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## **Anthropology**

NEW SERIES, NO. 15

### **Killke and Killke-Related Pottery from Cuzco, Peru, in the Field Museum of Natural History**

**Brian S. Bauer and Charles Stanish**

**December 31, 1990  
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## Table of Contents

ABSTRACT .....	1
INTRODUCTION .....	1
DEFINITION OF KILLKE STYLE .....	1
ORIGIN OF THE STUDY COLLECTION .....	2
REVIEW OF KILLKE RESEARCH .....	3
KILLKE VESSELS IN THE FIELD MUSEUM OF NATURAL HISTORY .....	5
Killke Polychrome Vessels .....	5
Killke Black on Buff Vessels .....	11
Killke-Related Vessels .....	13
CONCLUSION .....	15
ACKNOWLEDGMENTS .....	16
LITERATURE CITED .....	16

## List of Illustrations

1. Killke Polychrome, straight-sided cup ..	6
2. Killke Polychrome, high-arching handle jar .....	6
3. Killke Polychrome, high-arching handle jar .....	7
4. Killke Polychrome, high-arching handle jar .....	8
5. Killke Polychrome, face neck jar .....	8
6. Killke Polychrome, face neck jar .....	9
7. Killke Polychrome, jar with conical neck and single handle .....	9
8. Killke Polychrome, single-handled jar ..	10
9. Killke Polychrome, two-handled pot ...	10
10. Killke Black on Buff, bowl .....	11
11. Killke Black on Buff, face neck jar .....	12
12. Killke Black on Buff, single-handled jar	12
13. Killke-related, bowl .....	13
14. Killke-related, bowl .....	13
15. Killke-related, face neck jar .....	14
16. Killke-related, face neck jar .....	14
17. Killke-related, jar with conical neck and single handle .....	15





# Killke and Killke-Related Pottery from Cuzco, Peru, in the Field Museum of Natural History

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## Abstract

This paper describes and illustrates an unusually large collection of Killke and Killke-related pottery vessels from the Field Museum of Natural History, Chicago. As the immediate antecedent to classic Inca pottery, Killke pottery holds a unique and important position in the cultural history of the Cuzco area. An adequate definition of this style is essential for constructing and testing models of early Inca state development. This paper will: (1) provide a summary of previous research on Killke pottery, (2) place the Field Museum collection in historical context, and (3) describe the 17 full-sized Killke and Killke-related vessels, utilizing the typology first suggested by John H. Rowe for early Inca materials from Cuzco.

## Introduction

Killke pottery has been recognized as the dominant Late Intermediate Period (A.D. 1000–1400) pottery style for the Cuzco region since it was first formally identified by John Rowe in 1944 and later described by Edward Dwyer in 1971. The identification and comparative analysis of this early Inca pottery style provides archaeologists with a means to model the development of the Inca state in the Cuzco region. In the late 19th century, the Field Museum of Natural History purchased two separate collections that together contain 17 full-sized Killke and Killke-related vessels and four miniature Killke-related vessels.<sup>1</sup> The extraordi-

nary pieces in this museum, representing one of the largest collections of Killke and Killke-related vessels outside of Peru, have never been published and therefore remain inaccessible to most researchers. This report will describe the full-sized Killke and Killke-related vessels contained in the Field Museum of Natural History's collection.<sup>2</sup> In doing so we hope to further clarify the morphological and stylistic characteristics of this important ceramic tradition and to make the Field Museum of Natural History's collection more available to Andean scholars interested in Cuzco archaeology and the development of the Inca state.

## Definition of Killke Style

Despite the importance of Killke pottery in the prehistory of the Cuzco region there have been few published descriptions of the ceramic style. Most archaeologists, working from preliminary descriptions of Killke pottery provided by Rowe (1944) and Dwyer (1971), agree on the broad elements of the Killke ceramic style, even though they may disagree over the classification of individual examples. In this report, building on descriptions provided by earlier researchers, including Rowe (1944), Dwyer (1971), Kendall (1976), and Lunt (1987), we have used the following criteria to identify Killke pottery.

**WARE**—Killke pottery is composed of a medium coarse fabric containing a moderate quantity of nonplastic inclusions varying in size from 0.01 mm 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

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<sup>1</sup> For the purpose of this work, Killke-related pottery will be defined as pottery from the Cuzco region that shares close stylistic similarities to Killke pottery as defined by Rowe (1944).

<sup>2</sup> The miniature Killke-related vessels (#2788, #3018, #3023, #3189) are not included in the present study.

the presence of quartz and chert as well as andesite, amphibole, arcose, and syenite has also been noted (Lunt, 1987, pers. comm. 1989). A 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, 1987, 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 AND PIGMENT COLOR**—The decorations on Killke vessels are generally geometric in form and composition. Narrow lines, thicker bands, triangles, and diamonds are the most common design 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 pottery, the most frequent are broad red or occasionally black bands outlined by one to three narrow black lines, sets of nested triangles often alternating in color from red to black, linked ovals with center dots, linked rectangles with solid interior ovals, large areas covered with black cross-hatching, cross-hatched diamonds, and rows of pendant solid or cross-hatched triangles, linked diamonds, or triangles (see Dwyer, 1971, as well as Rowe, 1944, fig. 19: 11–21, and Kendall, 1976).

**SURFACE TREATMENT AND PIGMENT APPLICATION TECHNIQUES**—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).

Designs on Killke pottery 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 often appear 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 a certain “characteristic carelessness of execution” when compared to the fine Inca ceramics

that most likely developed out of the Killke tradition (Rowe, 1944, p. 49). This is most clearly apparent in the broad and apparently quick brush strokes of the vessel designs, which often leave undulating bands, as well as in the frequent overlapping of adjacent designs.

Using these criteria to identify Killke pottery, as well as a number of figures presented in Rowe (1944), Dwyer (1971), Rivera (1971a, 1971b, 1972, 1973), Kendall (1976), and Lunt (1987), a total of 17 full-sized Killke and Killke-related vessels were identified in the Field Museum of Natural History collections and are illustrated and discussed in this report.

## Origin of the Study Collection

The Field Museum of Natural History’s collection of Killke and Killke-related ceramics comes from two accessions in the Department of Anthropology holdings. Fourteen of the vessels are part of a single acquisition, purchased in 1893 from Emilio Montez, a Peruvian national who was temporarily living in Chicago at that time. Three other vessels (#4023–4025) were collected in 1891 by George Dorsey, one of the individuals responsible for acquisitions for the World Columbian Exposition held in Chicago in 1893.

The Montez collection is one of the largest in the Museum’s South American pre-Columbian holdings. Approximately 1,200 objects were originally purchased from Montez, including a wide variety of ceramic, metal, cloth, and stone artifacts. The first known reference to the collection is in a letter (A-786) dated 7 September 1893 from Montez to Fred Putnam, a professor of anthropology at Harvard College and director of the Ethnology Department for the World Columbian Exposition. In this letter, Montez requests that Putnam find a buyer for his collection. It is clear from this letter that Montez’s interests were purely commercial as he sought to pressure the officials of the Columbian Museum of Chicago (precursor to the Field Museum of Natural History) to purchase his collection:

Jackson Park, Sept. 7, 93  
Prof. Putnam:

Dear Sir:

I have this day received letters from home (Peru), and because of the contents of them, it is absolutely necessary that I return there at once,

and I beg of you the kindness to sell my collection for the sum of \$25,000; either to the World Colombian Exposition, or to any person, I myself being absolutely unacquainted with anyone in this country. This sum I can receive in two parts; the first part (\$12,500) I must have at once, in order to take me home, and the second part, I can take in a "vale" at 3 or 6 months. You will be able to see Sir, that I do not exaggerate the worth of my collection, on the contrary I ask this low figure in order that I can at once realize; if the World Colombian Exposition will buy it, I can receive the equivalent (legal) in Colombian Souvenir money. I nervously await your answer, and hope you will be able to favorably receive my proposition, as I am compelled to return at once, and must realize beforehand.

Your Obedient Servant

Emilio Montez.

Business was conducted quite rapidly and the collection was accessioned (Accession file no. 6) two days later on 9 September 1893. On 4 November 1893, the Chairman of the Finance Committee of the Columbian Museum of Chicago, Edward Ayer, paid \$5,000 down and authorized the withdrawal of an additional \$5,000 for Montez. The nature of any prior agreements remains unknown. The transaction was facilitated by the fact that Montez was in residence in Chicago (Jackson Park) and the bulk of the objects were already in the anthropology building at the World's Fair. A final hand-written note from Putnam, dated 12 December 1893, states that some of Montez's metal objects were delivered to the Museum, making the accession complete. It seems clear that Montez made his large collection with an eye toward its commercial, not scientific value years earlier, perhaps as a direct result of contacts with Exposition officials.

The Montez collection is a large and extremely eclectic assortment of objects. The collection, although primarily composed of pre-Hispanic artifacts, also includes Colonial, Republican Period, and modern artifacts as well as nonanthropological objects such as a 300-lb. slab of lapis lazuli and three fossils. The provenances of virtually all of the objects are listed as Cuzco, even though a number of vessels are provincial imitations of Inca imperial designs and were most likely collected from various sites in Peru. At least one reference in the Museum's accession file (no. 6) also lists

Ayacucho as a locality where the materials were collected. This, however, could refer to some ethnographic holdings that Montez included in his sale.

The nature of the Montez collection is significant for the present study because it suggests that the Killke pieces come from more than one locality in the Cuzco region. The probability that numerous Late Intermediate Period sites, most likely cemetery areas, were looted around the Cuzco area in the late 19th century is reinforced by the existence of the other three Killke vessels (#4023–4025) in the study collection. These three vessels are not part of the Montez collection but were purchased in 1891 by George Dorsey in Cuzco, during a trip to South America for the Exposition. Dorsey's small collection of 258 objects from Peru and Chile (#4001–4258) was accessioned (Accession file no. 353) on 31 October 1893, the day after the closing of the Exposition. No record exists of Montez selling any objects to Dorsey or any Museum representative prior to the Exposition in 1893. It is therefore likely that the three vessels collected by Dorsey in Cuzco during 1891 were from different localities than those found in the larger Montez collection.

The enigmatic presence of identification tags in three of the vessels may also indicate multiple provenances for the Killke vessels in the Montez collection. The tags (not typically found in association with other objects from the Columbian Exposition period) are written in fountain pen ink and would appear to have been with the objects when they arrived in Chicago. The tag notations are in French and are executed in the same handwriting. Vessel #2632 contains a tag with the notation, "Trouve a Ollantaitambo Dpt. Cuzco." Likewise, vessel #2612 has a tag with "Trouve a San Salvador environ du Cuzco," and a tag in vessel #2763 has the notation "Trouv a Pisac Dpt Cuzco." These three locations (Ollantaytambo, San Salvador, and Pisac) are in the Urubamba River Valley and are areas where other examples of Killke pottery have been recovered (see below).

## Review of Killke Research

Among the earliest known excavations conducted in the Department of Cuzco were those of Max Uhle (1912) at the site of Q'atan in the Urubamba River Valley. These excavations, and additional collections made by Uhle in the Cuzco

region, produced a pottery style that appeared to be quite different from styles generally associated with the Incas. Since little was known of the pre-classic Inca period of the Department of Cuzco, Uhle could only suggest that this new pottery style dated to a pre-Inca but post-Tiahuanaco period, and he proposed a broad A.D. 800 to A.D. 1400 time frame. Soon after Uhle's discovery, Jacinto Jijon y Caamano and Carlos Larrea M. (1918) reproduced Uhle's findings in their work *Un Cementerio Incasico en Quito*. Later, in *Los Origenes del Cuzco* Jijon y Caamano (1934) again reproduced Uhle's pottery findings and presented additional examples of similar ceramics that Jijon y Caamano had found in the Cuzco region and in museum collections. Like Uhle, Jijon y Caamano suggested a broad pre-Inca/post-Tiahuanaco time period for the production of this new ceramic style. These isolated finds by Uhle and Jijon y Caamano were later classified as Killke-related ceramics and dated to the immediate pre-Inca period of the Cuzco region (Rowe, 1944, pp. 61–62).

In 1941 John Rowe began a survey of the Valley of Cuzco and undertook a series of test excavations. While earlier research in the region had focused on exploration and site descriptions, Rowe's work represented the first systematic archaeological research project in the Department of Cuzco. One goal of the research was to identify and describe the pre-Inca ceramic sequence for the Cuzco region (Rowe, 1944, p. 61). Test excavations conducted by Rowe in a courtyard of the monastery of Santo Domingo, near the Inca temple of Coricancha, revealed a small undisturbed soil deposit that yielded ceramic materials similar to those previously found by Uhle and Jijon y Caamano (Rowe, 1944, pp. 61–62). Additional surface collections made by Rowe later that year at a number of archaeological sites in the Cuzco region found that this new pottery style was not only present within the city of Cuzco, but was widely distributed throughout the valley.

Test excavations were made by Rowe in and around the city of Cuzco during 1942 and 1943 to further investigate the new ceramic style, which by then had been named Killke.<sup>3</sup> The recovery of a large quantity of Killke pottery from test excavations at Sacsayhuaman, just north of the city of

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<sup>3</sup> Rowe first named the new pottery style from his excavations in the monastery of Santo Domingo "canchon" (Rowe, 1944, p. 46). After his 1942–1943 field work in Cuzco, Rowe renamed the new pottery style "Killke," after a site located on the outskirts of Cuzco (Rowe, 1944, pp. 60–61).

Cuzco, proved especially important in this research. Through the use of the Sacsayhuaman excavation materials, Rowe (1944, pp. 60–62) was able to present a broad stylistic typology for what he called the Killke Series. Although Rowe did not find stratified Killke and Inca deposits, he inferred, on the basis of his surface collections, that Killke pottery was the antecedent to Inca pottery in the Valley of Cuzco. Rowe (1944, p. 61) writes, "Chronologically, the newly defined Killke Series appears to antedate the Inca Cusco Series, and hence to be the Early Inca style which the Southern Peruvian Project was looking for." The immediately pre-Inca chronological position of Killke ceramics within the Cuzco sequence has been confirmed in a number of test excavations and radiocarbon dates since Rowe's initial work (Dwyer, 1971; Kendall, 1974, 1985; Bauer, 1989, 1990). The identification of an early Inca ceramic type in the Valley of Cuzco had profound implications for the study of the Incas. Imperial Inca pottery of the Cuzco region had been long recognized (Bingham, 1915; Eaton, 1916; Valcarcel, 1934, 1935; Pardo, 1938, 1939). The discovery of a precursor to this pottery style provided a means to identify sites occupied before and during the development of the Inca state. This is an indispensable tool for defining the social and economic conditions in which early Inca state development took place.

Soon after Rowe's formal identification of the Killke style in Cuzco, Jorge Muelle led an expedition into the Province of Paruro, directly south of Cuzco. Near the Hacienda of Ayusbamba, in the District of Pacariqtambo, Muelle identified three sites that contained pottery similar to the Killke materials identified by Rowe in the Valley of Cuzco (Muelle, 1945). Muelle's recovery of Killke materials outside of the immediate confines of the Cuzco Valley suggested that the Killke style was distributed throughout the Cuzco region. Despite this discovery, and the immediate acceptance of Killke pottery in the literature as the early Inca pottery style for the Cuzco region, an extensive study of Killke pottery was not conducted for another 20 years.

From 1966 to 1968 Edward Dwyer, a student of Rowe's, continued research in the Cuzco region on the Killke pottery style. Dwyer obtained several photographs of the Killke vessels from the Field Museum of Natural History's collection and used them in developing a preliminary Killke typology (Dwyer, 1971). Dwyer was also able to conduct excavations at several sites in the Cuzco area. These

sites included Minas Pata in the Lucre Basin, Pukara Pantillijilla near Pisac, and the “fortress” of Sacsayhuaman. Of the three sites selected for excavation, Sacsayhuaman again provided the largest sample of pottery. Carbon extracted from a hearth within an excavated Killke context at the site of Sacsayhuaman yielded an uncalibrated radiocarbon age of A.D. 1180 + 140 (Dwyer, 1971, p. 140).<sup>4</sup> Using this carbon date, Dwyer (1971, p. 140) suggested that the production of Killke pottery occurred in the Valley of Cuzco “from around 1100 A.D. until the establishment of the Inca Empire.”

Since Rowe’s (1944) initial work and Dwyer’s (1971) study of Killke ceramics, a number of other archaeological projects conducted in the Cuzco region have noted the presence of Killke and Killke-related materials. For example, Miguel Rivera Dorado (1971a, 1971b, 1972, 1973), during his work in the Chinchero area, has described the Killke and Killke-related material recovered in excavations at the sites of Cancha-Cancha and Chacomoco. Luis Barreda Murillo (1973) describes the locations of several Killke sites in his work on the ceramic sequence of the Cuzco region. Ann Kendall (1974, 1976, 1985) presents examples of Killke and Killke-related pottery recovered during excavations and surface collections of the Cusichaca Valley in the lower drainage system of the Vilcanota/Urubamba River. Sara Lunt (1983, 1987) provides a detailed study of the ceramic wares of Inca and Killke pottery as well as Killke-related pottery recorded in the Cusichaca Valley. Jose Gonzales Corrales (1984) describes his excavations in the city of Cuzco and the architectural remains of several structures dating to the Late Intermediate Period. Gordon McEwan (1984), Arminda Gibaja Oviedo (1983), and Barreda (1973) have documented Killke pottery at the site of Choquepukio in the Lucre basin as well as the presence of a poorly defined Killke-related style called Lucre. Arminda Gibaja Oviedo has also reported finding Killke pottery at Pisac and Ollantaytambo, in the Urubamba River Valley (pers. comm. 1987). Alfredo Valencia Zegarra, Manuel Chavez Ballon, and Italo Oberti Rodriguez have each identified Killke remains throughout the Cuzco region (pers. comm.). Finally, Bauer’s regional surface collections and test excavations have found Killke and

Killke-related materials south of Cuzco, throughout the Province of Paruro (1989, 1990).

## Killke Vessels in the Field Museum of Natural History

Rowe (1944, pp. 60–61) identified three major decorated types of Killke pottery in his original classification of the Killke style: Black on Buff (black designs painted on a buff-colored vessel), Black on White (black designs drawn on a vessel covered by a white slip), and Polychrome (red, black, and occasionally white designs painted on a buff-colored vessel). The Field Museum of Natural History’s collection contains 12 vessels that we have classified as Killke. Of these 12 vessels, 9 are Killke Polychrome and 3 are Killke Black on Buff. The vessels can also be divided into a number of different vessel forms, including bowls, straight-sided cups, single-handled jars (with a number of different subtypes), and two-handled pots.

### Killke Polychrome Vessels

The following 12 vessels in the Field Museum of Natural History’s collection are classified as Killke Polychrome, following Rowe’s criteria (1944, p. 61).

**STRAIGHT-SIDED CUP**—The Montez collection contains one straight-sided cup (#3086). The vessel has a flat bottom, a slightly flaring rim, and a small protuberance on one side (fig. 1). The rim of the cup has been damaged, although red paint can still be seen on its interior border. The base of the vessel is outlined with a red band, followed by a black line. A second red band, paralleled by one black line on each side, is found midway up the cup. Red bands have also been used to divide the upper half of the vessel into two panels. Two rows of linked black ovals are depicted in each of the panels. (Max. width 6.4 cm; max. height 8.4 cm; max. rim diameter 7.3 cm.)

**SINGLE-HANDLED 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). The handles of the vessels are occasionally covered with red pigment. Analysis of museum and research collections suggest that a wide variety of subtypes exist in this general vessel

<sup>4</sup> The one-sigma, calibrated radiocarbon age of this sample, using Stuiver and Reimer’s program (1986), is: A.D. 1069 (1261) 1385.



FIG. 1. Killke Polychrome, straight-sided cup (FMNH #3086).

form classification (Dwyer, 1971, pp. 95–98, figs. 288–292).

**High-Arching Handle Jars**—Three jars in the collection have high-arching handles. These vessels are characterized by an extended, concave neck

section and a slightly flaring rim. Even though the rims of the three vessels are heavily abraded, the remains of red pigment can be found on their interior edges, suggesting that they were once painted. The handles, oval in cross section, are attached



FIG. 2. Killke Polychrome, high-arching handle jar (FMNH #2810).



FIG. 3. Killke Polychrome, high-arching handle jar (FMNH #2612).

to the vessels just below the throat and directly to the lip. The most distinctive feature of these examples is the high arch of their handles. The handles rise vertically from the rims and reach a maximum height well above the mouths of the vessels. The shared morphology of these three pots suggests that they represent a distinct subset in the Killke single-handled jars (Dwyer, 1971, pp. 96–97, fig. 288).

**#2810**—The smallest of the three examples has a fragmented and heavily abraded handle (fig. 2). Nevertheless, the angle at which the handle attaches to the vessel's rim and body indicates that it once had a high arch. A row of poorly executed, pendant black triangles run along the exterior of the vessel's rim. Below these triangles, on the neck of the pot, is a series of black hatched, linked diamonds. A red band, outlined by black lines on each side, marks the throat of the jar. Additional red bands, outlined by black lines, divide the body into three decorated panels. Rows of hatched, linked diamonds, similar to those found on the neck of the vessel, are found in the panels. (Max. width 8.0 cm; max. height 7.9 cm; max. rim diameter 5.4 cm.)

**#2612**—This vessel, like #2810, has a row of black pendant triangles bordering the mouth (fig. 3). The throat of the vessel is also marked by a red band. Additional red bands divide the body of the pot into five decorated subtriangular panels. The interiors of the panels have been outlined with three black lines. A small motif, horizontal to the base of the vessel and composed of black lines and black dashes, lies in the subtriangular panels. A note found with this vessel suggests that it was collected near the town of San Salvador in the Department of Cuzco. (Max. width 11.1 cm; max. height 8.4 cm; max. rim diameter 5.9 cm.)

**#2632**—The largest of the three high-arching handle jars has a row of black pendant triangles around the rim of the vessel as well as a row of black triangles just above the vessel's throat (fig. 4). A red band covers the throat, and large red pendant triangles, outlined by three black lines, cover the lateral and frontal sections of the body. A note found in the vessel suggests that it was collected near the town of Ollantaytambo, Department of Cuzco. (Max. width 16.0 cm; max. height 18.5 cm; max. rim diameter 10.1 cm.)

**Face Neck Jars**—One of the most distinctive



FIG. 4. Killke Polychrome, high-arching handle jar (FMNH #2632).

single-handed jar subtypes in Killke pottery is the "face neck" jar (Dwyer, 1971, p. 98, figs. 291, 292). 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. Above the face, either a headdress or a cap (*chullo*) is depicted on the vessel's rim and upper border section.

The headdress is depicted by a series of wide, evenly spaced bands that run vertically down from the vessel's rim. The bands are outlined on each side by one to three lines. The headdress terminates in a headband motif, which may be portrayed by a row of nested triangles or solid diamonds. Occasionally the cheeks of the figure are also decorated with sets of linked triangles or di-



FIG. 5. Killke Polychrome, face neck jar (FMNH #2805).



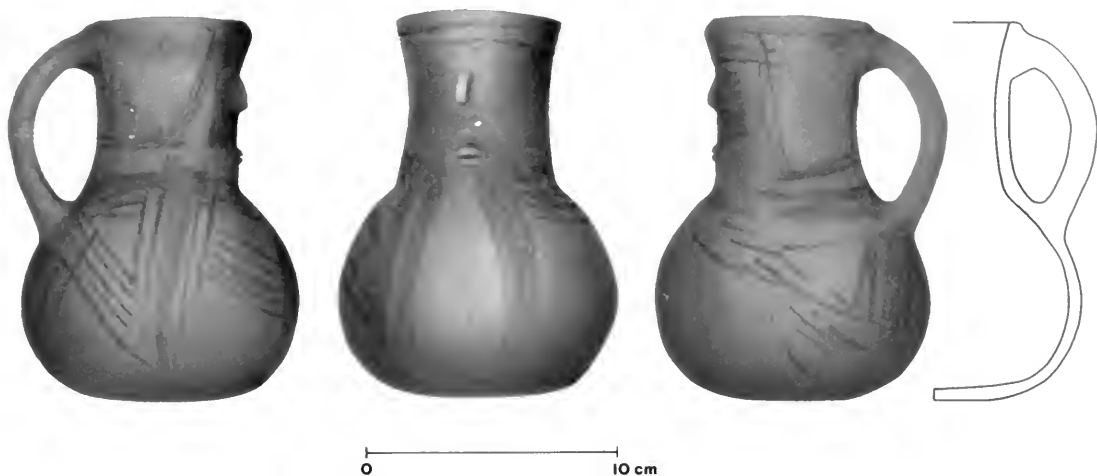


FIG. 6. Killke Polychrome, face neck jar (FMNH #2763).

amonds. (For examples of the headdress design see #2637, #2785, #2805, and Bauer, 1990.)

The *chullo* design differs from the headdress design in the depiction of ear flaps that extend from the cap down both sides of the face and by the absence of a headband. (For examples of the *chullo* design see #2763, #2891, and Seler, 1893. lam. 6, fig. 6; Jijon y Caamano, 1934, fig. 54).

#2805—Face neck jar with headdress design (fig. 5). On the convex neck of the vessel is shown a

headdress composed of three red, subrectangular areas outlined with two black lines. A detailed face has been sculpted on the neck of the vessel. The nose, nostrils, mouth, and eyes of the figure are clearly visible. The figure's ears have two sets of pierced holes; the brow of the face is covered with a series of red slashes. The lateral sections of the neck contain a set of nested red rectangles.

The body of the figure is shown on the body of the vessel. A line of linked, hatched triangles forms



FIG. 7. Killke Polychrome, jar with conical neck and single handle (FMNH #2809).

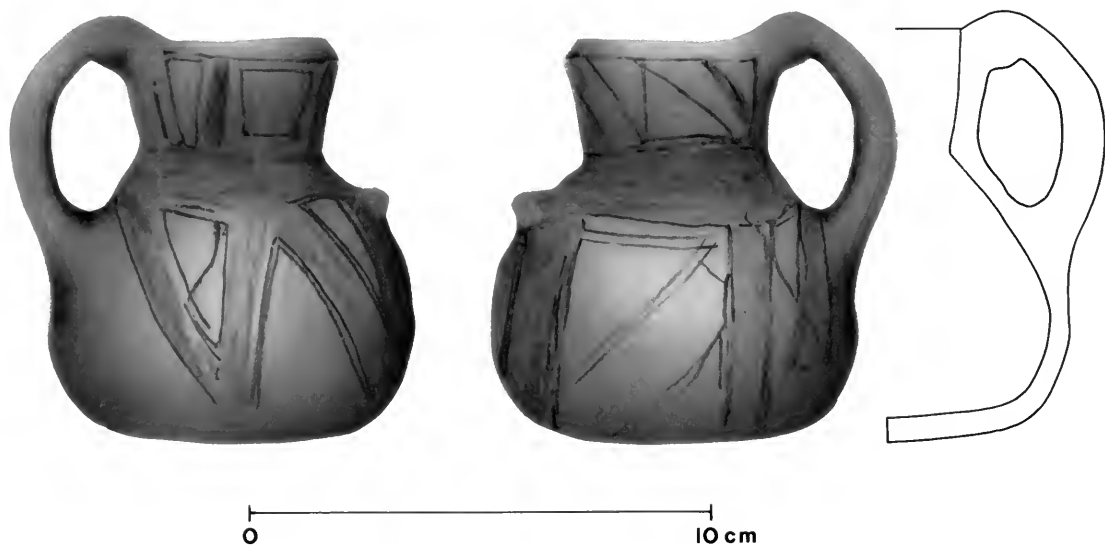


FIG. 8. Killke Polychrome, single-handed jar (FMNH #2633).

the trunk of the figure. Red bands, outlined on both sides with two to three black lines, define the arms and legs of the figure. The back lateral sections of the vessel body contain large subtriangular panels of red bands and black lines. The remains of several vessels portraying a similar figure with pierced ears have been recovered by Rivera during his excavations north of Cuzco in the region of Chinchero (1971a, 1971b, 1972, 1973). (Max.

width 11.6 cm; max. height 17.5 cm; max. rim diameter 5.8 cm.)

#2763—Face neck jar with *chullo* design. All the designs of the vessel are poorly executed and preserved (fig. 6). The *chullo* has been depicted in red and outlined with a pair of black lines. The nose and mouth of the figure protrude from the surface of the vessel. The lateral body sections of the pot are decorated with an unusual and slightly

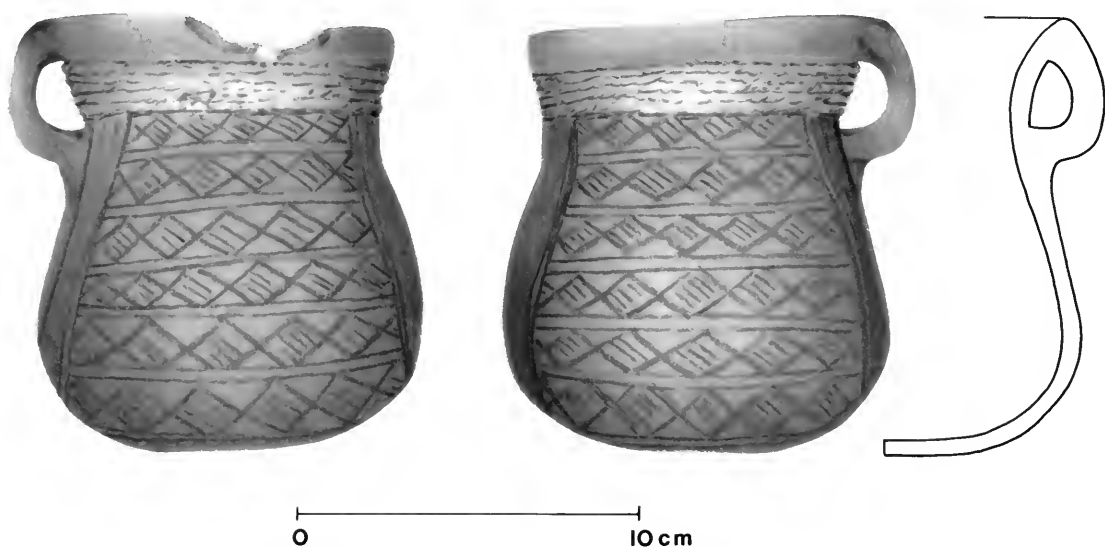


FIG. 9. Killke Polychrome, two-handed pot (FMNH #2749).

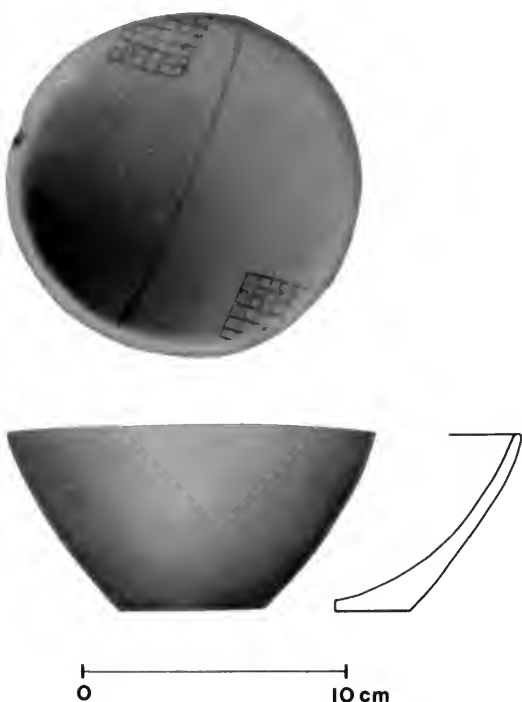


FIG. 10. Killke Black on Buff, bowl (FMNH #4023).

irregular pattern of red bands outlined by black lines. The band pattern is similar to that found on vessel #2633. The frontal section of the vessel's body is free of designs. (Max. width 11.8 cm; max. height 15.8 cm; max. rim diameter 7.0 cm.)

**Jars with Conical Necks and Single Handles**—Two of the single-handled jars (one Killke and one Killke-related) in the Montez collection have conical necks. The necks of the vessel are extended so that the throat lies near the midsection of each jar. The straight to slightly convex sides of the neck slope inward from the throat to the rim. The rims of the vessels flare outward. The handles are attached to the rim and to the body of the jar just above the midsection line (Dwyer, 1971, pp. 97–98, figs. 289, 290).

#2809—The throat and large conical neck of the vessel are covered with large red bands that form a series of triangles (fig. 7). The interior areas of the triangles are outlined with two black lines. The lower body of the vessel is free of designs. (Max. width 11.7 cm; max. height 15.0 cm; max. rim diameter 6.8 cm.)

**Other Single-Handled Jars**—The Montez collection contains a single-handled jar (#2633) that did not fall into the above vessel shape categories. It is a small, relatively heavy, one-handled jar (fig.

8). A red band paralleled by two black lines covers the throat of this small jar. A triangular pattern of red bands and black lines marks the lateral sections of the vessel. The arrangement of the red bands and black lines is similar to that noted on vessel #2763. The frontal section has a small protuberance, but has been left free of painted designs. The neck of the vessel is decorated with a series of red bands and black lines. (Max. width 8.3 cm; max. height 8.8 cm; max. rim diameter 5.0 cm.)

**SMALL TWO-HANDLED POT**—The Montez collection contains one small two-handled pot (#2749). The vessel has an extremely wide mouth and a relatively short body (fig. 9). The neck of the vessel is short and the rim flares sharply outward. Two short handles were attached to its rim and neck. One of the handles remains, the second has broken off.

The internal rim of the vessel carries a series of dots connected by sets of parallel lines, similar to the design found on the exterior of vessel #2668. The rim was painted red and a cord has been wrapped around the neck several times to repair it. The body of the vessel is decorated with two large lateral panels defined by red bands and black lines. Six rows of linked, hatched triangles are located within the two panels. (Max. width 12.3 cm; max. height 12.8 cm; max. rim diameter 10.0 cm.)

### Killke Black on Buff Vessels

The following four vessels in the Field Museum of Natural History collection have been classified as Killke Black on Buff (Rowe, 1944, p. 60).

**BOWLS**—#4023—A relatively narrow bowl with slightly convex sides (fig. 10). The interior decorations include two large black pendant triangles filled with cross-hatching and located on opposite sides of the bowl. A black line crosses through the center of the bowl between the triangles. The exterior surface of the vessel has been poorly brushed. (Max. width 12.7 cm; max. height 6.3 cm; max. bowl depth 5.9 cm.)

**SINGLE-HANDLED JAR—Face Neck Jars**—#2637—Face neck jar with headdress design (fig. 11). This vessel is the finest example of Killke pottery found in the Montez collection. Painted in black, the vessel shows design details and a quality of production not found in other vessels. The headdress is portrayed with wide black bands, outlined with three black lines. The throat of the vessel exhibits a headband motif of solid triangles and diamonds. Because of the small size of the



FIG. 11. Killke Black on Buff, face neck jar (FMNH #2637).

vessel, the figure's face has been placed above the headband on the vessel neck. The eyes, nose, and mouth of the figure are clearly sculpted. Vertical lines of linked diamonds are located on either side of the face. On the body of the vessel are a series of nested rectangular panels formed by black bands. These panels contain linked rectangles with solid interior ovals. The frontal section of the body contains paired triangles. (Max. width 8.4 cm; max. height 10.6 cm; max. rim diameter 4.8 cm.)

**Other Single-Handled Jars**—The Montez col-

lection contains a Killke Black on Buff single-handled jar (#2668) that did not fall into the above vessel shape categories. The vessel has a globular body and an extended, flaring neck and rim (fig. 12). The handle, circular in cross section, arches above the vessel's mouth. The angle of the handle and its circular cross section distinguish this pot from the other high-arching handle vessels.

The vessel exhibits only black designs. The neck has been divided into panels by two vertical bands. Paired rows of linked ovals, similar to those found



FIG. 12. Killke Black on Buff, single-handled jar (FMNH #2668).

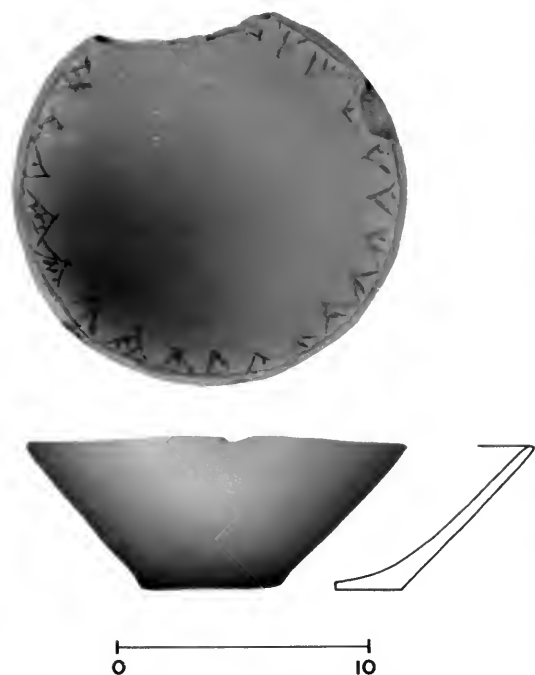


FIG. 13. Killke-related, bowl (FMNH #4024).

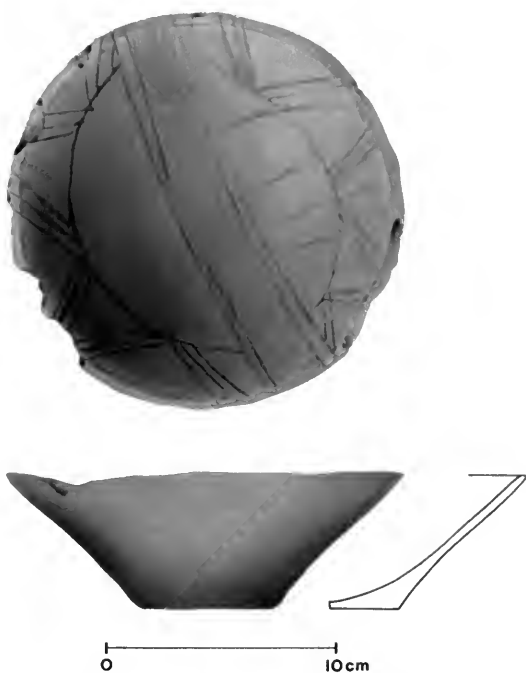


FIG. 14. Killke-related, bowl (FMNH #4025).

in vessel #3086, occur in the neck panels. The body of the vessel exhibits two unusual motifs. One motif consists of two pendant dots on sets of parallel lines. This dot-and-line design is similar to the fern motifs that appear later on classic Inca ceramics (Rowe, 1944). The second unusual motif on this vessel is a cross-hatched bar that alternates with the paired dots. Below these motifs, near the base of the vessel, are bands of solid triangles and cross-hatched diamonds. (Max. width 10.3 cm; max. height 11.3 cm; max. rim diameter 7.3 cm.)

#### Killke-Related Vessels

Five vessels in the Field Museum of Natural History collection are stylistically similar to the Killke materials described above. However, because our sample is limited and because each of these five vessels has some qualifying aspects to their classification as Killke, we have presented them under the heading of Killke-related vessels.

**BOWLS**—Two Killke-related bowls are included in the collection. Each vessel has a flat base and no distinct rim or lip. The shape and angle of the vessels' sides vary in each sample, as do their interior decorations. None of the samples contain exterior decoration.

**#4024**—A relatively narrow bowl with sharply flaring straight walls. The lip of the vessel is painted red (fig. 13). A band of small red pendant triangles runs along the rim. The center of the bowl is free of designs. The exterior surface of the vessel has been poorly brushed. Because Rowe's original classification of Killke pottery does not include a category for Red on Buff, we have conservatively placed this vessel in the category of Killke-related vessels. (Max. width 14.9 cm; max. height 6.1 cm; max. bowl depth 4.9 cm.)

**#4025**—A wide bowl with straight, flaring walls (fig. 14). The lip of the bowl is covered with a red line. A black line, located approximately three centimeters below the rim, runs parallel to it. The area between this black line and the lip of the vessel contains a series of poorly executed black triangles. A thick red band, outlined by two black lines on each side, is drawn through the center of the bowl. The broad red band through the center of the bowl and its rim motifs are suggestive of later Inca plate designs. The exterior surface of the vessel has been poorly brushed. A coarse ware restricts the classification of this item to the Killke-related category. (Max. width 17.4 cm; max. height 5.7 cm; max. bowl depth 5.2 cm.)

**SINGLE-HANDLED JARS—Face Neck Jars**—**#2785**—The collection contains a face neck jar



FIG. 15. Killke-related, face neck jar (FMNH #2785).

with headdress design (fig. 15). The vessel is of unusual ware, and the firing has produced a bright orange surface color. The colors, especially the red, are present in stronger tones that generally seen in other Killke pieces. The flared upper neck of the vessel contains a headdress motif with red bands outlined on one side with a single black line. The faint pigment shadows suggest that the open areas of the headdress may have been once covered with a white pigment. The face of the figure, located on the lower, convex section of the neck, exhibits clearly modeled eyes, ears, nose, and a mouth. The handle is relatively short and attached to the

shoulder and the midsection of the vessel's neck. The lateral and front sections of the vessel's body have been decorated with two large rectangles, defined by red bands. Diagonal red bands divide the interior of the rectangles into sets of triangles. The centers of these triangles have been outlined with black and possibly white lines. The unusual shape of the handle, an unusual ware composition, a bright red pigment, and a bright postfiring color distinguish this vessel from vessels in the Killke collection. (Max. width 12 cm; max. height 19.7 cm; max. rim diameter 5.7 cm.)

#2891—Face neck jar with *chullo* design (fig.

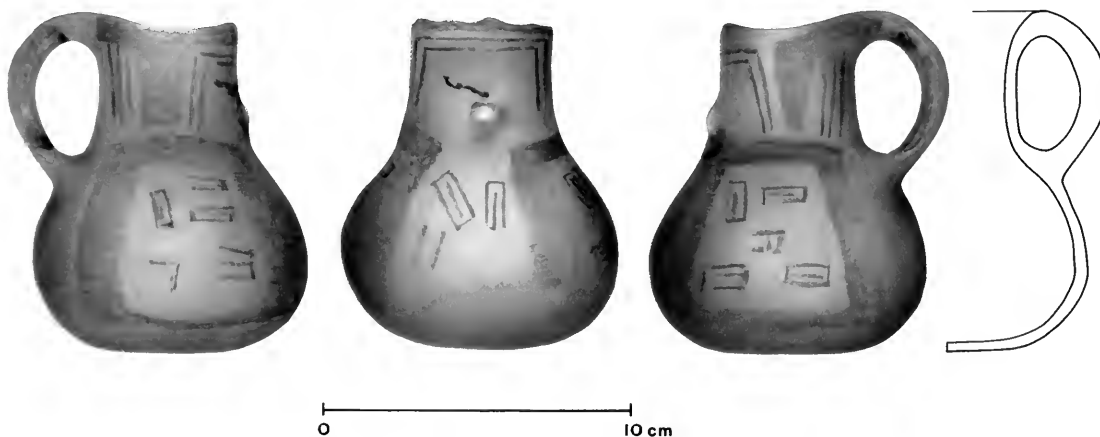


FIG. 16. Killke-related, face neck jar (FMNH #2891).

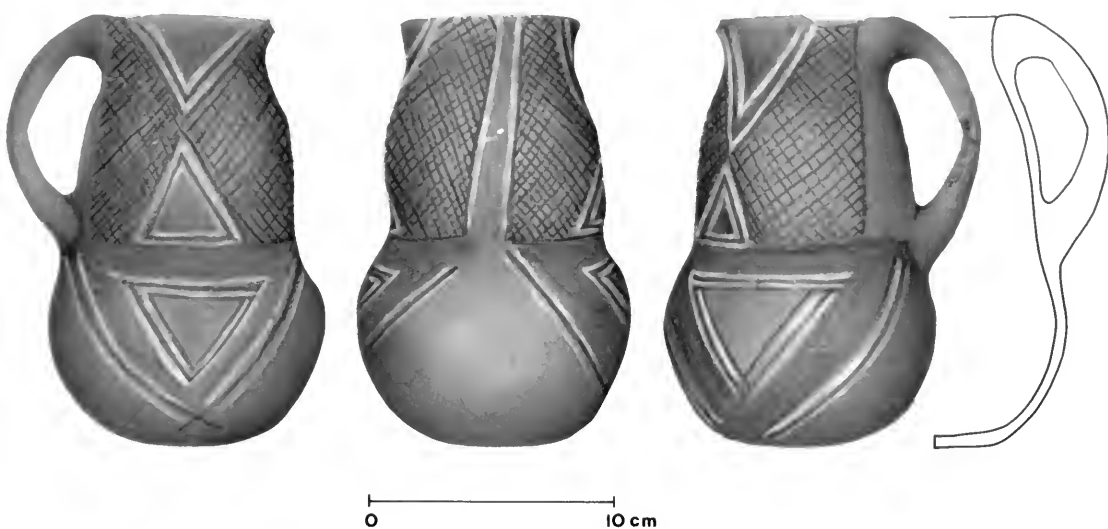


FIG. 17. Killke-related, jar with conical neck and single handle (FMNH #2789).

16). Like vessel #2763, the *chullo* has been portrayed in red and outlined with black lines. A heavily abraded nose protrudes slightly from the surface of the vessel. There is no evidence of the figure's mouth or eyes. Two subrectangular panels have been painted on the lateral sections of the body. Small, floating, hatched rectangles are used as filler designs in the panels, as well as on the open frontal section of the vessel's body. Because the rectangles used as filler designs on this vessel are rare in Killke collections, we have classified this vessel as Killke-related. (Max. width 10 cm; max. height 11.2 cm; max. rim diameter 5.1 cm.)

**Jars with Conical Necks and Single Handles—#2789**—The vessel has a clear, buff-orange surface with well-defined color tones of red, black, and white. Two large pendant triangles cover the lateral sections of the vessel's body. The triangles are formed with red bands and are outlined on both sides by black and white lines (fig. 17). Much of the extended, conical neck of the vessel is covered by two large panels filled with black cross-hatching. On each of the two lateral sections of the neck is a pair of red symmetrical triangles, outlined in black and white. Although the form of this vessel is very similar to that of vessel #2809, its unusual bright orange-buff surface, as well as the unusually strong tonal contrasts, requires its classification under Killke-related materials. (Max. width 12.2 cm; max. height 17.5 cm; max. rim diameter 8.2 cm.)

## Conclusion

The present study represents an attempt to increase the corpus of published Killke and Killke-related ceramics that will be of use to archaeologists working in the Cuzco area. We have, by necessity, been very conservative in our classification of individual vessels. We have relied on the original classification of John Rowe (1944, pp. 60–61) to divide the collection into three ceramic types: Killke Polychrome, Killke Black on Buff, and Killke-related vessels.

The nine vessels classified as Killke Polychrome are extremely consistent in ware, decoration, and surface treatment, but vary by form. Particularly prominent in this type are broad red bands, outlined at least on one side by one to three narrow black lines. The black and red paints are executed on a buff to light orange surface. The range in surface color in this ceramic type is not an inconsistency; Rowe notes that the buff surfaces of Killke vessels may range from a true buff to a buff with an orangish hue (Rowe, 1944, p. 60).

The three Killke Black on Buff vessels are similar to the Killke Polychrome pieces in their ware, decorations, and surface treatments, but have not been decorated with any red or white pigments. This conforms to the distinction as originally defined by Rowe (1944, pp. 60–61).

The five pieces grouped as Killke-related vessels differ from those of the two other groups in one

or more significant ways. For instance, one vessel displays design motifs not commonly noted in the Killke style (#2891), others display unusual colors or strong tonal contrasts (#2785, #2789, #4024), and several exhibit unusual wares or surface colors (#2785, #2789, #4025). We felt that these differences were significant enough, given our limited sample size, to group the vessels in the broad category of Killke-related vessels.

Future research in the Cuzco region and in other museum collections will expand the corpus of Killke pottery. Additional research may be sufficient to allow a redefinition of the Killke-related pieces of this work into the known Killke types, or to aid in the creation of additional types or subtypes in the Killke Series. The Killke and Killke-related vessels of this study can therefore be used in future classification systems, depending on the variables determined to be most appropriate. Additional studies of Killke pottery and better classification systems of the Late Intermediate Period pottery of the Cuzco region are necessary if we are to advance our understanding of the development of the Inca state.

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