Operation 5 :

Excavation Report on fieldwork undertaken at Cerro Juan Diaz, Los Santos, Panama, during summer 1998, for fulfilment of a STRI Short-term fellowship.

«Evaluation of a platform»

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Introduction

In the anthropological literature, it is generally accepted that the Pre-Columbian societies of the "Intermediate Area" which include Lower Central America, northernmost South America, and the Caribbean, were also intermediate, in term of social complexity, between small-scale egalitarian societies and stratified ones such as the Aztecs of Mexico and the Inca of Peru. Anthropologists and archaeologists have discussed at length the grades of complexity demonstrated by these societies and also the types of field data that are relevant to the problem (Carneiro 1981; Creamer and Haas 1985; Drennan and Uribe 1987; Earle 1987; Helms 1979; Linares 1977; Peebles and Kus 1977; Wilson 1990). This has led to the creation of many typologies of pré or non-state societies, some clothed in an evolutionary framework and others in a Marxist one. This is a literature in which each author tries to summarise his opinions with lists of archaeological correlates.

Undoubtedly, social complexity is causally linked to human population size, the extent and productivity of individual territories, and the abundance and geographical distribution of natural resources. For this reason, where social and natural environments were diverse, as the Intermediate Area, great variations may have occurred with regard to interrelationships among power, wealth, heredity and social stratification. However, while opinion me often based on ambivalent ethnohistoric data, the sample of professionally excavated sites with good archaeological data is very small (Helms; 1979).

With regard to Panamanian chiefdoms, native societies described by the Spanish in the early sixteenth century of our era, and inferences made by archaeologists from field data, suggest that during the last twenty centuries, or so, before contact, Panama was divided into a large number of territories ruled by "strong men" or "chiefs". Helms (1979) paid most attention to descriptions made by Spanish chronicler Fernández de Oviedo of the Cueva, who lived in what is today the San Blas, Panama Province, Darién, and the Gulf of Urabá. Accepting as correct our descriptions of inheritance, Helms proposed that chiefs belonged to hereditary ruling classes. They idealized their power by building large houses to honour the dead, which were mummified for all to see. She also

argued that Panamanian chiefs consolidated their power by controlling trade routes which brought cast gold pieces from Colombia to Panama.

Linares (1977), who studied the mortuary artifacts found at the famous Sitio Conte site in the Colclé province, argued that personal prowess was a more important correlate of political influence and personal wealth than heredity. This means that, contrary to Helms, proposal, chiefs achieved their position and did not inherit it. She believed that Sitio Conte graves belonged to a warrior class, that pottery was painted with designs from the kinds of animals that warriors would have admired and that the accumulation of wealth, especially brightly coloured and glittering objects was used to advertise power.

Later, Briggs (1989) made a detailed analysis of the Sitio Conte grave goods, and those from the Tonosí valley. He argued that pre-Sitio Conte burials represent an egalitarian society in which age and occupations were the primary determinants of grave goods. During and after Sitio Conte times, some people became more wealthy than before and were sometimes buried with hundreds of exotic items. However, Cooke and Ranere (1992) have warned against exaggerating the importance of long distance trade proposed by Helms (1979). They point out that some Panamanian chiefdoms made gold pieces and that individual territories were very much self-sufficient with regard to natural resources.

Evaluations of chiefdoms emphasise that political leaders sought to encourage public works for the glorification of their ancestors, for ritually sanctifying their power, or for advertising their own achievements. To do this, it was necessary to exert some form of control over the labour force. This was sometimes achieved by coercion or enslavement (Spanish documents frequently describe slaves captured in warfare). Another way of guaranteeing labour was by offering feasts in which copious amounts of drink and food were offered in return for work or by giving away publically luxurious or sumptuous items.

However, in Panama there are really few archaeological examples of public works and these are far less complex than centres such as San Augustin in Colombia or Guayabo de Turrialba in

Costa Rica. At Barriles in Chiriquí, some large statues were found which depict a man sitting on the shoulders of another. He wears a gold piece around his neck and sometimes holds human heads in his hands (Figure 1). These statues, and also enormous metates carved with human figures and human heads, were, according to Matthew Stirling who excavated the site in the 1950s, found arranged near an artificial platform (Linares et al. 1975; Linares and Ranere 1980).

Figure 1
(Miller Graham,p.244)

In the Coclé province, it is surprising that the Sitio Conte site has no evidence for public works other than a possible stone causeway (Lothrop 1937). However, Verrill, an amateur archaeologist, found at the nearby El Cano site, what he thought was a ceremonial centre in which plain and sculpted basalt columns were arranged around a court. This is the best example for a public work in Coclé, but, unfortunately, Verrill was not a professional archaeologist so we cannot be sure that his descriptions are accurate. El Cano also has evidence for artificial mounds, which were used for burials (Cooke 1976). Cooke showed that these were used in contact times having found Spanish glass trade beads in burial urns.

In sum, it is surprising that, in spite of the immense wealth deposited in Panamanian graves (Drennan 1991; Hearne and Sharer 1992; Linares 1977; Lothrop 1937,1942)- especially in the Gran Coclé culture area- there is so little evidence for public works. It is also unfortunate that in those cases which seem to have been the most complex, Barriles and El Cano, excavations were not made by competent field archaeologists.

At the Cerro Juan Diaz site, also in the Gran Coclé culture area, STRI (Smithsonian Tropical Research Institute) researcher Richard Cooke initiated in 1992 the Cerro Juan Diaz research projects, Its principal objective was to reconstruct the history, internal organization, and economy of a single settlement whose size and geographical location suggested a prominent political and economic role perhaps that of a chief village of a specific territory (Cooke and Sánchez,1998, in press).

Recently, Cooke and his team of archaeologists have excavated burials in two cemeteries made on a flat area of the site, whose configuration and dimensions suggest it could be a public work. This field report presents the results of excavations undertaken on this flat area in the summer of 1998. Proving in the field that these cemeteries belong to a specially modified and perhaps managed area will add a new dimension to our knowledge of the complexity of pre-Columbian societies in the region.

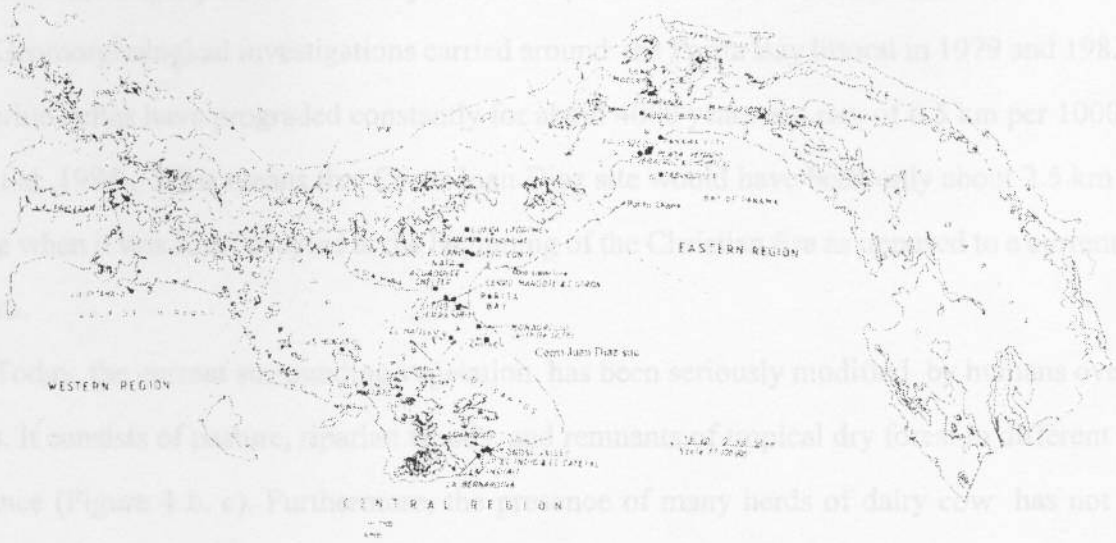
We named our excavations "Operation 5 ", with the principal goal consisting to determine whether the flat area was, in fact, structurally part of a genuine public work constructed over a short period of time in response to a specific moment in the village social evolution or if it represented a long term accumulation related to a variety of activities. If the first hypothesis is confirmed, can we therefore associate the flat area to a specific moment or activities, for example, with the cemeteries of Operation 3 and 4 which were excavated from 1992 to 1997. Finally, as we went to dig down from the top to the bottom to understand the accumulation, it became possible to3) find the presence of La Mula materials which will give us the chance to describe a very poorly known period of Gran Coclé prehistory (BC 400-100 AD).

Before I describe the fieldwork, I summarize the geography and site history of Cerro Juan Diaz.

Geography and Environmental Setting

The Panamanian Isthmus is divided lengthwise by a mountain range of volcanic origin (Figure 2). The highest volcanos are situated in the west part of the country, in Chiriqui area have summits reaching more than 3000 metres forming a natural barrier which retains the clouds and rainfalls in the Caribbean region of tropical forest. From these mountains about twenty waterways take their sources creating many fertile valleys (Helms,1979;p.6). In the eastern half of the Isthmus,

Figure 2



Cooke 1984;p.264.

where mountains are less elevated (often < 1000 m) we observe the same hydrographic patterns.

However on the Pacific watershed the contrast is more stricking between the dry and wet areas. Parita Bay, at the north eastern edge of the Azuero Peninsula represents the driest region of Panama, receiving annually around 1000 and 1400 mm of rainfall, with strong dry season of 4 to 6 months. It is exactly there that the pre-Columbian village of Cerro Juan Diaz site is situated on both banks of the La Villa river, 2,5 km from the town of Los Santos, in the province of the same name (Figure 3).

Although aerial photography indicates that the site covers approximately 50 hectares, so far excavations have been concentrated only on the south bank of the river around a prominent 42 m hill (Figure 4a). It is on the southern slope of this hill that we have found what seems to be an artificial rectangular flat area, about 100 m long, 10 to 30 m wide, and 20 m thick (Figure 4a).

The top and slope of the hill are strewn with angular stones and boulders of volcanic origin ensconced in a reddish-yellow clayey matrix (Cooke et al., in press).

From there, the river flows 4.5 km to the north-east into the Pacific Ocean at the southern edge of the Parita bay (Figure 3). Cerro Juan Diaz site benefits from the high productivity of a mangrove estuary systems, and flood plain soils for agriculture. Maize remains and maize grinding implements found on the site confirm Spanish sixteenth century descriptions of the extensive cultivation of maize and manioc

alongside the lower course of the La Villa river (Linares,1977). Faunal analysis indicate also that food of animal origin was obtained locally. Inshore marine fish, molluscs, iguanas and white-tailed deer seem to have formed the major part of the dietary resources (Cooke et al.,1997; Sánchez,1995).

Geomorphological investigations carried around the Parita Bay littoral in 1979 and 1982 suggest that riverine deltas have prograded constantly for about 4000 years at a rate of 0.5 km per 1000 years (Clary et al.,1984). What means that Cerro Juan Diaz site would have been only about 2.5 km from the coastline when it was first occupied at the beginning of the Christian Era as opposed to a current distance of 4,5 km.

Today, the current surrounding vegetation has been seriously modified by humans over the last 30 years. It consists of pasture, riparian woods, and remnants of tropical dry forest in different stages of disturbance (Figure 4 b, c). Furthermore, the presence of many herds of dairy cow has not finish to transformed the landscape and to perturb the grid of the excavation (summer anecdote).

Figure 3

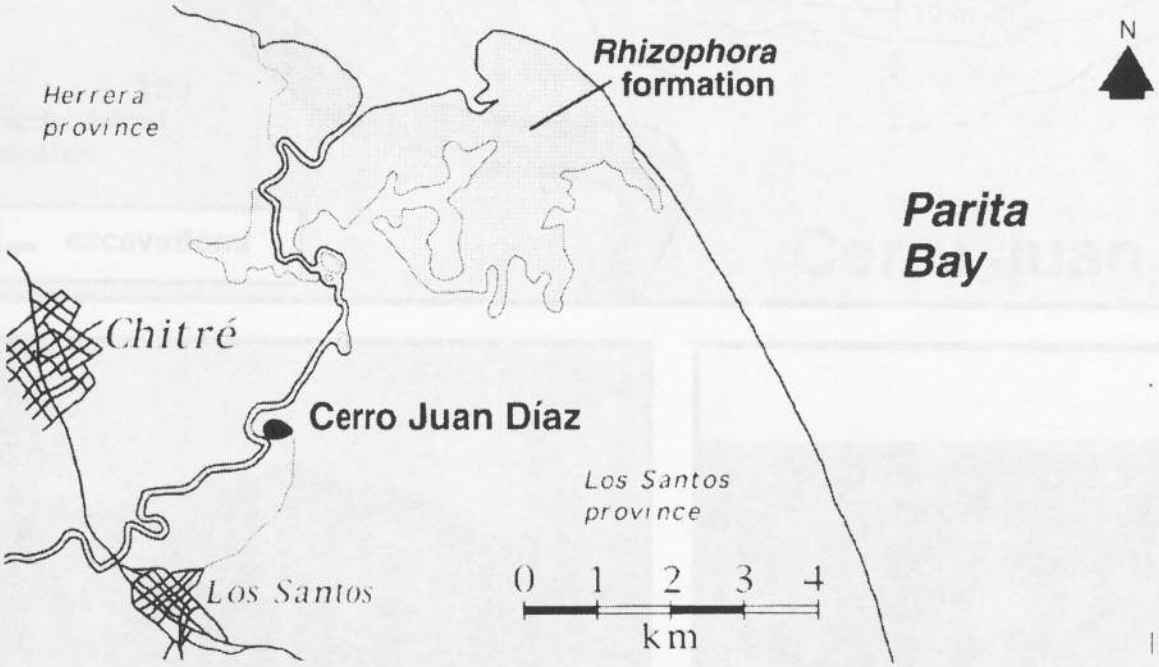
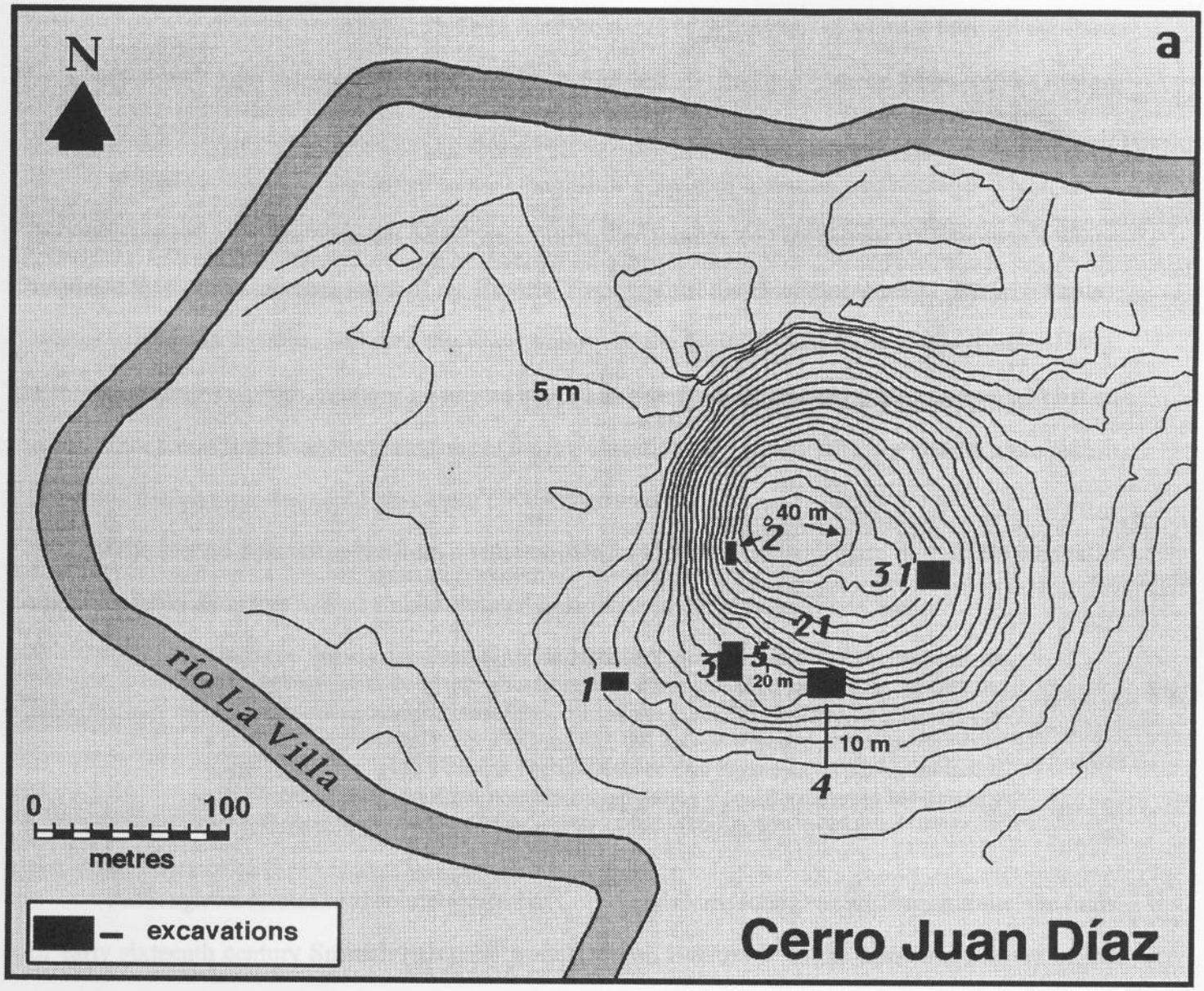
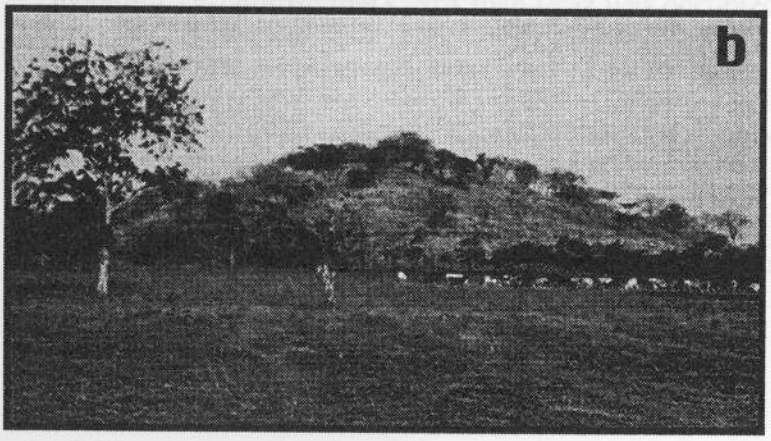


Figure 4





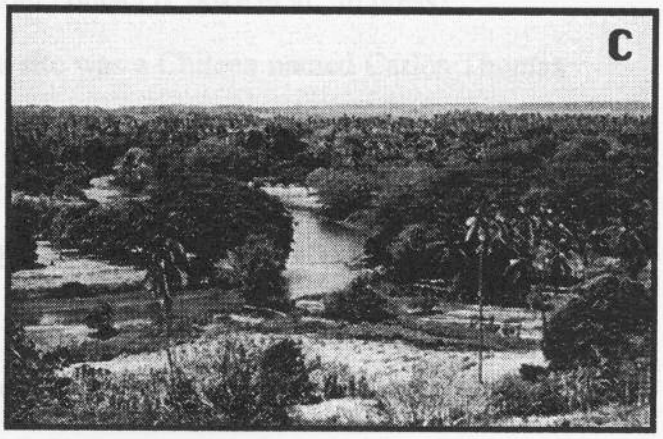


Figure 4: a: Contour map of Cerro Juan Diaz which shows location of excavations b: view of hill from the east, c: view from the hill towards the mangrove-fringed shore of Parita Bay

Site History

It is possible that the name Juan Diaz, was the name of a foreman of a cattle farm on the Parita river which belonged to Spanish captain Hernán Sánchez de Badajoz in the years 1530 (Jopling, 1993;p.229-238).

Richard Cooke had also found in the ethnohistoric Spanish literature two passages which could be related to the site. The first one describes a military encounter led by Gaspar de Espinosa's which occurred in1517 in a savanna south of the Escoria river, against the chieftain Antatará (París or Parita), whose territory at this time included the lower valleys of the Parita and La Villa rivers (Cooke,1993). Espinosa informs us that Antatará's warriors retired to high land, described by him, as a rough cliff on a hill. Since Cerro Juan Diaz represents one of the few elevations along the Parita Bay coastal plain, which meet this description, this could have been the battleground ?

The second passage come from a letter written in 1575 by Alonso Criado de Castilla who talks about a pueblo de Indios named Cubitá situated near the colonial village of Los Santos:

> "A nueve leguas del dicho lugar de Natá, está otro pueblo de espanoles que ha poco que se pobló de lo que ahora están en él, que se dice la Villa de los Santos; tendrá cincuenta vecinos labradores, que con el maíz y el ganado que crían proven a la ciudad de Panamá, porque cogen cada ano más de treinta mil fánegas de maíz; gozan de buenas aguas y campo. Media legua de este lugar está un pueblo de indios que ce dice Cubitá, do están noventa o cien indios y son libres como los demás y pobres; ejercítanse en coger maíz y criar ganado (Joplin,1993;p.13)".

Although we cannot be absolutely sure that Cubitá and Cerro Juan Diaz are the same site, the finds of early sixteenth century Spanish Bizcocho ware (Deegan,1987;p.43) in the uppermost layers of the Operation 31, confirm that Cerro Juan Diaz was occupied after contact (Cooke et al., in press).

The first archaeologist who worked officially on the site was a Chilean named Carlos Thomas Winter, who in 1980 directed a field archaeology school coordinated by the OAS Cultural Property Restoration Centre in Panama. We know that Thomas Winter dug a number of trenches most of which have not been relocated. The materials were lost before analysis due to poor storage.

Looting continued through the 1980's and reached is peak in 1989, when someone seems to have found a gold-rich burial (Cooke et al,1994;p.7). National Heritage officials managed to appease these activities, and confiscated gold work and ceramic vessels (ibid). However, all the metal pieces recovered

from the looter, which were stored in the Museum safe, were stolen in the aftermath of the US invasion of Panama in December, 1989 (ibid).

In 1991, the National Heritage department of Panama's Institute of Culture asked Richard Cooke (STRI researcher) to set up a scientific archaeological project at Cerro Juan Diaz. In April of that year an evaluation programme of the site began. Since January 1993, excavations have been uninterrupted with the involvement of an international team of archaeologists from United Kingdom, Panama, Costa Rica, Colombia, Japan and recently Quebec, Canada.

I now summarize the results of these excavations, which have a direct bearing on my own research project. As Operations 1, 2, 21 and 31 are not situated on the flat area, I will not consider them.

Main Results From Operations 3 and 4

Operations 3 and 4 are situated respectively on the west and east extremities of the flattened area and have revealed two chronologically distinct cemeteries (Figure 5).

Operation 3

Excavated from 1993 through 1995 this unit revealed an earlier funerary episode (AD 500-700) related with Cubitá style pottery. This episode consists of graves cut into bedrock, containing multiple secondary and single flexed interments, shaft tombs and urn burials. In one shaft grave (# 2) ca. 25, 25 people were buried with less then fifty small mortuary items. However, in a nearby shaft burial (#16) ca.18, 16 people were buried with over a thousand adornments, most of these beads and pendants made out of Spondylus shell and pearls (Cooke et al,1998; in press). These materials form about six clusters suggesting that only a few people in the grave owned large quantities of goods some of these were childrens and/or adolescents which alludes to hereditary wealth (ibid). But burial treatment is the same for rich and poor, who were placed into the same grave in the same manner (ibid). In feature 1, one adult was buried extended with two hammered gold objects with raised spirals, more than 20 puma and jaguar canines, > 400 of small tubular purple and orange shell beads again of Spondylus, and two pottery incense burners (Cooke et al.,1994;p.14). All in all, more than a thousand Spondylus beads obtained over more than 50 km away across Panama Bay have been found in this unit, leaving to suppose a possible relationship between commerce in exotic sumptuary goods and social hierarchy, as suggested by

Figure 5

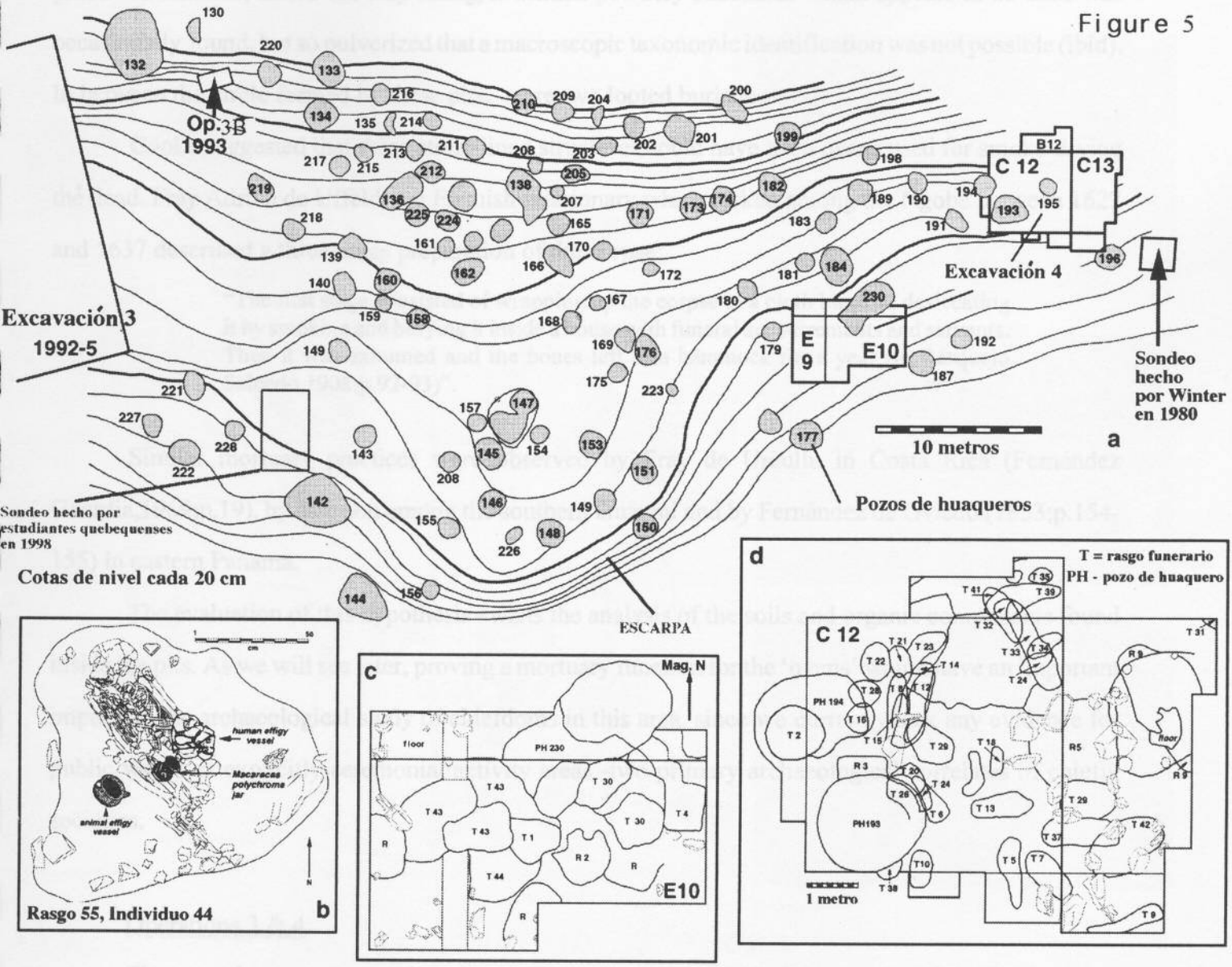


Figure 5
Op.3B
1993
Excavación 3
1992-5
Excavación 4
B12
C 12
C13
E 9
E10
Sondeo hecho por Winter en 1980
10 metros
a
Pozos de huaqueros
Sondeo hecho por estudiantes quebequenses en 1998
Cotas de nivel cada 20 cm
ESCARPA
b
human effigy vessel
Macaracas polychrome jar
animal effigy vessel
Rasgo 55, Individuo 44
c
Mag. N
floor
PH 230
E10
d
T = rasgo funerario
PH - pozo de huaquero
C 12
PH 194
PH193
floor
1 metro

Helms (1979).

Operation 3 also revealed the presence of oval stone-lined features (Figure 6). Fifteen pits were found, each cut into the bedrock, about 3 metres long, 2 metres wide and 2-2.5 metres deep into a 50 cm lining of clay where were set angular stones without mortar (Cooke et al.,1994;p.19). The space inside those pits was filled with ash, wood charcoal, burnt clay, and burnt sherds. On the bottom of the best preserved features, above the clay lining, a whitish powdery substance which appears to be bone was occasionally found, but so pulverized that a macroscopic taxonomic identification was not possible (ibid). In between the circle formed by these pits, were two looted burials.

Cooke suggested that these stone-lined structures could have been ovens used for smoke-drying the dead. Fray Adrián de Uffeldre, a Flemish missionary who worked among the Ngobé between 1622 and 1637 described a three-stage preparation of the corpse:

> "The first stage consisted of wrapping up the corpse in a cloth blanket, desiccating it by smoking and burying it inside a house with funeral accoutrements and servants. Then it was exhumed and the bones left in a hammock for a year (in Resquejo Salcedo,1908;p.92-93)".

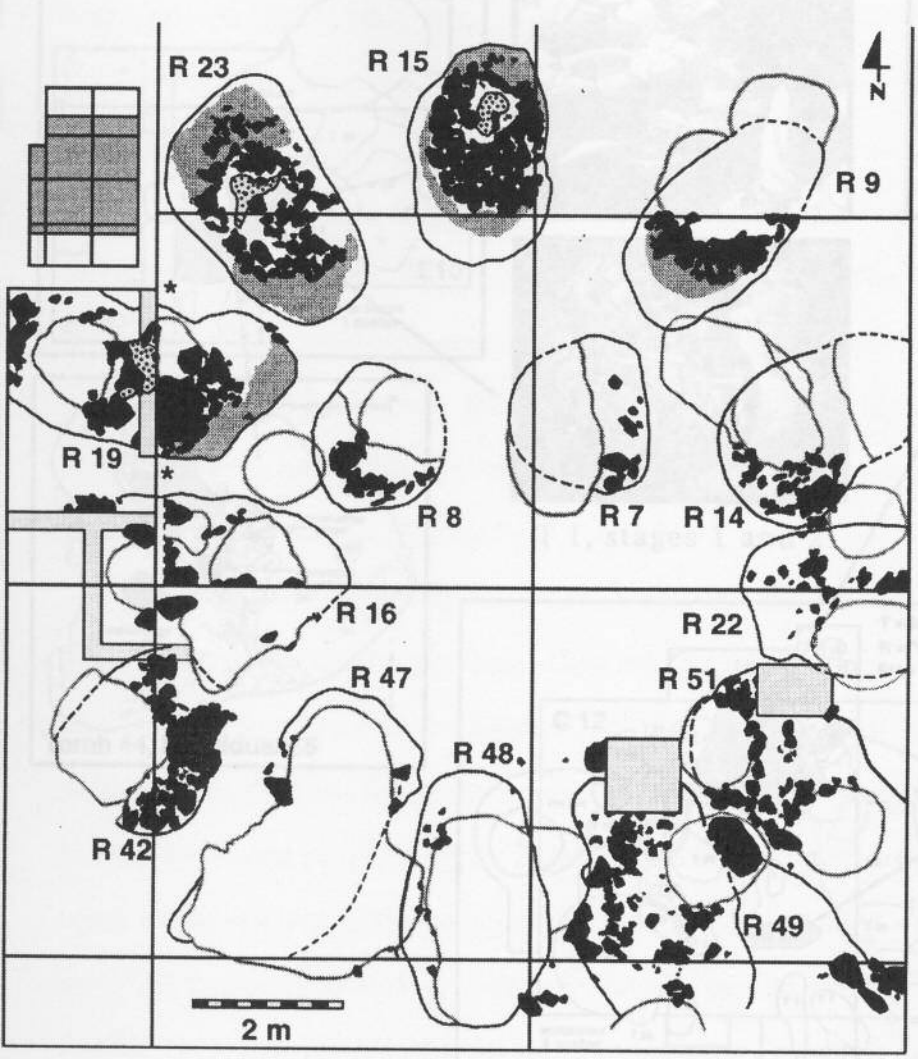
Similar mortuary practices were observed by Fray de Urcullu in Costa Rica (Fernández Guardia,1969;p.19), by Johnson among the southern Guaymi and by Fernández de Oviedo (1853;p.154-155) in eastern Panama.

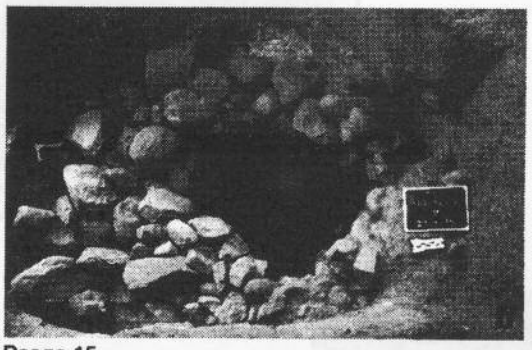
The evaluation of this hypothesis awaits the analysis of the soils and organic components found inside the pits. As we will see later, proving a mortuary function for the 'ovens' would have an important impact on the archaeological study of chiefdoms in this area, since we currently lack any evidence for public works or explicitly ceremonial activity areas -two primary archaeological correlates of chiefly societies.

Operations 3 & 4

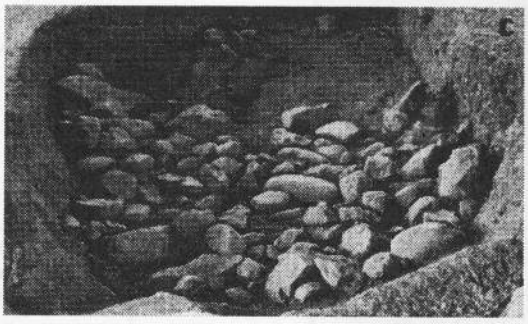
The second mortuary episode (AD 800-1100) has been identified in operations 3 & 4 with pottery belonging to the Macaracas style (Ladd, 1964). It contains many types of burials: in urns (T.1.1), primary extended (T.13), secondary flexed (T.44), multiple in packages (T.1.2,34,36) and offerings of human skulls (T.1.2,34) (Figure 7). In Operation 4, most of the graves were slightly deep and either circular or

Figure 6

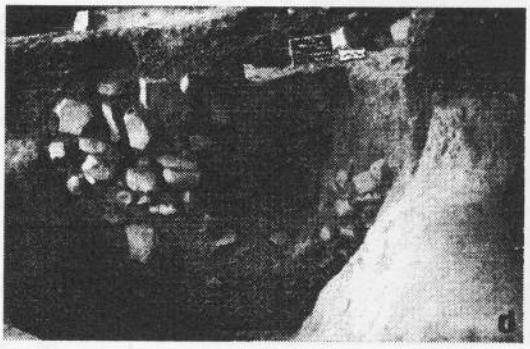




Rasgo 15



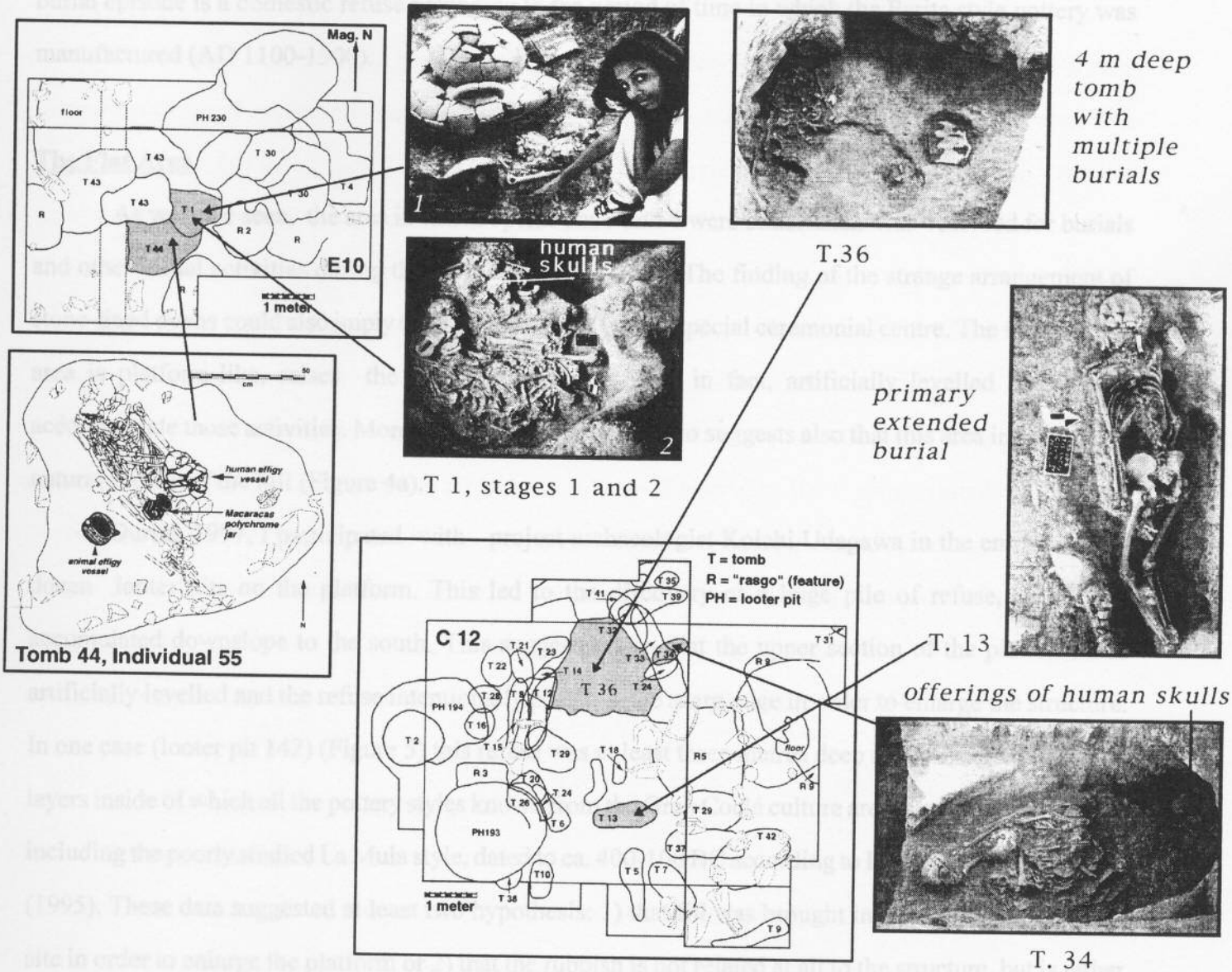
Rasgo 15



Rasgo 19

CERRO JUAN DIAZ, Operation 3, 'ovens'

Figure 7


Mag. N
floor
PH 230
T 43
T 30
T 4
R
T 1
R 2
T 44
E10
1 meter
1
2
human skulls
T 1, stages 1 and 2
4 m deep tomb with multiple burials
T.36
primary extended burial
human effigy vessel
Macaracas polychrome jar
animal effigy vessel
Tomb 44, Individual 55
T = tomb
R = "rasgo" (feature)
PH = looter pit
C 12
T 36
PH 194
PH193
R 3
R5
R 8
R 9
Floor
T 13
T. 13
offerings of human skulls
T. 34

elliptic in form. More than 46 burials were found, in which a total of at least 85 individuals were buried in one fashion or another (Sanchez Herrera,1997). Approximately 25% of the skeletons were children and more than half of the individuals had no burial goods. On the other hand, those individuals who were buried with goods have artifacts made of bone and stone tools, pottery, shell beads and associated faunal remains, this suggests that the people buried there represent low rank individuals. Stratified over this burial episode is a domestic refuse belonging to the period of time in which the Parita style pottery was manufactured (AD 1100-1300).

The Flat Area

As we have seen, the area in which operations 3 and 4 were undertaken was reserved for burials and other ritual activities during the period A.D. 500-1100. The finding of the strange arrangement of stone-lined ovens could also imply that we are dealing with a special ceremonial centre. The fact that this area is platform-like, raises the possibility that it was, in fact, artificially levelled in order to accommodate those activities. Moreover contour mapping also suggests also that this area interrupts the natural profile of the hill (Figure 4a).

During 1997, I participated with project archaeologist Koichi Udagawa in the emptying of a dozen looter pits on the platform. This led to the discovery of a huge pile of refuse, which had accumulated downslope to the south. This suggested also that the upper section of the platform was artificially levelled and the refuse intentionally placed at the scarp edge in order to enlarge the structure. In one case (looter pit 142) (Figure 5) this refuse was at least three metres deep and consisted of several layers inside of which all the pottery styles known from the Gran Coclé culture area seemed to be present, including the poorly studied La Mula style, dated to ca. 400-100 BC according to Hansell (1988) and Isaza (1995). These data suggested at least two hypothesis: 1) that fill was brought in from other areas of the site in order to enlarge the platform or 2) that the rubbish is not related at all to the structure, but is rather justify a slowly accumulating refuse pile (perhaps resulting from social activities related to the mortuary episodes).

This induced me to excavate a test cut down to the bottom of the deepest looter pit (142), in order to verify in what manner and how quickly this fill accumulated. I surmised that if the fill was

heterogeneous and haphazard, -containing all the described regional pottery styles in all the levels- , it would have been placed there to enlarge the flat area intentionally and quickly. In this case, the most recent decorated pottery could be taken as a chronological indicator for dating enlargement of the platform.

Operation 5

Operation 5 was the name given to the field project following the model in use since 1992 by the Cerro Juan Diaz archaeologists. It therefore represents the fifth excavation undertaken on the flat area. The project begun in late April ended in mid-September with the help of a short term fellowship from the Smithsonian Tropical Research Institute. It benefited from the participation of 24 students from the Université de Montréal who came to Cerro Juan Diaz to experience field work under my supervision.

Operation 5 had three principal objectives at the beginning of summer 1998. The principal goal 1)was to determine whether the flat area was in fact structurally part of a genuine public work constructed over a short period of time in response to a specific moment in the village social evolution or if it represented a long-term accumulation related to a variety of activities. If our excavation confirmed the hypothesis, our second goal 2)would be to determine wether the flat area was specifically related to the cemeteries discovered in Operation 3 and 4. As we planned to excavate from the top to the bottom of the refuse our third goal 3) was to find the presence of La Mula pottery which will give us the chance to describe a very poorly known period of Gran Coclé prehistory (BC 400-100 AD).

Field and laboratory methodology

Operation 5 began with a 3x5 m cut. Four months later it evolved into three sub-operations called the Open Area (OA)(3x8 m), Deep Area (DA) (3x4 m) and South Trench (ST)(1.5x10 m) (Figure 8).

Excavation was done by natural stratigraphy using small hand tools, mainly trowels and brushes. All materials were sieved with a ¼ inch mesh. In some instances, we also used 1/8 and 1/24 mesh. In the South Trench, we used shovels and did not sieve the materials. This was because the objective of this trench was to expose a long profile as quickly as possible.

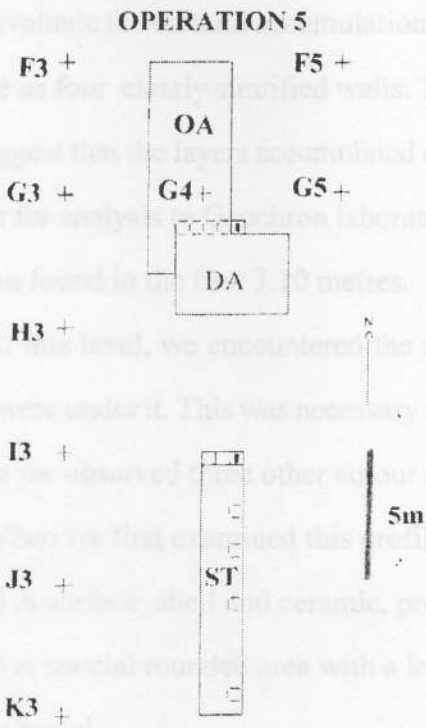


Figure 8

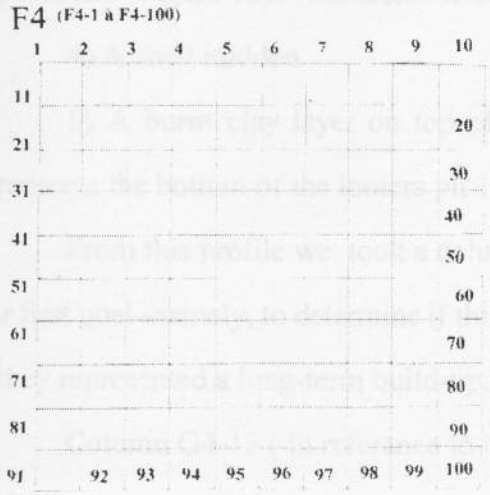


Figure 9

The platform was previously divided into 5 m area square units, which used the letters for North-South positioning and numbers for West-East orientation (Figure 8). The first unit at the North-west corner was A1. Therefore, I subdivided each 5 metre square of Operation 5 into a hundred 50 cm squares, which represent the basic unit used during the excavation for recording all data (Figure 9).

During this first year, laboratory work consisted mostly of cleaning, classification and registration of the material. For this purpose students were divided into two groups alternately digging one day and recording the materials the next day. Cleaning of sherds and lithics was done at night. The faunal and shell remains were not cleaned, but their analysis in 1999.

Synthesis of Field Work

In this section I will describe the stratigraphy and archaeological finds of Operation 5. Firstly, I will consider the main profile (North Profile of the Deep Area), which connects the Open Area and the Deep Area and which represents the "spinal chord" of the project. Afterwards, I will describe each sub-operation, one by one, and discuss their evolution and content as far as currents analysis permits.

North Profile of the Deep Area

The excavation of the Deep Area and the reconstruction of the north profile (NPDA)(Plate 1) were the result of the cleaning of looter pit 142 (figure 5), which demonstrated that this spot contained the

deepest refuse and all the Gran Coclé pottery styles. Hence we deemed contained that this was the best place to evaluate the cultural accumulation. The originally circular shape of the looter pit was squared off. This gave us four clearly stratified walls. The one we will now discuss is 4.10 metres deep. The ceramic styles suggest that the layers accumulated over 1500 years of accumulation. Some carbon samples have been sent for analysis to Geochron laboratory. The 4.10 m deposit was divided into 25 layers of cultural deposition found in the first 3.10 metres.

At this level, we encountered the subsoil and we dug one metre into it be sure that no cultural deposits were under it. This was necessary since some burials on the site were dug into the subsoil. In this last metre we observed three other colour and textural changes, but no cultural remains.

When we first examined this profile , we observed five major horizons:

1) A surface shell and ceramic, probably a refuse dump.

2) A special rounded area with a lot less cultural material, which could, indicate the presence of an unseen burial.

3) A unique white layer which contained a huge rock and an assemblage of rocks arranged like a pavement (Figure 10). This seems to be a levelled floor.

4) A shell midden.

5) A burnt clay layer on top of a stone accumulation (Figure 10), (Plate 2). This last layer represents the bottom of the looters pit 142.

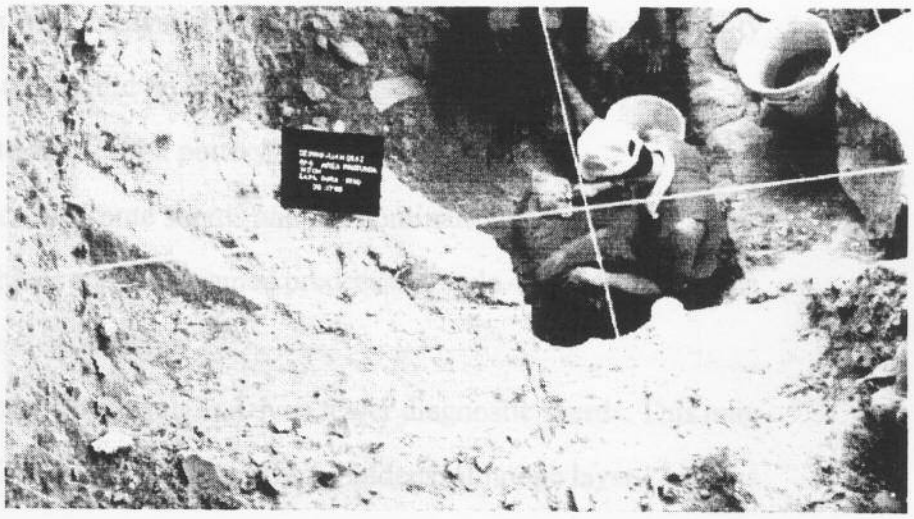
From this profile we took a column sample. The pottery recovered from it was used to address our first goal -namely, to determine if this accumulation had accumulated over a short period of time or if they represented a long-term build-up.

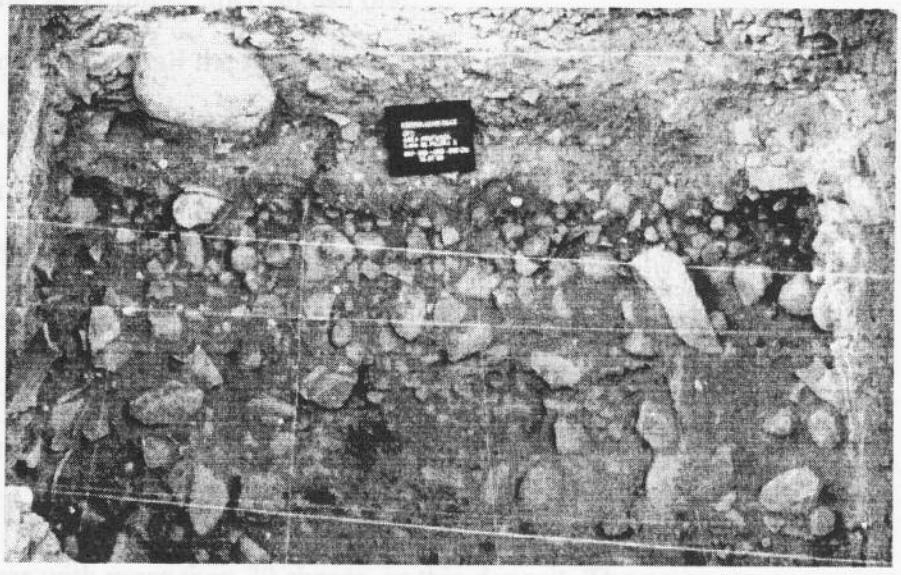
Column G4-13 (in reference to the grid used in the excavation) has given us surprising results, which we now consider.

Column sample G4-13

Plate 1, illustrate de North Profile. Column G4-13 corresponds to G4-23 on the plan which is the south extremity of the column. Table 1 presents the ceramic layer by layer and ordered

Figure 10





Left: Assemblage of rock arranged like a pavement.
Top right: White layer, which seems to be a levelled floor.
Bottom right: Stone accumulation with La Mula pottery in association.

chronologically from left to right. For this preliminary analysis, painted and unpainted rims and painted bodies only.

The first characteristic to note, is that in the first level, no Parita sherds were found and that only two Macaracas sherds appeared. In the burials of Operation 4 only Macaracas vessels were found. In layers 1A, 1B and 2A the Conte style predominates clearly. These layers also contains a large amount of shells. As we will see later, these three layers were excavated in the Open Area, giving us the possibility to understand what kind of cultural activity they could be related to.

Layer 2B contains a mix of five Conte and Cubita pottery.

Layers 3 and 4 mark the disappearance of Conte sherds and the dominance of the Cubita style.

The layers 5 and 6 contained Cubita sherds and an unnamed predecessor style. Layer 6 is the white clay floor with the paved rock, which we mentioned earlier.

Layers 7 to 14 contained very few ceramic materials and even fewer diagnostic sherds. This may be due to the fact that layers 8A, 9A,9B and 9C correspond to two shell middens, although layer 12 seems to be a tiny ash layer and 14 seems to be a lime layer rather then an ash one.

However, even if the numbers per layers are small the result revealed the disappearance of the Cubita style and the presence of the La Mula pottery with some Aristide sherds. (This is to be expected, as La Mula is coeval with Aristides at the La Mula site).

Layer 15 is a 20 cm burnt clay layer, with a reddish colouration and a hard consistence which made it difficult to excavate. It seems to have been exposed to intensive fire and/or heat, but we cannot yet offer additional data to support this idea. The majority of the ceramic components were again of La Mula style. This layer also contained an abnormal amount of stone in comparison with layers above.

Layers 16A, 16B and 16C revealed the presence of 70 cm thick accumulation of stones. The concentration of La Mula material is now clear with more then 70 sherds in this deposit. The presence of Aristide sherds is also very interesting not so much because of the quantity, but rather because of the representative types which are the oldest in the sequence contrary to style like Cocobo found earlier in the stratigraphy (1B to 6) and dated around A.D. 300 to 400.

It will be interesting to revise the association of La Mula and Escota-Giron Aristide types and sub-types when we accumulate a larger amount of data.

Currently the La Mula style pottery is known only from a small, but well-preserved sample at Sitio Sierra and a large but poorly preserves sample from La Mula. In these layers some sherds have been provisionally classified La Mula, even though they have not been recorded elsewhere. for the moment as La Mula. The possibility that we are dealing with more than one stylistic component awaits confirmation from additional analysis.

The preliminary results of this column sample suggest that the refuse accumulated over several centuries probably in three depositional stages.

The first stage is related to Conte style material from layers 1A,1B,2A and 2B which form 19 % of the total sherd sample (Plate 3). The second stage is constituted mostly of Cubita pottery from layers 3, 4A, 5 and 6 representing 21% of the accumulation while the third and last component formed of the layer 7 to 17 constitutes 60% of the total sample (Plate 3). This again being filled with the poorly known La Mula pottery. Unalike the La Mula style pottery from the type site, our sample is in a good state for analysis.

In addition, the vertical excavation in the Deep Area gives us an idea of the age of the deposits in order to determine how this layer corresponds to the activities of Cerro Juan Diaz in different points of time. We undertook horizontal excavations in the Open Area adjacent to the Deep Area, to understand how these 25 layers correspond with the everyday life of a 1500 years sociological, political, economical and ideological changing and complexifying community or communities.

Open Area

The main purpose of this excavation was to study carefully, on a horizontal plan, all the strata we have in the north profile of the Deep Area. Indeed, the Open and Deep Area are related by this 4.10 metre stratigraphy.

During the first four months of excavation, we cleared the first three layers 1A, 1B, 2A and part of 3, on an area of 3 by 6 and 8 metres (Figure 8; OA).

We now consider their results, by beginning with layer 3, and ending with layer 1A. This way, it will be easier to understand the changes that occurred in time.

Layer 3

Layer 3, has not yet been completely excavated. However, it has revealed the presence of what seems to be a house mound; a feature which may be a dwelling (Figure 11 a, b). This feature is approximately 10 to 15 centimetres thick (Figure 11a) with a line of rock on the top. The rock could have been used to divide the outside and inside limits of a house or the house from the subtract zone (Figure 11c).

The floor was made of permeable material with a lot of small sherds mixed into it, showing what could be interpreted as the result of trampling, generally intense on house floors. Apart from this, the floor was relatively clean. One small area, however, seems to have clearly received the deposition of culinary wastes with just beside it the presence of a post mold.

On the basis of preliminary ceramic analysis, it is feasible to place this occupation somewhere between (AD 500-700) the end of Cubita and during the first half of the Conte pottery style.

Layer 2A

Layer 2A, just on top, is 15 to 20 centimetres thick and has revealed the greatest artifact density. The line of rock shows clearly the dichotomy that exists between the kind of material deposit in what we have proposed to be the outside and inside of a house.

On the outside, the 10 to 15 centimetre depression caused by the house feature was filled with broken pottery mixed with a considerable amount of shells (Figure 12 and 14).

During field work we named this section of the excavation "Relleno 3" or fill #3. This was before understanding of the deposit, now it would be more appropriate to talk of the third midden.

Figure 11a

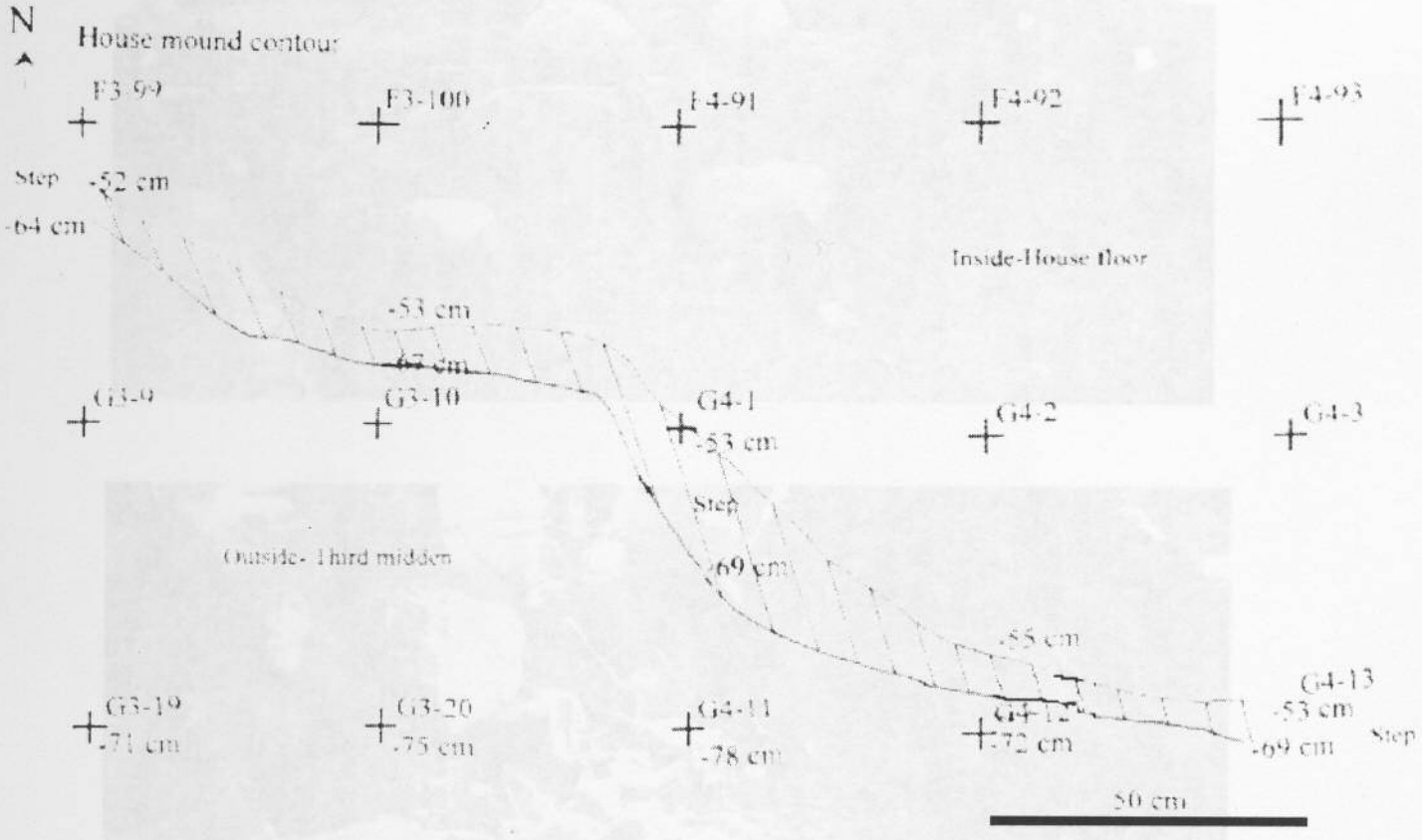
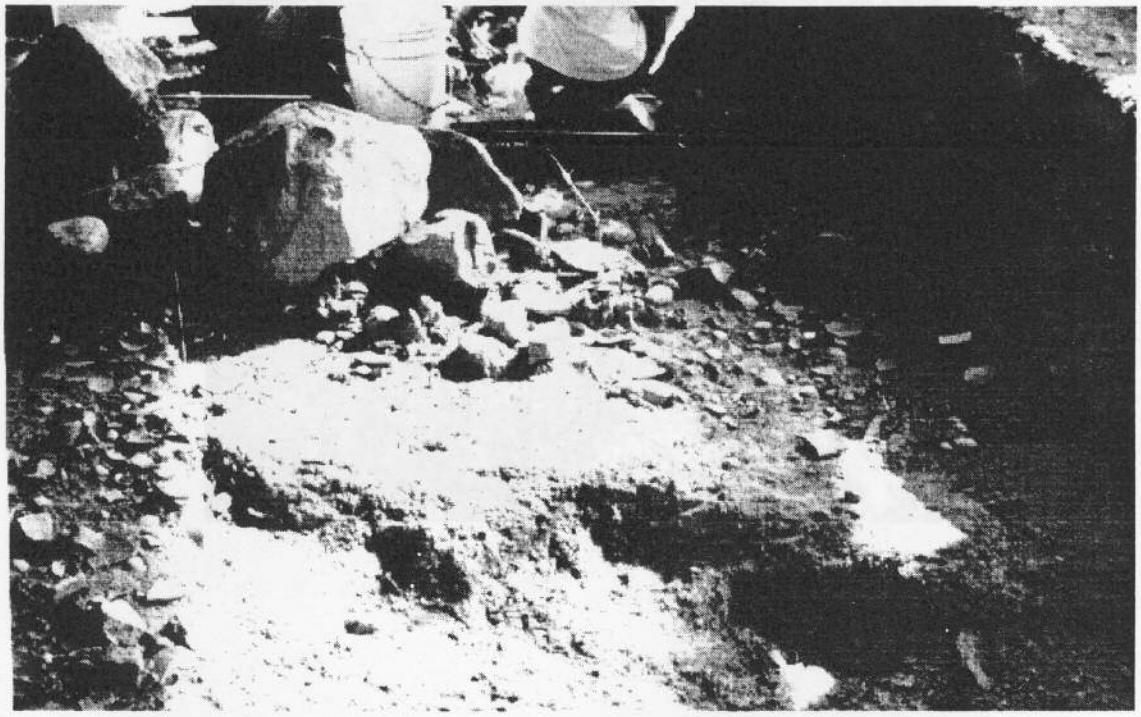
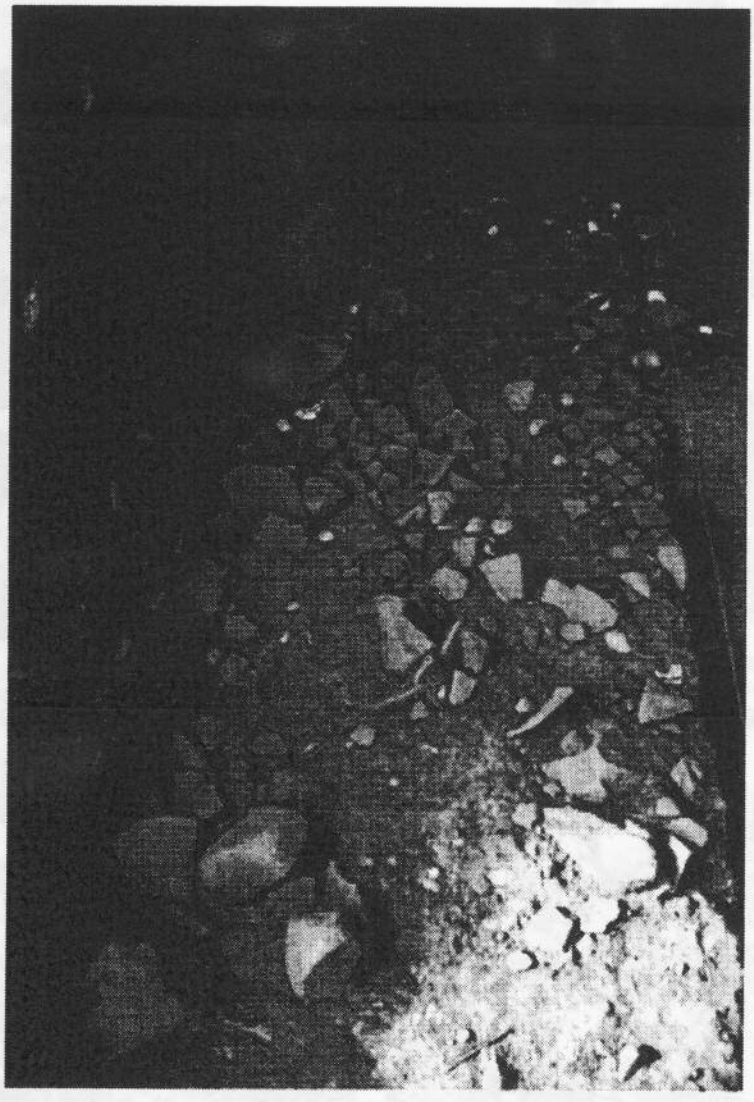

N
House mound contour
F3-99
F3-100
F4-91
F4-92
F4-93
Step
-52 cm
-64 cm
Inside-House floor
-53 cm
G3-9
G3-10
G4-1
G4-2
G4-3
-53 cm
Step
Outside- Third midden
-69 cm
-55 cm
G4-13
G3-19
G3-20
G4-11
-53 cm
-71 cm
-75 cm
-78 cm
-72 cm
-69 cm
Step
50 cm

Figure 11b, 11c



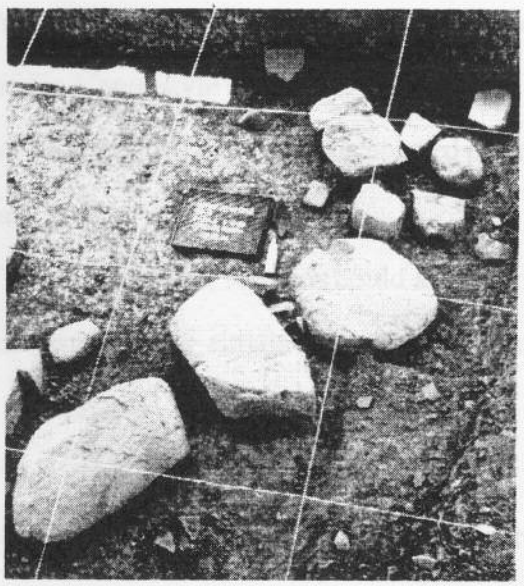
Top 11b: Rocks which appear to signal the limits of a domestic structure.
Bottom 11c: House mound, line of rocks, view south through north, outside through inside.

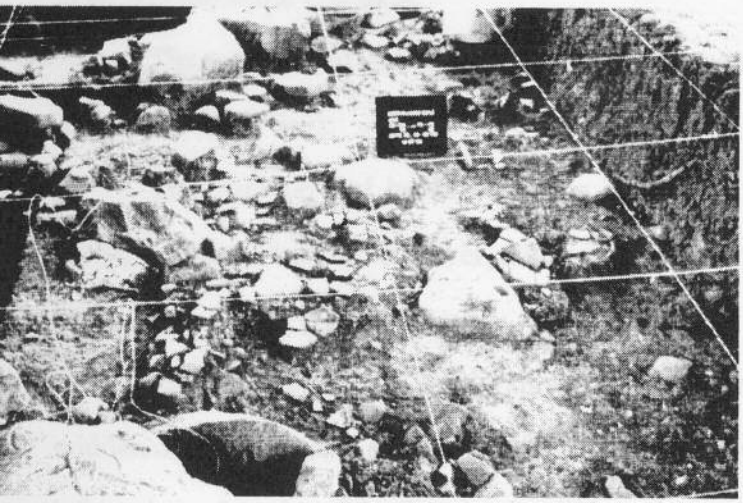
Figure 12

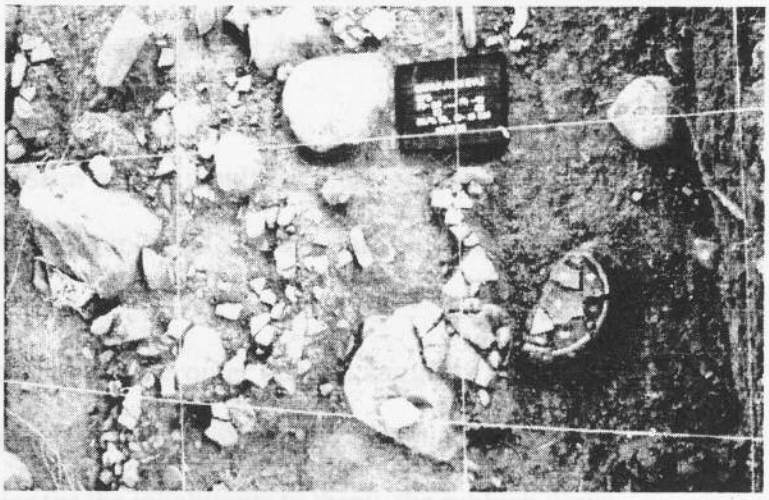


On the outside of the house, the 10 to 15 cm depression caused by the house mound has been filled with broken pottery mixed with an important amount of shells.

Figure 13







Top left: The second rock alignment, north extremity of the Open Area.
Top and bottom right: Sherds disperse around the rocks.
Bottom left: View of the rock alignments with (bottom left 1st rock alignments and upper left 2nd rock alignments), the sherds following the rock patterns. General view of the inside on layer 2A. Finally it represent the three other picture in one.

In the inner area, the open bowl, "mano" and undecorated "metate" fragments, the amount of domestic sherds and the presence of food remains are all suggestive of a household assemblage. Following this logic, the outside midden could be seen as a household refuse.

The fact that no ground stone fragments fit together, suggests that they represent artifacts broken elsewhere or that they have been widely scattered over un-excavated parts of the feature. Ground stone artifacts indicate also that cultivation and processing of maize occurred at Cerro Juan Diaz during the period of manufacture of the Conte style.

On the other hand, the amount of polychrome painted pottery could suggest more specific activities related to ritual practices.

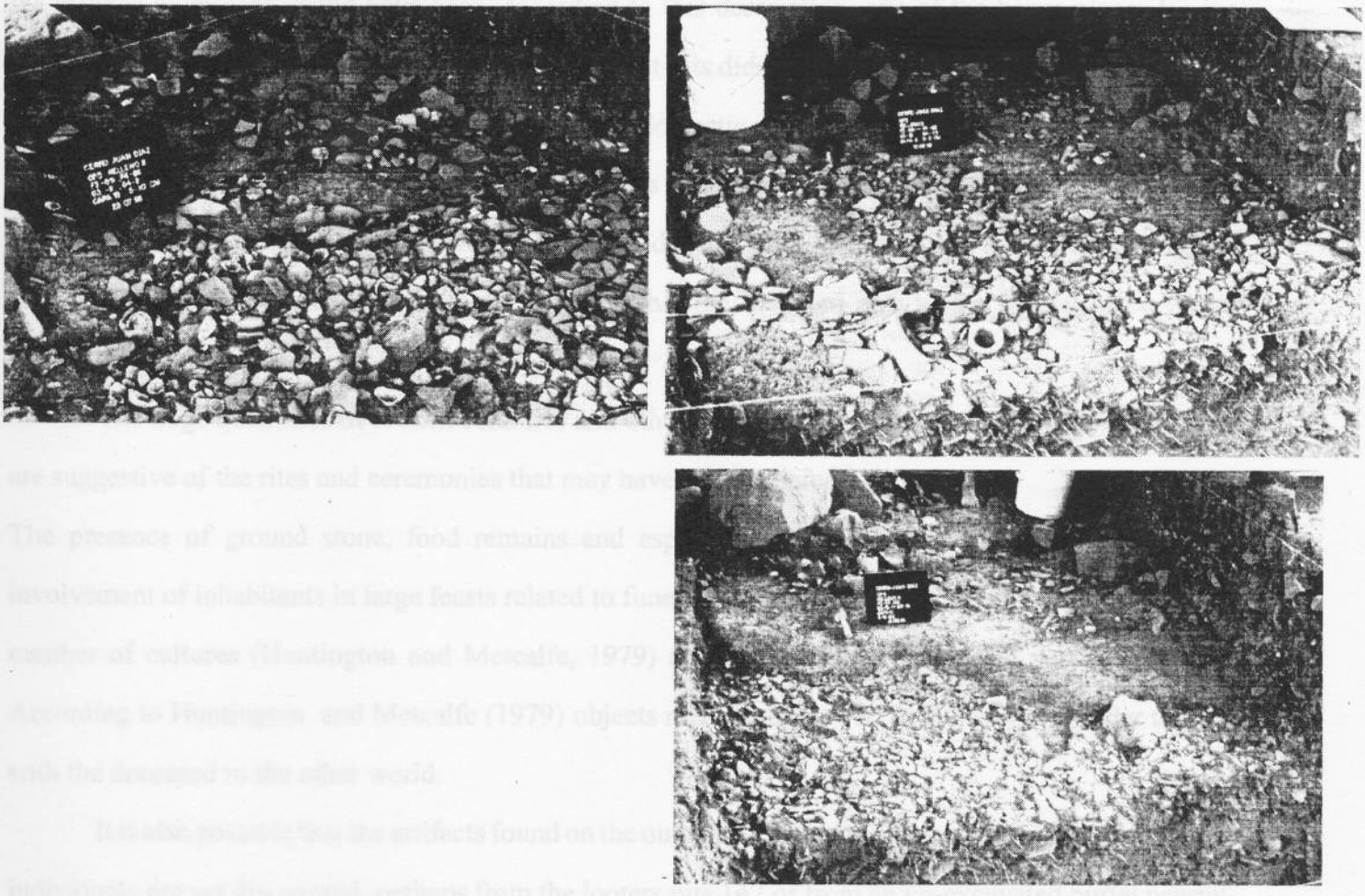
The quantity of white-tailed deer remains could also point to ritual activities. Ethnohistoric data suggest that hunting was governed by rituals and that the meat was consumed on specific occasions (periodic feasts), in extremely large quantities after being stored in special deposits (Cooke,1978,1984;p.297). Large supplies of dried and salted deer meat in special storehouses were visited by the Spanish (Cooke,1979). However, deer bones and polychrome pottery are abundant at other sites in clearly domestic contexts.

The presence of distinct items like the two zoomorphic whistles and the human figurines can be seen in the same way.

The discovery of human remains could also be seen as the result of ritual activities such as sacrifice or cannibalism. However, their presence could also be explained as the remain of a nearby looted burial.

The lack of internal stratigraphy and soil development in the outer deposit suggests that it is a midden deposited over a short period of time (Figure 14). It is important to note that this midden has been left in place. In spite of the fact that it will have been easier for the inhabitants to throw the rubbish down the hill as it usually done according to Hayden and Cannon in domestic context (1983;p.126). Indeed, Hayden and Cannon in their Highland Maya ethoarchaeological study have made some interesting observations relating to refuse disposals. They noted that when the amount of larger, temporarily stored

Figure 14



The outside of the house: From upper left to bottom right, the Basuero 3 in three different stages of excavation. On the last one we see the appearance of the house mound showing up from under the rubbish (shells and sherds).

inorganic materials inside and around the structures becomes cumbersome and a nuisance, women of the household assemble the refuse in baskets or bags and cart it away to dump sectors of the compound of little practical use, as along fences or hedges, in streets, in neighbour-hood dumps, or in streams and ravines. From their observation, individuals travelled rarely more than two minutes to these final dumping location to dispose of their refuse (1983;p.133). The edge of the flattened area situated at five metres from the midden alignment would have been, according to this description, one of the better places for the disposal of broken pottery and shell accumulation, but this didn't happen.

How can we explain the presence of ritual and domestic element in a relatively circumscribed area surrounded, as we have seen before, by two cemeteries and an oven pit ritual area?

Even if the relation between the Open Area and other sections of the site is not clear, we have enough information, for the moment, to postulate that the flattened area was a special place where different ritual activities took place.

The large quantities of broken ceramics and other artifacts found in association with this feature are suggestive of the rites and ceremonies that may have accompanied interments. The presence of ground stone, food remains and especially deer bones leave us to supposed the involvement of inhabitants in large feasts related to funeral activities, so common in a number of cultures (Huntington and Metcalfe, 1979) and this could involve ritual vessel smashing. According to Huntington and Metcalfe (1979) objects must be destroyed in this world in order to pass with the deceased to the other world.

It is also possible that the artifacts found on the outside were the personal possessions of a interred individuals not yet discovered, perhaps from the looters pits 142 or from an un-excavated burial nearby. This could explain both the ritual and domestic nature of the assemblage.

In the "villages of the dead", Dillon, who has studied the San Blas Cuna of Panama funeral practices, give to archaeologist of the Intermediate Area an interesting view of currently used cemeteries.

The Cuna constructed huts over the burial chambers, giving to their cemeteries the appearance of living villages. Dillon noted that :"all cemeteries visited were located on ridgeline... The cemeteries are

thus elevated high above the villages that they take their inhabitants from... town are normally visible from the burials grounds (1984;p.60)". Offerings of food, drink, firewood, cacao, tools, clothing, money and non-perishable objects are placed in the grave (p.63). As we have seen before, it was explained that many offerings were for the personal use of the deceased in the other world, but also that others were to be taken as presents from the living to their long-dead relatives that the newly buried individual would be meeting for the first time in the other world (ibid). The utensils, including cups, plates and saucers, used by the deceased are often collected (because it would now be inappropriate for anyone else to use them) and brought to the grave (Dillon,1984;p.64). They are kept inside the mortuary house, and are exclusively used to offer food and drink to the deceased when such action is appropriate (ibid). In fact, friends and relatives of the dead visit them in the cemeteries and carry out normal domestic activities, including food preparation, eating, and drinking (ibid).

Even if we cannot relate Dillon's observations directly to our archaeological data some similarities could be taken into consideration for future hypothesis testing.

For this reason, it will be important to examine carefully the ceramic assemblage to reconstruct as many vessels as possible to sustain the hypothesis of ritual vessel smashing. Unfortunately this area had been disturbed by looters and an important part of the midden is missing. Be that as it may, if a ritual vessel smashing had occurred, we would have enough information to prove it with further excavation.

Layer 1B

Layer 1B is hard to understand. On the outside the "Fill #2" is also contains Conte pottery (Plate 4). It seems to have been deposited over a short period after the third midden. It is again a mix of shell with medium to large sherds. We noted also in this midden the presence of rocks, some of them of a considerable size.

On the other side of the rocks, more or less visible with this third deposit (3,2A,1B), we observed an East-West division of the Open Area (Plate 4)(Figure 15). The West side is less compact and comprises

less sherds, It also contains several stone which were flakes almost absent from layers 3 and 2A. Following the natural stratigraphy it was clear that this West part was a continuation of layer 1A.

Layer 1B was probably another reoccupation occurring shortly after. Its orientation shows that the accumulations have taken place on the East part of the excavation.

Provisionally, we propose that people continued to occupy the West part while they threw out a larger amount of rubbish. Alternatively this accumulation represents a midden which could be related with another house situated East of the present excavation. This second hypothesis pre-supposes the abandonment of the living floor and can explain why the ground stones are under this accumulation.

Layer 1A

This strata was 10 to 20 centimetres beneath the surface. It was very compact and hard to excavate (disorderly stratum which covered the entire Décapage Area). We found small sherds, stone flakes, shells, clay floor fragments and again, faunal remains consisting mostly of fish bones (Figure 15).

This deposit has all the characteristics of a disturbed refuse accumulation. However we found in it some rare and interesting artefacts, such as a spindle whorl, the first to be found on the site (Cooke p.c.). This suggests that cotton was cultivated in Cerro Juan Diaz area . Cotton fibres were clearly identified on a gold artifact found in Operation 3 (Cooke, Sanchez et Undagawa, in press).

We also found what seems to be a net weight used in fishing activities. This is also unique at the site. In 1994, to palliate the absence of this type of artefact and other fishing tools in the archaeological assemblage and to explain the quantity of fish bone found on archaeological site, Cooke and Tapia had undertaken a experimental archaeological study to evaluated the possibility of the use of fish traps in estuarine inlets. Comparing the result of the fish gathered in those traps with archaeological collection, Cooke and Tapia obtained interesting result: "De las 20 especies de peces registradas en las muestras arqueofáunicas, 14 fueron obtenidas en las trampas de barrera intramareales (1994;p.293)".

More studies of this kind would have to be done to sustain this analysis. However, there seems to be an absences of fishing tools found in Panamanian archaeological site is perhaps related to the paucity

Figure 15

Top: North-south view of the Open Area with the two lines of rocks in different stages of excavation. We see on the east side layer 1B which form a step and divide the Open Area in two parts.
Bottom: Layer 1A

of the research conduct in living area and village dwellings. Nevertheless we are still confident that the worked stone we found could have been used as a net weight.

Finally, the discovery of two tiny gold fragments could be due to looter activity and earth removing.

Deep Area

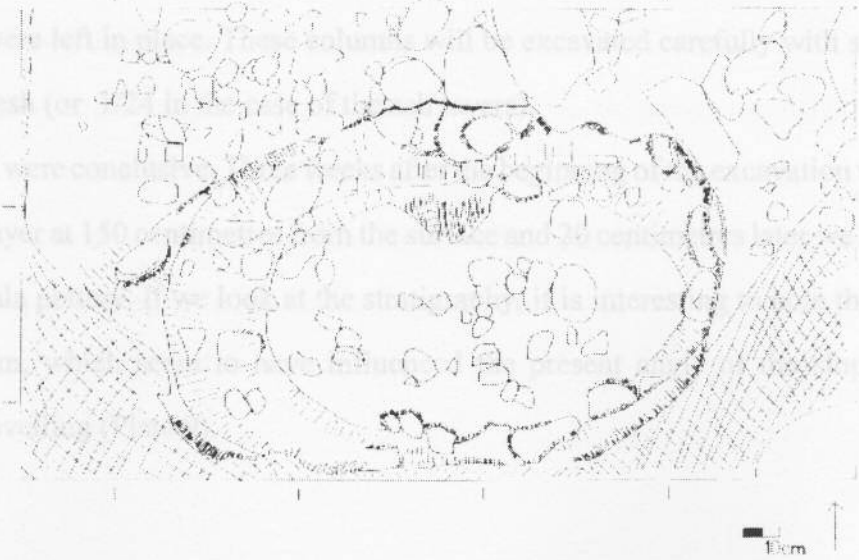
The Deep Area (Figure 8; DA) bègun with the cleaning of looter pit 142 from top to bottom. We followed the outline of the pit for approximately 2,50 metres until we arrived at to a rock layer in the centre of the pit (Figure 10). This had been disturbed by looters whose work seems to have been hindered by the rocks. Alternatively, they found something since we noted a depression (Figure 16).

Thereon we began to excavate the un-looted deposits, remaining 60 centimetres above the subsoil, (Layers 16A,B,C) (Plate 1). Has we remarked earlier, we found La Mula material and faunal remains in this layers. The materials will provide us with new information about this poorly known period of Gran Cocle prehistory.

The rock feature

The first hypothesis that came to mind , was the possibility that this accumulation of rock was part of a large oven of the same type project archaeologists found in Operation 3 (Figure 6). If this was the case, this oven would have been the oldest and biggest ever found. The primary reason to sustain this

Figure 16



hypothesis was that layer 15, probably a burnt clay layer, seemed to have been exposed to intensive fire and heat, while layer 12, appeared to be an ash layer. Burnt clay and ash were found in association with the oven pits (Sanchez 1995).

The second hypothesis was that this rock layer could have been thrown there intentionally to build a solid structure or base for a structure, like the cases at Monks Mound (Woods, 1999;p.24) and in Costa Rica (Norr, 1982-83; Sheets and McKee., 1994). In this case the rocks would have been covered with thick clay floor which was subsequently subjected to heat.

We propose that, in the latter situation this layer would have a large area extending to the limits of the visible flattened area. In the other hand, if it was circumscribed in space it would defend the oven hypothesis.

To evaluate those hypothesis we undertake the excavation of a trench situated 5 metres south of the Deep Area. The objective of this unforeseen sub-operation was clearly to delimit the south extension of the rock layer mixed with La Mula pottery.

South Trench

The south trench was opened at the southern limit of the platform area down the scarp slope. It is 10 metres long and 1.5 metres wide (Figure 8; ST). During the excavation we divided it into 4 stages to facilitate the work. The major part of this excavation was done with shovels although we stopped and cleaned every 20 centimetres or when we encountered a layer change. Nothing was screened but seven column samples were left in place. These columns will be excavated carefully with small hand tools and sieved with 1/8 mesh (or 1/24 in the case of the ash layers).

The results were conclusive. Three weeks after the beginning of the excavation we hit for the second time a burnt clay layer at 150 centimetres from the surface and 20 centimetres later we found the rock layer mixed with La Mula pottery. If we look at the stratigraphy, it is interesting to note the presence of larger rock on the bottom, which seem to have influenced the present angle of the slope, this resulting in appearance as a levelling (Plate 9).

One hypothesis would be that these larger rocks were deposited there to work as a retainer . To evaluate this possibility we will have to open a larger area at the same level in order to determine if we really have a line of larger rocks. However, we could also explain the presence of those larger rocks by the fact that they have rolled from the top to the bottom.

I now propose to take a look at the stratigraphy of the north profile and to examine the results of the column sample I4-3.

North Profile of the South Trench

The NPST was divided in eight major units, some of which have been subdivided (Plate 5). We observed an important shell midden on the surface which seems to have been deposited in three different stages, probably close to each other in time. "Conchero" (shell midden) 1, 2 and 3 correspond to layers 1A, 1B and 1C constitutes the first 60 centimetres.

Layers 2 and 3 are made of a sand clay matrix. The first contained a lot of sherds, while the second one is almost empty but contained rocks, faunal remains and other rubbish. Sand is also more important in layer 3.

Just below this we found a diagnostic ash accumulation. This deposit constitutes unit 4, which is 60 centimetres thick. 4A, 4C and 4E consist of pure ash, while 4B and 4D are burnt clay concretions. In fact, those layers made of solid concretion divided the ash deposit in three subunits. Examining the nature of unit 4, we concluded that each layer was deposited over a short interval of time.

Layer 5 is hard and granular with tiny rocks, ceramic and carbon particles mixed together. We noted some similarities between this layer and layer 15 of the NPDA. However, the colour and texture are not identical. Both cover the rock layer which once could have formed a clay floor.

Layer 6 is a dark coloured clayey matrix where we have found a significant amount of stones, sherds and remains of ground shells. This layer contains La Mula sherds and without any doubt, represent the continuity of layer 16 of the NPDA.

Column sample I4-3

Column sample I4-3 corresponds on (plate 5) to I4-13, which is the south extremity of the column. Table 2, summarizes the results of a preliminary analysis of painted sherds. which presents the distribution of sherds in this column layer by layer and shows us, from left to right, the ceramics sequences ordered chronologically through time. As we have done with column sample G4-13, we have used the painted and unpainted rims and the painted body sherds in this analysis.

The first deposit (layers 1A, 1B and 1C) is a 60 cm shell midden probably accumulated in a short period of time, which has been subdivided according to changes in the colour of the soil. The ceramic material found in those layers follow this subdivision. Layer 1A revealed one diagnostic sherd from the Parita style (AD 1000-1400).

Layer 1B contained thirteen Parita sherds, while it contains the only Macaracas material, and few sherds from the Conte, Cubita and Tonosi styles.

Layer 1C is dominated by Cubita material while it also contains Parita, Conte, Tonosi and Aristides pottery. These last two layers show in there assemblage a significant time interval which could be interpreted as a secondary deposit or a well disturbed one. However, apart from the three Parita sherds in layer 1C, this deposit follows a more or less chronological pattern.

In layer 2, we are finally out of the shell midden. The major part of this component is composed of Cubita and Tonosi sherds. It is important to note that the majority of the Cubita sherds found in this level seem to be associated with old Cubita style which has not been clearly studied in contraposition to the Nance and Ciruelo types which are the most common types found in this site. As Tonosi style material dominated this assemblage, we could propose that the material resembling the Cubita style could be seen as a transitional phase between Tonosi and the better known Nance and Ciruelo types of the Cubita style.

We also have to mention that the presence of six La Mula sherds (BC 400-100 AD) found so early in this deposit is problematic.

In Layer 3, the Parita, Macaracas and Conte styles have completely disappeared whereas Cubita and Tonosi sherds dominate the assemblage. We noted that three sherds were classified as transitional, between

Tonosi and Cubita. As you can see on Table 2, 25 sherds found from layer 3 to 5 could be placed in this category.

Layer 4 is a 60 cm deep ash leans which has been subdivided into five units according to 4B and 4D, which divide and are distinct in nature, as they are red concretion resulting from heated mineral. On the contrary, layers 4A, 4C and 4E consist of pure ash, with faunal remains and a few tiny carbon fragments.

If we look at the ceramic assemblage we see that the major part of this deposition occurred in the interval between the Tonosi and Cubita styles, with some as yet undescribed transitional styles are presents. We also noted the presence of La Mula sherds in 4A and 4B.

Although it is important to noted that Aristide is present through all the sequence, from 1C to 6C in small proportion.

From 4B, Nance and Ciruelo, Cubita types disappear and leave the place to Tonosi, Transitional and old Cubita.

It will also be interesting, in the definition of the Transitional style, to look at the possible relation with Aristide.

In layer 5, the ash ends and we note the presence of tiny river cobble with few carbon fragments mixed in a pinkish clayey matrix, which seems to be similar to layer 15 of the NPDA. However, the texture is so granular that it was hard to define with accuracy the mineral components of this layer. The quantity of sherds was important in this layer, again dominated by Tonosi style.

In layer 6A, great amounts of sherds were found but only a few of them were diagnostic. As we have seen it before, we named this layer "rock layer" which is the continuity NPDA, layer 16A.

Layer 6B and 6C are clearly dominated by La Mula material, with a small Aristide component. Tonosi has now completely disappeared.

Therefore we could divide this column sample in four main stages of accumulation. The first one, consisting of layer 1A, 1B and 1C form 28% of the total accumulation (Plate 6). This unit is dominated by Parita material and consists in a shell midden which seems to have been deposited in three distinct events, that occurred in a short period of time.

The second one, is made up, in major part, of Tonosi pottery while Cubita and the transitional style are also important. This component came from layer 2 to 5 and formed 52% of the cultural deposit.

The third deposit, formed of layer 6A has Tonosi and Aristide pottery, but will need more excavation to be sure that this 10% accumulation really exists, because stratigraphically 6A, 6B and 6C seem to be part of the same compound.

The fourth deposit, made of 6B and 6C is clearly dominated by La Mula material and complete the cultural accumulation with the 10% remaining. We also note that Aristide pottery is still present, while all other styles have disappeared, one after they other, following the sequence.

As we have seen with the analysis of column sample G4-13, the ceramic assemblage follows, here again, the logical stylistic change through time and supports the hypothesis of a long term accumulation. However, we observe important differences in these two ceramic assemblages.

1-Last deposit	Open Area 1-Important Conte occupation.	South Trench 1-Important Parita deposit.
	2-Conte material is dominant. Parita is totally absent.	2-Conte material is scarce and seems to come from secondary deposits.
3-Observation about Cubita types.	3-The Ciruelo prevail.	3-The old Cubita types are dominant.
4-Tonosi proportion.	4-Tonosi is almost inexistant and seems to come from secondary deposits.	4- Tonosi is the dominant style of this column sample.
5-Transitional style.	5-We note the presence of a possible transitional style between Cubita and Conte.	5-We note the presence of a possible transitional style between Tonosi and Cubita.
6-Dominant component.	6-La Mula is the dominant component and forms 60% of the total accumulation.	6-La Mula is important but constitutes only 10% of the total accumulation while a mix of Tonosi and old Cubita forms 52% of the total accumulation.

If we take together the results of both column samples and we try to make some projection using a graphic which gives us a perspective of the excavated area, we would be able to proposed some alternative to explain the depositional process.

Preliminary comments on the platform formation

As you could se in Plate 7, the first event was the deposition of the rock layer with La Mula material. From the evidence we obtained by the excavation, we proposed that this layer is continuous at least for 25 metres from north to south.

The second episode probably consists in the deposition of layers 7 to 15 filled again with La Mula material. The analysis of the column sample I4-3 suggests that this event ended somewhere between H4-1 and I4-1. The strong declination of Layer 6 (Figure 17)(Plate 8) also indicates the same thing. These first two episodes could have been deposited in a short period time, but we have to wait the results of the carbon 14 sample analysis to get a better idea. Only then, will we be able to suggest whether this occupation is contemporaneous with the one observed at La Mula-Sarigua site, situated 50 kilometres away from Cerro Juan Diaz or if it is the result of the population moving from one site to the other, around BC 200-0, date corresponding with the abandonment of La Mula -Sarigua site according to Hansell (1987).

As the third episode, we propose Layer 6, which looks like a white clay floor where we have found a mix of La Mula and Cubita material. This layer ends probably also somewhere between H4-1 and I4-1.

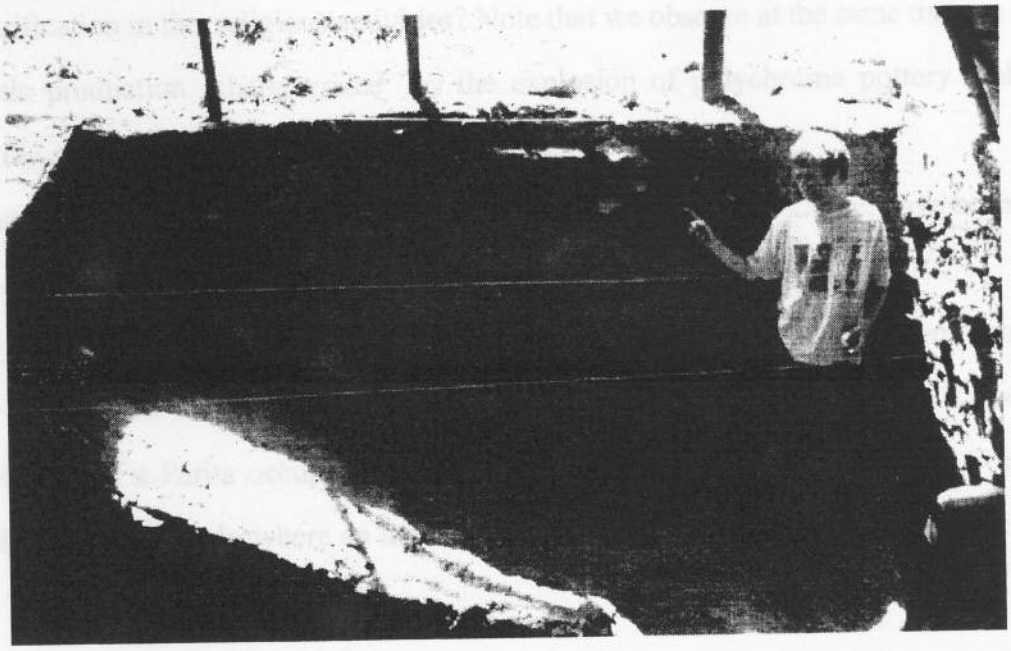
The fourth episode, made up of Tonosi and Cubita material consists, in major part, as an ash deposit. We don't know for the moment where it begins exactly but we have the end of the deposit in Plate 9 . However, we know by the ceramic assemblages that it is subsequent in time to the deposition of layer 6.

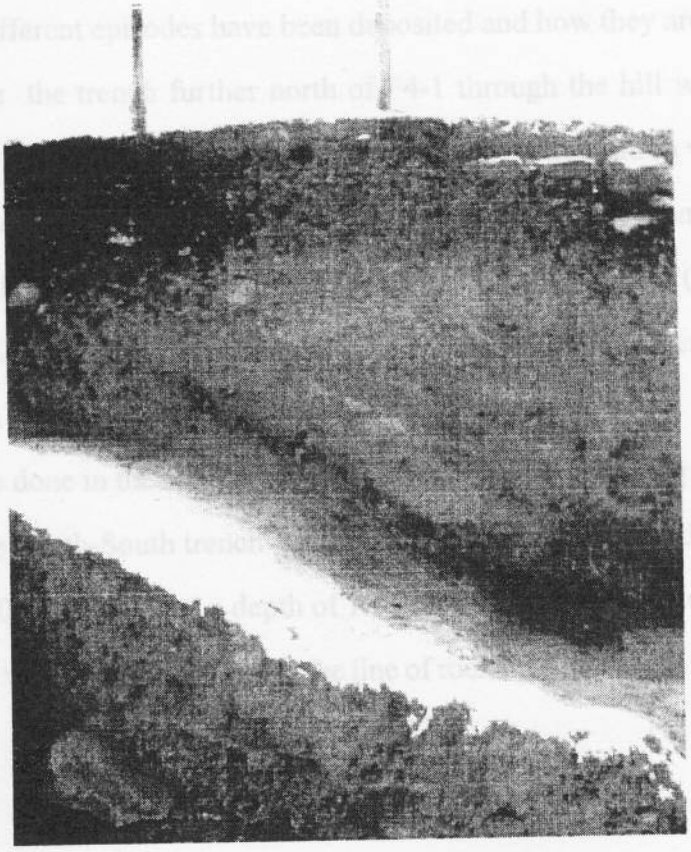
But how could we explain the presence of a 60 centimetres of ash deposit ? For the moment, we will propose that this ash accumulation is related to the use and cleaning of the oven pits found in Operation 3. In fact, the ceramic assemblages found in the ash deposit seems to be quite similar to the ones found in the oven pits. The people who lived on Layer 6 (made earlier), have probably thrown their ashes and rubbish down the slope. That way, they could have reused the ovens and lived cleanly.

The fifth episode fill with Cubita material is not clear for the moment and will necessitate further excavation if we want to a get a better understanding. However, looking at the stratigraphy, we propose that this could correspond with the use of the platform as a burial ground. It is the basin shape of Layers , that could sustain this hypothesis and the amount of Cubita burials found elsewhere on the platform.

The sixth episode made in Conte period seems to correspond with the use of the platform as a living area or as a ceremonial place. This seems to be related with the enlargement of the platform. In fact, as we can se in Plate 8, we observe the levelling of the south extremity. This way, the inhabitant have extended their living or ceremonial area by 5 to 10 metres. Could this be related with the population growth or with

Figure 17





East profile of the Deep Area:
Top First half of the East profile.
(Benoit Robitaille standing on Layer 6, south extremity).
Bottom: Layer 6 with the beginning of the stratigraphy, second half which connect with the rock layer.

a period of intensification in the religious activities? Note that we observe at the same time an important shift in the artistic production characterized by the explosion of polychrome pottery making, also concording with the production of realistic animals representation.

It is also at this time that the lavish burials from the eponym site, Sitio Conte, have been placed in the earth.

The seventh and final episode appeared on the first level of the south trench and it consists of a shell mound. It is a Parita deposit visible on all ten metres of this sub-operation. As we don't have, for the moment, any evidence of a Parita occupation on the flattened area we propose that this consists of a secondary deposit coming from elsewhere on the hill, probably resulting of a cleaning activity.

Research Perspectives: Strategy for the future

As we have just seen, it became imperative to excavate the section H (Plate 10) in order to understand clearly how the different episodes have been deposited and how they are related.

We will also continue the trench further north of F4-1 through the hill where everything have probably begun. This way we are looking to find the same stratigraphic deposition with the La Mula rock layers on the bottom, because episode 1 and 2 constitute, together, the best elements we have for the moment to sustaine the hypothesis that this platform has been intentionally made (Plate 10).

Another trench, this time East and West of the Open Area could also be envisaged for the same purposes of delimiting the La Mula compound.

Those trenches will be done in the same way as the south trench leaving in places column samples at every metre (Plate 10). The North-South trench will be 1.50 metres wide while the East-West will be 2 metres wide, with a step of 50 centimetres at a depth of 1.50 metres, preventing wall collapse.

On the Open Area we will follow layer 3 with the line of rock to the west trying to delimit the house floor platform.

From Layers 2A, we will undertake a ceramic analysis of the third midden to understand what kinds of domestic vessels we have and in what proportion. This way, we hope to get a better understanding of the activities which could have occurred there.

Of course, we will continue the excavation of the Open area to understand the changes that have occurred through time. This way, we will also see if the deposition of Layers 7 through 16C have been done in a short period of time or if they represent different activities.

Finally, we would begin the analysis of the La Mula material as soon as possible and publish these results to inform other archaeologist working in the Intermediate Area of our discovery.

Conclusion

Since 1992, the excavations undertaken at Cerro Juan Diaz, on the central Pacific coast of Panama have particularly revealed many details about the mortuary customs of this large pre-Columbian village. Two cemeteries have been identified, which are dated at 500-700 AC and 800-1100 AC. Both exhibit the degree of mortuary variability that Carneiro (1981) considers to be typical of a chiefdom. These funerary features and the stone oven pits are clustered on a flat area situated on the slopes of the site's prominent central hill. The field work carried out in 1997 suggests that this may be a platform, witch was modified by the village's inhabitants for use as a special ritual area. The main objective of the 1998 field project was to evaluate this possibility and to see if there is a relation between the cemeteries and the construction of an artificial platform.

To answer this question we begin the excavation of the Operation 5 by opening three different areas. The function of the first one, call Open Area, is to determine layers by layers the changes that have occurred through time on this platform. Even if it is still difficult to confirm if domestic and/or ritual activities have occurred on this zone at Conte period, this area revealed in 1998, that an important Conte occupation has taken place on the flat area and that those people seem to have modified their dwelling at least three times. They seem to have also enlarged the initial size of the flat area.

The Deep Area, for its part has consisted in the cleaning of a looter pit that we have used to rapidly obtain the complete stratigraphy, from the top to the bottom. From there, we have continued where the looters stopped to encounter a rock layers mixed with poorly known La Mula pottery. This was one of the most exciting moments of the summer because it was as if two of our major goals were reached at the same time: 1)the rock layers as a possible base of a genuine public works intentionally made, and 2) the La Mula pottery, which we were looking for, without expecting to discover, has given us the opportunity to study and document this poorly known period of Gran Coclé prehistory.

The third area, called the South trench, has been dug following the discovery of the rock layers in order to evaluate if this layers continued over a long extent. This has been another exciting moment of 1998 field work, when we found the confirmation that this layers mixed with La Mula pottery, was at least 25 metres long.

Finally, analysing the results of column sample G4-13 and I4-3 we have been able to conclude that the material deposition represents a long term accumulation related with different activities which follow layers after layers the chronology of the ceramic sequence. But what have been our surprise to observed in the column sample G4-13 that 60 % of the total deposit was made of La Mula pottery, constituting that way, the first two metres of the flat area.

Therefore, in conclusion we have begun the field season of 1998 with the objective to make the relation between two cemeteries dated at 500-700 AC and 800-1100 AC with what could be a genuine public work looking like a man made platform. Also, as we know we will need to dig down from the top to the bottom to fully understand this possible construction. We initiated this excavation aware that it was possible to find the presence of La Mula materials, which would allow us to describe this very poorly known period of Gran Coclé prehistory (BC 400-100 AD).

At the end of the summer, the results were different from what we were expecting. In fact, if there is in Cerro Juan Diaz evidence of public work, it is clear that the idea of this platform preceded the establishment of the two cemeteries. Therefore, it became evident that these cemeteries have did not lead to its construction but that they could have benefited from it .

These preliminary result allow us to propose a new series of question on the flat area formation: What could have encouraged the construction of this platform so early (BC 400-100 AD)? What is the size of this deposit ? Does the rock layer serve a clear function at the bottom of the deposit ? How can we explain the amount of broken ceramic in this deposit ?

The research project will continue in summer of 1999. New sections of the site will be opened and we will seriously begin the material analysis. We will continue the excavation of the Open Area trying to understand the changes that have occurred in the everyday life of this 1500 years sociological, political, economical changing and complexifying community. In order to study whether they have intentionally or not built and used what has been and could become one of the scarce public works known in this part of the Intermediate Area, which archaeologist would be able to use to demonstrate the presence of "chiefdom" or "rank societies" hundreds of years before the Spanish encounter.

Acknowledgement

I would like to thanks first of all the Dr. Richard Cooke without whom this research project would have never seen the light. I also sincerely thanks the Smithsonian Tropical Research Institute who has financed part of the project by granting me a short term fellowship. I thanks Luis Alberto Sanchez also from the STRI for is precious help on the field and laboratory analysis. All my gratitude goes to the students from Université de Montréal who have contributed financially and physically to the project's success. In May I thank, Julie Bergeron, Martine Fournier, Patrice Lavoie, David Poirier, Rachel Heap-Lalonde, Benoit Saint-Pierre and Marie-Chantal Caron. In June I thank, Martin Lominy, Virginie Legault and Vanessa Oliver-Lloyd. In July I thank, Monique Morazain, Jeffrey Vaillancourt, Stéphanie Jomphe, Laurence Boucheron and Stamatia Yatropoulos. In August, I thank, Eugène Morin, Annie Bordeleau, Isabelle Lévesque, Hélène Clavet, Mélanie Bélanger and Valérie Zummo. Special thanks go to Pascal Brisebois and Benoit Robitaille who have assisted me for three months on the field and in all aspect of this project. I thanks also the panamanian worker, Chelo, Fabio, Celestino, Luiso and Don Luis with and our cook Dona Flor and Lili. I would like to thank Dr. Philip Smith from the Université de Montréal who has reviewed this report.

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Table 1

Cerro Juan Diaz
Operation 5
Column Sample G4-13
North Profile of the Deep Area

Ceramic Styles / Stratigraphic Layers	La Mula	Aristide	Tonosi	Cubita	Conte	Macaracas	Parita	Body SHERDS
	500 B.C.-A.D. 100	100 B.C.-A.D. 300	A.D. 100-400	A.D. 400-600	A.D. 600-800	A.D. 800-1000	A.D.1000-1300	
Surface (0-20)cm	1			4	2	2		183
1A (20-30)cm			3	2	11			74
1B (30-45)cm		1	2	5	16			128
2A (45-55)cm	7	1		10 Tr :3	21			295
2B (55-75)cm	1	3	5	24 Tr :12	21			402
3 (75-90)cm		1	1	75 Tr :7				293
4A (90-100)cm	1	3	5	33				211
5 (100-120)cm	3	2	1	1				32
6 (120-135)cm	9	3		12				165
7 (135-145)cm	2							33
8A (145-170)cm	2	2	1					20
9A (170-190)cm	4 Tr :1	1						16
9B (170-185)cm	6							6
9C (190-210)cm	7	1						33
10								3
12 (210-212)cm	1							8
13 (212-222)cm	6							18
14 (222-230)cm	3							9
15 (230-250)cm	16	3						84
16A (250-275)cm	26	6						173
16B (275-290)cm	3							15
16C (290-310)cm	43	5						180
17 (310-320)cm	3							0
Totals	144	32	18	166	71	2	435	2381

1A,1B,2A, Conte 12% of total cultural deposit.
2B Conte - Cubita. 7%
3,4A,5 Cubita 16%
6 Cubita - La Mula 5%
7 à 17 La Mula 60%

Table 2

Cerro Juan Diaz
Operation 5
Column Sample I4-3
North Profile of the South Trench

Ceramic Styles / Stratigraphic Layers	La Mula 500 B.C.-A.D. 100	Aristide 100 B.C.-A.D. 300	Tonosi A.D. 100-400	Cubita A.D. 400-600	Conte A.D. 600-800	Macaracas A.D. 800-1000	Parita A.D.1000-1300	Body SHERDS
1A (0-15)cm							1	40
1B (15-45)cm			3	4 Tr :1	3	2 Tr :3	13	196
1C (45-60)cm		1	2	6	4		3	77
2 (60-80)cm	6	1	13	11	3			220
3 (80-90)cm	1		4 Tr :3	4				23
4A ash(90-105)cm	1	1	2 Tr :3	6				38
4B Ccr(105-113)cm	2	2	7 Tr :6	1				27
4C ash(113-130)cm			2 Tr :5	5				62
4D Ccr(130-140)cm		2	11 Tr :7	6				99
4E ash(140-150)cm		2		1				12
5 (150-170)cm		4	13 Tr :1	2				133
6A (170-190)cm	3	4	6					132
6B (190-200)cm	24	5						190
6C (200-210)cm	11	2						54
Totals	48	24	63 Tr :25	46	10	2	17 235	1303

1A,1B, Parita	21% of total cultural deposit.
1C Parita – Conte – Cubita	7% (secondary deposit ?)
2,3,4,5 Tonosi – Cubita (ancien)	52%
6A Tonosi – Aristide	10%
6B,6C La Mula	10%

Plate 1

North Profile of the Deep Area

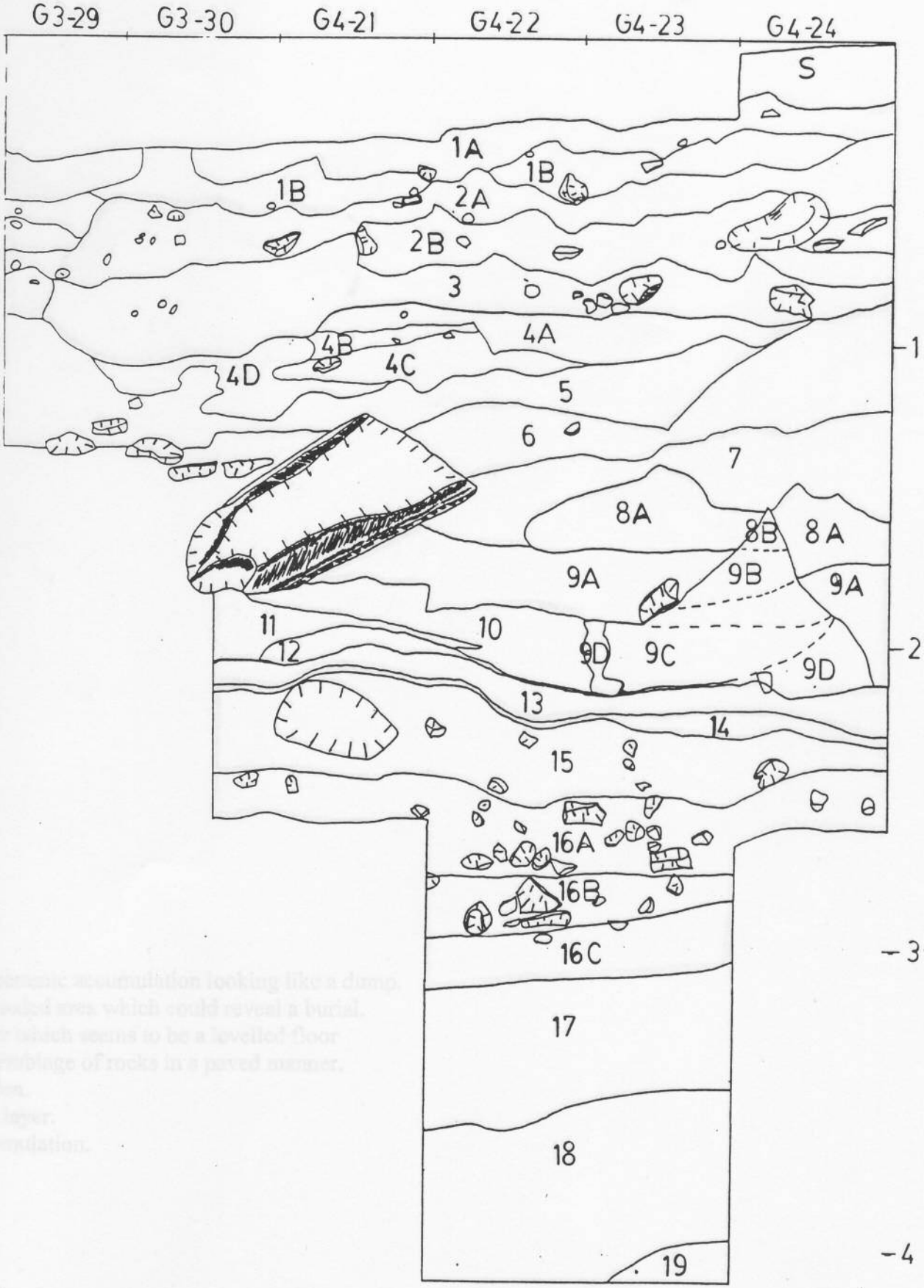
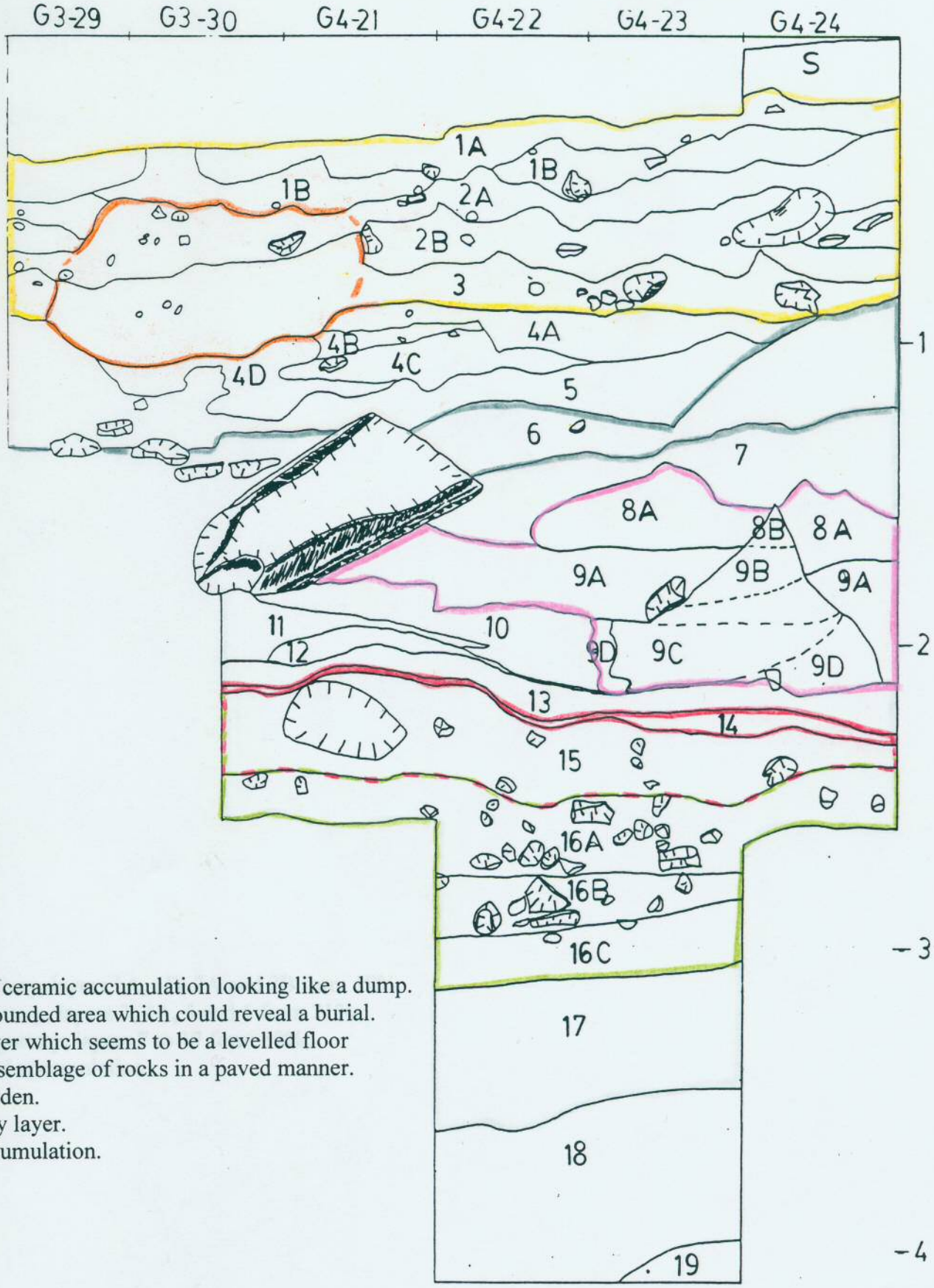


Plate 2

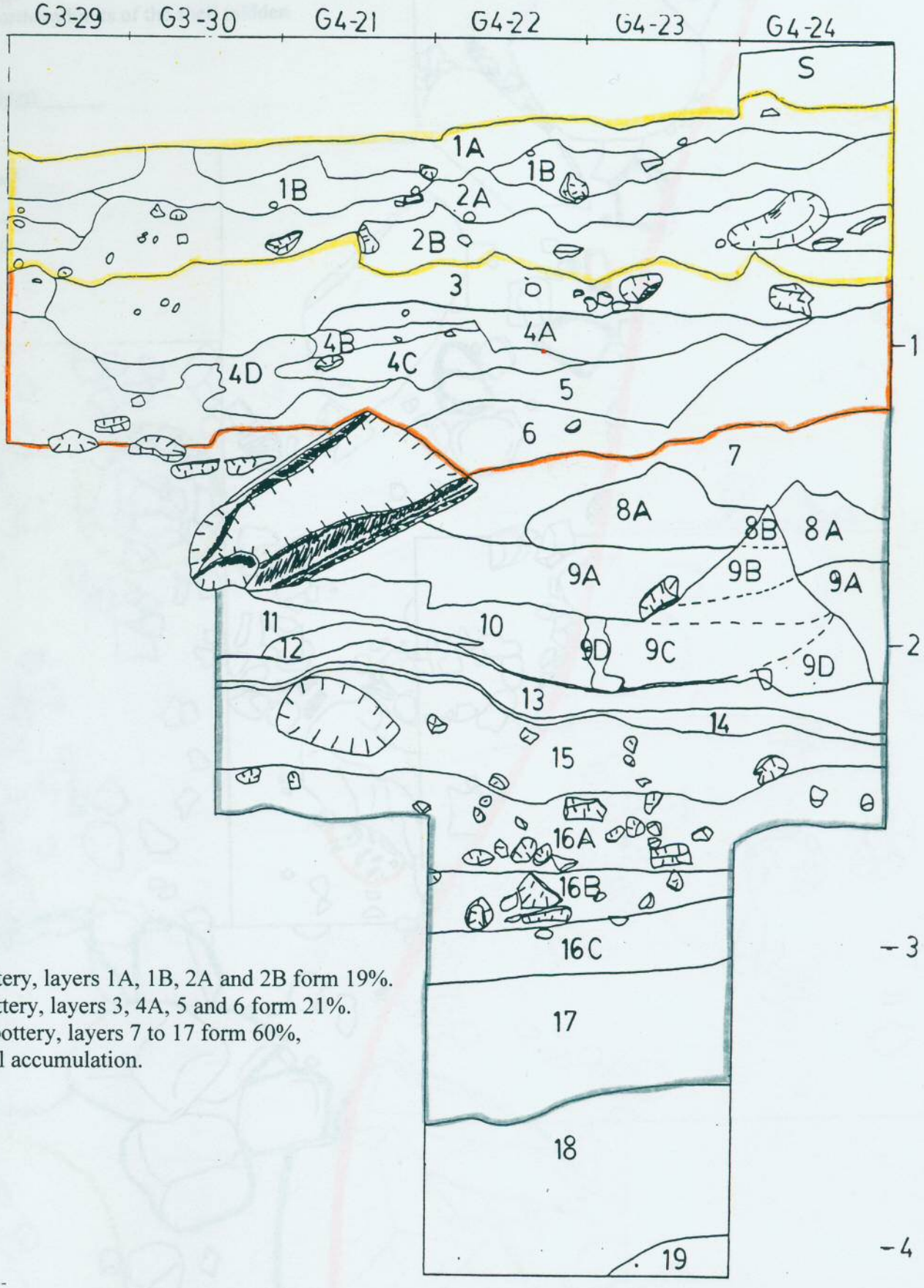
North Profile of the Deep Area



1) Shell and ceramic accumulation looking like a dump.
2) Special rounded area which could reveal a burial.
3) White layer which seems to be a levelled floor and an assemblage of rocks in a paved manner.
4) Shell midden.
5) Burnt clay layer.
6) Stone accumulation.

Plate 3

North Profile of the Deep Area



1) Conte pottery, layers 1A, 1B, 2A and 2B form 19%.
2) Cubita pottery, layers 3, 4A, 5 and 6 form 21%.
3) La Mula pottery, layers 7 to 17 form 60%, of the total accumulation.

Plate 4

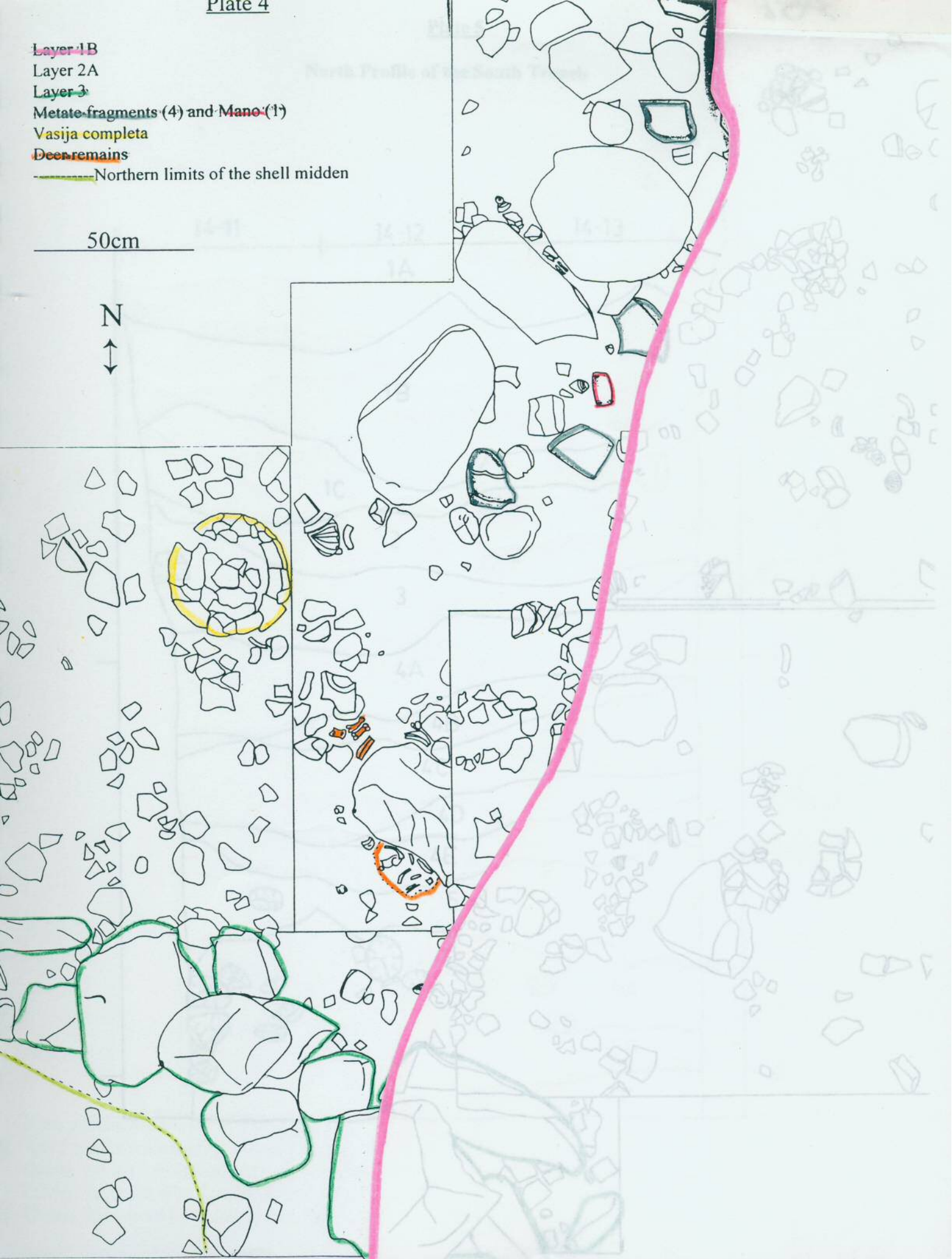

Layer 1B
Layer 2A
Layer 3
Metate fragments (4) and Mano (1)
Vasija completa
Deer remains
Northern limits of the shell midden
50cm
N

Plate 4

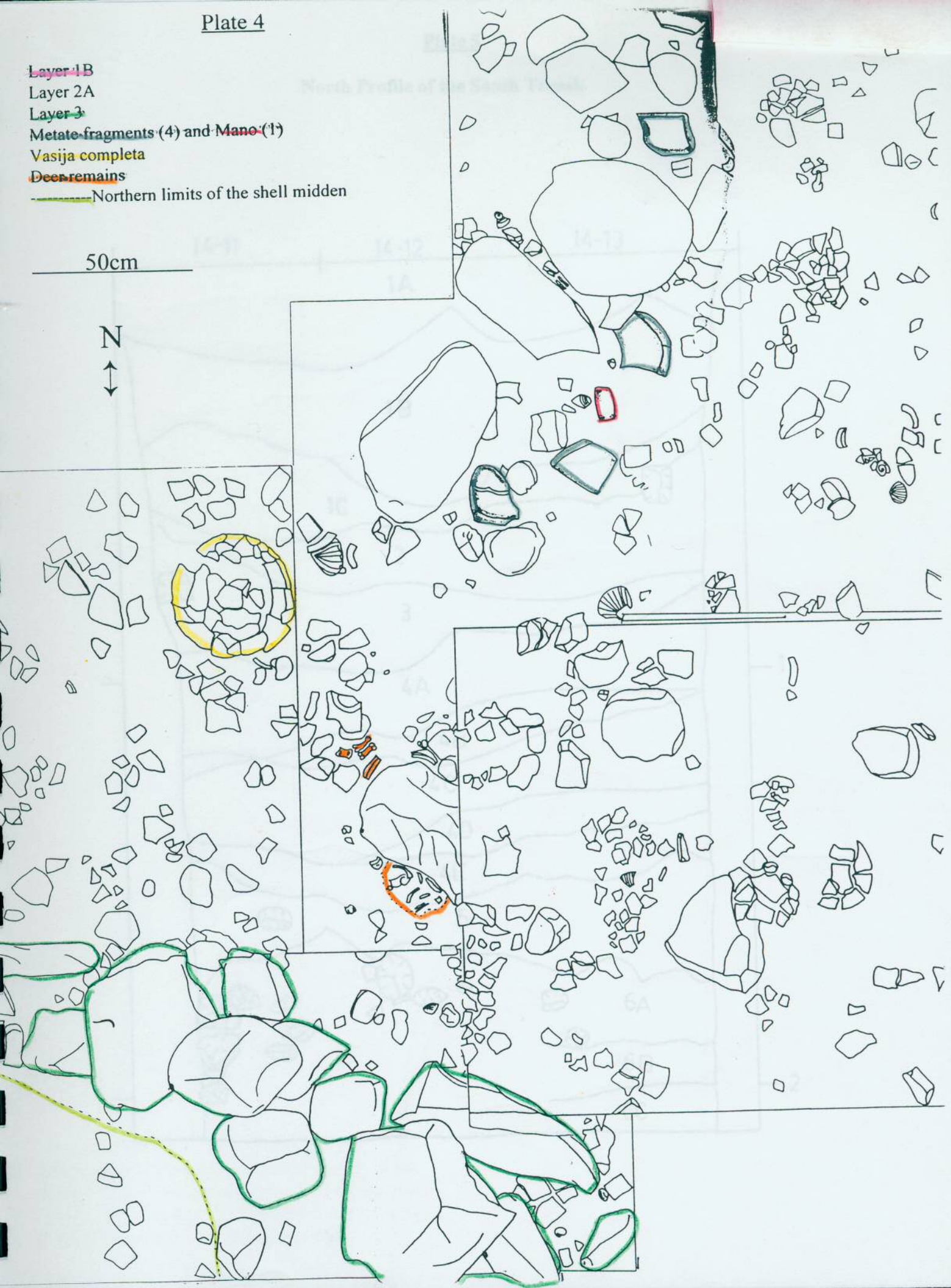

Layer 1B
Layer 2A
Layer 3
Metate fragments (4) and Mano (1)
Vasija completa
Deer remains
Northern limits of the shell midden
50cm
N

Plate 5

North Profile of the South Trench

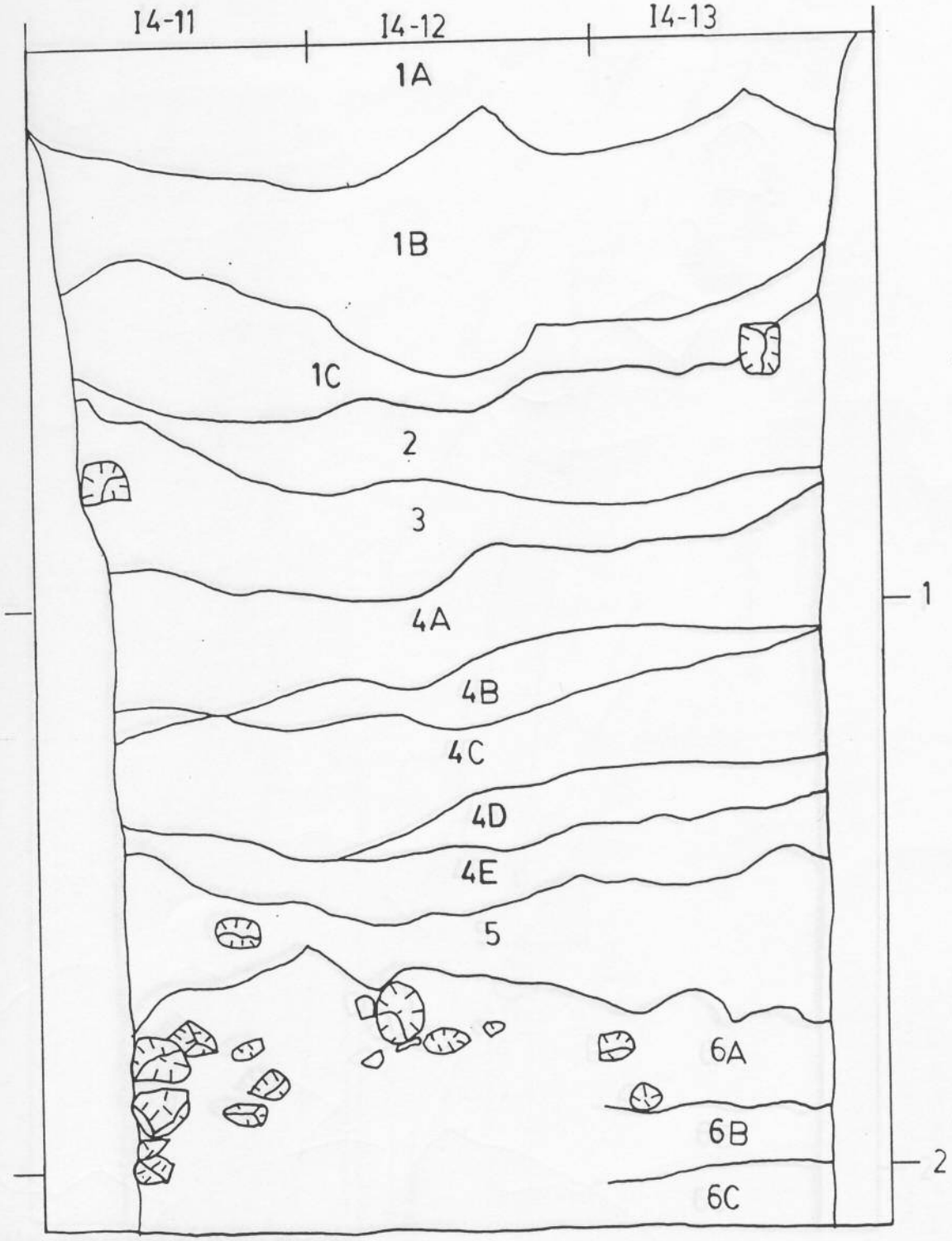
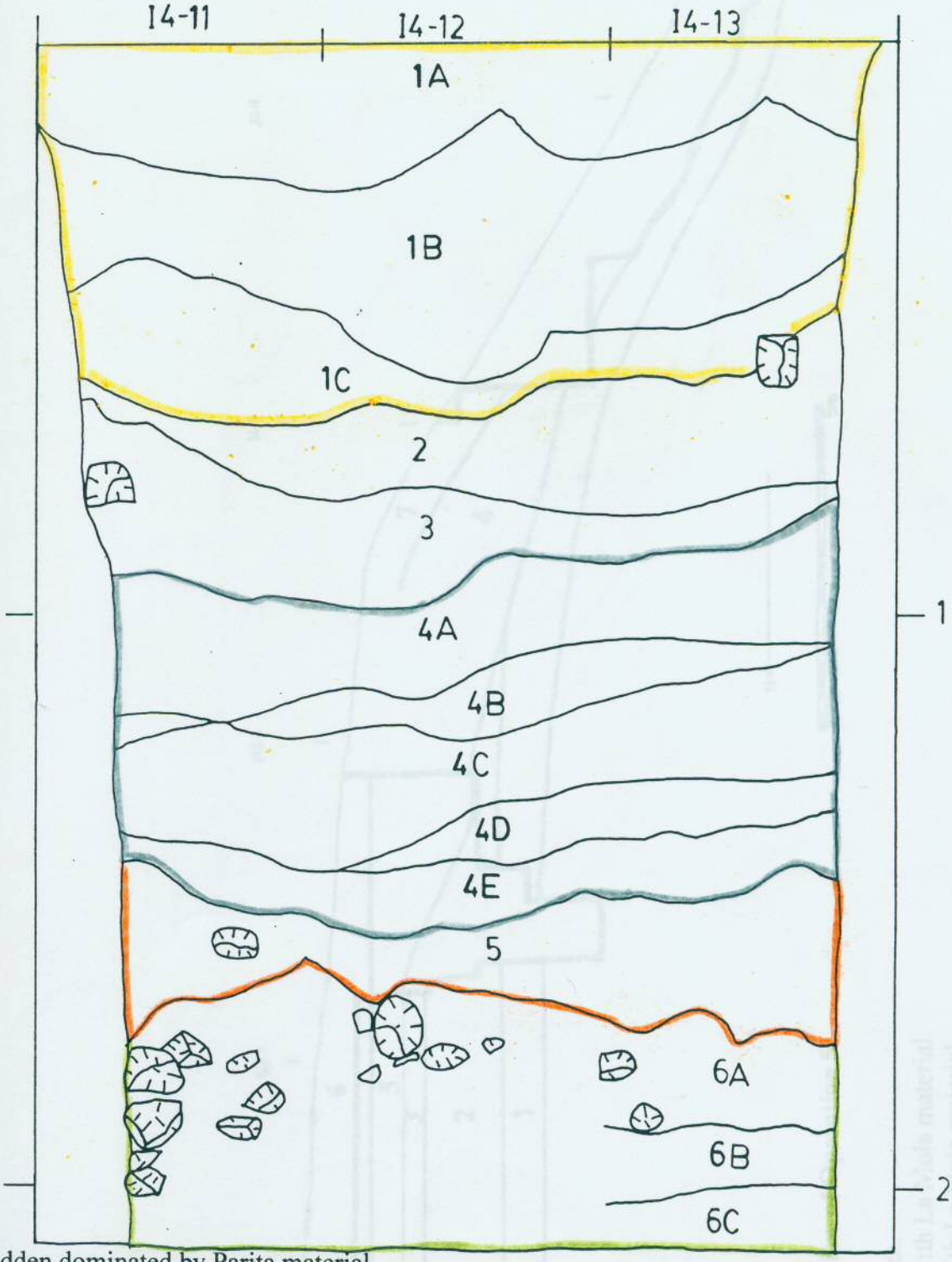


Plate 6

North Profile of the South Trench



1) Shell midden dominated by Parita material.
2) Ash deposit dominated by Tonosi material while Cubita and the transitional style are also important.
3) Unclear layer fill with Tonosi, Aristide and La Mula.
4) Clearly dominated by La Mula material.

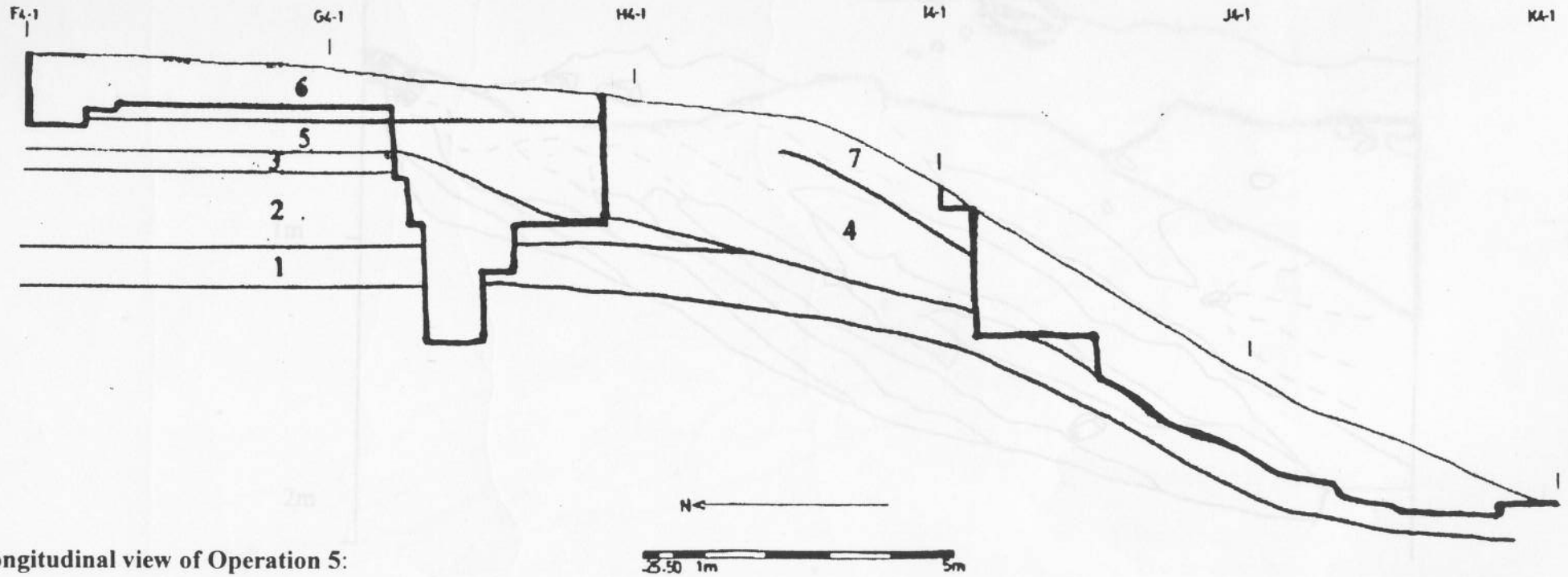
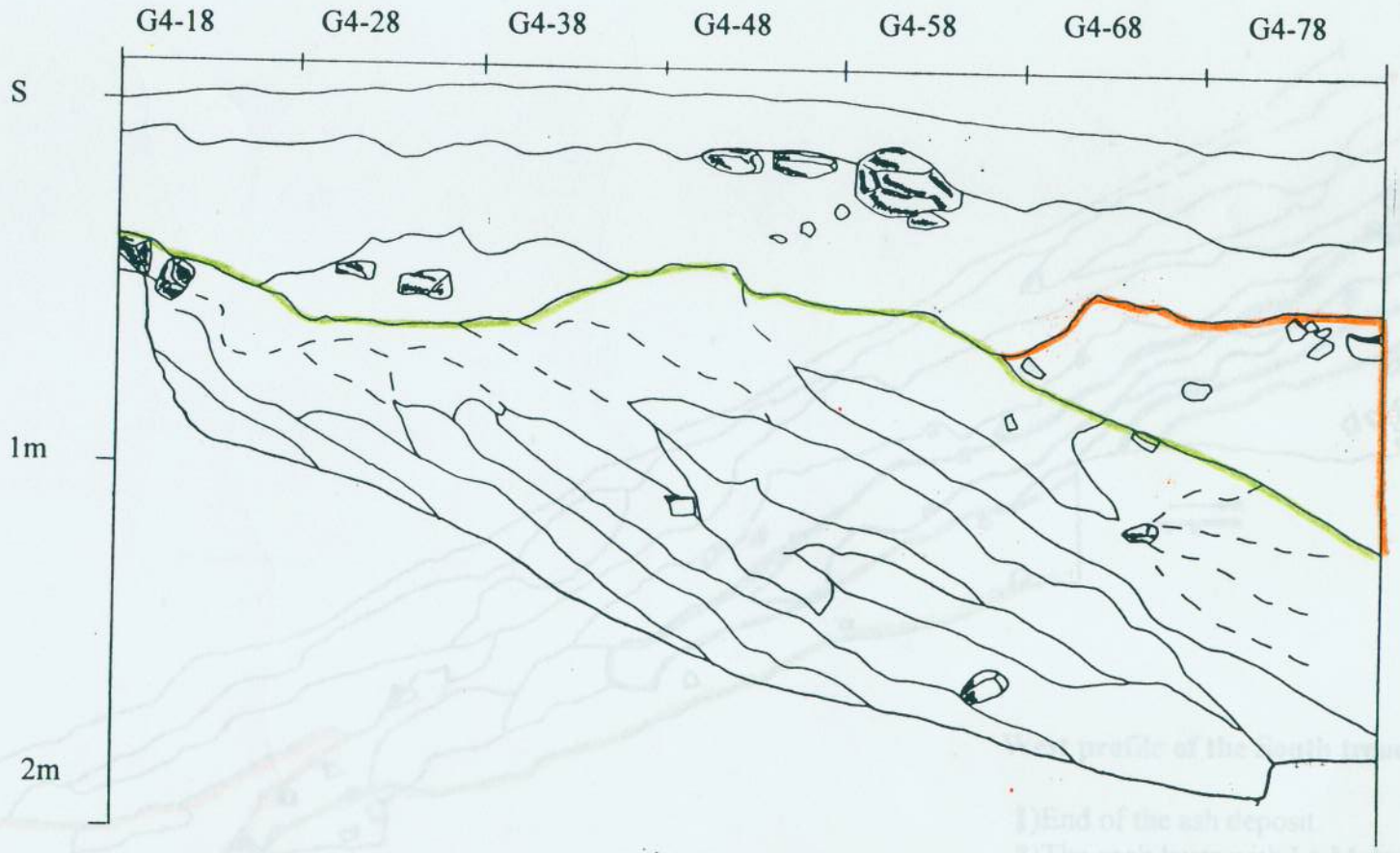


Plate 7

Longitudinal view of Operation 5:

- Excavated area.

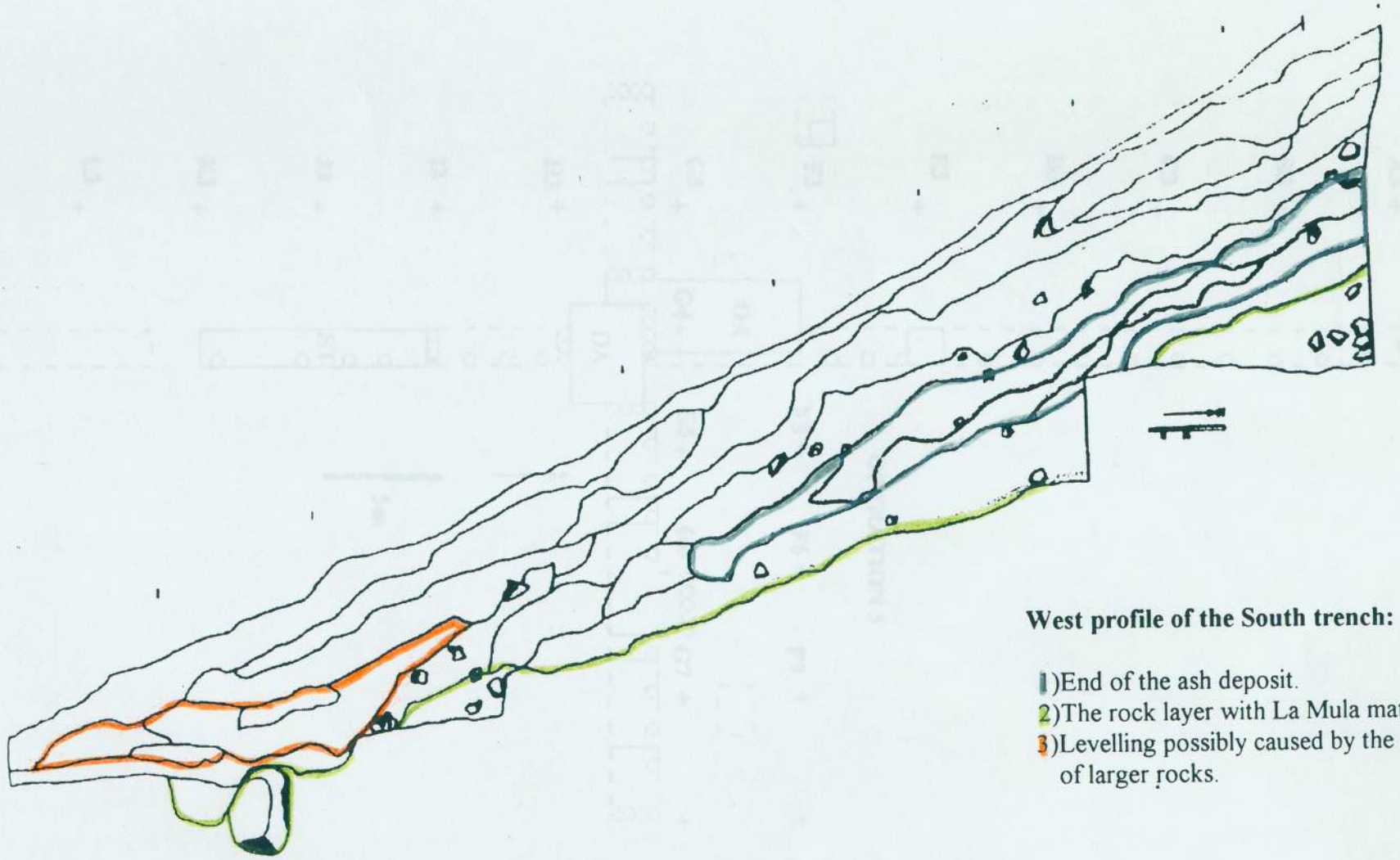
1) Rock layer with La Mula material.
2) Layers fill with La Mula material.
3) White clay floor with Cubita and La Mula material.
4) Ash deposit mixed with Tonosi material.
5) Layers fill with Cubita material.
6) Conte occupation.
7) Shell midden mixed with Parita material.



East Profile of the Deep Area:

- Upper section of layer 6.
- Levelling of the south extremity and enlargement of the platform.

J4-81 J4-61 J4-41 J4-21 J4-1 I4-81 I4-61 I4-41 I4-21 I4-11 I4-1

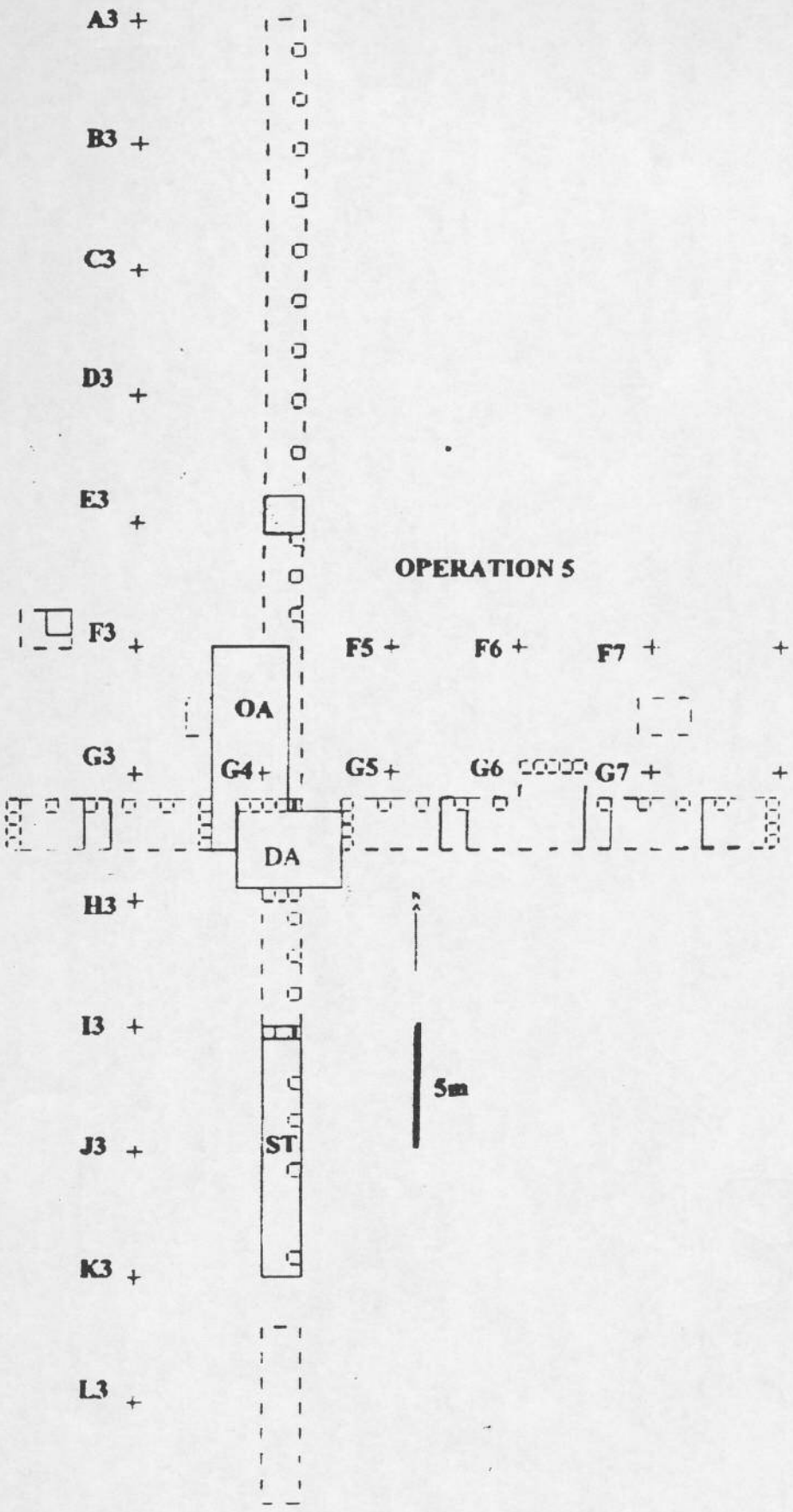


West profile of the South trench:

1)End of the ash deposit.
2)The rock layer with La Mula material.
3)Levelling possibly caused by the presence of larger rocks.

Plate 9

Plate 10


A3
B3
C3
D3
E3
OPERATION 5
F3
F5
F6
F7
OA
G3
G4
G5
G6
G7
DA
H3
I3
5m
J3
ST
K3
L3