I. INVESTIGATIONS AT LA VENTA, 1967*

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Archaeological Concession No. 5/67 of the Instituto Nacional de Antropología e Historia was issued to R. F. Heizer and J. A. Graham of the Department of Anthropology, University of California (Berkeley), and was effective for the fieldwork period of the month of July, 1967. The main purpose of the investigation was to collect samples of wood charcoal from the main La Venta site and surrounding occupation refuse deposits.

The field investigation was carried out at the archaeological site of La Venta (Tab.) beginning on July 13, 1967 and ending July 22, 1967. We were accompanied for the full period of work by Dr. Philip Drucker. A work crew of seven laborers, locally recruited on the recommendation of Sr. Fermin Torres (INAH guardian of the archaeological zone), was employed. We were aided by Arqgl. Carlos Sebastian Hernandez, Conservador of the Museo del Estado, Villahermosa, who was present from July 13 to 21, and was helpful in numerous ways. Funds for the investigation were provided by the Committee on Research and Exploration of the National Geographic Society (Washington, D.C.) and the Archaeological Research Facility (University of California, Berkeley).

We wish to acknowledge the cordial and effective cooperation of Dr. Eusebio Davalos H., Director of INAH, and Arqgl. José Lorenzo, Jefe de Departamento de Monumentos Prehispánicos, INAH, in connection with securing the archaeological concession. Also helpful in our work was the aid of Dr. Ignacio Bernal, Director of the Museo Nacional de Antropología. We wish to express our thanks to Dr. Carlos Pellicer, Director del Museo del Estado, Villahermosa, for his support. We had the pleasure, during our work, of a visit by our friend, Dr. Warwick Bray, Lecturer in American Archaeology at the Institute of Archaeology, London University.

This report is being published as a matter of record, and is intended as an amplification of our 1955 investigations which are reported in Drucker, Heizer and Squier, 1959 (referred to hereafter as DHS). We feel that a brief report of the 1967 investigations is worthy of permanent and public record, since it may prove useful to the excavator of the future who will visit the important site of La Venta and carry through the incomplete

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examinations of 1942, 1943, and 1955 (reported in Drucker, 1952, and DHS, 1959).

In 1955, aware of the value of charcoal for dating purposes, we collected nine samples. However, to collect most meaningfully, this material was recovered late in the season, when the major structural phases of Complex A had been traced horizontally and vertically, so that the sources of the samples could be identified. This required picking the carbon from the trench walls. In the sun-baked, dusty, long-exposed walls the presence of particles of carbon was obscured, making them difficult to find and creating the impression that the material was uncommon in the structural matrices. In 1967, when primary attention was directed to charcoal collection, we observed that in many layers of fill there is considerable scattered charcoal - in addition to the infrequent instances of *in situ* fires - which, in the freshly dug, brightly-colored clays, shows black and is easy to note. Hence we were able to collect not only more numerous, but also larger, samples than in 1955.

La Venta constructions are of earth (sand and subsoil clays) brought to the locality from some distance away - probably a fairly long distance, so that it is likely the earth fills were transported by boat. Most of the materials, white beach sand and subsoil clays of certain colors, were obviously carefully selected. This is a distinctive feature of La Venta construction, in contradistinction to the practice so typical of many Mesoamerican structures which are built of fill collected from the surface at convenient nearby localities, and which usually contains large amounts of occupational refuse, including sherds, charcoal, and much organic debris. Obviously, charcoal scattered through the fill in such sites may be of earlier date than the construction activity. In Complex A at La Venta, however, where such refuse material was carefully excluded from construction aggregate (despite the erroneous observation by Piña Chan and Covarrubias, 1964:34, that "materiales provenientes de los basureros fueron utilizados como relleno en las construcciones"), it seems highly probable that contemporary charcoal was added at the time the clays were dug and laid down, perhaps derived from ceremonial fires kindled in connection with mining or deposition of the clays and sands, or with some technological procedures used in handling the materials, such as fires for partially drying them to facilitate handling or possibly bonfires and torches for work at night. The latter suggestion may sound unusual in a pre-industrial culture, but it must be recalled that there is clear evidence (presented in DHS, 129) that the refilling of the huge pit in which Massive Offering 2 was deposited was accomplished in a very brief time, so rapidly in fact that no erosion or slumping of the steep-sided pit walls occurred. This was interpreted by us to mean that "the entire job - the digging of the pit, the placing of the red clay bed and the layer of blocks, and the filling of the

pit - must have been accomplished in one single operation, in fact during one single dry season. Otherwise, it is inconceivable that the steep faces of sand, with the heavy overburden of clay, would not have washed out and caved in during the torrential seasonal rains of this area." The magnitude of this single effort would have been such that one might further guess that the work of digging and filling may have been done on a twenty-four hour a day basis, and if so, wood fires may have lighted the area for night-shift workers. It is this kind of possibility for the production of charcoal in the fills that we are thinking about.

Another conceptual possibility is that the charcoal may have been mixed into the clays as an additive in an attempt to reduce the soil-cracking effect to which such materials are subject under the hot sun of the principal dry season, just as sand additives were mixed with clay not only in the ceramics but also in the preparation of the specially colored floor layers. That inclusion of charcoal may have been deliberate and purposeful is corroborated by the fact that a few layers of fill contain no charcoal anywhere in their extent. We argue that if the inclusion of charcoal was intentional, or caused by technique of handling the aggregate, it must have derived from contemporary burning rather than having been collected from occupational deposits of prior date. In the latter case, other occupational trash such as sherds certainly could have been incorporated also.

Investigations in Complex A, 1967

A total of nine pits or trenches was excavated. Four of these, while useful in that they produced carbon which can be dated, were, for our immediate purposes, partly a waste, since they were excavated in order to relocate layers or features which had been recorded earlier in the excavations of 1955. It was necessary to carry out these relocation excavations because all of the monuments in Complex A had been removed since 1955 and no undisturbed surface feature could be found which would permit us to re-establish the site's centerline and the central surveyor's datum point ("Datum 1" in DHS, fig. 4). We finally succeeded in doing this, and at the precise point which was marked by the midpoint of the basalt-column "tomb" (now removed to the Parque La Venta, Villahermosa) which stood on top of Mound A-2, we set, vertically, a section of basalt column 1.91 m. (57 in.) in length. Future excavators at La Venta will find this marker useful and are urged not to remove it.

The excavation units of the work in Complex A in July, 1967, are labeled (after our field designations) Trenches T, U, V, W, X, Y, and Z. They are described below, and their locations are shown on Map 1.

Trench T was 6.1 m. (20 ft.) long (E-W) and 1.5 m. (5 ft.) wide (N-S), and was cut from the court floor with the design of intersecting the Phase IV red clay element on top of the brickwork embankment on which the basalt columns were set to form the enclosure. It was found that the Phase IV red clay had been removed by bulldozers since 1955. The cut was not extended nearer than 1.5 m. (5 ft.) from the basalt columns which are here presumed to be still standing in their original, undisturbed positions, and the pit was not excavated below 0.66 m. (26 in.) beneath the present surface level. Carbon sample No. 30 was collected here. For stratigraphy see Figure 1.

Trench U was laid out 1.0 m. (3.28 ft.) wide (E-W) and 2.0 m. (6.56 ft.) long (N-S). The uppermost 30.5 cm. (12 in.) was loose brown sand (probably recently disturbed surficial materials) lying upon a compact brown sandy clay layer about 20.3 cm. (8 in.) thick. Below this we found, to a depth of 2.13 m. (7 ft.), and presumably continuing to greater depth, a gray and brown mottled clay.

We recognized the gray and brown mottled clay as part of the fill of the large pit into which Massive Offering No. 3 was placed. We did not encounter the cut line of the Massive Offering No. 3 pit.

The gray and brown mottled clay contained abundant small pieces of wood charcoal, the largest of which measured 0.5 by 1.0 cm. Samples Nos. 23 and 24 were collected from the mottled clay at depths of 0.6 to 1.8 m. (2 to 6 ft.) below the present surface. Since the clay is a single-event fill, and if, as we believe, the charcoal is reasonably contemporaneous with the time the clay fill was being collected and dumped into the pit, the age of the charcoal would be that of the clay-collecting and pit-filling activity. However, such assumptions have no positive evidence to support them, and one can say with certainty only that the time of the filling of the Massive Offering No. 3 pit could not have been earlier than the age of the charcoal, but might have occurred later.

Trench V was laid out 2 m. (6.5 ft.) wide (N-S) and 7 m. (23 ft.) long (E-W). The location was selected in the hope that it would intersect the brickwork Court embankment wall. We found, however, that the row of basalt columns which we had assumed at first might be standing in their original positions, and thus mark the line of the western border of the Court, had been recently re-set several meters east of their original line. We were, therefore, excavating a trench at a spot just south of the Northwest Platform, in what was presumably the Court floor.

The western end of Trench V intersected a deep, recently (i.e. post-1955) bulldozed trench which we assume had been dug, about 1958, to remove

the western line of basalt columns. The original upper levels east of the deep bulldozed trench had also been removed, and the first layer which we encountered that could be interpreted as beyond doubt lying in undisturbed position was a brown clay layer 15 cm. (6 in.) thick, the top of which was 76 cm. (30 in.) below the present surface. Carbon sample No. 26 was collected from this layer. Immediately below this lay the familiar Phase III "old rose" floors, which here measured 10 cm. (4 in.) in thickness. These floors rest upon a 46 cm. (18 in.) thick layer of mixed red and yellow heavy clay, which is the fill laid down preparatory to applying the Phase III floors and is therefore also Phase III in time. Below the clay fill were the Phase II white floors, measuring here 15 cm. (6 in.) in thickness. These were cleaned off and excavated with trowels as a unit to recover a charcoal sample (No. 25). Below the Phase II white floors were sandy fills which we did not penetrate in July, 1967.

While we have identified the Court floors described above as belonging to Phase III, we must admit that the brown clay fill resting immediately upon them is somewhat puzzling. In 1955 we noted with some regularity that the Phase IV red clay fill lay on top of the Phase III floors, but here a brown clay occupies that position. It is possible that there were two sets of Phase III floors which were separated by a brown clay interleaf. In this case we would identify the old rose floors found by us in Trench V as the lower and earliest member of the Phase III floors (i.e. IIIA), the brown clay fill layer as Phase IIIB, and with the upper and latest member of the Phase III (IIIB) floors as missing due to post-1955 bulldozing in the Court area. A similar situation appears to have been the case in Trench W (cf. fig. 3).

The section of the south wall of Trench V is shown in Figure 2.

Trench W was staked out 1.3 m. (4.26 ft.) wide (N-S) and 4.5 m. (14.76 ft.) long (E-W). It was begun after Trench X and Trench Y were started, and before the latter two showed any sign of yielding some feature which was recognizable and could be located on our 1955 site map. We were, in short, still reorienting ourselves when we began Trench W without knowing precisely where we were in Trenches X and Y, and this obscurity prevailed for several days until we encountered a familiar construction landmark in Trench X.

As can be seen from the map of Complex A of La Venta (map 1), there was no particular reason to believe that in the Trench W location we could expect to find construction levels and prepared floor surfaces, because we were north of the basalt-column enclosed Court area and beyond the probable limits of the A-2 mound which, so far as anyone now knows (or probably will ever know because of the extensive destruction caused by building the landing strip), marked the northernmost construction feature of Complex A. In

brief, in the Trench W locus it would have been no surprise to find that we were in a spot where only "dead" fill materials had been dumped in order to raise the surface level in the angle between the northwest corner of the Court and the A-2 platform mound. Somewhat to our surprise, we noted a fairly complex stratigraphic event sequence here.

The profile exposed in the east end of Trench W is shown in Figure 3. As observed elsewhere, there has been surface disturbance due to post-1955 activity. The first undisturbed soil layer we noted was a thin remnant, 10 cm. (4 in.) thick, of the Phase IV red clay. Beneath this lies a complicated set of Phase III floors which total 10 cm. (4 in.) in thickness. These are shown in detail in Figure 4a. They are interpreted as the latest of two Phase III floorings and are therefore labeled IIIB. Beneath the IIIB floors is a 40.6 cm. (16 in.) layer of fill consisting of mottled reddish brown - olive brown - tan clays. The fill contains small bits of charcoal (no collection was made of this) and odd loads of different clays. Beneath this fill is the earlier series of Phase III floors which are referred to as IIIA (shown in detail in fig. 4b). The IIIA floors rest on a 15 cm. (6 in.) layer of clay fill of medium brown dense clay. Immediately under this fill are the Phase II white floors measuring 12.7 cm. (5 in.) in thickness, or at least they are so identified because of their color and position below the Phase IIIA floors. Below the white floors is a fill layer 1.2 m. (47 in.) in thickness, which we take to be the Phase II fills on which the Phase II floors were laid. Below this fill is a 10 cm. (4 in.) layer of brown clay which is underlain by artificial sand and clay fills which alternate and interdigitate. We did not attempt (though it would have been informative to do so) to determine how deep these were.

Just below the brown clay layer was a lens of white sand which measured 25 cm. (10 in.) in thickness where it was cut through in the east wall of the trench. The upper 7.6 cm (2 in.) of this layer contained, in an area of 0.37 square meters (4 sq. ft.) in the trench floor, about fifty sherds of undecorated, thick, brown utility ware, and the entire white sand layer was heavily charged with charcoal. Charcoal samples Nos. 11, 18, and 19 were secured here. We are not certain whether these three samples should be assigned to Phase I or Phase II in the La Venta construction sequence. There is a considerable amount of wood carbon in these three samples and it was clearly derived from fires built on the spot. We made the collection in order to provide at least one lot of sufficient size that can in future be drawn upon to serve as a check sample of La Venta carbon. We are now aware of the usefulness of collecting and keeping such large samples as a result of re-running the leftover portions of the 1955 charcoal samples (Berger, Graham and Heizer 1967). In addition, as laboratory techniques improve, it may be desirable to draw from such surplus lots of already dated carbon samples for examination as to sources of error or to provide correction factors.

Figure 3 shows an intrusive pit which must date from a time immediately prior to the laying of the Phase IIIA floors. We caught the northern wall of the pit cut, but beyond this cannot say what its outline or dimensions are, or for what reason it was originally dug. We found nothing in the small section of pitfill which we excavated to suggest why the pit was dug.

Trench X was laid out 1.22 m. (4 ft.) wide (N-S) and 8.53 m. (28 ft.) long (E-W). It is shown in Figure 5. This was the first cut made by us in July, 1967, and was excavated in the hope that it would intersect some familiar feature seen by us in 1955, which would permit us to determine at what point we were in the severely devastated site. The uppermost 0.91 to 1.06 m. (3.0 to 3.5 ft.) consisted of recently disturbed clays and sands, probably the result of removing the basalt column tomb which we later determined was in the immediate area of the east end of the trench. At a depth of 1.06 m. (3.5 ft.) we encountered undisturbed construction deposits and soon observed, about 3.04 m. (10 ft.) west of the east end of the trench, the ancient cut line of a large pit which had been dug through older clay fills and which contained a distinctive filling of layered clays and clean white and brown sand. Hoping that this would prove to be the west edge of the pit in which Massive Offering No. 2 lay, we had the workmen dig within the pit until they reached bottom - a process which took a day and a half and was realized at a depth of 6.55 m. (21.5 ft.) below the present surface. When, as we had anticipated, a single layer of large, flat, well-shaped, serpentine "paving blocks" made their appearance, we knew that we had relocated Massive Offering No. 2. The angle of the cut here was 77 degrees, a figure which agrees fairly closely with the 74 degree angle of the south wall of the pit observed in 1955 (DHS, 129). Five "rows" of blocks were exposed in the bottom of the pit, and we were able to measure some dimensions (all in inches) of eleven blocks.

Length	Width	Thickness
15.50	12.00	2.75
15.25	10.37	2.00
15.50	11.00	2.50
16.00	9.75	2.50
-	12.25	-
-	11.00	-
-	10.25	-
-	9.50	-
-	10.40	-
-	11.75	-
-	11.50	-

Our measurements were incomplete because at the bottom of such a deep pit, whose walls were unstable clays interleaved with loose sands, it appeared possible that the pit might cave in at any moment. Two blocks were lifted and underneath them were found, in immediate contact with the stone, seven small, globular, jade beads of a form already familiar (cf. DHS, pl. 37a,b). We make particular mention of this because in 1955 we did not find (or notice) such beads beneath the blocks of Massive Offering No. 2 exposed in the main north-south trench (cf. DHS, 128-129,pl. 20b). However, the bright red sandy clay layer[1] forming the fill on the bottom of the pit was present, although here it was 6.3 cm. (2.5 in.) thick (compared to 15 cm. [6 in.] noted in 1955: DHS, 129), and on top of this and immediately beneath the blocks was a 3.8 cm. (1.5 in.) thick layer of olive clay. The westernmost line of serpentine blocks was tipped or lapped as though the pit as originally dug was slightly too small for the number of blocks which were intended for it. Other evidence of crowding was noted in 1955 (DHS, 129). Because the ancient La Ventans were reasonably efficient workers, it occurs to us that the tipping, overlapping, and undercutting were done in order to fit precisely a certain number of blocks in this particular pit at a particular moment; otherwise, the pit bottom could have been neatly and tastefully covered by eliminating one or more rows (e.g. one row along the north or south and one along the east or west edges). That this simple adjustment was not made gives us, perhaps, a hint that the large "pavements" were something more than simple pit floorings consisting of stone blocks assembled and deposited merely to fill a space, but rather were ritual depositions of exactly and precisely so many blocks whose predetermined number had special significance. We do not think that we are pressing our observation on block crowding unduly far when we suggest that in the future, when Massive Offerings Nos. 2 and 3 are fully exposed, the arrangement and numbers of blocks should be accurately recorded since some specific hints of numeration and ritual may be determinable.

To the west of the line of the pit which was dug in order to deposit Massive Offering No. 2, we noted an uppermost layer of recently disturbed earth 0.91 m. (3 ft.) in thickness. Below this were undisturbed brown sandy clays, apparently construction fill, about 0.91 m. (3 ft.) thick. Below this layer were denser clays of about the same thickness, which rested upon what we interpret as the Phase I "watersorted floors." Since the two slightly different clay layers, each about 0.91 m. (3 ft.) thick, lie above Phase I floors and are cut through by the Phase IV pit dug for Massive Offering No. 2, the clays must be pre-IV and post-I in time; that is, they

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[1] Dr. F. H. Stross, Shell Development Co., Emeryville, Calif., has analyzed this clay and informs us that the red coloring is mainly due to iron oxide. Small amounts of cinnabar are also present, but not in sufficient quantity to have a visible coloring effect.

belong either to Phase II or Phase III. The Phase II (white) floors were not distinguishable at this point and apparently had been bulldozed away in post-1955 operations. We are therefore unable to determine with certainty whether our carbon sample No. 4, gathered from the upper sandy clays at a depth of 0.91 to 1.06 m. (3.0-3.5 ft.) from the present surface, dates from Phase II or Phase III, although there is a strong probability that it dates from Phase III.

Toward the east end of Trench X, as we were digging down within the area of the old pit in which Massive Offering No. 2 lay, we encountered at a depth of 2.03 m. (80 in.) below the level of origin of the ancient pit, a 2.5 cm. (1 in.) thick lens of clean white sand which was heavily charged with fine charcoal. This thin, very dark layer had been cut through when the offering pit was dug and a 45.7 cm. (18 in.) long section was exposed in the cut. Sample No. 15 of the carbon-charged sand was collected for possible future dating.

About 1.8 m. (6 ft.) east of the west end of Trench X was the recent cutbank resulting from construction of the landing strip. In the south wall of the trench, at a distance of 6.1 m. (20 ft.) west of the point of origin of the top of the Massive Offering No. 2 pit, and 0.61 m. (2 ft.) below the level of origin of the pit edge, we noted two red-surfaced treads and risers, each tread and each riser 30.4 cm. (1 ft.) in dimension. These remnants, preserved in the surface of the cutbank formed by bulldozing operations after 1955, inform us that the west side of the A-2 mound was terraced in a manner similar to that of the south side, as evidenced in the profiles exposed in the main north-south trench of 1955 (DHS, fig. 10). What we noted in 1967 in the two steps and risers near the west end of Trench X appear to be the equivalent of the h-11 floors (incorrectly labeled "b-11" in fig. 10 but correctly as "h-11" in fig. 11) shown in DHS, Figure 10, and if this is so, the clay fill which it encloses is Phase III. This conclusion supports the earlier suggestion that carbon sample No. 4 dates from Phase III times.

At the same location as the Phase III platform steps just discussed, we excavated a 1.22 m. (4 ft.) section of Trench X (fig. 6) to undisturbed base deposits since we wished to know how much leveling fill had been deposited before the Phase I watersorted floors were laid down. Figure 6 shows the sequence of layers disclosed in the 1.67 m. (5.5 ft.) of fills beneath the watersorted floors, and indicates (by circled numbers) the carbon samples obtained. All of these carbon samples, we believe, are associated with materials deposited as grade fills laid down in order to raise the base level on which the Phase I watersorted floors were deposited. If we compare the position of the top of the "a" base sands in DHS, Figure 10, on top of which lie the "j-2" and "j-3" layers (presumed to be equivalent to the Phase I

watersorted floors), we see that the difference in elevation between a point in the center of the north-south trench and a point 6.1 m. (20 ft.) directly west in the A-2 mound of the original and undisturbed basal sands upon which the La Venta site was erected, is 1.52 to 1.67 m. (5.0-5.5 ft.).

Trench Y was laid out 1.22 m. (4 ft.) wide and 3.66 m. (12 ft.) long, and was begun simultaneously with Trenches W, X, and Z. It was started as one of the blind efforts to encounter a familiar feature that would enable us to learn where we were in the site that we knew so well in 1955 but which, twelve years later, looked like an unfamiliar battlefield.

The watersorted floors of Phase I were located, and from this layer carbon samples No. 17 and No. 20 were collected. Above these floors was a solid fill of mottled pink-yellow-blue dense clay which lacked charcoal, and which represents a fill layer whose extent is unknown to us.

After we encountered the western edge of the cut line of the Massive Offering No. 2 pit in Trench X, we extended Trench W farther east (i.e. toward the centerline) in order to locate the northwest corner of the offering pit, since this point would provide us with the fix we required. A small dividend was our reward for doing this, since we learned some new and interesting facts about the offering pit which had not come to light in 1955. In following the lip of the pit cut eastward toward the centerline from the northwest corner of the pit cut line, we noted the same mottled (Phase III?) clays that also appeared in the west end of Trench Y, and saw how this solidly packed deposit contrasted both in color and density with the looser, more sandy pit fill. Carbon sample No. 16 was collected from the mottled clays into which Massive Offering No. 2 had been intruded at a point 3.66 m. (12 ft.) east of the northwest corner of the offering pit at a depth of 0.76 m. (2.5 ft.) from the present surface, and 0.30 m. (1 ft.) north of the north line of the pit edge (see fig. 7). This point is just north and just east of the midpoint of the basalt column tomb, a point which was selected in 1955 as our central survey datum location (DHS, fig. 4, "Datum 1").

While engaged in following south and east along the top edge of the cut line of the Massive Offering No. 2 pit, we noticed two things that had not evidenced themselves in 1955 when we were dealing with the pit farther south, where we encountered it in the main north-south trench. The first of these matters was that the interior surface of the pit appeared to bear a thin, painted layer (1.5 to 2.0 mm. thick) of purplish-red pigment. The second was that this painted surface was quite flat, and that the plane surface had been achieved by applying a yellowish sandy-clay "plaster" to the sides of the pit, apparently in order to provide a smooth surface. This

interested us, so we took the time[2] to expose the inner surface of the pit for a length of 4.57 m. (15 ft.) east of the northwest corner of the pit to a depth of 1.67 m. (5.5 ft.). What we found is shown here in Figure 8. A band 16 inches high of purplish-red paint occurs at the top of the pit; below this is a 40.6 cm. (15 in.) band bearing no discernible color. Perhaps this stripe was painted with some organic pigment which has disappeared. Below this non-colored strip is a 45.7 cm. (18 in.) horizontal band of black (or deep brownish-black), and below this is a 45.7 cm. (18 in.) band of purplish-red like the topmost one. How extensive this painting is we cannot say, but there are signs that the west wall of the pit was also painted. Only future excavation can answer these questions, and when it is done it will be a task of some magnitude since the pit itself is 15.07 m. (49.5 ft.) long, 6.1 m. (20 ft.) wide, and 4.95 m. (16.25 ft.) deep. Except where we cut the south wall in our north-south trench in 1955, the pit and its contents are still apparently intact.

Trench Z was, like Trenches W, X, and Y, started in the hope of stumbling upon some familiar feature. It consisted of little else than cutting a vertical face in the cutbank. What the exposure looked like can be seen in Figure 9, but since we are dealing with an area lying north and west of Monument 7, it is not possible for us to relate with confidence the section (fig. 9) to the construction features of the A-2 mound, of which it is either a part or to which it must be somehow related. Tentatively, we identify the bedded sands beneath the thin stratum of gray clay as the Phase I watersorted floors, and the series of tan floors and reddish-brown sandy fills may be, taken as a whole, the equivalent of the Phase II floor series. A charcoal sample (No. 12) was collected from Trench Z, from a layer 8.9 cm. (3.5 in.) thick which contained black sherds and relatively abundant charcoal. This layer strongly suggests occupation refuse lying outside the Court enclosure, but whether it represents a unique short term occupation of the spot, or is an equally unique fill layer of refuse gathered elsewhere, we cannot tell. Its radiocarbon age, therefore, may be, but is not certainly, the date of deposition of the layer.

Observations on the La Venta Pyramid (Complex C)

Recent clearing of trees and bushes on the big pyramid south of Complex A permitted us to make a careful surface examination of the structure for the first time. Since 1955 there has been a considerable amount of excavation (apparently "scientific" rather than by treasure-hunters) on the platform at the south edge of the pyramid. The unfilled trenches, some scattered

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[2] We were in search of charcoal for radiocarbon dating, were very short of time and funds, and therefore had to refuse many temptations to do real archaeology.

sherds, and helter-skelter array of large, flattened slabs of Chinameca limestone show that whoever did the digging must have found something, and that his technique leaves much to be desired. No published report on this extensive excavation is known to us, and we did not learn from local people when and by whom the work was carried out.

We first observed with interest from the airstrip a wide gully in the west face of the pyramid. Since this looked too regular to be due to erosion and too large to be an archaeological excavation, we examined it directly and soon found that there were other such depressions on the outer surface of the feature. Since these depressions occur at fairly regular intervals and are separated by an equally regular series of ridges, we saw that the structure was "fluted" or channeled in a way unlike that of any other known Mesoamerican building. Although we were more than adequately occupied with the digging of Trenches T - Z and Test Pits 3 and 5, we spent part of the day on July 21, 1967, making a plan of the base of the pyramid. Our only equipment was a Brunton compass, a 31 m. (100 ft.) steel tape, and a hand-level, but with this simple apparatus, and aided by two of our machete-wielding workers who cleared a line of sight, cut stakes, and held one end of the tape, we were able to draw a plan of the base of the pyramid.

The base plan of the pyramid which we secured was not at all like that presented in DHS (frontispiece, figs, 4,5). The reasons for so presenting the form of Complex C at La Venta have been detailed separately (Heizer and Drucker 1968), and it is only necessary to say that we relied unduly upon our surveyor, who performed the "survey" and drew the plans. In all fairness, we must admit that in 1955 the pyramid was covered with a fairly heavy growth of vegetation which made observation difficult (see DHS, pl. 2).

The true plan of the base of the great structure is difficult to describe; it can be termed subcircular or suboctagonal. However it is described, it is clearly quite different from the plan presented in DHS. Our recent observations show that the ground plan of the La Venta pyramid is essentially round and not rectangular, and that it is basically a conoidal frustum rather than a four-sided pyramid.[3] Diameter of the base of the pyramid is 128 m. (420 ft.) and the angle of the "side(s)" is 30 degrees.

The "platform" which is shown as regular and rectangular and on which the pyramid apparently rests as presented in DHS (figs. 4,5), is in actuality

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[3] Other classes of pyramids are: truncated stepped conical (Cuicuilco); true rectangular (Cheops, Chephren, and Mycerinus); stepped rectangular (Zoser); truncated stepped rectangular (Pyramids of the Sun and Moon at Teotihuacán). We are not aware of the existence of any fluted rectangular pyramids.

quite different. Apparently this platform was constructed in order to compensate for major surface irregularities, and because the original ground surface is lower at the south edge of the pyramid than on the north edge, the platform is higher on the south.

Other Excavations

In July, 1967, we dug a series of very small test pits along the east side of Complex A in search of La Venta period refuse deposits which would yield charcoal for dating. A scatter of surface sherds along the low ridge which parallels the east side of the site proved illusory, since wherever we probed we encountered only 1.0 to 1.5 m. of loose brown drift sands, and at best these contained only the merest scatter of La Venta sherds and an occasional La Venta figurine fragment. Below this is clean gray sand or sterile clay subsoil which is apparently pre-occupation in age. These upper brown drift sands are apparently contemporaneous with the period of building and use of the La Venta site, but this particular ridge was not an area of intensive occupation by the people who erected and utilized the site. Our examination was hasty, however, and there is no reason to deny that more testing might yield such occupation evidence. Some high ground lying one to two hundred yards southwest of the pyramid did yield, in two test pits (Nos. 3 and 5), some evidence of sherd- and carbon-rich living refuse. Carbon samples Nos. 8, 9, 10, 14, 27, 28, 29, and 31 were collected from Test Pits Nos. 3 and 5 for future dating. Location of these two pits is shown in Map 1.

ADDENDUM A

Catalogue of Carbon Collected at La Venta in July, 1967

Sample No.	Location	Phase	Notes
1	Trench X	I	See Fig. 6
2	Trench X	II	See Fig. 6
3	Trench X	I	See Fig. 6
4	Trench X	III	See Fig. 5
5	Trench X	I	See Fig. 6
6	Trench X	I	See Fig. 6
7	Trench X	I	See Fig. 6
8*	Test Pit No. 3	-	8-16 in. below surface
9	Test Pit No. 3	-	16-22 in. below surface
10†	Test Pit No. 3	-	+22 in. below surface
11	Trench W	I or II	48 in. below Phase III; old rose floors; see Fig. 3
12	Trench Z	II(?)	See Fig. 9
13	Duplicate of No. 3	I	See Fig. 6
14	Test Pit No. 5	-	34-49 in. below surface
15	Trench X	I	See Fig. 5
16	Trench Y	III	See Fig. 7
17	Trench Y	I	See text p. 10
18	Duplicate of No. 11	I or II	See Fig. 3
19	Duplicate of No. 11	I or II	See Fig. 3
20	Duplicate of No. 17	I	See text p. 10
23	Trench U	III	Depth 24-72 in. from surface; see text
24	Duplicate of No. 23	III	--
25	Trench V	II	See Fig. 2

Sample No.	Location	Phase	Notes
26	Trench V	III	See Fig. 2 and text
27	Test Pit No. 5	-	Depth 64-80 in. from surface
28	Test Pit No. 5	-	Depth 88-100 in. from surface
29	Test Pit No. 5	-	Depth 50-64 in. from surface
30	Trench T	III	See Fig. 1
31	Duplicate of No. 27	-	--
32	Trench X	II	See Fig. 5
33	Trench V	III	See Fig. 2
34	Duplicate of No. 33	III	--
35	Duplicate of No. 33	III	--

* The refuse deposits outside the La Venta ceremonial site are not artificially stratified and divisible into relative sequence periods or phases equivalent to those of the ceremonial site.

† Should be the same as UCLA-1253. Note that location given in Berger, Graham and Heizer (1967:4,15) as 300 feet "northwest" of the pyramid is incorrect; location should be corrected to read "southwest."

ADDENDUM B

RADIOCARBON DATES OF SAMPLES COLLECTED JULY, 1967

Since the previous report was written we have secured a few radiocarbon dates of the charcoal samples collected in July, 1967, through the courtesy of Drs. W. F. Libby and Rainer Berger of the University of California at Los Angeles.

Samples Nos. 5, 6, and 7 were combined and the age determined to be 2300 B.P. or 350 B.C. (UCLA-1330). This is almost certainly too young, and we do not accept it as the true age of the charcoal. It is possible that charcoal buried at La Venta in clay fills which were subject to water percolation or submersion in ground water becomes altered in some way so as to give radiocarbon ages that are too young. We cannot explain what changes occur in the charcoal buried under these conditions, but are certain that such changes do occur.

Sample No. 3 gave an age determination of 2660 B.P. or 710 B.C. (UCLA-1331). This date is also unacceptable in being too young when we compare it to others of equal age as judged from stratigraphy (Berger, Graham and Heizer 1967:5).

Sample No. 26 gave an age determination of 2550 B.P. or 600 B.C. (UCLA-1332). This refers to the Phase III floors and is acceptable in appearing to be of the correct order of magnitude. Phase III at La Venta is not directly dated except for UCLA-1332.

Sample No. 16 (UCLA-1357) gave a date of 1890 $\pm$ 80 years B.P., which seems rather too young for what we judge to be the Phase III fills from which the charcoal was extracted. This charcoal should be about the same age as that of our sample No. 26 (UCLA-1332) mentioned above.

Sample No. 25 (UCLA-1358) from Trench V is believed by us to date from Phase II times. Its radiocarbon age is 1920 $\pm$ 80 years B.P., which again is rather too young judging from C-14 age determinations made in 1967 (Berger, Graham and Heizer 1967).

Sample No. 11 (UCLA-1359) came from Trench W at a depth of 48 inches. Its age is 2060 $\pm$ 80 years B.P. – again much too recent for the Phase I or II construction period assigned to it on the basis of stratigraphy by the excavators.

We have no reason to doubt the accuracy of the age determinations made

in the C-14 laboratory at UCLA, but believe that the apparent ages of the charcoal from samples Nos. 5, 6, and 7 (UCLA-1330), No. 3 (UCLA-1331), No. 16 (UCLA-1357), No. 25 (UCLA-1358), and No. 11 (UCLA-1359) are not the true ages. We believe that these particular charcoal samples have undergone some kind of alteration since they were first buried, and that this change has had the effect of making the charcoal appear to be younger than it is in fact. While we are at a loss to explain what has happened to the charcoal, we are nevertheless unwilling to accept these as the basis for proposing another revision of the age of the La Venta site in radiocarbon years. We believe that some masking effect is present which causes the charcoal to appear to be younger than it is. We suggest that this process is a pedological - geological - chemical one whose nature remains to be identified. We do not believe that the stratigraphic - archaeological - cultural observations are wrong, and we believe that the radiocarbon assays at UCLA have been performed with customary accuracy. For the moment we must leave these as problems to be resolved with additional work.

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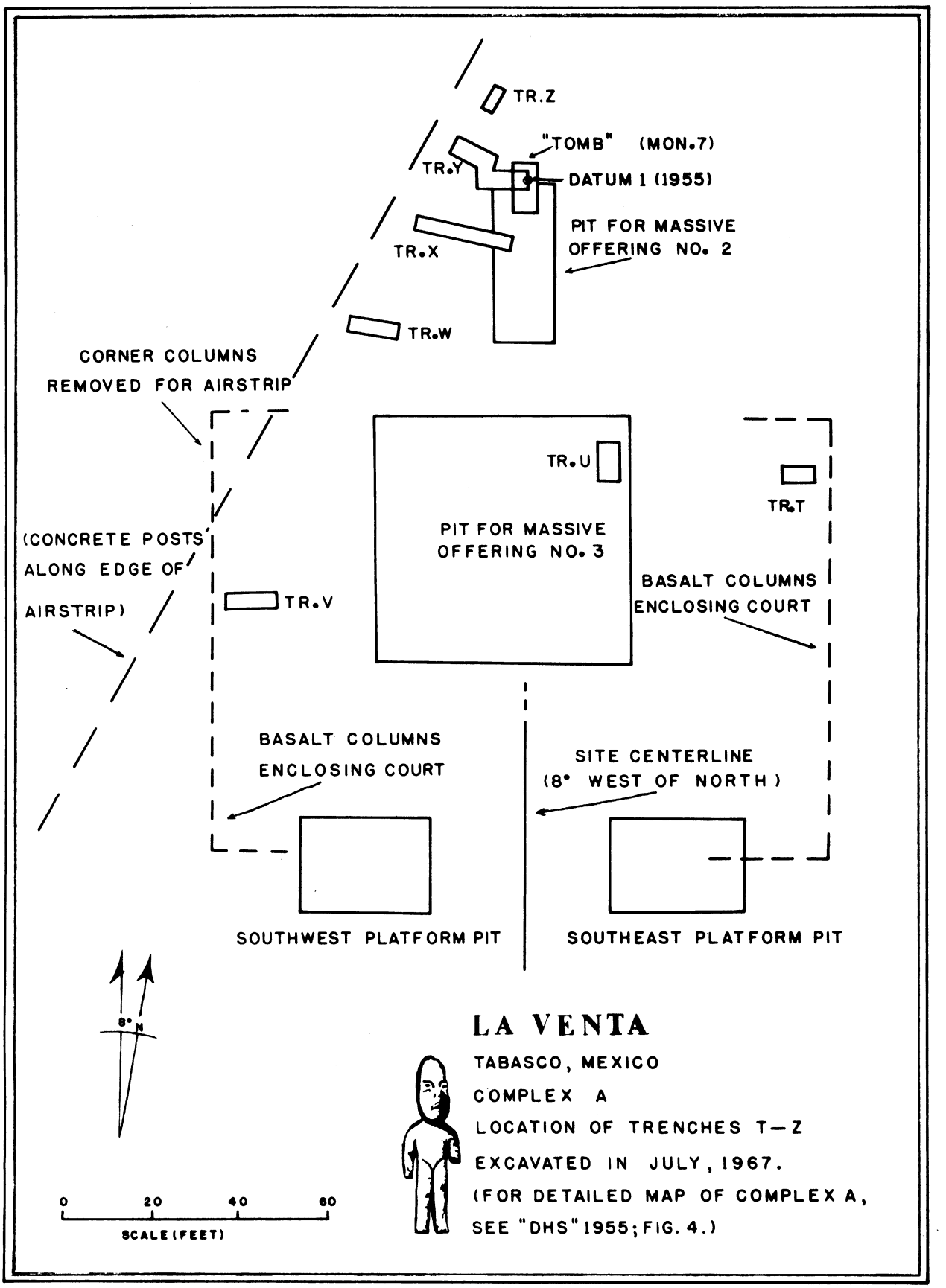

TR.Z
"TOMB" (MON.7)
TR.Y
DATUM 1 (1955)
PIT FOR MASSIVE OFFERING NO. 2
TR.X
TR.W
CORNER COLUMNS REMOVED FOR AIRSTRIP
TR.U
TR.T
PIT FOR MASSIVE OFFERING NO. 3
(CONCRETE POSTS ALONG EDGE OF AIRSTRIP)
TR.V
BASALT COLUMNS ENCLOSING COURT
BASALT COLUMNS ENCLOSING COURT
SITE CENTERLINE (8° WEST OF NORTH)
SOUTHWEST PLATFORM PIT
SOUTHEAST PLATFORM PIT
8° N
0 20 40 60
SCALE (FEET)
LA VENTA
TABASCO, MEXICO
COMPLEX A
LOCATION OF TRENCHES T—Z
EXCAVATED IN JULY, 1967.
(FOR DETAILED MAP OF COMPLEX A, SEE "DHS" 1955; FIG. 4.)

Map 1

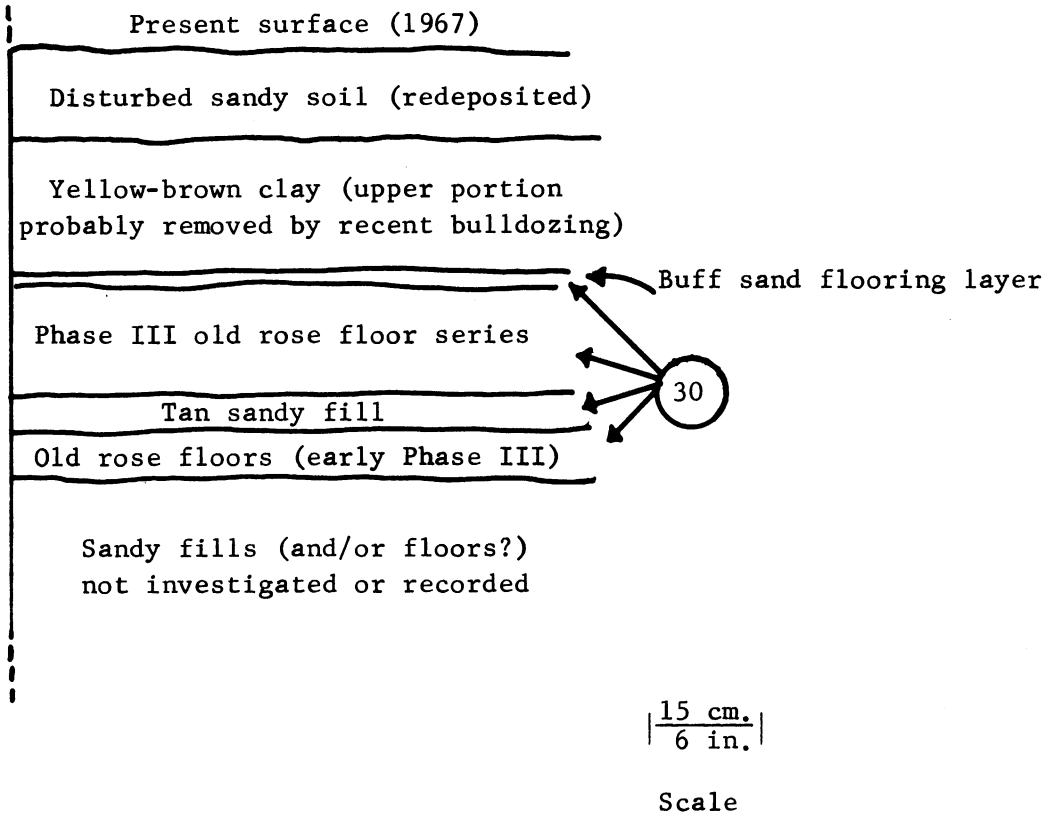


Fig. 1. Section showing north wall of Trench T. Location of carbon sample No. 30 shown.

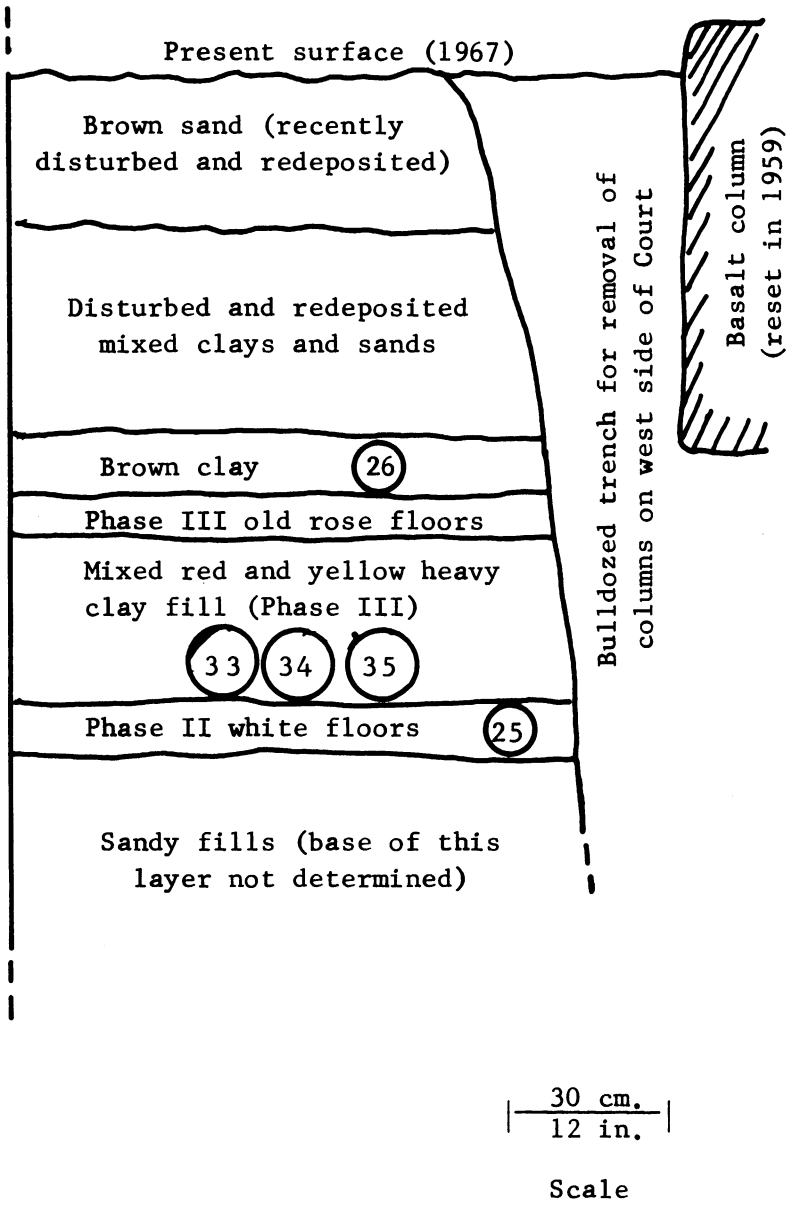


Fig. 2. Section showing south wall of Trench V. Carbon samples shown by circled numbers.

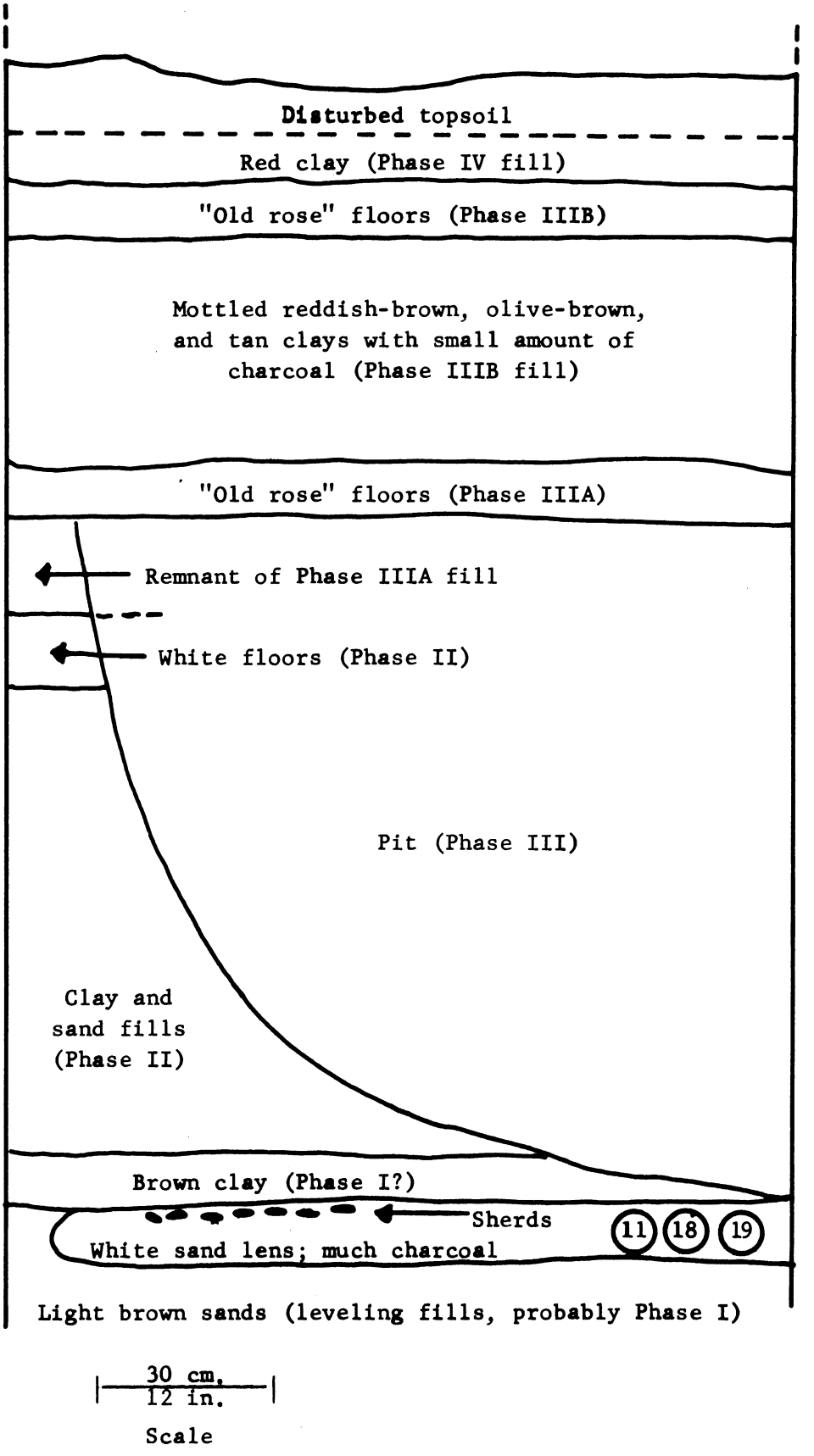
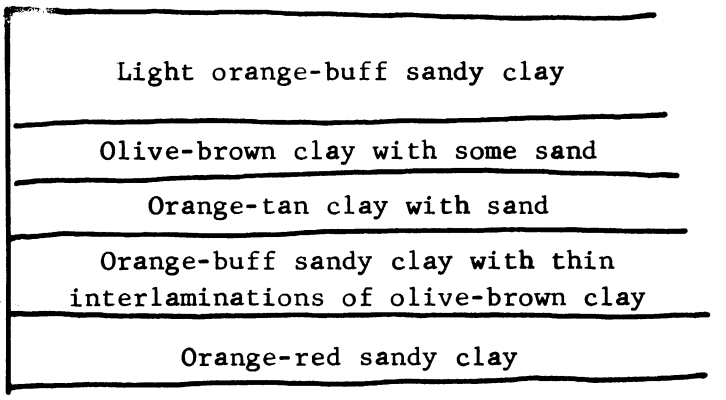
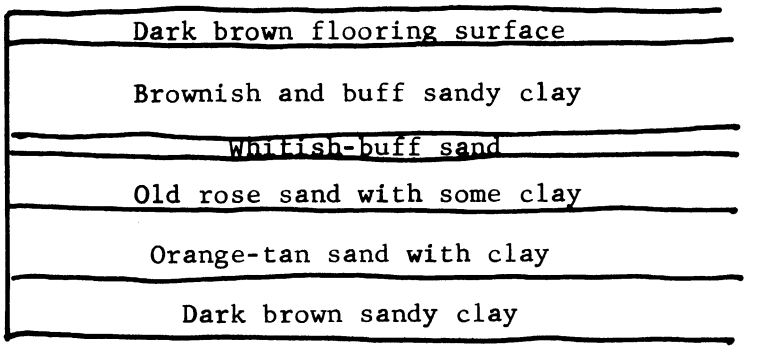


Fig. 3. Section at east end of Trench W



a



b

10 cm.
4 in.

Scale

Fig. 4. a. Detail of Phase IIIB floors, Trench W
b. Detail of Phase IIIA floors, Trench W

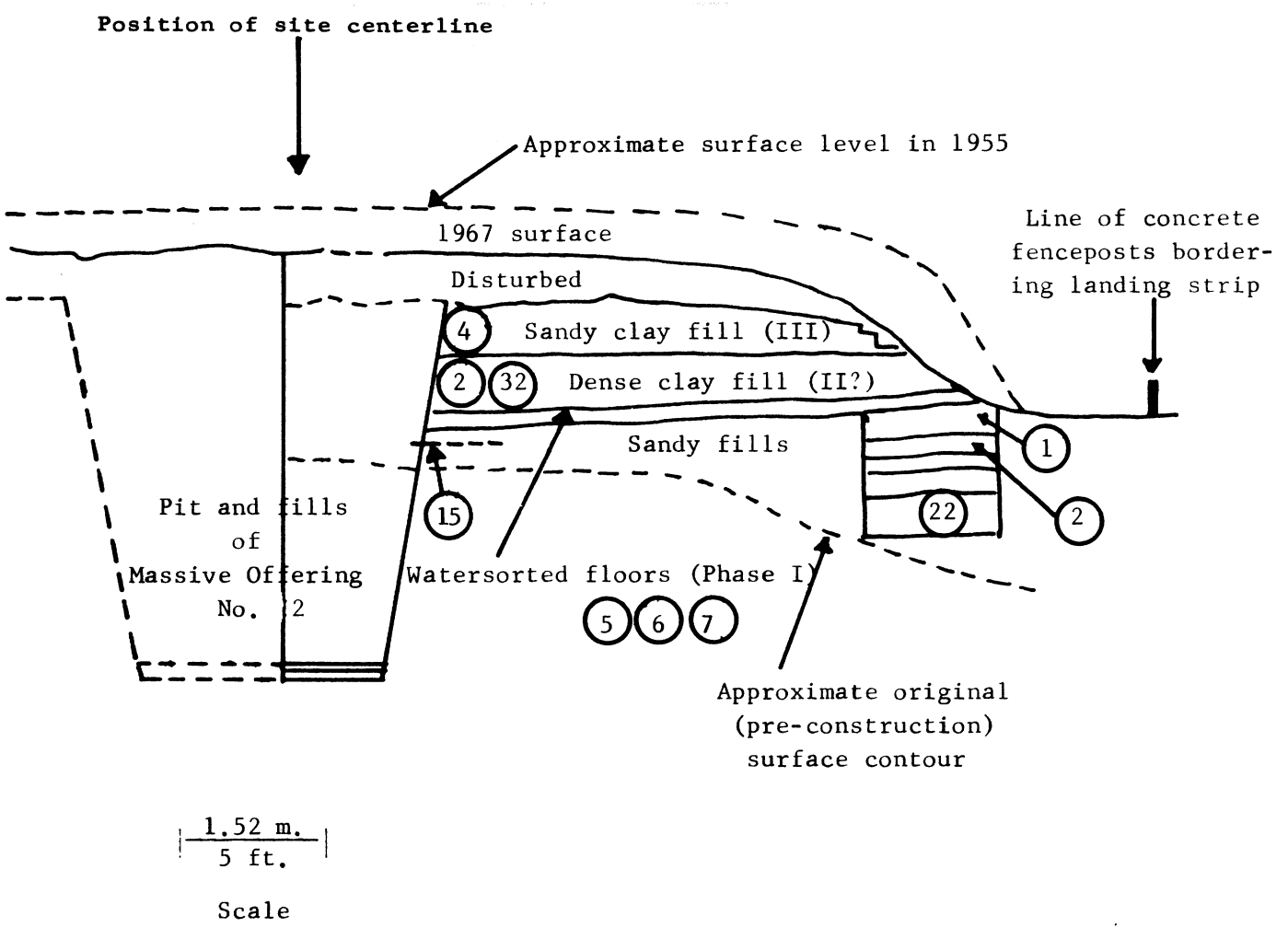


Fig. 5. Section of north wall of Trench X. Heavy line shows extent of excavation in 1967. Circled numbers are of charcoal samples collected for dating.

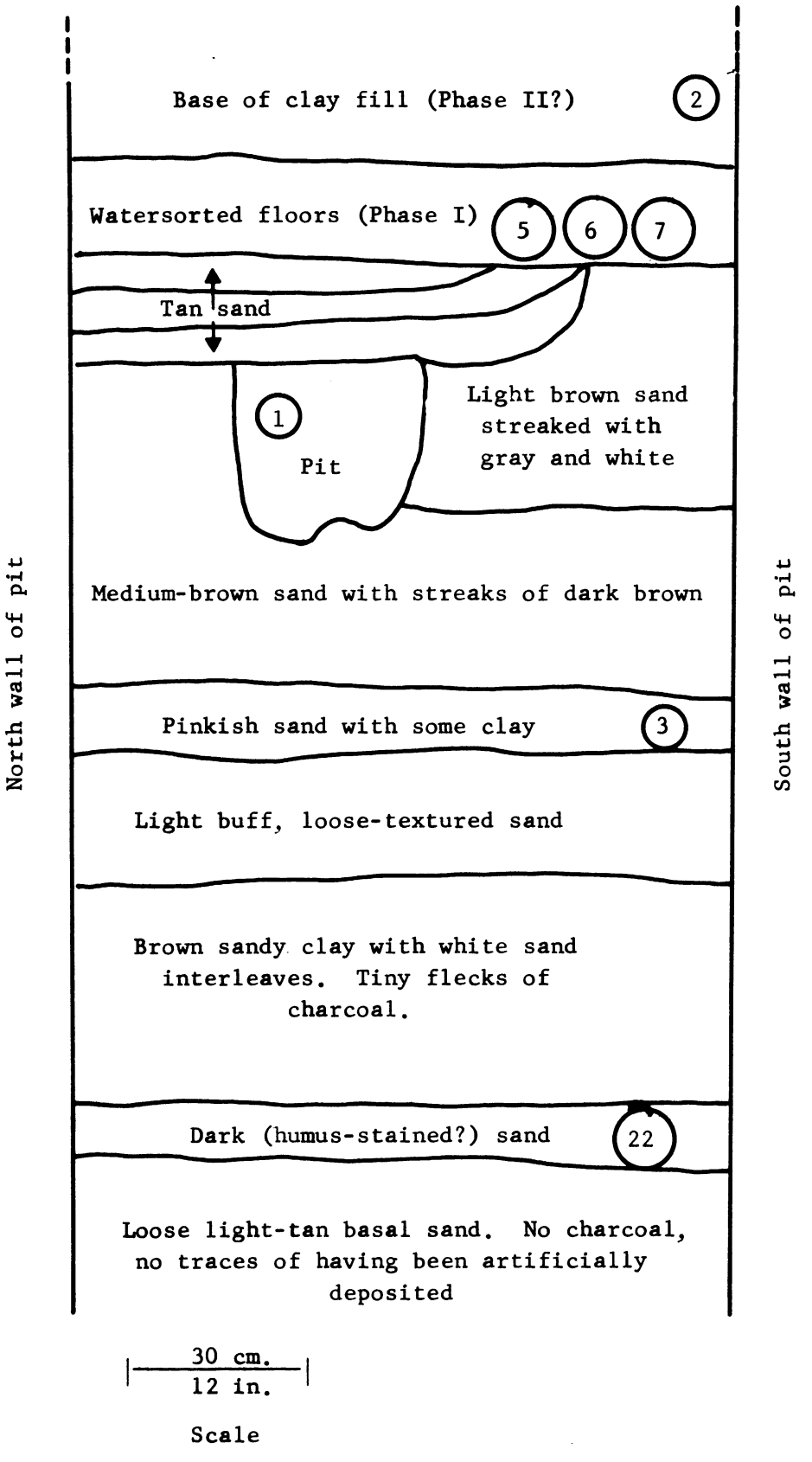


Fig. 6. Section toward west end of Trench X

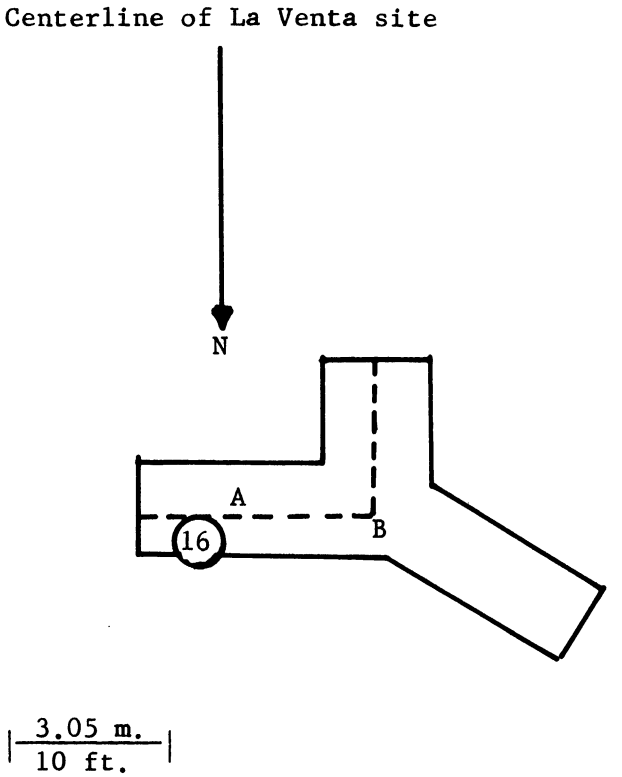


Fig. 7. Plan of Trench Y

A marks point where newly located Datum 1 of 1955 excavation occurs. This new datum is in the form of a basalt column buried upright. (16) marks location of carbon sample No. 16. Dotted line marks top of pit dug for Massive Offering No. 2.
B indicates northwest corner of Massive Offering No. 2 pit.

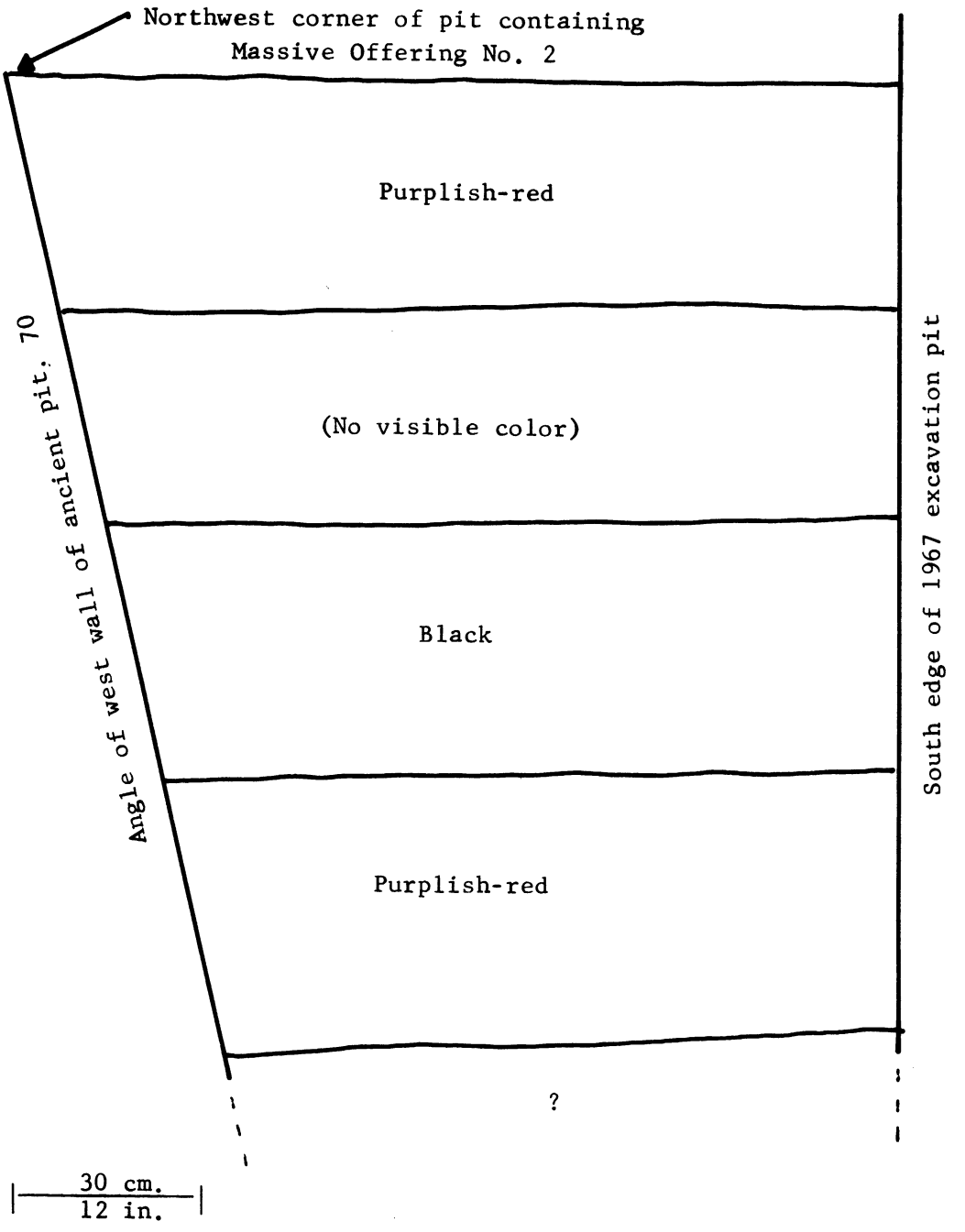


Fig. 8. Section of north wall of interior of pit containing Massive Offering No. 2, showing bands of surface coloration.

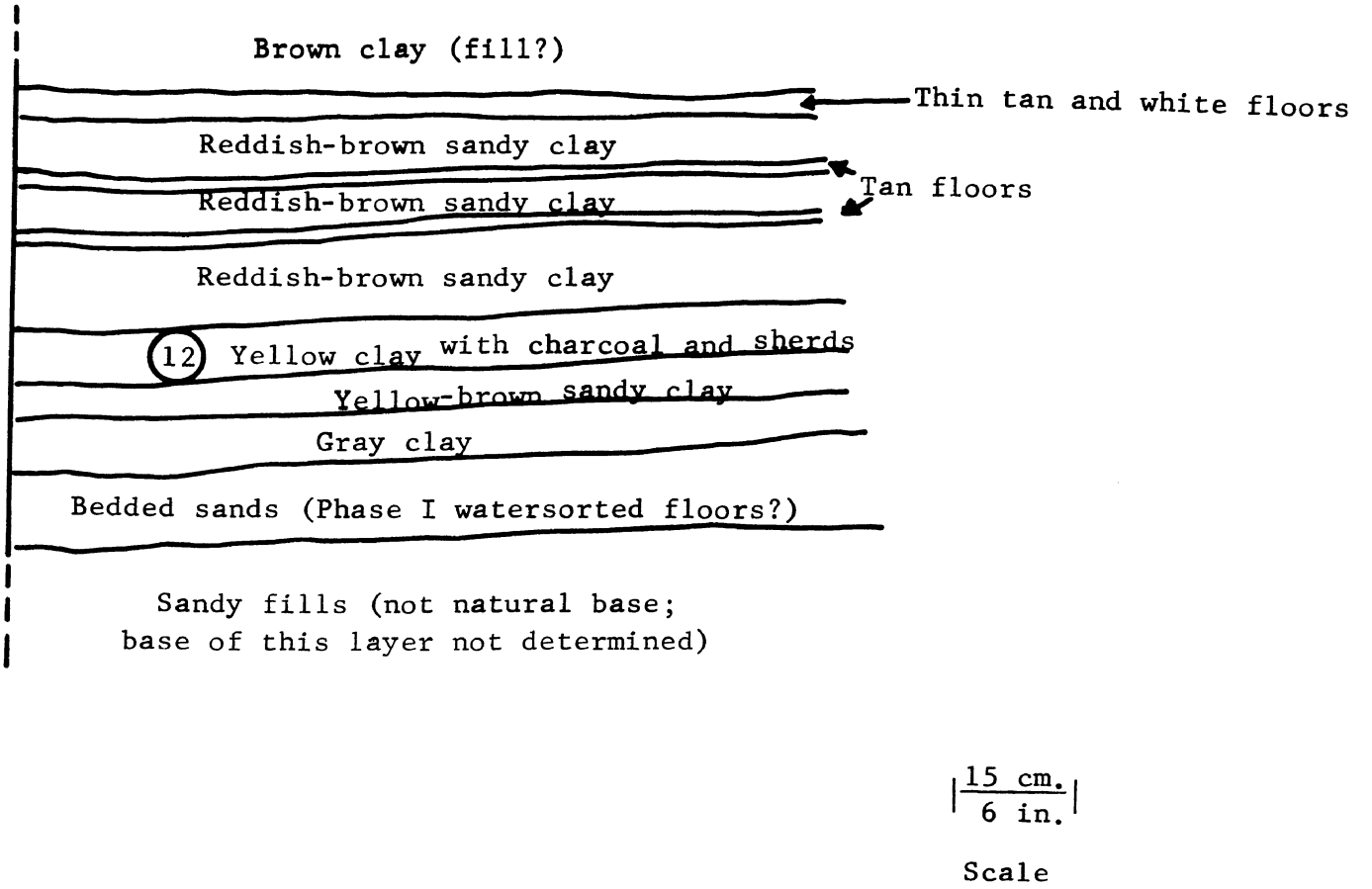
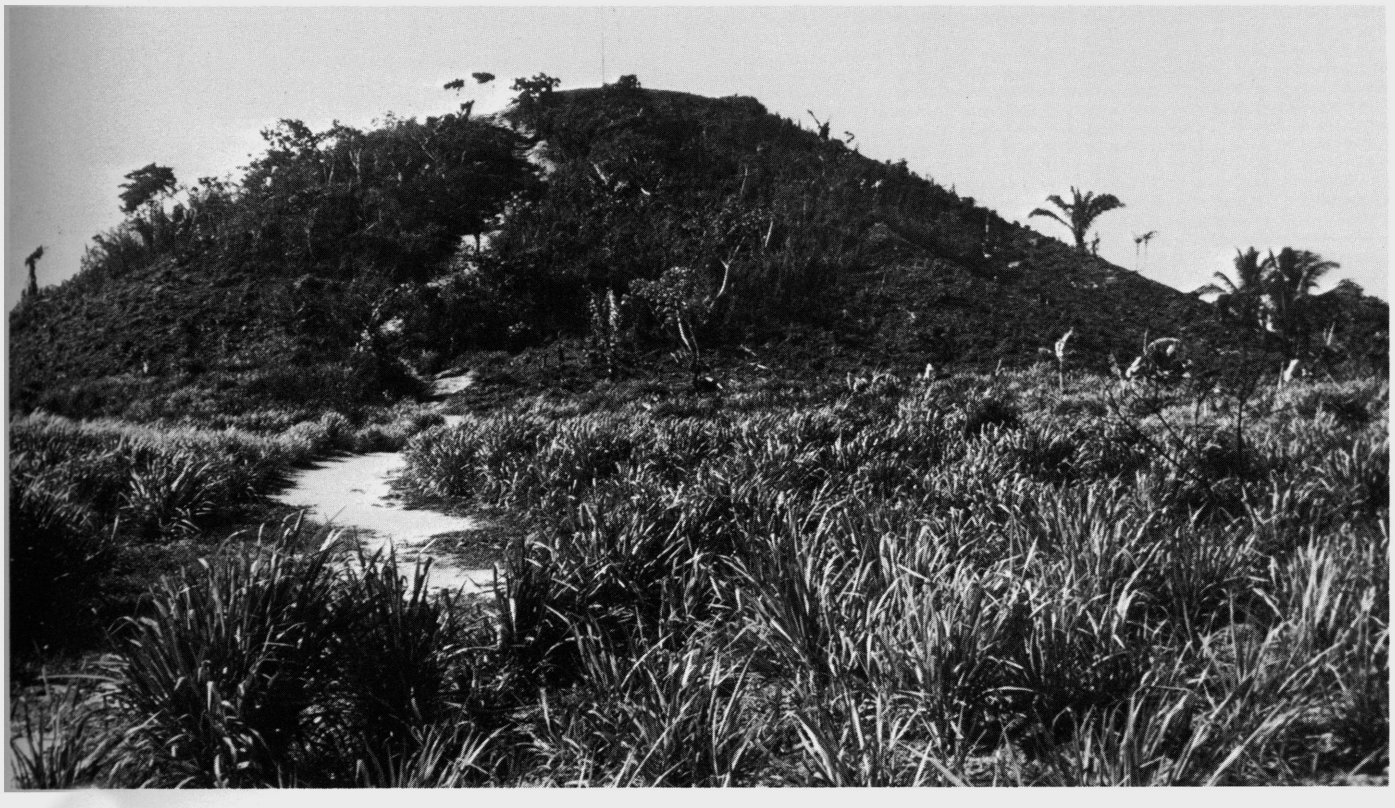


Fig. 9. East face of Trench Z

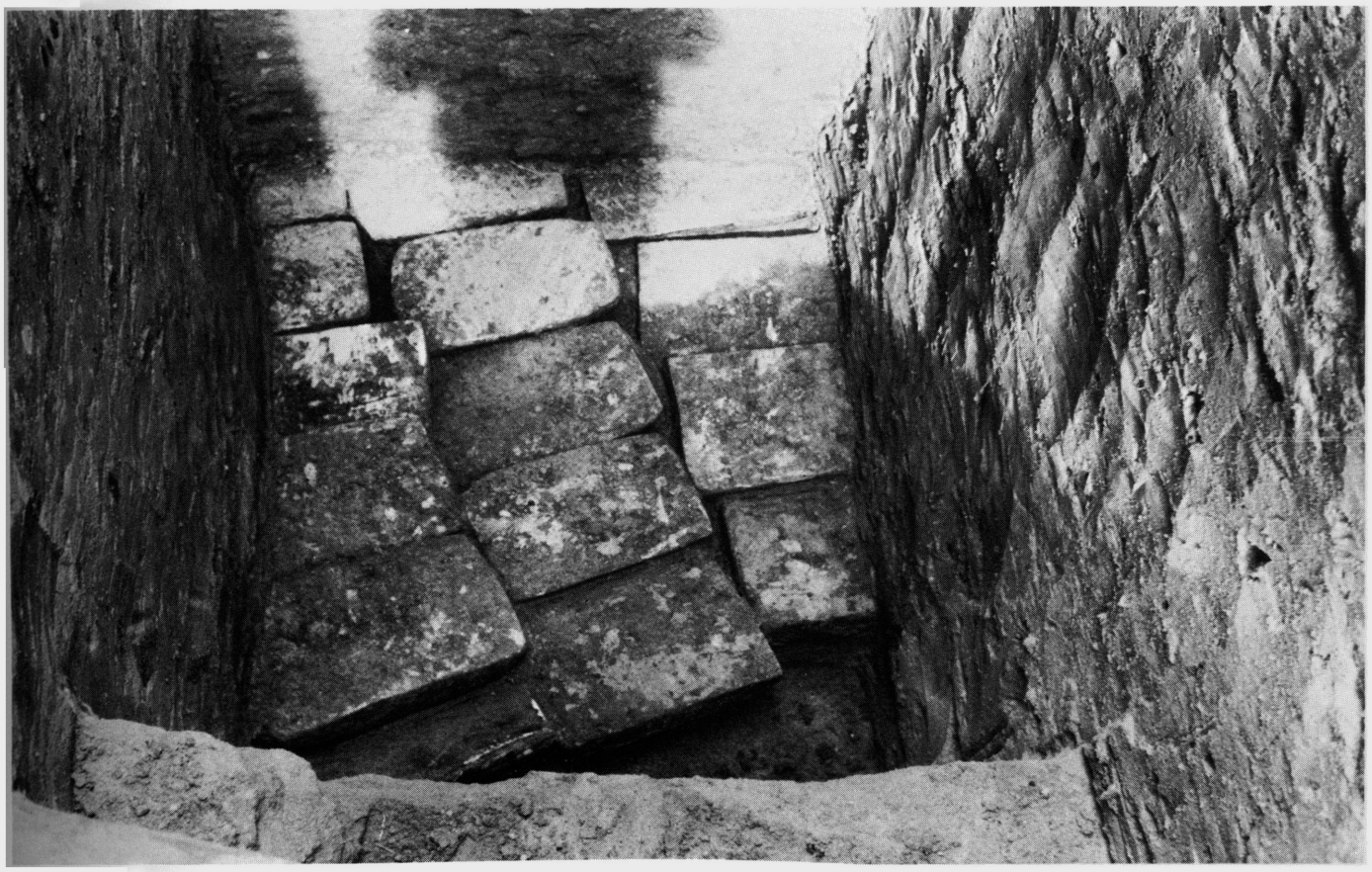
Plate 1

A. The La Venta pyramid in July, 1967, looking south along centerline from middle of Complex A. A "valley" on the west side an be clearly seen.

B. Exposed serpentine blocks of Massive Offering No. 2 in bottom of shaft at east end of Trench X.



A

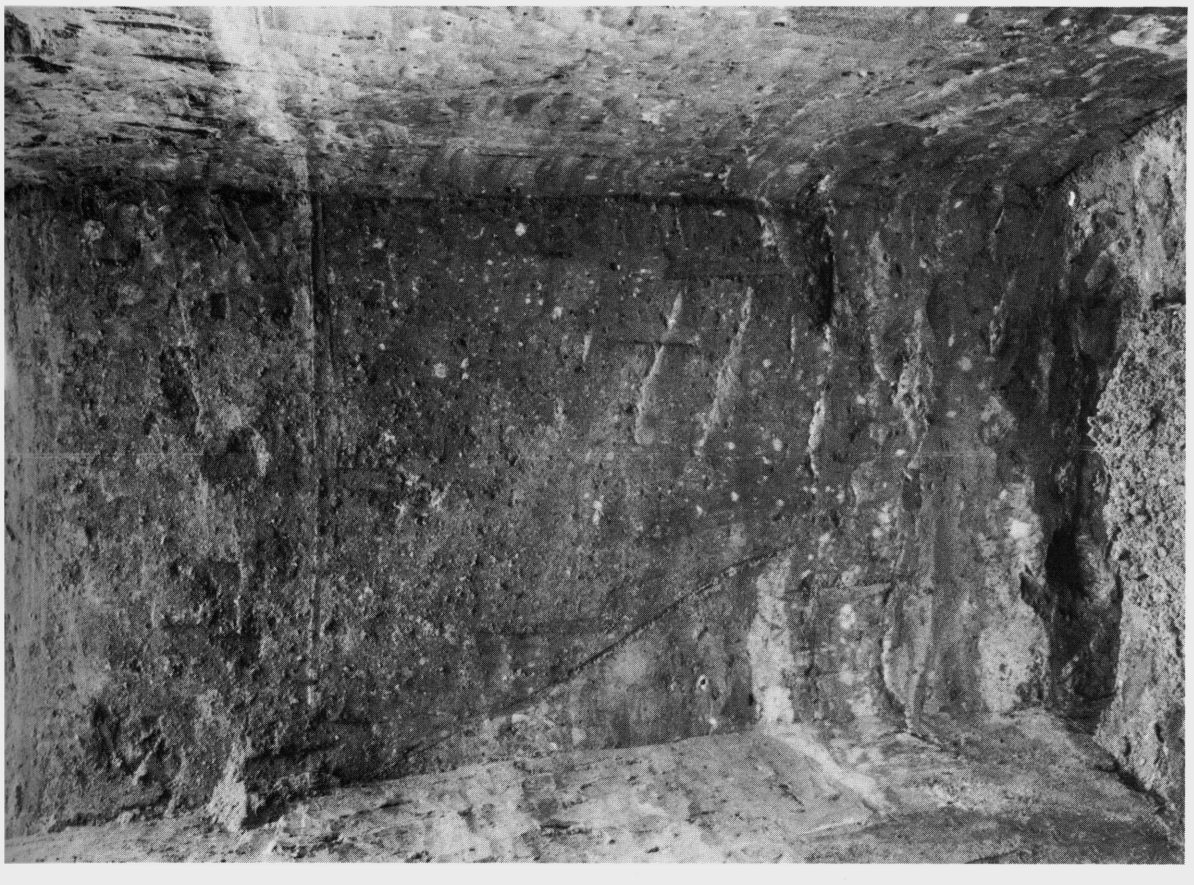


B

Plate 2

A. Section toward west end of Trench X. Compare with Figure 6.

B. Section at east end of Trench W. Compare with Figure 3.



B

A

Plate 3

A. The pit line and fill of Massive Offering No. 2. Six-inch trowel lies on construction clays. The thin dark line to left of trowel is the painted surface of the pit interior (cf. fig. 8). Inside the pit (to left of painted line) is the pit fill in which can be seen broken painted flooring chunks town out during excavation of pit and thrown back in when pit was filled. (See also fig. 7.)

B. Photograph of east face of Trench Z, shown here to illustrate the regular, flat-lying nature of the La Venta Complex A layering. Top of pocket rule, which is extended to 24 inches, is in "brown clay (fill?)" just above the "thin, tan and white floors" shown in Figure 9.

A

B