Guess-dates for Architectural Sequences at Piedras Negras.

Dates and Guess-dates for Architectural Sequences at Piedras Negras.

Table 1 deals with datable monument material where it can be used to date masonry constructions which define "phases" in stratigraphical sequences. I think the dates themselves may be accepted as firm, even when supplied with single question-marks, some of which have been added (by Proskouriakoff) to Morley readings without them. Where there are two question-marks, of course there is more doubt, but if wrong, there is sound evidence that they are not very wrong. In an instance or two a current tun hotun-end is given instead of the only date, or the latest date actually recorded, this being a non-tun ending.

The table equates horizontally a monument or group of monuments being "assigned" to a particular masonry construction represented by its label. At a given mound ordinal numbers and final letters (in those labels) carry one down or into the mound, hence backward in time, "*1st" or "-1st-A" being the latest phase.

At the Acropolis, Str. J-6-1st (or at least it's Room 1) was apparently built to receive Throne 1, which thus seems to date the building securely at 9.17.15.0.0. Six sequent periods, each presumably involving many buildings, have been distinguished at the Acroplis, and have been number I-VI in chronological order. Str. J-6-1st, because of the lateness of its date, doubtless belongs in Period VI, but this could not be proved stratigraphically. It proves late palace-building activity in the West Group. It would be fallacious to infer that Period VI did not begin some considerable time before Str. J-6-1st and 9.17.15.0.0. It may or may not be the latest building/palace building of the period.

The other sequences are in single mounds. Str. R-3-1st consists of a non-vaulted temple building which utilized Lintel 11, and a final increment to its pyramid which was probably necessary for the support of Stela 29. The two monuments

are all glyphic, and apparently agreed in being in "early style". Conceivably the building might be later than the stela, but it seems safe to see a strict chronological equation between the construction and the stela.

Such an equation is certain for "Series 2" - D and Stela 25, and for the G phase and Stela 26. The structural units involved were specially designed to support stelae. The same is true for K-5-1st-B and Stelae 39 and 38. There are two entirely separate "stela platforms", both of which can be assigned stratigraphically to a single phase. See Satterthwaite 1939 and 1940 for drawings of the K-5 sequences; 1944 for drawings of the R-9 structures.

When we come to Str. O-13 we deal with more monuments and a more complicated stratigraphical picture which has not been worked out in all possible detail. We exclude for the moment fragments of three monuments which were broken up and reused, saying only that they were reused during the phases indicated. By vertical stratification this was during the final major "1st" phase. By horizontal position M.S.S. 16 must have come from the final "1st" phase while one of two halves of "Lintel" 12 was observed in position in a 0-13-1st-A wall. Plaster on M.S.S. 16 (which also appeared on "Lintel" 2) indicated that it also was used as a wall-stone. Thus it satisfactorily - if not absolutely certainly - dates a major re-building of the O-13-1st temple labeled A as after its dedicatory date. The re-use of M.S.S. 1 could have been in any of the three phases of the "-1st" period, so it merely assures us that the earliest of these, O-13-1st-C, was no earlier than its dedicatory date, rather surely fixed at 9.10.10.0.0.

From these re-used fragments alone we may safely infer no more, except that the other five monuments listed, which appear to have been functioning at the end, presumably had fallen from their original locations. Their dates are all after 9.10.10.0.0, the early limit for architecture with which they were used. ~~and so are the dates of the three phases~~ of ~~O-13-1st~~.

The earliest of these phases consisted of a final raising of the pyramid-top, O-13, of ~~the O-13-2nd/ phases~~ and the erection of a high building platform and presumably a temple building, the platform stairway being set behind a stage at the top of the main stairway. ~~formed by the pyramid-top~~. In the next (~~*~~B) stage the original building seems to have been completely removed, the platform was greatly changed at sides and back and perhaps elsewhere, and a new temple building was constructed; in the final phase there was extensive remodeling of the building, almost surely involving a new vaulted roof, and certainly a widening ~~of the front~~ at the front of both the building and platform, and of its stairway. Each of these phases was, individually, a considerable undertaking.

(B) the sides of the stairway the pyramid-top was apparently somewhat lower at the front, but these areas will be considered as parts of a single 2-level stage of somewhat complex plan.

By positions found, it is clear that Stelae 15 and 12 stood on the lateral lower front portions of the stage. The only reasonable reconstruction must place the three panels called "Lintels" on masonry blocks on the platform stairway, behind the higher central portion of the stage, with "Lintel" 2 on the positional axis, the others on either side. So far as the available record goes, these five monuments could all have been placed during the earliest phase, and have remained exposed and functioning during the two later ones. Or they could all have been placed in Phase ~~*~~B or -A, or distributed among the three phases.

However, these monuments fall into two groups with a 6-katun interval between "Lintel" 2 and the earliest of the others, "Lintel" 3 and Stela 15. ~~We may add Stela 14, at the base of the same pyramid to the late group, and have~~ ~~and Throne I in the West Group,~~ The date of the latter two, 9.18.5.0.0, falls in the katun of the latest dated monument at the site, whether or not one accepts Morley's reading of 9.19.0.0.0 for Altar 3 - but rejecting his reading for Altar 1, as Thompson has shown one must do. One cannot resist the conclusion that such late monuments belong with the latest of the three phases, and that

the "lintel" carved as much as 6 katuns before any of them belongs with one of the earlier phases, as shown in the table.

We cannot be so sure as at the other mounds that the construction of the phase of Lintel" 2 did not precede its placement by a significant amount of time, nor that 0-13-1st was not built somewhat before placement of monuments on and before it at 9.17.15.0.0. ~~All of the six monuments could have been placed at any time on or before~~. Lacking real evidence on this, there is none to the contrary. Placement of "Lintel" 2 on the axis may well have been in the original plan of one of the early phases; and symmetrical placement of the other two "lintels" on either side of it may well have been part of the re-building plan in the final phase. It is simplest to assume this and the error, if any, will be ~~xxxx~~ scarcely significant.

Making this assumption, if "Lintel" 2 dates the 0-13-1st-B phase, ~~it~~ the phase functioned for 6 katuns, ~~while the earlier O-13-1st-C phase functioned for less than 2 katuns, even if we place it at 9.18.0.0, the early limit for~~ We have no definite check, but on general principles this seems excessive, I am inclined to suppose, without proof, that "Lintel" 2 dates the earliest pphase 0-13-1st-C, and that the 6-katun gap in carved dates ~~bridges~~ covers ~~two periods~~ the durations of two phases rather than of one. However, Table 1 shows uncertainty in this respect.

With Table 2 we become highly speculative and reach guess-dates for all phases in the mound sequences preceding those reliably dated in Table 1. The dates are given two question marks to emphasize that they are mere guesses, though they are reached on the basis of identical assumptions. These are:

First The dated time-span for the monument-building complex is taken as 9.5.0.0.0 (Stela 30) to 9.19.0.0.0 (Altar 3). A katun is added at the end, and 5 katuns are added at the beginning to obtain the whole of Baktun 9 as the theoretically assumed complete local Classic period. This allows for two or three later monuments whose dates may have been lost; and for three building phases at Str. R-3 before 9.6.0.0.0 ?? (taken as the date for the latest); and for a period of some length when stelae may have been small and plain. This early extension of the dated period is at 2 katuns per phase, perhaps excessive rather than otherwise; if we shortened it the guess-dates would come out a bit later, ~~but not very much~~.

Second Mere re-surfacings of structures are disregarded; ~~formally~~ phases formally recognized in the labeling system are all assumed to have been of equal duration unless there is clear evidence to the contrary. This is, of course, a highly arbitrary assumption which, one hopes, results in guess-dates sometime wrong in one direction, sometimes in the other. One guesses that a plus-or-minus allowance of 2 katuns ought to cover these errors, but there is no real check. Perhaps it should be more.

Third It is assumed ~~xxxx~~ not only that the occupation began at 9.0.0.0.0, but that it spread over the whole ceremonial ~~xxx~~ area at once (though not necessarilly with ceremonial architecture at all spots at this time. This gives us a theoretically assumed date for the earliest phase at any spot, provided it is on bedrock. (In the special case of Str. O-13, where the earliest known phase is the top of a quite high pyramid, Str. O-13-4th, it is assumed that excavation would

would show an earlier low O-13-5th, analogous to the situations at R-3 and K-5). Failure to allow for unprovable lags in building at specific spots would also tend to make the guess-dates a bit too late, rather than too early.

As to the utility of the results, they are worse than nothing if taken litterally. [illegible]

Possibly they may be useful in forming or checking hypotheses involving the site as a whole, or concerning temporal associations of architecture with caches, pottery, monuments, and other classes of objects.

Only for the O-13-1st sequence can it be said that there is some basis for considering the result a reasonable one. It is, of course, mere coincidence that our guess-date system places O-13-1st-C at precisely the date of M.S.S. 1, a portable altar which may have first got to this location because it was made for use in the temple of that phase. The coincidence might still be a real one, in which case "Lintel" 2 was added a generation latter as a secondary feature on the stairway. [illegible] Not that our arbitrary system, working back approximately to 9.C.0.0.0 by equal stages, does not require a 6-katun life for Str. O-13-1st-B. At the four mounds it gives us theoretically intervals which vary from 2 katuns to nearly 4 katuns, [illegible] For the South Group only the larger of the two intervals is only 2 and 1/4th katuns, and these sequences end earlier than the others. Whether there is any meaning in this I will not attempt to say.

[illegible] ceased.

Table 1

Dated Monuments Stratigraohically Related
to Architectural Sequences

		Dedicatory Dates Per Inscriptions	References	Proskouriakoff Style-dates
~~Acropolis~~				
~~Str. J-6-1st~~				
Str. R-3				
R-3-1st	"lintel" 11	(illegible)		(all-glyphic)
"	Stela 29	9. 6. 0.0.0??	M	(all-glyphic)
Str. R-9 Basal Platform ("Series 2")				
Series 2 - D	Stela 25	9. 8.15.0.0?0	M,P	9. 8.10 ± 2
Series 2 - B	Stela 26	9. 9.15.0.0?		9.10. 0 ± 2
Acropolis				
Str. J-6-1st		9.17.15.0.0	M,P	9.16. 0 ± 2
Str. O-13				
O-13-1st (-C, ~~-B~~, B) ~~-A~~)	"lintel"2	9.11.15.0.0?	M,P	9.13.10 ± 2
O-13-1st-A	"lintel" 3	9.17.15.0.0?	T,Note 1	9.17. 0 ± 2
"	Stela 15	9.17.15.0.0?	M,P	9.16.0 ± 2
"	Stela 12	9.18.5.0.0 ?	M,P	9.17. 0 ± 2
"	"lintel"1	(inscription missing)		late Classic, Dynamic Phase?
Fragments re-used at Str. O-13				
In O-13-1st (-C, -B or -A)	M.S.S. 1	9.10.10.0.0?	T, Note 2	(all-glyphic)
In O-13-1st-A	"lintel" 12	9. 5. 0.0.0??	M,P,Note 3	Early Classic or Formative
"	M.S.S.16	9.15. 0.0.0?	T, Note 4	9.17.10 ± 2

~~M, P and T refer respectively to Morley 1938, Thompson 1944 and Proskouriakoff~~ 1950

Note 1: T. changes reading from 9.16.0.0.0 of M and P.
Note 2: Current hotun of T's or M's differing reconstructions of the IS.
Note 3: M gives 9.4.0.0.0?? as an alternative approximation; inscription incomplete.
Note 4: Current hotun of three IC positions allowed for by T; chosen to allow time for use and destruction with the style-dated "spread".

Str. K-5				
K-5-1st-B	Stela 39	9.12. 9.0.0	M	(design eroded)
"	Stela 38	9.12.10.0.0	M,A	" "
	"lintel" 7	9.12.10.0.0??	M,B	Late Classic, Formative Phase.

AmB,M,P,T refer respectively to Andrews, 1942; Berlin, 1952, Morley, 1938, Proskouriakoff 1950
Thompson, 1944.

Table 2

Guess-dates for Phases of Four architectural Sequences

(Forward to Phase Controlled by Dated Monument)

Str. R-3

R-3-4th	9. 0. 0.0.0 ??
R-3-3d	9. 2. 0.0.0 ??
R-3-2nd	9. 4. 0.0.0 ??
R-3-1st	9. 6. 0.0.0 ?? (Stela 29)

Str. R-9 Basal Platform

Series 2 -H	9. 0. 0.0.0 ?? [handwritten over second digit: 6]
" -G	9. 2. 5.0.0 ??
" -F	9. 4.10.0.0 ??
" -E	9. 6.15.0.0 ??
" -D	9. 8.15.0.0 ?? (Stela 25)
" -C	9. 0. 5.0.0 ??
" -B	9.9,15. 0.0 (Stela 26)

Str. K-5

Str. K-5

K-5-4th	9. 0. 0.0.0 ??
K-5-3d	9. 3. 0.0.0 ??
K-5-2nd	9. 6. 0.0.0 ??
K-5-1st-C	9. 9. 0.0.0 ??
K-5-1st-B	9.12. 5.0.0 (Stela 39) 9.12.10.0.0 (Stela 38)
K-5-1st-A	9.12.10.0.0 ?? ("Lintel" 11)

9.12.10.0.0 (Stela 38
9.12.10.0.0 ?? ("Lintel" 11)

Str. O-13

(O-13-5th ?)	9. 0. 0.0.0 ??
O-13-4th	9. 3.10.0.0 ??
O-13-3d	9. 6. 0.0.0 ??
O-13-~~1st-C~~ 2nd	9.10.10.0.0 ?? ("Lintel" 2 centered on Platform stairway at 9.11.15.0.0? M.S.S. 1, a portable altar, in use here at 9.10.10.0.0 ?
O-13-1st-C	9.12.0.0.0 ??
O-13-1st-B	9.14. 0.0.0 ?? (M.S.S. 16, a probable small stela, erected here at 9.15.0.0.0 ?) M.S.S. 1 broken and used in fill here ? Or later?
O-13-1st-A	9.17.15.0.0 ("Lintel" 3 added to platform stairway at 9.17.15.0.0 Stela 15 erected on pyramid stage at 9.17.15.0.0 "Lintel" 1 probably added during this phase. Stela 12 added at 9.18.5.0.0 "Lintel"12 and M.S.S. 16 broken and used in masonry of this phase (Dedicatory dates 9.6.0.0.0 ?? and 9.15.0.0.0 ?)

O-13-2nd 6/10 out. WRC to make up a new one

[Handwritten calculation:] 17 = 340, 15, 6 | 355 — 59 yrs, [illegible], 30, 55, 54, 1, 3.0.0.0 (not 3.10.0.0.0)

Note: see text for arbitrary assumptions.

October 5, 1956

Mr. Robert E. Smith
Carnegie Institution of Washington,
10 Frisbie Place,
Cambridge, Mass.

Dear Mr. Smith,

Thank you very much for all your help in straightening me out on that cache matter. I'm afraid, though, that I have to turn to you again.

We're presently trying to stratify Piedras Negras' 94 caches. The K-5 complex has a good cache sequence which can be pinned down to and prior to 9.12.5 (St. 39, associated with K-5-1st-B). You connect this date with Tepeu 1 in your recent report. Dr. Satterthwaite guess-dates the beginnings of P. N. architectural activity at 9.0.0.0.0. In this instance, K-5-4th is the first of the K-5 complex. On the basis of estimated building intervals, K-5-3rd dates to 9.3. This sounds very reasonable if pottery is disregarded beyond the absence of local pre-Classic material. However, Cresson, in his unpublished studies, includes in his Group 1 (that is, clay and soil deposit just above bedrock and below fill of K-5-3rd -- in other words, K-5-4th) the following material:

(a) Head: typical Style Y (see Butler,1935,XIII,28,29)
Leg: short, stubby; lines for toes...
Arm...
Large hollow molded dog's head...
A few Polychrome A and B sherds

(b) Flanged bowl sherds
Basal ridge bowl sherds
Basal molding bowl sherds
Barrel-shaped bowl sherds (usually Polychrome D)
Flat-based bowl sherds, incurving sides
(usually Polychrome B)

The material listed under a would suggest Late Classic. A Type Y head though was found on bedrock of the Acropolis. "Mexican" has been applied to this type by Butler. Polychromes A and B are evidently Tepeu. Yet the material listed under b would seem to be wholly the equivalent of Tzacol.

The question then is whether this K-5-4th deposit is transitional from local Tzacol to Tepeu. If it is, Dr. Satterthwaite's estimates would indicate transition around 9.0 to 9.3. This of course is far out of line with the 9.8 Uaxactun estimate. However, if 9.8 is roughly correct for Uaxactun and also applicable to P.N. and if the deposit truly represents transition, you then must squash an enormous amount of building and important innovations into four or so katuns. Naturally, there are other speculative possibilities.

We'd certainly appreciate any ideas that you might have on this situation.

Very sincerely,

William Coe

Bill Coe's thesis. LS

STRUCTURE J-29

DATING: This temple structure consists of four reconizeable building phases, labeled -D, the earliest, through -A (see Satterthwaite, 1936a, pl.5). Two caches were encountered. Cache J-29-1 appeared below the base of a column altar set in a ventilated niche at the rear of the room. The second cache, J-29-2, was found below but slightly protruding above a floor known as Floor 3.

This second cache was patently intrusive, its crude repository have penetrated not only Floor 3 (which connects with Phase D), but Floor 2b (which connects with Phase B) and Floor 2a (which originally turned-up at either Phase B or at Phase A). The excavated hole had been plugged with ~~masonry~~ and plaster; its surface was flush with the surface of Floor 2a, indicating that the cache was intruded during the use of Floor 2a and none later. No signs of a turn-up were found for this floor and thus it might pertain to either one of the two final phases, -B or -A.

The altar cache, J-29-1, relates to the niche, to the sill in front of the niche, and ultimately to Floor 3 rather than any floor following it.

Therefore, it is most probable that Cache J-29-1 was dedicated at the time of building Structure J-29-D, which had as its surface Floor 3. Its dedicatory character is indicated by its placement in regard to the altar and by the altar's axial location. Cache J-29-2, however, was made intruively after the building of J-29-B or after the building of J-29-A.

Structure J-29-A has been used (see Appendix) to mark the first attempt, known to have been successful, to utilize the corbelled roof. On the basis of evidence supplied by Structures K-5-1st-B and O-12, J-29-A has been guess-dated at 9.10.0.0.0. Thus Cache J-29-2 can belong in time no earlier that the date of J-29-B's construction but it might also have been made at any time during the occupation of J-29-A. Field data suggests that the first interpretation is the more probable. The dating of phases other than -A is possible only on the basis of estimated building intervals, There is no reason to believe that any great amount of time was involved in the whole sequence; for one, only minor superpositioning occurred, a situation quite unlike that in Structures K-5 and O-13 and so forth. Perhaps one, perhaps two or three katuns at most would have sufficed for the four phases. Cresson's J-29

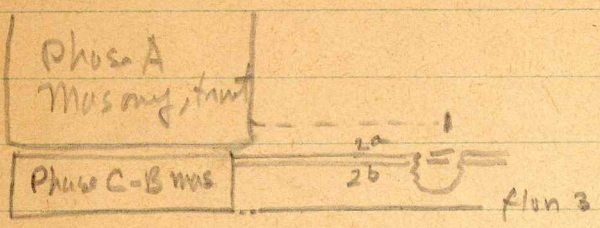
(Satterthwaite, verbal communication)

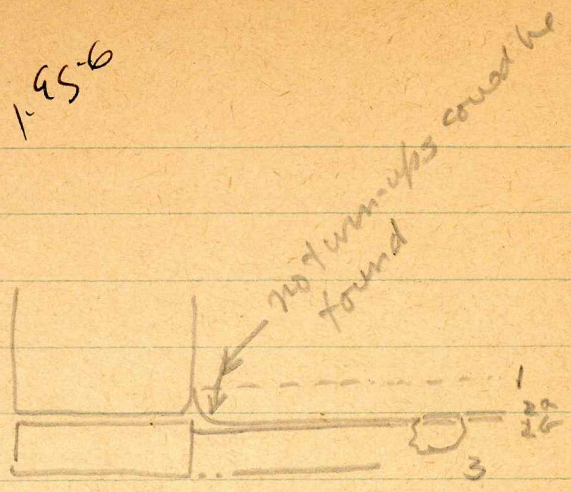
ceramic study (Cresson, n.d.) illustrates the presence in every phase of sherds attributable to Late Classic (Tepeu) times; Phase D contained one sherd of Polychrome B, a type intermediate in the Acropolis series, the bottom strata of which contains Tepeu elements.

S-29 Cocho.

1-95-6

Possibilities:





2a resurfacings perhaps:

2a - Phase B
2b - Phase C
3 - Phase D

(Flan 1 is orig. Phase A floor - a bit higher than bottle of piers)

2a - new surface with no building
2b - Phase C+B
3 - Phase D

(Flan 1 is secondary floor of Phase A).

Cocho - intrusive in Phase B.

Cocho - intrusive in Phase A, but before final floor.

This seems preferable because:

a. the count of floors = the count of Phases (since new floors everywhere when new construct was added).

b. Settling is not a very good explanation of loss of turn-up to inside of Phase A Piers (all around, the settling seems to have included laying of Flan 2 - and might be the reason for it.

P.N. Arch.

PART III NO. 1

STRUCTURES S-17 and S-18

CONTENTS

GENERAL REMARKS

Strs. S-17 and S-18-1st can be conveniently considered together. They stand side by side in the Southeast Section, and are linked typologically by the fact that they are the only known portico-type palaces at the site which are single-ranged though free-standing. Either could have been double-range so far as space-limitations are concerned. They had masonry walls with either thatch or beam-and-mortar roofs, which adds to their interest.

The reconstructions of Fig. 1 are largely in broken line, but so far as they go these are considered to be reliable. The only important real doubt applies to Str. S-17, where possibly the two left doorways (lower right in the figure) should be eliminated, as in the plan on Fig. 3, the map of the site (Fig. 3, Part I). Data used in the reconstructions of both structures is noted below, together with reasons for modifying the original reconstruction of the plan of Str. S-17.

Our information was not all gathered at one time. While surveying in 1933 Parris noted signs of piers near the right end of Str. S-18-1st. His field sketch shows he mistakenly thought there was a line of them along the rear as well as the front (as at Str. O-18) . During the next year excavations were not permitted the writer made sketch-plans of wall-indicating ridges and pier-indicating humps of debris, and drew several cross-sections and two longitudinal ones which were carefully contrlled with tape and levling instrument. The longitudinal profiles appear in Fig. 3. This work, still without excavation, showed that the plans of both buildings were essentially as here presented, though practically no masonry showed anywhere. In 1936 Cresson did enough clearing of debris to fix levels of constructional features, to confirm the "reading" of debris contours, and to provide reasonably average reliable measurements of walls and piers. His excavations were between the

right end of the Str. S-17 and the nearby left end of Str. S-18-1st, within the respect galleries near these ends, and through the doorway just right of the central doorway of Str. S-18-1st. The latter cut through debris reached the rear wall, and followed it as far as center, without encountering signs of a bench or other centered feature. The extent of all clearing within the buildings is indicated with reasonable fidelity by solid-line portions of Fig. 1.

In 1939 the writer cleared a bit more of the floor of Str. S-18-1st near center, and also cleared a narrow path forward to the lowest base-surface at the front, which we have labeled "Court Floor 1". As may be seen on the map this was clearly an artificially leveled surface which possibly might better be styled a small plaza. On this cleared path two pits were dug and associated cuts were made into platform units as shown in Section e-f (Fig. 2). This minor digging within intact construction had for its main object a search for sherds, but it revealed the existance of an earlier wall and floor designated Str. S-18-2nd.

DETAILS, AND BASIS FOR RECONSTRUCTION

It will be more convenient to make a few remarks on Str. S-18-2nd after discussing all other platform units, though some of them are later in age. Units have been lettered for reference as usual, in different series for each structure. Fig. 1 show three structures, and Unit F receives its designation in the series for that sweathouse, which is partially shown here to indicate its spatial relationship to Str. S-18-1st. It should be remembered that Units A, B and C of Str. S-17 are not the same things as Units A, B and C of Str. S-18.

Platform Units, Court Floors

(Fig. 2)

Court Floors The upper of the two court floors was quite deeply buried, but this was by sherd-bearing fine earth considered to be wash. The floor as found conisted of crushed stone, probably remains of lime concrete which disintegrated while still exposed. Court Floor 2, 45 cm. below Court Floor 1, lay below a solid fill placed in Maya times, yet showed no signs of plaster or mortar. It was recorded as a 10-cm. layer of "medium crushed stone", implying larger fragments than those of the later floor, and these were sketched as larger. Probably this was an "earth-and-stone" floor without mortar, such as was found associated with the nearby Str. V-1-1st.

Basal Platform (Units C-C' of Str. S-18) As the map shows, the original natural surface rose toward the southwest, behind behind our two structures, and it probably rose more gradually as one passed in a southeasterly direction from the position to be occupied by the left end of Str. S-17 to that to be occupied by Str. S-19. A basal platform rising from the Court floor may have been necessary if level surfaces were to be maintained everywhere in front of the loci of the two palaces. Such a platform certainly existed in front of Str. S-18-1st (Unit C-C', Figs. 1 and 2). Accuratrly determined levels show that the base-surface of the sweathouse (Str. S-19), that is Unit F, was at about the same level as the top of Unit B' of Str. S-18-1st, the next to highest component of its building platform. In Fig. 1 the suggested manner of passing from the lower area in front of the palaces to the higher area in front of Str. S-19 is entirely hypothetical; its only purpose is to show visually that the association of sweathouse and palaces was not quite so intimate as a plan alone would suggest. On the map of the site the right end of the basal platform is shown (in broken line) as exposed; it may have been so originally, but probably it was not by the time of Str. S-19.

Referring to Fig. 2, it is clear that the two levels of Unit C' are a structural unit; the wall behind the two faces appeared to be a fill wall only. This unit (C-C') is stepped-structurally later than the the main broad platform (Unit C), but there is no particular reason for doubting it belongs in the same phase. It is to be dated as contemporary with, or latter than, the Court Floor 1, so that whole basal platform is almost certainly later than Court Floor 2 (which was seen in Pit 2 only).

Building Platforms Cresson's findings between the two structures show definitely that the end and front faces of the buukding platform of Str. S-17 were batterred, while the end of the corresponding component of Str. S-18-1st was vertical.

Unexpectedly he shows no plinth-forming exposure of the top of the platform at the ear, in either case. Though narrow, these were clear along the ends and fronts. Here at the rear the building platform walls were not followed very far down and we can probably safely regard the fact that the rear face of the Str. S-17 platform seemed to be vertical were seen. Similarly, the indicated lack of narrow plinths- at the rears of both buuldings may be local and accidental.

The end of the step-like Unit C of Str. S-17 could be followed. It is 55 cm. from the corner. It is structurally secondary to the building platform, as determined by a cut through it opposite the completely outlined pier.

Fig. 2 shows that the corresponging element of Str. S-18 (Unit B') is a structural unit with the building platform itself, and it undoubtedly always ran from end to end (Fig. 1). Being decidely higher, Unit B' probably required something like the lower Unit B", and though this latter is structurally secondary, one doubts if it belongs to a later phase. We have some confirmation of this in the fact that it rested on the floor of Unit C, which presented a recognizable crushed stone surface (presumably with lime mortar), yet finishing plaster was not present below the protecting Unit B".

In Fig. 1 it is suggested (by broken line) that the main element of the basal platform (Unit C of Str. S-18) probably extended before the locus of Str. S-17, but that if it did, in that region at least its surface was raised about 20 cm., at or before the construction of the S-17 buil ing platform. This seems to most reasonable explanation of the clearly recorded fact that the right front corner of

building
the S-17 platform is 20 cm. higher than the base of the S-18-1st building platform at a point only 87 cm. distant. If a raising of the ~~xxxxxxxxx~~original basal platform floor is the true explanation of the diffe ence in levels, The S-17 platform is later than that of Str. S-18-1st, so the question is of some importance.

Unfortunately the floors were not carefully examined here. Some difference in age is clearly implied, but one could imagine a sequence of events which made the lower base-level the later one. That seems unlikely, however, since the difference is so little, and raising of ~~old~~ floors by comparable amounts is known to have ocurred eleswhere at the site. While no such secondary raising was noted in front of Str. S-18 (Fig. 2) it might have been confined to the region of Str. S-17 and have been intended to compensate for the lesser height of that building platform.

The right front corner of the S-17 building plagform was 10 cm. below the plinth-level of Str. S-18 opposite; proceeding to the rear corners, the S-17 platform sloped up 10 cm. while the S-18-1st platform rose 20. cm. No account of these ~~xxxxxx~~ front-to-rear slopes, and there is no satisfactory evidence that they appeared consistently within the buildings. The drawings do not attempt to reflect

Buildings Plans reflected in Fig. 1 depend ~~in the main~~ on average dimensions ~~xx~~ listedin the Average Dimension Table, and these in turn depend on satisfactory measurements of excavated portions fairly well indicated in the figure. The point of view chosen prevents showing evidence that the left jamb of the left doorway was about 1.80 from the corner, though this was only a single surviving "possible jamb stone". Fortunaetly the other jamb was ~~xxxx~~ clear and two widths for two other doorways (1.53 and 1.54) confirm the position.

On Str. S-17 the right jamb of the right doorway could be measured directly as 1.12 from the corner, that is, about one pier-width instead of something more than a pier-width. With these dimesnsions known we can reconstruct a portico-type

positions,
based on a few known jamb-positi

facade using known average dimensions cfor piers and doorways provided we can safely assume symmetry, and if we know either the total length or the total number of piers (one less than the total number of doorways). It seems safe to assume the portico type building in both cases here--that is, a facade with a line of standard-size piers between standard-size doorways,--on the basis of approximately equally-spaced humps of debris, confirmed by a fair sampling of actual jamb-positions below them.

Fig. 3 shows the evidence for nine front doorways and a solid rear wall of Str. S-18-1st, and its vertical relationships to the structures on either side. The drawing is in three overlapping segments, arrows indicating the amount of overlap. In the upper segment Section a-b begins to the right (observer's left) of Str. S-19, passing through the rear of the lintel of its sweatroom at Point 1 (Point 2 locates the cross-section of Fig. 2). The approximate floor level of Str. S-19 is indicated in broken line, and a symetrical reconstruction with the lintel at center requires us to end this platform at about the indicated point.on the second segment.

Section a-b continues on the same line, above the humps and depressions some of which were dug out to reveal piers and doorways of Str. S-18-1st. The floor of this is also approximately located. Crosses mark the centers of doorways as reconstructed, the placement being with releation to the known end, and the central one being underlined. There are only nine dips to be accounted for; the reconstruction based on assuming a symmetrical portico places the crosses below a dip in every case, and calls for ending the building about where this just leaves room for Str. S-19. Section c-d is parallel to Section a-b, about 2.80 behind it, over the ridge which indicated the rear wall of Str. S-18-1st. It shows no dips comparable with those of the for ard section and excavation showed there

was no rear doorway below the small depression near center.

These carefully controlled profiles were not extended across the mound of Str. S-17, but the sketch plan shows a similar situation, though the rear ridge and the forward humps were lower and less distinct. In Fig. 3 Section a-b is extended with a small-cross line over the small portion of Str, S-17 shown, on the basis of the plan. The greater depth of debris on the floor indicated is controlled by a cross-section at the end of this less accurate portion of the forward profile. The plan calls for five humps approximately equally spaced along this line, the hump fartherest from the right end of the building being somewhat doubtful. In reconstructing the plan on the map of the site we disregarded this doubtful fifth pier, and could not assume symmetry because a small exposure of the left end of the building platform called for a building length of about 20 m. (Unit B' of Str. S-17 in Figure 1). Hence that plan supposes an expanse of blank wall at the left end, comparable with the northwesterly vauguely facade of Str. J-2 on the Acropolis. This remains a possibility, but it seems more likely that signs of a sixth pier became completely obliterated. Reconstructing on this basis with average pier and doorway dimensions established at the other end, and assuming symmetry, gives a length for the building which is just about what is required.

Heights of Walls Faces of rear wall and piers were seen to surviving heights of 55 and 50 cm. respectively in the case of Str. S-17, and of 52 and 35 cm. respectively on Str. S-18-1st. Assuming that masonry rose to roof height in both cases we should expect the S-17 stumps to be lower, intact if anything, and the debris over them was lower. At the left rear corner of Str. S-18-1st this rose to 1.05 above the floor level, while two or three individual blocks of stone, probably in semi-position, increasd the total height to 1.45 m. There can be no doubt that the walls and piers of Str. S-18-1st reached roof height, and practically none that those

of Str. S-17 did also.

Roof-types Vault slabs and specialized cap-stones were not noted and were undoubtedly absent. Debris depths as low as 25 cm. in the center of the S-18-1st gallery, and 40 cm. in that of Str. S-17 make it certain that both roofs were non-vaulted ones. Presumably both were either thatch or beam-and-mortar; if one only was beam-andpmortar, the somewhat greater debris depth indicates this was Str. S-17.

Str. S-18-2nd

Nothing is known of this earlier structure except what is shown in Fig. 2. It was not determined whether the short expanse of wall exposed by our cut was complete, or the stump of something higher. It may be the complete face of a building platform about 25 cm. high.

The wall rested on a floor of crushed stone and mortar, though finishing plaster was not noted. The floor material ran under the wall, while outside it could be followed for a short fistance only. Originally it must have run further forward to the top of some wall, and so far as we know this might have carried one down only to the surface of Unit C of the basal platform If there was such a wall connecting with Unit C, examination indicated that it had not survived to form the base course of the later Unit B' of Str. J-18-1st. Theoretically Str. S-18-2nd may have been served by an early basal platform not reached by out digging, It seems most likely that it belong in time with Unit C, the connecting wall having been torn out for its stone at the time of Str. S-18-1st.

The base of the early wall was 62 cm. below the base of the facing wall of the later Unit B of Str. S-18-1st, and about 15 cm. behind it; it was 27 cm. above the level of the base of Unit B' of that structure.

DATING

Structures S-17 and S-18-1st were apparently in use up to the time of abandonment, Either may be later than its building platform, since evidence of such situations is often hard to find, and it was not looked for. Therefore, though there is inconclusive evidence that the building platform of Str. S-17 is later than that of Str. S-18-1st, the relative ages of the buildings themselves need not correspond.

As to the platforms considered separately, a significant difference in age is the most plausible explantion of minor differences in design: that of Str. S-17 is slightly lower, its faces are battered instead of being vertical, and the step-like element along the front fails to reach the ends, The latter is structurally secondary while the most nearly corresponding element on Str. S-18-1st is a structural unit with the building platform proper.

Considering the two buildings separately, the masonry is similar and so are the plans, but there are differences in dimensions which strongly suggest that the S-17 building is later (Average Dimension Table). The span and door-widths are slightly greater than those of Str. S-18-1st. Taken alone, these differences might be non-significant, but the piers and walls of Str. S-17 are noticeably thinner, and at the same time the piers are noticeably shorter. The pertinent indices are as follows:

	Wall-Span	Pier-Doorway
Str. S-18-1st	36	107
Str. S-17	25	64

Str. S-17 is a less massive building in two not necessarily connected aspects. Because they are so intimately associated spationally, and so similar in all other respects, these two buildings afford the best evidence

we have that there was technological progress in the direction of less massive construction, quite apart from the special problems presented by vaulted or semi-vaulted roofs. If we do not accept the above combination of relatively lower indices as an indicator of less age for Str. J-17, we have no explanation for them, unless we suppose a "heavier" Str. J-18-1st to support a beam-and-mortar roof, that of Str. J-17 having been of thatch. As to this possibility, the evidence of debris depths suggests identical roof-types, or else beam-and-mortar on Str. J-17 rather than on the more massive structure.

I think we may conclude that the two buildings differed somewhat in age, with Str. J-17 being the later by some unknown but perhaps short lapse of time. They and/their building platforms (presuming the latter to belong with them in time) date in the latest period of building activity at this locus. There was surely at least one prior period, probably at least two prior periods, and there may have been more. The basal platform (Unit C-C' of Str. S-18) belongs in the latest or the next-to-latest period, probably the latter, with a still earlier period to account for Court Floor 2. This basal platform, with its low step-terracing leading to a broad stage, corresponds rather closely with the basal platform before the temple pyramids of Strs. R-9 and R-10. There, in the South Group Court, the type first appears sometime after a platform which carried Stela 25, dated at 9.8.15.0.0. On the basis of this hint we can guess that the latest constructional period -- that of the two palace buildings, began no earlier than 9.10.0.0.0, and might have begun later.

This "guess-dating" is quite consistent with what little was learned of ceramics. The 1939 digging produced 518 catalogued sherds, of

or were contempor ary with
which 164 pre-dated/the/building platform of ~~building of~~ Str. J-18-1st. (Object/ Table, Positions 5, 6, 7, 9). They show the presence negative painting with positive black line, orange bar decoration, bowls ~~with~~ or plates with flat lips, and (probably) a distinctive form of small pottery drum such as was found on the floor Str. J-11-1st, the least massive of the vaulted palaces on the Acropolis. Included here also was a very thin slab foot on a vessel with thin falt bottom, very different from slab feet normally found with flanged bowl sherds. Negatively, the whole admitedly small sample produced no typical slab feet, and only three flanged bowl sherds. Two of these pre-dated Court Floor 2 (Position 11); the other was in a possible late position (Position 4). All were weathered. So far as it goes the ceramic evidence suggests that flanged bowls were out of style even by the time of Str. J/ S-18-2nd.

C+C

AVERAGE DIMENSION TABLE
~~Average Dimension Table~~

Platform Units

	Units	Height	Length	Depth	Slope
Str. S-17	B	.75	20.29*	3.95	78
" "	C	?	19.19*	1.20	?
Str. S-18-1st	B	1.10	30.20*	4.30	V
" "	B'-B"	.75	30.20*	1.68	V

Building Units

	Sections			Elevations			
	W	R	W'	Length	Depth	Piers	Doors
Str. S-17	.65	2.55	.65	20.09*	3.85	1.05	1.65
Str. S-18-1st	.88	2.44	.88	20.90*	4.20	1.60	1.50

Note: Starred dimensions are approximations based on reinstruction.

MASONRY NOTES

Both structures were built with tabular stone, apparently in the final main blocks and small slabs. Fig. 3 shows the right front corner and end of Str. S-17; this photograph indicates that after the building of the S-17 platform the floor level between the two structures was raised somewhat, a fact not recorded otherwise, and not shown in the drawings. Surviving plaster was not recorded anywhere, either for floors or walls of Strs. S-17 and S-18-1st, but there is every reason to suppose it had been present on both, and that the floors were of lime concrete. For Str. S-18-2nd the same remarks apply, the floor material at the base of the wall having been noted as of crushed stone and mortar. Court floor 2 was probably a "stone and earth" one, while Court 1 may be presumed to be disintegrated remains of a lime concrete floor.

OBJECT TABLE (STR. S-17: OPERATION SE-10)

Positions	Sherds	Miscellaneous
1 On floor of building, (or possibly from floor material)	-1	-2(animal jaw & teeth); -4 (flaked celt or axe head, broken)
2 From surface debris between Strs. J-17 and J-18-1st		-3 (finely chipped flint point, base missing)

OBJECT TABLE (STR. S-18: OPERATION SE-11).

Positions	Sherds	Figs.	Mod. Frags.	Miscl.
1. On floor of building, or possibly from floor material.	-1; -3; -17	-18; -19		-2(discoidal stone; -4(hammer stone)
2. On Unit C, or possibly from floor material	-5 A		-6	-7(bark-beater)
3. First cut, Pit 2, surface to 10 cm. above Court Floor 1	-8 B			
4. Second cut, Pit 2, to floor, mixture from floor material possible	-9 C		-10	
5. Third cut, Pit 2, Floor 1 and fill to Floor 2, mixture from latter unlikely	-11 D	-12 -13 -14	-15a -15b -15c	
6. From floor or fill of Unit Unit B', forward of Unit B	-16 E			
7. From fill under and back of Unit B wall	-20 G -21			
8. Fill of Unit C (Reg J is Missg.	missing	(of lower cut)		
9. Fill of stepped-Unit C'	-25 K			
10. Floor material at base of S-18-2nd wall Reg J	-21 H	-26 K		
11. Pit 2, Fourth cut, through Floor 2 to bedrock	-22 I	-23 -24		

Missg.

III - Fig 3

Fig. 3 Right front corner and end of building platform and building of Str. S-17; at observers right, right end of Unit C of Str. S-17.

Str. S-18 Section. Part III Fig. 2. Pencil on tracing paper.

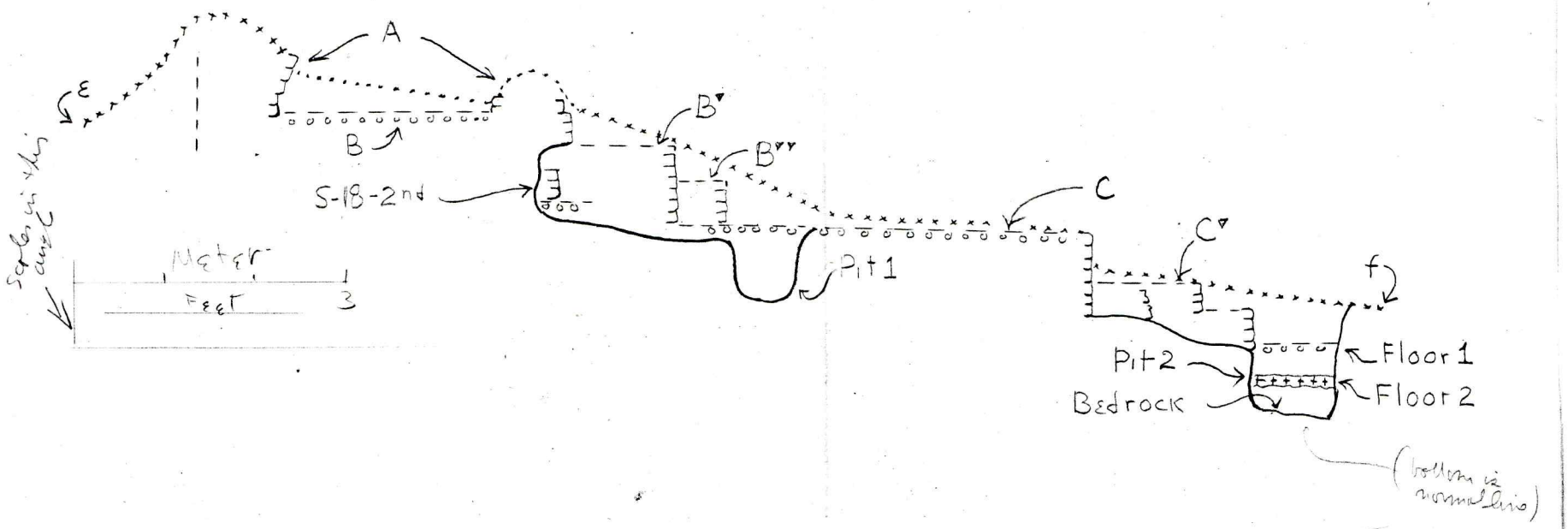
Removed to:

Piedras Negras—
Oversize Plans and Drawings—
Str. O-13 Sections—
P-45-16

Part III Fig 2

To be reduced to (1/2)

Section E-f

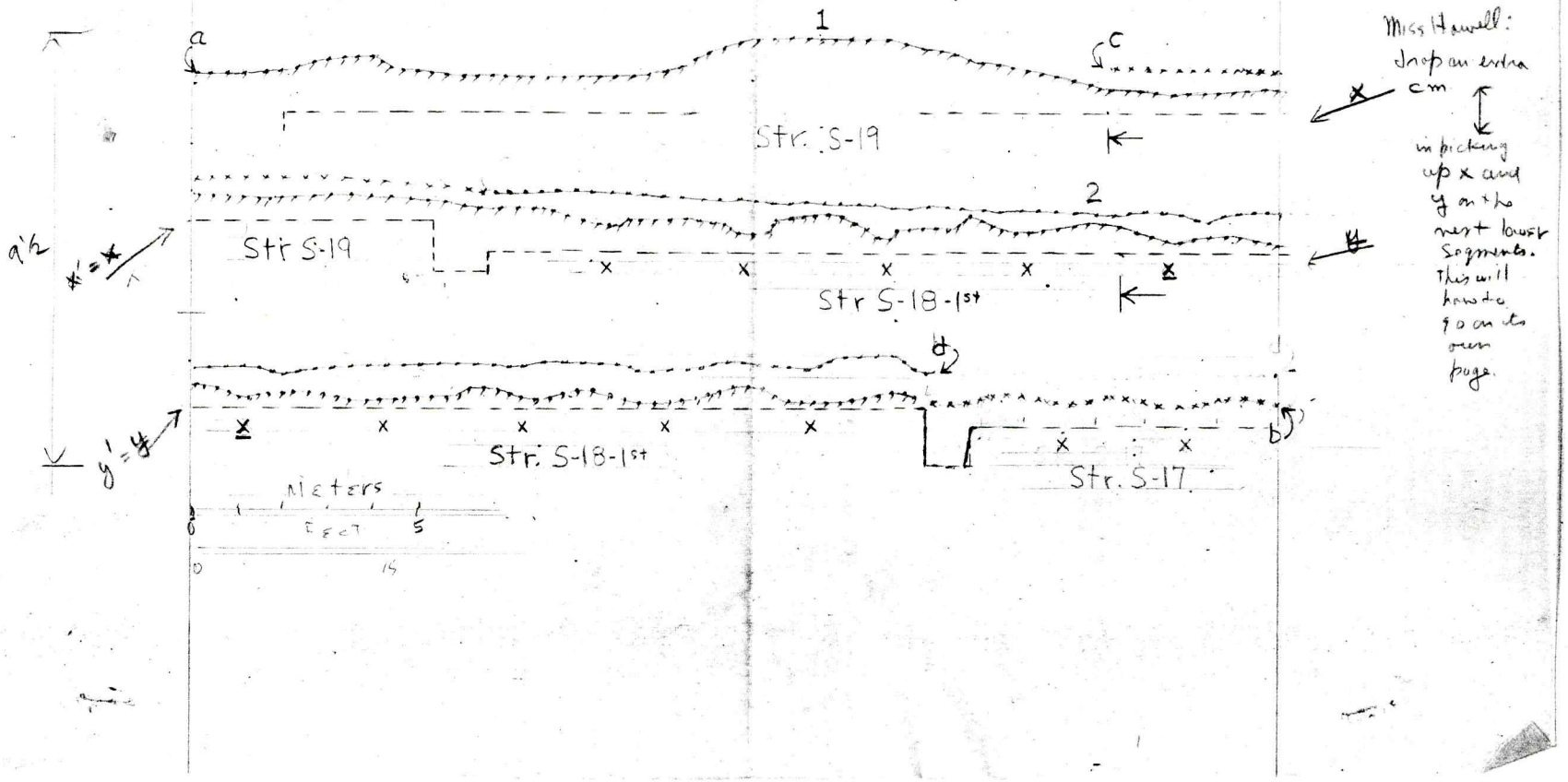


Str. S-17, S-18 S-19 Section. Part III Fig. 4. Pencil on tracing paper.

Removed to:

Piedras Negras—
Oversize Plans and Drawings—
Str. O-13 Sections—
P-45-16

Proj III Fig 24 (Not) To be reduced. (Scale is 1:100



Str. S-17, S-18, S-19 Isometric. Pencil on tracing paper.

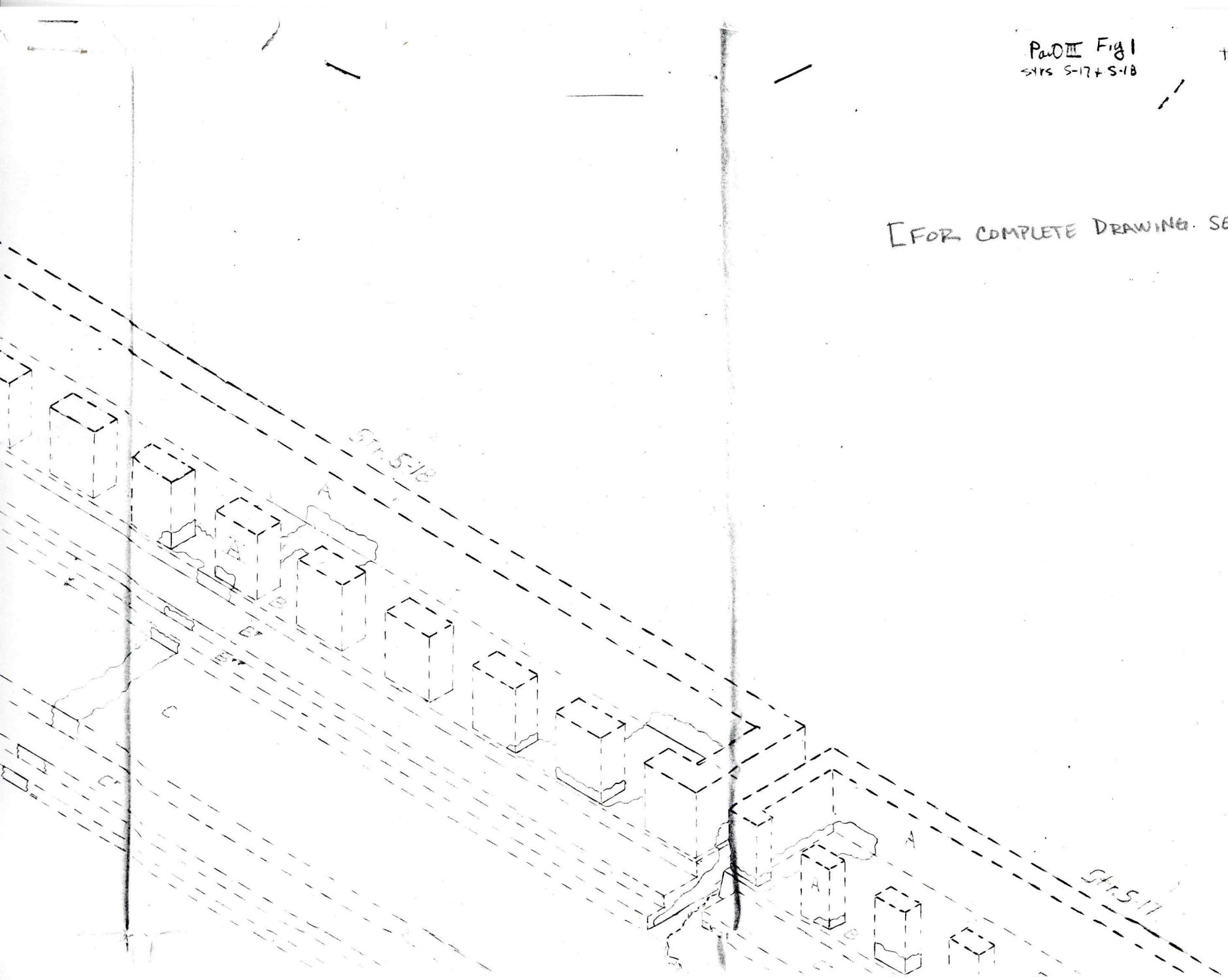
Removed to:

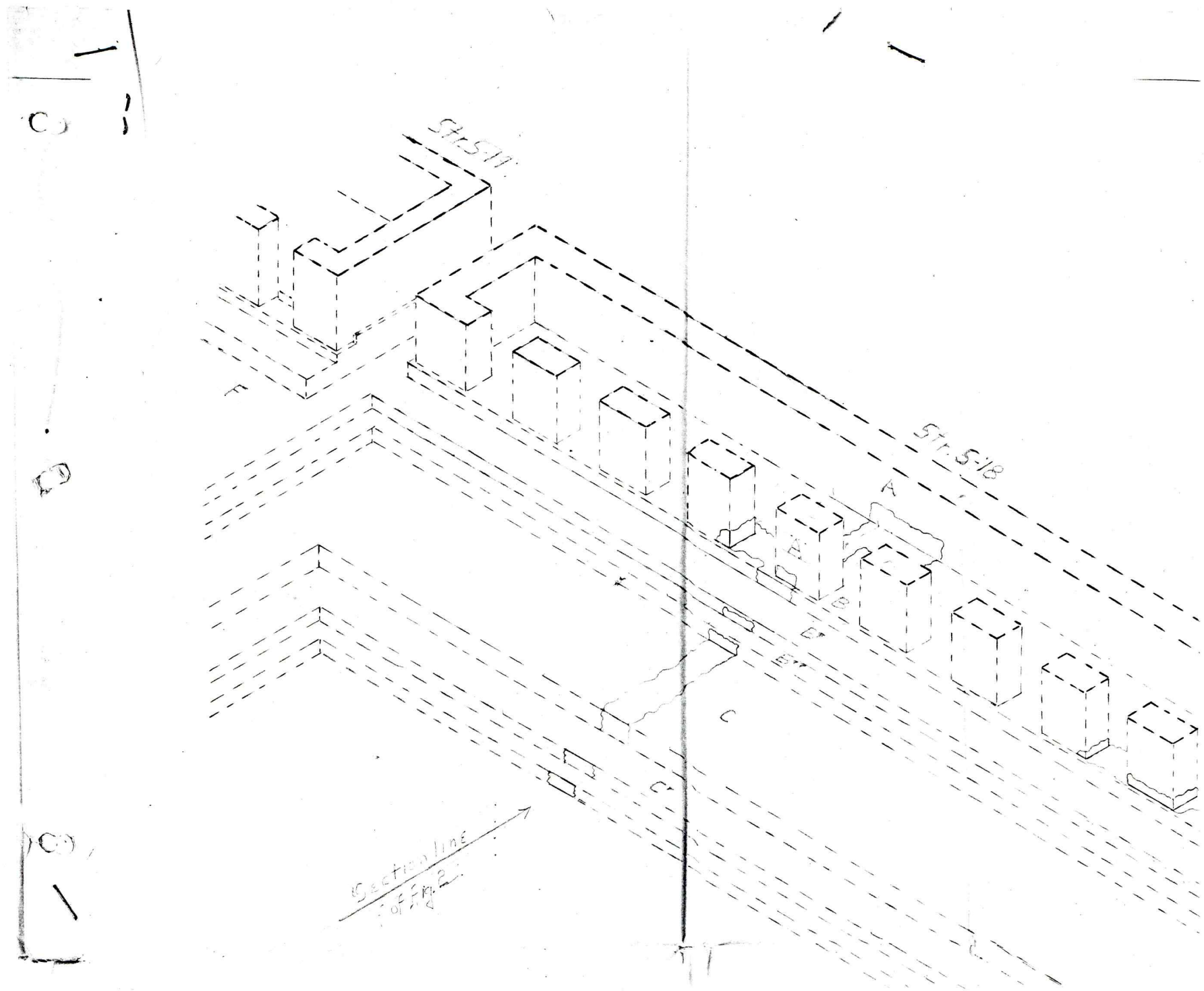
Piedras Negras—
Oversize Plans and Drawings—
Str. S-17, S-18, S-19—
M-62-6

Part III Fig 1
Strs S-17 + S-18

to be redrawn

[FOR COMPLETE DRAWING. SEE



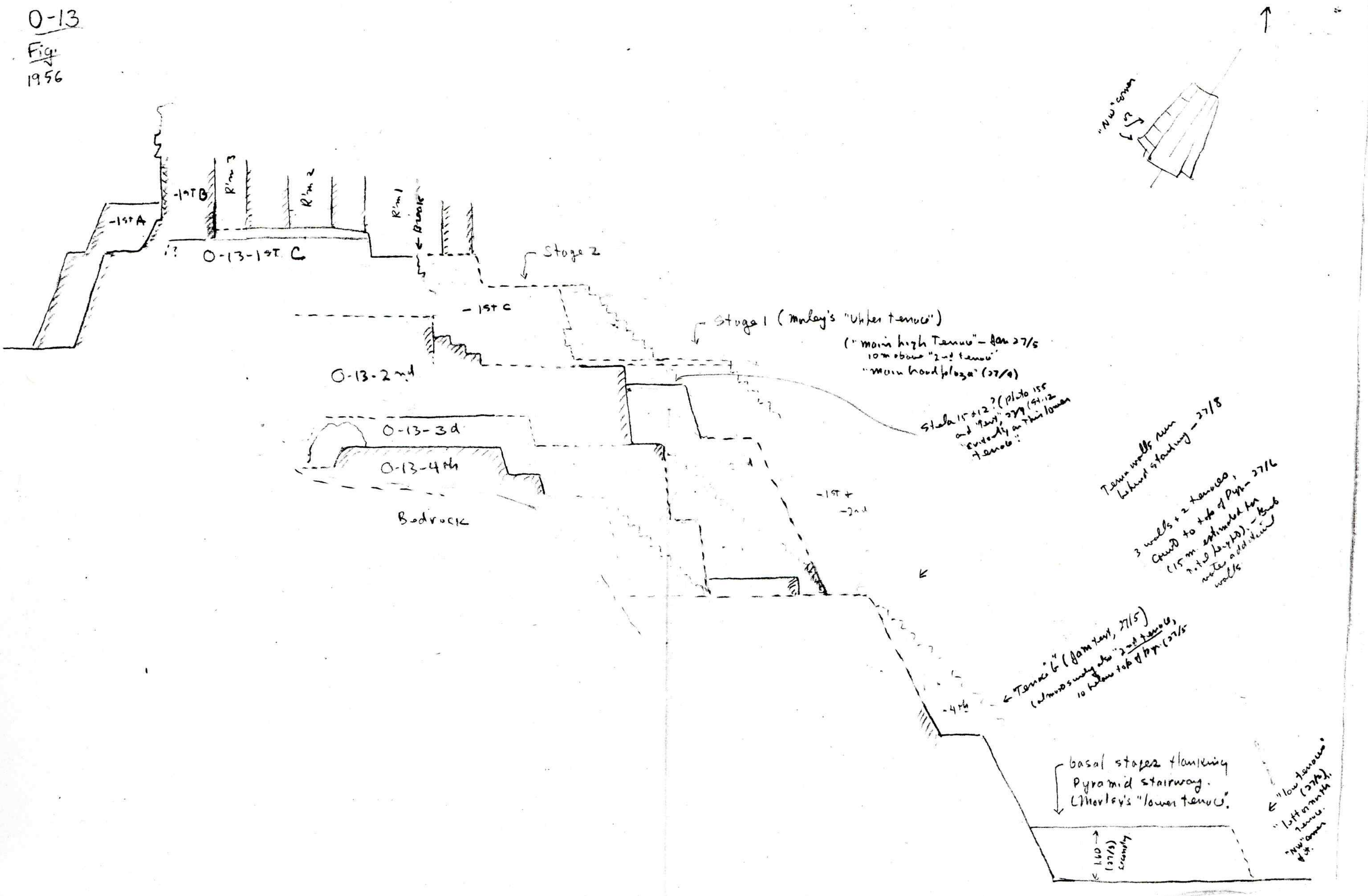

Str. S-11
Str. S-18
A
A'
B
B'
C
Section line of Fig. 2

Str. O-13-1st through 4th Section. 1956. Pencil on tracing paper.

Removed to:

Piedras Negras—
Oversize Plans and Drawings—
Str. O-13 Sections—
P-45-16

O-13
Fig.
1956


-1st A
-1st B
R'm 3
R'm 2
R'm 1
O-13-1st C
Stage 2
-1st C
Stage 1 (Morley's "Upper terrace")
O-13-2nd
O-13-3d
O-13-4th
Bedrock
-1st +
-2nd
-4th
basal stages flanking
Pyramid stairway.
(Morley's "lower terrace".
1.60
walls