 4-11G), while another contains a remnant of a Tiwanaku puma motif (Drawing 4-11F). A third is a rim fragment with a series of small circles (Drawing 4-11A). The other examples display complex series of circles, lines, and dots (Drawing 4-11B–E).

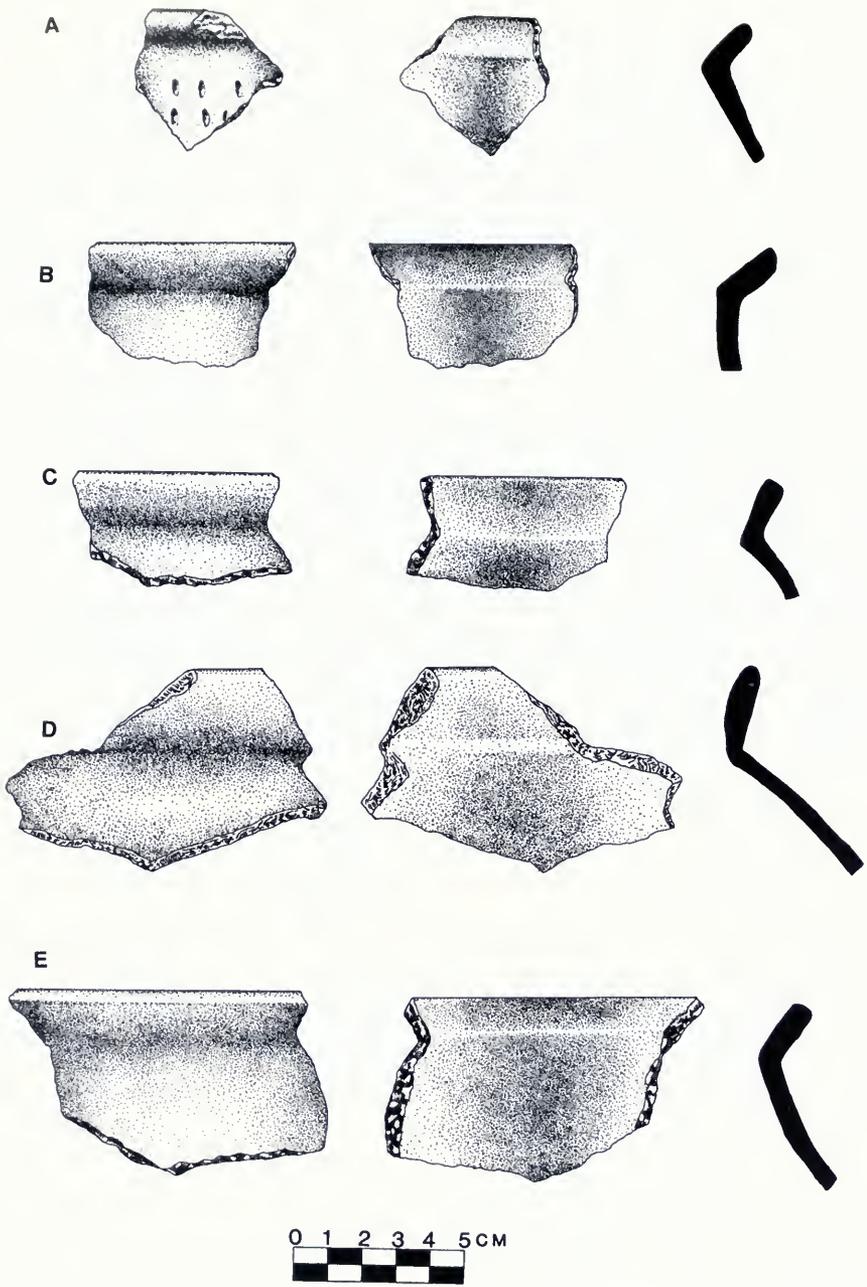
K. Chávez (1985) suggests that incised *incensarios* were produced during the period of early Tiwanaku development (or Tiwanaku III [A.D. 100–400]; Kolata, 1993, p. 78). She states that the fragments she recovered—which are similar to those found during the survey and excavation work in the Province of Paruro—are Tiwanaku related. Nevertheless, based on her study of their wares, vessel shapes, and motifs, she concludes that these incised *incensarios* do not represent imports from the Tiwanaku heartland but instead reflect stylistic influence on ceramic production that traveled northward from the Lake Titicaca region.

³ For an extensive description of these vessels see K. Chávez (1985).

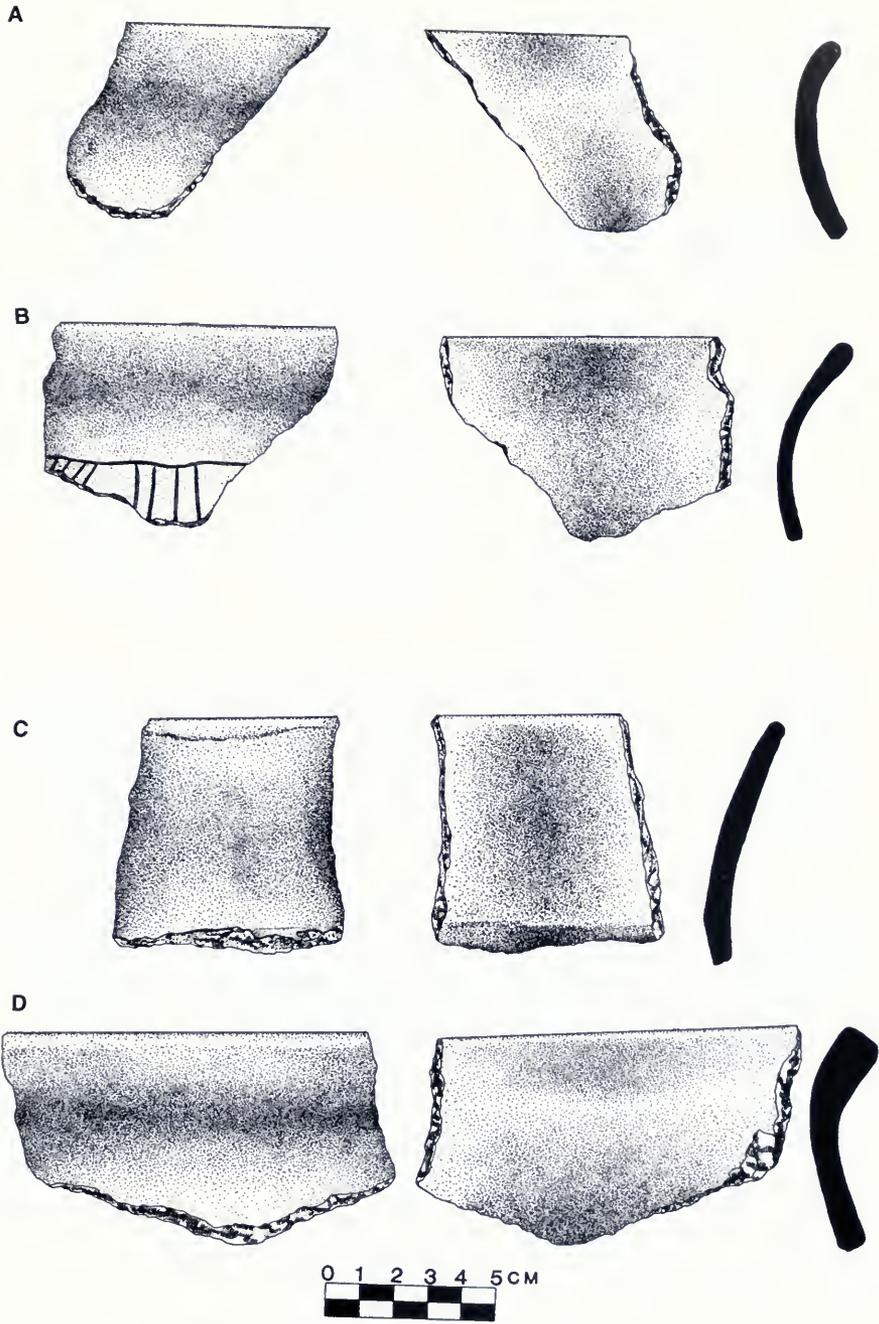
⁴ K. Chávez (1985) reports finding two fragments of incised ceremonial burners at Tejahuaci (496).



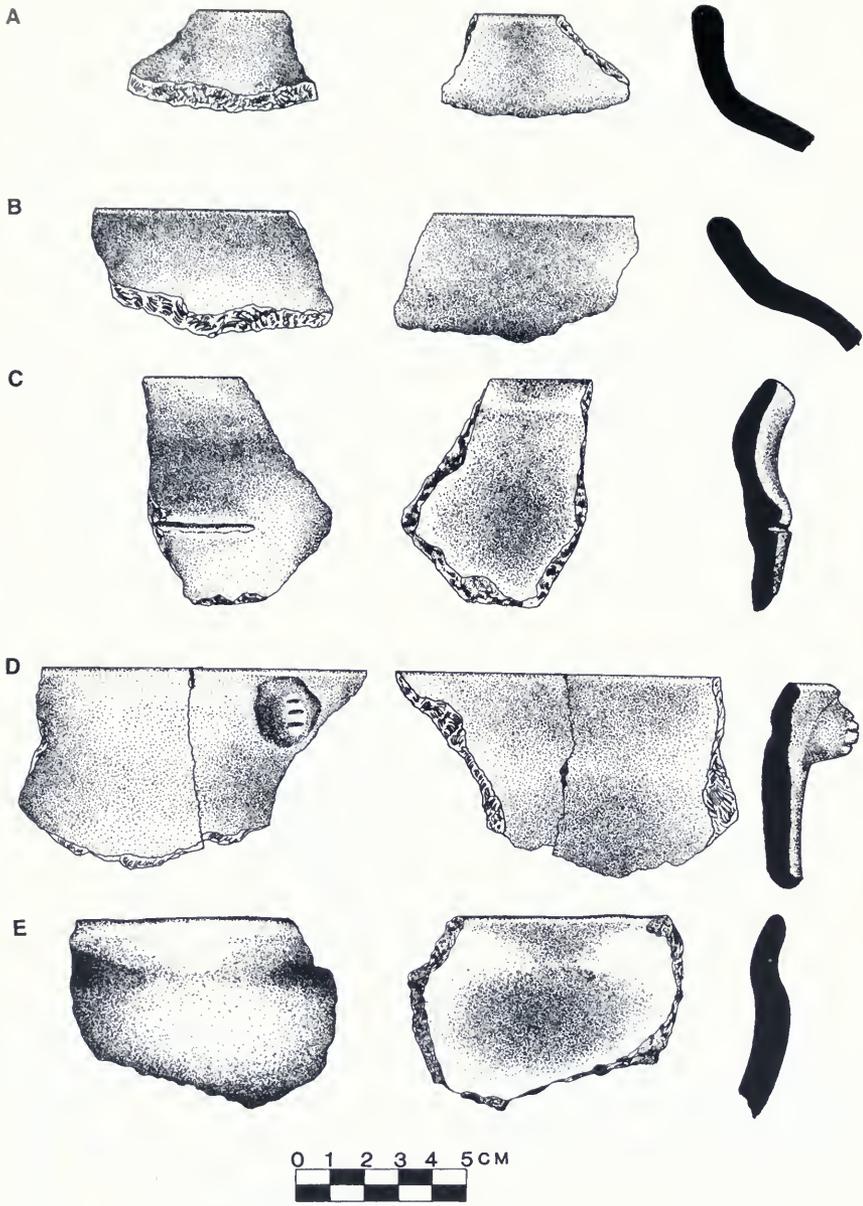
DRAWING 4-1. Paruro Formative vessel rims.



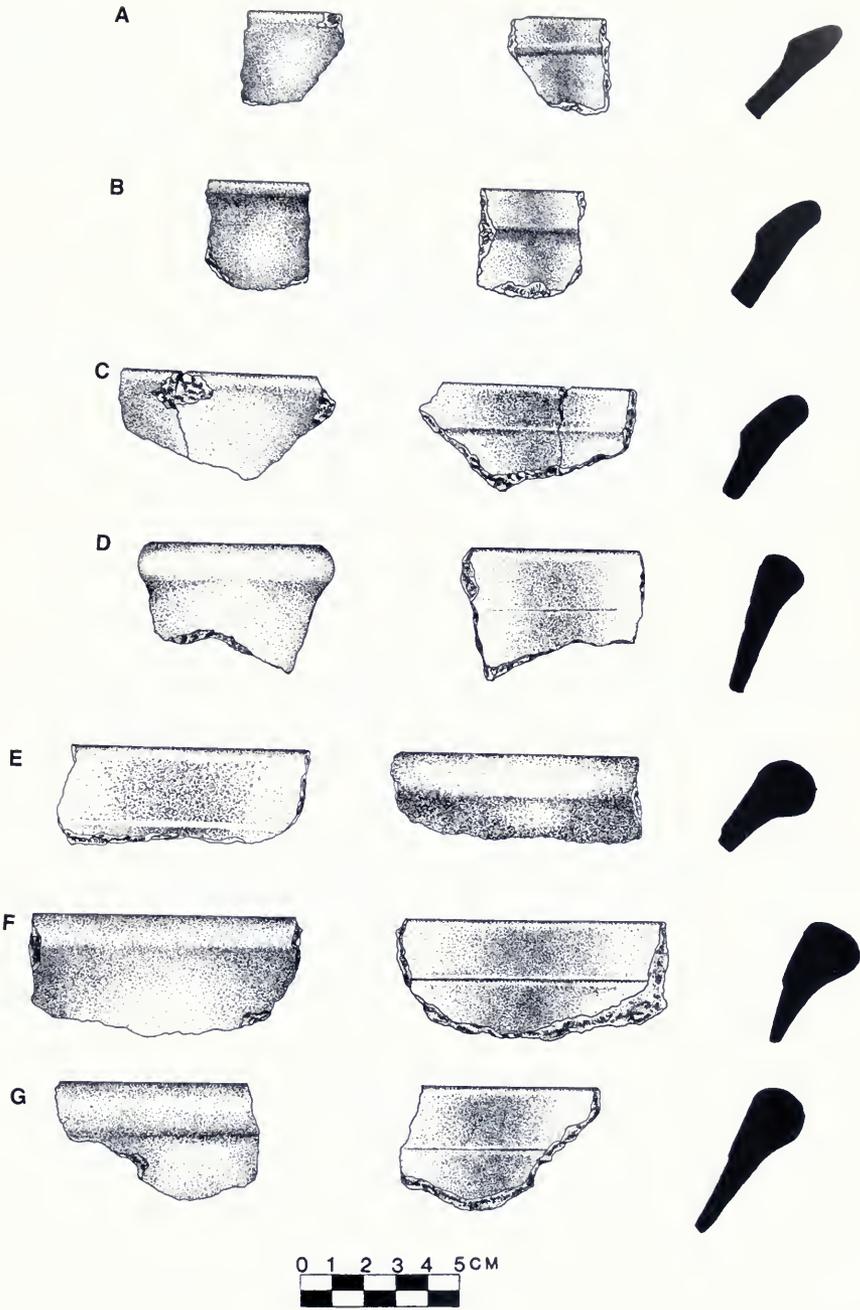
DRAWING 4-2. Paruro Formative vessels with short flaring rims.



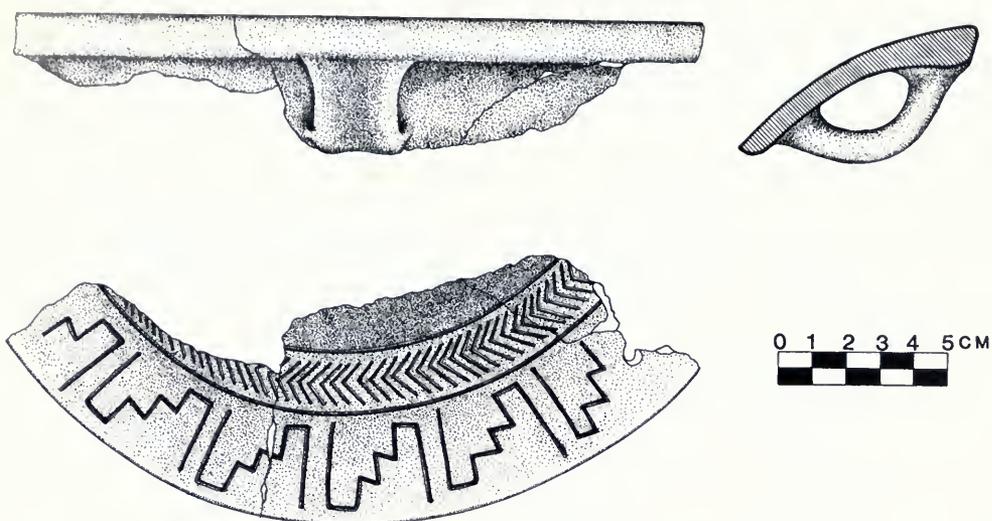
DRAWING 4-3. Paruro Formative vessels with long, slightly flaring necks.



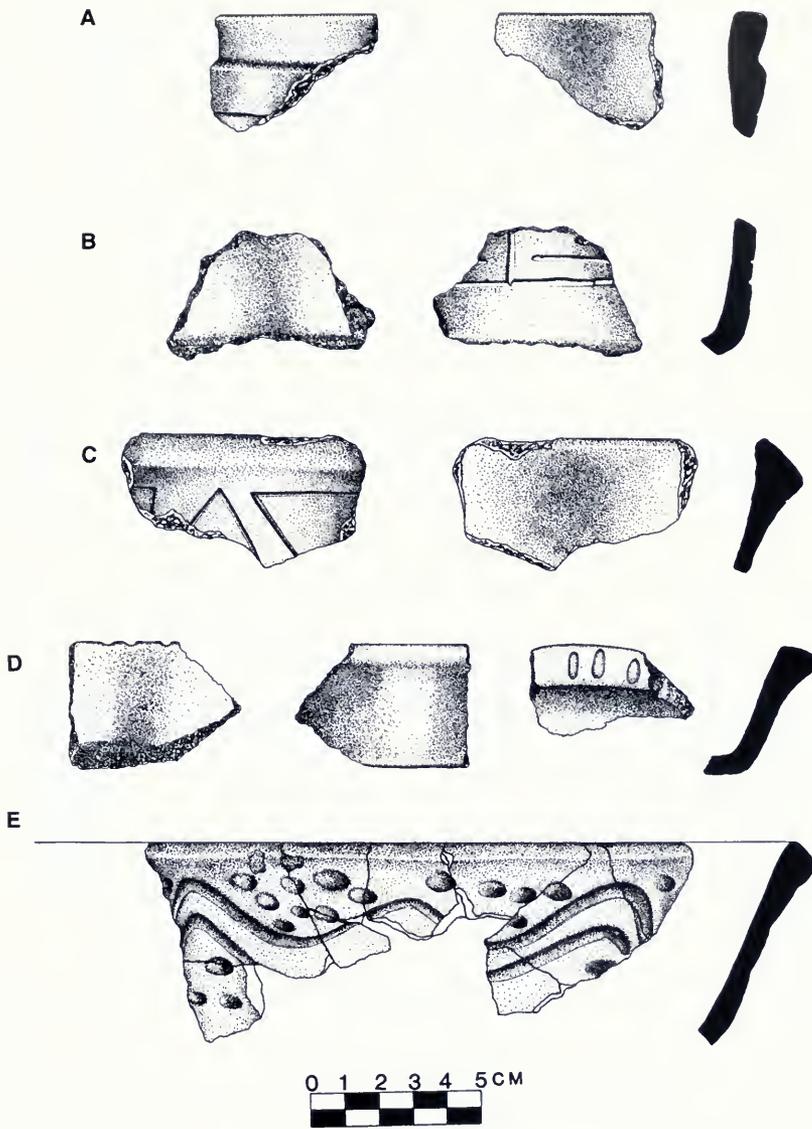
DRAWING 4-4. Paruro Formative vessel rims.



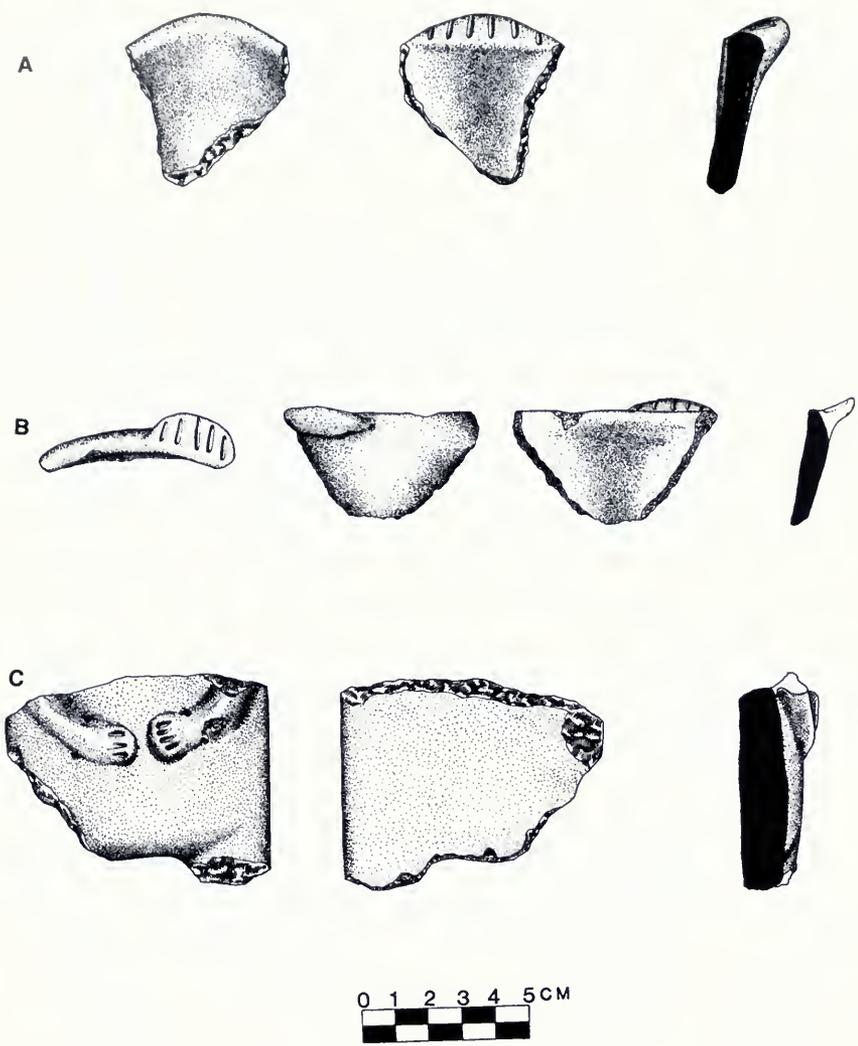
DRAWING 4-5. Paruro Formative flaring bowls.



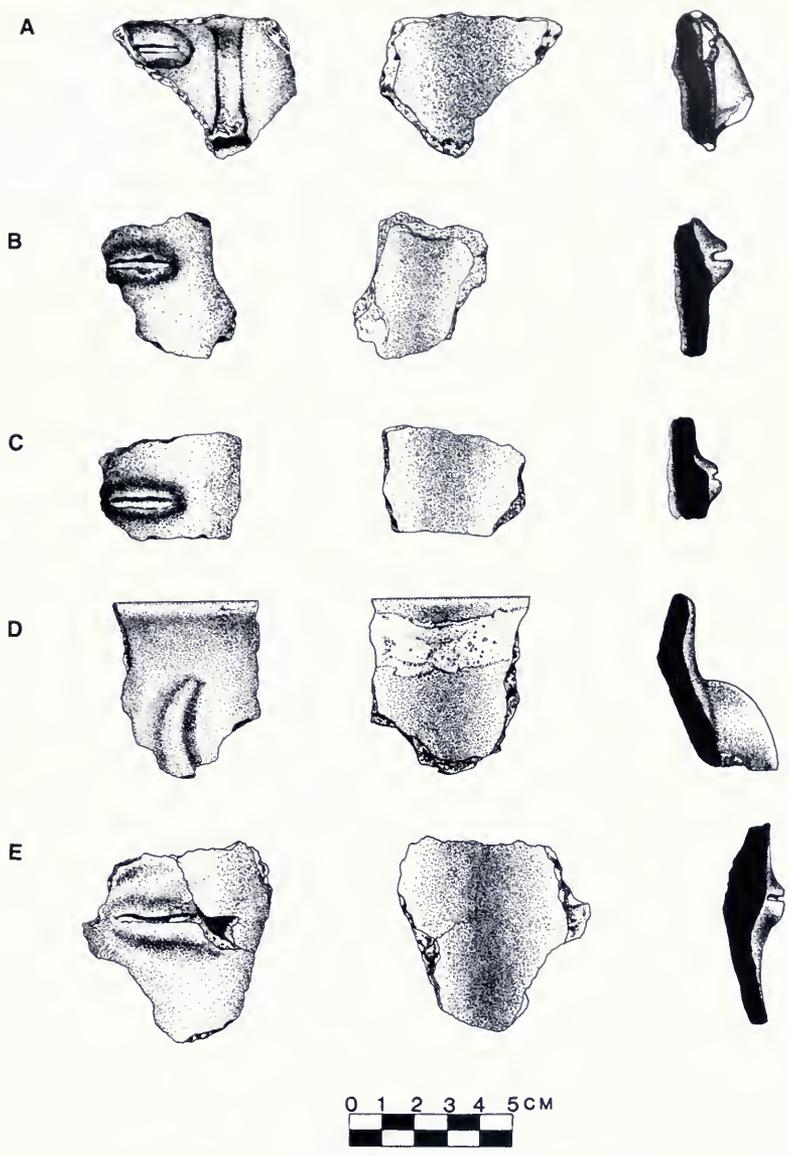
DRAWING 4-6. Paruro Formative flaring bowl.



DRAWING 4-7. Paruro Formative flaring bowls.



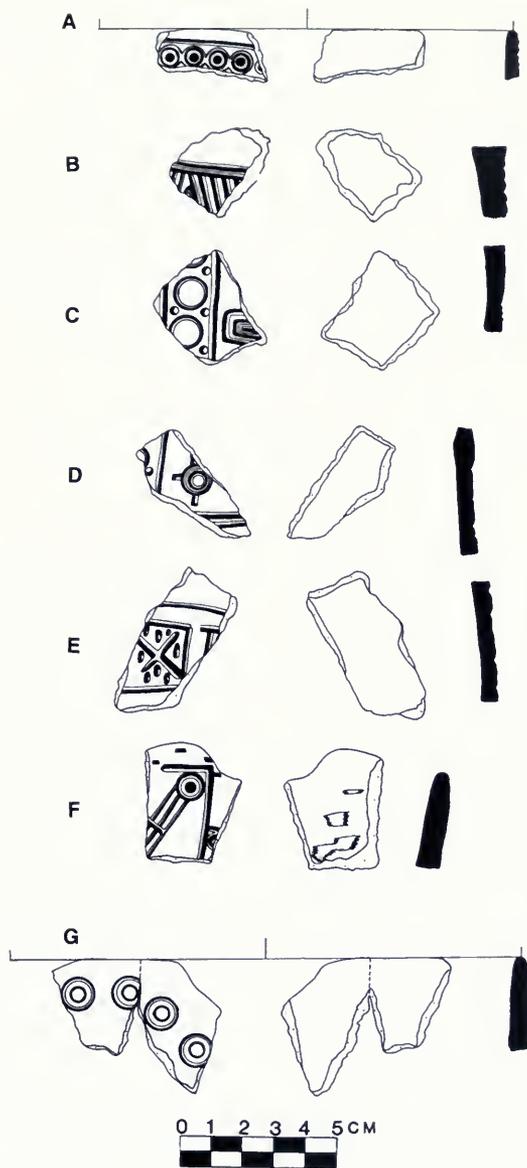
DRAWING 4-8. Paruro Formative bowls and figurine.



DRAWING 4-9. Paruro Formative vessels with modeled faces.



DRAWING 4-10. Paruro Formative vessel with modeled face.



DRAWING 4-11. Incised, early Tiwanaku-related ceramics.

A Revised Ceramic Sequence for the Cuzco Region

Ceramic chronologies are critical tools that archaeologists use in examining prehistoric and historic cultural developments. Relatively little archaeological research can be conducted without them. The first ceramic sequence for the Cuzco region was proposed by Rowe in 1956, and this general sequence divided the pre-Hispanic period of the region into seven broad temporal-ceramic classifications. Although much of the current archaeological research in the Cuzco region has focused on describing and analyzing its pre-Inca cultures, few new ceramic styles have been formally proposed. The lack of descriptions and illustrations for many of the Cuzco styles limits archaeological research in the region. Because few published sources exist for Cuzco ceramics, each researcher must begin anew in identifying, defining, and describing the styles of the region.

In this study, a ceramic sequence for the Province of Paruro is developed and combined with the results of research conducted elsewhere in the Cuzco region (Fig. 5-1). The resulting revised ceramic sequence for the Cuzco region spans more than 2,000 years. It begins with the rustic wares and vessels of the Early Horizon and Early Intermediate period and ends with the spectacular ceramics of the Inca Empire.

The earliest ceramic style so far identified is Marcavalle, which is found at only one site in the Cuzco Valley. Radiocarbon dates indicate that Marcavalle ceramics were produced between 1000 and 700 B.C. Further work in the Cuzco Valley may push the origins of Marcavalle ceramics further back in time or discover a precursor to them.

The Chanapata, Derived Chanapata and related wares, such as the Formative ceramics from Paruro, which follow Marcavalle in the sequence, are spread widely across the Cuzco region. Most likely there were many small production centers for these ceramic styles throughout the region, each producing vaguely similar products. Extensive ware analyses are needed to better understand the distribution of these early styles.

The ceramics of the Early Intermediate period are poorly understood. The production of some Derived Chanapata styles may have continued throughout this period or may have been replaced by the production of currently unidentified styles. The ceramics of the Cuzco region may have been influenced by outside polities during the Early Intermediate period. It has been suggested that incised, early Tiwanaku-related wares were brought into or produced in the region during this period. Furthermore, it is likely that Pucara ceramics entered the Cuzco region by trade at this time.

During the Middle Horizon, two, perhaps competing, polities controlled the central and south central Andean highlands. The Wari state expanded from the Ayacucho region of Peru between A.D. 550 and 900. The Tiwanaku polity, centered in the Lake Titicaca region, began to expand around A.D. 500 and collapsed about the same time as Wari. During this period of state development in the Andes, the Cuzco region witnessed a florescence of imported and locally produced ceramics.

Cuzco lies between the highland centers of Wari and Tiwanaku. The Cuzco region was occupied by the Wari from around A.D. 600 to the

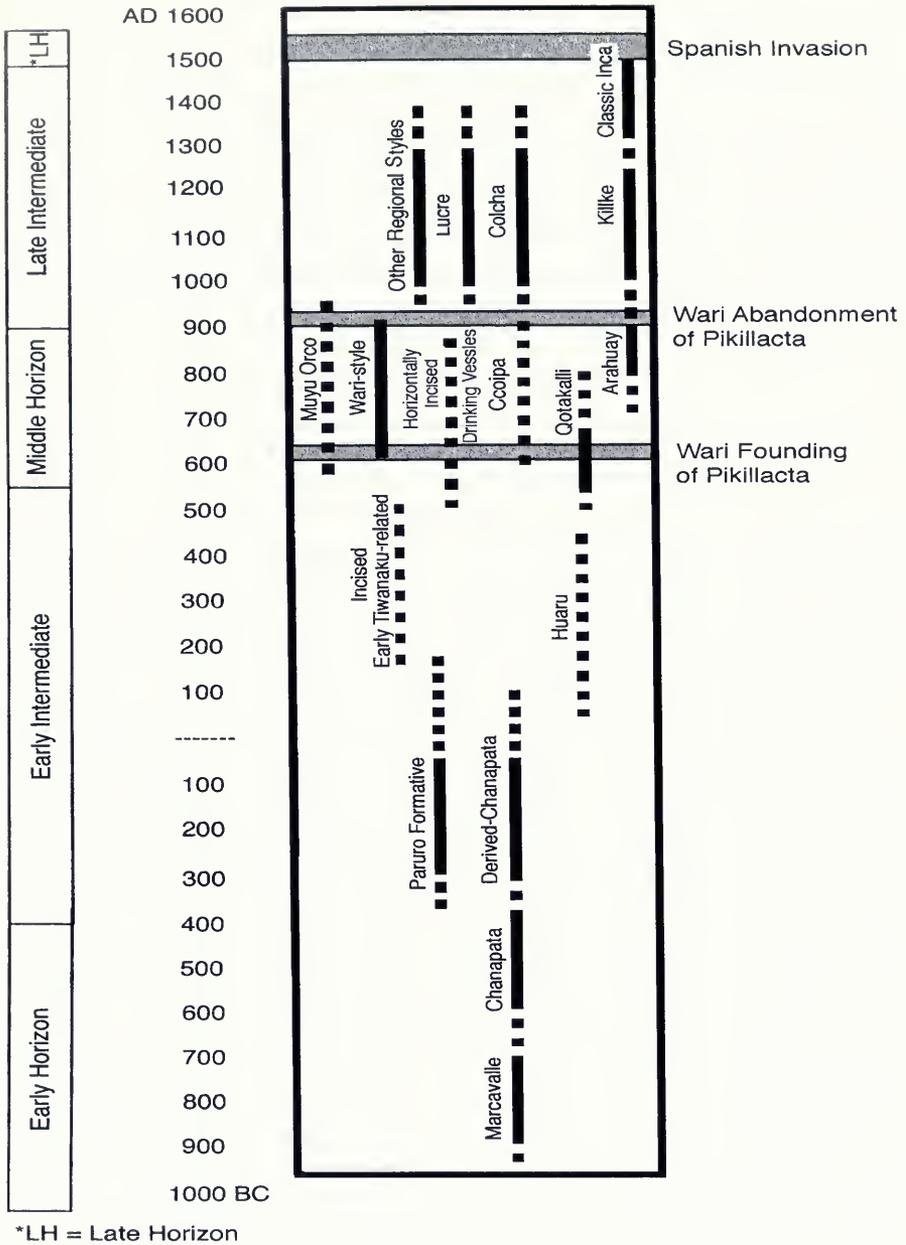


FIG. 5-1. Revised ceramic sequence for the Cuzco region.

collapse of the empire. Pikillacta, one of the largest sites in the south central highlands, was built by the Wari in the Lucre Basin, some 35 km southeast of Cuzco. The construction of this site represented an enormous investment of time and labor for the Wari. It is thought to have been the Wari administrative center for the southern region of their domain. Nevertheless, the effects that the

centuries-long Wari occupation had on the local Cuzco-based populations, and the nature and extent of Wari control in the region, remain to be studied.

Researchers have reported finding small numbers of Chakipampa and Ocos vessels in the Cuzco region. These vessels represent imports from the Ayacucho region. Wari-style ceramics were,

however, also produced in the Cuzco region during the Middle Horizon. Wari-style ceramics closely imitate ceramics from the Wari homeland but are locally produced. Ocos-style bowls have, for example, been found at several sites in the Cuzco region and are frequently used to identify sites occupied during the period of Wari control. There are, however, relatively few sites with these ceramic styles in the Paruro research region. The few sites that do contain Wari and Wari-style ceramics are relatively close to the Lucre Basin in the Paruro River Valley. These findings suggest that Wari influence was concentrated in the Lucre Basin and did not extend a significant distance to the south.

It has been long recognized that there were a number of ceramic styles produced in the Cuzco region during the Middle Horizon. One of the most important, newly identified styles used in the Cuzco region during the Middle Horizon is Arahua. This style is classified as Wari-related, because it was influenced by Wari ceramic traditions, but it does not directly imitate ceramics from the Ayacucho region. It is characterized by the use of broad red bands outlined with narrow black lines. Arahua pottery seems to have been produced during the Wari presence in the Cuzco region, since fragments have been recovered in Pikillacta and with Wari-related styles at Batán Orco.

Qotakalli is a distinct style with a cream slip and elaborate geometric designs. First identified in the Cuzco Valley in the early 1960s, it is now known to be relatively widespread. No radiocarbon dates have been run for Qotakalli ceramics; however, excavations at Pikillacta and Batán Orco have recovered Qotakalli in association with Wari-style fragments, indicating that Qotakalli was used during the period of Wari control. The Ccoipa ceramics style, a relatively rustic style featuring simple geometric designs in alternating red and black paint, seems to have been produced in the Paruro region during this same time period or slightly later.

Despite the long period of Wari presence in the Cuzco region, Inca mythology suggests that the Inca associated themselves more closely with Tiwanaku than with Wari. The ruined city of Tiwanaku is mentioned specifically as a location of primeval importance in Inca myths, and Lake Titicaca is identified as the origin place of the sun and the moon. This apparent "Tiwanaku affiliation" has been something of a quandary because there has been little evidence—unlike that for

Wari—that this Lake Titicaca polity influenced the Cuzco region. However, it is becoming apparent that some contact may have existed between the Cuzco and Tiwanaku regions during the Middle Horizon. Materials thought to be influenced by Tiwanaku III traditions have been found between Tiwanaku and Cuzco. Research in the Province of Paruro recovered such fragments less than 15 aerial kilometers from the city of Cuzco. Furthermore, a new ceramic style called Muyu Orco has been identified in the Province of Paruro, and similar materials have been found in the Cuzco Valley. This style is characterized by bright black, white, and orange figures painted over a dark red background; these colors are traditionally associated with late Tiwanaku (Tiwanaku V) ceramics. Various vessel forms and vessel attributes found in the Muyu Orco collections also suggest ties with Tiwanaku rather than with Wari. With the recovery of Muyu Orco ceramics in the Cuzco region, it can be proposed that influence from the Titicaca area may have continued up to, and perhaps during, the Wari occupation.

The fall of Wari and the concomitant abandonment of its administrative center in Pikillacta, in the Lucre Basin, perhaps as late as A.D. 900 or 1000 marked the beginning of autochthonous state development in the Cuzco region. By about A.D. 1400, the Inca had united the Cuzco region under their rule, and the city of Cuzco had emerged as its capital. Evidence from systematic regional survey work in the Province of Paruro suggests that Killke ceramics were produced in the Cuzco Valley during this period of state formation and that they were traded in a region with a 60 km radius.

Other ceramic styles were being produced in the Cuzco region during the Late Intermediate period. Colcha ceramics, manufactured south of the Apurimac River in the area of Araypallpa, represent one such style. Colcha ceramics have been classified as Killke-related because they share a number of attributes, including geometric design elements and vessel forms, with Killke ceramics. As research continues in the Cuzco region, it is expected that additional Killke-related styles will be identified.

It should be noted that the proposed chronological relations between many of the ceramic styles presented here are speculative and require future research. Some of the styles, such as Chanapata, Marcavalle, and Ocos-style, have been dated with several radiocarbon samples. The dates of others, such as Killke, Colcha, Ccoipa, and Derived Chanapata, rest on three or fewer samples.

Qotakalli and Arahuary are dated stratigraphically in the excavations at the Wari sites of Pikillacta and Batán Orco. The dates of still other ceramic materials, such as Muyu Orco, are still poorly understood, although their ages can be inferred from their style.

Future research may require the redefinition of styles described here. Excavations at stratified sites and the recovery of additional radiocarbon dates are especially important in testing the pro-

posed temporal affiliations. Because the pace of archaeological research in the Cuzco region is steadily increasing, there is little doubt that new observations will be made and new ceramic styles will be identified over the course of the next decade. These advances are necessary if we are to begin to understand the cultural history of the Cuzco region and the processes that led to the development of one of the greatest empires of the New World.

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Appendix 1: Shallow Bowls

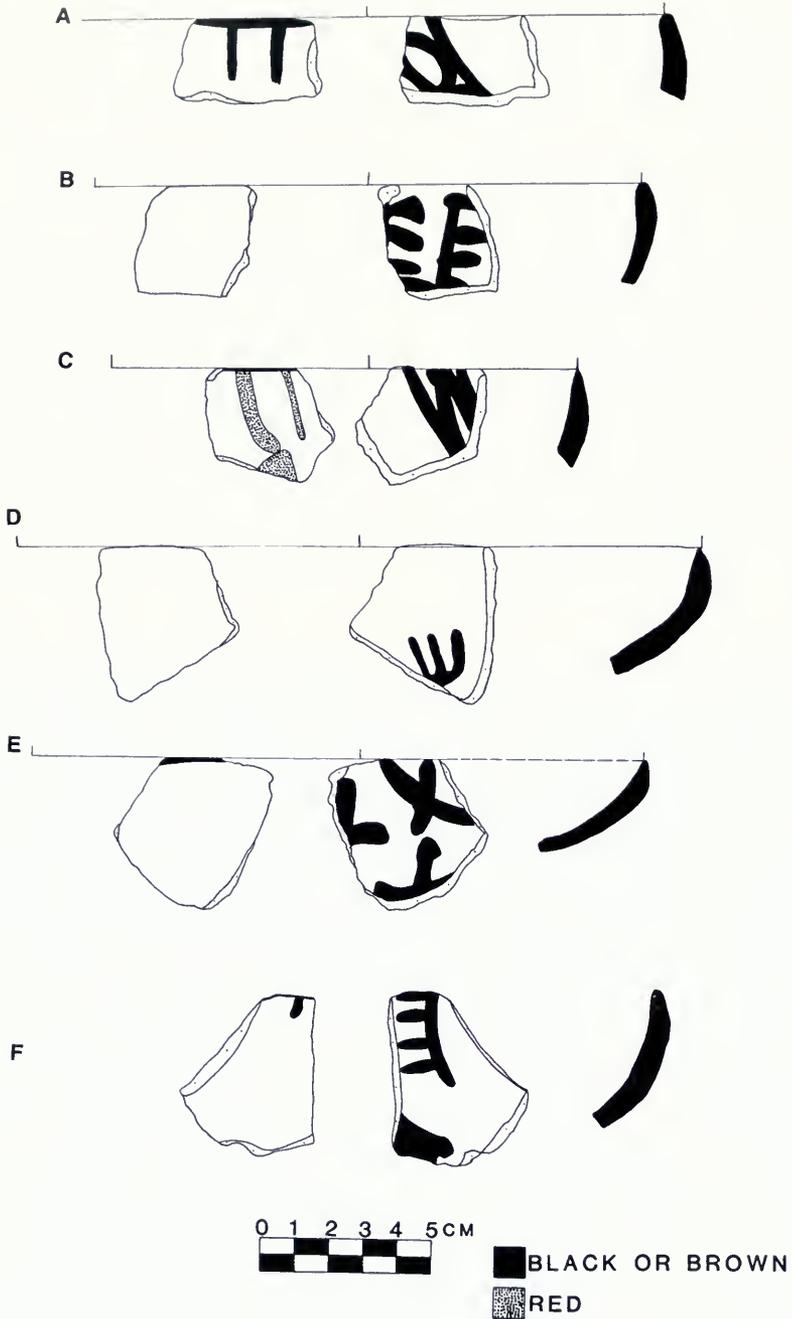
During his 1940s excavations at the site of Chanapata, Rowe (1944, pp. 19–20) recorded finding a small quantity of shallow bowl fragments covered with a white slip and painted with simple red designs. He called this style “Carmenca” and provided several drawings of it (Rowe, 1944, fig. 16, pp. 3–8).

I recovered various fragments of shallow bowls in the lower excavation levels of Marcapata (624) as well as on the surface of four other sites that appear to be similar to Rowe’s Carmenca ceramics. (Map A-1, Fig. A-1, Drawings A-1 and A-2).

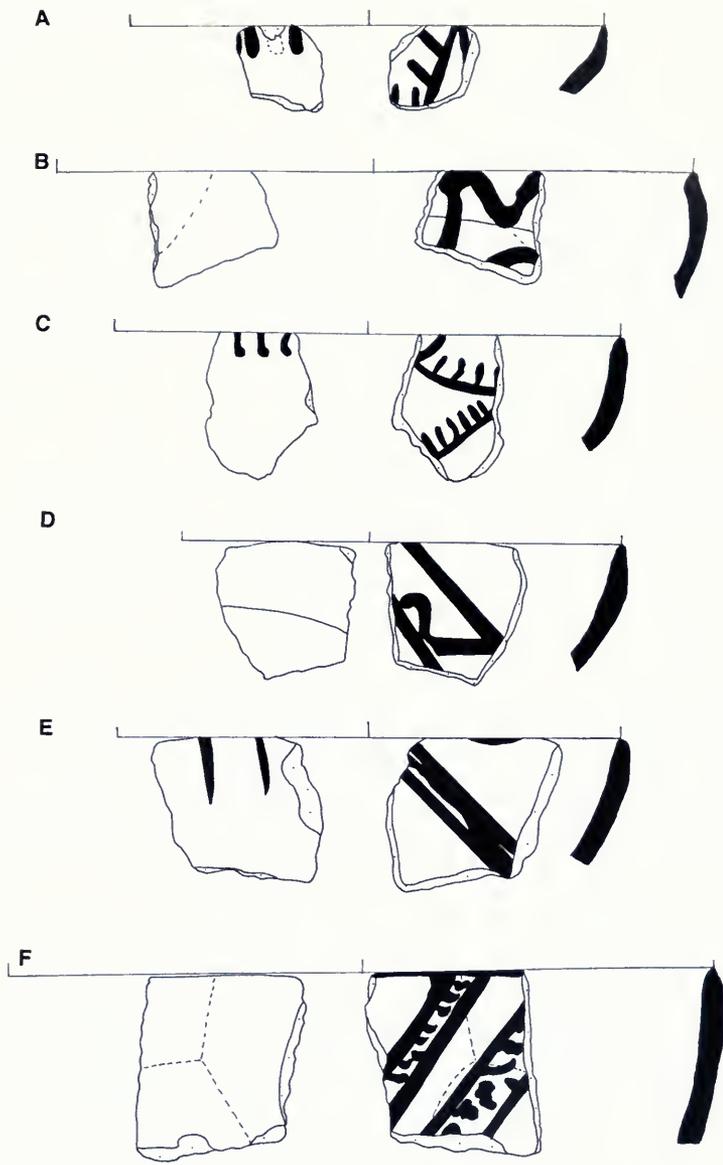
These vessels are painted with pigments that vary from dark red to brown or black. The decorative designs, drawn with thin pigments, have been absorbed into the surface of the vessels. A few of the fragments have a white slip, although most are unslipped. There is low tonal contrast between the pigments and surfaces of the unslipped fragments. Although the depth at which most of the fragments were recovered suggests that they are of considerable antiquity, no secure date can currently be offered.



FIG. A-1. Shallow bowls.

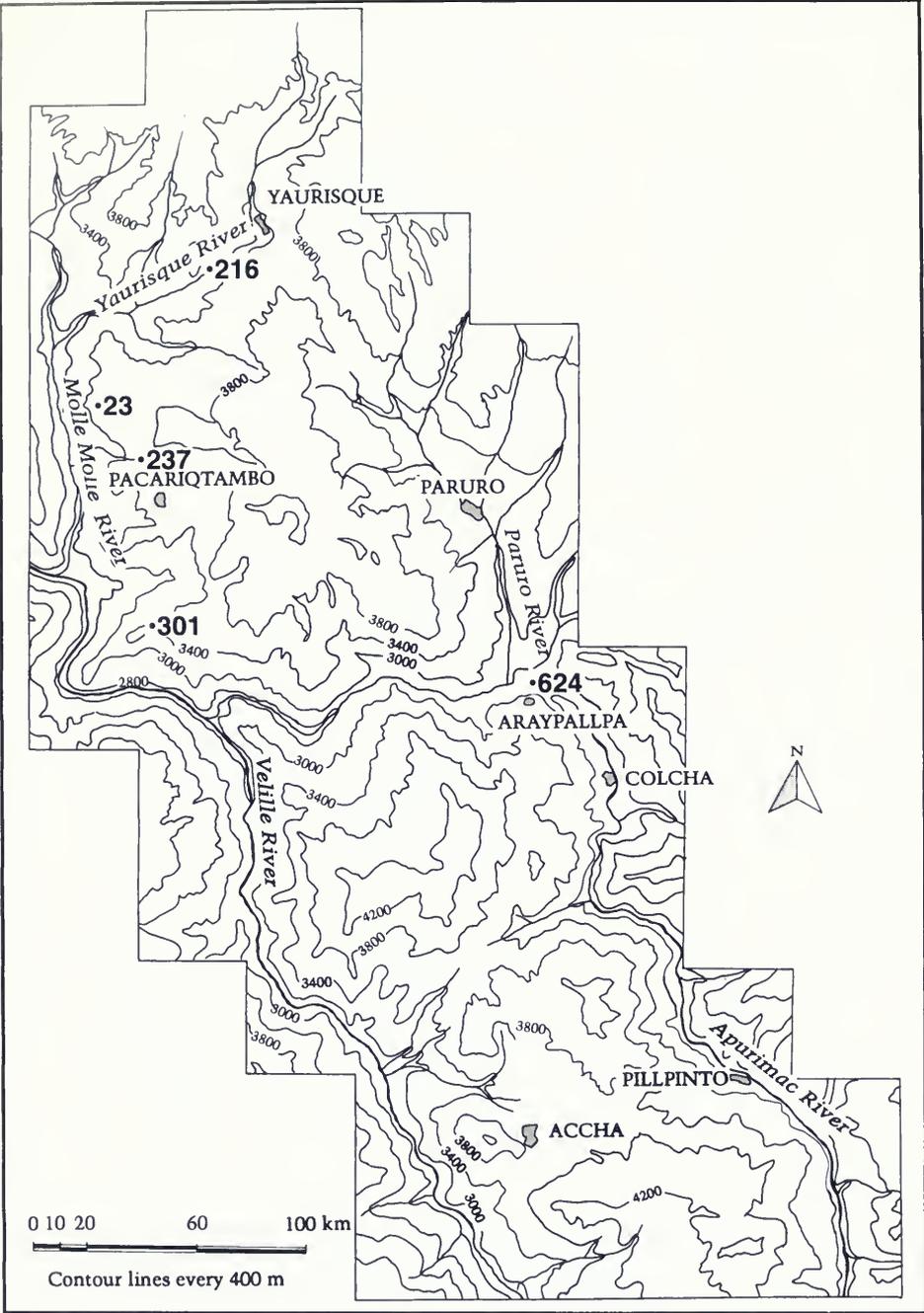


DRAWING A-1. Shallow bowls.



■ BLACK OR BROWN

DRAWING A-2. Shallow bowls.



MAP A-1. Distribution of sites with shallow bowls.

APPENDIX 2. Radiocarbon Dates from the Cuzco region.

Site	Reported context	Laboratory no.	Radiocarbon age	Calendar (not calibrated)	Source
Juchuy Coscco	Inca**	UCLA 1676F	Modern	Modern	Kendall, 1985, p. 347
Pisac	Inca**	UCLA 1676Q	Modern	Modern	Kendall, 1985, p. 347
Pisac	Inca**	UCLA 1676R	Modern	Modern	Kendall, 1985, p. 347
Pisac	Inca**	UCLA 1676S	Modern	Modern	Kendall, 1985, p. 347
Ureco	Inca**	UCLA 1676I	160 BP	A.D. 1790	Kendall, 1985, p. 347
Patalacta	Inca**	BM 926	168 ± 73 BP	A.D. 1782 ± 73	Kendall, 1985, p. 347
Queswaywayqo	Inca**	ANU 5838	200 ± 80 BP	A.D. 1750 ± 80	Heffernan, 1989, p. 539
Ureco 1	Inca**	BM 928	209 ± 65 BP	A.D. 1741 ± 65	Kendall, 1985, p. 347
Canabamba	Inca**	BM 927	227 ± 69 BP	A.D. 1723 ± 69	Kendall, 1985, p. 347
Fortaleza Oil	Inca**	BM 931	295 ± 54 BP	A.D. 1655 ± 54	Kendall, 1985, p. 347
Ureco J	Inca**	BM 929	307 ± 41 BP	A.D. 1643 ± 41	Kendall, 1985, p. 347
Queswaywayqo	Inca?*	ANU 5840	310 ± 80 BP	A.D. 1640 ± 80	Heffernan, 1989, p. 539
Queswaywayqo	Inca?*	ANU 5839	320 ± 110 BP	A.D. 1630 ± 110	Heffernan, 1989, p. 539
Yucay	Inca**	UCLA 1676K	365 ± 60 BP	A.D. 1585 ± 60	Kendall, 1985, p. 347
Patalacta	Inca*	UCLA 1676A	365 ± 60 BP	A.D. 1585 ± 60	Kendall, 1985, p. 347
Qata Casallaqta	Inca**	ISGS 545	370 ± 80 BP	A.D. 1580 ± 80	Liu et al., 1986, p. 108
Fortaleza Oil	Inca**	SI 6991B	390 ± 100 BP	A.D. 1560 ± 100	Hollowell, 1987
Tunasmocco	Inca**	UCLA 1676B	415 ± 60 BP	A.D. 1535 ± 60	Kendall, 1974, 1985
Canaraceay	Inca**	BM 925	425 ± 67 BP	A.D. 1525 ± 67	Kendall, 1974, 1985
Fortaleza Oil	Inca**	SI 6991A	470 ± 70 BP	A.D. 1480 ± 70	Hollowell, 1987
Canamarca	Inca**	UCLA 1676D	475 ± 60 BP	A.D. 1475 ± 60	Kendall, 1985, p. 347
Ancamarca A	Inca**	BM 930	482 ± 91 BP	A.D. 1468 ± 91	Dendall, 1985, p. 347
Intihuatana	Inca**	SI 6989	515 ± 50 BP	A.D. 1435 ± 50	Hollowell, 1987
Kachichata	Inca**	SI 6990	640 ± 55 BP	A.D. 1310 ± 55	Hollowell, 1987
Pumamarca	Inca**	SI 6988B	645 ± 45 BP	A.D. 1305 ± 45	Hollowell, 1987
Pumamarca	Inca**	SI 6988A	660 ± 50 BP	A.D. 1290 ± 50	Hollowell, 1987
Ancamarca B	Killke*	UCLA 1676M	660 ± 60 BP	A.D. 1290 ± 60	Kendall, 1985, p. 347
Choquepuquio	?***	BM 924 ¹	695 ± 59 BP	A.D. 1255 ± 59	Kendall, 1985, p. 347
Pumamarca	Inca***	SI 6987	710 ± 55 BP	A.D. 1240 ± 55	Hollowell, 1987
Rokeccasa	Ccoipa*	AA 8936	730 ± 55 BP	A.D. 1220 ± 55	Bauer, 1998
Sacsayhuaman	Killke*	GaK 2958	770 ± 140 BP	A.D. 1180 ± 140	Dwyer, 1971
Juchuy Coscco	Inca?****	UCLA 1676G	850 ± 60 BP	A.D. 1100 ± 60	Kendall, 1985, p. 347
Pumamarca	Inca?****	SI 6986 ²	940 ± 40 BP	A.D. 1010 ± 40	Hollowell, 1987
Tejahuasi	Killke*	B 27494	940 ± 140 BP	A.D. 1010 ± 140	Bauer, 1992
Choquepuquio	?****	TX 4748	1,090 ± 60 BP	A.D. 860 ± 60	McEwan, 1984, p. 227, 1987
Pikillacta	Wari***	TX 3996	1,100 ± 60 BP	A.D. 850 ± 60	McEwan, 1984, p. 227, 1987
Pikillacta	Wari***	TX 4247	1,140 ± 60 BP	A.D. 810 ± 60	McEwan, 1984, p. 227, 1987

APPENDIX 2. Continued.

Site	Reported context	Laboratory no.	Radiocarbon age	Calendar (not calibrated)	Source
Pikillaqta	Wari*	TX 4750	1,350 ± 60 BP	A.D. 600 ± 60	McEwan, 1984, p. 227, 1987
Pikillaqta	Wari*	TX 4751	1,430 ± 90 BP	A.D. 520 ± 90	McEwan, 1984, p. 227, 1987
Pikillaqta	Wari*	TX 4747	1,430 ± 370 BP	A.D. 520 ± 370	McEwan, 1984, p. 227, 1987
Marcavalle	Derived	P 1561	2,096 ± 51 BP	146 ± 51 B.C.	Lawn, 1971, p. 373
Marcavalle	Chanapata*				
Marcavalle	Derived	P 1560	2,131 ± 55 BP	181 ± 55 B.C.	Lawn, 1971, p. 373
Marcavalle	Chanapata*				
Chanapata	Chanapata*	N 90	2,360 ± 760 BP	410 ± 760 B.C.	Yamasaki et al., 1966, p. 337
Huillca Raccay	Chanapata*	BM 1633	2,380 ± 70 BP	414 ± 70 B.C.	Burleigh et al., 1983; Kendall, 1982
Chanapata	Chanapata*	N 89	2,520 ± 150 BP	570 ± 150 B.C.	Yamasaki et al., 1966, p. 337
Marcavalle	Marcavalle*	P 1562	2,571 ± 45 BP	621 ± 45 B.C.	Lawn, 1971, p. 373
Chanapata	Chanapata*	Gak?	2,600 ± 150 BP	650 ± 150 B.C.	Patterson, 1967, p. 143
Marcavalle	Marcavalle*	Gak 0453	2,645 ± 115 BP	695 ± 115 B.C.	Patterson, 1967, p. 143
Marcavalle	Marcavalle*	P 1563	2,661 ± 46 BP	711 ± 46 B.C.	Lawn, 1971, p. 373
Marcavalle	Marcavalle*	P 1564	2,685 ± 49 BP	735 ± 49 B.C.	Lawn, 1971, p. 373
Marcavalle	Marcavalle*	P 1566	2,860 ± 47 BP	910 ± 47 B.C.	Lawn, 1971, p. 373
Marcavalle	Marcavalle*	P 1567	2,916 ± 55 BP	966 ± 55 B.C.	Lawn, 1971, p. 373
Chanapata ³	Chanapata*	GX 203	3,330 ± 240 BP	1,380 ± 240 B.C.	Krueger and Weeks, 1966, p. 155

* = excavation; ** = lintel; *** = wall vine.

¹ Note that there are two widely different dates (samples TX 4748 and BM 924) from wall vines at the site of Choquepuquio.

² Given the other dates from lintels at Pumamarca (SI 6988A, SI 6988B, SI 6987), this date seems too early.

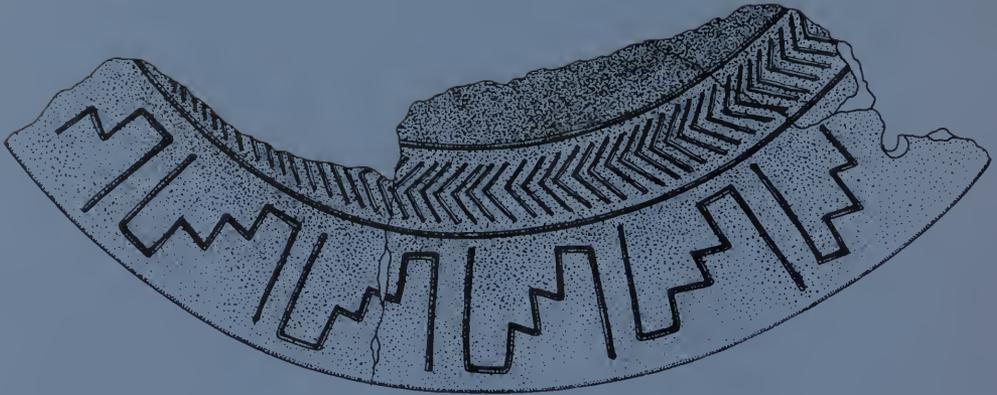
³ This is too early for Chanapata ceramics.



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