

## The Ceramics

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### CERAMIC ANALYSIS AND PHASE DEFINITION

**A**NALYSIS OF THE MAJORITY of ceramic artifacts recovered from the Taraco Archaeological Project excavations is completed, and samples are now large enough to define three Chiripa phases at the site with some confidence. Currently, 5587 ceramic specimens (excluding sherds less than 1 cm<sup>2</sup>) have been analyzed from unmixed Chiripa levels, 3530 from Chiripa levels with some intrusive material, and 25,216 from the mixed, Tiwanaku fill, and plow zone levels. Further analysis and excavation will serve to refine the ceramic definitions and change some percentages, but should not result in any major revisions of the ceramic assemblages as presented here.

The goal in undertaking this phase of the Chiripa ceramic analysis is to create a comprehensive and detailed description of the ceramic assemblage from each phase in the Chiripa sequence through an attribute analysis of the ceramic material. This analytical method has been used productively for the definition of ceramic se-

quences elsewhere in the Titicaca Basin (Steadman 1995; Chávez 1992; Chávez 1980/81), and involves the observation and recording of individual ceramic attributes (paste, color, finish, shape, etc.) rather than the definition of a fixed set of attributes, such as is used in a typological classification (Rowe 1959; Shepard 1956:307-318; see Steadman 1995:48-50 for further discussion of differences in ceramic analysis). Individual attribute analysis is a more sensitive and effective means of studying changes through time than a typological approach (Plog 1983:131-32; Plog and Hantman 1990:441-42) that necessarily stresses the similarities among ceramics rather than their differences. This type of analysis also permits the independent study of individual ceramic attributes, some of which may change through time more rapidly than others, or be affected by different social, economic, or political factors. The ceramics from the mixed and plow zone levels of the Chiripa excavations were not subjected to a detailed attribute analysis, as this material could not be securely used for the definition of the

individual ceramic phases. This material was therefore generally classified by ware and phase only. Detailed attribute analyses were also conducted on some of the Tiwanaku material; discussion of the Tiwanaku phases at Chiripa, however, will not be included here.

Three ceramic phases were defined for the Chiripa occupation at the site, which we have called Early Chiripa, Middle Chiripa, and Late Chiripa (see chapter 4). These phases were based on the stratigraphic information provided from the excavations and the observable differences between the ceramic samples from the different stratigraphic levels of the site. Radiocarbon dates were obtained later, placing absolute dates on the ceramic sequence. The terms Early, Middle, and Late Chiripa have been used before, by Karen Chávez (1988), who suggested them as a renaming of Alfred Kidder's three-part sequence of sub-Lower House Level, Lower House Level, and Upper House Level (Kidder 1956). The Early, Middle, and Late Chiripa phases defined by the Taraco Archaeological Project are not intended to be equivalent to the Early, Middle, and Late phases of Chávez, nor to the Chiripa Condori, Llusco, and Mamani sequence of David Browman (1978, 1980, 1981), but rather constitute a new definition of these phases based on our enlarged ceramic sample.

### EARLY CHIRIPA

Early Chiripa ceramics are found in the fill levels cut by the construction of the Late Chiripa semi-subterranean courtyard in the Llusco area, and under, associated with, and in the fill levels of the Early Chiripa occupation surface in the Santiago area of the site.

One hundred percent of the Early Chiripa ceramic assemblage is fiber-tempered, as are the entire Middle Chiripa and Late Chiripa samples. The Early Chiripa assemblage is characterized by the popularity of two specific pastes, which together make up 56% of the sample analyzed so far. Both of these have a large quantity of mica temper and mica visible on the surface of the vessel. While 59% of the assemblage has some sort of burnishing on the exterior, fewer of these have a fine, high luster burnish than in the Middle and Late Chiripa phases; simple smoothed,

rubbed, or wiped finishes are also more common in this phase than subsequently. The majority (68%) of the sample is unslipped, mostly a black, gray, or dark brown color. Of the slipped ceramics, red, red brown, and brown slip colors are about equal in popularity. Red slips in the Early Chiripa phase tend to be brighter, in the 7.5R range, than the browner 10R reds of the Middle and Late Chiripa phases. Figure 21 provides a key to the slip colors of the illustrated ceramics.

The most common vessel shapes in the Early Chiripa assemblage are short-necked ollas and neckless ollas, each representing about 29% of the shape sample. The short-necked ollas (fig. 22a-b) have straight or slightly flared necks of 2 cm or less in height, with plain rounded or sometimes everted rims. Medium-necked ollas (with necks of 2 to 4 cm, fig. 22c-d, fig. 23a) also occur but are not as common as the short-necked forms. These generally have slightly flared rather than straight neck angles, and plain rims only. Most ollas in this phase are believed to have globular bodies and rounded bases, such as the complete vessel shown in fig. 23a. Early Chiripa neckless ollas (fig. 22e-h) have a slightly inclined, oval, rather than spherical body, with a variety of interior and exterior thickened rim shapes, as well as simple rounded rims. Both ollas and neckless ollas are found with horizontal or semi-circular lugs and rounded nubbins. The two complete Early Chiripa ollas recovered from the excavations (fig. 23a) have three of these lugs, arranged equidistantly around the circumference of the vessel above the shoulder. Rectangular, flat lugs are also found in the Early Chiripa sample (fig. 22i), and are unique to this phase. Early Chiripa bowls (fig. 22j-l, fig. 23b-c) represent about 19% of the shape sample, and most commonly have straight, vertical sides, although convex and slightly flared bowl forms are also present. Rim shapes for the bowls tends to be quite varied, with beveled (fig. 22k) and everted rims (fig. 23b), and rims with a wide band of exterior thickening (fig. 22-l). Flat bases for the bowls appear to be rare; most have round bases including vessels with a fairly sharp angle, or carination, between wall and base (fig. 23c). No decorated specimens were found in our Early Chiripa sample.

Kidder's sample from his earliest sub-Lower House levels, consisting of only 39 sherds (Mohr

1966:12,113), is unfortunately not large enough to compare to the ceramics described here. In addition, these ceramics may actually pertain to the Lower House levels above (Mohr 1966:8). The Early Chiripa ceramic assemblage as defined here, however, appears to be comparable in several attributes to the Condori assemblage, the earliest ceramic phase defined by Browman. Attributes in Browman's descriptions which have parallels in our Early Chiripa assemblage include the use of mica temper and the diagnostic neckless olla form of the Condori ceramics (Browman 1980:110; 1991), as well as the distinctive interior and exterior thickened rims of the neckless ollas and the short-necked olla shapes (Browman 1991). Although the exact figures may vary, an increase in red brown oxidized wares through time was also noted in our ceramic sample (Browman 1980:110). Browman's Condori ceramics, however, are not fiber-tempered in the first two levels, and only partially so in the third level (*ibid*:110), contrasting with the entirely fiber-tempered Chiripa ceramics described here. Given the early radiocarbon dates for the Early Chiripa phase, and the fact that Early Chiripa ceramics were found overlying sterile, it is unlikely that further excavations will uncover an earlier phase where fiber temper may not have been in use. It is possible, however, that the ceramics from the mound, where Browman excavated, differ from those of the surrounding occupation area, where our Early Chiripa sample was recovered. This may account for the fact that a limited number of decorated ceramics were present in Browman's earliest phase, while none were found in our excavations; Early Chiripa phase decorated wares may have only been used and/or disposed of in the mound area, with surrounding occupation zones lacking fancy ceramics. Decorated wares are found at other contemporary sites in the Titicaca Basin (Steadman 1995; Chávez 1980/81), and so could be expected to occur at Chiripa as well.

### MIDDLE CHIRIPA

Middle Chiripa ceramics are found in the fill levels cut by the construction of the Late Chiripa semi-subterranean courtyard in the Llusco area, and in the fill levels, in a number of pits within this fill, and associated with the ASD 10 wall (B94) in the Santiago sector.

The Middle Chiripa phase is characterized by wares tempered with translucent, rounded inclusions. The two versions of this paste, one with medium and one with fine-sized inclusions, form 58% of the sample (inclusion size is given with reference to the Wentworth scale). The micaceous ware of the Early Chiripa phase now represents only about 13% of the sample, maintaining this level through the Late Chiripa phase. The percentage of burnished ceramics remains unchanged, but more of these are burnished on both sides of the vessel, and the simple smoothed and wiped finishes are now less common. The use of a stucco finish, an extra layer of daubed clay applied onto the exterior bottom of cooking vessels, probably to improve their thermal shock resistance, becomes more common in the Middle Chiripa phase. Three-quarters of the Middle Chiripa ceramics are unslipped, an increase from the Early Chiripa phase. A larger proportion of these have an oxidized red brown color than previously, and fewer are black or gray, although unslipped brown ceramics are still the single most common group. The different slip colors are again found in approximately equal percentages. A new ware occurs in the Middle Chiripa phase, one that has not been previously reported in the literature. These ceramics, which form about 8% of the sample, are manufactured in a dense, fine-textured paste, and tend to have thin walls, oxidized cores and surfaces, and a distinctive burnished finish with fine striations within the burnishing strokes. The great majority of vessels manufactured in this ware are ollas.

The most common vessel shape in the Middle Chiripa assemblage is a medium-necked olla with a plain rounded or slightly rounded rim, this shape forming about 48% of the sample (fig. 24b-e). The straight necks popular in the Early Chiripa phase are replaced by a predominance of slightly flared necked forms, and a new flared necked shape is added. Short-necked ollas, while still present, are less common (fig. 24f). A new necked shape appears in this phase, the short-necked jar (with a neck of 4 to 6 cm in height, fig. 24a), although it is rare. Horizontal oval-shaped lugs and circular nubbins continue to be common on Middle Chiripa ollas, and vertical strap handles appear for the first time. Bases for the ollas are again predominately rounded, although flat bases

also occur. Neckless ollas are present but very rare in the Middle Chiripa assemblage. Approximately 15% of the Middle Chiripa shapes are bowls (fig. 24g-h), generally with slightly flared straight walls, although convex (fig. 24i) and carinated forms still occur. As with other shapes in the Middle Chiripa phase, bowl rims are less elaborated than their Early Chiripa counterparts, and are generally without thickening. Base shapes for the bowls include both round and flat forms. Finally, the first decorated ceramic specimen is found in the Middle Chiripa assemblage. Decorated wares are extremely rare in the sample recovered so far and consist, to date, of only one body sherd (fig. 24j), painted with a rectilinear design in red slip on an unslipped dark brown background.

The Middle Chiripa assemblage as defined here represents a new ceramic assemblage and phase, not comparable to any previously reported. As stated above, the term Middle Chiripa is not meant to be a synonymous with the Lower House levels of Kidder, Chávez's Middle Chiripa, or

Browman's Chiripa Llusco phase. In fact, most of the ceramics from these phases would appear to belong to the Late Chiripa phase as we define it (see discussion of Late Chiripa below), and are not comparable to our Middle Chiripa sample. Particularly, we may note that the Chiripa Llusco assemblage contains cream on red, and black and cream on red decorated ceramics, as well as incised wares and ring bases (Browman 1980:111; 1981:413), all of which pertain only to the Late Chiripa phase in our definition. Moreover, half of Kidder's sample from the Lower House levels is manufactured in a paste common only in our Late Chiripa phase (Mohr 1966:110). It is possible that this Middle Chiripa assemblage is not represented in the mound construction sequence or, conversely, it may not have been recognized as a separate assemblage in the small samples recovered by previous investigations.

#### LATE CHIRIPA

Late Chiripa ceramics are found in the Llusco sector of the site in the fill above the floor

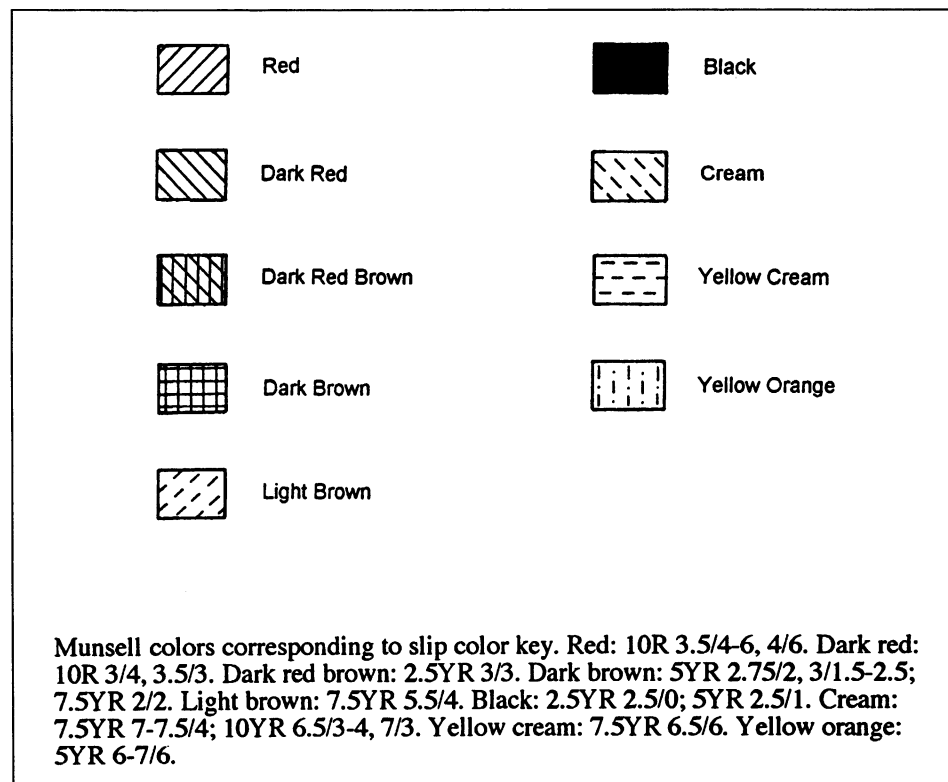


FIGURE 21 Key to slip colors for the ceramic figures.

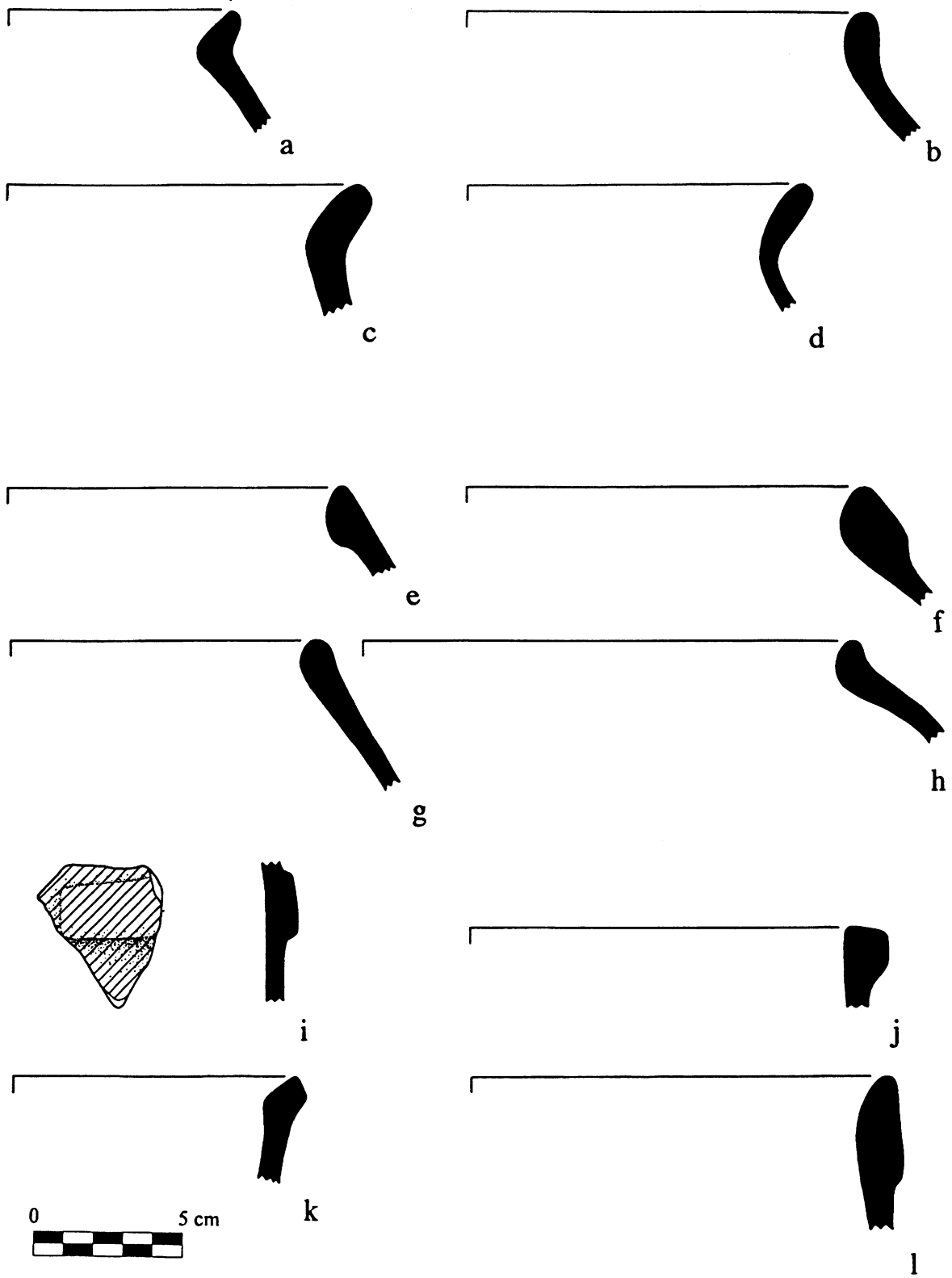


FIGURE 22 Early Chiripa ceramics: (a-b) short-necked ollas, (c-d) medium-necked ollas, (e-h) neckless ollas, (i) lug, and (j-l) bowls.

of the semi-subterranean structure, as well as on and below the floor itself; in the Santiago area in fill levels to the west of the ASD 18 wall; and in all levels of our 1996 Montículo excavations.

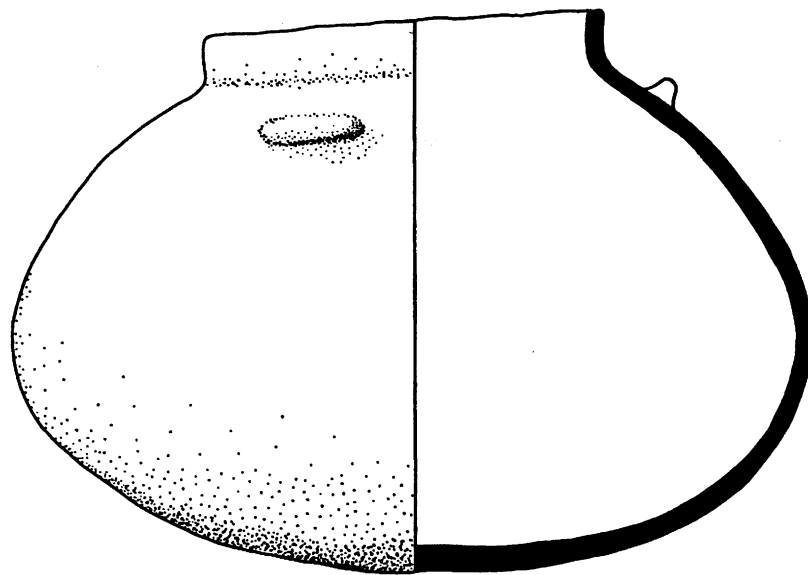
Late Chiripa ceramics are most commonly manufactured in a paste tempered with very coarse, chunky white quartz inclusions, easily visible to the naked eye on the broken edge of a sherd, and sometimes on the surface of the vessel as well. Ceramics manufactured in this paste make up 48% of the Late Chiripa sample. The popularity of burnished finishes continues to increase in this phase; 76% of the ceramics have some sort of burnish, and a full one-third have a complete coverage burnish on both sides of the vessel. The percentage of slipped specimens is also at its highest in the Late Chiripa phase; 37% of the sample is slipped, higher in some contexts, with red the most common slip color.

Medium-necked ollas are again the most common vessel shape in the Late Chiripa assemblage (fig. 25a-d), representing 41% of the vessels in the sample. A greater percentage of ollas now have slightly flared necks than in the previous phase, although straight-necked and flared-necked vessels also occur. Only 12% of the Late Chiripa shape assemblage are composed of short-necked ollas. In keeping with the increasing popularity of taller necked forms, the jars now represent 12% of the sample (fig. 25e-f), and both short and tall-necked jars (with necks over 6 cm in height) now occur. The majority of ollas continue to have plain rounded or slightly rounded rims, although a new red-slipped olla with an exterior thickened rim also appears in this phase. Although lugs and nubbins still occur, they are less common than in the Early and Middle Chiripa phases, while vertically oriented strap handles (fig. 25c) become more popular. Bowls are considerably more common in the Late Chiripa assemblage than in the previous two phases, and now form approximately 36% of the sample (fig. 25g-j, fig. 26a, b, e, fig. 27e, g). Of these, about two-thirds are slightly flared forms and one-third have vertical walls, although percentages vary by provenience, with vertical-walled specimens being more common in the Montículo levels. Both bowl forms have flat bases and a variety of new exterior thickened rim shapes. Convex (fig. 27g) and carinated bowls are still present, but rare. Several

other new shapes also appear in the Late Chiripa phase, including bottles, ceramic trumpets (fig. 27d), low ring bases (with a ring height of 3-6 mm, fig. 25k), and bases thickened at the joint between base and vessel wall.

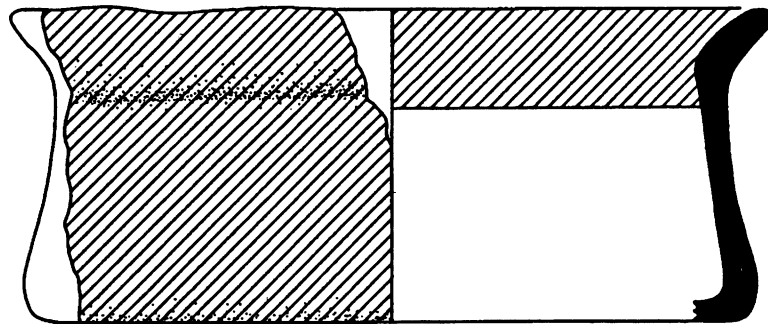
Decorated ceramics are common for the first time in the Late Chiripa phase. The percentage of decorated specimens ranges from a high of 6.5% in the Montículo deposits to a low of 0.3% in some of the fill loci, with a figure of 2.1% in the sample as a whole. The most common decorated wares are specimens painted in cream over a red-slipped background (fig. 25g, fig. 26a-d), often referred to as Chiripa cream on red. These make up 74% of the total Late Chiripa decorated sample (variations include cream on dark red, yellow cream on red, and yellow orange on red). The second most common decorated ceramics are those with black or dark brown and cream designs on a red-slipped background (fig. 26e, fig. 27a-c), representing about 9% of the sample (again with minor variations in slip color). Both cream on red and black/dark brown and cream on red painting can be combined with modeled elements such as ridges, nubbins, or zoomorphic motifs; figure 27a appears to represent a modeled anthropomorphic nose. The only other relatively common decorative technique in the Late Chiripa phase, with 6% of the sample, is incision on a single color background, either slipped or unslipped. These pieces include red-slipped bowls with wide (fig. 27f) or regular width incision, and incised trumpets, including one large blackware example with a zoomorphic modeled head and post-fire red and white paint in the incisions (fig. 27d). Other, less common, decorative color schemes include black on red, black on red with incision outlining the color areas (fig. 27h), dark brown on cream, dark brown on unslipped red brown with a red-slipped interior (fig. 27e), and red on cream/light brown painting (fig. 27g). Decoration usually occurs on bowls; the vertical-sided bowl with an exterior thickened rim has the greatest percentage of decorated examples, but slightly flared bowls, both with and without thickened rims, are also often decorated, as is the occasional olla.

The Late Chiripa assemblage defined here is comparable to the Upper House Level ceramics described by Mohr (1966), Bennett's Chiripa assemblage (1936), and Browman's Chiripa Mamani

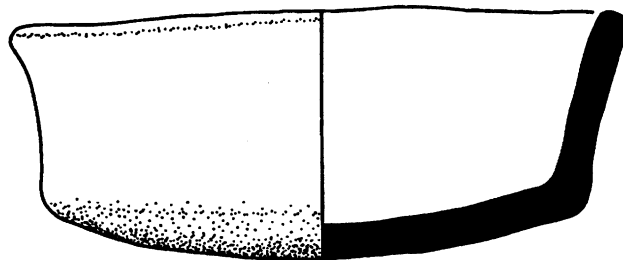


0 5 cm

a



b



c

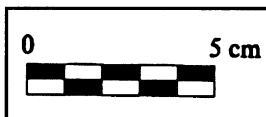


FIGURE 23 Early Chiripa ceramics: (a) medium-necked olla, and (b-c) bowls. Note fig. 23a is at a different scale.

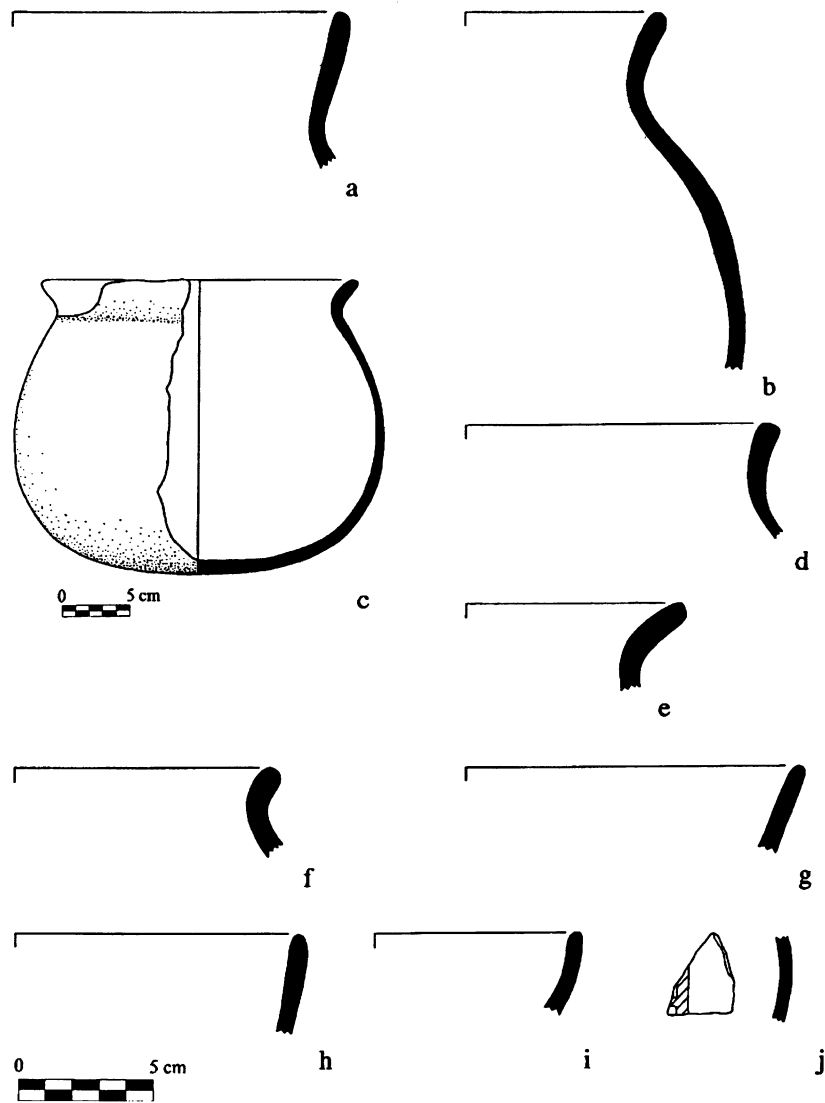


FIGURE 24 Middle Chiripa ceramics: (a) jar, (b-e) medium-necked ollas (note 24c at a different scale), (f) short-necked olla, (g-h) bowls, (i) convex bowl, and (j) red on unslipped dark brown body sherd.

(1980, 1991). Some of the most characteristic shared attributes are the slightly flared or vertical-sided bowl with a thickened rim and flat base (Bennett 1936:439, fig. 27m, o, fig. 28i; Mohr 1966:112, figs. 5, 8a; Willey 1971:fig. 3-54), the thickened rim jar (Mohr 1966:112, fig. 1), and the trumpet (Bennett 1936:fig. 28g, h; Mohr 1966:figs. 43-46). Parallels extend to paste and finish as well, and include similar percentages of red-slipped burnished ceramics (Bennett 1948:90) and specimens with chunky white quartz inclusions (Mohr 1966:110). A predominance of cream

on red painted wares among the decorated ceramics has also been reported in all of the later Chiripa assemblages; 68% of the Upper House decorated specimens (Mohr 1966:133) and 81% of the Mamani sample (Browman 1980:111) compared to 74% of the assemblage reported here. The secondary decorative wares noted in our sample, such as black and cream on red, red-slipped incised, incised with post-fire paint, and red on cream, have also been reported from previous assemblages (Mohr 1966: 132-33; Browman 1980:111; Bennett 1936:441).



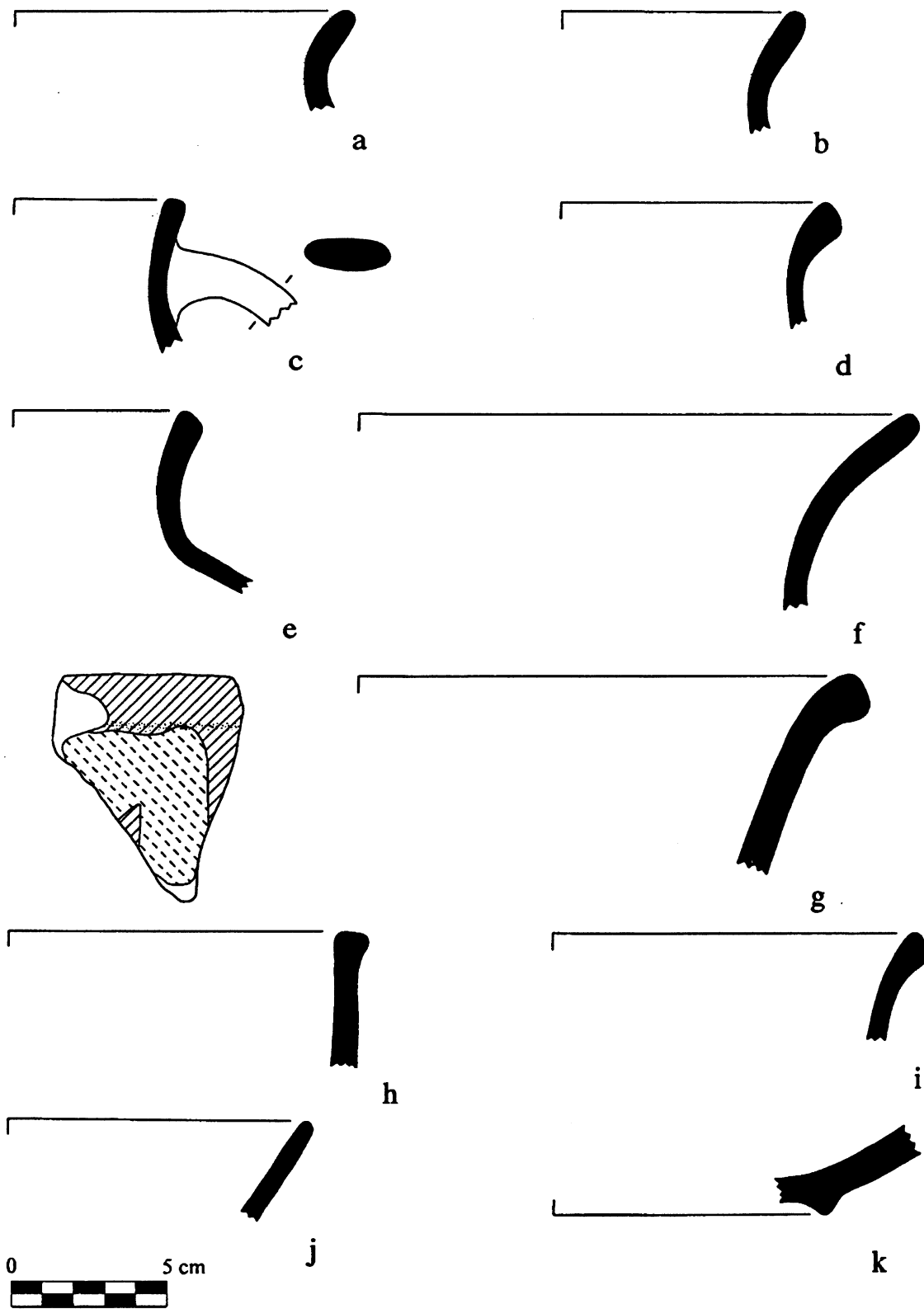


FIGURE 25 Late Chiripa ceramics: (a-d) medium-necked ollas, (e-f) jars, (g-j) bowls, and (k) ring base.

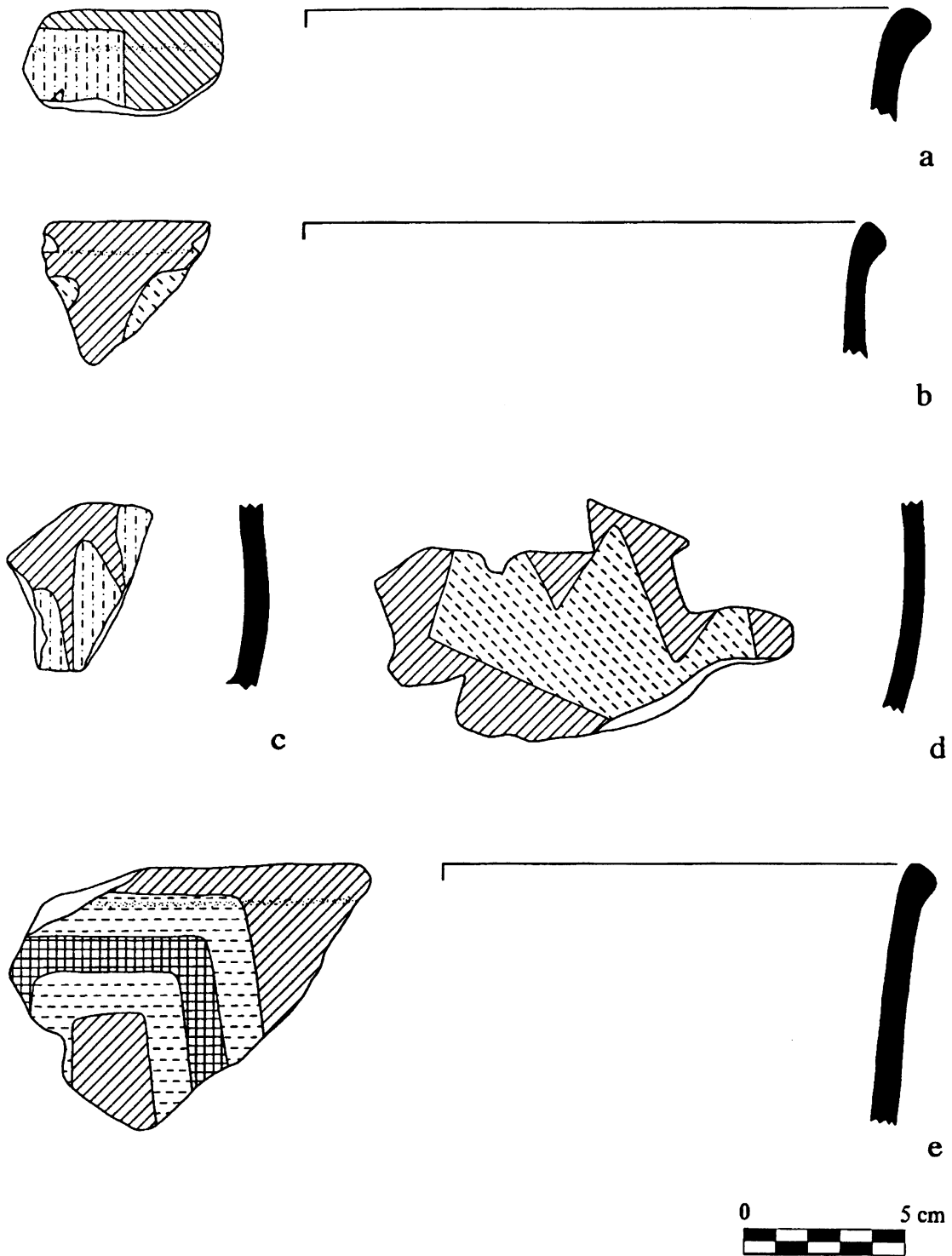


FIGURE 26 Late Chiripa ceramics: cream on red (a-b) bowls and (c-d) body sherds, (e) black/dark brown and cream on red bowl.

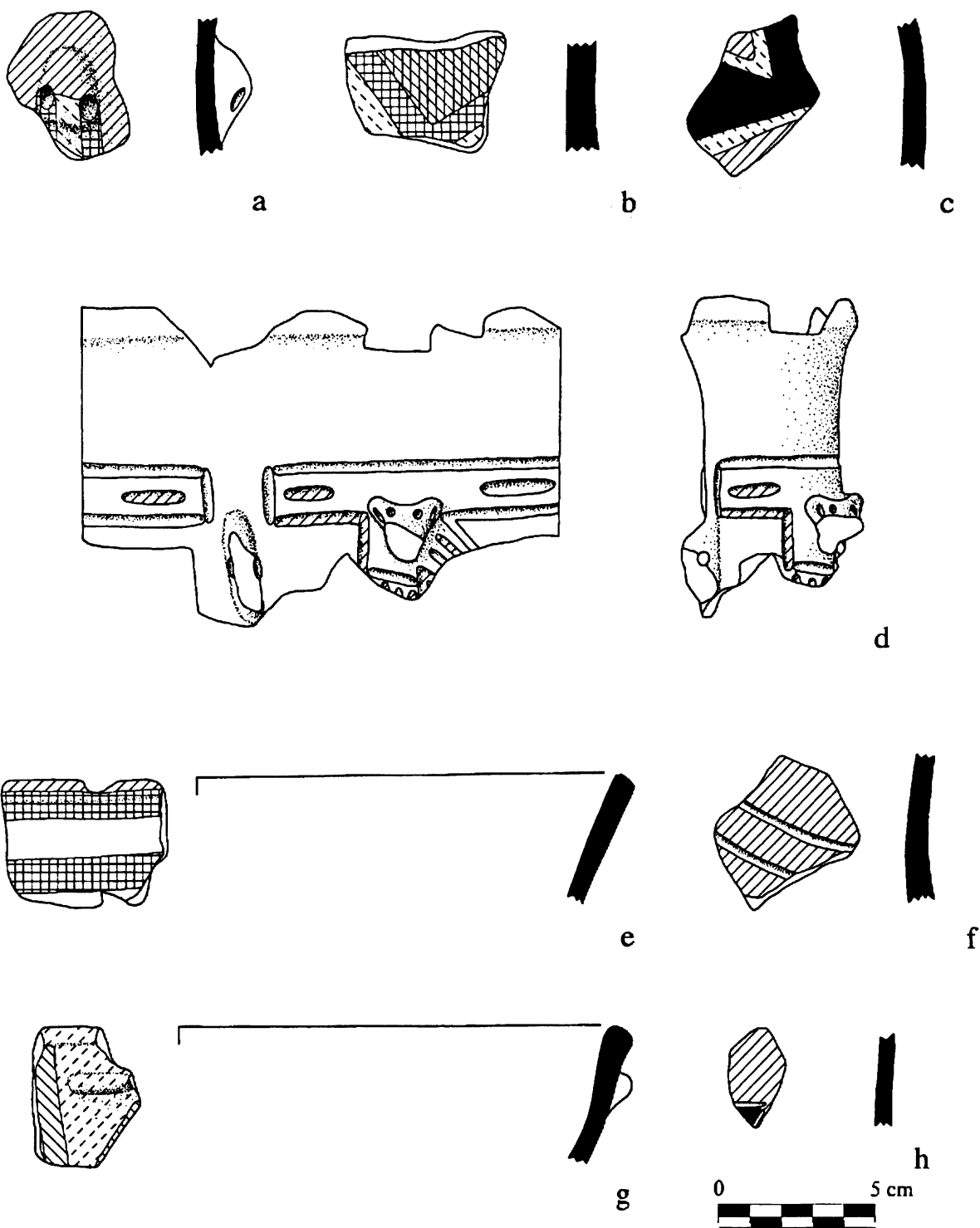


FIGURE 27 Late Chiripa ceramics: (a-c) black/dark brown and cream on red body sherds, (d) unslipped blackware trumpet with zoomorphic modeled head. Red post-fire paint in incisions where indicated; white post-fire paint in both ears and in the left eye; white outer circle and red post-fire center in the right eye, (e) dark brown and red on unslipped red brown bowl, (f) wide-line incised body sherd, (g) red on cream/light brown convex bowl, and (h) black on red incised body sherd.

The Late Chiripa phase as presented here does not, therefore, constitute a substantively new ceramic assemblage from that previously described in the literature. The most significant changes involve dating the beginning of this phase to 800 B.C., a figure based on the radiocarbon dates obtained from levels where Late Chiripa ceramics were found (figure 5, samples 21 and 22). This places the Late Chiripa phase as contemporary with part of the Middle Chiripa/Chiripa Llusco of previous investigators. The ceramics associated with our earlier dates, however, are clearly part of the Late Chiripa assemblage, directly comparable to later samples both from our excavations and from the Upper Houses, and very distinct from the Middle Chiripa assemblage as we define it.

Significantly, the structures we excavated on the Montículo that appear to correspond to the

Lower Houses (see Bandy chapter 9) also yielded ceramics from our Late Chiripa phase. As discussed previously, some of the Middle Chiripa/Chiripa Llusco/Lower House ceramics of earlier investigators in fact fall within the definition of our Late Chiripa phase. The change in popularity of differently decorated wares through time noted by Browman (1978:809; 1980:111) was not identified in the material recovered in our excavations. The Late Chiripa phase as it now stands is quite long, and we expect to be able to subdivide it in the future. At present, our largest sample comes from the earlier part of this phase (see figure 5), with no material excavated systematically from the later Late Chiripa phase. With further excavation, a comprehensive definition of the temporal changes within the Late Chiripa phase will be possible.