

## CERRO DE MEDIA LUNA; AN EARLY INTERMEDIATE PERIOD SITE IN THE CHILLÓN VALLEY, PERU

Jeffrey Quilter

### INTRODUCTION

Cerro de Media Luna is an archaeological site consisting of four connected stone-faced platforms abutting a low hill near the Chillón Valley, Peru (figs. 1-5). The site takes its name from an arc of hills extending from the Cerro Cucaracha and Los Chivateros ranges. The exact location of the site is 11°56' S. lat., 77°08' W. long.

Media Luna was discovered by Stumer in 1952 during his field research in the Chillón and Rímac river valleys (Stumer, 1953; 1954a; 1954b; 1955). It was also visited by Patterson and Lanning in 1962, and registered in the National Catalogue of sites as PV46-9. No formal excavations have been reported for Media Luna, but Patterson and Lanning recovered an Encanto projectile point from the surface. This artifact and the resemblance of the Media Luna stone walls to those at nearby El Paraíso prompted assignment of the site to the Preceramic stage of Peruvian prehistory. It has since come to be cited as one of the important sites for the time period, as noted by Agurto Calvo (1984, p. 56), who assigned it to the Arcaico Medio.

The possibility that Media Luna was built during the preceramic provided incentive for the investigations here reported. As El Paraíso has been cited as a key site for the understanding of cultural processes during the late preceramic (Moseley, 1975), study of Media Luna might help shed light on events in the Chillón Valley before, during, or after the construction and use of El Paraíso, depending on Media Luna's antiquity. Furthermore, a number of stone-lined, circular pits were reported to surround the platforms at Media Luna (Bonavia, 1966, p. 31). It was hoped that these pits might contain information on ceremonial or subsistence practices for the time of the site's occupation, a subject of much recent interest (Quilter and Stocker, 1983). The relatively small size of the site also offered the hope that there might be dwelling remains in the immediate vicinity of the presumed temple. Such proximity of sacred and profane architecture is evident at an Initial Period platform temple overlooking the bay at Ancón, about 5 km. northwest of Media Luna (Patterson, pers. comm.).

With the interests stated above in mind, a two month program of field research was conducted in June and July of 1982. Project goals were to map the site, conduct surface reconnaissance and make collections, and test excavate the structure. In short, basic data concerning the age and function of Media Luna were sought.

### Description of the Media Luna area

The Media Luna area is enclosed by a crescent of hills and bounded by the Pan American Highway to the west (fig. 1). The area comprises approximately 25 ha. of which 10 ha. immediately adjacent to the

highway were put to agricultural use in 1982. By 1985 the agricultural field had been paved for use by Petro Peru vehicles. The rest of the area consists of fine, grey powdered rock characteristic of much of the central coast, and beach sand blown into the area by the prevailing southerly winds. The altitude of the area rises from 10 m. above mean sea level near the highway to 60 m. at the eastern edge of the crescent, before the hills rise sharply.

Media Luna is a region rich in archaeological sites. It is 1.2 km. from Cerro Culebra and 1.6 km. from Unit VII of El Paraíso, both in the Chillón Valley proper, and 2.7 km. from Ventanilla Beach, to its northwest.

Four archaeological features are in the half-moon of the Media Luna area. El Palmo cemetery (PV46-8) is immediately to the east of the agricultural field, and has been partly disturbed by an access road (fig. 2). This cemetery appears to have been most used during the Middle Horizon and Late Intermediate Period (Appendix 1, figs. 48-52). It was excavated by Stumer (1954a), and has suffered from looting. The eastern edge of El Palmo cemetery is marked by a large adobe wall, which was probably constructed during the use of the cemetery. The northern point of the Media Luna crescent is dominated by a steeply sloped hill, which rises to an altitude of 86 m. Castillo del Palmo (PV46-10) is at the summit of this hill, and has been dated to the Early Horizon (Bonavia, 1966, p. 31). The fourth archaeological site in the area is Cerro de Media Luna, the subject of this report.

In addition to the cemetery, wall, hilltop site, and Cerro de Media Luna, the hills of Cerro Cucaracha, which form the eastern boundary of the area, are the location of lithic quarries and workshops. The high grade chert found on these hills is similar to that available on neighboring Cerro Chivateros. Although the entire range of variation in lithic materials is unknown, the Cucaracha sources appear to contain stones that tend toward buff colors and lighter shades than those at Chivateros.

The Cucaracha Hills thrust westward in a series of low, dunelike peninsulas. Cerro de Media Luna consists of one of these formations, which has had stone walls constructed on its western extremity to produce a series of graded platforms or terraces (figs. 3-5). The entire length of the hill-terrace complex is 175 m. The westernmost wall of the site runs for approximately 48 m. in a north-south direction. The hill and site run in an almost perfect east-west line. The westward view from the top of the complex provides a spectacular vista of the mouth of the Media Luna crescent framing the shore and ocean, 1.7 km. away.

### FIELD INVESTIGATIONS

Field work was designed to maximize information given limited time, labor, and funds. The following

discussion will be presented chronologically, in the approximate order in which the work was conducted. Each section describes the aims of specific stages of the research, followed by the methods employed, discoveries made, and the significance of the work. Concluding sections discuss the overall importance of the discoveries and tentative conclusions regarding the role of Media Luna in its time and place.

The architectural features at Media Luna in June 1982 consisted of three large platforms, numbered 1, 2, and 3 from west to east, and a fourth, smaller terrace, north of the third platform (fig. 3).

The southern wall of the first platform was not visible in 1982, although its presence has been confirmed by Patterson (pers. comm.). Most of the other walls were obscured by accumulations of wind-blown sand. Although the exact dimensions of the walls were difficult to determine, lengths could be roughly calculated by measuring the linear stone concentrations above sloping sand deposits. After some clearing operations were conducted for a better view, the maximum length (E-W) of the architectural component of the site was determined to be 99 m. The maximum width of Terrace 1 is 47.7 m., of 2 is 40.21 m., and 3 and 4 together measure 35.86 m.; the area at which the architectural component joins the natural hill, at the eastern edge of the third terrace, is 21.5 m. in width.

We observed a total of 26 stone circles located primarily on the western sides of the first and second terrace walls (fig. 6). They had been thought to represent stone-lined pits. About 15 more, with less clear stone outlines, were also noted on the northern and southern sides of Media Luna.

#### Surface survey and collection

A datum point was established at the approximate center of each of the three major terrace walls. All points were linked by an imaginary east-west line, which provided an axis for a grid system that covered the entire site. Excavation units were designated on the basis of their distance along the east-west axis and a north-south axis, which ran the length of each wall. Thus a 2 m. × 2 m. unit designated E2-4/S10-12 would be located at a point beginning 2 m. east of the datum point and extending to 4 m. from it, and 10 m. south of the datum point extending to the 12 m. mark. All measurements were taken using tapes and a hand-held sighting compass, and each of the major terraces was treated as a separate grid unit in order to maximize control.

Surface collection was conducted by walking N-S transects spaced at 5 m. intervals across the terraces. Few artifacts were discovered during this procedure (figs. 7-11). It was extremely difficult to distinguish between naturally and artificially fractured rock. Frequent visits to the site by students and others have depleted the surface materials. The few artifacts that we discovered consisted of scrapers, cores, an occasional flake, and two grinding stones. These tools generally resemble the preceramic materials recovered from the nearby Chivateros quarry-workshop (Lanning, 1967; Fung Pineda and others, 1973; Cardich and Hurtado de Mendoza, 1981). Patterson (pers. comm.), however, notes that the preceramic assemblage is of black stone, whereas the artifacts at Media Luna are

made of lighter colored materials.

#### General surface observations and the "stone-lined pits"

A thin layer of crushed white shell was scattered over the first terrace, but was absent on the other platforms. Small patches of crushed shell were also observed in the area around the site. These materials were entirely superficial, with sterile soil or sand below them, suggesting that they are relatively recent deposits.

There was abundant evidence of use of the site and surrounding area by the Peruvian military in the recent past. An army boot and many rifle cartridges were found. Cut canes, apparently used to support targets for rifle practice, were also discovered. Along the northern edge of the site, eight lanes lined with stone robbed from the architecture were found, running in an east-west direction for over 100 m. These lanes were not present during Patterson's visit to the site (pers. comm.). Military fox holes were also noted flanking the Castillo del Palmo hill. They resembled the posited stone-lined pits in dimensions, lacking only the stone outlines of those features at Media Luna. These observations immediately directed our skeptical attention to the supposed stone-lined pits adjacent to the terraces of the site.

While the rest of the crew continued the surface collection, I conducted a test excavation of one of the stone circles on the southern edge of the site. No clear evidence that the circle was part of an ancient pit was discovered. Those few stones that were found resting on one another often had recent tillandsia remains or caliche between them, and no more than two stones were ever found on top of one another (fig. 12). Other circles were quickly examined, and all those on the western sides of the first and second terraces were found to be superficial features. No traces of pits or more than a single layer of stones were found at these circles.

There are no known prehistoric stone-lined pits at Media Luna. The stone circles are clearly the results of recent activities by the Peruvian military. Patterson (pers. comm.) observed military maneuvers in the area at the time of his visit and witnessed the excavation of fox holes next to El Palmo hill. His doubts that the stone circles were prehistoric have been confirmed.

#### Excavation at the third platform wall

During initial observations at the site, evidence of a previous excavation was noted. A 1 × 5 m. trench appeared to have been made on the second terrace perpendicular to the center of the third terrace wall. The presence of this pit was indicated by light-colored sand that had blown into the unit, loose building stones and adobes piled onto the wall, and paper refuse that had blown from a trash dump in the Chillón Valley, over the nearby hills and into the partially filled trench. Another previous excavation was noted at the juncture of the third terrace wall with the south wall of the fourth terrace, where the same conditions were present. These excavations appear to have been conducted by an archaeologist rather than looters, but no written reports are known.

It was decided to clear and expand the old trench

fronting the third terrace wall as the first step in test excavations for 1982, since it could be rapidly cleared and used to gain a quick profile from which excavation could be expanded. A 5 × 5 m. unit (N0-5/W0-5) was therefore placed in the region of the trench, and work began by clearing out the recent fill of the previous excavation. The trench was crammed with paper trash so tightly as to suggest that the previous excavators or some other party may have filled the unit with the garbage that regularly blows into the area from the dump to the south. Some of the trash had been burnt, but, for the most part, the materials were intact. Most of the garbage consisted of food wrappers, note paper, and the like.

Once the modern trash was removed, it became clear that the slope next to the wall was made up of fallen rock, adobes, and unconsolidated clay mortar from the wall. Work was then concentrated in clearing the full 5 m. of wall face in the unit and the fallen debris within the 3 m. area immediately next to it.

The clearing operations revealed a smooth-faced wall (fig. 13) made up of the tabular rock that is still mined today in the immediate vicinity of the site. The rocks were set in light-grey mortar. No evidence of a clay or plaster wall facing was observed. Finger prints found in clay at one place suggest that chinks were filled in after the wall was constructed.

The maximum height of the excavated wall is 157 cm., almost certainly representing the total preserved wall height, although it probably stood at least one course of stone (several centimeters) higher in antiquity. The fallen materials contained relatively few artifacts. The most abundant material recovered was a pile of *achira*<sup>1</sup> leaves and stems found at the bottom of the fall in Unit N3-5/W1-2. A thin layer of burnt vegetal material was found running throughout the fallen rock, and occasional small mussel and clam-shell valves or fragments were also retrieved.

Three puzzling features were found in the cleared area next to the terrace wall (fig. 14). Roughly parallel to and at the same level as the base of the main terrace wall was a rough wall consisting of a single course of two faces filled with clay (fig. 15). At the southern end of the cleared area, a clay floor joins the two walls. This clay floor was 20 cm. above the bottom of the major terrace wall. The total depth of the excavation from the top of the wall was 157 cm. The purpose of this small second wall is unknown, but one of two possibilities is likely. It may have been part of a dais adjoining the major wall, or it may represent a temporary structure that was occupied for nonresidential purposes after the site's initial use.

A possible third wall was found a meter west of the secondary wall. A single line of stones found in this area was not joined by mortar, and thus may be merely a product of wall fall rather than a deliberate construction.

#### Excavations on the second terrace

A 2 × 2 m. pit (N0-2/E11-13) was placed in the center of the second platform (fig. 3). The purpose of this excavation was to determine the nature of the platform fill, since early architecture in Peru often involved the use of nets filled with large stones (*shicra*) (Huapaya Manco, 1978; Quilter, 1985) to build

up level areas rapidly or to fill in abandoned rooms to create new foundations or platforms.

Excavation was initiated using arbitrary 10 cm. levels. It quickly became clear, however, that the platform was composed of natural sand and earth, not fill. This and other excavations indicate that Cerro de Media Luna is an artificially altered natural formation rather than a series of platforms added to a hill. The natural hill had been leveled and further modified by the addition of retaining walls to create the platforms.

#### Excavations of the third terrace

The top of the third terrace wall was brushed clean. This operation revealed that the stone face observed in the initial excavation was part of a double-faced wall, 1 m. wide, and filled with rock, clay, and adobes.

The adobes are most commonly oval in cross section in their major axes, although shapes vary from discoids to more globular forms (fig. 16). Those found in both wall fall and fill average 12 cm. in length and 7 cm. in diameter. Preceramic adobes from El Parafso, by comparison, are less regularly shaped and almost twice as large, averaging 21 cm. in length and 13 cm. in thickness (Quilter, 1985, table 3, p. 295). Although some adobes were found in rubble assumed to be wall fall, no clear evidence was found that they were built into the faces of walls. When found as fill, adobes were recovered as single elements as well as melted and mixed with other rubble. Some of the adobes in fill were broken, suggesting reuse, although no mortar was found adhering to them as might be expected had they come from earlier constructions.

One of the adobes found in the wall fill contained a weathered ceramic sherd, and other sherds were also found in adobes. The eroded surfaces of the sherds suggest that they came from refuse. This evidence demonstrates that Media Luna is not a preceramic site unless massive rebuilding activities occurred there.

The double-faced wall of the third terrace seemed an unusual construction for a retaining wall. It was thought that the third terrace might be a building that had been filled in by natural or human activities, thus taking on the appearance of a platform. A 1 × 2 m. square (N0-5/E0-2) was cleared of surface sand to gain a better appreciation of the third terrace in general. Unit N5-6/E0-2 was excavated to the base of the terrace wall, 157 cm. deep. The use of arbitrary 10 cm. levels was combined with notation and excavation of natural strata.

No floors or other architectural features were found. The major terrace wall thus appears to have been a retaining wall and not part of a building. Like the second terrace, the third was part of the natural formation of Cerro de Media Luna, altered to create a level surface. The wall face exposed in the pit was much less well finished than that overlooking the second terrace. The angular stone blocks jutted out of the wall rather than being aligned to produce a smooth surface, further evidence that the third terrace wall was built to retain and define the third terrace; the back of the wall was not finished because it was not intended to be viewed.

The minor variations in soil color and texture noted in the profile (fig. 17) and excavations do not appear

to have major cultural significance. The presence of cane fragments in Stratum D and of a single sherd at 50 cm. below the top of the wall indicate considerable disturbance of the soil immediately adjacent to the wall. It appears that the hill was dug out in order to provide space for the construction of the wall. After the wall was completed, the area immediately behind it (east) was then refilled to create the terrace.

### Clearing on the third terrace

The exposure of a 2 × 5 m. surface (fig. 18) on the third terrace revealed another secondary occupation wall, the original surface of the platform, and a feature consisting of clay and cane.

The northern side of the 2 × 5 m. unit held a jumble of wall rocks, which ran 2 m. east and then turned to form a distinct, wall-like structure running 3 m. south (figs. 18, 19). Clay was found intermingled with rocks on the north side of this feature; at first it was thought that these materials were wall fall. The two distinct rows of stones running north-south along the edge of the unit, however, appear to indicate human agency in their placement. A large olla fragment was found at the north-east edge of the unit (N4-5/E2), on top of the presumed wall. This find suggests that the wall is ancient, but the absence of mortar between the blocks of this wall, as in the case of the western secondary wall on the second terrace, makes it difficult to determine if the feature is ancient or the product of clearing operations by previous excavators.

The secondary wall rested on a sterile layer of sand from 12 to 20 cm. in thickness. Below the sterile sand, a hardened layer of earth was discovered. It had the same color and general texture as most of the surface of the terrace, but showed evidence of caliche formation and, perhaps, hardening through the pressure of human feet. It appears that this area was the original surface of the third terrace. A maximum depth of 53 cm. was reached at the deepest (westernmost) part of the platform.

Directly on top of the hardened floor, at the southern end of the excavation area (N0-1/E1-2), a large, triangular patch of material, similar to the mortar used in the walls, was discovered (figs. 18, 20) at a depth of 30 cm. below the surface of the loose sand that covered the third terrace at the beginning of clearing operations. This patch ranged in thickness from 5 cm. near its tip to 15 cm. near the edge of the excavation unit. Cane fragments were found within and on top of this feature. Two loosely twined and knotted strands of reed ropes were also discovered on top of the clay. Some fragments of the clay appeared to have been compressed by an unknown agency to create a smooth surface. Poorly preserved remains of cotton and reed twine were found in the mortar when samples of the material were examined in the laboratory. Some of the fragments are the remains of one or more looped textiles (fig. 21).

While the purpose of the feature is unclear, it seems likely that the materials are the remains of some sort of plastered cane structure that was once on top of the platform. As the feature lies directly on top of the surface assumed to have been the original floor of the platform, the plastered cane may safely be said to date to the last use of the floor or

Work was expanded to study other parts of the site. A small exploratory trench (fig. 22), 65 cm. wide, was placed at N3/E0 on the second wall (fig. 3) in order to determine its construction. It too was a double-faced wall with fill. The width of the wall was 87 cm.; height was 70 cm. on the western side and 83 cm. on the east. The latter measurement may approximate the height of the wall in antiquity, as there was little evidence of disturbance. A very thin layer of sand between the feature and the hardened floor suggests that a little time had passed between the use of the floor and the deposition of the feature.

Samples of the cane found in the feature were subjected to radiocarbon analysis. They produced a calibrated date of A.D. 255-635 (Appendix 2). This date suggests that the cane was cut during the middle to late part of the Early Intermediate Period.

### Excavation at the second terrace wall and on the first terrace

There appeared to be a qualitative difference between this wall and that of the third terrace. Although only a small portion of the wall was exposed, the stones were much thinner and more uniform in thickness, and the face of the wall was smoother than the previously excavated wall (fig. 22). The mortar between stones was thinner and more evenly laid than elsewhere. Another difference between this wall and the other two is that the second terrace is oriented at 350° while the other walls run due north. The different quality of construction and different orientation suggest that the second terrace wall was built at a different time than the other two walls, a matter about which more will be said below.

At the base of the wall, a hard, compacted surface pink in color, was discovered. The surface appeared to contain some clay in its composition, thus suggesting that it was the original floor of the platform. Moreover, the sand formation appeared to slump in the center of the terrace, suggesting the possible presence of a sunken courtyard there. Indeed, Agurto Calvo (1984, p. 56) illustrates the first terrace at Media Luna with a small circular sunken plaza in its center. To substantiate these speculations, a 1 × 7 m. trench (N0-1/E29-36; datum at first terrace wall) was laid out in the center of the first terrace (fig. 3), and every other unit was excavated. Unfortunately, these excavations yielded no evidence of distinct floors or anything that could be distinguished as a court. Pure sand with only patches of caliche was located during this stage of the fieldwork.

### Excavation on the first terrace wall

Unit N0-2/W0-1.5 was excavated on the first terrace wall in order to determine its method of construction (fig. 3). This wall was very similar to the third terrace wall. It was made with large chunky stones with thick layers of mortar between them. The front face of the wall (fig. 23) appeared to have been robbed of many of its stones, but the rear (fig. 24) was relatively complete, standing 59 cm. high. This wall contained mortar filled with fewer stones than the third terrace wall, and was one meter thick. At 53 cm. below the top of the interior course of stones,

6 cm. from the bottom of the last stone, a hard, light pinkish-white surface was discovered, possibly the remains of an original surface of the terrace although, as in the case of the surface found near the base of the second terrace wall, it may rather be the result of natural processes. A fragment of cane was found lying parallel to the length of the outer wall at 67 cm. below the level of the uppermost course of stones. The location of the cane was probably the original ground surface outside the structure.

#### Excavation outside the structure

With about three weeks left for field work, few remains had been recovered to provide a secure date for the site. Although it was clear that Media Luna was not preceramic, and several sherds had been discovered, most of the pottery had been found in disturbed contexts, such as wall fall.

A Petro Peru pipeline carrying water from the Chillón River to the petroleum refinery, 1.5 km. northwest of the site (fig. 2), cuts through the east end of the Media Luna hill without disturbing the archaeological remains. About 50 m. north of the hill, a small leak had developed in the pipe fitting, and water from this leak produced a rivulet which coursed westward, towards the highway, roughly parallel to the long axis of the site. We examined this cut and found an exposed layer of burnt tillandsia 35 m. north of the uppermost terrace of the site about 10 cm. below the ground surface. Since fire could only be started by humans in the desert, a 1 x 2 m. test pit was placed at N38/E6-7 to examine this feature (fig. 3). The excavation reached a maximum depth of 45 cm.

The lens of burnt tillandsia was found below a thick, hard layer of caliche at a depth of from 20 to 32 cm. (fig. 25). Some of the plant remains were unburnt or only partly singed, while some were reduced to ashes. The lens reached a maximum thickness of 11 cm. Except for one fragment of unburnt clam shell and a few fragments of cane on top of the tillandsia, no evidence of human activity was apparent at this feature. The caliche layer was so hard, resisting the blows of a geology pick, that only the southern half of the unit could be excavated efficiently, inhibiting expanding excavations in the area. A sample of the tillandsia was saved for radiocarbon analysis which yielded a calibrated date of A. D. 605-1010 (Appendix 2). As will be argued below, this date probably corresponds to activities at the site after the original use of the platform structure had ceased.

#### Excavation at the second terrace wall

The final week of field work was devoted to excavating the northwest corner of the second terrace to define that part of the structure more accurately. In conjunction with this activity, all other accessible walls were examined to determine their construction; all were found to be the same double-face-and-fill technique. The corner where the third and fourth terrace walls join had been previously excavated and subsequently filled with trash, like the trench on the second terrace. This old excavation was cleaned out, and the depth of the wall at this point was calculated at 123 cm. At their join the third terrace wall is 1 m. wide and the fourth terrace wall 80 cm. thick.

An L-shaped excavation unit (N22-25/E0-1) was placed at the northwest corner of the corner terrace (figs. 26, 27). In addition a rectangular pit (N22-23/E1-2) was placed inside the corner, on the other side of the terrace wall. Much of the wall in this section of the structure had been robbed of stones. Nevertheless, those that remained appeared to be thin and relatively uniform in shape, as in the section earlier excavated. The width of the western section of the wall was 87 cm., while that of the northern section of the corner was 64 cm. The current maximum height of the wall is 59 cm., which must be considered its minimum possible height in antiquity.

The interior terrace section of the excavation revealed no evidence of floors or other features. On the north side of the wall, however, a strip of midden 35 cm. wide was found adjacent to the terrace. This was the first substantial deposit of artifacts discovered *in situ* at Media Luna, comprising fragments of gourd, pottery sherds, cane, and shell on a thin layer of caliche. At least one of the sherds (Appendix 1, fig. 37) appears to be in the Lima style of the Early Intermediate Period.<sup>2</sup> Plant remains were also found at this location, including one bean (*Phaseolus lunatus* ?), five complete corn cobs, and corn cob fragments. Dr. Robert Bird, although not directly associated with the project, kindly consented to examine the corn remains. He (Bird, pers. comm.) found that the morphology of the cobs conforms to his model for maize of the Early Intermediate Period.

The productive area next to the wall could only be investigated for a distance of 2 m. due to time limitations. The final day of the project was spent in back-filling excavation units and protecting the large area of exposed third terrace wall. The latter effort was achieved by covering the wall face with excavated construction stones capped by a layer of excavated soil and sand. By the time this procedure was completed, less wall remained visible than when field work was initiated.

#### Other sites in the Media Luna area

Two other sites were of particular interest in the Media Luna study: the cemetery of El Palmo (PV46-8) and the nearby hilltop site, Castillo del Palmo (PV46-10).

Since Media Luna was shown not to date to the preceramic, reaffirmation of the late date of the cemetery was sought to examine the possibility of a link between Media Luna and the cemetery. A casual surface survey was made of the cemetery area, and decorated sherds were collected. Early Intermediate Period materials were observed during the surface survey and collection. Middle Horizon and Late Intermediate Period sherds (Appendix 1) were recovered, and textiles, especially blue and brown dyed simple weaves common for late prehistory, were noted and seemed to be more abundant than the earlier materials. In addition, the effects of continued looting were observed; human remains, corn cobs, and other articles such as large textile fragments were scattered over the surface of the site.

Castillo del Palmo was visited several times by members of the Media Luna project. The site was reported by Patterson to date to the Early Horizon (Bonavia, 1966, p. 31). Although no excavations were

conducted at this site, a sketch map was made (fig. 28), and a small collection of surface sherds was gathered. A corn cob found on the surface of the site exhibited characteristics associated with the Early Intermediate Period (R. Bird, pers. comm.).

The site is located on the two lobes of a hill. On the eastern lobe, the sharp gradient of the natural formation has been modified by the construction of eight terraces (figs. 28, 29); the upper three terraces had retaining walls built of local stone. The western lobe, also probably modified by human flattening of the top of the hill, contained no terraces. However, looting activities have revealed walls of architectural features.

The entire site is covered with relatively dense shell midden. A meter-deep looter's pit on the eastern lobe revealed shell midden containing charcoal and vegetal remains a meter deep. Some charcoal was taken from the edges of one of the pits in order to determine the age of the site. The calibrated date obtained by radiocarbon analysis was 1250-420 B. C. (Appendix 2).

#### **MEDIA LUNA IN TIME AND SPACE: ANALYSES AND CONCLUSIONS**

Archaeology is an activity initiated by theory, conducted with objectivity, and sustained by hope. The hope is usually that one's hypothesis or theories will be verified. In the case of Media Luna, hopes concerning the advancement of knowledge concerning events in the preceramic were not met. Nevertheless, some information has been gained concerning the Chillón region in prehistory.

Three phases can be defined for Media Luna: (1) initial construction and use as public architecture, (2) expansion of the structure, (3) disuse as a public structure. Before discussing these phases in detail, however, the case for the site as a public structure must first be made.

Media Luna appears to be a site at which public activities occurred. Throughout the Andes such prehistoric activities are commonly assumed to have been carried out using religious symbolism so that such structures are commonly referred to as temples. It is generally presumed that social and economic transactions were integral parts of events at these sites. Religion is thus seen as the vehicle through which a wide range of activities were carried out, especially at sites where elaborate artworks give relatively certain indications that religious rituals took place.

Religious ceremonial centers are commonly characterized by architectural features that separate participants in the activities by degrees of sacredness, much like the Temple in Jerusalem in which a Court of the Gentiles, which anyone could enter, was succeeded by more restrictive chambers culminating in the room of the Ark of the Covenant, which the high priest only entered once a year. Such divisions of space are also marked by increasingly esoteric symbolism, so that only those initiated in the most arcane aspects of the religion understand the art and activities occurring in the most sacred spaces. Because of the special nature of religious activities, sacred spaces are usually kept relatively clean and free of detritus, and the artifacts expected to be found at such locations are usually of

a limited range. The peripheries of ceremonial centers may contain relatively great amounts of refuse associated with eating and other quotidian activities, however, especially when they are occupied by visitors who have traveled away from home to visit the site.

These and other ideas on sacred architecture have been outlined by historians of religion (e.g., Eliade, 1959), and utilized by Peruvianist archaeologists (e.g., Rowe, 1962; Burger and Salazar-Burger, 1985). In addition, ethnohistoric accounts are available to confirm that pilgrimage centers existed in Peru and that sacred architecture there conformed to these general principles, as at the great site of Pachacámac in the Lurín Valley, which was discussed by Cieza de León (1959) and Cobo (1983).

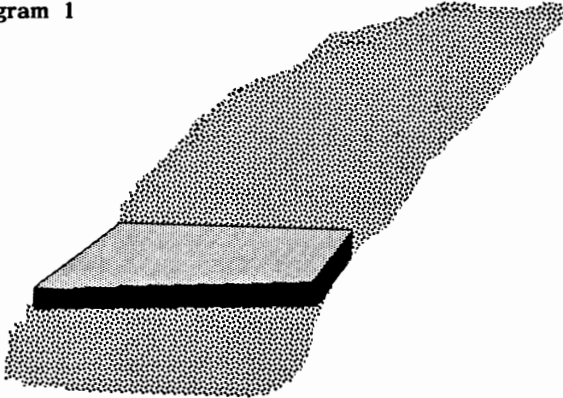
How well does Media Luna conform to these concepts? Its series of large platforms or terraces, decreasing in size as the summit is reached, is typical of ceremonial sites in Peru. It is relatively clean with no great quantity of remains on the terraces to suggest that mundane activities took place on them. A relatively small quantity of such remains was found on its edge, notably the sherds and food residues next to the second terrace wall. However, there were no clear signs of religious symbolism at Media Luna. No friezes of supernatural beings were found, for example. Furthermore, although the platforms might suggest some sort of ranking of participants in activities at the site, with the most important at the summit, there is little sense of great separation between the different levels of participation. If there was a special structure for the most sacred activities at the top of Media Luna, it was ephemeral in nature. Indeed, the entire site represents a relatively low level of energy investment compared to the imposing edifices known elsewhere. Thus, while there is no strong evidence that Media Luna was a domestic residence or the location of activities for the production of food, tools, or other items, it nevertheless appears to have been a site for public meetings that were relatively open and not highly stratified in terms of the participant's roles, and one that was not the product of a great deal of elaboration or commitment by the people who built and used it. This interpretation suggests that at the time the site was built either the amount of surplus labor and goods available for public constructions was in short supply, or that such surpluses were used elsewhere, either in the construction of other ceremonial centers, in nonreligious public works such as canals, or in activities that were nonpublic in nature. It is possible, of course, that a combination of these factors existed at the time of Media Luna.

An understanding of the purpose and use of Media Luna can best be achieved if the age of the site can be determined as precisely as possible so that available information concerning the socio-cultural context in which it was made and used can be utilized. While there is fairly good evidence to indicate internal relative dating for the construction phases at Media Luna, the external dating, in relation to other sites, is less certain.

The evidence for dating the phases of construction at the site are based on the architecture itself. The finer masonry work and different orientation of the second terrace wall suggest that it was built at a different time from the other two walls. Given the fact that the second terrace is in the middle of the

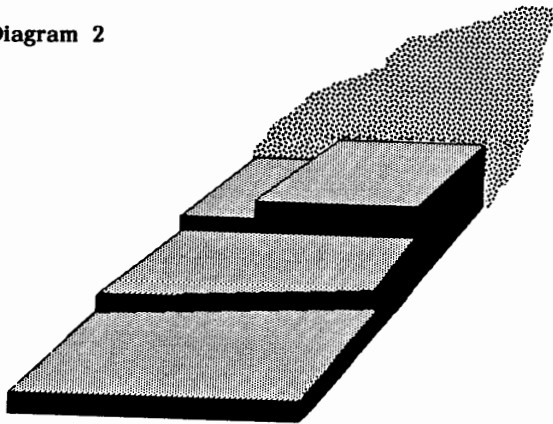
structure as it now stands, it seems likely that this wall was built first, with the other walls and platforms constructed at a later date. The natural hill was first modified by the construction of a single terrace, defined by what is now the second wall (diag. 1).

Diagram 1



Sometime later, either the hill was further modified, or the original terrace was shortened when the third terrace was built. At roughly the same time, judging by the similarity in construction methods, an additional platform was built west of the original one, to create what is now the first terrace (diag. 2). This proposal seems the most logical explanation of the differences in construction technique and orientation of the second terrace wall, now in the center of the structure. Thus, two building phases can be defined for Media Luna.

Diagram 2



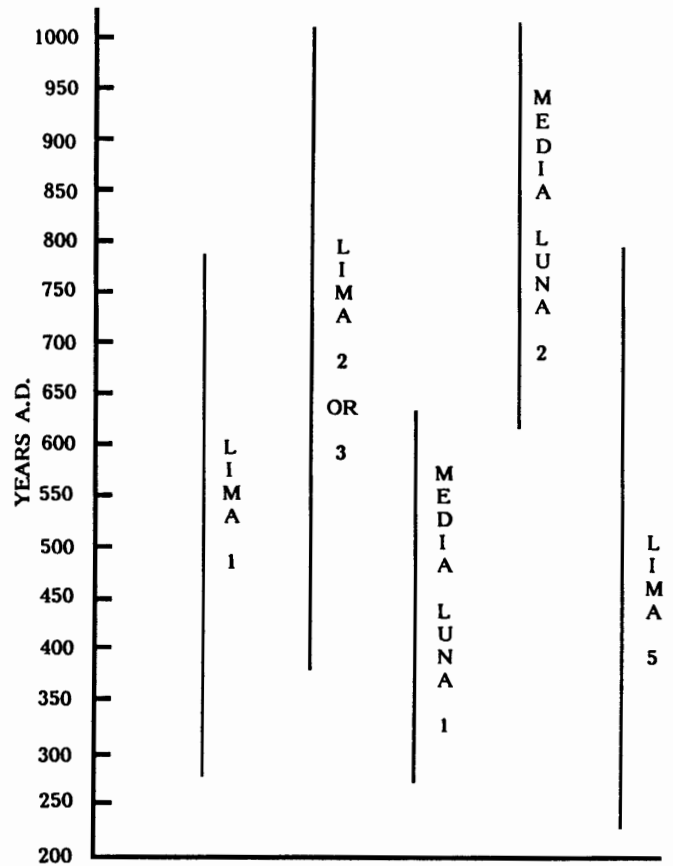
Dating Media Luna in relation to external events is difficult. It is certain that the construction of the third terrace wall occurred during a period when ceramics were in use, as evidenced by the sherds inside adobes. Possible reuse of adobes from earlier construction, combined with lack of diagnostic characteristics of the sherds in them inhibits determining a *terminus ante quem* for the construction of the wall based on the date of the adobes. However, Media Luna adobes are very similar to those found by Stothert (1980, fig. 3) at Villa Salvador in the Lurin Valley. The occupation of Villa Salvador is approximately contemporary with Nasca 1, and therefore dates to the beginning of the Early Intermediate Period. But Villa Salvador is not part of a local sequence, and

the length of time during which the style of adobes found there persisted is unknown. Furthermore, adobe sequences on the central coast may vary from valley to valley (Cárdenas Martínez, 1970). At Playa Grande, Ancón, in Early Intermediate Period Epoch 6 (Lima 3 and 4), small pyramids were built using small rectangular adobes (Patterson, 1966, p. 107). This fact may indicate that the Media Luna adobes are earlier, although conclusions must be reached with caution.

Another line of evidence to date Media Luna is the radiocarbon assays. As noted above, the calibrated dates are A.D. 255-635 for cane from the feature on the third terrace and A.D. 605-1010 for the tillandsia recovered outside of the structure. Both dates fit well with the radiocarbon dates associated with the era of the Lima style (Table 1; Patterson, 1966, p. 4), but do not provide very precise chronometric dates.

TABLE 1

Comparison of Radiocarbon Measurements for the Ancón-Chillón Early Intermediate Period



Lima 1 (GX 0455), A.D. 465 ± 100; calibration, A.D. 790-258\*  
Lima 2 or 3 (L-384A), A.D. 569 ± 160; calibration, A.D. 1010-390\*

Media Luna 1 (I-12,714), A.D. 440 ± 80; calibration, 635-255  
Media Luna 2 (I-12,713), A.D. 730 ± 80; calibration, 1010-605  
Lima 5 (GX 0454), A.D. 445 ± 100; calibration, A.D. 785-215\*

\*Patterson, 1966, p. 4; all measurements based on 5568 year half life. Calibrations based on Klein and others, 1982.

Most of the diagnostic sherds were found on the surface of the second terrace below the collapsed wall in the large excavation unit, directly on top of terrace wall revealed during clearing, and in the light midden next to the second terrace. The ubiquity of sherds from phases 4 and 5 of the Lima style on top of walls, mixed with rubbish and fallen rubble on terraces and next to the second terrace wall, suggests that the time period associated with these phases (Early Intermediate Period 6-7) marks the greatest use or the end of use of the site. As public places, especially those associated with ceremonial activities, are generally kept free of debris in the Andes and elsewhere, it seems more likely that Early Intermediate Period 6-7 is the *terminus post quem* for the use of Media Luna as a ceremonial place.

When adobes, ceramics, and radiocarbon analysis are all taken into consideration, it appears that the site was used during the Early Intermediate Period, although an initial construction date remains uncertain.

A number of points may be raised in speculation on the origins and role of the Media Luna site. One way to consider these questions is to examine the known information on other sites in the area, specifically, the cemetery, the Castillo del Palmo, and the large site of Cerro Culebra just over the hills to the south of Media Luna.

The surface remains at El Palmo cemetery were relatively late and no similar materials were found at Media Luna. Therefore, there seems to be no relationship between the two except their proximity. The possibility remains, however, that excavations at the cemetery might reveal earlier materials, which could associate the use of the western side of the Media Luna area with the terraces to the east, but for now no such association is in evidence.

Castillo del Palmo appears to predate Media Luna, possibly occupied at the very end of the Early Horizon or the early epochs of the Early Intermediate Period, although not a great deal of information is available for the site. Fortified hilltop settlements in the lower Chillón Valley are said to date to the time when Ventanilla pottery was manufactured, ca. 250-50 B. C. (MacNeish and others, 1975, p. 48), and it seems quite likely that Castillo del Palmo was first occupied at this time. The first construction and use of Media Luna might also be associated with this time, serving as a public meeting place for Castillo del Palmo and similar communities that lacked space for gatherings on their hilltops. This interpretation would imply that the political and economic conditions that encouraged inhabitants of the region to live in defensible positions on the ridges of the valley were occasionally modified to allow group gatherings, probably inter-communal in nature, to take place in open areas. Media Luna's location still offered protection, however, since the ring of hills surrounding it could have provided vantage points to observe movements of potentially hostile parties in the region while at the same time providing a buffer between such groups and the participants on the terraces, perhaps allowing time for a hasty retreat to the Castillo del Palmo.

Media Luna is located north of Cerro Culebra, and fairly easy access exists between the two sites. Cerro Culebra was first occupied between A. D. 300 and 400 (uncalibrated), and is therefore roughly contemporary with the date obtained from the mortar fall on the

third platform of Media Luna. The site consists of a single platform mound with numerous residences surrounding it, and it was apparently the major town in the region during its time. It was abandoned ca. A. D. 500 (uncalibrated) when the demographic center of gravity of the central coast shifted southward to the Lurín Valley (MacNeish and others, 1975, pp. 53-54). It is quite possible that Media Luna was used during the time of Cerro Culebra. Perhaps the nearby terraces served as a separate ceremonial place away from the town. The two building stages at the site might represent an early use of one small platform by the people of Castillo del Palmo or a similar small group followed by the expansion of Media Luna with the growth of Cerro Culebra. The abandonment of Cerro Media Luna likely is the same time as the end of the Cerro Culebra occupation. It is quite possible that Media Luna was abandoned earlier than either the construction (in Epoch 6) or the abandonment of Cerro Culebra, and that the late Lima style sherds found at Media Luna represent brief visits or desultory occupation of the site by inhabitants of the large town to its south. Such possibilities can be confirmed or denied only by additional work.

Perhaps the most important lesson to be learned from the research at Media Luna is the danger of assigning time periods to sites solely on the basis of architectural features. Unless specific diagnostic features of particular time periods can be ascertained, quick conclusions as to the age of sites may easily lead to inaccuracies in other studies built upon false chronologies. While it is sometimes necessary to use limited information to develop settlement pattern studies, culture histories, and other models of past activities, the Media Luna study shows how uncertain such studies can be. Not only the chronology, but the presence of circular pits was inaccurate regarding this site, and problems could have easily been created for other studies if the site was assumed to be made of artificial fill rather than a modified hill, or if the presence of a sunken court in the first terrace was assumed due to slumping of the soil there. While inaccurate interpretations of the past can be made with even the most carefully retrieved and most abundant data, the need for precision is demonstrated in the study of Media Luna.

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final revision 23 February 1988

#### NOTES

<sup>1</sup>The identification of animal and plant remains was made by members of the project, except for the corn specimens studied by Robert Bird. Therefore, common names rather than scientific ones are presented in the text. The clams appeared to be *Mesodesma* sp.

<sup>2</sup>The stylistic assignment of diagnostic sherds found during the Media Luna work was made in several ways. The specimens were compared to Patterson's (1966) work on Early Intermediate Period pottery of the central coast as well as to unpublished drawings and writings of the same author, which he graciously provided. He also personally examined photographs and drawings of the Media Luna materials. An independent study was also made by Francisco Bazán del Campo and Elba Manrique P., student participants in the excavation. Most of the sherds that can be identified are from phases 4 and 5 of the Lima style (Appendix 1).

## APPENDIX 1: Pottery

A total of 148 sherds was found during surface collecting and excavations at Media Luna. Most of them were found on the surface of the site, and were eroded. Sherds from Media Luna are illustrated in figs. 30-46, and all bear the catalog prefix of the site number, PV46-9-.

A total of sixteen sherds was collected from El Palmo cemetery, including those shown in figs. 47-52, all of which have surface provenience. All El Palmo sherds bear the catalog prefix of the site number, PV46-8-. None of the ten sherds collected from Castillo del Palmo is presented here since none was clearly diagnostic.

Figure	Catalog #	Provenience and Comments
30	337	On top of intersection of third and fourth terrace walls.
31	168	Surface of Terrace 2; N4-5/W3-4.
32	194	Surface of Terrace 2; N4-5/W2-4.
33	169	Surface of Terrace 2; N4-5/W2-3.
34	173	In collapsed mortar on Terrace 2; N4-5/W2-3.
35	171	Same as fig. 35. Cream-colored slip on brown paste. Slip has criss-crossed, brushlike marks.
36	330	Thin midden next to north side of Terrace 2; N23.4-24.4/E0-1.
37	329	Same as fig. 36.
38	180	Surface of Terrace 2 in general area of excavations near wall of Terrace 3. Possible white wash on interior exhibits marks of brush smoothing.
39	142	Top of Terrace 3 wall; N0-1/W0-1.
40	176	Wall fall on Terrace 2; N4-5/W2-3.
41	216	Top of Terrace 3 wall; N2-3/W2-3.
42	108	Surface of Terrace 2; N0-1/W0-2.
43	391	Wall fall on Terrace 1; N4-5/W2-3.
44	306	Top of Terrace 1 wall; N0-2/W0-1.5.
45	390	Surface of Terrace 2; N0-1/W2.
46	109	Same as fig. 45.
47	02	Lima style sherd.
48	01	Chancay Tri-color or Huaura tumbler fragment.
49	03	Black on cream slip; Chancay?
50	12	Rim profiles (MH/LIP?)
51	11	Rim profiles (MH/LIP?)
52	10	Rim profiles (MH/LIP?)

## APPENDIX 2: Radiocarbon measurements

Three radiocarbon samples were analyzed by Teledyne Isotopes. All samples were pretreated for the removal of carbonates and humic acids. Calibrated ranges are based on tables in Klein and others (1982).

Isotopes Code Number I-12,714: 1500 ± 80 radiocarbon years B.P.

Calibration of C<sup>13</sup> (-24.7) produced an age of 1510 ± 80 years. Calibration tables produced a range of A.D. 635-255 at a 95% confidence level.

The sample consisted of 16 gm. of cane, possibly totora (*Scirpus tatora*), recovered from the mixture of cane and grass in the mortar fall on top of the third platform of Media Luna.

Isotopes Code Number I-12,713: 1020 ± 80 radiocarbon years B.P.

Calibration of C<sup>13</sup> (-12.6) produced an age of 1220 ± 80 years. Calibration tables produced a range of A.D. 605-1010 at a 95% confidence level.

The sample consisted of 20.8 gm. of burnt and unburnt tillandsia (probably *T. latifolia*) from excavation unit N38-40/E6-7 located north of the Media Luna terraces.

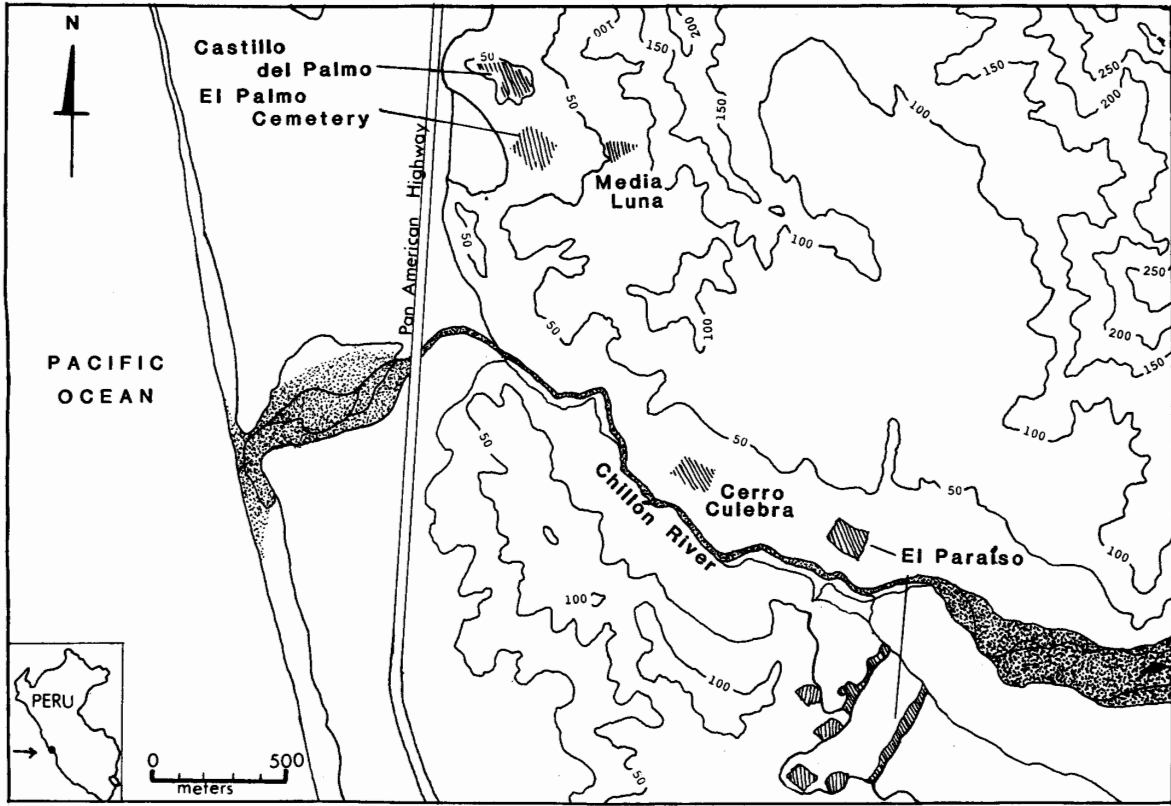
Isotopes Code Number I-12,716: 2640 ± 160 radiocarbon years B.P.

No calibration of C<sup>13</sup> was performed by Teledyne due to the small size of the sample. Calibration tables produced a range of 1205-420 B.C. at a 95% confidence level.

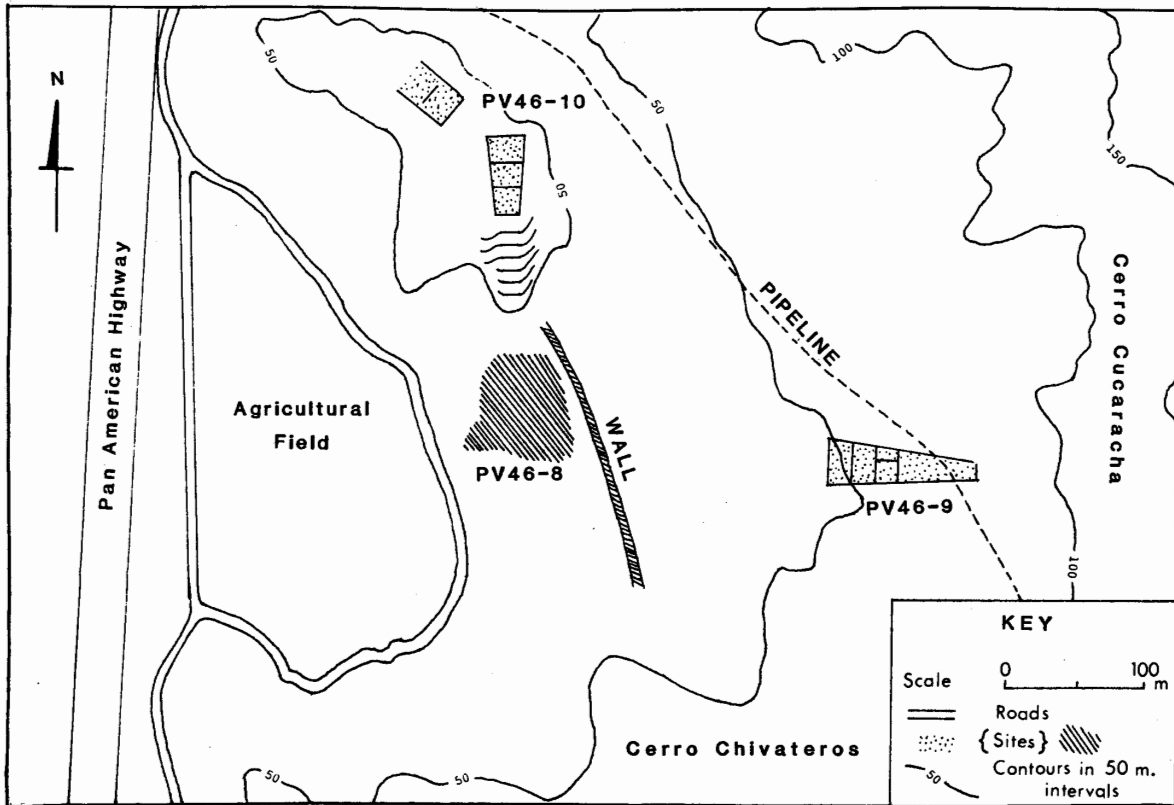
The sample consisted of 13 gm. of wood charcoal taken from the upper edge of the sidewall on the 7th terrace of Castillo del Palmo.

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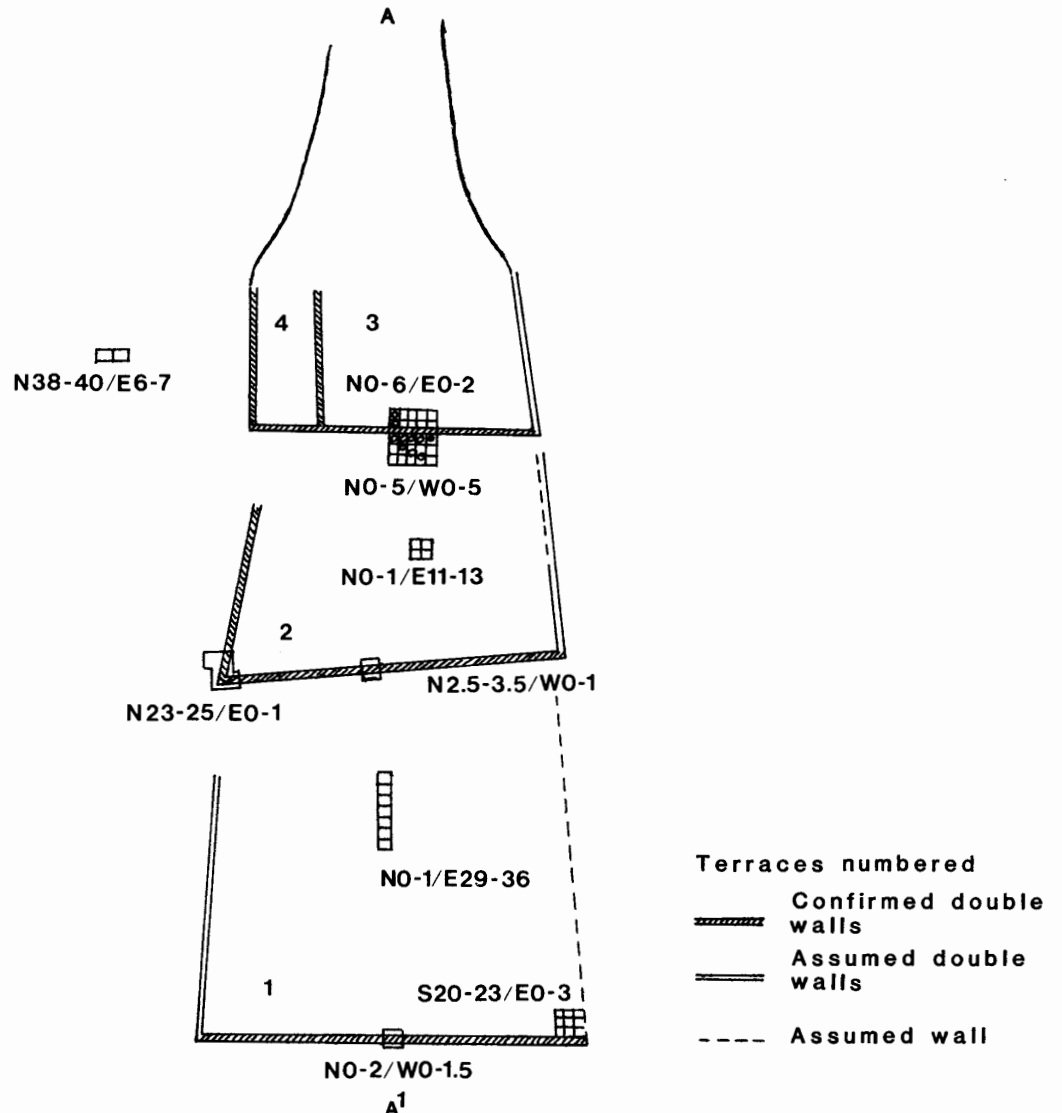
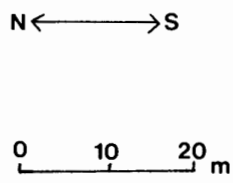


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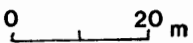
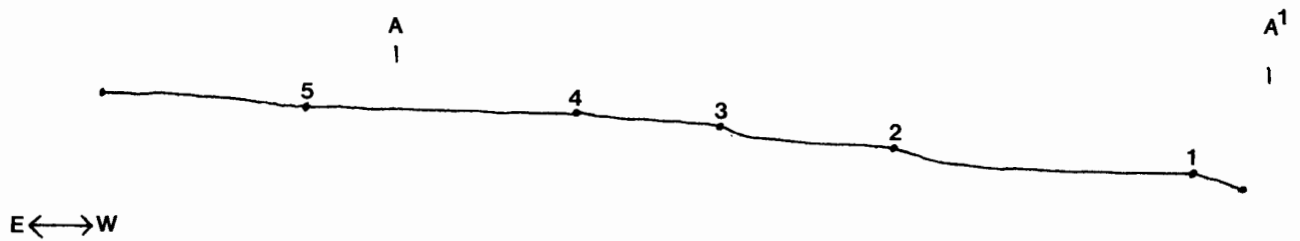


2

Fig. 1. The lower Chillón Valley region. Fig. 2. The Media Luna area.



3



4

- 1 1st terrace wall
- 2 2nd terrace wall
- 3 3rd terrace wall
- 4 Junction of modified terrace and hill
- 5 Pipeline cut

Fig. 3. Plan of the Media Luna site (PV46-9) and excavation units. Fig. 4. Profile of Media Luna.

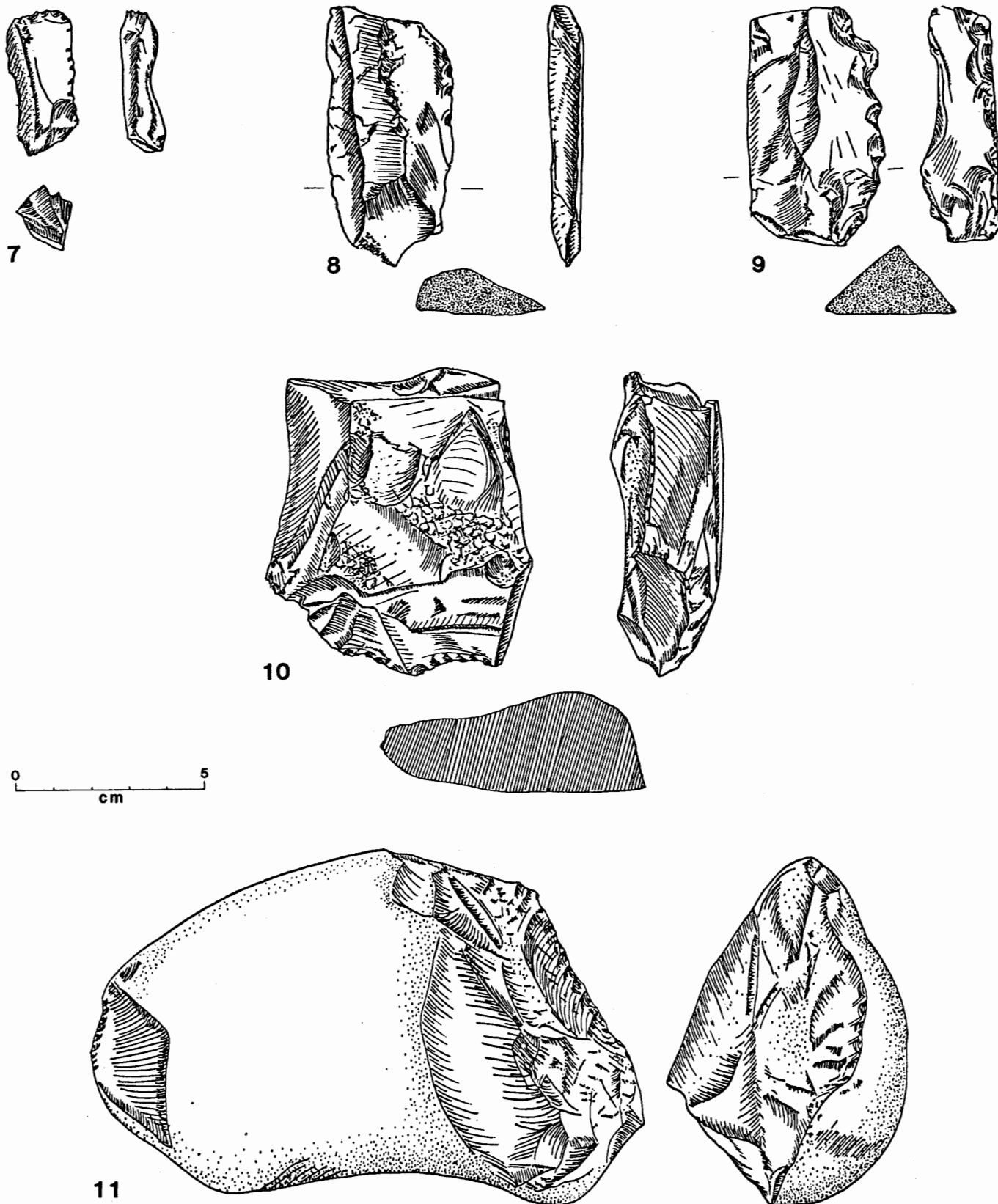


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6

**Fig. 5.** General view of Media Luna, looking northwest; Castillo del Palmo is atop the hill to the left. **Fig. 6.** Stone rings on the Second Terrace.



Stone artifacts found during surface collection at Media Luna. **Fig. 7.** Endscraper. **Fig. 8.** Retouched flake. **Fig. 9.** Denticulate sidescraper. **Fig. 10.** Unifacial chopper-scraper. **Fig. 11.** Chopper.



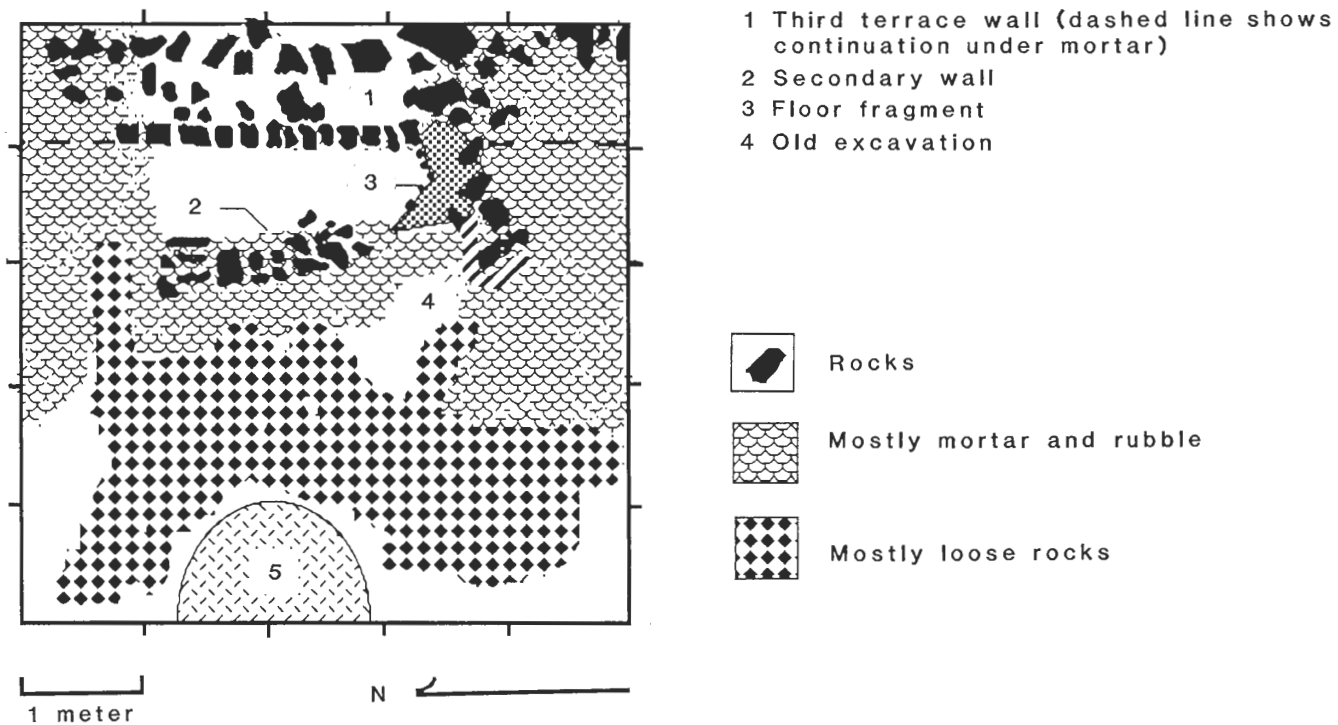
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Fig. 12. Excavated stone ring on the Second Terrace. Fig. 13. Cleared Third Terrace wall.





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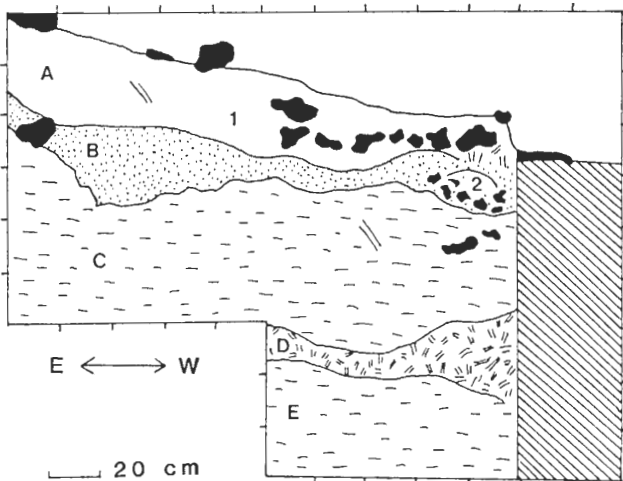


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**Fig. 14.** Plan of excavation on the Second Terrace adjacent to the Third Terrace wall. **Fig. 15.** Cleared area on the Second terrace showing secondary wall.

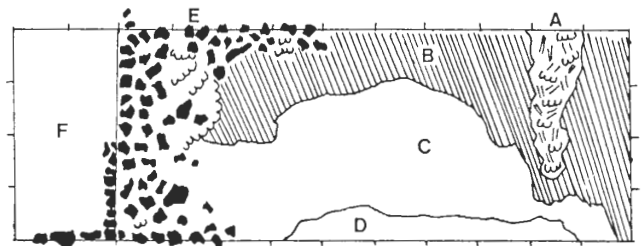


16



- Cane
- Rocks
- Wall

17

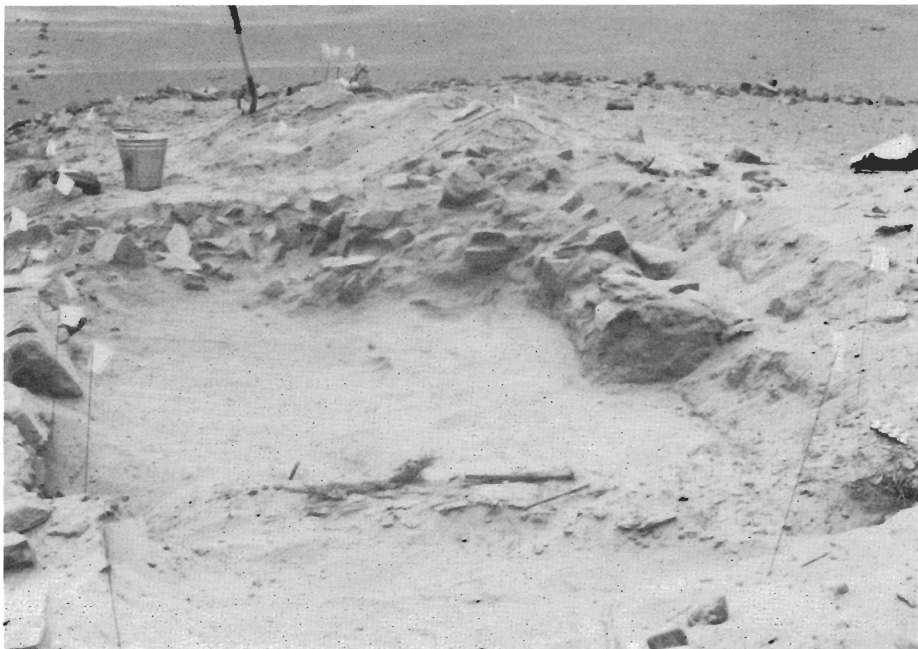


- Rocks
- Mortar

- A Mortar and cane fall
- B Compacted surface
- C Soft sand
- D Previous excavation
- E Rock and mortar concentration
- F Deep test pit (N0-6/E0-2)

18

Fig. 16. Adobes found at Media Luna; a sherd is visible in the broken adobe on the lower left. Scale = 20 cm. Fig. 17. Profile of deep testing on Third Terrace (south wall of unit N5-6/E0-2). Fig. 18. Plan of excavation on the Third Terrace (N0-6/E0-2).

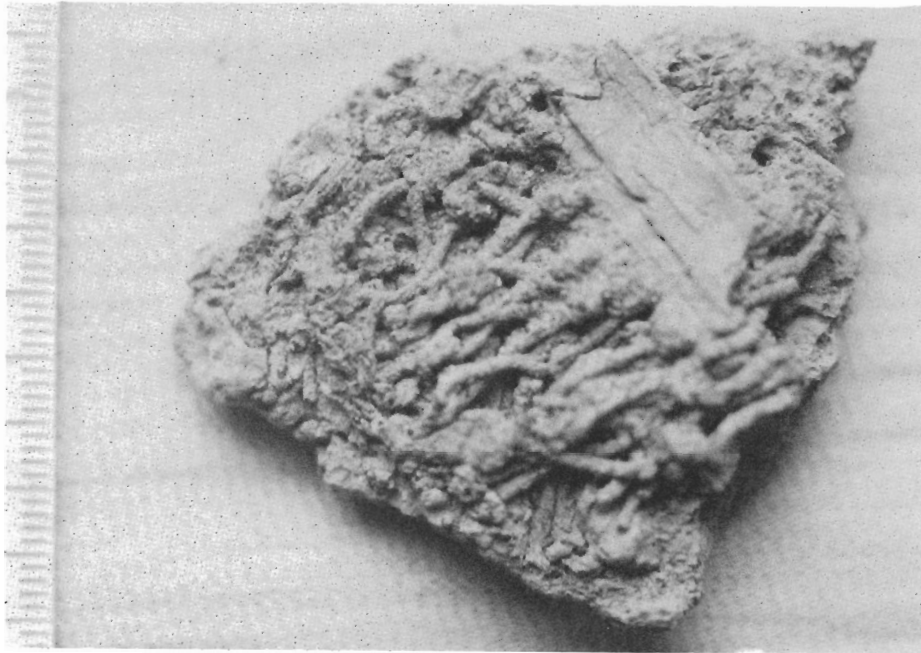


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Fig. 19. Excavation on the Third Terrace. Fig. 20. Mortar fall on the Third Terrace.



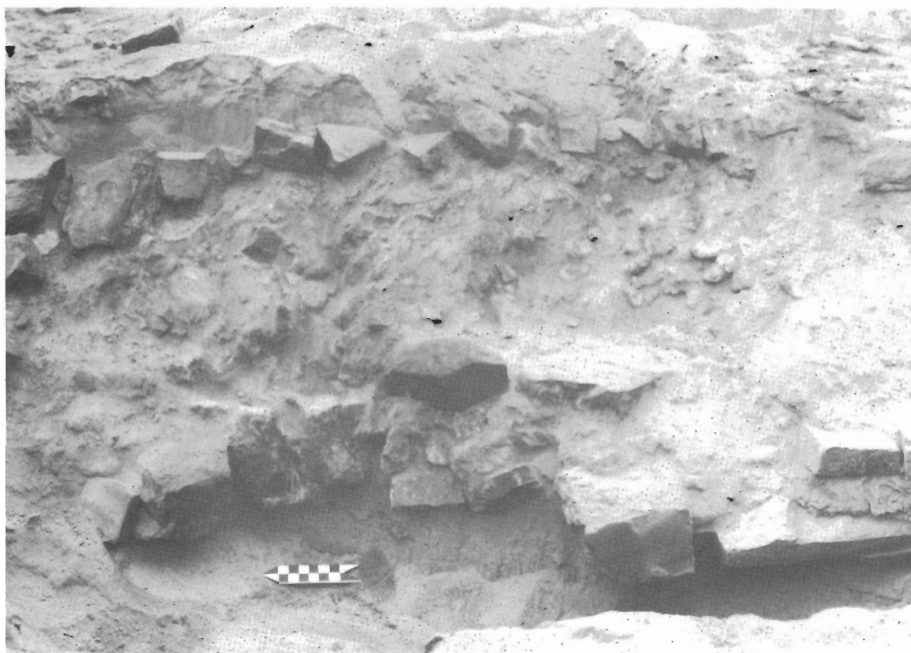
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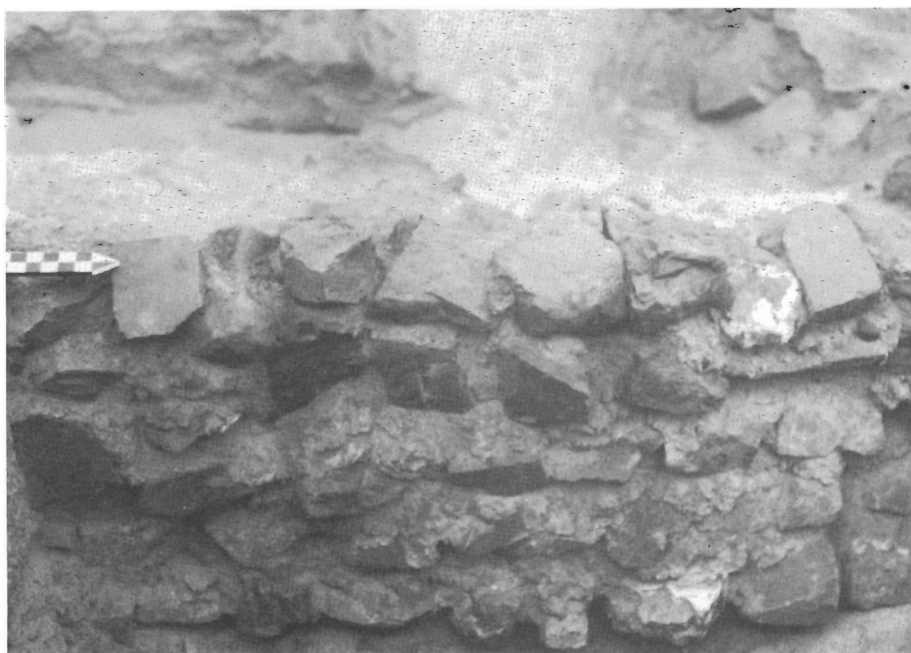
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Fig. 21. Looped textile in mortar from the Third Terrace. Scale in millimeters. Fig. 22. Excavation at the Second Terrace Wall.

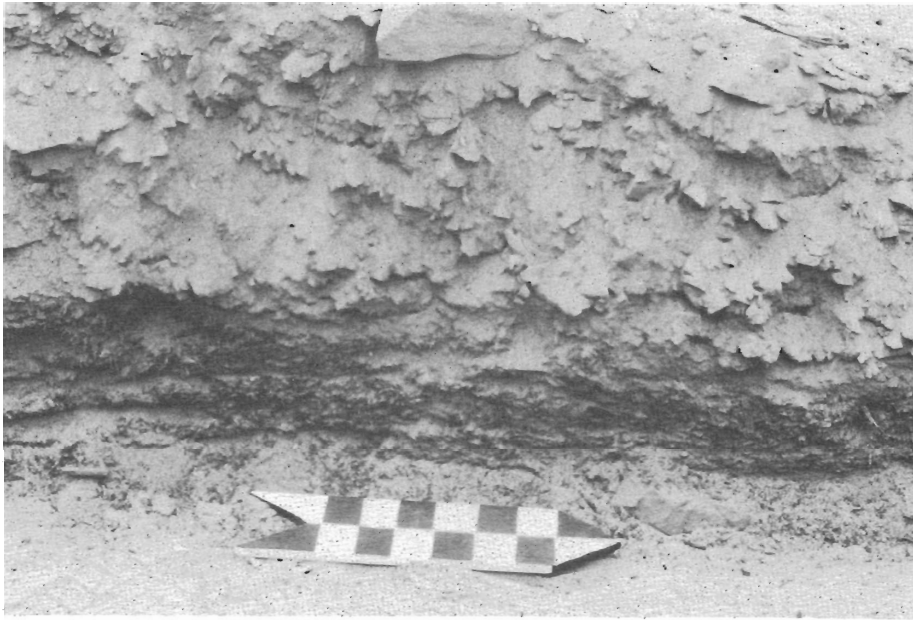
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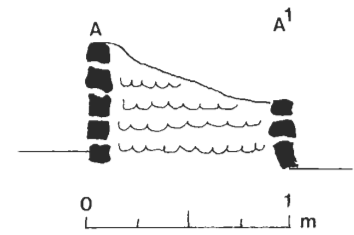
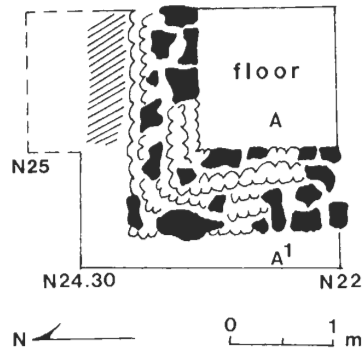
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Excavations at the First Terrace wall. **Fig. 23.** Exterior. **Fig. 24.** Interior.

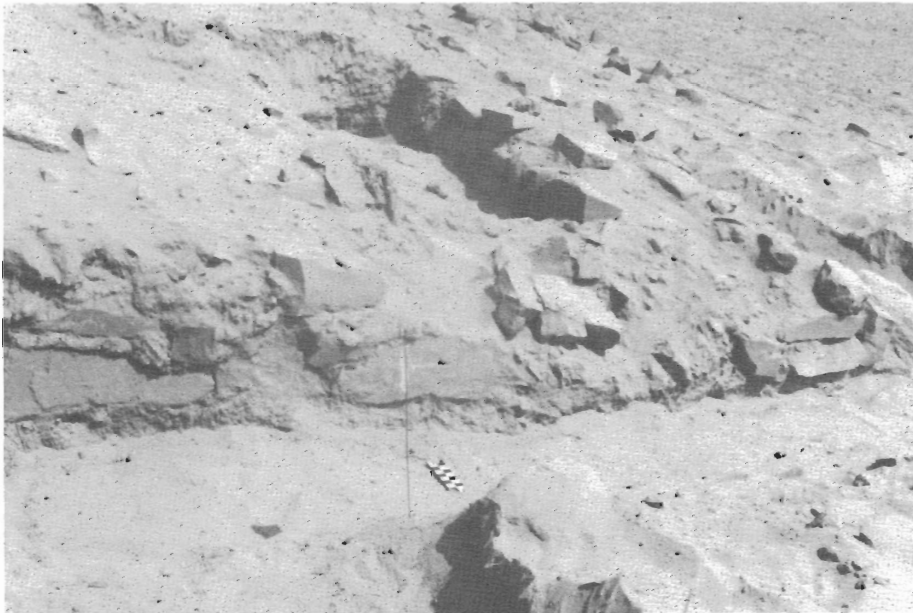


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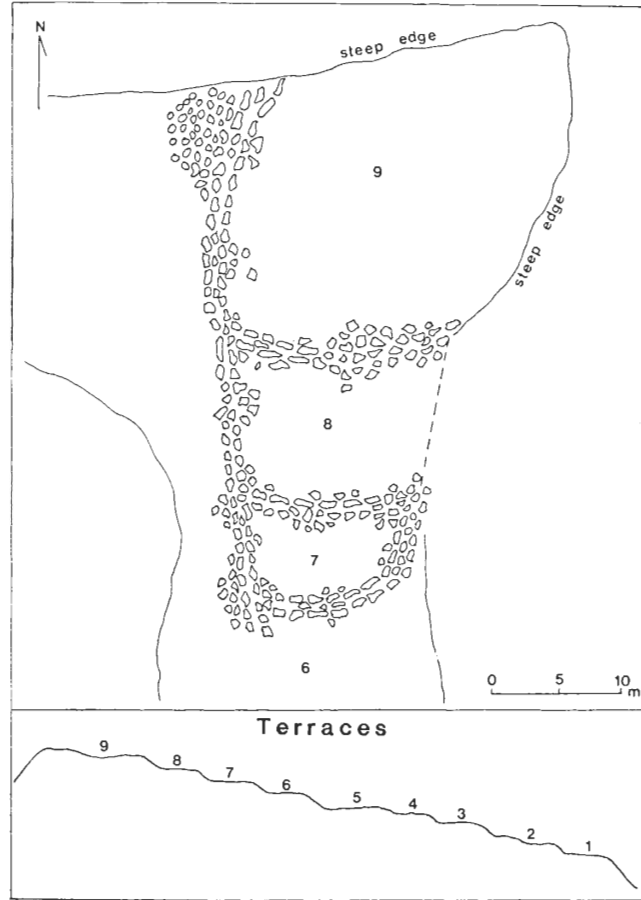
- 26  Rocks
-  Mortar
-  Concentration of artifacts-plants

26



27

Fig. 25. Tillandsia lens at N38-40/E6-7. Fig. 26. Plan of excavation at the northwest corner of the Second Terrace. Fig. 27. Excavation at the northwest corner of the Second Terrace.

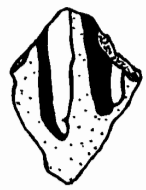


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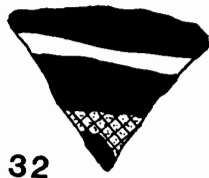
Fig. 28. Sketch map of Castillo del Palmo (PV46-10). Fig. 29. Terraces at Castillo del Palmo, looking south.



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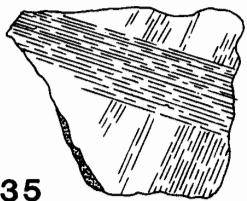
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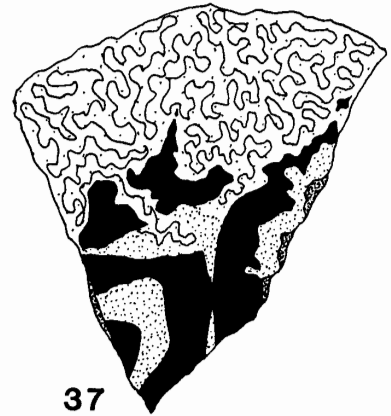
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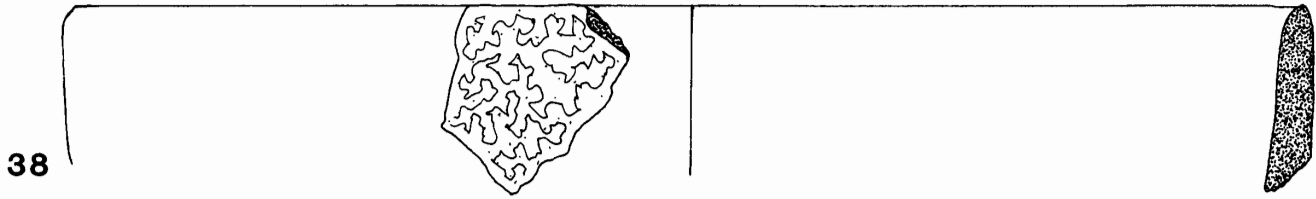
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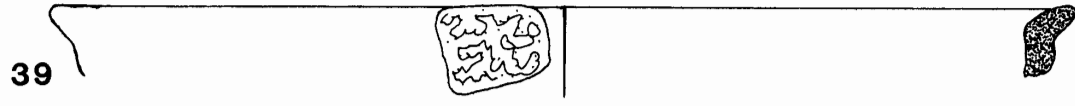
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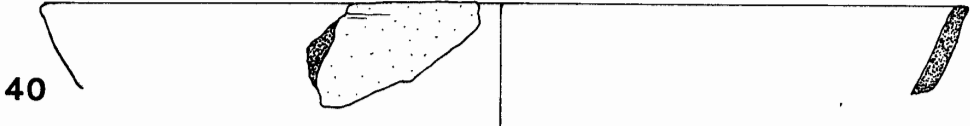
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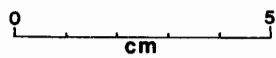
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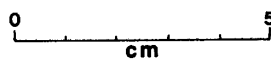
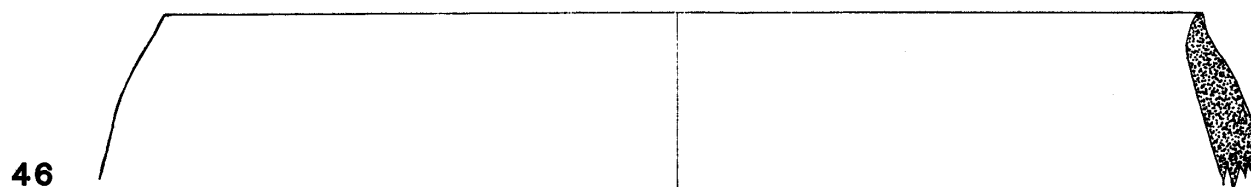
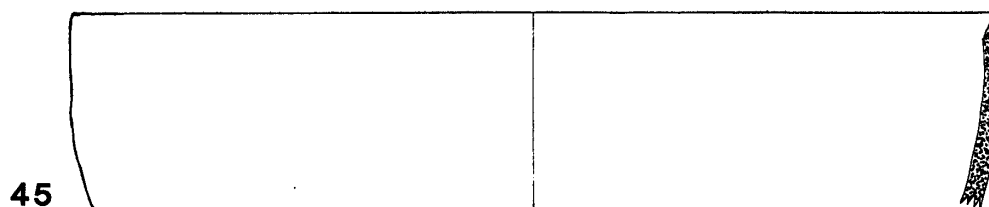
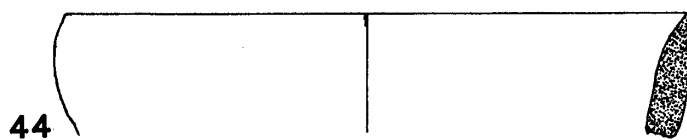
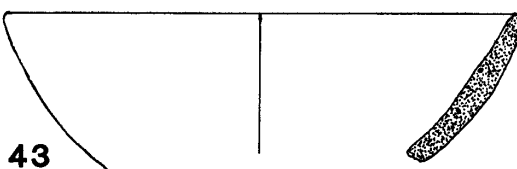
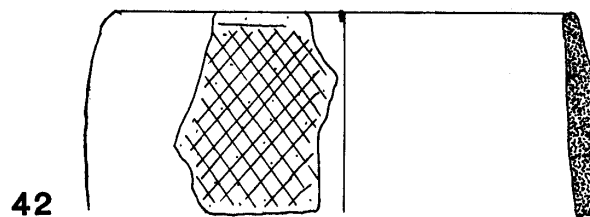
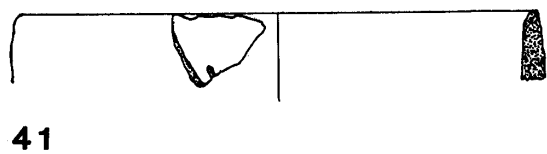


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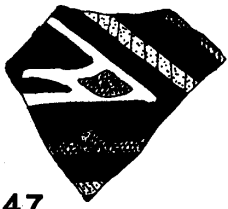


Figs. 30-40. Sherds from Media Luna. See Appendix 1 for provenience.

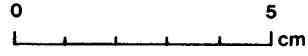




Figs. 41-46. Sherds from Media Luna. See Appendix 1 for provenience.



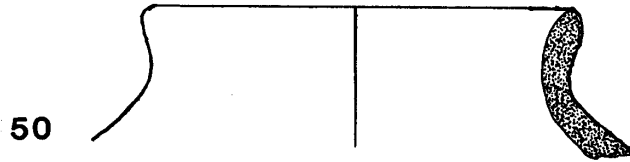
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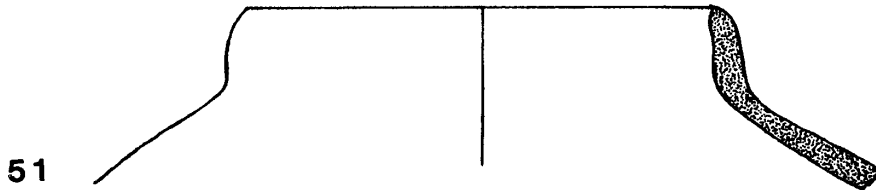
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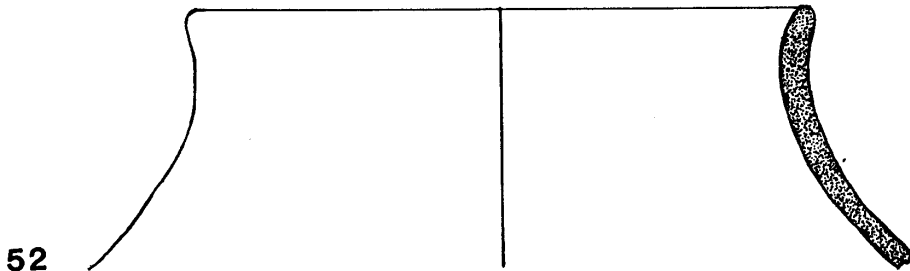
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Figs. 47-52. Sherds from the surface of El Palmo cemetery. See Appendix 1.