VII. THE 1968 INVESTIGATIONS AT LA VENTA

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Acknowledgments

The individuals listed above and the authors of Appendixes I and II, Patrick S. Hallinan, Richard D. Ambro, James F. O'Connell, C. William Clewlow, Jr., and Christopher R. Corson, were all participants in the 1968 University of California investigations at La Venta. We wish to acknowledge our indebtedness to the following persons who aided us:

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Dr. Carlos Pellicer, founder of the Museo del Estado in Villahermosa and a strong supporter of Tabascan archaeology, who also interceded with authorities at La Venta in our behalf when aid was needed most.

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We reserve for last our special thanks to Dr. Melvin Payne, President of the National Geographic Society, who since 1955 has remained interested and encouraging in the continuation of investigation of the La Venta site; and to Dr. Leonard Carmichael, Vice President and Chairman of the Committee on Research and Exploration of the National Geographic Society, who has received our applications for support and presented them to the Committee who has provided the funds for the 1968 La Venta expedition.

INTRODUCTION

The history of the discovery and early notices of the site of La Venta in the state of Tabasco, southeastern Mexico, has been set down in several places (Drucker 1952; Drucker, Heizer and Squier 1959; Coe 1965) and need not be repeated here. W. R. Wedel (1952:34-79) carried out important stratigraphic excavations in the Ceremonial Court area (otherwise called Complex A) in 1943, but it was not until 1955 that what can be called large scale investigations took place. This work, which lasted from mid-January to late May of 1955, was supervised by Philip Drucker and Robert F. Heizer, and the results were published in Drucker, Heizer and Squier, 1959 (hereafter referred to as DHS). Notwithstanding the considerable amount of time spent, and the generous support of the National Geographic Society in financing the work, the 1955 expedition did not succeed in making a map of the site area which lay to the south of the great pyramid, nor was serious search made to define the full limits of the site as evidenced by mound constructions. The "island" of La Venta was, in 1955, still covered with a dense growth of tropical forest, and the time and funds which would have been required to clear this vegetation were simply not available. It is not surprising, therefore, that as subsequent visits to the archaeological zone have been made, and as the heavy forest growth has been cut back, mounds whose existence was unknown to us have come into view, and mounds which were covered with monte have a rather different form than was assumed when their surfaces could not be clearly seen.

Since 1955 many changes have been made in the archaeological zone of La Venta. These are summarized in Paper I in this volume which deals with investigations in 1967, and in a conference paper given in October, 1967, at the Dumbarton Oaks Symposium on Olmec Culture (Heizer 1968). As of 1967, twelve years after the extensive explorations by Drucker and Heizer in Complex A, no archaeological work of a serious nature had been continued there.[1]

Drucker, Heizer and Squier were the target of a spirited and lengthy critical review of their 1959 archaeological report by W. R. Coe and R. Stuckenrath (1964). This review was answered by Drucker and Heizer (1965) with the conclusion that the 1959 publication was, in the main, correct. However, because of the Coe-Stuckenrath critique, we reviewed once more our excavation data and the conclusions derived from these. We realized that the radiocarbon dates which had been secured in 1957 from charcoal collected in 1955 (DHS 1959:264-267) might not be as accurate as they could be if they were analyzed with the more precise methods now available. A hint of this was in the C-14 age determination in 1965 of halves of two samples which had been radiocarbon dated in 1957 (Drucker and Heizer 1965:52). Dr. James B. Griffin of the University of Michigan kindly returned the unused portions of the charcoal samples collected in 1955 and these were radiocarbon dated in 1967 at the UCLA laboratory. The revised dating of the La Venta site by Berger, Graham and Heizer (1967) suggests that the age of La Venta lies in the time span between 1000 B.C. and 600 B.C.

Once the revised dating was accomplished, it seemed desirable to collect additional charcoal samples from the La Venta locality to verify this. Accordingly, Drucker and Heizer, with support provided by the National Geographic Society, visited La Venta in July, 1967, and in a brief but intensive campaign managed to collect a large number of samples of charcoal. While there, Drucker and Heizer observed the great pyramid which, for the first time, had come into relatively full view because of the recent removal of part of the forest cover from its slopes (pl. 2a).

The preliminary and essentially accurate observations of the pyramid made by Drucker and Heizer were presented at the 1967 Dumbarton Oaks Symposium (Heizer 1968), reported to the Instituto Nacional de Antropología e Historia in an account of the July 1967 work (Paper I in this volume), and in a separate note printed in Antiquity (Heizer and Drucker 1968). We made these preliminary reports for two reasons: (1) we preferred to correct our own past errors of observation, and (2) we had no plans or funds to return

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[1] R. Piña Chan and R. Gallegos made investigations in 1958 which have been reported on only in the most general way in Piña Chan and Covarrubias (1965:16-23). R. Squier's ceramic test pit data of 1963 have not been published.

to La Venta in the immediate future to study and map the pyramid in a careful way, and therefore thought that our brief observations on its unusual form should be communicated to our colleagues.

Had we known in July, 1967, that six months later we would once more be at La Venta with a large and competent group of graduate students, we would have waited to announce the "discovery" of the cone which we call a pyramid. Once more the National Geographic Society provided a generous grant to carry out a project during the months of January and February, 1968 – that of making a detailed topographic map of the pyramid, completing the map of mound structures and monument locations in the site called Complex B which lies to the south of the pyramid, and the excavation of ceramic test pits.

All of these aims were realized, although not in each case as completely as we had hoped. The chief reason for the incompleteness of some parts of the investigations is the result of an attitude which can only be described as unfriendly, uncooperative, and often hostile, directed toward us and our work by the Delgado Municipal of the village of La Venta. The Delgado and his "staff" set the tone of relationship at the outset when he stated that he could not permit our group to make investigations because he did not have the authority to do so, particularly since in his opinion all of the signatures which were affixed to our contract (between the Instituto Nacional de Antropología e Historia and the Regents of the University of California) were falsifications. We were warned, under threat of arrest and detention, not to proceed. That the Delgado's warning was not merely a bluff seemed supported by the recollection that in July, 1967, Drucker, Heizer, Mrs. Heizer, and Arql. Carlos Sebastian Hernandez, Conservador of the Museo del Estado in Villahermosa, had all been arrested at La Venta and held briefly until our authorization (INAH Concesión No. 5/67) was checked. The full story of six weeks of almost constant harassment by the local authorities – the interference of a "Vigilante" appointed by the Delgado to observe all our actions, the stirring up of local feelings against our group by spreading tales that we were excavating and stealing great treasure, the general belief that we were finding and removing gold from the site, attempts at a shakedown by the local sindicato, nightly tearing down of the walls of our ceramic test pits, confiscation of eleven of the Olmec sculptures which we discovered, removal of survey stakes each night, and continual confrontations and threats of arrest and bodily harm – all go to make the recollection of the attempt to carry out our mapping and exploration project something like a bad dream. Two members of our party, Arql. Carlos Sebastian Hernandez and Arql. Eduardo Contreras, Jr., who have been mentioned above, performed most valuable service us by communicating with federal officials in Mexico City and the Governor of the State of Tabasco, and these officials were able to reduce, but not stop, the harassment and threats by the local people. A series of distinctly

unfriendly articles about our work in local newspapers also proved to be a hindrance.

All of the above is a summary of our difficulties, and it is provided here as a partial explanation of why none of our ceramic test pits were completed and why the general site map is not more complete. There were many days when we felt that it would be dangerous for the group to divide up and spread out in two's and three's to do instrument mapping here, test pit digging there, or cutting acagual in another place to bring a mound into view so that it could be measured and mapped. All of this caused delays, and these are reflected in the shortcomings of our information.

THE LA VENTA PYRAMID

Mapping

Topographic survey of the La Venta pyramid was accomplished in three phases. First, the great mound of clay had to be cleared of vegetation (compare pl. 2a and 2b); this was done with a crew of sixteen local workers who performed this considerable task in a space of fifteen days, using machetes. Second, the contour map of the pyramid was made. Third, the platform upon which the pyramid had been erected was mapped.

The scale of the contour map of the pyramid (at end of volume) was one inch to 20 feet. This interval was chosen in order to best delineate the spatial arrangement of features which it displayed. The working contour interval of 8 feet was selected as one which would provide reasonable control and accuracy, and also permit rapid and comprehensive coverage of the entire pyramid and of the basal platform. Mapping was carried out by standard plane table techniques (Breed and Hosmer 1938).

The field maps were made on sheets of .005 polyester acetate engineering film. The high tolerance humidity coefficient and water repellent characteristics of this plastic material were very useful; more than once the surface of the plane table was literally awash in the afternoon downpours. The weather fluctuated between periods of heavy rain and high winds coming in off the Gulf to the north, and very hot, sunny days when the humidity was high. The dimensional stability of the plastic drafting sheet was essential because of the highly variable daily temperature extremes.

We used a Johnson plane table with Gurley telescopic alidade and Beaman stadia arc. The plane table was initially set up over the 1955 central datum point in Complex A, and a traverse run from that point to the summit of the pyramid. Lateral shots were taken to provide triangulation points at the base of the structure. Civil engineers of Petroleos Mexicanos had estab-

lished a triangulation point (a brass plate set in a square concrete base) on the summit of the pyramid and we used this convenient point as a central datum for our map, assigning to it an arbitrary elevation of 0'0". Azimuths were projected down the principal ridges which radiated from the vertex of the pyramid, and contours were plotted by side-shots taken in reference to each azimuth. Azimuths were verified by resecting previously plotted points, and by standard foresight and backsight procedure (Davis and Foote 1953: 410-432). Key distances were measured by a steel tape, and stadia distances were taken with periodic closures as an accuracy check. Failure of closure at contour 48.00 was 6.4 feet, horizontal distance. All contours with the exception of 8.00 were surveyed by sectoral procedure rather than by sequential side shots. Under these circumstances, some cumulative error was inevitable since, as Davis and Foote (1953:445) note: "Owing to errors in field measurements of both angles and distances, in general an unadjusted traverse will not close on paper even though the plotting be without error."

Since the slope of the structure averages 30 degrees (pl. 4c) and exceeds 75 degrees in some spots where there has been erosion, one can appreciate the difficulties involved in leveling the plane table and tripod legs, and in maintaining the stadia rod at the vertical. Strong winds, frequently preceding a norte, buffeted the surveying equipment as well as the surveyors. Inclement weather and difficult terrain are, of course, encountered in almost any kind of field surveying, but our mapping was unduly complicated by the additional uncopperative attitude of some of the local people. Strips of bright orange cloth used to mark our baseline reference stakes disappeared nightly and appeared the next day as hatbands worn by sightseers. Reference stakes were uprooted with monotonous regularity, and contour stakes were daily pulled out and pitched into the deep grass at the base of the pyramid. In retrospect, it seems that we cut and drove as many stakes as were used to survey the Central Pacific Railroad.

Despite delays, however, we were able to complete the detailed contour map of the La Venta pyramid. Our map, which is published here (at end of volume), is, we believe, an accurate one. If any reader desires to look at the pyramid, we suggest that he do this sooner rather than later. The Delgado Municipal told us several times that it was his intention to have a roadway cut with a bulldozer which would spiral up to the top of the pyramid so that tourists could reach the apex of the cerro without the effort of climbing there on foot. Having considerable respect for the abilities of the Delgado to do the unexpected and unusual, we would not be at all surprised to learn that he has done precisely this. Such modification would, of course, be an act of destruction, and would be all the more unfortunate since this particular pyramid seems to be the oldest in the New World. There is every reason to hope that it may be spared such a fate in order that it can be adequately explored.

Form

The present map of the La Venta pyramid supersedes the preliminary base plan published by Heizer and Drucker (1968). It is evident that the pyramid has a circular base plan. Some erosion, especially on the north and west sides, as well as earth removal with a bulldozer in 1958 along the east and south basal margins, obscure to some extent the original base form. The dimensions of the pyramid given in DHS (1959:11) as 420 feet long (N-S) and 240 feet wide (E-W) are, as pointed out, quite incorrect, as is the rectangular base plan and four flat sloping sides shown in DHS (1959). Heizer and Drucker (1968:54) suggest that the original basal diameter was 390 feet. Using the present more accurate map, we prepared a series of circles representing scaled diameters ranging from 400 to 460 feet. A transparent copy of the contour map was superimposed over these circles, and it was apparent that 420 feet is the most probable original minimum diameter. This figure we now propose as a final one.

The calculation of the height of the La Venta pyramid is something of a problem. The mean height for the original structure was stated by DHS (1959: 372) to be 100 feet, and after further consideration we believe that this figure is still acceptable. The surface level of the surrounding terrain differs at different points on the perimeter of the pyramid. The so-called "platform" extending along the southern and eastern margins of the base of the pyramid represents, in our opinion, an artificial fill which was laid down to provide a leveled base for the pyramid construction. Why it was built to the heights it was we cannot say for certain, but it is likely that this elevation was selected by the original builders in terms of a fit with the level of mounds and the low-walled Court or plaza referred to as Complex A, which lies to the north of the pyramid. A further problem concerning the estimate of the original height of the pyramid comes from the report that some time after 1955 Petroleos Mexicanos enlarged the surface area of the truncated top of the structure by removing one to two meters of soil and dumping this over the side. That this was done is quite apparent, but how much earth was moved cannot now be determined. Everything considered, we believe that a suggested original elevation for the pyramid of 100 feet above the leveling platform is reasonably accurate.

As the pyramid slowly emerged into plain sight as the chopeadores cut down trees and scrub, it became clear that Drucker and Heizer had been correct in their observations made six months earlier, that the sloping sides of the pyramid bore a series of alternating ridges and valleys—in all, ten of each category. These vary in width and depth (see map of the pyramid at end of volume and pls. 1 - 4) and are not equally spaced. In part, the differences in the width and depth of some of the valleys or depressions, and correspondingly of the intervening ridges, is due to erosion.

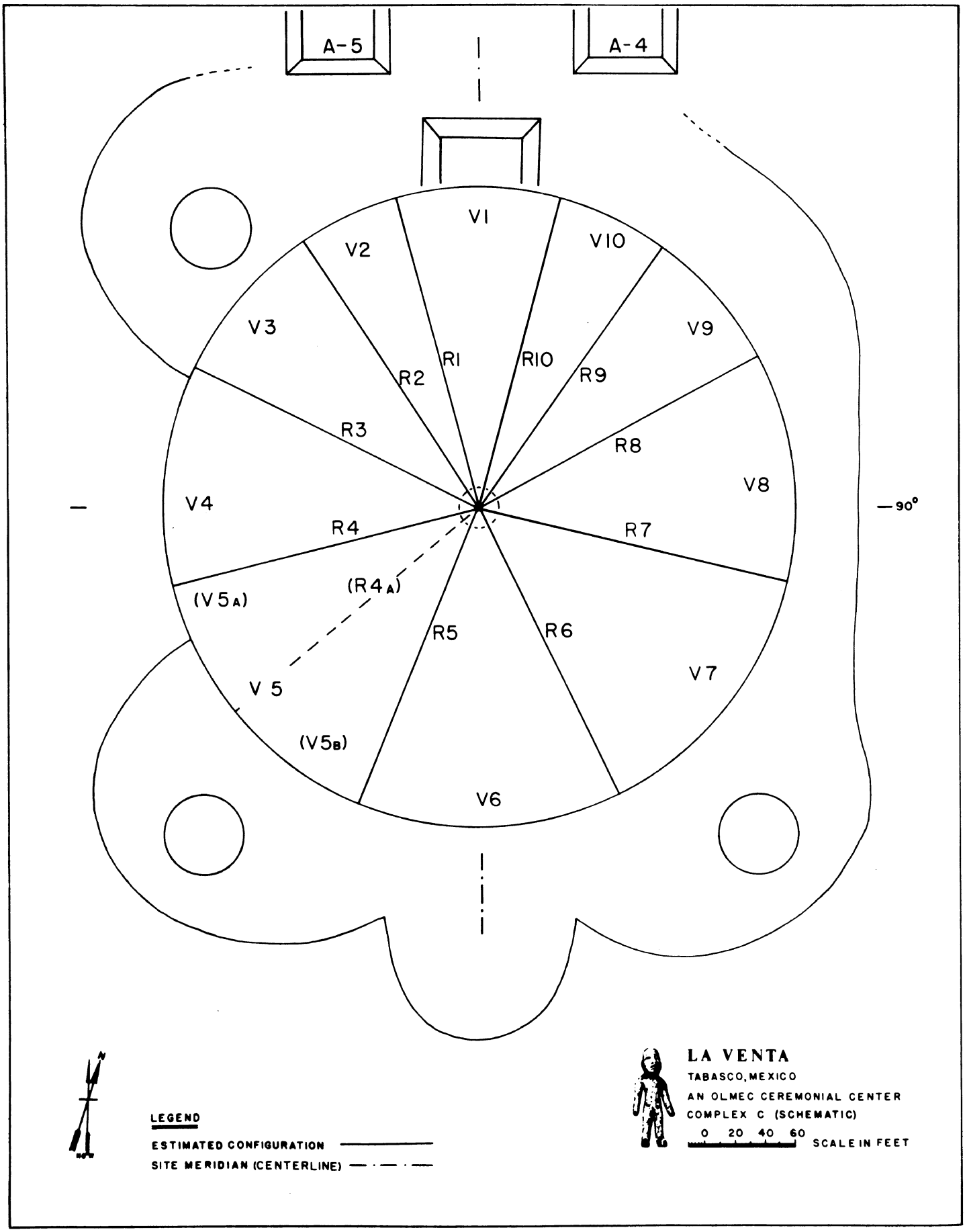


Fig. 1. Schematic plan of La Venta pyramid

The ridges and valleys on the east side of the cone are the most regular and best preserved (pl. 1); the main or central valley which faces north (pls. 2c,3a) and the valleys which face west (pl. 2d) show the greatest amount of erosion. This differential erosion can be accounted for, we believe, by assuming that on the north along the centerline a trail has been kept open since ancient times for people to climb to the top of the mound and enjoy the view. If this is so, the occasional hacking off of a shrub or sapling to keep the trail conveniently open would have had a cumulative effect of exposing this line to erosion by rain, with the result that gullying and washing continuing over a long period of time have reduced the surface level and widened the valley. It is logical to assume that the original trail, perhaps in the form of a stair or ramp, may have run up the center of the structure on the north face, for this is the line which faces Complex A, but we did not note any constructional evidence for this on the surface. Excavation in future may bring some evidence for a formal approach to light. The series of four pits dug into the west face of the ridge (R 10 in fig. 1) sloping down into the centerline valley (V 1 in fig. 1) were exploratory pits dug by Drucker in 1940 when he was examining the densely forested La Venta area for likely spots to collect sherds. But beyond these recent pits, one gets the impression that a considerable amount of ancient pit digging has gone on in the V 1 depression. It occurs to us that this was done by post-La Venta occupants of the area who were scratching around looking for some kind of "treasure" (stories of treasure in the cerro are common at La Venta; cf. Foster 1964) which they hoped might be found there, or who may have stumbled on the fact that "treasure" of the Olmec variety (especially jade objects) did indeed occur, buried in the form of ritual offerings in V 1, and exploited this discovery. Once more we can only say that careful archaeological exploration of V 1 may provide hints on the cause(s) of its erosion. Heizer and Drucker (1968:54) suggest that after the abandonment of the La Venta site by its designers and builders, a local population of farmers may have lived on and around the site and built houses on the west side of the pyramid where there is protection from the full force of the nortes which are common from November to February. If so, the west exposure of the pyramid may have been cleared for growing crops, and thus been exposed to greater erosion than the other sides.

Beyond these departures from a regular or mechanical distribution of ridges and valleys, we noted that between R 4 and R 5, in what we take to be V 5, there is an extra low and incomplete ridge (labeled R 4a, which separates V 5a and V 5b). This is clearly an anomaly, and R 4a appears to us to be a fill which has been dumped into what was originally a single valley (V 5) and a duplicate of several others (V 4, V 6, V 7, V 8) as regards width and depth. We invoke again (but without any supporting evidence to bolster the suggestion) the assumption that in ancient times, presumably after the abandonment of the site by its original builders, a

group of treasure seekers dug a large hole in the top of the pyramid and dumped the spoil into V 5. This loose fill then formed a ridge through vertical cutting by water erosion at the two most vulnerable points; namely, along the juncture of the loose fill laid up against the sloping and consolidated clays of ridges R 4 and R 5. This hypothesis could be tested by exposing a continuous section in a trench extending from the crest of R 4 to the crest of R 5. We had the intention of doing this, but our relations with the Delgado Municipal, who felt very protective about the pyramid on which he hopes to build a summit access road, persuaded us that this would be inadvisable.

Figure 1 represents our effort to derive a geometric plan of the perimeter circle of the pyramid, and to delineate the ridge system by lines drawn along the crests. In this figure the lines labeled R, of which there are ten, are ridges; the intervening V designations, of which there are also ten, are the valleys. Some judgment and extrapolation are required to derive such a figure, and we do not press our attempt as a final, or necessarily accurate, one. However, regardless of who might draw such a figure, it would look rather like the one we have made, though the internal angles of the radial (ridge) lines might differ slightly. What seems obvious is that the La Venta pyramid was planned according to a definite geometric design. We note, for example, that the centerline of the site (orientation 8 degrees west of true north) runs through the midpoint of two valleys (V 6 on the south, V 1 on the north), and that a line drawn to the perpendicular of the centerline from the center of the basal circle also runs through the approximate midpoint of two valleys (V 8 on the east and V 4 on the west).

Our measurements of the inner angles formed at the junctions of the ridge radii (R 1/R 2, R 2/R 3, etc.) are as follows:

Ridge angles	Degree of arc
R 1/R 2	18
R 2/R 3	30
R 3/R 4	40
R 4/R 5	53
R 5/R 6	50
R 6/R 7	51
R 7/R 8	41
R 8/R 9	26
R 9/R 10	20
R 10/R 1	31

There may be some pattern or system here beyond the immediately visible one where the ridge angles of the northern half of the pyramid are smaller

than those of the southern half. Incidentally, ignoring R 4a as an original ridge and assuming that V 5 filled the area between R 4 and R 5, makes for a much more regular pattern. We should add that the R 4a anomaly was observed in the field, there discussed at length, and the decision made to consider it as a probable later imposition on the original structure. That this is so we believe to be highly probable, even though our gratuitous explanation as to cause might be incorrect.

Suggestions have been made earlier (e.g. Heizer 1960, 1961) that the La Venta Olmecs were astronomers. This could not then, and cannot now, be proved with information presently available, but the proposition is not thereby ruled out. Much has been written about the part the Olmecs may have played in the development of the calendar to which the name of the Maya is usually attached. This also seems, at the moment, beyond proof since such glyph-bearing pieces as the Tuxtla Statuette and Stela C from Tres Zapotes are not fixed at all, or only tentatively, in the Olmec cultural-chronological sequence, even as imperfectly as this is now understood (cf. DHS 1959: 263-264). What we can suggest, however, is that the La Venta Olmecs were practicing metrologists and geometers, the evidence for this being the adherence of the centerline of the site as a lineal reference and the considerable indications that some efforts were made to space site features in a balanced and equidistant relationship to the centerline. Until now we have thought of La Venta as having been laid out by designers who were "right-angle oriented" in their planning programs, but the pyramid layout shows that they were also "circle conscious." It is tempting to think hopefully of the La Venta pyramid as having some astronomical observatory-horizon sighting-calendrical function, partly because we have all been made aware of such circles with these functions that are rather older in Europe; e.g. Stonehenge (Callanish and Hawkins 1965a, 1965b), and a number of other British megalithic sites which have been studied by A. Thom (1966, 1967). The present authors are not competent to speculate on what the purpose and aim of the original La Ventans may have been in devising lines of orientation, on the possible La Venta measurement unit, whether the La Venta pyramid was a sighting station, and why the site combines both circular and rectangular constructions.

We calculate the approximate area of the base of the pyramid as 138,544 square feet (12,871 square meters). If the cone were a smooth surfaced conoidal frustum, its volume would be 4,212,034 cubic feet. The cubic content of the ten valleys would have to be calculated and subtracted from this figure to secure a relatively accurate figure of the actual cubic mass. We have not done this, but believe that the figure earlier proposed by Heizer and Drucker (1968), of 3,500,000 cubic feet (106,680 cubic meters), is an acceptable, though admittedly approximate, figure.

The Platform Base

Our 1968 map of the pyramid (at end of volume) includes the platform or base upon which the pyramid was presumably erected, and which is most prominent on the south, and to a lesser extent on the east, side of the pyramid. This platform was covered with heavy growth both in 1955 and in July, 1967. The map in DHS (1959, frontispiece, figs. 4,5) is quite incorrect, as Heizer and Drucker (1968) have admitted. The present (as of February, 1968) shape and the contours of this platform are shown in our 1968 map. It was quite clear to us on the ground in early 1968 that the present form of the platform south of the pyramid (pl. 3b) was in part a recent artifact. We were told that in 1958 a Pemex bulldozer was used to level off backdirt piles and to cut a low face against the toe of the pyramid. The signs of this earth-moving are quite apparent today. The earth was then moved to the edge of the declivity of the original, and perhaps somewhat eroded, platform in such a way that the bulldozer operator was the author of the straight-edged, steep-banked, right-angled corners which are now apparent. In 1967 we sensed that something of the sort had happened, but the vegetation cover which we did not clear prevented our having a clear view of the construction. We did clear the platform in 1968, and found that our proposed form of the platform published earlier (Heizer and Drucker 1968, fig. 1) is reasonably accurate.

Originally the platform seems to have taken the form of three arcs, the central one of which (now much emphasized due to refashioning by the bulldozer) held two altars (Altars 2 and 3). Each of the arcs which flank the central one bears a small, low mound. Whether these contain or cover something, or served as bases for monuments erected on their top surfaces, we do not know. No platform-leveling base can now be detected along part of the west side of the pyramid base. Whether this once existed and has since been removed, or whether it was never built, we cannot say. The northwest "corner" of the pyramid bears an elevation with a small mound on top, forming a feature reminiscent of the two balanced arc-platform lobes with similar mounds at the southwest and southeast "corners." There is no corresponding leveling platform arc or lobe at the northeast "corner." There has been so much disturbance, resulting from digging and bulldozing carried out after 1955, in the area north of the pyramid (i.e. Complex A) that Mounds A-4 and A-5 are no longer visible. How the leveling base-platform joined, or did not join, with these mounds we cannot now, and probably can never, tell.

With this we leave our observations on the La Venta pyramid. We do not consider that our investigation has done much beyond learning what its size and form are at the moment. But even this contemporary record is sufficient to allow us to say that it is probably the most unusual Olmec architectural construction thus far discovered. This great construction will no doubt be investigated in future, and if it should remain without further material damage, we can hope to learn something of its constructional plan and contents.

SITE PLAN OF LA VENTA

An effort was made to complete the plan of the La Venta site during our 1968 program of work. The pyramid, of course, was part of this, and the site extension (Complex B) to the south of the pyramid was the other part. Complex A to the north of the pyramid has been, we believe, adequately mapped (DHS 1959). This section of the site has been so torn up by bulldozers that no surface feature whatsoever exists that can be identified as being present in 1955. The 1955 map of Complex A, therefore, is the best we will ever have.

There are numerous houses in the west and south sections of the site which have encroached upon the archaeological zone, and there has been a good deal of earth-moving with bulldozers and road-graders which have been busy leveling low mounds and using the earth to fill in depressed areas. A number of sculptures have been turned up in this process and the official INAH guardian, Sr. Fermin Torres, has made every effort to secure such finds and deliver them to the Museo del Estado in Villahermosa where they can be preserved. The Guardian was also our labor crew foreman, and was therefore in an excellent position to point out the locations at which these salvaged monuments had been discovered. With his help we were able to relocate all of the known monuments still in place and to spot the find locations of removed pieces. This information is contained in our plan of the La Venta site (at end of volume). We have used the widely employed conventional symbols for site features (cf. Carr and Hazard 1961; Andrews 1967) for indicating mounds, and the reader is warned that while the map may show right-angled corners and flat-topped mounds, these features may in fact be rather different. We do not know what their original contours may have been since only excavation could hope to provide this information. Identification of the different sculptures (monuments, altars, stelae, colossal heads, etc.) shown on the map can be found by referring to Appendix II of this paper.

Among our observations is the existence of what we have called the "Great Platform" which stands southwest of the pyramid. This is an acropolis-like structure, apparently built of clay and capped with occupation refuse. No sculptures were found in our ceramic test pits (Nos. 1967-5, 1968-1, 1968-3, 1968-7) which were dug here (see p. 154). We became aware of the rectangular form of this huge platform only after seeing it from the helicopter. It is covered with a dense growth of scrub and no clear view of it from ground level can be obtained, but from the air it stands out boldly as a single feature with a flat top and sloping sides. In our ceramic test pits we dug down to and barely penetrated the underlying tough construction clay levels. We did not proceed further than this because we were under constant harassment from rock- and bottle-throwing visitors during the day and by would-be looters who must have spent much of the night tearing down the walls in the

hope of finding some of the valuables which they seem to have assumed we were recovering. What these local excavators (who presumably secured their permits from the Delgado Municipal) found we do not know, but what little we learned is included in Appendix I below.

South of the Great Platform, and apparently in line with it, is another, narrower, longer, and lower mound. Its form as shown here is only a guess; it was not actually surveyed but is sketched in. That it is part of the general site complex is indicated by a large andesite boulder encountered earlier, and re-exhumed by us, in a well at its southern margin. A nearby and smaller mound (not shown) is said by local people to be a rich producer of clay figurines which children dig and sell to tourists. Monument 56 was found while digging a large open reservoir, and it seems probable that this section of the site, although covered with houses, still contains a number of buried sculptures.

South of the pyramid and sitting astride the centerline is the remnant of a large, low clay mound from which numbers of monuments have been recovered. More such, we believe, remain to be discovered here. Part of the western half of this low mound still remains, but it is also the site of several houses.

What is labeled the "Long Mound" (a term applied originally in 1940) also has some houses on its top and flanks. Not shown on our plan of the La Venta site is a cut about 25 feet wide which was made with a bulldozer and which runs directly in line with the two altars (A 2 and A 3). This cut was made in 1959?, according to a local report, to permit access to Altar 3 when it was removed to the Parque La Venta at Villahermosa. South of the Long Mound is what appears to be another similar mound, but its length was not determined nor are we certain that this is an artificial construction. It is said that Monuments 52, 53, and 54 lie at the southern end of this mound, but we did not visit the locality and cannot vouch for the accuracy of this claim.

Just west of the Long Mound is a prominent conical mound which we cleared. It shows an old, unfilled trench which runs north-south and which, by local report, was dug by Drucker in 1940. It is said that he found an offering(?) of about one gallon measure of obsidian flake blades ("razors") in the center of the trench.

Also found by us was the complex of structures which we have labeled the "Stirling Group" (see site plan) and which lies to the east of, and alongside, the Long Mound.

THE STIRLING GROUP

Mound Features

As we found an extra hour when things seemed quiet, we would go off with Fermin Torres as guide or by ourselves (usually at the risk of being snapped at by an unfriendly dog or two, or surprising a local person when we cut through his yard, or, as in one case, running into a well muscled, machete-wielding deaf mute weeding a milpa who warned us most graphically of the dangers of wandering about and getting bitten by a fer de lance, nauyaca) to try to spot mounds or locate known monuments to be later placed on the map. On such an exploratory walk we visited the detached basalt columns which had been pointed out to Stirling in 1940, who at the time dug a small pit to expose a series of six of these upright columns aligned in a north-south running row (pl. 4b). We were conscious of being on an elevation, but could not see its extent because it was thickly covered with acagual (second growth forest perhaps five years old). After the pyramid had been cleared of its growth, we moved the chopeadores to this elevated area and had them clear a section amounting to about 5000 square feet. An occasional fragment of basalt column (similar to those which bordered the Court or plaza of Complex A) occurred on the surface, but so far as we could see the columns or fragments were not distributed in any kind of a detectable planned array.

By chopping trails in the brush, we came to sense rather than see that we were on the top of a large, sloping-sided elevation. Standing on the southern edge of this high ground, and beyond the foot of the slope, was a broad, flat area, and at the southern edge of this flat area (near the west edge of which Altar 4 had been found by Stirling) stood two long, narrow mounds whose axes ran north-south. We could not decide whether we had a new and separate site or whether there might be a larger mound arrangement at La Venta of which the features just described were a part. When we were able to spend part of a day, toward the end of our campaign, inspecting and photographing the site from a helicopter made available by Petroleos Mexicanos, we saw immediately that the elevated area and the flat expanse to the south with the two long, narrow mounds were a unit. We have named this the "Stirling Group" in recognition of its original discoverer, and as a mark of the regard in which we hold Matthew Stirling. We have called the elevated area to the north the "Acropolis," the flat area the "Plaza," and the two mounds the "Ball Court." Whether the Plaza was in fact a plaza we do not know, and whether the two parallel mounds were a ball court in fact we do not know; only excavation will answer these questions.

The two parallel mounds are not identical. That on the west is 160 feet long; the other is 116 feet in length. Each is about 40 feet wide. We were so short of time that we could not trench the floor between the two mounds, and for this reason we cannot say more than that the mounds look like a ball court.

It was well known to us that the La Venta site area was overlaid with a relatively loose "drift sand" surface ranging in depth from 2 to 4 feet depending upon location. This sand is not actually drift sand which has been moved by gradual ground advance, like a dune in migration, over the surface. We believe that the surface sands that occur at La Venta have been transported by strong norte winds which have picked up the sand from the exposed beach dunes on the Gulf coast and deposited it in precipitation. We have noted on many occasions after heavy rain at La Venta, while we worked despite the drenching, that our clothing was full of sand, and assume that this has come with the rain. Over years, decades, centuries, and millennia, the result has been the formation of a loosely laid sand surface on La Venta. Where it is lacking we assume that washing has removed it and deposited it elsewhere, and where it is abundant we assume that conditions were favorable for its deposition and retention. In any event, it is clear that since the La Venta site was abandoned by its makers some natural process has caused the deposition of the layer of sand - which is from two to three, and at times four feet thick - on top of the site structures (cf. pl. 6c). We noted in the section of the site we are presently concerned with that the familiar surface sand layer occurred. Since this is relatively soft, we decided to experiment with steel probes which we had made at an ironmonger's shop in Coatzacoalcos. These were fashioned from round iron rod half an inch in diameter and with an 18 inch T-handle welded on one end. These penetrate the upper sands quite readily, and when the sharpened tip encounters a stone or the tighter clays beneath, its progress is impeded. We are conscious of the disapproval of some of the use of such steel probes, but at La Venta nothing can be harmed by such tools, and when one is short of time it is a useful alternative to blind exploration by trenching through sterile overburden.

Employing the probes, we examined the cleared area about which we are speaking, and soon encountered numbers of stones at a depth of about 3 feet. Suppressing our curiosity, we continued the probing and marked each spot where stone was struck with a sapling stake. After a day we were working in a maze of stakes, and only then decided to examine the nature of the stones which had been encountered by the probes. All of this was done in the last ten days of our investigation, so our report on what we discovered, and our estimate of what remains to be brought to light, must be judged by this very brief period of examination.

Not far to the northwest of the columns discovered by Stirling in 1940 (see Plan of La Venta Site map) we found a concentration of buried stones. Opening this area by shoveling off the surface sand layer brought us to the surface of what were clearly construction clays, and lying on and in the upper members of this clay layer were a profusion of stone sculptures (Monuments 39, 40, 41, 44; see site plan map). This excavation was begun with

some trepidation since we felt that we were risking the strong reaction of the Delgado Municipal who had warned us of severe penalties if we overruled his order to refrain from excavation. However we decided to take the risk, and proceeded to dig. The Vigilante was, by usual country Mexican standards, unusually efficient, and within an hour of the exposure of these pieces, and while we were attempting to record their occurrence in notebooks and with the camera, we were honored with what was probably the most overwhelming display of local political power that has ever been exhibited at La Venta. About thirty persons, all "official" in varying degrees, descended upon the excavation and we were soon in the middle of - to use a now-hackneyed term - a confrontation. The Delgado insisted that the sculptures belonged to him; we demurred, saying that according to our Concesión we were responsible for them and could not deliver them to him. He countered by saying that if we did not surrender them he would forthwith clap all of us into his jail; we answered that if he insisted upon this he must then sign a document in which he assumed full responsibility for his seizure and the safekeeping of the monuments. He retorted that not only was he not going to sign any paper but that since the sculptures were already in his possession that we were going to deliver them to the Delagación, and that if we did not we were going to be clapped in the jail. Under the circumstances there was nothing else to do but agree that he held the winning hand, so we transported the seized sculptures (no small task since they weighed in at about 1200 pounds) to the municipal headquarters. What else can one do when faced with such alternatives? We had one bad moment in the process when we failed to believe that the Delgado was serious about also wanting a rough chunk of bright green schist, weighing about 50 pounds, carried to his headquarters. Our failure to understand that he believed this to be a piece of jade (his knowledge of petrography probably being limited to the observation that rocks come in several colors) convinced him that we were refusing to release the piece and we were only with difficulty able to allay his hostility. We were certain that we were on good legal grounds for objecting to his confiscation, but since he was representing one hundred per cent of the law at La Venta on that day, and on the site at that moment, and he was supported by two score adherents, all armed with .45 automatics, we thought it the wisest course to submit to overwhelming authority and firepower. At this point we attempted, through Arql. Hernandez and Arql. Contreras, to gain some outside support, and this we did through a series of telephone calls and telegrams to state officials in Villahermosa and federal officials in Mexico City. We did receive some support, mainly in the form of an official visit of the Superprocurador (roughly, the Attorney General) of the state of Tabasco, who examined our documents and affirmed our official right to be at La Venta and to be making our investigations. In the end (although it was almost literally the end because our time to close down the work and return to California was only a few days away) we achieved a stand-off.

While all this was going on, and in the hope of avoiding further exacer-

bation of what can only be called an undesirable amount of attention to our work, we decided to risk everything and dig to examine the nature of other stones which had been encountered by the T-handled probes. First, we discovered something entirely new: the U-shaped drain (Drain No. 1) running in an east-west direction and situated toward the eastern edge of the elevated area where we were so happily (and unhappily) engaged in exploration. Then, in succession, in a matter to two days came the discovery of the stone bowl (Monument 45), Drain No. 2 (with its fragmentary stone bowl, Monument 55), Drain No. 3, and Drain No. 4. And there we ended, our time having run its course—with the local newspapers publishing inflammatory accounts of our doings and the Delgado in possession of eleven of our monuments which we had only briefly seen before they were impounded.

During the brief time (in retrospect it seems a very long one) we were engaged in the controversy over whether we had a right to excavate, and when we did excavate and find sculptures, to whom the sculpture belonged, we had a work crew standing by. We had them continue to clear the vegetation (this was considered a non-controversial activity) and dig trenches or pits in areas where we hoped no important finds would be made. Since the stone drains did not seem to excite the acquisitive envy of the Delgado (we are thankful that the igneous rocks are not colored green), we exposed Drain No. 1 in its entirety, and extended the trench in which it lay both to the east (toward the south edge of the Acropolis) and to the west, during which process we encountered Monument 45 and Drain No. 5. We also collected charcoal for radiocarbon dating from identifiable features and levels as we were excavating. The few ceramic samples found in this area are described in Appendix I; the monuments discovered here (Nos. 39-46, 55, 57) are described in Appendix II.

Drain No. 1 (pl. 5): The 1955 excavations at La Venta had produced a green schist piece which was L-shaped in cross section (Monument 24) and reminiscent of, but not identical to, the U-shaped trough stones with open ends that had been discovered by Stirling some years before at the San Lorenzo site. In the La Venta site proper (i.e. Complex A) no drain stones have been recovered. M. Coe, who has been conducting a reinvestigation of the San Lorenzo site, has learned that in that site there are a number of drains composed of lines of U-shaped troughs laid end to end and covered with dressed stone slabs (Coe 1967). In the light of the many duplications known to exist between La Venta and San Lorenzo, it seemed unusual that such stone drains were lacking at La Venta. At the same time, each of these sites has produced some forms (e.g. the pyramid at La Venta; the stone ball at San Lorenzo) which are peculiar to one or the other locality, and the possibility remained that the San Lorenzo group was interested in stone-lined conduits and the La Venta group was not. We were therefore more

interested than surprised to discover a drain made of U-shaped blocks of gray vesicular basalt near the eastern margin of the Stirling Group Acropolis. The drain consists of 16 troughs and seems to be complete. All are Type III (fig. 3, pl. 4d). The stones range from 47 to 50 cm. in length and are consistently 42 cm. wide. The intake of the drain at its west end has been added to, using available emergency materials rather than shaped troughs (pl. 5c,d). A section of a basalt column laid lengthwise forms one side, and two limestone slabs set on edge form the other side (fig. 2). A partial cover is formed by a trimmed sandstone slab, and the intake is closed off with a schist block. Whether this is a headgate mechanism which was blocked with the schist slab, or whether the drain made a turn to continue to the north through the opening between stones h and f in Figure 2, we do not know. There is one gap in the otherwise continuous run of trough stones, the gap being number 13 counting east from number 1 shown as a in Figure 2 (cf. pl. 5a). Here some flat, palm-sized pieces of white limestone have been set up on edge on either side to contain the flow. The joints where two troughs were set end-to-end were sealed with asphalt, traces of which can be seen at nearly every juncture. Some portions of the drain are covered with partly trimmed stone slabs of limestone or andesite. There are four such cover stones: one covering trough number 2 near the west end; three in a slightly separated group just east of the center of the run of the drain; and one at the east end (pl. 5a-d). Since the drain had been laid down and covered with some kind of red-yellow clay construction and was filled level with the top of the trough stones with a blue-gray gumbo

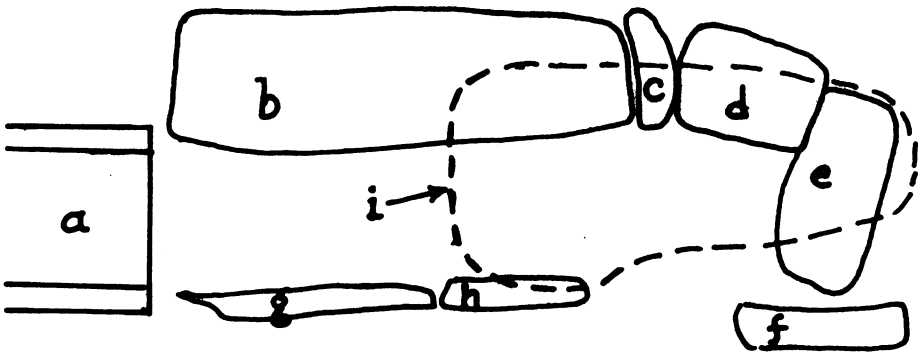


Fig. 2. West end of Drain No. 1. a, U-shaped trough stone; b, basalt column; c, f, andesite metates; d, unworked schist block; e, schist block; g, h, limestone slabs; i, outline of sandstone cover slab.

(pl. 5a), it is clear that the drain channel had been covered while it was in use. The only reasonable explanation is that wood or some other perishable material which has left no discernible trace was employed for this

purpose along its course where stone was not used. The total length of the drain is 39 feet (11.89 m.). It was exposed and noted and then covered again to preserve it for future investigation. The fall of the drain from west to east is 34 inches.

Drain No. 1 appears to have been covered over by a low clay mound structure, the dimensions and function of which we are quite ignorant about. The mound structure may have been a raised edge or border or levee surrounding an open tank or reservoir. A trench continued to the west from the west end of Drain No. 1 gives good evidence that a depression of about 5 feet existed here. The bottom slope is gradual, increasing in depth about 3 inches per foot until it reaches maximum depth at about 20 feet west of the end of Drain No. 1. West-east width of the depression or reservoir at the point of our trench cutting is about 50 feet, and it appears that the depression deepens to the north since the sand infilling is slightly deeper on the north wall of the trench than on the south wall.

On the east edge of the presumed reservoir, at a distance of 60 feet west of the west end of Drain No. 1, we found a large stone bowl (Monument 45) made of andesite. Beside it lay what we take to be its lid or cover, in the form of a round sandstone disk 42 inches in diameter and 3 inches thick (pl. 6c). The bowl and its lid were encountered during excavation of the trench which was run to the west as an extension of the trench in which Drain No. 1 was exposed. No other features that can be associated with the bowl occur in the immediate vicinity, and the best we can do at this time is to suggest that the stone bowl was sitting on the edge of the open pool. The bowl was imbedded in the upper part of the red and yellow mixed construction clay, and the lid lay on the surface of the clay fill. The lid was covered with, and the bowl was filled with, surface drift sand, and it appears that when the site was abandoned, the slow process of sand deposition which ultimately covered the stones began. The sand here has a depth of 30 inches.

In the lower part of the surface drift sands and above the clay construction surface, we found at a distance of 8 feet east of Monument 45 a ring of stones, mostly half metates, 5 feet in diameter (pl. 6c). Inside the circle was a thick layer of almost pure wood charcoal. M. Coe suggested that it was a temescal, and this seems possible. Samples of the charcoal have been radiocarbon dated at Yale (Y-2378) as 1370 $\pm$ 80 years B.P., and at UCLA (UCLA-1350) as 1150 $\pm$ 80 years B.P. We believe that its presence is fortuitous and has nothing to do with the Olmec occupation of the Stirling Group. The fact that it lay in the upper drift sands also shows this to be the case.

Drain No. 5 (pl. 6a,b): In the same trench in which Drain No. 1 and Monument 45 were found, and at a point 10 feet west of Monument 45, we encountered another drain. This is incomplete, probably due to removal in ancient

times of some of the trough stones, but the one which we discovered is in place and is covered with a roughly rectangular slab of sandstone. In form it is so unusual that we assigned it a monument number (No. 46). It is made of fine-grained gray andesite, weighs about 125 pounds, and bears at each end two "female" mortise-steps into which, we assume, fitted "male" tongues or tenons (pl. 6b).

Drain No. 5 was buried deep in construction clays and was inclined to the west at a fairly steep angle. Like the trough stones of Drain No. 1, the channel was firmly packed with a gray muck quite unlike any of the surrounding soils. Beyond this single trough, and exposed in the vertical trench wall, was a continuation of the same gray clay, but no evidence of a trough stone or other imperishable side, cover, or bottom elements was noted. A broken metate set on edge seems to have supported the end of the trough stone (pl. 6a). This trough is classified as Type I (fig. 3). We believe that Monument 46 marks the terminal element of a once longer drain which emptied into a plank-lined conduit. Like most features we encountered in the Stirling Group, we cannot at the moment determine its point of origin or destination, or how it may have been associated with other drains, or the water source from which it originated.

Drain No. 2 (pl. 7a,d): About 130 feet west and a little south of Drain No. 5 we found another sluice, Drain No. 2. This consisted of four trough stones set in a line and dipping sharply down to the east. The fall amounts to 23 inches in a distance of 9 feet. The trough at the west end lay in the upper drift sand, the three which lay east of it were covered with construction clay. Just above stones number 3 and 4 was a stone bowl (Monument 55), similar to Monument 45 except that it was represented by about one-third of the original bowl and was smaller and less well fashioned. There are two unusual features of Drain No. 2. First is the profile of the stones which are somewhat wedge-shaped and have a channel which seems disproportionately narrow and shallow. These are classed as Type II (fig. 3). They range from 60 to 80 cm. long and are 33 cm. wide and 30 cm. high. Second is the fact that all four of the troughs are inverted so that they lie with the flattened base up and the water channel opening down. The fact that they lay imbedded in solid clays which showed no detectable sign of disturbance and are aligned in what would seem to be working arrangement, indicate to us that they may have originally been set in this way, perhaps lying on wooden planks to form a continuous and open sluiceway. The cover of dense clay fills may have been sufficient to seal the joints and prevent escape of the water in the joint between the base of the stones and the (assumed) wooden base. The matter of whether the drains were in their original situation could not be settled beyond question by our group, but later archaeologists will find this drain, barring disturbance by site looters, in its original position and can answer this. Our opinion is that the drain troughs are in their original position.

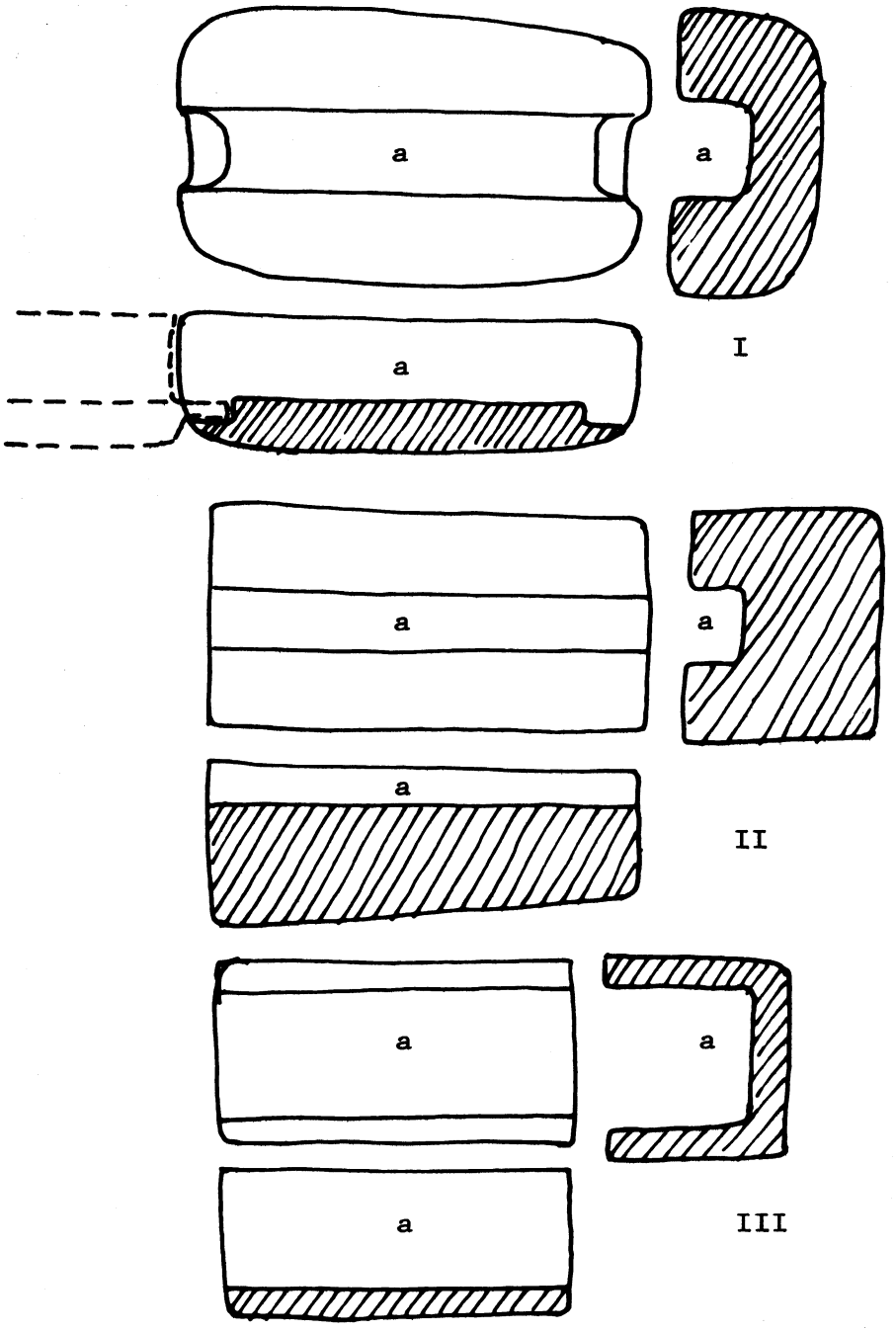


Fig. 3. Major types of trough drain stones
a, water channel

Four stones, which can be seen in Plate 7a, may have been some kind of "headgate" mechanism, although how this would work is beyond our ability to guess. The two flat-lying stones are a semi-dressed piece of green serpentine and a flattened cobble of andesite. The two stones standing on edge are a broken andesite metate and a fragment of the base of the stone bowl (Monument 55) which can be seen in the background.

Drains No. 3 and No. 4: A short distance to the northwest of Drain No. 2, and running at right angles (i.e. north-south) to the line of Drain No. 2, was a double drain which is interesting because it also proposes inconsistencies. Both drains are incomplete, having been disrupted by removal of some trough stones in ancient times. Although both drains are in line (see Plan of La Venta Site map), one of them (Drain No. 3) has the sluice channels in normal (i.e. for us) position (pl. 7b), While the other (Drain No. 4) resembles Drain No. 2 in having the troughs inverted with the flat bottom uppermost and the channel facing down (pl. 7c).

Drain No. 3 runs for a total length of 15.75 feet (4.8 m.) and consists of four Type III drain troughs (fig. 3), two of which are covered with roughly shaped sandstone cover slabs. A stone set at right angles to what may have been the opening may be part of a "headgate" mechanism (pl. 7b). If this is the drain intake, we can determine only that it originally continued to the south. It is possible that Drain No. 3 made a right-angled turn to join with Drain No. 2. Drain No. 3 sits on top of the construction clays and is here covered by about 2 feet of surface drift sands.

Drain No. 4 lies in line with, and to the north of, Drain No. 3. The trough stones are also of Type III, and there are five present. Counting from south to north and assigning numbers to the spaces where stones are lacking, Nos. 1, 3, 4, 5, and 7 are present; the places that should be occupied by Nos. 2 and 6 are vacant. At a point 6 feet west of trough stone No. 1 of Drain No. 4, we found two inverted trough stones butted together, and although they are of Type III, their lengths are not the same as the two gaps in Drain No. 4. If they are the two missing trough stones, it would appear that some of the apparently in-place stones of Drain No. 4 have been shifted. The two inverted trough stones in question could just as well have come from Drain No. 3, or even from some other drain which we did not find. The general impression we have is that as the drains lay exposed on the site surface, and before they were covered with the surface and mantle, persons unknown and motivated by equally unknown purposes disturbed the trough align ments. In Plate 7c, the closest drain trough (No. 1) has three rough stones set on edge, perhaps also part of some operational mechanism which we refer to as a "headgate," and which has been noted also for Drains No. 2 and No. 3

The trough stones in Drains No. 3 and No. 4 range from 60 to 70 cm. in length and are 32 to 36 cm. wide.

We are inclined to believe that some of the Stirling Group drains were originally set in what we consider to be normal position, and that others were set in what we consider to be inverted position. Until more work is done to determine the number and position of drains, their function, water source, point of exit, probable degree of disruption, and relative chronology, nothing more can be said about them. M. Coe tells us that the San Lorenzo drain troughs are of our Type III, that some of them run for considerable distances, that all discovered as of February, 1968, were lying in normal position, and that all were covered either with flat, rectangular, well-dressed basalt capstones or with inverted trough stones which would have the effect of doubling the water-carrying capacity. We also believe that there may have been wood used as part of the drains in some cases; for example, the probable plank base on which the inverted troughs of Drain No. 2 were laid (and possibly, but less probably, also those of Drain No. 4). The reader will also recall our arguments for wooden drain covers for clay-covered Drain No. 1; these would also apply to Drain No. 3, but in view of the probability of this feature having been disturbed, some stone covers may have been removed.

It is even possible that the gaps which are present in the line of trough stones of Drain No. 4 were never occupied by stone troughs, but by surrogates of wood; further, that the continuation of Drain No. 3 to the south may have been by means of a wooden flume or wood-lined ditch. The intake to Drains No. 3 and No. 4 could have been by a wood-lined race. We simply do not have answers, but sense that wood and stone may have been used together in some of the Stirling Group drains.

About 15 feet north of the northernmost (No. 7) trough of Drain No. 4, we found three rectangular sandstone slabs lying beneath the sand and on top of the clay surface. While these look like drain covers (e.g. those of Drains No. 1 and No. 3), they may with equal plausibility be considered as drain bottoms upon which were laid inverted drain troughs. Two of the end-to-end slabs are precisely in line with the north-south run of Drains No. 3 and No. 4; the third slab turns at right angle to the east and thus indicates (assuming that these are in their original position) that a drain here made a right-angled bend.

Drains No. 3 and No. 4 were discovered only the day before we left La Venta, and on the last morning of our work we barely had time to clear the sand overburden, make brief notes, and take photographs in the available light, before leaving the spot.

Age and Relationships of the Stirling Group

What we are able to say about the Stirling Group at La Venta, and its contents, is not very much, and it is also tentative. Our investigation was so brief that its main accomplishment is best stated as the discovery of the Group and the likelihood that it contains numbers of undiscovered stone sculptures and drains. The details of the stratigraphic situation and architectural plan all remain to be elucidated.

We made collections of charcoal for radiocarbon dating, and have thus far secured the following results

Sample No.	Age	Location in Stirling Group	Comment
UCLA-1350	1150 ± 80 B.P. (800 A.D.)	Near Monument 45; lying in surface drift sands.	Suggested "temescal" (see p. 146)
Y-2378	1370 ± 80 B.P. (580 A.D.)	Ditto	Ditto
UCLA-1351	2460 ± 80 B.P. (510 B.C.)	Pit 9 (depth 40-42 in.) which produced Monuments 39-41, 44 (see Plan of La Venta Site map). From gray layer just beneath uppermost red-yellow clay construction layer.	Age acceptable; must date last or next to latest construction on site. Compare with UCLA-1283, -903, -1287 which are averaged to 600 B.C. This age taken as probable abandonment date of Complex A, La Venta.
UCLA-1352	2100 ± 80 B.P. (150 B.C.)	Same as UCLA-1351 (depth 46-49 in.). From red-yellow clay surface immediately below surface drift sands, and immediately below clay layer producing sample for UCLA-1351.	Sample too small to fill counter. Age probably too young; compare to UCLA-1351 from clays immediately above this sample.
UCLA-1355	2900 ± 60 B.P. (950 B.C.)	From depth of 10 ft. at point 30 ft. W of west end of Drain No. 1 Abundant charcoal in clean white sand structure fill. Sample collected at water table level. Base of construction fills lies indeterminately deeper than this level.	Acceptable age. Compares with Phase I of La Venta site.

Sample No.	Age	Location in Stirling Group	Comment
UCLA-1356	1940 ± 80 B.P. (10 A.D.)	Test Pit No. 1968-8 (see map p. 154). Collected from depth of 190 cm. below surface.	Age not acceptable. From 1 m. deeper than sample UCLA-1253 dated 3050 ± 90 B.P. which was collected 10 ft. distant. Judging from cultural associations and stratigraphy, this sample should have an age in excess of 1000 B.C. since ceramic association is San Lorenzo (see Coe, Diehl and Stuiver 1967) and sample lies well below UCLA-1253.

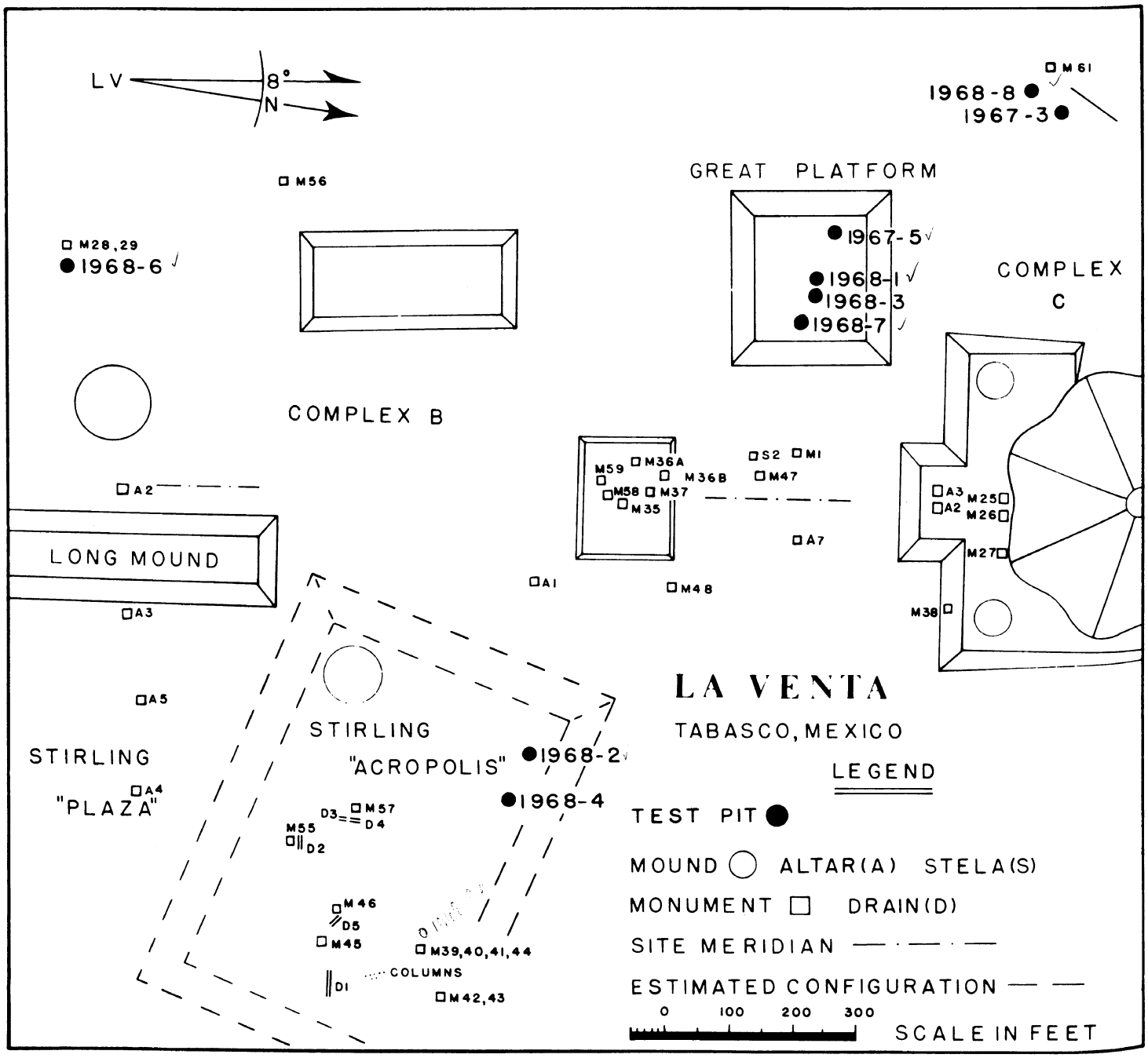
We can conclude from C-14 dates now available that the Stirling Group is contemporaneous with the La Venta site. When the Acropolis is excavated to base and charcoal recovered, it may be found that construction began here earlier than La Venta Phase I. The Stirling Group does not seem to have been abandoned earlier or later, but at just about the same time as Complex A. The extensive use of white limestone slabs, basalt columns, and the presence of various special forms of stone blocks fashioned from serpentine and basalt (e.g. precisely those forms used in the Southwest Platform adobe brick structure; illustrated in DHS 1959, pls. 12, 13) are all duplicated in the La Venta site Complex A. Some of the sculptures from the two locations are similar, but there are many differences. These need not indicate temporal differences since so much of Olmec sculpture consists of unique pieces. Similar construction clays were used in both the Stirling Group and in La Venta Complex A. Absence of U-shaped stone drain troughs in Complex A may mean that they do not occur there, but it may also be true that they do occur but have not been found, since there has been practically no excavation outside of the basalt-column enclosed Court where one might expect to find such drains to carry water out of the Court.

We see no reason to suggest that the Stirling Group is the same age as that level of the San Lorenzo site in which stone drains occur, and indeed the radiocarbon age of the uppermost clay layers at the Group (almost 500 B.C.) would indicate that the latest building here, as well as the associated

drains and sculptures, are later than the end of the San Lorenzo phase as presently dated at San Lorenzo site. UCLA-1351 can be interpreted as showing that Complex A of La Venta and the Stirling Group Acropolis were abandoned at about the same time.

On the other hand, the Stirling Group Acropolis may have been the designated spot where open reservoirs (perhaps like those which occur at San Lorenzo) were located, and the drains may have been associated only with such open pools. To mention these matters as things which we have no answers for presently is only a roundabout method of stating that they are problems for future investigation.

Our present guess is that the Stirling Group is one section of the total La Venta site, that it was an area of the Ceremonial Center devoted to particular activities (e.g. ball playing, and whatever water-connected rites may have been associated with the reservoirs, drains, and stone bowls). One altar (No. 4) was found in the Plaza of the Stirling Group, but no colossal heads have been found in association. However, the area has barely been looked at, and a search for its limits and exploration of its buried features may, and almost certainly will, bring to light all sorts of new and interesting finds as well as interesting and familiar forms.



Map 1. Test pit locations