Andean Past

Volume 3 Article 15

1992

Sican Bottles: Marking Time in the Peruvian Bronze Age--A Five-Part Typology and Seriation

Kathryn M. Cleland
clelandk@sov.edu

Izumi Shimada
Southern Illinois University, ishimada@siu.edu

Follow this and additional works at: https://digitalcommons.library.umaine.edu/andean_past

Part of the Anthropology Commons

Recommended Citation

Cleland, Kathryn M. and Shimada, Izumi (1992) "Sican Bottles: Marking Time in the Peruvian Bronze Age--A Five-Part Typology and Seriation," *Andean Past*: Vol. 3 , Article 15.
Available at: https://digitalcommons.library.umaine.edu/andean_past/vol3/iss1/15

This Article is brought to you for free and open access by DigitalCommons@UMaine. It has been accepted for inclusion in Andean Past by an authorized administrator of DigitalCommons@UMaine. For more information, please contact um.library.technical.services@maine.edu.

SICAN BOTTLES: MARKING TIME IN THE PERUVIAN BRONZE AGE--A FIVE-PART TYPOLOGY AND SERIATION

Kathryn M. Cleland
Swarthmore College
Izumi Shimada
Harvard University

Introduction

The Sicán blackware bottle, with mask-like "Sicán Lord" face at the base of its tapering spout (Figure 1), has long been recognized as coming from the Lambayeque area of Peru. Our long- term research centered in the Batán Grande region of Lambayeque (Figure 2) has shown that these bottles belong to the Sicán culture of the northern North Coast of Peru during the late Middle Horizon-early Late Intermediate Period. Basic to this research is ceramic chronology. We have been able to seriate Sicán bottles by comparing excavation data from the Batán Grande area against trends in Sicán bottle form obtained from a sample of bottles from a regional museum. The earliest type was not included in the museum study, but is now well enough understood to append to the seriation of Sicán bottles, so that the bottle sequence now spans much of the Sicán culture history.

Sicán and Lambayeque

We apply the name Sicán to the society that succeeded Moche V in the second epoch of the Middle Horizon on the northern North Coast (Table 1). The ancient Muchic name for Batán Grande was "Sicán" or "Sian", traditionally translated as "house of the moon" (*e.g.*, Calancha 1977: 1261, 1263; Kosok 1965: 126, 162; Rondón 1966a: 7).[1]

The first excavated Sicán bottle to be published appeared in Reiss and Stübel's Ancón report (1880-1887: plate 39, nos. 11 and 12). When Max Uhle found one in a cemetery excavation at Pachacamac, near Lima, in 1896 (1903: plate 8, number 10), he correctly attributed the pot to the Lambayeque area of northern Peru, even though he had never set foot there.[2] We thus infer that the style and form were well known along the Peruvian coast before 1900.

From the onset of serious investigation into Lambayeque prehistory in the early 20th century, there has been persistent preoccupation with making sense of Ñaymlap, the legendary founder of the Lambayeque dynasty recorded by Cabello Valboa (1951: 327-329) and later treated by Vargas Ugarte (1942: 475-482).

In general, the term "Lambayeque culture," which may be applied by scholars to the Sicán culture, is popularly assumed to correspond to the Ñaymlap legend and the dynastic chronology without sufficient empirical basis. However, views regarding the historicity of the Ñaymlap legend are highly polarized between those who see it as pure legend (*e.g.*, Rowe 1945: 280, 1948: 36) or as a variation of the Andean origin myth (*e.g.*, Zuidema 1990), and those who interpret it as accurately reflecting historical reality (*e.g.*, Trimborn 1979: 10-11). Archaeological field work, thus far, has failed to provide conclusive, independent proof. Further, field work aimed at verifying the legend has tended to be tautological in its single-minded pursuit of one view, ignoring alternative views. Kosok, however, offered a precise chronology of the Ñaymlap dynasty and its expansion using 25 years as

---

[1] Shimada has published the 'house of the moon' gloss in all previous articles explaining the designation of the Middle Horizon-Late Intermediate culture of the Lambayeque Valley Complex as "Sicán".

[2] In a later publication, Uhle (1959: 84, 111) refers to the ceramic style represented by the vessel as "Etén" after a town in the southwest extremity of the Lambayeque Valley (see caption for Plate 2E).

ANDEAN PAST 3 (1992): 193-235.

Table 1. Comparative chronologies used for the northern North Coast of Peru.

LAMBAYEQUE VALLEY	RELATIVE CHRONOLOGY	BATAN GRANDE	MOCHE VALLEY	A.D.
Nolan 1980	Rowe and Menzel 1967		Donnan and Mackey 1978	
				1600
Colonial	Colonial	Colonial	Colonial	
				1500
Chimú-Inca A.D.1450-1550	Late Horizon A.D.1476-1534	Chimú-Inca Sicán-Inca Provincial Inca A.D. 1470-1532	Chimú-Inca	
		Chimú		1400
Lambayeque C A.D.1250-1450		A.D.1375/1400-1470		
				1300
Late Intermediate A.D.900-1476			Late Chimú	
		Late Sicán		1200
Lambayeque B A.D.1000-1250		A.D.1100-1350/1400	Middle	
		Chimú		1100
				1000
	Middle Horizon Epochs:	Middle Sicán A.D.900-1100	Chimú	900
Lambayeque A A.D.700-1000	IV A.D.800-900			800
		Early Sicán A.D.750-900	Moche V A.D. 550-900	700
Late Moche (Mochica) A.D.450-700	I-III A.D. 550-800			600
		Late Mochica A.D.450-700	Moche IV	500
			Moche III	400
	Early Intermediate B.C.400-A.D.550	Moche II		300
			Moche I	200
				100
		Gallinazo	Gallinazo	A.D. B.C.

the average reign of each ruler (Kosok 1965: 73, 80). At the same time, he acknowledged the distinct possibility that the early part of the legend "may have been forged in order to give ancient roots and traditions to the ruling houses" (*ibid.*: 79).

Other scholars have adopted the term Lambayeque without assuming such an explicit or direct relationship between the legend and the Sicán style and iconography. For example, Bennett (1939: 120-123), Larco (1948: 45), and Zevallos Quiñones (1971: 1-21) refer to the style as Lambayeque in their area ceramic chronologies. The Zevallos typology was developed mostly from looted funerary vessels. Nolan (1980: 20) also calls the style Lambayeque in his relative chronology developed from surface-collected ceramics.

Equating Sicán and Lambayeque cultures is also problematical as there is the real possibility of a cultural tradition in the lower Lambayeque Valley contemporary with but distinct from the Sicán culture that developed in the Batán Grande region further inland (Shimada 1990). Adding to the confusion, those using the term Lambayeque define the culture and subdivide its chronology differently due largely to the paucity of stratigraphic and other excavation data on substantive aspects of the culture. Use of the term is thus typically limited to art style and iconography. We believe that post-Moche V cultural developments in the Batán Grande region are best labeled Sicán. Following Zevallos Quiñones (1971), we propose that the term Lambayeque be retained to refer to the broader prehispanic cultural *tradition* of the Lambayeque region.

The art style reflected in Sicán blackware was perceived as a northern Chimú variant by earlier investigators (Kroeber 1930: 97-99, 1944: 74-78; Valcárcel 1937: 164), and more recently by Ravines (1980: 55) in spite of contrary observations by Zevallos Quiñones (1964: 3-4). Sicán blackware bottles are characterized as a Lambayeque variant in the Chimú bottle seriation developed for unprovenienced collections by Scheele and Patterson (1966: 21-24). As Menzel (1977: 62) has pointed out, one level of meaning of Chimú refers to the blending of Moche and Huari elements in northern cultures. As used by Menzel, the term Chimú includes Sicán. However, the term "Chimú" can be misleading when applied to northern styles before about A.D. 1250. The danger in referring to Sicán vessels as Chimú lies in possible confusion with the Late Intermediate Period Imperial Chimú style, which was associated with the Kingdom of Chimor characterized by Rowe (1948: 30-53) and dated *circa* A.D. 1250-1460 (Conrad 1982: 106).

Only recently have we established absolute and relative Sicán chronologies through a series of deep excavations and radiocarbon dates (Table 2). The radiocarbon age determinations are derived from primary context samples in secure and precisely defined stratigraphic positions.

The Sicán Culture

We divide the Sicán culture sequence into three major phases:

Early Sicán A.D. 750-900
Middle Sicán A.D. 900-1100
Late Sicán A.D. 1100-1375.

The Early Sicán phase is marked by distinctive local ceramics in the absence of monumental architecture. It clearly preceded local cultural florescence. The florescent Middle Sicán phase, described in detail below, is marked by change in ceramics and construction and the use of adobe pyramids of the Batán Grande (Poma/Santa Clara) District. The end of Middle Sicán is marked by the apparently synchronized large-scale burning and abandonment of these pyramids that had symbolized the extant sociopolitical and ideological orders. The end of Middle Sicán is also contemporaneous with a severe 31-year drought and a major flood (Shimada 1990; Schaaf *et al.* n.d.: 16). Late Sicán ceramics continue the forms of the preceding phase but they are largely devoid of their ideologically charged motifs. The motifs that do continue are greatly simplified. The pyramid

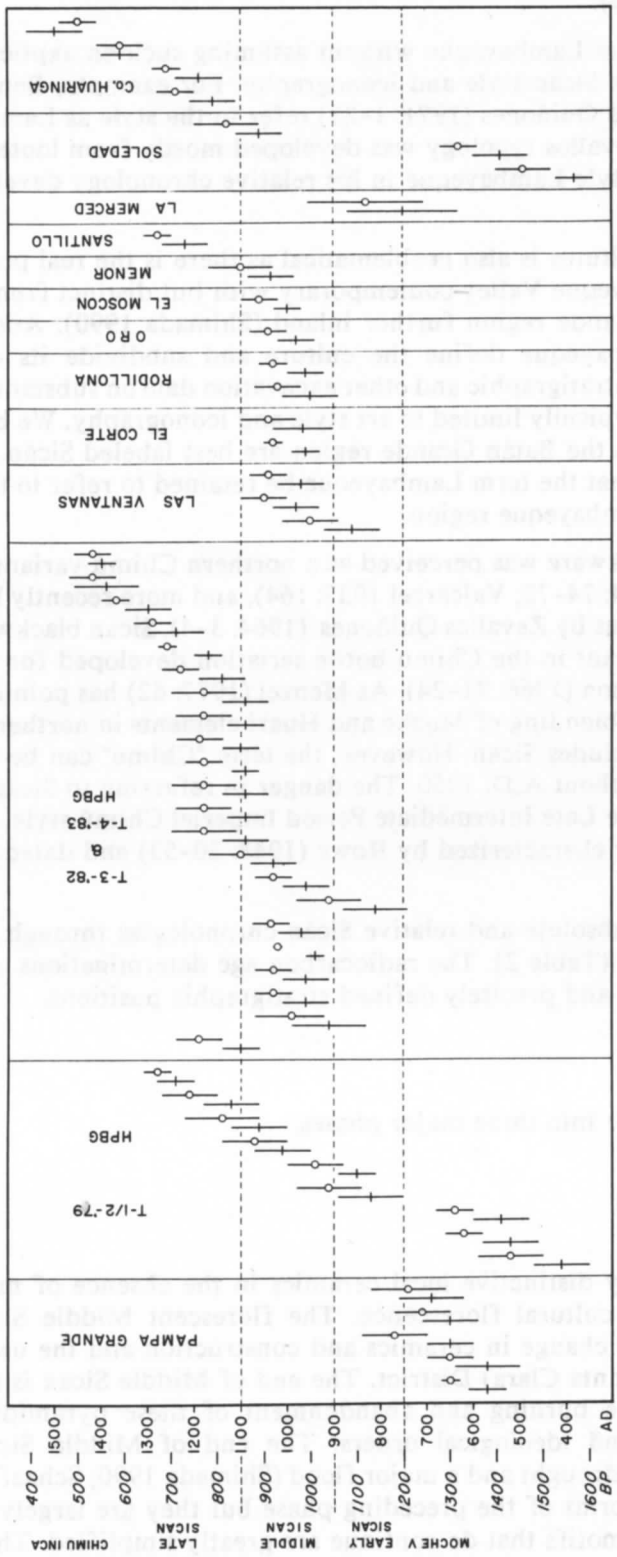
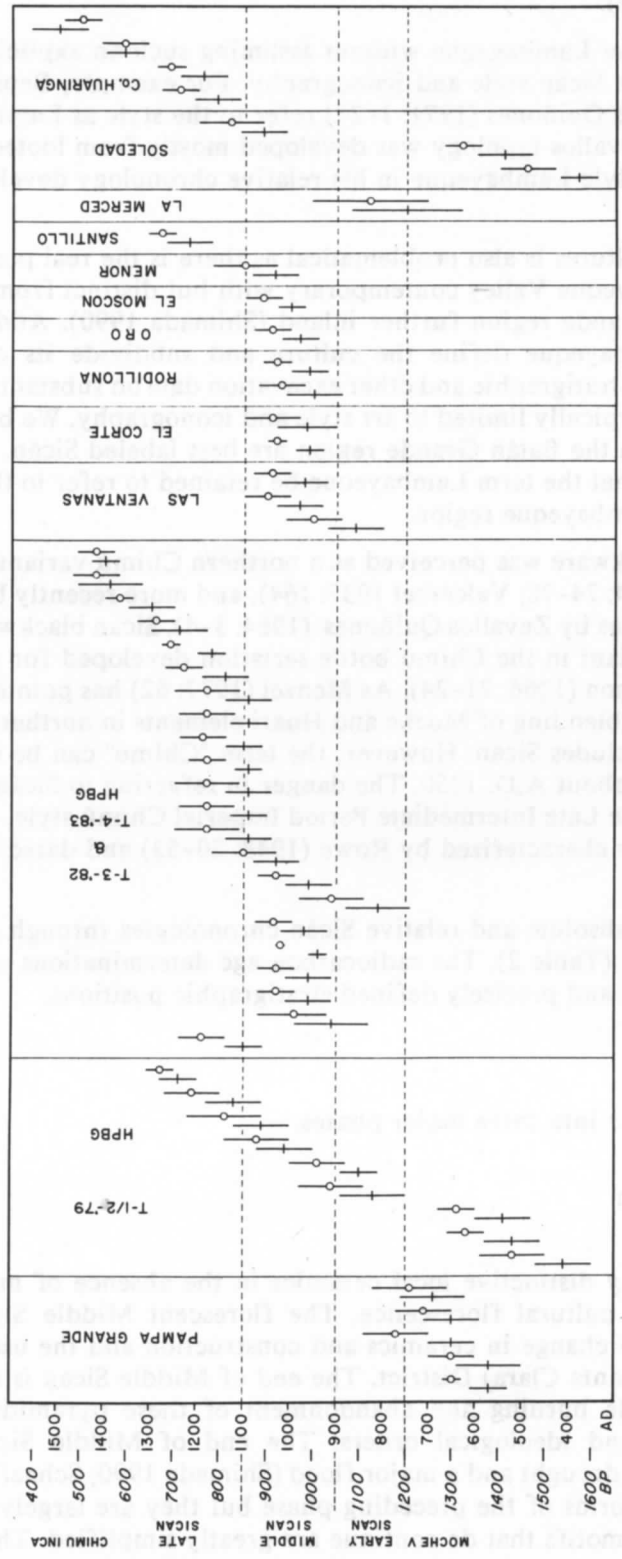


Table 2. Radiocarbon dates.

STRATIGRAPHICALLY ORDERED RADIOCARBON AND COMPUTER-CALIBRATED DATES FOR PAMPA GRANDE AND SITES IN BATAN GRANDE



STRATIGRAPHICALLY ORDERED RADIOCARBON AND COMPUTER-CALIBRATED DATES FOR PAMPA GRANDE AND SITES IN BATAN GRANDE

Table 2. Radiocarbon dates.

constructions of this phase are concentrated at the site of El Purgatorio at the juncture of the Leche and Lambayeque Valleys. Extensive habitation sites which Schaedel (1966: 531) calls urban lay centers emerge concurrently on the hillsides along the valley margins.

The factors leading to the Sicán florescence came together during Early Sicán (Shimada n.d.a: 6, 1985a: 361). Our major clues to the introduction of new ideological content come from distinctive blackware bottles associated with the Early Sicán phase. These are single spout, and may have effigy, or single or double globular, chambers. Handles are plain and rounded, with decoration confined to a face-neck figure which may be rendered with or without fine details. When as detailed as it is in Figure 3, the face shows a blend of human and raptorial bird features. At present, ceramics are the primary artifact class in which Early Sicán can be identified archaeologically. An inferred Early Sicán corporate structure is the low platform with regularly spaced columns set in sub-floor adobe-lined sockets excavated in 1986 at Mound II, Huaca La Merced (see map, Figure 4). In a general sense, vessel forms that occur in this Early Sicán context at Huaca la Merced show thematic and formal continuity from Moche V (Cleland and Shimada n.d.a: 4-5). The diagnostic Early Sicán bottle type described above was not, however, found there.

The Middle Sicán epoch (A.D. 900-1100) is distinguished by five roughly synchronous developments in monumental architecture, elite burial pattern, art style, metallurgy, and intensification of contacts with coastal Ecuador. In the Sicán architectural pattern, pyramids, and associated platforms and compounds were constructed of marked adobes using the chamber and fill technique (Shimada and Cavallaro 1985: 55-63; Cavallaro and Shimada 1988: 76, 81). Remains of 17 such pyramid complexes are found today in the 1,000 x 1,600 m, T-shaped Sicán Religious-Funerary Precinct at Poma (Figure 4), the inferred political and pilgrimage center of the Middle Sicán polity. The Batán Grande National Archaeological Monument, which is composed of the adjacent Poma and Santa Clara districts, has the North Coast's largest concentration of late Middle Horizon and early Late Intermediate Period monumental architecture (Shimada and Cavallaro 1985: 49-55). One can literally look from the top of one adobe pyramid to one or several more on the horizon in several directions.

The Middle Sicán elite burial pattern occurs in shaft tombs associated with the pyramids at Poma. Impressive and unprecedented accumulations of gold and other metal objects have been looted from Middle Sicán shaft tombs at Poma (*cf.* Shimada 1990). The graves contained other sumptuary objects decorated with precious materials including *Spondylus princeps*, lapis lazuli, pearls, emeralds, and cinnabar (Carcedo and Shimada 1985: 62; Shimada 1985a: 367-368). Such "conspicuous consumption" by the elite dead indicates that in life they controlled access to a wide range of exotic resources. They clearly were able to mobilize sufficient manpower to construct elaborate pyramids and support craft specialists who produced the luxury burial goods (Shimada 1987: 140-144).

The distinctive Sicán art style, with syncretized elements of Moche, Huari and/or Pachacamac, and possibly Cajamarca styles appeared in multiple media associated with the elite constructions and tombs, including metals, ceramics, murals, textiles, wooden implements, and other objects. Its principal motif, the Sicán Lord, is described below. The evolution of the style across the Middle Sicán time phases (Table 3) may be viewed as evidence of a long-lasting ideological complex. The other major development associated with the appearance of the Middle Sicán culture was in metallurgy, and involved successful, large-scale smelting of arsenical copper and the first extensive use of bronze for both utilitarian and ceremonial objects by a coastal culture. Arsenical bronze technology provided a major economic promoter for the florescence of the Middle Sicán culture. Metallurgical studies by Proyecto Arqueológico Sicán have been reported elsewhere (Shimada *et al.* 1981: 432-433, 1982: 952-959, 1983: 38-45; Epstein and Shimada 1983: 381-387; Shimada 1985a: 370-379; Merkel and Shimada 1988, 1990).

These interrelated changes crosscut technology and economy, settlement pattern, political structure, and symbolic life (Shimada 1985b: 96-97, n.d.a: 12-15). Shimada (1985a: 361-365) suggests that the initiating mechanism for the articulated cultural changes marking the Middle Sicán

Table 3. Style and time.

PHASE	SINGLE SPOUT BOTTLE STYLE	TIME	ARCHAEOLOGICAL EVIDENCE
Late Sicán	Type V	A.D. 1100-1375/1400	grave vessel HPBG T-4
Late Middle Sicán	Type IV	ends by A.D. 1100	grave vessel HPBG T-3
Middle Middle Sicán	Type III	/I\ I I I I \I/	grave vessel associated with 3 Type II's, Huaca las Ventanas
Early Middle Sicán	Type II	begins ca. A.D. 900	vessel fragments HPBG T-3; 3 grave vessels associated with one Type III Huaca las Ventanas; 4 salvaged vessels Huaca la Merced
Early Sicán	Type I	begins ca. A.D. 750	grave vessel HPBG T-1/2; sherds, Huaca Las Ventanas, South Sector (fill); sherds, Huaca La Merced Mound II (fill)

NOTE: All material from HPBG is listed in stratigraphic order from (deepest) Early to (highest) Late Sicán. Vessel fragments considered diagnostic of Type II are virtually identical to the same parts (spout, strap handle, and base) of whole Type II vessels from Huaca la Merced.

florescence may have been a religious revitalization movement, such as that described for the Seneca Nation of upstate New York by Wallace (1966: 34), or a "messianic" movement centered about a charismatic leader as in the case of Tupac Amaru (Ossio 1973: xxiv-xxvii).

In many respects, single-spout bottles are the most widely recognized characteristic of the Sicán culture. They are much more likely to be attributed to the generalized Lambayeque region or culture than are the rarer fine metal and other objects now in museum collections in and outside Peru. The magnificent gold and *tumbaga* objects are known primarily from looting of elite and ceremonial contexts; the humbler Sicán bottles are more abundant and occur in a wide range of functional and socio-economic contexts including smelting workshops and formal enclosures in the Sicán Precinct. Thus, bottles have been more commonly recovered archaeologically than the non-ceramic luxury goods associated with a special class of objects described below as the aesthetic locus of the Sicán culture.

It is important to be able to understand Sicán perceptions of the status of bottles and other expressive media. A useful characterization of the class of objects produced under a society's highest performance standards for its highest consumer expectations has been offered by Maquet (1979: 30, 1985: 69-70) as a culture's *aesthetic locus*.[3] These criteria exclude most Sicán single-spout bottles; thus, they fall outside the aesthetic locus of the Sicán. Yet, many are high in quality within the domain of mass-produced items showing non-utilitarian form.[4]

Aesthetic standards that were set in precious metal objects were, in turn, imitated in ceramics. For example, the standing Sicán Lord holding a round object in each raised hand as found on blackware bottles, is a pale reflection of the Museo de Oro del Perú gold *tumi* (No. 2707) that is nearly 40 cm tall (see Carcedo and Shimada 1985: 71, figure 13). The ceramic representation is essentially a frontal view showing none of the oval pendants or other details seen on the back of the *tumi*. Two-piece mold-made bottles simply cannot replicate the fine filigree work decorating the headdress of the Sicán Lord on the famous knife.

The secondary status of ceramics is indicated in other ways. For example, an early Middle Sicán double-spout blackware bottle recovered from a partially looted tomb at the west base of Huaca La Merced (Elera n.d.) was carefully and thoroughly covered by hammered copper sheets to give the false impression that it was a copper bottle. Our study of tomb looting in Batán Grande (*cf.* Carcedo and Shimada 1985; Pedersen 1976) indicates that elite Middle Sicán tombs that were rich in metal objects (both precious metals and bronze) typically had few or no ceramics (*cf.* Alva 1985). Lastly, a design element, a horizontal line near the median point of the body of some Middle Sicán single-spout bottles, has been interpreted as imitating the line formed by the union of the two halves of the chamber on metal bottles (*e.g.*, Muelle 1943; Rondón 1966b). The line had no apparent structural function or cause on ceramic vessels. Mold lines, on the other hand, are vertical, and smoothed over.

Although Sicán iconography and object forms in precious metals were replicated in ceramics, there was no apparent cross-fertilization between Sicán metallurgical and ceramic technologies during Middle and Late Sicán. They were dictated by two fundamentally distinct value systems, production

---

[3] Lechtman (1975: 16) has elsewhere recognized the relevance of concepts utilized by Maquet and others in aesthetic anthropology to the understanding of style and technology in prehistory. She classifies highland Andean tin bronze ceremonial objects within the aesthetic locus of the producer society in a later article (Lechtman 1980: 312).

[4] Only rarely will a Sicán bottle show sufficiently detailed individual craftsmanship to qualify for aesthetic locus status. A face-neck sherd of such quality was recovered by Elera and colleagues at Huaca La Merced, Mound I, in 1983. More generally, Sicán blackware bottles fall outside the class of objects defined by strict application of aesthetic locus criteria to Sicán artifacts.

techniques, and setups. Sicán metallurgy and metal-working emphasized casting, sheet metal production, and a variety of mechanical and chemical surface treatments such as embossing and depletion gilding. Such processes were far more costly in material and labor than mold-made ceramic production. Though furnaces used in smelting and annealing are well documented and understood, little can be said about ceramic kilns. Ground slag resulting from smelting was used as temper in making *tuyeres*, or ceramic blowtube tips, but, in spite of its abundance, slag was not widely added to other ceramic pastes.

Sicán single spout bottles: general observations

We now recognize five phases of Sicán single-spout bottle chronology from our coordinated studies of archaeologically excavated pottery from Huaca del Pueblo Batán Grande (HPBG), the Batán Grande National Archaeological Monument, and of an unprovenienced collection of whole vessels from the Brüning Regional Archaeological Museum in Lambayeque. The unprovenienced bottles sorted into four types ordered along several morphological continua. Archaeological finds by Proyecto Arqueológico Sicán allowed us to seriate the types and to add stratigraphically earlier material (Early Sicán) to the sequence. This chronology allows us to mark time relatively at Sicán sites in a manner analogous to the five-phase Moche stirrup spout sequence (Larco 1948: 28-36; Donnan 1978: 52). This sequence allows chronological ordering of archaeological sites in the Lambayeque region. The total span of the Sicán cultural chronology (*circa* A.D. 750-1375) corresponds to the time of development and expansion of bronze production in northern Peru.

Single spout vessels fall into two main classes, which we call Sicán Face Neck Bottles and Sicán Plain Single Spout Bottles (Cleland and Shimada n.d.b: 4-7). Face-neck bottles bear a motif Zevallos Quiñones (1971: 6) aptly terms *cara mascara*, or 'face mask'. They form Type A in his six-part morphological and thematic classification of prehistoric burial pottery from the Lambayeque area (*ibid.*: 5-6). Shimada refers to the personage represented in the motif as the Sicán Lord. The mask-like image may represent the *tumbaga* masks we tentatively classify within the aesthetic locus of the Sicán culture. In fact, human faces are visible underneath gold masks on several known figurines such as those standing inside the temples decorating the back rest of the so-called "Chimú Litter" at the Museo de Oro del Peru (No. 4059) (Carcedo 1989; see Carcedo and Shimada 1985: 69, figure 8) and on an earspool, No. 28:147:11, in the H. Brüning collection at the Hamburg Ethnological Museum. Ceramic Sicán Lord images are generally simpler than those of the gilded litter or golden earspool, and usually only the mask, not the face, is represented.

Kroeber's name for Sicán Lord bottles, "rotund figure jars," suggests perception of the vessel as an effigy (Kroeber 1926: 28, 1930: 96, 1944: 74). Bennett (1939: 101) also used Kroeber's term. Carrión (1940: 571-587) called the motif the "bird man" as represented on *tumbaga tumi* knives, where a free-standing Sicán Lord wears wings. Zevallos Quiñones (1971: 5-6) and Kauffmann (1983: 497-499) recall that many Peruvians refer to this theme as *el estilo Rey*, or 'king style', while both recognize avian attributes in the face, especially in the beak-like aquiline nose. The nose is usually less hooked and pointed than the beak of Early Sicán bottle face-neck figures described above. Some Middle Sicán bottles have the base of the spout modeled in the form of a bird, but with the Sicán Lord where its head should be. Scheele and Patterson (1966: 22, 24), recalling a character in "The Wizard of Oz", call Sicán Lord iconography the "tin woodman" motif. Except for Kroeber's term, these interpretive names appear to refer to the Sicán Lord image on the bottle, not the entire bottle as effigy.

Almond or comma-shaped eyes typically outlined with shallow, polished incisions termed "Sicán grooves" are also a primary diagnostic of the Sicán Lord. Paired vertical or oblique lines that usually outline a parallel row of dots usually appear on the cheek, while a single or multiple-tiered headband, when decorated, shows an elaborate central band with incised short parallel lines, or the band may

be fully three-dimensional with spike-like projections (Figure 5). Ears are pointed, usually showing incised curvilinear designs on the upper portion. Lower lobes are rounded and pierced, with tiered earrings falling below.

The Sicán Lord appears with a limited range of auxiliary figures. Strap handle *adornos* are located above the apex of the arch, and usually depict a single animal figure or human or a pair of humans. Animals featured on Sicán strap handles include marine and terrestrial birds, felines, foxes, monkeys, frogs or toads, fishes, *Spondylus* shells, and an iguana-like creature with a serrated back. Single humans also appear, but paired humans in opposition are probably more common. Headgear of the paired individuals contrasts: one wears the semicircular headdress typical of the commonest kind of *adornos* found on the chamber, while the other wears a stepped hat. As in the case of human *adornos* that appear on the chamber, the miniature men are in a prostrate or "floating" position with only their heads fully three-dimensional. Although rare, single "temples" with the Sicán Lord face inside are found occasionally on the vessel shoulder; these look much like those mentioned above on the "Chimú Litter."

A pair of dragon-like heads (Figure 7) may protrude from the neck-shoulder joint below the ears of the principal figure. This position is fixed.[5] Side shoulder *adornos* include the small males with hemispherical headdresses and a range of animals including foxes, felines, deer, monkeys, and birds. The male in headdress may appear also in symmetrical frontal or frontal and dorsal positions facing toward or away from the spout.

Loci of decoration on Sicán vessels are generally fixed, and all common ones are made explicit in Figure 8. A collar band is usually depicted in low relief and may be incised with short, curved or straight lines. Collar loci vary, from the actual neck-shoulder joint to higher up on the spout.

Sicán face neck bottle chambers vary from oblate, spherical forms that may have inspired Kroeber's perception of a "rotund figure," to nearly spherical. Maximal diameter may occur above median chamber height in the more rotund varieties, or at or near the median on more spherical examples. Low relief or painted designs may appear on the upper chamber. The lower chamber is usually plain, except in the case of reddish or brown vessels where large dots may be added in a fugitive, typically black, organic pigment on the lower half of the chamber (Figure 7).

There is generally no annular base on Early Sicán bottles (*e.g.*, Figure 3). A single-spout grey vessel in the Brüning Museum collection has an annular base and an Early Sicán avian, anthropomorphic face at the base of its tall, straight spout. This is the only one we have seen. For the time being, we have to consider it exceptional or transitional to the next phase.

Middle Sicán face neck bottles may have plain and short, straight-sided bases, or the form may be slightly conical and range from short (*i.e.*, less than 10 mm in height) to relatively tall (30 mm or taller). The taller of these may be molded in low relief or actually cut out in motifs that usually combine step fret and wave or triangle elements. We use Bennett's term, *champlevé*, for this design (Bennett 1939: 98).

Sicán Plain Single Spout Bottles are Zevallos Quiñones's (1971: 6) Type B. These vessels are readily distinguished from all other Sicán bottles by the combination of lack of face-neck motif, taller spout, shorter and spherical chamber, and a typically more conical and taller *champlevé* base. Sicán Plain Single Spout Bottles are now known to mark the Late Sicán cultural phase (see archaeological evidence section below).

---

[5] Rarely, standing human females may flank the Sicán Lord, also depicted standing, at this locus. Full-body depictions of the Sicán Lord on blackware bottles are rare, and we have no stratigraphic references for them at present.

The above discussion of Sicán bottle morphology is limited to common forms for which we have evidence suitable for seriation. In addition, however, we now recognize an impressive morphological variability in Sicán bottles beyond the forms previously described. These include double-spout vessels, effigy chamber vessels, and other variations which Shimada (n.d.b: 10-11) details elsewhere. Some examples, for instance, have plain, tall bases in which circular holes were cut out. Ordering of this range of Sicán Single Spout Bottles along a chronological sequence would be helpful for such practical ends as relative site dating, gravelot seriation, and correlating technological and stylistic phases over the Sicán cultural phases.

As a first step towards defining such a sequence, Shimada formulated his preliminary hypothesis (below) to identify and seriate the common single spout types. In the remaining sections of this study the hypothesis is explained, the pilot study to test it and its results are discussed, then the type categories from the study are applied to archaeologically recovered pottery from the Batán Grande area.

Understanding bottle form: hypothesis, sample, and test results

Hypothesis

Shimada originally proposed a three-part face-neck bottle seriation based on his study of published vessels, the Brüning Museum collection, and tentative indications from the 1979 excavation at HPBG (see Shimada 1985a: 366, figure 16.3). He developed the hypothesis that each phase of the Sicán ceramic sequence is characterized by a distinct set of body part proportions that are consistent within each phase. These proportions may be expressed in terms of ratios of height and width (or diameter) of base, chamber, and spout. The end result is a trend marked by increase in absolute height of base and spout, with concomitant reduction of the ratio of chamber (body) height and diameter (width) to those same dimensions of the base and spout. The three chronological phases Shimada expected to find associated with the three part seriation were early, middle and late Middle Sicán, because, at that time, archaeological associations were only understood for Sicán Face Neck Bottle types from among the five types we now recognize in the bottle sequence. Early Sicán was postulated as a cultural phase, but associated artifacts were, at that time, too limited to characterize.

After several seasons of excavation in the Batán Grande area (1979-85), it was possible to propose a tentative five-part typology and five-phase seriation of Sicán single spout bottles (Shimada 1990). These types are illustrated in Figure 6. It was only after the 1982 and 1983 excavations of the deep stratigraphy at HPBG, however, that stratigraphic position of Sicán single spout vessel sherds and whole vessels from graves allowed us to state that the hypothesized sequence matched actual chronology. Up to this point, we have limited discussion of types and seriation to face-neck bottles and our chronological references for them to phases of Early and Middle Sicán. The occurrence of a plain spout *champlevé* base bottle in a stratigraphically higher grave in which no face neck bottles were present led us to amend the hypothesis to include Late Sicán in 1983.[6] The final phase of this

[6] Figure 6 is a modified version of the tentative Sicán single spout seriation previously published (Shimada 1985a: 65-66; 1985b: 366, figure 16.3; Carcedo and Shimada 1985: 75, figure 18). There were three phases in the original seriation, which was limited to face-neck bottles. According to its phases, early Middle Sicán was characterized by annular base bottles, Late Middle Sicán by plain pedestal bases, and Late Sicán by *champlevé* face necks. Subsequent archaeological investigation and refinement of absolute dating references by new radiocarbon age determinations have clarified stylistic differences that distinguish Middle from Late Sicán. It is now clear that Sicán Lord imagery disappears from the bottle spout by *circa* A.D. 1100, which, roughly, follows abandonment and burning of the Poma monumental architecture *circa* A.D. 1050-1100. Table 3 summarizes the current state of Sicán bottle chronology in terms of single spout bottle style correlated to cultural phases and dates.

bottle sequence, or Late Sicán, is shown at far right in Figure 6. The sequence was amended later by the addition of Early Sicán, after new archeological evidence excavated in the 1985 season at the Sicán Precinct (Shimada 1990) clarified the Sicán associations of the imagery of a grave vessel from the 1979 excavation at HPBG (Shimada *et al.* 1981: 425, figure 26).

We can confidently order Sicán bottles chronologically at this writing; this includes architectural, double-spouted, zoomorphic, and human effigy vessels which Shimada (1990) details elsewhere, in addition to the face-neck and plain-spout bottles treated in this study.

Qualitative differences alone serve to set apart types, but the proposed seriation of Sicán single spout bottles runs along a morphological continuum which can only be verified metrically.

Pilot study and test results

A pilot study was carried out in 1984 to test the types and seriation proposed for Middle and Late Sicán prior to designing a large-scale test of the hypothesis. The distinct Early Sicán style had not been identified for certain at the time of the Brüning Museum study. Since Early Sicán bottles usually lack an added base, it would not have been appropriate to add them to a study in which ratios are generated from base height relative to other measures. That vessel part could only be compared by presence or absence criteria, or along a purely descriptive scale (*e.g.*, flat-bottomed base, ring base, etc.).

The proposed typology and chronological sequence would, if accurate and general, as opposed to site specific, be independently replicable from a representative sample of Sicán face-neck and plain spout single-spout bottles from sites within the Lambayeque Complex. No collection of archaeologically recovered bottles is sufficiently large to allow us to conduct a statistically meaningful test of the proposed types and seriation. There are, however, hundreds of unprovenienced, but regionally collected, Sicán single spout bottles at the Brüning Museum in Lambayeque. Most have been donated from local sources, or confiscated by local police from looters.

A test was needed to see whether or not the perceived types would segregate out, based on the proportional relationships involving spout, chamber, and base dimensions, and if such separate groups would cluster along a continuum to reflect the perceived ordering (chronological, in this case) of the types. We designed a measurement battery suitable for generating the vessel part ratios necessary for testing the types and seriation (Figure 8). A random sample of 42 single spout bottles at the Brüning Museum, including 29 face-neck and 13 plain spouts, was subjected to the measurement battery.[7] All measurement data for the sample appear in Table 4.

A simple SAS computer program was used to generate variable interaction plots that represent the proportional relationships of base, chamber, and spout dimensions necessary to test the types and seriation (SAS 1982: 629-640). The program produced 21 plots that include the vessel part ratios involving base, chamber, and spout dimensions (*e.g.*, base height to spout height), which are listed at the end of Table 4. By working with ratios, we hoped to eliminate the danger of confusing differences in size with those in scale.

---

[7] Cleland eliminated four randomly chosen face-necks bottles that showed Chimú-Inca or early Colonial vessels with Sicán archaisms from the sample. Our references elsewhere to a 70-bottle sample (Shimada n.d.b: 8; Cleland and Shimada n.d.b: 7) include the bottles in the present study plus Sicán double-spouted bottles, for which we lack an adequate archaeologically recovered sherd or whole vessel sample for comparative study.

Table 4. Measurements taken on Brüning bottle sample.

SDU	SDL	SPH	BOH	BAH	BOD	BAD	TYPE
19.5	30.1	43.5	96.9	5.8	134.0	73.1	II
21.5	30.8	58.5	93.8	6.2	143.9	79.0	II
21.1	30.0	62.6	100.2	13.7	115.2	71.9	III
19.2	30.5	78.5	88.2	29.3	128.3	85.3	III
20.1	34.0	87.6	93.2	29.1	131.5	79.0	IV
19.7	28.0	77.1	88.7	31.5	126.3	89.6	IV
21.8	33.5	95.3	113.9	28.2	144.4	97.8	III
19.0	27.5	68.0	86.8	15.0	118.1	83.0	III
18.5	26.9	73.4	87.4	19.3	121.0	79.8	III
17.0	27.0	72.1	81.1	20.0	112.8	78.8	IV
19.1	25.5	69.0	86.0	27.8	120.5	81.8	IV
18.1	26.0	77.5	91.5	32.0	144.5	79.8	III
18.3	31.1	61.5	117.1	10.0	135.0	86.5	III
19.1	19.0	81.7	93.8	34.0	135.8	102.2	IV
21.1	32.0	82.5	94.5	32.0	141.7	92.5	III
21.0	30.8	60.3	86.2	8.0	131.2	73.7	II
18.9	30.2	47.9	81.4	7.8	113.1	73.9	II
17.1	25.9	68.3	88.6	23.9	112.9	81.8	III
18.2	26.1	44.9	100.9	13.2	108.5	60.9	III
17.5	27.9	63.6	87.2	18.3	114.8	80.1	III
16.2	25.3	61.0	85.5	18.0	110.9	57.7	III
18.0	28.3	68.4	86.1	22.0	119.3	83.3	III
19.9	37.5	67.7	84.9	16.1	115.1	77.6	III
16.8	26.0	69.3	79.7	26.1	101.9	74.9	IV
19.1	25.5	72.3	82.6	21.0	115.1	72.9	III
18.0	28.0	79.1	89.3	20.0	125.6	85.0	III
24.1	29.7	56.1	77.5	27.0	117.3	79.4	III
19.3	29.0	76.7	88.4	26.5	127.1	77.5	IV
20.0	27.3	41.5	88.0	14.0	121.0	81.4	III
16.8	37.2	82.1	80.7	27.1	114.0	73.3	V
18.1	37.3	78.5	80.3	37.8	112.5	93.8	V
19.9	45.0	100.8	98.6	35.9	112.0	95.0	V
15.1	30.0	82.1	80.7	27.1	97.0	58.0	V
20.5	42.5	91.8	85.6	36.6	114.3	90.0	V
19.9	38.7	91.4	98.6	34.1	121.1	100.9	V
22.1	42.8	100.0	88.5	34.0	124.5	79.5	V
17.1	44.9	99.0	87.2	36.8	116.4	98.0	V
16.9	37.9	101.5	83.8	34.0	112.4	87.5	V
17.8	35.0	88.5	74.5	29.0	108.0	74.8	V
17.1	38.1	100.7	92.8	40.2	126.9	89.9	V
17.9	36.7	89.5	77.6	32.9	109.7	76.7	V
17.0	31.0	80.8	63.1	25.9	93.0	64.0	V

Legend: SDU = upper spout diameter; SDL = lower spout diameter; SPH = spout height; BOH = body height; BAH = base height; BOD = body diameter (maximal); BAD = base diameter

A consistent ratio of measures suitable for defining a vessel type shows up as a nearly linear cluster segregated from other points on a plot. Hypothetical data were used for length and width of an object to generate a distribution of types (X, Y, and Z) by length-width ratio points shown in Figure 9 to illustrate what "ideal" linear relationships look like. Results from running the plot program on the Brüning sample were studied as a unit to determine if any particular proportional relationship between vessel parts characterizes Sicán single spout bottles in general. Of the 21 sets of results obtained from this run, only the ratio of base height to spout height approached a linear distribution across the entire sample (Figure 10). The occurrence of types along that distribution will be treated below.

As the next step, qualitative subdivisions were made within the Brüning sample to proceed toward distinguishing types. The 42 bottles were grouped according to Read's (1982: 72-73) hierarchy of differentiation into the following data sets:

A) bottles with plain bases (includes annular and pedestal bases),
B) bottles with decorated (*champlevé*) bases (includes face-neck and plain neck vessels),
C) bottles with face necks (contains all plain base vessels and part of the *champlevé* bottles), and
D) bottles with plain spouts (this group includes some of the *champlevé* bottles from the set with decorated bases).

Plain Bases

The plot series for the plain base bottles showed the clearest separation of vessel forms in the ratios of base height to the following variables: lower spout diameter (Figure 11), body height, and base diameter. In these three plots, bottles with straight-sided annular bases sorted out from the short and taller angled pedestal bases. The pedestal base bottles show a wide range of diversity, however, and do not cluster linearly in these plots. A future test in which the plot series could be run on a larger sample of plain pedestal bottles might be expected to divide this group more clearly.

For purposes of this study, this quantitatively derived separation of annular base and pedestal base bottles sustains identification of the type illustrated at second from left in Figure 6. It may be argued that a second qualitative distinction following the separation of plain and decorated bases might have achieved the same result. The ratio plots, however, have more information because they reveal which vessel dimensions besides base height help to define the type more fully. These morphological distinctions between the plain annular base bottles and plain pedestal base bottles sustain the ordering expected from the tentative seriation. Arbitrary type numbers assigned to the bottles under study reflect "reserving" the first type of the sequence for Early Sicán, which was designated Type I. Annular base face-neck vessels fall next along the sequence suggested by Shimada's hypothesis and supported by the results of the pilot study, and are therefore designated as Type II.

The Brüning sample is small; only four vessels were classed as Type II. Yet, there is consistency among the four. Three have opposing paired humans as strap handle *adornos*, while the fourth has a bird at that locus. Three of the four (not the same three) have a low incised collar at the neck-shoulder joint, while one shows a simplified collar or "double chin" above the neck-shoulder joint. Two Type II's have small human *adornos* facing the spout at side shoulder loci. All Type II's in the sample have simple, undecorated headbands above the Sicán Lord mask-face. Morphologically, this group has the most oblately spherical, or squat, chambers.

Plain pedestal base bottles with face-necks follow Type II in the sequence and are thereby called Type III. The Type III's in the sample show the widest variation. The diagnostic element, base height, varies most in this category (from 13.2 to 32 mm, as shown in Table 4). Decoration may be simple, as when a single animal adorns the strap handle and small human auxiliaries appear at the side shoulder position. More complex scenes occur with more small humans placed on the upper chamber where they face away from the Sicán Lord face-neck. The headband is usually three-tiered, and may be totally plain. Only the center panel of the headband is decorated, if at all, with three-dimensional

spike projections. Generally, decorative details increase in Type III. Chamber form varies with respect to sphericity and height of the maximal diameter relative to median height.

Decorated (Champlevé) Bases

As expected, face-neck bottles with decorated bases were segregated effectively from plain spout bottles with decorated bases by the plot series. Ten of the 21 plots distinguish the two groups; among these ten, the ratios of lower spout diameter to upper spout diameter and body height showed no overlap in the point clusters between face-neck and plain spouts.[8] Distinct linear relationships characteristic of types appear in the plot showing the ratio of base height to body diameter (Figure 12), although several plain spout bottles lie outside the primary cluster. Ratios of upper spout diameter to body height and body diameter further divided *champlevé* base bottles. Face-necks make one linear distribution, while plain spouts fall into two other groups. Thus, there is preliminary evidence for two definable types within the plain spout category.[9] In qualitative terms, roundedness of bases also appears to seriate. Early Middle Sicán bases we have seen are round; plain elliptical bases first appear in middle Middle Sicán and occasionally appear with *champlevé* in late Middle and Late Sicán. Whether a base is round or elliptical, its height follows the diachronic trend verified in this study.

According to both the hypothesis and the pilot test results, *champlevé* base bottles with face-necks fall next in the sequence as Type IV. All Type IV bottles in the sample have headband spikes, and dragon-like neck-shoulder appendages are more common than among Type III's in the sample. Modeling of facial contours and greater definition of ear and eye shapes mark finer Type III and IV vessels, as compared to Type IIs. Two Type IV vessels in the sample have an incised equator very close to the maximal diameter, which is approximately at median height. Fox or other animal *adornos* at the side shoulder loci appear to characterize this type. A Type IV variant with thick, cream-colored slip, while not represented in the Brüning sample, should be noted. This variant is of oxidized paste, with large dots painted in organic fugitive pigment on the lower hemisphere of the chamber (Figure 7). It may have two-dimensional Sicán Lord images painted in panels on the upper chamber in fugitive black as well. Another Type IV variant was slipped in light brown, with geometric painting in fugitive black over this slip. Last in the hypothetical and quantitative orderings are Type V bottles with *champlevé* bases and plain, tall spouts (discussed below, following the detailed treatment of face-neck bottles).

Face-Neck Bottles

Types II-IV are Sicán Lord face-neck bottles. Type II is diagnosed by its low (usually 4-8 mm) straight-sided annular base. The Type III base is slightly to substantially (10 to 30 mm) taller and is slightly conical in shape. Type IV bases decorated in *champlevé* patterns are at present difficult to

---

[8] The plots that distinguish *champlevé* base face necks from *champlevé* base plain spout bottles are (legend appears in Figure 12) SDU by SDL; SDL by BOH; SDL by BAH; SDL by BOD; SDL by BAD; SPH by BOH; SPH by BAH; SPH by BOD; SPH by BAD and BAH by BAD. In all of these ratio plots, the distributions of each type fall in separate halves or sectors of the graph with minimal (*i.e.*, one or two cases per type) overlap.

[9] Our sample size is too small for more than preliminary suggestion that there may be two types in this category. There is at present insufficient archaeologically obtained material for ordering plain spout sub-types in time.

distinguish from Type V bases by research thus far.[10] Type V bases tend to be more acutely angled than Type IV bases, and there is a trend toward greater absolute height for Type V. Type IV is set apart by the occurrence of a Sicán Lord face-neck on a *champlevé* base bottle, while Type V is distinguished by a plain spout on a *champlevé* base bottle. The Sicán Lord image that characterizes Types II-IV is conspicuously absent from Type V bottles.

There is greater morphological overlap between face-neck bottles with plain pedestal bases and face-necks with decorated (*champlevé*) bases than between any other two qualitatively defined groups. In the plots of the ratio of spout height to body height or to body diameter, plain pedestal and decorated base face neck bottles clustered linearly without effective segregation. As far as these dimensions of chamber and spout are concerned, there is evidence that the two qualitatively defined groups are morphologically the same, and thus cannot be seriated using these dimensions alone. The strongest morphological distinctions within the face-neck bottle group were apparent in the plotted ratios of base height against the following variables: upper spout diameter, lower spout diameter, base height, and spout height. In all four of these categories, several points representing plain pedestal bottles fell within the clustered points representing face-neck bottles with decorated bases.[11] While no morphological break is observed for these two qualitatively different groups, plain and decorated bases are concentrated at different ends of clusters, with plain closer to annular. This allows us to place plain pedestal base bottles between those with annular bases and those with decorated bases in the seriation.

Plain Spout Bottles

Type V can be simply defined by its plain and relatively taller spout. One of the Brüning examples has an *adorno* on the handle, and one has a conventionalized Sicán Lord head in two dimensional low relief on the upper chamber. Otherwise, the eleven remaining examples are devoid of three-dimensional decoration except for *champlevé* bases. Fugitive painted decoration, however, appears in stripes, geometric, and curvilinear motifs on vessels with large dots on the lower chamber. Where faint traces of painted designs are preserved, we can recognize stylized creatures (Zevallos Quiñones 1971: *Tipo* D, not paginated). Fugitive black painted decorations within horizontal bands or panels on the upper half of the body first became popular in Middle Sicán and continued strongly into Late Sicán. However, representational motifs (*e.g.*, profile views of the Sicán Lord and birds) of late Middle Sicán bottles with painted decoration were replaced by geometric motifs on Late Sicán single spout bottles (Higueras n.d.: 110-283; Maestro Bernal 1979). Generally, both plain and painted red and brown Type IVs are common, but the form exists in black and grey.

Lower spout diameter and base height are the variables which best distinguish between face-neck and plain-spout bottles with decorated bases. Again, it could be argued that spout form alone can be used to define types qualitatively, and we also made this distinction in the following step of the analysis. The plot series, however, clarified for us whether or not there were additional morphological differences beyond the qualitative difference in spout decoration. Clearly, there are such differences. Thus far, the second, fourth, and fifth of the types in Figure 6 have been sustained, along with their relative placement in the seriation. The remaining problem lies in testing for morphological distinctions to confirm or contradict ordering of face-neck bottles with plain pedestal bases earlier

[10] In retrospect, Cleland notes the omission of a critical measurement that might have shed light on this problem. Upper base diameter was left out. Without it, we are unable to calculate the angle *champlevé* bases make with the ground. This angle may serve to differentiate Type IV from Type V bases.

[11] Very simply put, the tallest *champlevé* bases are taller than the tallest plain pedestal bases, but there is overlap in absolute height between the groups.

that face-neck bottles with decorated (*champlevé*) bases. Examples of each type within the Brüning sample appear in Figure 13.

Overall, base height proved to be the best diagnostic variable. Ratio relationships of base height to certain other dimensions defined types. Considered as an isolated variable, or dimension, base height also works best for seriation by dimension (LeBlanc 1975: 24-26). For this reason it was suspected of being the best time marker among the variables measured.[12] With this information, we were able to add Early Sicán to the end with shorter bases. Finally, we designated the bottle types defined thus far I-V, according to their place in the seriation. Types I-V correspond to cultural phases as shown in Table 3, where the order is presented stratigraphically.

Conclusions based on results of pilot study

Plots of ratios of vessel part dimension measurements yielded evidence to support the typology and seriation of Sicán single spout ring or pedestal-based bottles proposed by Shimada. In the test sample, base height and lower spout diameter proved to be the most effective dimensions for segregating types and ordering them. This information will guide future testing of the hypothesis.[13]

Although types and seriation suggested by application of the preliminary hypothesis stand thus far, the plot series revealed evidence that the hypothesis should be amended. First, evidence was produced against distinctiveness of vessel part dimension ratios for each Sicán phase. One of the plots discussed above, Figure 11, the ratio of base height to spout height for the total 42-bottle sample, suggests a consistent ratio relationship for these dimensions across the sample. This ratio relationship serves well to illustrate seriation, on the other hand, as the four Middle and Late Types fall along it in the order of the seriation (Figure 6). Second, a similar situation characterizes the ratio of spout height to body height or body diameter in the face-neck bottle plot series, as mentioned above. Thus, the hypothesis should be amended to say a consistent ratio of certain vessel dimensions marks each phase, but the diagnostic dimensions vary from phase to phase.

Sicán bottle types recovered archaeologically at Batán Grande

Our archaeological examples of Sicán Single Spout Bottles come primarily from:

1. the deep stratigraphy at Huaca del Pueblo Batán Grande, including one Early Sicán burial, and late Middle Sicán and Late Sicán burials with numerous associated vessels;
2. a burial atop the principal pyramid of Huaca las Ventanas;

---

[12] LeBlanc (1975) considers seriation by dimension as a means for ordering small sherd samples. The usefulness of seriation by dimension in the present study is evident, given the incidence of bottle sherd fragments at HPBG. We are constrained in its use, however, by lack of archaeologically recovered examples of other Sicán bottle forms, for example, double spout bottles, in order to compare the temporal distribution of their base types with those of single spout bottles. Thus far, one double-spout bottle from Huaca La Merced is the only one of this type recovered archaeologically.

[13] The number of bottles included in future samples for testing the hypothesis should be conditioned by the degree of variability known within type and the likelihood of the existence of subtypes. As Types II and IV appear from our pilot study to be more consistent in vessel part dimensions than Type III, and the possibility of sub-types within Type V has been noted, substantially larger samples should be used for testing these groups to determine vessel part ratio ranges for types or sub- types.

3. a salvage project at the western base of the principal Huaca La Merced pyramid,[14] and
4. two salvaged burials along the east profile of the Poma Canal between Huacas El Corte and La Botija.[15]

Types I, II, IV, and V are represented at HPBG. With the exception of three gravelot vessels (one each for types I, IV, and V), Sicán single spout bottle materials from HPBG are sherds. Our utilization of sherds for seriation at HPBG was based on the results of the Brüning vessel study and comparison with salvaged whole vessels from the Sicán Archaeological Precinct. To recapitulate, we initially classified the Brüning bottles qualitatively by base and spout decoration. Subsequent analysis identified base height as the most effective attribute for seriation. Thus, base sherds are the vessel fragment category most likely to indicate type and allow for seriation of the types in the Brüning sample (Types II-V).

All Type II or possibly Type II materials at HPBG are fragmentary. Straight-sided annular bases characteristic of Type II occurred well below the deepest (*i.e.*, earliest) of the *champlevé* (Types III-V) bases excavated stratigraphically at HPBG. Two face-neck sherds with short spouts like those on the vessels from Huaca la Merced (described below), and like the four annular base face-neck bottles in the Brüning sample, were also recovered from lower Middle Sicán contexts at HPBG. The layers below *champlevé* base finds also yielded a range of strap handle *adornos* including birds, facing men, and solitary men. We are unable to assert that these *adornos* are, in and of themselves, diagnostic of Type II, and some of them occur on other types.[16]

While we cannot be certain that the *adornos* and Type II base fragments found in the HPBG stratigraphy were from the same kind of bottles, the face-necks with short spouts are so like the whole vessel versions as to be nearly conclusive; overall, the evidence is strong that the decorated spouts, *adornos*, and bases that occur together on Type II vessels represent Type II vessels when found in combination in close archaeological association. Salvage work directed by Carlos Elera (n.d.: 1) of Pontífica Universidad Católica, Lima, at Huaca La Merced led to recovery of four whole or nearly complete Type II black vessels. All bear incised headbands above the Sicán Lord and an incised collar at the neck-shoulder joint. One (Figure 14) has the familiar human *adornos* at the side shoulder position, while three have unadorned chambers. Two have opposing human *adornos* on the strap handle, while only a broken and uninterpretable stub remains on the third handle. The fourth handle is molded in the form of a serrated arch and has no *adorno*. This Type II assemblage was associated with other Middle Horizon diagnostic types including Sicán Orange on Cream (Cleland and Shimada n.d.a: 4). Initial construction of the Huaca La Merced pyramid was independently dated through brick and construction analysis to late Early Sicán. The later expansion was dated to early Middle Sicán. In this instance, ceramic and adobe/construction seriation agree well.[17]

---

[14] Salvage work at Huaca La Merced was conducted after flooding of Río La Leche and the Túcume Canal during El Niño rains early in 1983 washed away about half of the pyramid. As a result, the pyramid was structurally endangered, and its stratigraphy and construction techniques were clearly visible (Elera n.d.; Shimada and Cavallaro 1985: 58).

[15] Vessels from this excavation were unavailable for detailed consideration in the present study.

[16] Bird and human *adornos* also occurred stratigraphically with and near *champlevé* base fragments in stratigraphy at HPBG.

[17] The relative dating of Huaca La Merced Mound I was made in part following comparison of techniques and materials used in its construction with those of the radiocarbon-dated Middle Sicán pyramids nearby. The La Merced pyramid was built over a foundation of sand fill crudely partitioned

Figure 15 show the Type IV vessel recovered from a late Middle Sicán burial at HPBG in 1982. The similarity between this vessel and a Type IV in the Brüning sample (Figure 13-C) is evident. Its spout is also characteristically taller than might be expected for a Type III, and its *champlevé* base is lower than would be expected for a Type V. Compared to the HPBG spout sherds inferred to be Type II, the Type II vessels from Huaca la Merced and from the Brüning sample, the features of the Sicán Lord face are less sharply defined and more crudely incised.

Whole and nearly complete vessels from a Late Sicán burial at HPBG are shown in Figures 16 and 17. Figure 17 is clearly a Type V vessel, which was associated with two oxidized plain utilitarian plates and nine other decorated vessels of red-brown paste painted with fugitive organic pigment (Higueras n.d.: figures 15-27; Shimada 1990). It should be noted that a stirrup spout vessel in this gravelot bore a *champlevé* base that is formally indistinguishable from that associated with the Type V Sicán Single Spout vessel. A bottle with a drum-shaped body and flaring spout was set upon a plain conical base similar to the taller Type III bases in the Brüning sample.

The association of this plain pedestal base vessel with a Type V bottle may explain why it was possible for the only plain pedestal base at HPBG to have been found higher in the stratigraphy than the *champlevé* base sherds mentioned above. Its context was Late Sicán but would be formally classed in Type III, a hypothesized marker of the middle Middle Sicán phase. As is clear from this Late Sicán gravelot, the plain pedestal base may not be diagnostic of bottle form when unassociated with the rest of the vessel. Ring and *champlevé* bases are better time markers. It is evident that the diagnostic value of the base in general is greatest for typology and seriation of Sicán Single Spout Bottles when vessels are whole or nearly complete, or when the bases are associated with such sherds as spouts or *adornos*, which are easily compared with excavated whole vessels.

A gravelot recovered by Proyecto Arqueológico Sicán at Huaca las Ventanas (Figure 18) illustrates one problem we have had placing Type III in time in the Batán Grande area. It contains three Type II vessels and a fourth with a Type III base. Measurements of these bottles were not available for inclusion in the present study. Further, Bennett (1939: 100) illustrates a Type III (*ibid.*: figure 20e) and a Type IV (*ibid.*: figure 20c) from the same grave (2J) at the site he designated Lambayeque One, near San José, a modern fishing village. Some overlap in type distribution over time would be expected by the very nature of style change when cultural conditions remain relatively constant, as during Middle Sicán.

Summary and conclusions

The highly distinct single-spout blackware bottles which we now define as Sicán style have been known to the archaeological community at least since the end of the 19th century as having originated in the Lambayeque region. They have been found in diverse contexts (by no means limited to graves) over a wide area from coastal Ecuador to the north, to Ancón and Pachacamac to the south. The impressive geographic coverage and diversity of context of occurrence allow us to cross-date many other contemporaneous vessels in and outside of funerary contexts. Further, the highly diagnostic forms and iconography mean that even some fragments can be dated effectively. It is with understanding of this potential that we embarked upon the present seriation of Sicán single spout bottles.

---

with walls of unmortared, unmarked bricks, while Middle Sicán monumental constructions feature cores of well-structured, regular lattices of filled and bonded chambers, each built of mortared, marked bricks (Elera n.d.; Cavallaro and Shimada 1988; Shimada and Cavallaro 1985, in press). The La Merced pyramid was built over floors that yielded Moche V ceramics. In stratigraphic terms, the Type II ceramics recovered by Elera came from the earliest of post-Moche new constructions (*i.e.*, late Early Sicán).

Excavated ceramics from the Batán Grande area led us to a seriation of single-spout bottles in terms of five types, each one of which represents one of five phases. These types are illustrated in Figure 6, and are placed in time in Table 3. Independent verification of the typology used to seriate the vessels was obtained for the last four of these five types through quantitative measurement of a sample of Sicán vessels from the Brüning Museum in Lambayeque.

The first cultural phase, Early Sicán, is marked by Type I black, burnished bottles bearing face-neck avian or anthropomorphic avian iconography and usually with no added ring base. Bases were added to bottles from all subsequent phases, Middle Sicán and Late Sicán (Types II-V). Base height increases over time through phases II-V. Early Middle Sicán (Type II) ceramics are distinguished by low, flat-sided ring bases. It is at this stage that the developed Sicán Lord face-neck image appears. Auxiliary figures are few in number in this phase. Type III is tentatively associated with middle Middle Sicán, although it is the most difficult of the types to place in time.

We lack Type III diagnostics in stratigraphy, with the possible exception of one plain conical base (from a Late Sicán context) that could have come from a different bottle form entirely, or, as an item in fill, could have been mixed in by chance from older material. Our placement of Type III in time is admittedly tenuous; some forms of it may co-exist with Type II and others may co-exist with Type IV. It is possible that the gravelot type mixtures were deposited at times of stylistic flux in Middle Sicán culture.

Type IV bottles are associated with the late Middle Sicán phase. Types III and IV bear the most elaborate configurations of auxiliary figures. The *champlevé* base first appears on Type IV. The presence of Sicán Lord iconography on the spout and a *champlevé* base are the minimal diagnostics for characterizing Type IV. The distinguishing feature of Type V is the absence of face-neck iconography. Spouts are plain and taller, while chamber size in relation to base and body is reduced.

The overall trend we generalize in Sicán Single Spout ceramics is schematized in Table 3. The observed tendency for body part variation across the types confirms Shimada's hypothesis in general terms, but measured ranges of body part ratios per phase have not been determined.

Other factors than the morphological features described above may have been at work to bring about the changes in bottle configuration over time. One possible factor not previously discussed may be overriding relationships between body parts across the phases, as appears to be the case for the ratio of base height to spout height. The sample size for the pilot study, the lack of provenienced material, and the limited amount of documented examples from stratigraphic deposits may have biased determination of types thus far. This is particularly acute for Type I. With a larger sample of Early Sicán Bottles, we may find sufficient variability to warrant establishment of additional types. Certainly the inferred evolutionary linkage between extant Types I and II requires further study on the basis of a larger sample.

Reliable dating of distinct and readily identifiable Sicán bottles has much more than regional importance due to their wide distribution along the coast. The attendant cross-dating of regional ceramics that are found together with Sicán bottles in gravelots offers new possibilities. For example, the association of Cajamarca and Sicán ceramics in gravelots should help refine the former's absolute and relative chronologies. A grave excavated at San José de Moro by Hans Disselhoff (1959) contained an inferred Late Sicán double spout blackware bottle with high pedestal base as well as Late Cajamarca tripod plates (see Terada and Matsumoto 1985). Together with the inferred association of Middle Cajamarca A and Moche V ceramics at Pampa Grande (Shimada n.d.a), we can tentatively bracket absolute Middle Cajamarca B and Late Cajamarca dates.

At the same time, improved understanding of regional variability in Sicán ceramics from post-1985 field seasons provides some insights into the limitations and potential of the Sicán bottle chronology.

The Middle Sicán single-spout bottles produced locally in the Piura Valley on the Far North Coast serve as an example (Guffroy *et al.* 1989). In regard to overall form and iconography, they are, in general, good imitations of Lambayeque area vessels described thus far in the text. Careful inspection, however, soon reveals divergence in details. In contrast to the well-fired, fine sand-tempered Lambayeque specimens, they are less well-fired and contain coarsely ground shell or other calcareous temper. At the same time, reduction is quite thorough and the exterior is well burnished, and thus they present the black and polished appearance of the vessels from Lambayeque. The width to height ratio of the Sicán Lord face found on many of the face-neck bottles from around Piura is accentuated, presenting a "squashed" appearance. The mouth of the Piura Sicán Lord is often slightly curved upward in contrast to the typical straight-lipped mouth of the Lambayeque version.

The chambers of Piura vessels are commonly more spherical (even those that are oblong with greater height than width) than in Lambayeque, and the horizontal groove that may be incised near the equator on Lambayeque bottles is rare on Piura specimens. In some cases, Piura bottles show a noticeable angle of the spout toward the strap handle above the Sicán Lord face; this tilts 70-80 degrees to the ground, as opposed to the 85 to 90 degrees of Lambayeque spouts. Similarly, sides of the pedestal bases are often slightly convex (rather than straight), and the juncture between chamber and pedestal is more U-shaped on Piura bottles, and more V-shaped on Lambayeque ones. It is important in validating the seriation, however, that the pedestal base and spout of Piura specimens display essentially the same metric ratios found in this study. Thus, the seriation described in this study appears to be applicable to these Piura specimens. On the other hand, body measurements are problematical.

Overall, the present study affords a long-term developmental perspective on Sicán bottles and associated iconography. Preliminary indications are that much of the chronological significance of changes in the shape and height of the spout and base documented in this study is applicable to double spout bottles. Pedestal base and spout heights correlate well, and the narrower distal ends of spouts on both bottle forms change over time from conical to tubular in shape. Although the Sicán Lord image is often equated with the legendary Ñaymlap, it is clear that it evolved over a considerable time period along with bottle form rather than appearing in the "classic" form. It remains our goal to refine typology and chronology as a larger body of data becomes available.

Acknowledgements

Proyecto Arqueológico Sicán has received generous support from the National Science Foundation, the National Geographic Society, and Princeton and Harvard Universities. Cleland's participation was partly supported by a Lounsbery Fellowship from the American Museum of Natural History, as well as research and travel funds from the UCLA Graduate Division and the UCLA Department of Anthropology. The UCLA IBM 3033 computer was made available for processing of data for this study through the Office of Academic Computing.

Access to the Brüning Museum collections in Lambayeque was facilitated by Museum Director Walter Alva and his wife Susana. Batán Grande student Juan Carlos Santoyo assisted Cleland in measuring the vessels. The staffs of Museo Nacional de Antropología y Arqueología, Lima, Museo Municipal de Piura, Piura, and Museo del Banco Central de Reserva del Perú, Lima, all facilitated Shimada's access to their collections for comparative purposes. Peruvian students Carlos Elera, José Garcelén, Alvaro Higueras, and Miguel Cornejo all assisted in the excavation of Huaca del Pueblo Batán Grande. Fellow project members Paloma Carcedo, Raffael Cavallaro, Stephen Epstein, and Melody Shimada offered on-going discussion and insights as the work continued. Our field crews were recruited from Batán Grande and La Zaranda. Carlos Elera returned in 1983 with Peruvian students José Pablo Baraybar, María Isabel Paredes, and Victor Pimentel to conduct salvage archaeology at Huaca La Merced following destructive impact by El Niño floods earlier that year. Special thanks are due to Carlos for sharing his ceramic data from that project. We thank the Museo

Amano in Miraflores, Lima for their kind permission to photograph Sicán vessels, some of which illustrate forms and themes not present in the Brüning sample or from excavated Batán Grande ceramics. No acknowledgment of our Peruvian support would be complete without noting the continuing welcome afforded us by the directors of Cooperativa Batán Grande. José Maeda has been our respected liaison with the Cooperativa and a personal friend to us all. We also thank Jorge Naruse of Chiclayo for providing logistical support since 1978, and for offering us laboratory space after the close of the 1983 field season.

We appreciate the time, attention and, most important, comments of Christopher Donnan, Jacques Maquet, Carol Mackey, Dwight Read, Melody Shimada, and Nancy Porter, who reviewed the text at various stages. Carol and Nancy shared relevant data from the Chimú Archive at California State University, Northridge for our continuing study of Sicán bottle typology. Any avoidable obfuscations or errors in fact or interpretation are solely the responsibility of the authors.

References

Alva, Walter
1985 Una tumba con máscara funeraria de la costa norte del Perú. *Beiträge zur Allgemeinen und Vergleichenden Archäologie* 7: 411-421. Bonn: Deutsches Archäologisches Institut.

Bennett, Wendell C.
1939 Archaeology of the North Coast of Peru. *Anthropological Papers of the American Museum of Natural History* 37(1).

Cabello Valboa
1951 *Miscelánea antártica*. Lima, Peru: Instituto de Etnología, Universidad Nacional Mayor de San Marcos.

Calancha, Antonio de la
1977 *Crónica moralizada de la Orden de San Augustín en el Perú*. (1638) 6 vols. Lima, Peru: Ignacio Prado Pastor.

Carcedo, Paloma
1989 Anda ceremonial lambayecana: iconografía y simbología. In *Lambayeque*, edited by José A. de Lavalle, pp. 249-270. Lima, Peru: Banco de Crédito del Perú, Colección Arte y Tesoros del Perú.

Carcedo, Paloma and Izumi Shimada
1985 Behind the Golden Mask: Sicán Gold Artifacts from Batán Grande, Peru. In *The Art of Precolumbian Gold The Jan Mitchell Collection*, edited by Julie Jones, pp. 61-75. London: Weidenfeld and Nicolson.

Carrión C., Rebeca
1940 La luna y su personificación ornitomorfa en el arte chimú. *Actas y Trabajos Científicos del 27 Congreso Internacional de Americanistas*, pp. 571-587. Lima.

Cavallaro, Raffael and Izumi Shimada
1988 Some Thoughts on Sicán Marked Adobes and Labor Organization. *American Antiquity* 53: 75-101.

Cleland, Kathryn M. and Izumi Shimada
n.d.a Variability and Definition of Sicán Ceramics at Batán Grande, Peru. Paper presented at the Society for American Archaeology Annual Meeting, Portland, Oregon, April 1984.
n.d.b Variability in Sicán Blackware: Morphology, Decoration, Chronology. Paper presented at the Northeast Conference of Andean Archaeology and Ethnohistory, Albany, New York, November 1985.

Conrad, Geoffrey
1982 The Burial Platforms of Chan Chan: Some Social and Political Implications. In *Chan Chan Andean Desert City*, edited by Michael E. Moseley and Kent C. Day, pp. 87-118. Albuquerque: School of American Research, University of New Mexico.

Disselhoff, Hans D.
1959 Tumbas de San José (Pacasmayo) Perú. *Proceedings of the 32nd International Congress of Americanists*, pp. 364-367. Copenhagen.

Donnan, Christopher B.
1978 *Moche Art of Peru.* Los Angeles: Museum of Culture History, University of California at Los Angeles.

Donnan, Christopher B., and Carol J. Mackey
1978 *Ancient Burial Patterns of the Moche Valley, Peru.* Austin: University of Texas Press.

Elera, Carlos G.
n.d. Características e implicancias culturales en dos tumbas disturbadas de Huaca La Merced, Complejo Arqueológico de Batán Grande, Lambayeque, Costa Norte del Perú. Unpublished report submitted to the Instituto Nacional de Cultura, Lima, 1984.

Epstein, Stephen, and Izumi Shimada
1983 Metalurgia de Sicán. Una reconstrucción de la producción de la aleación de cobre en el Cerro de los Cementerios, Perú. *Beiträge Zur Allgemeinen und Vergleichenden Archäologie* 5: 379-430. Bonn: Deutsches Archäologisches Institut.

Guffroy, Jean, Alvaro Higueras, and Rosario Galdos
1989 Construcciones y Cementerios del Período Intermedio Tardío en el Cerro Ñañañique (Departamento de Piura). *Bulletin de l'Institut Français d'Études Andines* 18: 209-240.

Higueras H., Alvaro
n.d. *Caracterización de la cerámica del Período Sicán Tardío, Valle de Lambayeque.* Unpublished B.A. thesis, Pontífica Universidad Católica del Perú, Lima. 1987.

Kauffmann Doig, Federico
1983 *Manual de arqueología peruana.* Lima, Peru: Ediciones Piesa.

Kosok, Paul D.
1965 *Life, Land and Water in Ancient Peru.* New York: Long Island University Press.

Kroeber, Alfred L.
1926 Archaeological Explorations in Peru. Part I Ancient Pottery from Trujillo. *Field Museum of Natural History Anthropology Memoirs* 2(1).
1930 Archaeological Explorations in Peru. Part II The Northern Coast. *Field Museum of Natural History Anthropology Memoirs* 2(2).
1944 Peruvian Archaeology in 1942. *Viking Fund Publications in Anthropology* 4.

Larco Hoyle, Rafael
1948 *Cronología arqueológica del norte del Perú.* Buenos Aires: Sociedad Geográfica Americana.

LeBlanc, Steven A.
1975 Micro-Seriation: A Method for Fine Chronologic Differentiation. *American Antiquity* 40: 22-38.

Lechtman, Heather
1975 Style and Technology--Some Early Thoughts. In *Material Culture: Styles, Organization and Dynamics of Technology*, edited by Heather Lechtman and Robert Merrill, pp. 3-20. St. Paul, MN: West.
1980 The Central Andes; Metallurgy Without Iron. In *The Coming of the Age of Iron*, edited by Theodore A. Wertime and James D. Muhly, pp. 267-323. New Haven: Yale University Press.

Maestro Bernal, José B.
1979 Un ejemplo de cerámica de Lambayeque. *Cuadernos Prehispánicos* 7(7): 97-110. Valladolid: Seminario Americanista de la Universidad Casa de Colón.

Maquet, Jacques
1979 *Aesthetic Anthropology.* Malibu, CA: Undena.
1985 *The Aesthetic Experience: An Anthropologist Looks at the Visual Arts.* New Haven: Yale University Press.

Menzel, Dorothy
1977 *The Archaeology of Ancient Peru and the Work of Max Uhle.* Berkeley: R.H. Lowie Museum, University of California.

Merkel, John and Izumi Shimada
1988 Arsenical Copper Smelting at Batán Grande, Peru. *Newsletter of the Institute for Archaeo-Metallurgical Studies* 12: 4-7. London.
1990 Copper Alloy Metallurgy in Ancient Peru. *Scientific American* 265(July): 80-86.

Muelle, Jorge C.
1943 Concerning the Middle Chimu Style. *University of California Publications in American Archaeology and Ethnology* 39(3): 203-222. Berkeley.

Nolan, James L.
1980 *Prehistoric Irrigation and Polity in the Lambayeque Sphere, Peru.* Ph.D. Dissertation, Columbia University. Ann Arbor: University Microfilms.

Ossio, Juan M.
1973 *Ideología mesiánica del mundo andino.* Lima, Peru: Instituto de Estudios Peruanos.

Pedersen, Asbjorn
1976 El ajuar funerario de la tumba de la Huaca Menor de Batán Grande (Lambayeque, Perú). *Actas del 41 Congreso Internacional de Americanistas* 2: 60-73. Mexico City.

Ravines, Rogger
1980 El gran Chimú y el Chimocapac. In *Chan Chan: Metrópoli Chimú*, edited by Rogger Ravines, pp. 21-101.

Read, Dwight W.
1982 Toward a Theory of Archaeological Classification. In *Essays in Archaeological Typology*, edited by R. Whallon and J. A. Brown, pp. 56-92. Evanston, IL: Center for American Archaeology Press.

Reiss, Johann Wilhelm and Moritz Alphons Stübel
1880-1887 *The Necropolis of Ancón in Peru.* Translated by Professor A.H. Keane. Volume III. Berlin: A. Asher. and Co.

Rondón Salas, Jorge
1966a Ferreñafe prehispánico. *Ferruñap* 3(25): 7-15.
1966b Morfología de la cerámica en relación a las normas prestadas del metal. *Revista del Museo Nacional* 34: 82-84. Lima.

Rowe, John H.
1945 Absolute Chronology in the Andean Area. *American Antiquity* 10: 265-284.
1948 The Kingdom of Chimor. *Acta Americana* 6(1-2): 26-59.

Rowe, John H. and Dorothy Menzel
1967 Introduction. In *Peruvian Archaeology: Selected Readings*, edited by John H. Rowe and Dorothy Menzel. Palo Alto, CA: Peek Publications.

SAS (Statistical Analysis System)
1982 *SAS User's Guide: Basics.* Cary, North Carolina: SAS Institute.

Schaedel, Richard P.
1966 Urban Growth and Ekistics on the Peruvian Coast. *Proceedings of the 36th International Congress of Americanists* 1: 531-539. Seville.

Scheele, Harry and Thomas C. Patterson
1966 A Preliminary Seriation of the Chimú Pottery Style. *Ñawpa Pacha* 4: 15-30.

Shaaf, Crystal B., Izumi Shimada, Lonnie G. Thompson, and Ellen Mosley-Thompson
n.d. Archaeological Application of Andean Ice Core Dates.

Shimada, Izumi
1985a Perception, Procurement and Management of Resources: Archeological Perspective. In *Andean Ecology and Civilization*, edited by Shozo Masuda, Izumi Shimada, and Craig Morris, pp. 357-400. Tokyo: University of Tokyo Press.

(Shimada, Izumi)
1985b La Cultura Sicán caracterización arqueológica. In *Presencia histórica de Lambayeque*, edited by Eric Mendoza Semillán, pp. 76-133. Lima, Peru: Editorial e Imprenta DESA, S.A.
1987 Horizontal and Vertical Dimensions of Prehistoric States in North Peru. In *The Origins and Development of the Andean State*, edited by Jonathan Haas, Shelia Pozorski, and Thomas Pozorski, pp. 130-144. Cambridge: Cambridge University Press.
1990 Cultural Continuities and Discontinuities on the Northern North Coast of Peru. In *The Northern Dynasties: Kingship and Statecraft in Chimor*, edited by Michael E. Moseley and Alana Cordy-Collins, pp. 297-392. Washington, D.C.: Dumbarton Oaks.
n.d.a The Formation of the Middle Sicán Polity: The Highland Connection and Revitalization Movement. Paper presented at the Society for American Archaeology Annual Meeting, Pittsburgh, Pennsylvania, April 1983.
n.d.b Report to the National Science Foundation on the 1983 Season of the Sicán Archaeological Project. March 1984. Ms. in possession of authors.

Shimada, Izumi, with Alan Craig, Carlos G. Elera A., José Garcelen S., Anne Helsley, David Parrella, Christine Pickett, and Melody Shimada
1981 The Batán Grande-La Leche Archaeological Project: The First Two Seasons. *Journal of Field Archeology* 8: 405-446.

Shimada, Izumi, and Raffael Cavallaro
1985 Monumental Adobe Architecture of the Late Pre-hispanic Northern North Coast of Peru. *Journal de la Société des Américanistes* 71: 41-78. Paris.
in press Monumental Adobe Architecture of the Late Pre-hispanic Northern North Coast of Peru: Toward a Holistic Understanding. In *La tecnología en el mundo andino*, edited by Heather N. Lechtman and Ana María Soldi. Mexico City: Universidad Nacional Autónoma de México.

Shimada, Izumi, Stephen Epstein, and Alan K. Craig
1982 Batán Grande: A Prehistoric Metallurgical Center in Peru. *Science* 216: 952-959.
1983 The Metallurgical Process in Ancient North Peru. *Archaeology* 36(5): 38-45.

Terada, Kazuo, and Ryozo Matsumoto
1985 Sobre la cronología de la tradición Cajamarca. In *Historia de Cajamarca*, edited by F. Silva, W. Espinosa, and R. Ravines, pp. 67-69. Cajamarca: Instituto Nacional de Cultura.

Trimborn, Hermann
1979 El reino de Lambayeque en el antiguo Perú. St. Augustin: Haus Volker und Kulturen-Anthropos-Institut.

Uhle, Max
1903 *Pachacamac Report of the William Pepper Peruvian Expedition of 1896*. Philadelphia: The Department of Anthropology, University of Pennsylvania.
1959 Wesen und Ordnung der Altperuanischen Kulturen. Berlin: Colloquium Verlag.

Valcárcel, Luis E.
1937 Un valioso hallazgo arqueológico en el Perú. *Revista del Museo Nacional* 6: 164-168. Lima.

Vargas Ugarte
1942 Los Mochicas y el Cacicazgo de Lambayeque. *Actas y Trabajos Científicos del 27 Congreso Internacional de Americanistas* 2: 475-482. Lima.

Wallace, Anthony F. C.
1966 *Religion: an Anthropological View*. New York: Random House.

Zevallos Quiñones, Jorge
1964 *Revaluación del término chimú*. Paper presented at the II Simposio Nacional de Arqueología, July 1963. Trujillo, Peru: Imprenta de la Universidad Nacional de Trujillo.
1971 *Cerámica de la Cultura Lambayeque*. Trujillo, Peru: Universidad Nacional de Trujillo.

Zuidema, R. Tom
1990 Dynastic Structures in Andean Culture. In *The Northern Dynasties: Kingship and Statecraft in Chimor*, edited by Michael E. Moseley and Alana Cordy-Collins, pp. 489-505. Washington, D.C.: Dumbarton Oaks.

Figure 1. A typical Sicán blackware bottle featuring the Sicán Lord motif (K. Cleland photo, courtesy Brüning Museum, Lambayeque). Scale is 10 cm.

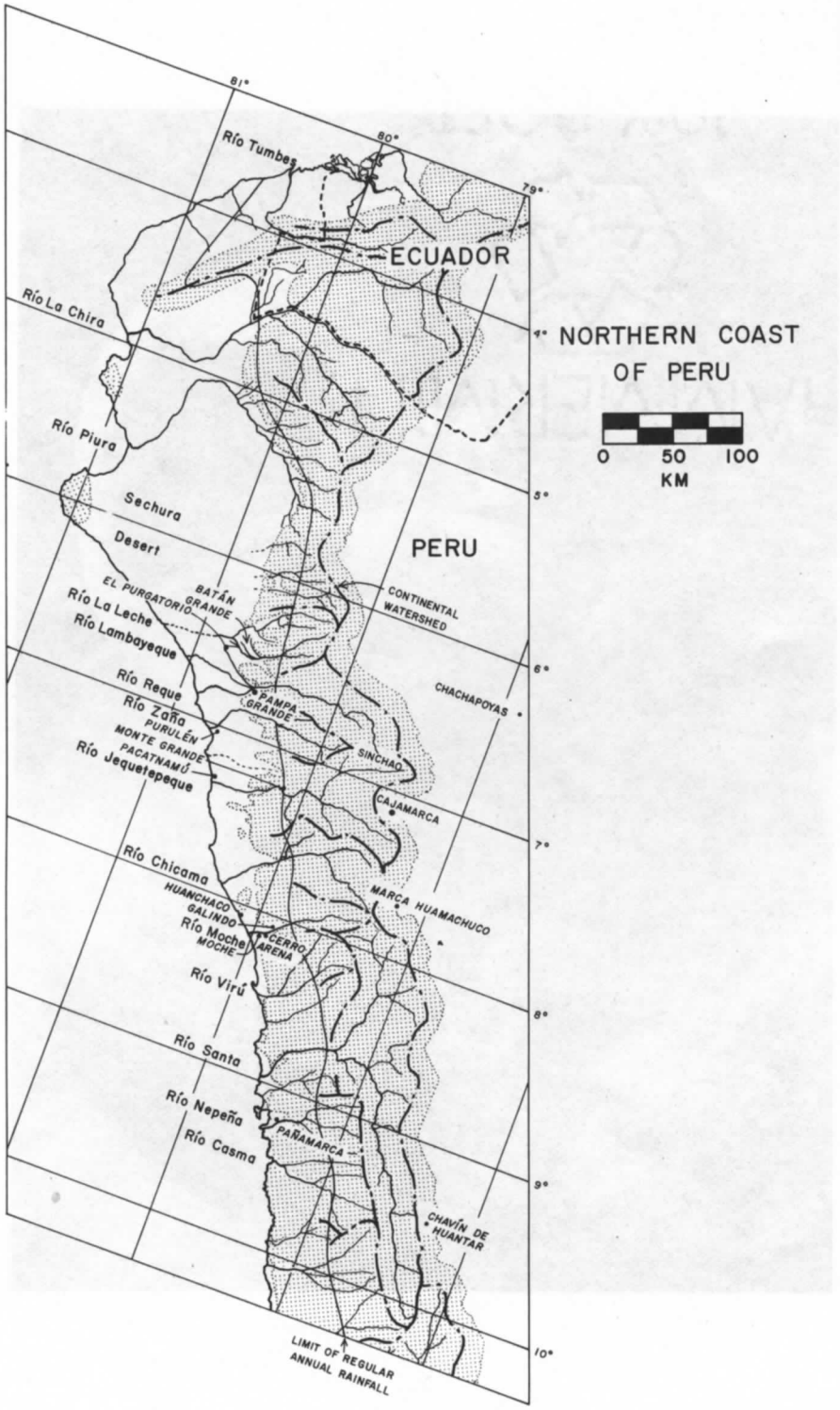


Figure 2. The northern North Coast of Peru showing the location of Batán Grande.

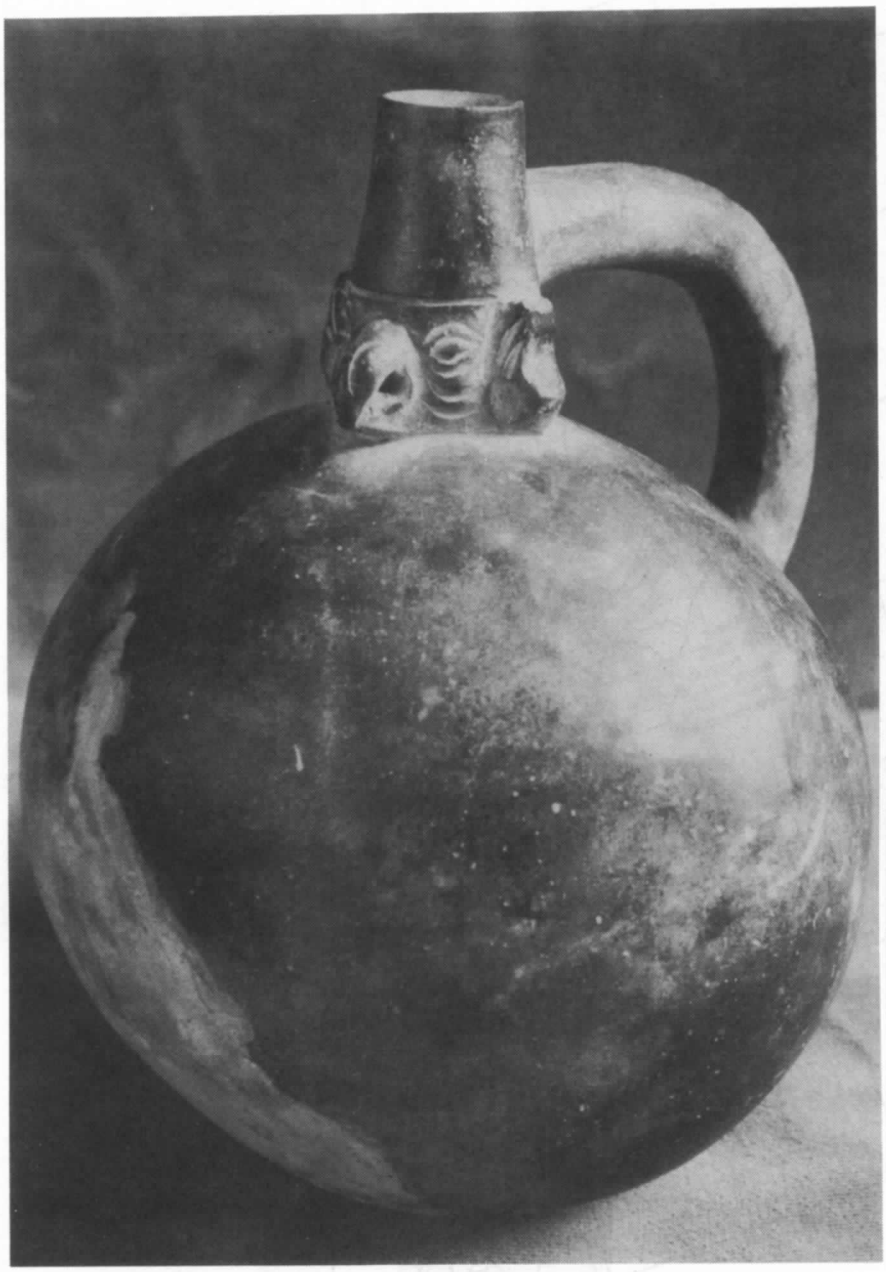


Figure 3. Early Sicán Vessel (I. Shimada photo, courtesy Brüning Museum, Lambayeque).

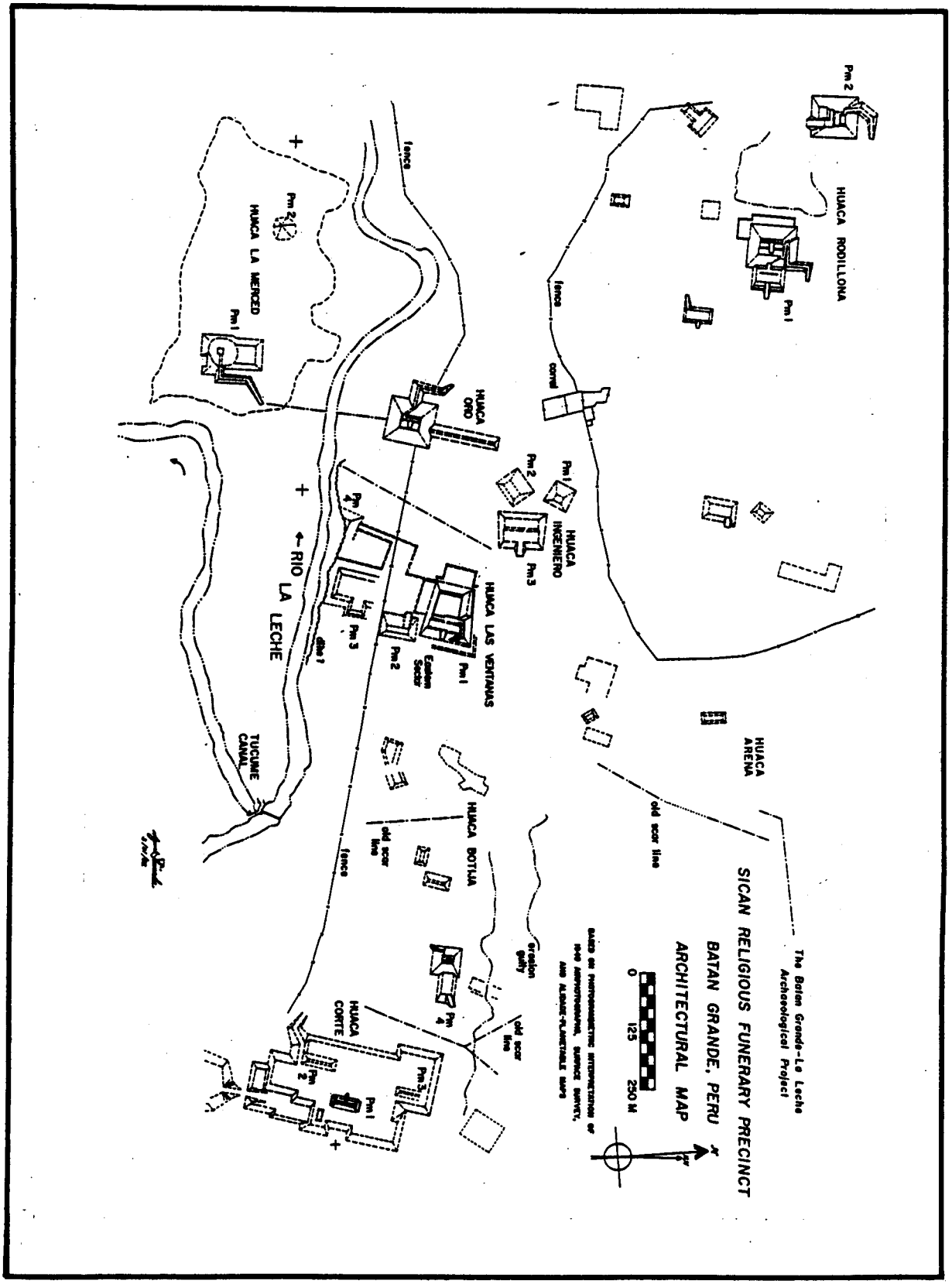


Figure 4. Principal monuments of the Sicán Precinct in the Batán Grande Archaeological Zone, based on a photogrammetric analysis of 1942 airphotos and field data from surveys (1978-1981).

Figure 5. Face-neck blackware bottle sherd surface-collected during salvage at Huaca La Merced. Scale in cm. (I. Shimada photo).

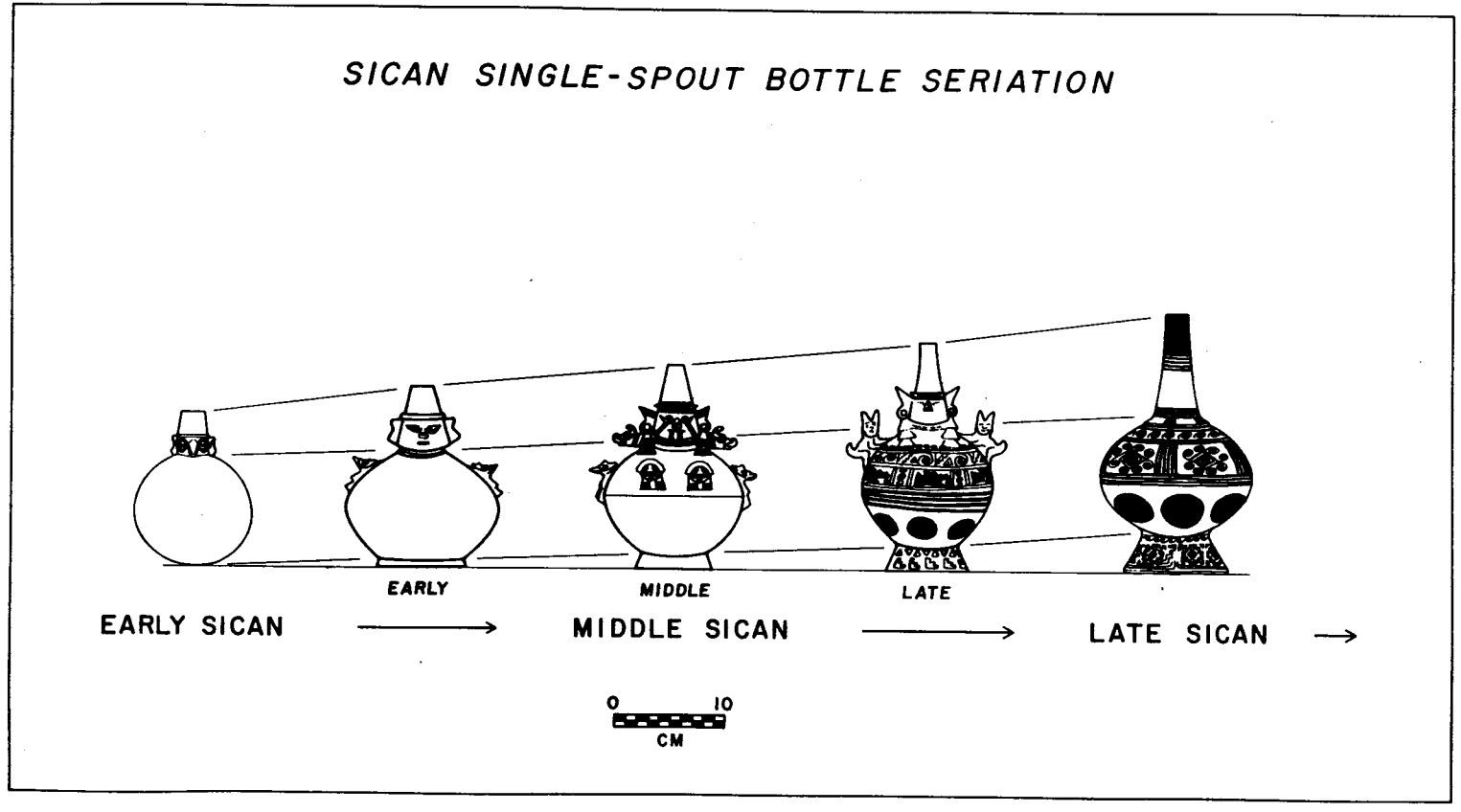


Figure 6. Schematic drawing of Sicán single spout bottle seriation. From left to right: Early Sicán, early Middle Sicán, middle Middle Sicán, late Middle Sicán, and Late Sicán (I. Shimada drawing).

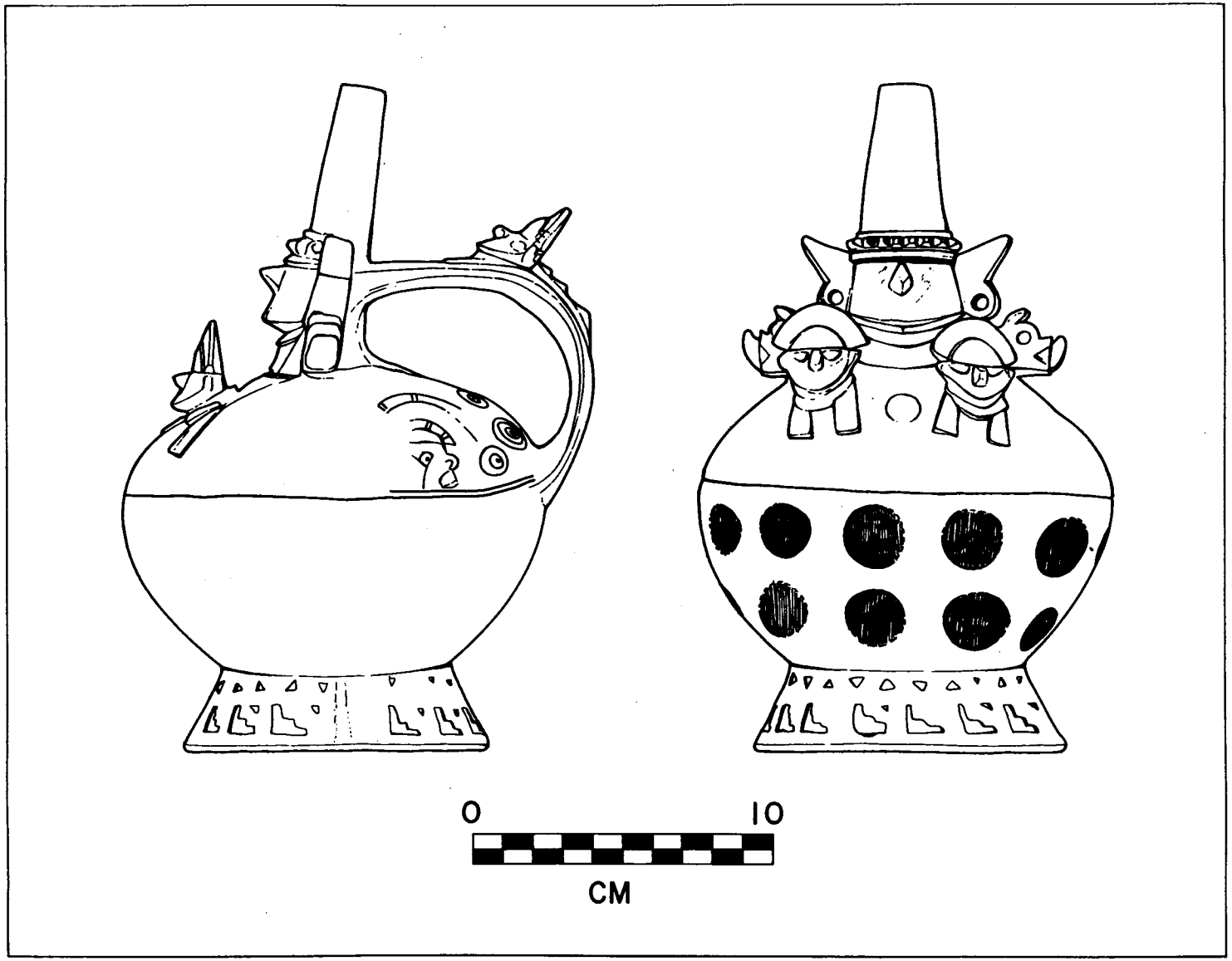


Figure 7. Sicán Type IV vessel showing fugitive black dots on the lower hemisphere of the chamber indicated with stripes. The bottle was recovered by Proyecto Arqueológico Sicán from an eroded burial along the Poma Canal near Huaca El Corte, Batán Grande Archaeological Zone (adapted by I. Shimada from R. Cavallaro drawing).

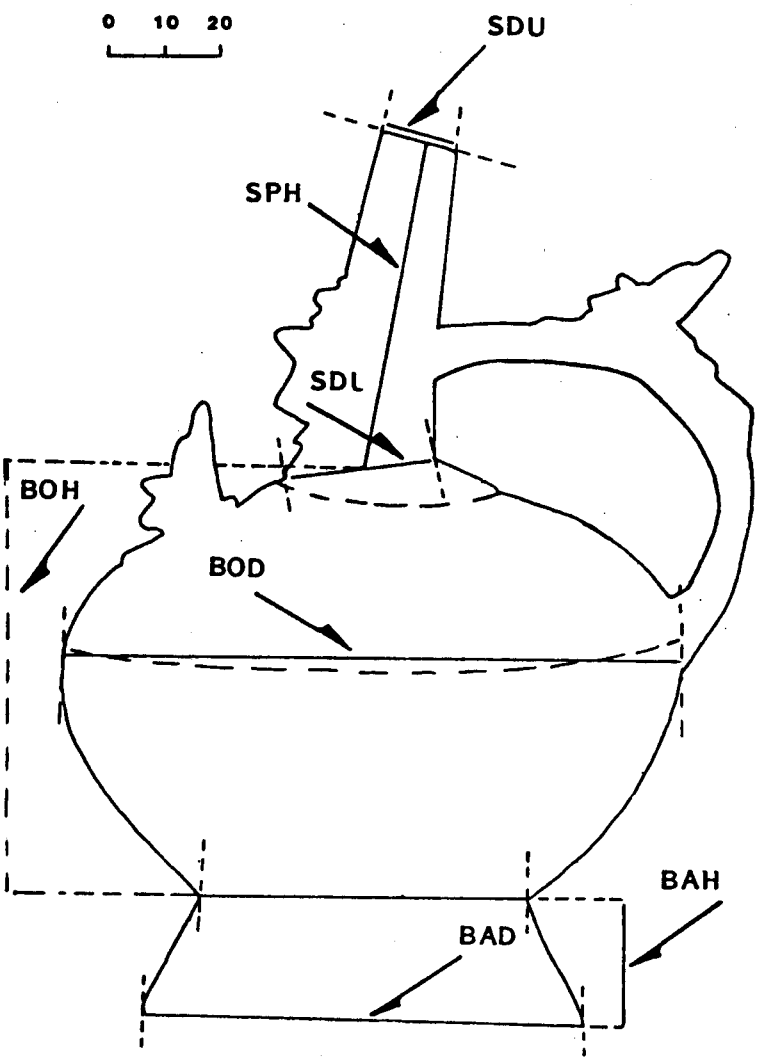


Figure 8. "Generic" Sicán bottle with measured body parts indicated by SDU (upper spout diameter), SPH (spout height), SDL (lower spout diameter), BOH (body height), BOD (body diameter), BAH (base height), BAD (base diameter).

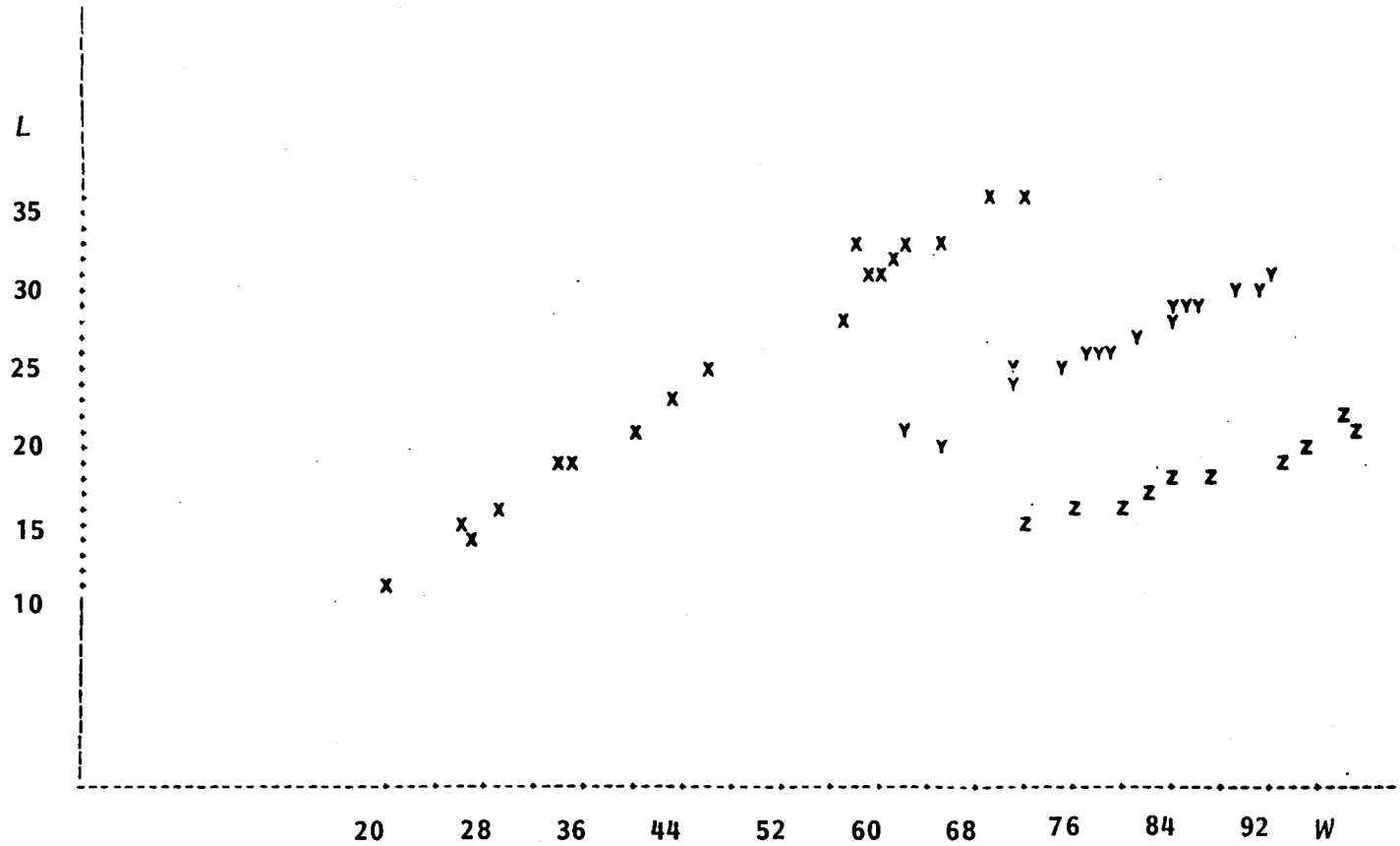


Figure 9. "Ideal" distribution of types on plot of length and width measurements for a hypothetical pottery collection. X, Y, and Z stand for discrete types.

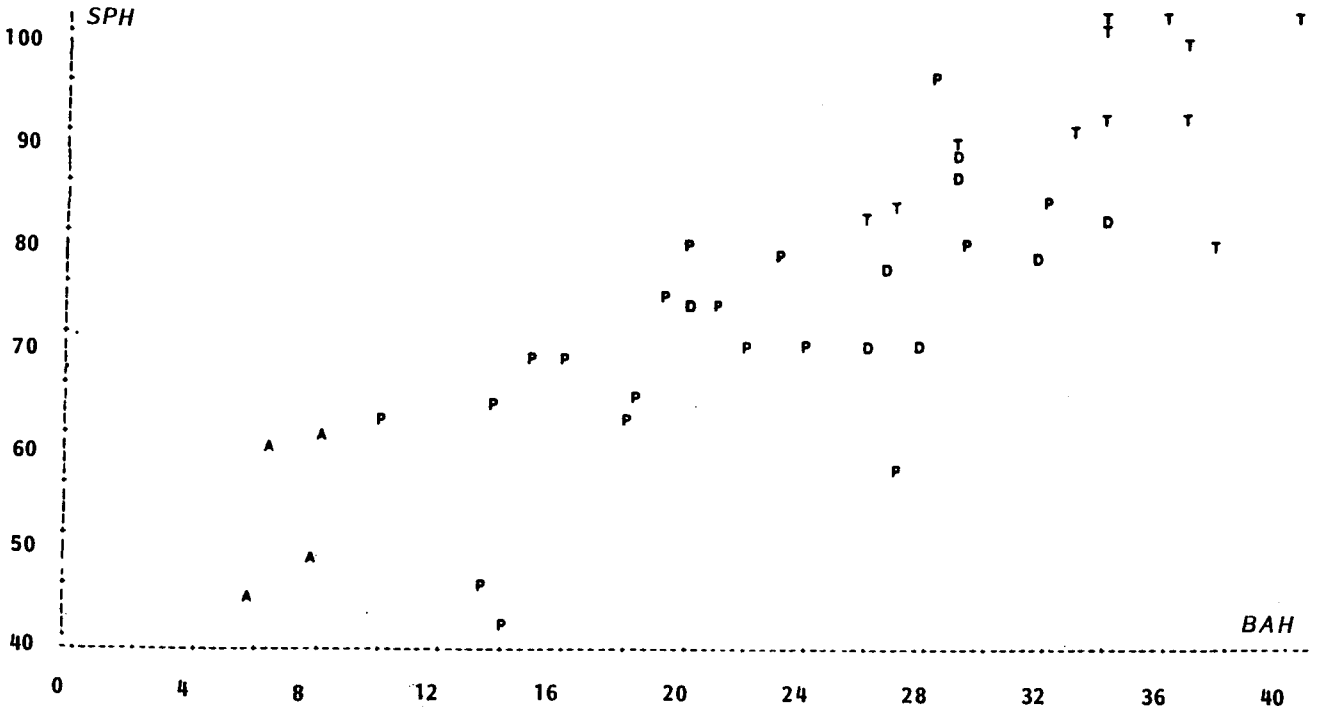


Figure 10. Plot of base height by spout height for entire Brüning sample, Type II=A, for annular base, Type III=P, for plain, pedestal base, Type IV=D, for decorated spout and base, and Type V=T, for tall spout.

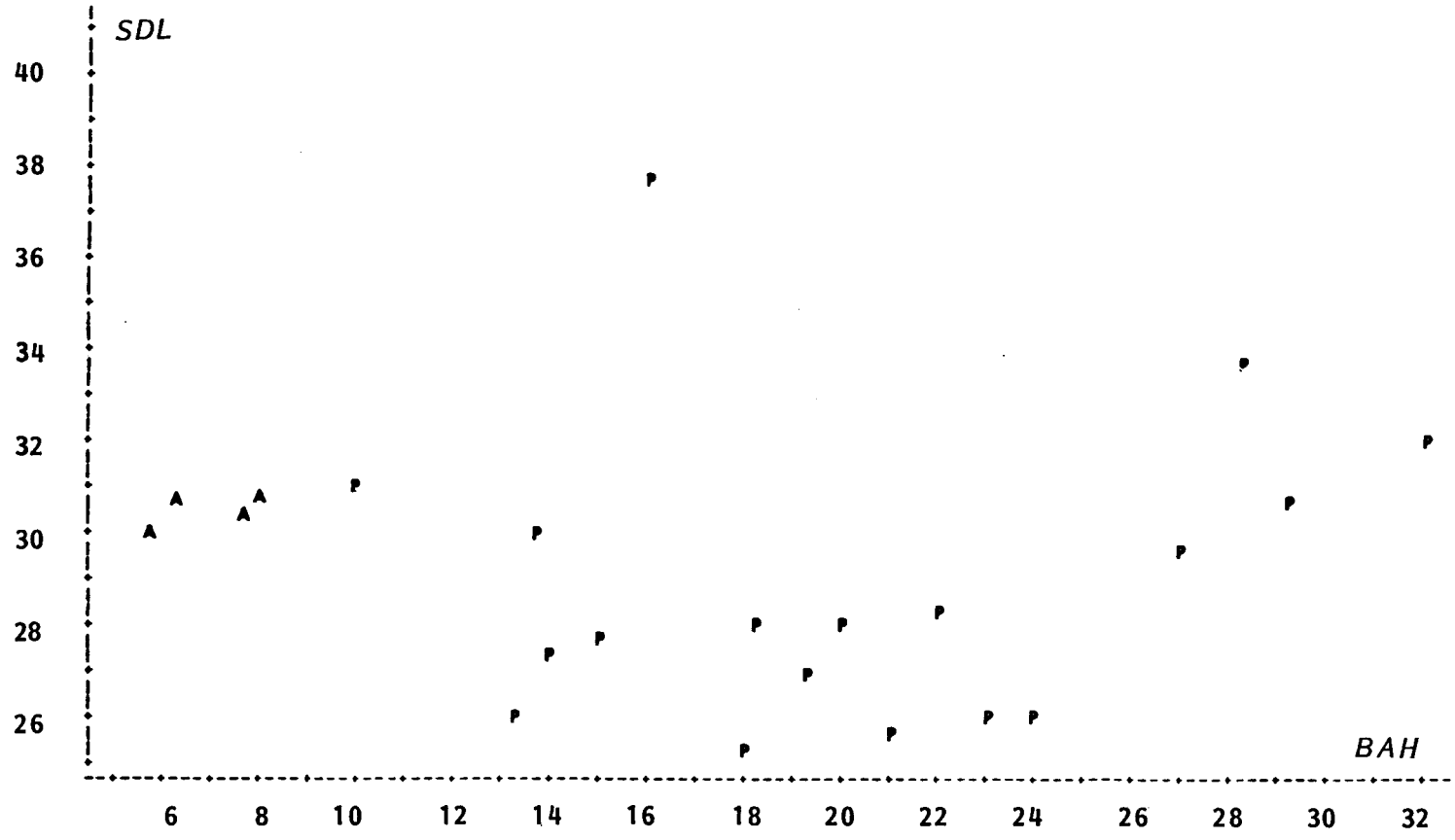


Figure 11. Plain base bottle plot: base height by lower spout diameter. "A" stands for annular base, "P" for pedestal base.

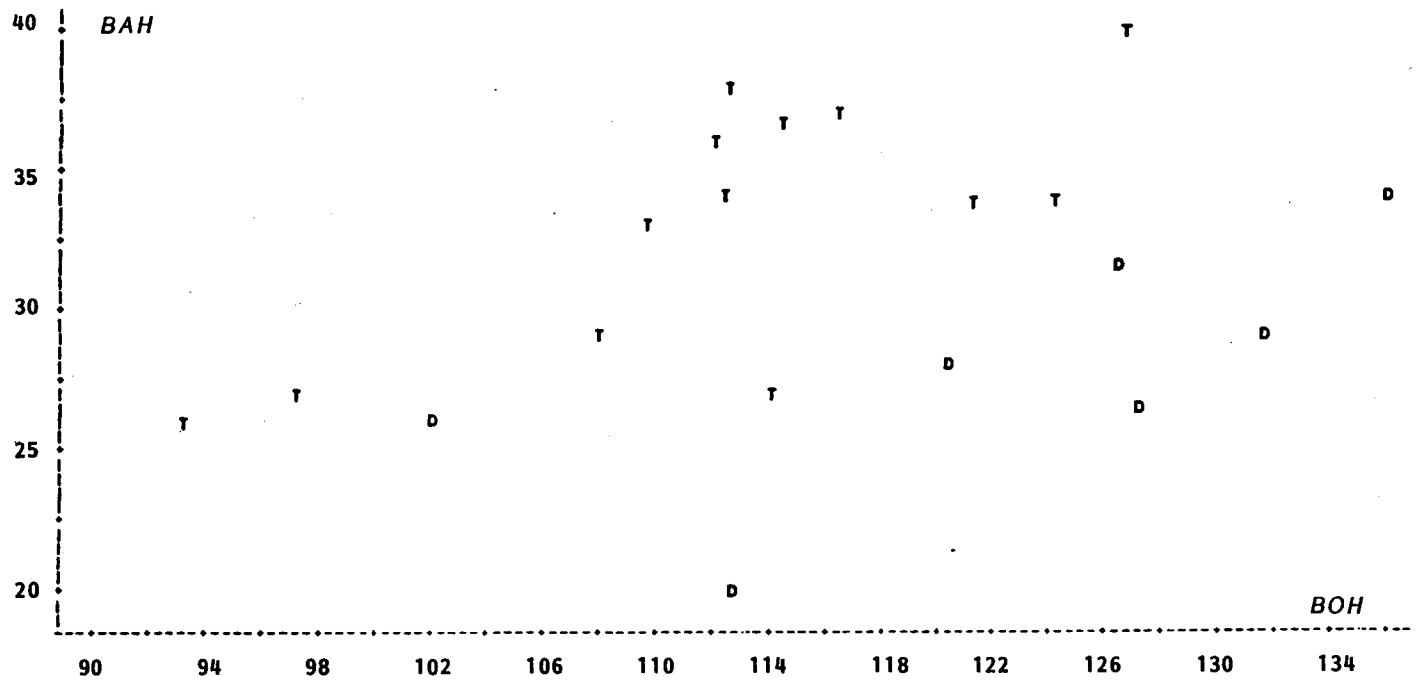


Figure 12. *Champlevé* base bottle plot: body height by base height. "D" stands for decorated spout, "T" for the taller plain spout.

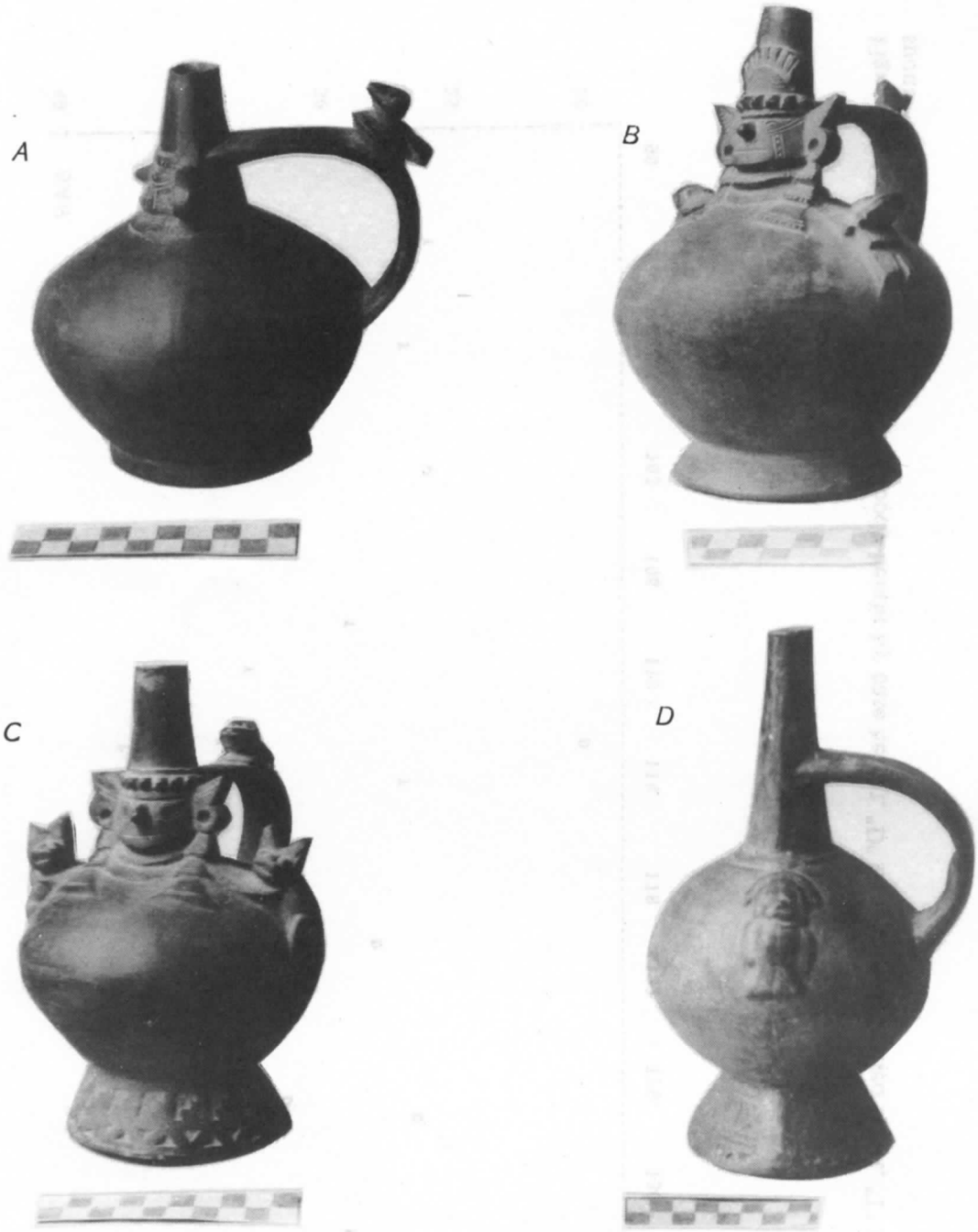


Figure 13. A. A Sicán Type II bottle. B. A Sicán Type III bottle. C. A Sicán Type IV bottle. D. A Sicán Type V bottle (K. Cleland photos, courtesy Brüning Museum).

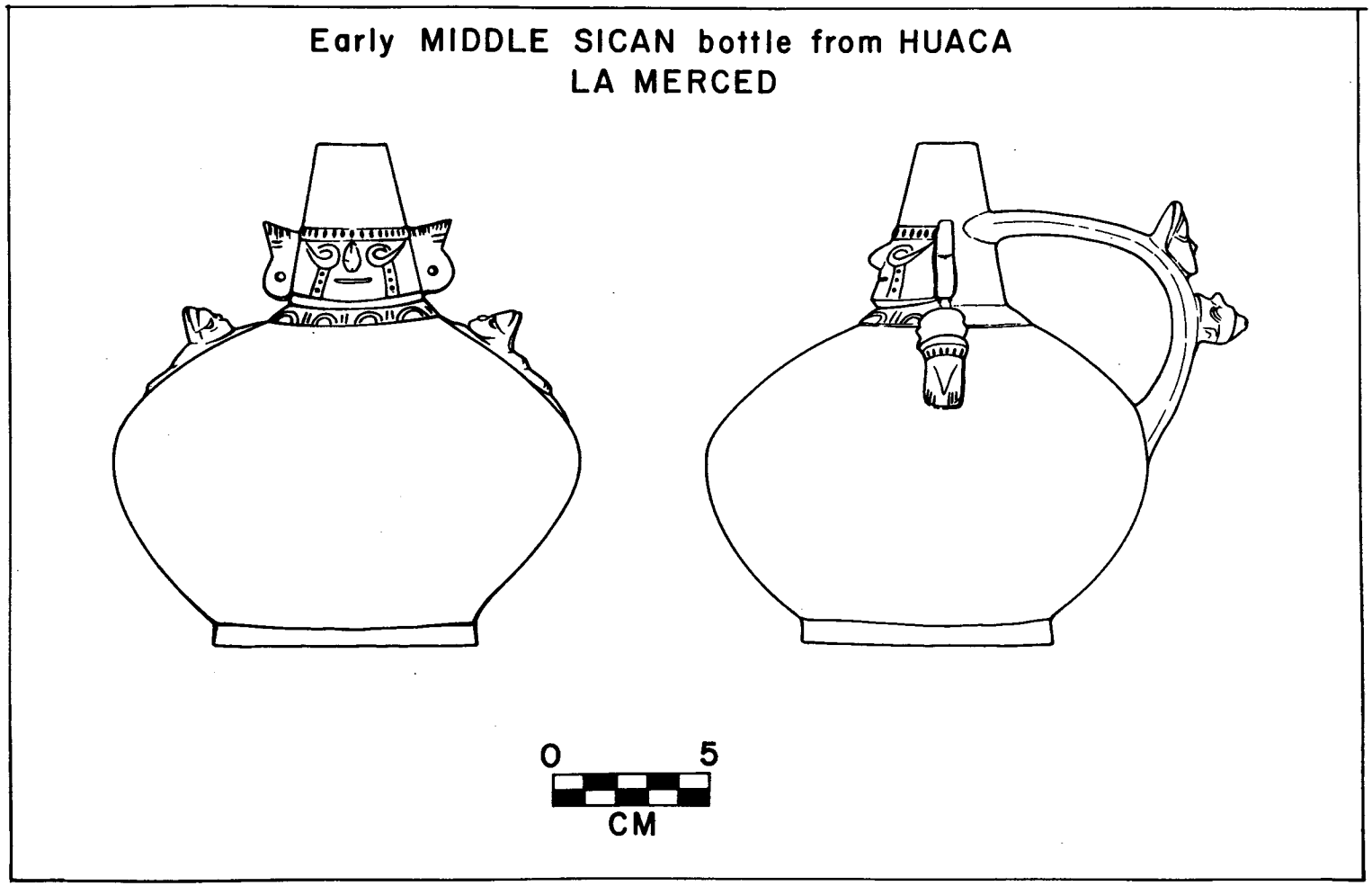


Figure 14. Type II bottle salvaged at Huaca La Merced from an early Middle Sicán context (adapted by I. Shimada from J. P. Baraybar drawing).

Figure 15. Type IV vessel from Huaca del Pueblo Batán Grande Burial 10, Trench 3 (I. Shimada photo).

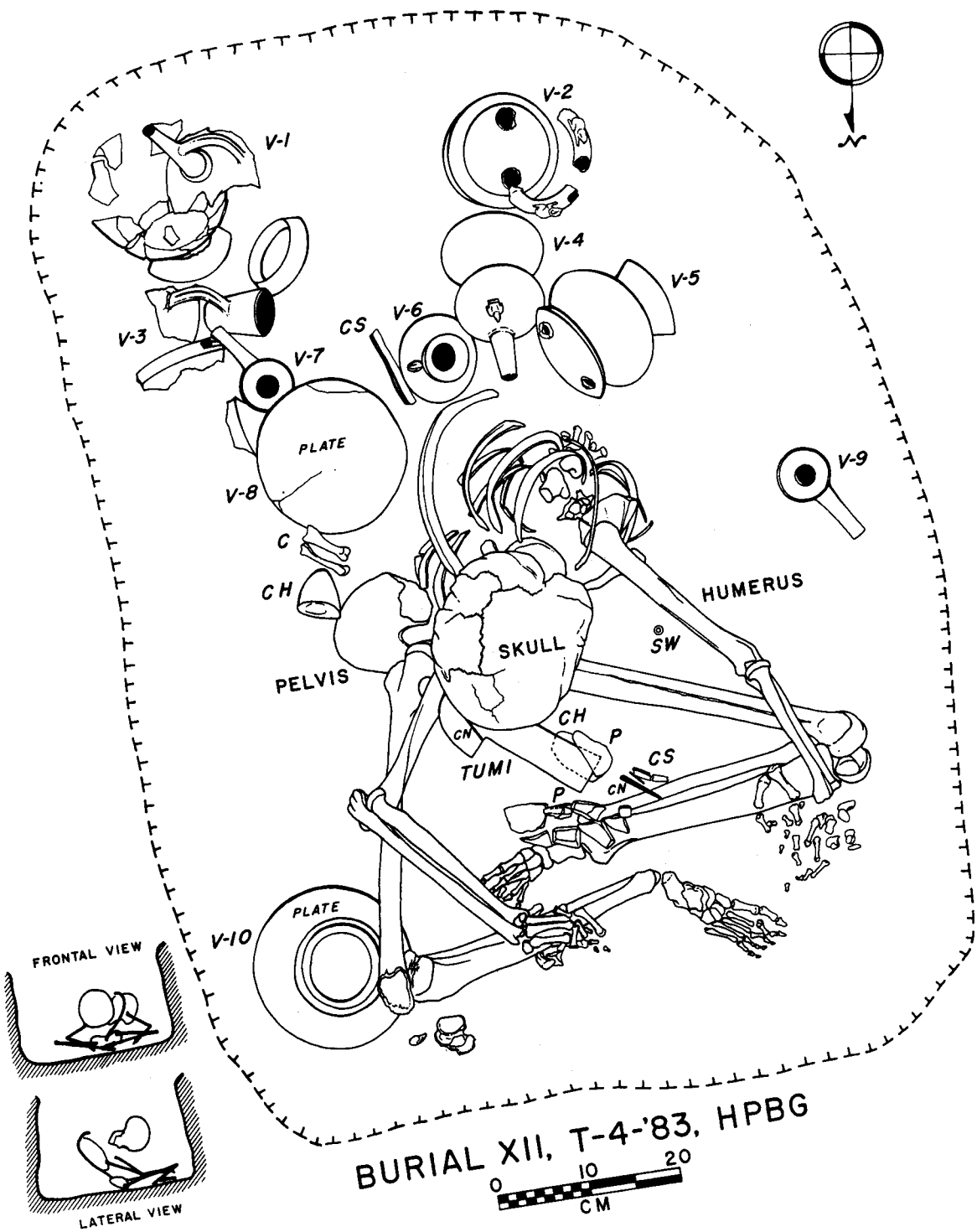


Figure 16. Ceramics *in situ* in Burial 12, Trench 4, Huaca del Pueblo Batán Grande, 1983 (I. Shimada drawing).

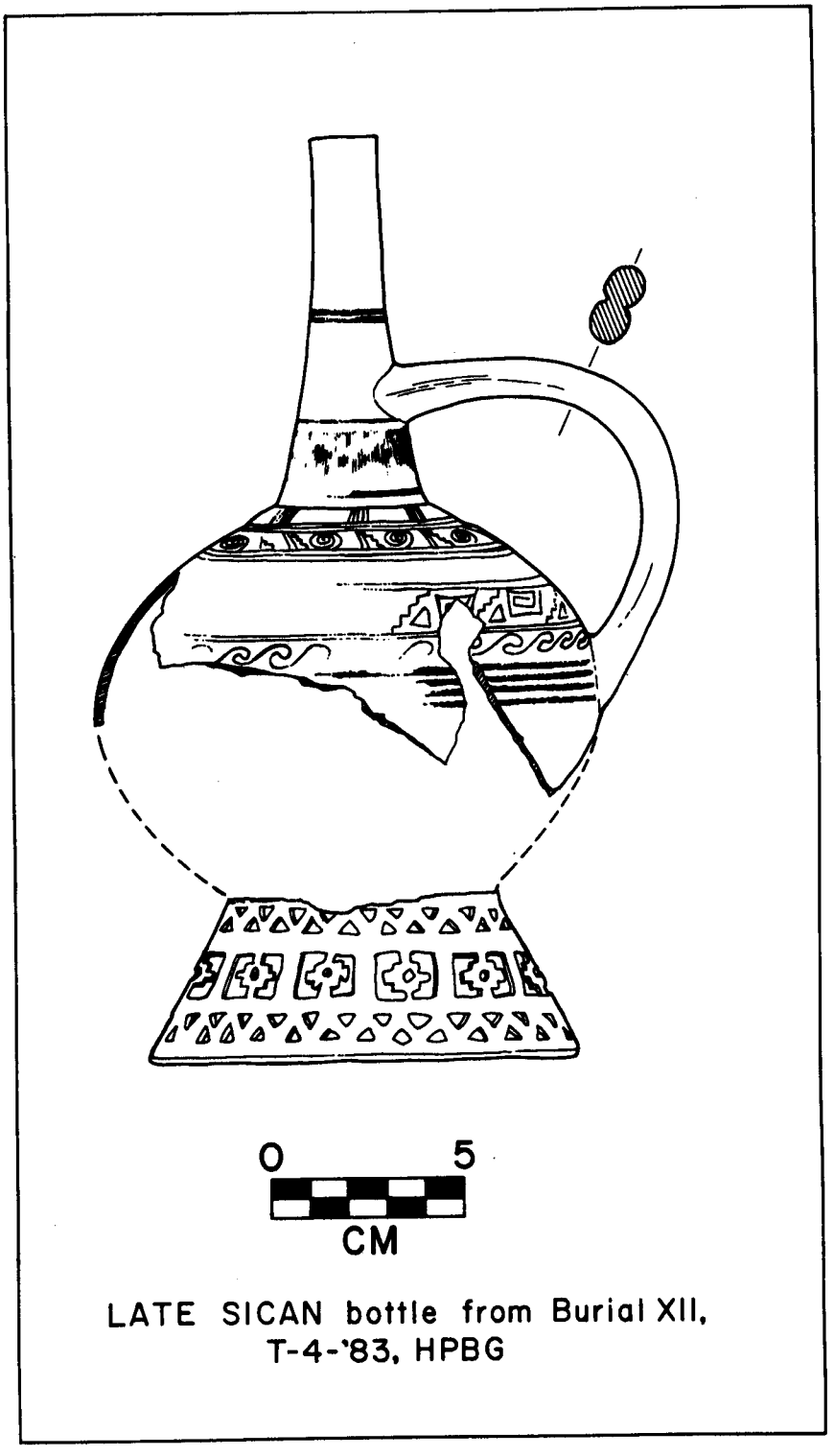


Figure 17. Fragmentary Type V bottle recovered from Burial 12, Trench 4, Huaca del Pueblo Batan Grande (adapted by I. Shimada from J. P. Baraybar drawing).

Figure 18. Gravelot from the Huaca las Ventanas pyramid top *in situ*. Note Type II base on one vessel (I. Shimada photo).

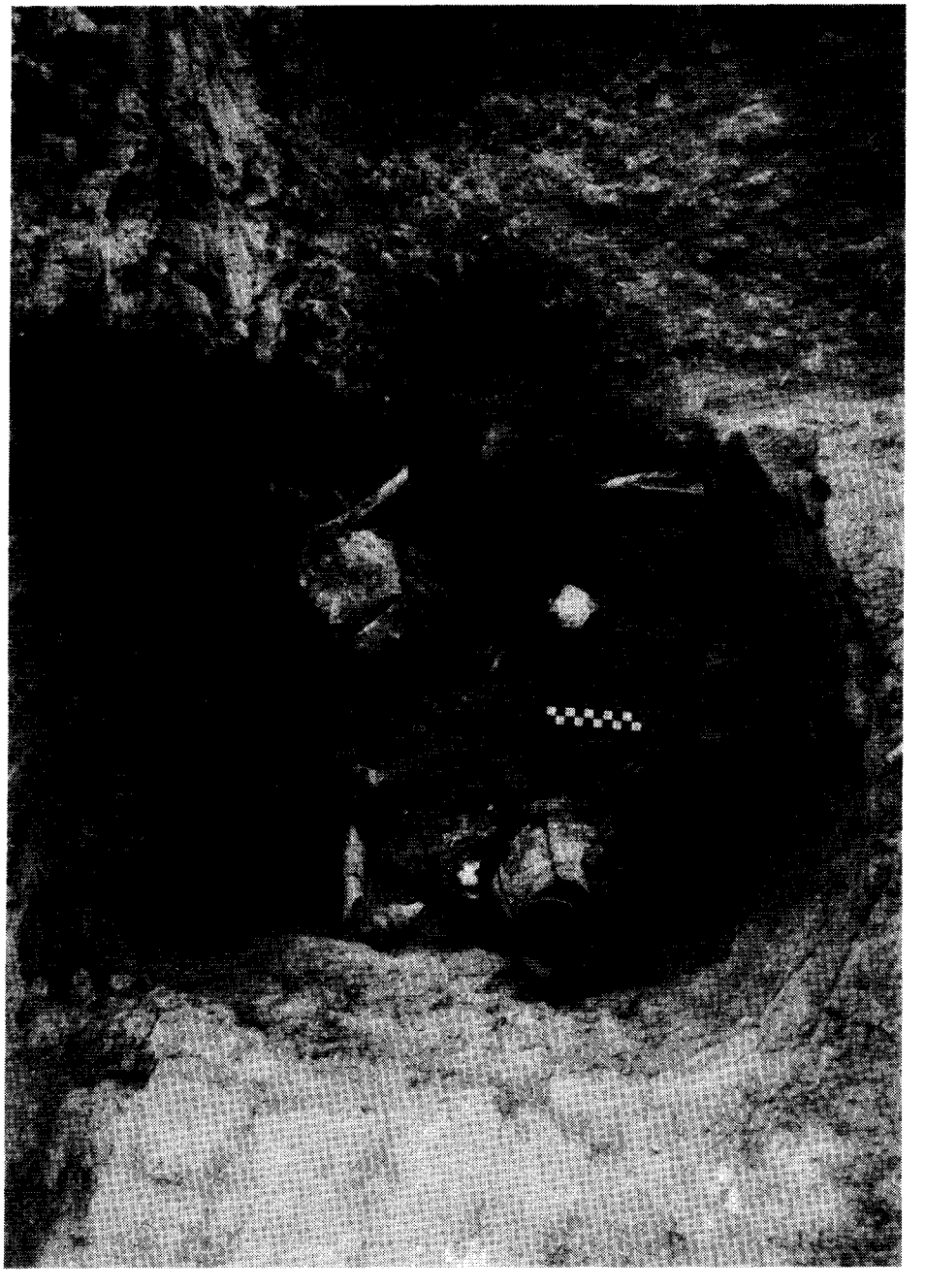


Figure 18. Gravelot from the Huaca las Ventanas pyramid top *in situ*. Note Type II base on one vessel (I. Shimada photo).