9.10.?? new I-29 79

69 gm 1 1

½ Kat. new O-12 64

60 gm 2 1

new
9.12.5.0.0 K-5 (63)

49
new R-5 50 49-47 gm 3 (4)

I-4 (53)

?
more
room

43 gm 4 Seamer

39 gm 5 (1) 9.17.15.0.0

↑
R-5-135
↓

30-29 gm 6 (7)

9.17.15.0.0
9.12.5.
5.10.0.0 = 11½

Temples. Palaces.

Temples		Palaces		
	J-29 79%			
		69% grp 1	(1)	
	O-12 64%			
		60% grp 2	(1)	
9.12.5.0.0	R-5 50%	49-47% grp 3	(4)	
		43% grp 4	(1)	(7)
9.12.5.0.0	K-5-19-B 63%			
		34 grp 5	9.16.15.0.0	
	J 4-19-B 53%	43% grp 4	(1) 7	
		39 - grp 5	9.17.15.0.0	

9.12.5.0.0 (8 katuns
- 2.0.0.0 1 tun

Coby to Rands.
2 wd Coby (Thompson existed).

Checklists of Piedras Negras dated and similar undated monuments (Stelae, Panels, Lintel, Thrones, Cliff, Shell Plaques).

Key to abbreviations

IS Initial Series dates
SS Secondary Series number
SSD " " date
PE Period-end date
Ks. Katuns
Kts. same, if room.

E East Group
NE Northeast Group
SE Southeast Section
S South Group
W West Group

Ba.Pl. Basal platform
Su.Pl. Supplemetary platform
Pyr. Pyramid
Bdg.Pl. Building platform
St.Pl. Stela platform

A. Andrews 1942
B. Berlin 1951
M. Morley 1937/38
T. Thompson (Note 18 is CIW 1943)
(Note 39 " " 1944)
PNA Piedras Negras Architecture (Satterthwaite)
Proskouriakoff (1950).

Numbers at right: straight numeration of entries for reference

Horizontal boxes, complete: Object not at original locus.
" " , short: one or more fragments not at original locus.

Absence of horizontal boxes: Object presumably at original locus, disturbed from natural causes only, so far as one can tell.

"Reused": as building material in fill or masonry walls - unless otherwise indicated under "Remarks". This applies to one fragment of Stela 30 (Item 2) according to Morley, who found it many meters from the locus of the bulk of the fragments on a stela platform (hence not fallen from top of pyramid as inferred by Morley).

There is no evidence here of re-use of monument fragments except as building material, except perhaps for a small column altar, not here treated as a "monument". That is suspected to be a post-"termination" reuse, with small plain round altars (PNA VI, 4).

Question-marks: I have added (rather than the reverse) from an epigraphic point of view. One such is automatically supplied if DD is not known to be recorded. If latest date is an "odd" one, DD assumed to be at end of current hotun.

Note geographical pattern: Plain stelae, dated stelae ~~xxxxxxxxx~~s to 9.12.0.0.0 in South Group; dated stelae and dated altars to 9.16.0.0.0 in West Group; later dated stelae and dated altars in ~~Xxxx~~ East Group.

Hotun marking pattern appears at ~~xxxxxxxxx~~ 9.8.15.0.0. Gaps in the pattern very likely filled or partially filled by plain and undated stelae in South Group (before 9.12.0.0.0) and by undated ones in East Group (after 9.17.15.0.0) On this principal, since there is no evidence of two stelae at same DD,* the stela sequence may have reached or slightly passed 10.0.0.0.0. Conversely, however, the hotun-marking habit might have been erratic at first, and known(and perhaps unknown destroyed small) plain stelae may have carried katun or half-katun marking behind 9.5.0.0.0.0

* unless MSS 16 is an atypically small stela.

L.S. Jan 1961 subject to corrections.

Table 1A. Dedicatory Dates at Piedras Negras in Chronological Order

	Grp. or Section	Architectural Assoc'ns	Source of Text	Dedicatory Dates	Supporting Epigraphic Data	Style-date limits (Proskouriakoff)	Remarks	Ref's	Ref. Nos.
*	E	O-13-1st-A	"L", 12	9.4.0.0.0 ??	IS 9.3.19.12.12		Reused Frags	M.	1
	S	R-32, as Ba.Pl. of R-4	St. 30	IS 9.5.0.0.0	PE 9.5.0.0.0		On R-4 axis One frag reused	M.	2
	S	R-3-1st Pyramid	St. 29	9.6.0.0.0 ? 9.7.0.0.0 ???	IS 9.5.5.? ? SS 1.1.10.19			M.; T1950, Fig. 47	3
*	SE	Low Mounds	Cliff	9.1.0.0.0 ??? 9.8.0.0.0 ??	PE 6 Ahau ?? PE 5, Ahau ?		13 Katuns later ?	M.	4
	S.	R-9 (Ba.Pl.)	St. 25	IS 9.8.15.0.0		9.8.10 ± 2 Ks.		M.	5
	S.	R-9 (Ba.Pl.)	St. 26	IS 9.9.15.0.0		9.10.0 ± 2 Ks		M.	6
	S.	R-32	St. 31	IS 9.10.5.0.0 ?		9.11.0 ± ?		M.	7
*	E	O-13-1st-A	MSS. 1	9.10.10.0.0	IS 9.10.6.(2.1) ?		Portable altar Reused Frag.	T. Note 39	8
	S	R-5 (Ba.Pl.)	St. 33	SS 9.10.10.0.0 ?	IS ? ? ? ? ?	9.13.0. ± 2 Ks.		M.	9
	S	R-5 (Ba.Pl.)	St. 32	IS 9.10.15.0.0.		9.11.0 ± ?		M.	10
	S	R-5 (Ba.Pl.)	St. 34	PE 9.11.10.0.0 ?	IS ? ? ? ? ?	9.12.0 ± 2 Ks		M.	11
	S	R-5 (Plaza)	St. 46	PE 9.11.5.0.0 ?				M	12
	S	R-5 (Ba.Pl.)	St. 35	PE 9.11.10.0.0 ?	IS 9.11.9.8.6	9.12.0 ± 2 Ks		M.	13
*	W	K-6a - Cor-A	Thr. 2	PE 9.11.10.0.0 ?			Reused Frag.	M.	14

	S.	R-5 (Ba. Pl.)	St. 36	PE 9.11.15.0.0	IS 9.10.6.5.9		All-glyphic	M.	15
	S.	R-5 (Ba. Pl.)	"L" 4	9.11.15.0.0 ??	SSD 9.11.6.1.8 ??	9.13.10. ± 2 Ks.	Panel	M.	16
*	E	O-13-1ST (-C?)	"L" 2	PE 9.11.15.0.0	IS 9.11.6.2.1	9.13.10. ± 2 Ks.	Sup. Pl. Stwy Panel	M.	17
	S.	R-5 (Ba. Pl.)	St. 37	IS 9.12.0.0.0				M.	18
	W	K-5-1ST (-B?)	St. 39	IS 9.12.5.0.0			Ba. Pl. Stwy.	M.	19
	W	K-5-1ST (-B?)	St. 38	IS 9.12.10.0.0			Ba. Pl. ext'n.	M.; A.	20
	W	K-5-1ST (	"L". 7	9.12.10.0.0 ?	IS 9.9.8.0. ? SSD 9.12.5.11.5 ?	Late classic, Formative phase	Sub. Pl. Stwy's Panel	M; B.; T. note 39	21
	W	J-1	St. 6	9.12.15.0.0		9.13.10 ± 2 Ks.		M.	22
	W	Plaza	Alt. 1	SS 9.13.0.0.0	SSD 9.12.19.15.9 ? SSD 10.0.0.0.0			th. note 39	23
	W	J-1	St. 2	IS 9.13.5.0.0		9.13.0 ± 2 Ks.		M.	24
	W.	J-1	St. 4	IS 9.13.10.0.0		9.15.0 ± 2 Ks.		M.	25
	W	J-1, J-4	St. 1	IS 9.13.15.0.0	IS 9.12.2.0.16	9.13.0. ± 2 Ks.	On J-4 axis	M.	26
	W	J-1	St. 3	IS 9.14.0.0.0	IS 9.12.2.0.16	9.15.0 ± 2 Ks.		M.	27
	W	I-1	St. 5	IS 9.14.5.0.0		9.15.10 ± 2 Ks.		M.	28
	W	I-1	St. 8	9.14.5.0.0 ?	IS 9.11.12.7.2 SSD 9.14.14.9.19	9.14.10 ± 2 Ks.		T. note 39	29
	W	I-1	St. 7	IS 9.14.10.0.0		9.13.0 ± 2 Ks.		M.	30
	W	I-3 (Ba. Pl.)	St. 11	IS 9.15.0.0.0		9.15.10. ± 2 Ks.		M.	31
*	E	D-13 1ST-A	MSS 16	9.15.0.0.0 ?	CR 9.14.16.1.7 ?	9.17.10 ± 2 Ks.	Reused Frogs. stela ?	T. note 39	32

	W	J-5	Shell Plaques	9.15.0.0.0???	CR 9.12.2.0.16.? CR 9.14.17.14.17 ?		Burial 5 (Portable)	M.; T. 1950	33
	W	I-3 (Ba. Pl.)	St. 9	IS 9.15.5.0.0		9.14.0. ± 2 Ks.		M.	34
	W	I-3 (Ba. Pl.)	St. 10	IS 9.15.10.0.0		9.15.0. ± 2 Ks.		M.	35
	W	I-3 (Ba. Pl.)	St. 40	PE 9.15.15.0.0	IS 9.15.14.9.13	9.15.15. ± 2 Ks.		M.	36
	W	Plaza	Alt. 2	IS 9.16.0.0.0				M.	37
	E	O-12 (plaza)	St. 22	PE 9.16.5.0.0				M.	38
	E	O-13 (Ba. Pl.)	St. 14	9.16.10.0.0 ?	Is 9.16.6.17.1	9.15.10. ± 2 Ks.		T. Note 18	39
	E	O-13 (plaza)	St. 16	IS 9.16.15.0.0				M.	40
	E	O-13 (plaza)	St. 13	IS 9.17.0.0.0 ?				M.	41
	E	O-13 (plaza)	St. 18	Is 9.17.5.0.0 ??				M.	42
	E	O-13-1ST-A	St. 15	IS 9.17.15.0.0		9.16.0. ± 2 Ks.		M.	43
	E	O-13-1ST-A	"L" 3	9.17.15.0.0 ?	Is 9.15.18.3.13 SSD 9.17.11.6.1		Sup. Pl. Stag Panel	M.; T. Note 39	44
	E	O-13-1ST-A	"L". 1	9.17.15.0.0 ??			Similar to "L" 3 in style. Frag. only.	M.	45
*	W	I-6-1ST	Thr. 1	PE 9.17.15.0.0	SSD 9.17.10.9.4	9.16.0 ± 2 Ks.	Some Frags. outside or missing.	M.	46
	E	Plaza	Alt. 4	IS 9.18.0.0.0 ??				M.	47
	E	O-13-1ST-A	St. 12	Is 9.18.5.0.0				M.	48
	E	O-13 (Plaza)	St. 23	Is 9.18.10.0.0 ??	SSD recon- structions			T. Note 39	49

E	Plaza	Alt. 3	Is 9.19.0.0.0??				M.	50

Table IB Undated Stelae*

grp.	Arch. Ass'n.	Stela	Remarks	Refs.	
S	R-3-1st (Pyramid)	St. 42	plain	M.	51
S	Same	St. 44.	Plain	M.	52
S.	R-10 (Ba. Pl.)	St. 27	Plain?	M.	53
S.	R-1 (Ba. Pl.)	St. 28	Plain?	M.	54
S.	Court	St. 24		M.	55
S.	R-9 (Ba. Pl.	"Small, plain"	Reused	P.N. Arch II	56
S	R-11a	St. 45	Reused as marker	P.N. Arch. IV	57
S-E "Corr."	R-16	St. 41	axis?	M.	58
E	O-13 (Plaza)	St. 17		M.	59
E	O-13 (Plaza)	St. 19		M.	60
E	O-13 (Plaza)	St. 20		M.	61
E	O-13 (Plaza)	St. 21		M.	62

* "Stela 43" not accepted as stela (facing slab of Str. J-1 on W. Grp. Plaza); See Morley.

Table IC Undated Panels and Panel Fragments

grp.	Arch. Ass'n.	mon.	Remarks	Ref's.	
SE	V-1-1st	"L" 10	Frag., reused	PNA VI, 5	63
S?	R-2	"L" 6	Complete, moved recently	M.	64
W	J-3	"L" 5	complete	M.	
W	K-6a-C	MSS 10	most. Frags.	M.	
W	J-1	"L" 13	Frags., reused?	M.	65
W	O-18	"L" 8	Frag, reused	M.	66
W	O-18	"L" 9	Frag, reused	M.	67
NE	J-29	MSS 13	Most Frags, but reused.	M.	68

Note: "Lintels" 1, 2, 3, 4, 7, 12 were panels; listed in Table —. Total of known panels, 14

Lintel 11, illegible true lintel found fallen in doorway of Str. R-3-1st, South group. 69

M.S.S. 7 is glyphic slab throne-leg removed from site in modern times (Morley's "Inscribed throne leg or altar support." 70

Table ID ↑

Table 2 Thirty-one Known Temples and Palaces at Termination, as designated on map (PNA I, 3d Ed. at end).

Dated mon. erections, orig. locations.	Locations	Non-vaulted (Beam-and-mortar?) Temples Plat.	Temples Pyr.	Palaces single	Palaces Double	Vaulted Temples Plat.	Temples Pyr.	Palaces Single	Palaces Double
9.5.0.0.0 – 9.12.0.0.0; Plain stelae	S. Grp. Plaza	U-3	R-1						
	S. Grp. Court		R-3 R-9 R-10		R-7		R-5		
	SE Section			S-17 S-18					
	"O-R Corridor"		R-16						
	"O-15" Plaza	O-15 O-16							
9.12.5.0.0 – 9.16.0.0.0 (Thrones: 9.17.15.0.0)	W. Grp. Plaza						K-5		
	Same, Acrop.				J-12 J-19 ? J-20		J-4	J-6 * J-8 * J-10 * J-22 *	J-2 J-9 J-11 J-13 J-18 J-21 J-23
9.16.5.0.0 – 9.19.0.0.0 ?	E. grp. Plaza						O-12 O-13		
	N.W. Grp. Plaza						J-29		
Sub-totals		3	5	2	4	0	6	4*	7
"		8		6		6		11	
Non-vaulted and vaulted		14				17			
		31							

* "built-on"

Totals designated on map: : Temples: 8 + 6 = 14 Palaces: 6 + 11 = 17

"Annex" divisions (J-2, J-6, J-22): 0 0 0 0 3 3

Totals 8 + 6 = 14 6 + 14 = 20

* "built on", presumably or surely against earlier terracing to the rear.

Notes on Table 3 (Acropolis Palaces).

Covered: 11 vaulted palaces designated on map (Table 2)
3 " " "annexes shown, not separately labeled there,
2 " " earlier periods (J-6-2nd-A, J-10-2nd)
16 vaulted units.
3 non-vaulted palaces (assuming J-19 as such on map)
1 Acrop. Sub palace remant (SubAcrop Str. 3)
20.

The four non-vaulted units are assigned columns in Box A' to the right, and in Box C' for secondary phases of the final period.

Fifteen of the sixteen vaulted units assigned as many columns in Boxes A, B and C, those of Box B being vaulted, and of Box C, later phases of the same vaulted units (if any). Box shows earlier (and presumably non-vaulted units, if known. AS

To the extent that sequential periods and/or phases are known at any spot, read down in any column, through Boxes A, B, C, and through Boxes A', C'. Wherever a column in Box A or A' is blank, deeper digging would probably reveal earlier periods and phases. In view of the numbers and distribution of non-vaulted temples and palaces at the site as a whole (Table 2) we assume that no vaulted units appear in Box A; in the nature of things, this cannot be proved, since all known non-vaulted palaces are sufficiently massive to have carried vaults. However, none are so "heavy" as the "heaviest" vaulted units.

The vaulted units of Box B (except for the unknown J-10-2nd") are arranged in "Vaulted Palace Groups" in accordance with the "Wall-span" index, the "wall" being a short section or pier in all cases but one, where the lead was at a maximum, resistance to thrust a minimum. The principle of assignment is that no group shall cover WS index variation of more than 3%. This produces VP Grps. 3 and 6, with 3 (4?) and 7 units each, other groups containing single units only. This picture requires explanation. Progress in vault-building through time seems to be the obvious answer.

At the bottom of Box B we give a "Pier-Lintel-span" index, considering that a low index here also represents "advance", conscious or otherwise. Patterning here is less obvious.

Below Box C we give the actual dimensions for the two indices. Boxes emphasize those which, in a rough way, may be considered as more advanced than the others. Note that most of the few "advanced" pier and doorway widths are combined with "advanced" vault spans and pier thicknesses, in VP Groups 5 and 6. Some certain advanced special features, also boxed. Note that, of our groups are sequent, thinning of walls appears first, then widening of rooms (vault-spans).

Roman Numerals, given when possible, refer to Acropolis Periods I-VI, VI being the latest. The least advanced palace (VP Grp. 1) and two of the most advanced (VP Grp. 6) as well as one of the non-vaulted palaces, belong in Period VI. Included are all known vaulted palaces. We conclude that a shift to vaulting when replacing palace buildings occurred in that period, which encompasses the entire history of vaulted palace erection. VP Grps. 1 and 2 appear to be transitional to Group 3; and VP Grps. 4 and 5 appear to be transition to VP Grp. 6. If

Str. J-6-2nd-B is correctly reconstructed it marks the first really wide vault-span, compensated for in part by a rise in pier thickness. Thus it might be assigned separate group status in a transition from VP Grp. 3 to 6. It stratigraphically precedes Group 6, well dated at 9.17.15.0.0, and precedes Grp. 5 by horizontal stratigraphy as we interpret it with little doubt.

J-6-1st ot

Within the VP Grp. boxes the units have been arranged in possible sequence, left to right. Here we are on much weaker ground than in the supposition that the groups as wholes are chronologically sequent, from top downward.

In combing to this conclusion the possibility of differential loads on the vaults has not been ignored. We assume from their position and nature that the "built-on" single-range palaces carried no combs. There, roofs probably function as terraces on slopes to higher features. There is positive evidence of roof combs on Strs. J-18 and J-23, in the shape of stucco fragments. These were so disposed as to indicate combs over the medial walls and vaulting, as called for by the "Janus facade" plans. Thus placed over balanced half-vaults, they probably added little or nothing to loads on the piers in the facades, where our indices are taken. In the case of J-23 a thicker medial wall suggests a conscious effort to avoid loading the thinner facade walls and piers. Medial wall thickness is 1.02 m

If one studies the plans of vaulted and non-vaulted local palaces they will reveal no obvious reason for using the vault on some and not others. For example, compare the palaces on Court 2. Only Str. J-12-1st is non-vaulted. It replaced J-12-2nd, presumably also non-vaulted, and certainly a double-range building with walls of comparable dimensions. In its earliest phase (J-12-2nd-B it was somewhat shorter, and stratigraphically earlier than J-9-1st-D which forms our VP Grp. 1.

As compared with some standard of comparision, higher vault-supporting walls or piers may be considered "advanced". Other things being equal, there is more enclosed space, and less resistance to vault thrust. Among the palaces the wall height is between 2.00 and 2.25 m. for 10 units. It is 2.50 for two related units (J-2-1st-C and -A). This range for 12 units suggests that wall heights were fairly well standardized.

A relatively flat soffit slope angle would save masonry and increase thrust. Here we have little reliable data as to variability. But the flattest slope noted, 45 degrees from vertical, is for Str. J-22a, in the otherwise advanced VP Group 6.

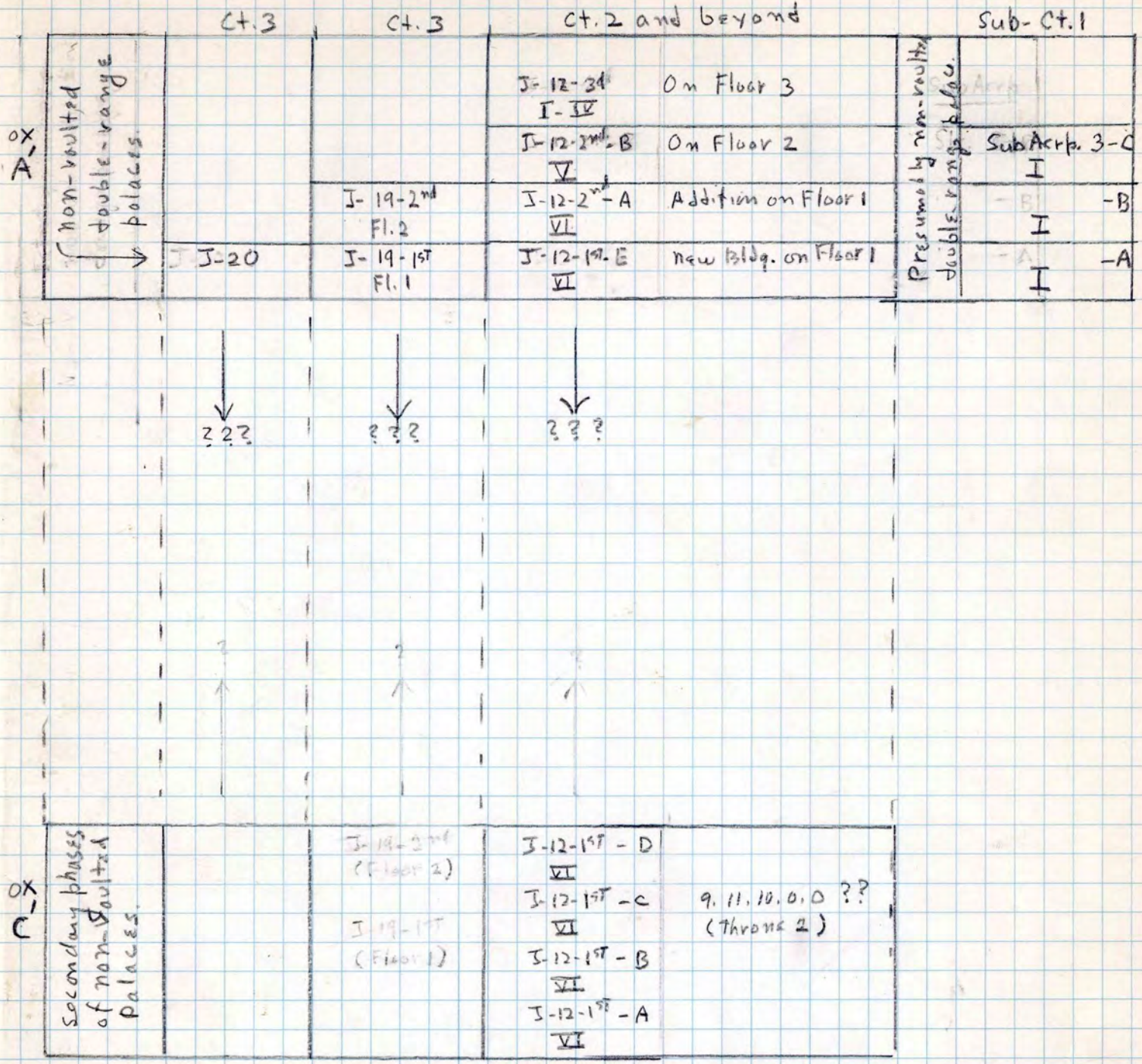
Conclusion: attempts to weight WS indices of this series for these other factors would not seriously militate against the progress hypothesis through the VP groups. It might affect gussing as to sequence within a group.

Table 3: Palaces of P.N. Acropolis: stratigraphical positions.

			Ct. 2	Ct. 1
Pre-vault Period ? ← Time	Box A	Architectural units under or behind vaulted palaces = buildings & court floors, platforms, remnants of buildings. No evidence of vaulting. Some units entered twice.	Sub Acrp. III	
			Sub Acrp. IV	Floor I
			J-9-2nd V	J-2-2nd II
Palace vault-developmnd Pd. ? ← Time ? →	Box B	New vaulted palaces and "annexes". 9.17.15 0.0 (throne)	Groupings by WS Indices	Double / Double
			VP Grp. 1 69%	J-9-1st-D VI
			VP Grp. 2 60%	J-2-1st-C
			VP Grp. 3 49-47%	
			VP Grp. 4 43%	
			VP Grp. 5 39%	
			VP Grp. 6 32-29%	
			PLS Index → 71%	74%
	Box C	Secondary phases of vaulted palaces.	J-9-1st-C	J-2-1st-B
			-B	-A
			-A	
		Av. Dimensions ts Wall-span and Pier-Lintel Indices	WS { Room-depth (Vault span) → 1.73m / Wall (and pier thickness → 1.30 m	1.75 m / 1.05 m
			PL { Door width (Lintel span) → 1.70 m. / Pier Width → 1.20 m	1.70 m / 1.25 m
		Special vault and pier features		

"Peak"	Off Ct. 2	SW Ct. 1	Ct. 2	NE Ct. 1	Ct. 2	Ab Ct
			Floor I	Sub Acrop I	Floor I	
			I-6-3d-B I-IV	Sub Acrop. III	I-6-3d B I-IV	
	Floor V		I-6-3d-A IV	Sub Acrop. IV	I-6-3d A IV	
I-23-2nd	Floor VI	?	Terracing? V ?	Terracing V	Terracing? V?	?
Double	Double	Single	Single	single	Single	Single
I-23-1st	I-13-B VI	I-8	I-6-2nd B (reconstr.)			
				I-6-2nd-A ("annex")		
					I-6-1st	
						I-22 (b)
83%	55%	64%	70%?	71%	72%	68%
none	I-13-A	?	(Platform served I-6-1st)	none	none	?
1.40 m	1.65 m	1.60 m	2.44 m²	2.15 m.	2.60 m.	2.30
.70 m	.80 m	.76 m.	1.15 m?	.93 m	.75 m.	.70
1.75 m	1.80 m	1.68 m	1.70 m?	1.75 m	1.70 m.	1.70
1.50 m	1.00 m.	1.20 m.	1.20 m.?	1.25 m	1.23 m.	1.15
					Wall + vault niche for throne	

9	10	11	12	13	14	15
ove 2	Ct. 3	Above Ct. 2	Ct. 3	Ct. 2	Ct. 2	Ct. 2
					J-11-4th VI	
			J-18-3d		J-11-3d VI	Floor I
	J-21-2nd	?	J-18-2nd	Pd. V Floor destroyed?	J-11-2nd VI	I-2-2nd II
	Double	Single	Double	single	Double	"Single" (special adaptation to limited space).
				? ↑ J-10-2nd VI ↓ ?		
	J-21-1st D	J-22-(a)-B	J-18-1st C	J-10-1st VI	J-11-1st C VII	J-2-1st A (annex)
	58%	?	60%	70%	69%	(no piers)
	J-21-1st C	(Above A J-21-1st C)	J-18-1st B	none.	J-11-1st B	none
	-B		-A		-A	
	-A					
m.	2.41 m	2.18 m.	2.55 m.	1.95 m.	2.60 m.	1.73 m.
m.	.75 m	.70 m	.75 m	.60	.75	.50 m
m.	1.75 m.	?	2.15 m	1.80 m.	1.85 m.	1.25 m.
m	1.00 m	?	1.30 m	1.25 m.	1.28 m	(no piers)
		Vault niches		Vault niches	Vault niches T-shaped piers.	



Boxes enclose relatively "advanced" dimensions. Note relatively thin walls in VP Grp. 3; these combined with relatively deep rooms in VP Grps 5 and 6

Pier widths and door widths fairly well standardized; two of 3 "advanced" excavations are in VP Grp. 6, the other in PV Grp. 3

These special "advanced" features in VP Grps. 5 and 6 only, so far as known.

Vault
Sequence
1960

Patterns.

WS index of grp. 4 is intermediate between 3 and 5 by only 4 points on either side. but it was built against a building of group 3.
If this is excised, all other groups show drops of no less than 8 %.

R'm spans over 2.00 m first appears in grp 3; the span drops in the next entry of this group, but Lintel span is noticeably higher.
Thereafter all norm spans of groups 4-6 are 2.00 or above except in two cases where space was limited. In both of these unusually thin walls were used (5-10 and 5-2-1st A).

Beginning with the dated grp 5 no wall thickness exceeds .75 m..

If we may rely on the WS index, the structure of theme I cambled major vaulted renovation in group I; all building of group 6 are at higher and less accessible levels except the peculiar annex to Str 5-2. This, in a sense, is analogous to "screen walls" partly blocking passage around ends of Strs 5-9 and 5-11 in the final phases there

The sequences within the groups are more doubtful than the sequence of the groups. As we have them

Attention was first focused on double-range palaces, the first ~~3 of 4~~ four were of major prominence as seen from high points in East and South groups (e.g. from ~~str~~ the temples 0-12 or R-16. Placement of the 4th (within group 3) is perhaps doubtful. Since the 3d, it was prominent as seen from the rear; and neither of these ~~were~~ are known to be replacements.

Granting the 1-4 sequence, vaulted attention was ^next^ focused on "built-in" single-range palaces in Court 1, invisible from outside. (5-8, distinct of the rest of Grp 3, and the single Strs. of Grps 4 and 5.

In group 6 vault-building was on both types - as we have the group sequence, alternatively. the sequence 9-10 depends on drop in PLS index; between 10-11 on horizontal stratigraphy; Between 11-12 on rise in room ~~[illegible]~~ and very directly in Lintel span: between 12-13 on very thin piers. No 14 is the last complete Bldg because of its weak shored pier design combined with vault niches. It may have preceded No 12, also with niches. Even so, the first 4 elem of Group 6 are confined to high levels of Court 2 and to Court 3

The 2 "most advanced" complete palaces are the only ones on the Court 2 level in this group, both standing on their platforms.

Oversized item not scanned

Oversized item not scanned

Span			W-S %	WS %		Guess-dates	Across guess-dates First try — with Temple comparisons		Plat.	Span	Shore-limit on width?	Shore limit on cross-...?	S	T	U	Y (Pier)	Z (Room)	Pier/Poor	No. of P
1.65	J-29-1st	9.10.0.0.0* (1.3.0.0)	79			13													
1.65	O-12	9.11.3.0.0 (1.2.6.0)	64	74/69	70	9.10.13.0.0 (13)	J-9-1st-D	Dbl.	Court 2	Orig. (over J-9-2nd)	1.63/1.73	no	See ...			1.20	1.70		2/2+2
				60/64	74	9.11.6.0.0 (13)	J-2-1st-C	"	Court 1	Expanded of J-2-2nd	1.65/1.75	no				1.25	1.73		*8/7
				50/49	86	9.11.19.0.0 (13)	J-23 B	"	Peak 2	? ?	1.35/1.40	yes?	?	?	?	1.50	1.75		*2/2
2.17	K-5-1st B	9.12.5.0.0** (loaded vault) (1.3.0.0)	63	48/48	?	9.12.12.0.0 (13)	J-13-B	"	Court 2	?	1.65/1.65	no?	2.10	30	1.55	?	1.70		*2/0
				47/—	70	9.13.3.0.0 (13)	J-6-2nd (F=B)	Sgl.	Court 1, Level 2	Orig.	2.44	—	no	2.00	30	1.75	(Pier 1.20 | 1.70)		8(?)/0
				47/—	64	9.13.16.0.0 (13)	J-8	"	Court 1, upper	?	1.60	—	?	2.03	30	1.17	1.20	1.88	20%	4+1
	J-4-1st-B	9.14.8.0.0	53	43/—	71	9.14.19.0.0 (13)	J-6-R'm 3 (annex) J-22-A	"	Court 1 upper	Orig	2.15	—	no				1.25	1.75		2+0
				32/31	68	9.15.2.0.0 (13)	J-22-"b"	‴	Court 2 (upper)	orig?	2.18/2.30	?	? ?	?	?	?	? (G= 1.15)	? 170	2+2
				31/31	58	9.16.15.0.0 (13)	J-21-B	Dbl.	Court 3, upper	Orig?	2.41/2.41	no	?	?	?	1.00	1.75	V. Niches	*3/3
				32/			J-22-a	Single											
				29/?	60	9.16.8.0.0 (13)	J-18-B	‴	Court 3	orig?	2.55/?	no				1.30	2.15		*6/5
				29/29	(-)	9.17.1.0.0	J-11-1st-B	"	Court 2	orig	2.60/2.60	no				1.28	1.85	V. Niches; cap-...	*4/3
				37/—	72	9.17.15.0.0** (13)	J-6-1st- (R'm 1)	Sgl	Court 1	old	2.00	—	yes	Pier=.75			1.23	1.70	Span vault ...	7
2.05	J-4		53	31/—	70	9.18.8.0.0	J-10-1st A	Sgl	Court 2	old	1.95/	—	yes	Pier=.16			1.25	1.80		2
2.10	R-5		50																
	O-13																		

add J-2-1st A (annex) R-22 b

J-11 - no ... F-6 Report? - changed?

Single	I-8	9.13.12.0.0	47%

Double	J-23	9.11.16.0.0	50/49%

Single	I-6-2nd (a)	9.13.0.0.0	47%

Double	J-13-B	9.12.8.0.0	48/48%

Double J-21-B 9.13.8.0.0 31/31 ⅛

Single J-6-Rm 3 9.14.4.0.0 43⅛

Double J-18- 9.16.0.0.0 29⅛

Single J-22 9.14.16.0.0 32/30⅛

Poole J-11-1st- 9.16.12.0.0 29/29

Swd J-10-1st (or B) 9.17.4.0.0 31/2

9.17.15.0.0

Swd J-6-1st (Rim1) 36%

9.17.5.0.0

→

Non vaulted (Indexes) 1
Vaulted (Indexes). (2)
1 gallery 3
2 galleries 4
Closed End (1 or 2) 5
Open end (1 or 2) 6
Tr. End Room (1 or 2). 7
Lighter R'm Partitions; plugs, s (8)
Thin Room Partitions, plugs s 9
Benches in above 10
Benches in End Rms 11
Special features.
Thin-wall "closet" 12
Thin-wall windowed "plug". 13
thin-wall "extensions" 14
thin-wall extension "salon" 15
V. Niches 16

IV or ? J-12- 3d. 1

Bldg. unknown

(1)

V I-a- 2nd

1

2b

1

V I-12- 2nd - B

2

1

1 1 non-vaulted

4 2 2 galleries

6 3 Open ends

7 4 Tr. end R'm (2?)

2a

VI J-12. 2nd A 3

1		(1)
4		(4)
6		(6) (addition)
7	7	T Tr. End R'm(")

(3)

I-9-19-D 9.10.12.0.0 74/69

Double J-2-1st- 9.11.4.0.0 64/60

VI J-12-1st-D 4

1	1	non-vaulted (new)
4	2	2 galleries (new)
6	3	Open ends (new)
7	4	Tr. End Rooms (new)

(4)

I 10-12-9

2 Vaulted. (?)

(5) b

"9.10.12.0.0"

VI I.9 - 1ST - D

2

2	2	2 Vaulted
4		
4	4	2 galleries
5	5	closed ends

(5) a

9.17.41.0.0 (+?)

J-10 1ST

2 Vaulted

3 1 gallery

(6E)

16 Vault Niches

9.16.12.0.0

J-11 1ST C

2 Vaulted

4 2 galleries

6 Chan ends (2)

7 Tr. End R'ms (2)

(61)

1

16 Vault Niches

J-13-B

9.12.5.0.0

2 Vaulted

4 2 galleries

6 Open ends (2) } no room
7 Trans. End P'ms (2) } for two

(6C)

VI J-9-151-C

3

2 (2)

4 (4)

6 6 Opend ends (2)
7 7 Transv End P'ms (2); neccessary plugs. (modifications).

(6C)

5

VI I-12-1ST-C

5

1 (1)

4 (4)

(6)

7 7 (7) 2nd Tr. End Rim (modification, lighter wall)

9 Plugs

(6a)

I-11-1ST B

(2)

(4)

(7)

8 Lighter Partitions; Plugs (Thin wall?

10 Benches

(7a)

T-13-A

(2)

(4)

(6)

(7)

8 Thin wall plug (no room for partitions)

(10?) End room unknown.

7c

VI T-9-1st-B

4

2 (2) 2

4 (4) 4

6 (6) 6

7 (7) 7

8 (8) Lighter Rm partitions; plugs. 8

10 x 10 Benches (in 2 new rooms). 10

7b

7

VI J-12 - 1st - B

1	(1)		1
4	(4)		4
6	(6)		6
7	(7)		7
9	9	Thin R'm partitions, plugs	9
10 *	* 10	* Benches in new rooms	10
11	11	Benches in partly blugged off End R'ms	11

7a

J-11 - 1st - A

(2)

(4)

(7)

(8)

(10)

8c 13 Thin-wall Plug, window

VI 3-9-1ST-A

2 (2)

4 (4)

6 (6)

7 (7)

9 9 thin-wall Partitions

10 (10)

12 12 thin-wall "closet" (w/ thin-wall "Rim").

(8b)

VI 3-12-1ST-A

(1)

(4)

(6)

(7)

(9)

(10)

(11)

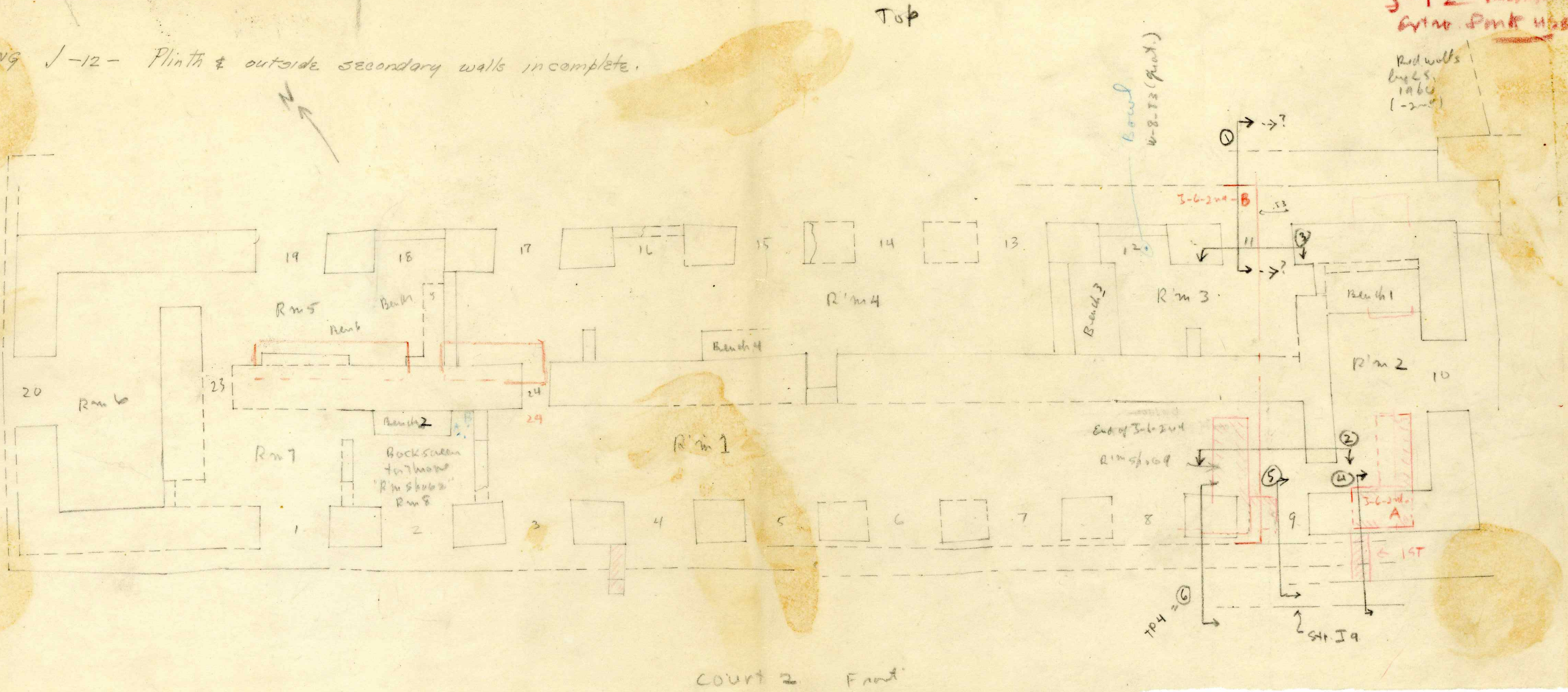
(8a)

14 thin-wall extensions (ss)

15 thin-wall extension "screens"

TRACING J-12 - Plinth & outside secondary walls incomplete.

J-12



"Bowl A":
Buck-sawn
bench =
throne.

Then bo? (W-8-62) L-88-137 — "Labial flange" [illegible] -glyphs.
.05 above floor.

"Bowl A" = W-8-70, just —

Bowl "C" — W-8-74; L-88-143 on floor, left of bench

J-2
5 pg.

Sub Occup
Const Hrs

J-2
Eog

1960 - from TP plans - probable alt.

J-2 - 2nd Plat. longer than to cover later annex D. - Part of arc 35 m -
Possibly shorter at NE end
D. Ray - medial wall; doorways; T-junction at NE.
Med wall .70 - .73 Span 1.78 reconcd. (TP tracing - scaling)

J-2 - 1st - C widen plat to front
Vaulted Palace, med wall, closed ends, T-walls
Pierce 8/6 (assumed assault)

- 1st B Open up NE end uncover Tr. wall for Tr. End room
" SW " uncover ½ Tr. "L" wall " " ".
Block SW rear door, Pierce new one to SW.

- 1st A ("Annex") Block SW end doorway as part of annex.
Block NE med. wall doorway (not required - Earlier?)
Annex - uses old walls in part - sequence not worked out
Vaulting - free-standing wall (Court 2) very shallow about .50 th.; Span varies, max 1.73

1.73).5000 (29 %
346
1540
1557

I- Sub Acrop. Plat. 6.

II-IV J-6-3rd -B Platform on high terrace;
Probably runs behind I terrace (under) - not traced
Abutted by probable forward extension of buried IV low platform; at around level [illegible] at right
There no later than IV
Best conclusion is II or III (or early IV), with Msg. Stairway, early phase.
serving it
Floor of this early phase serves later ones so far as ascertained (cks

-A Broad step terracing of IV partly buries left end of the platform.

VI, Vaulted J-6-2nd - B 'Sixth-rainy Palace, built-on at right and rear; presumably against Pd. V terracing see to left (NE) behind Annex. Therefore V or Pd. VI. No evidence against this; necessary if earlier than J-9-1st on basis of ws index, etc.

-A Thin wall partition forming two galleries (R'ms 1 and 2).
Mason block partly fills R'm 1 at right (SW) end. (central wall faces "block"
Annex Forming Room 3 at left (facing on Str. 7
vaulting)

VI vault J-6-1st 9.17.15.0.0 (thru I) Old piers, most of rear wall and inner facing of left end wall torn down (latter left annex undisturbed; thin wall removed except small stub at rear.

New antae, inner half of left end wall, new rear wall with niche for thrones, overlapping only additional filled-up and raised area at right (later a small chamber reached by stwy. New partitions (heavier - presumably for trans. vaulting) mains separation of old R'm 2. This over laps stub of old thin-wall partition.

J-8
Seq

J-9 Sequences
1960.

V J-9-2nd — 9.8.15.0.0 ±

VI J-9-1st-D Vaulted range closed-end Palace (T-walls) — 9.11.0.0.0 ±

Triple doorw., sym. placed at front (center

□; ▨ 2 " " " at ends, rear.

Extra door at rear in this phase?

▨ -C Introduce T-walls + Tr. End Rooms (2); — 9.12.0.0.0

Form Dwys 13, 14, 18, 19

End doorways; Plug 2 old rear doorways (5+11).

Access from interior galleries and extreme ends.

-B Vaulted Sec. Partitions (relative (1960)); 2 — 9.19.0.0.0 ???

in front gallery, 1 in rear.;

Plug necessary rear ext. doorway (Dwy 2) for bench

against Part'n.; bench against part.

in front gallery.

-A Thin-wall "closet" and "anti-chamber" — 9.19.15.0.0 ??

in rear gallery.

Thin wall blockers of "T" dwys 13, 14; 18, 19.

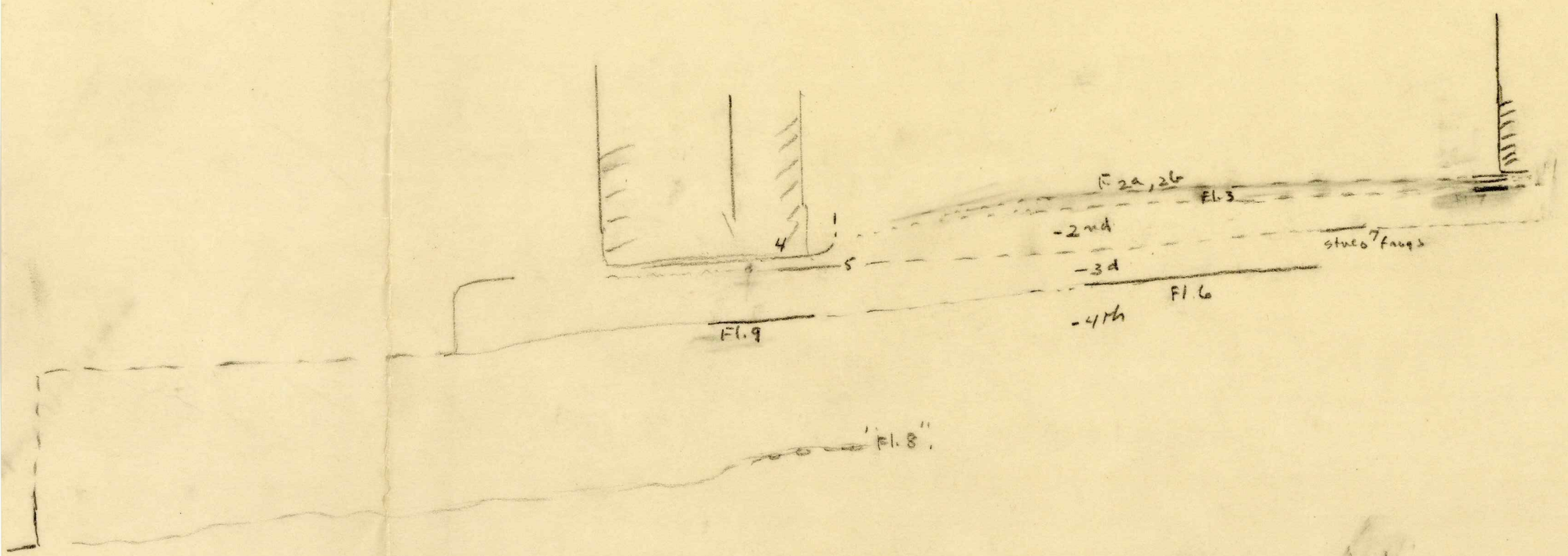
J-10
SEQ

J-10

J-10-2nd. (only summit was bombed)

· J-10-1st.

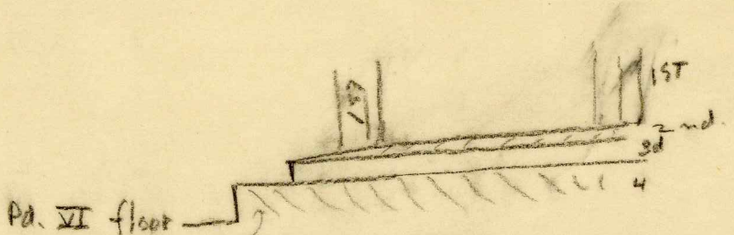
1:50



Fl. 2/34 – 3-11-2nd

Fl. 5, 7 – -3d

Fl 9, 6 – -4th



VI Floor drawn 10 mm under (Cp. I 6-2nd in Court 1).

J-11 phases per center trench section.

J-11-4th: VI Pre-vault?

Floor patches 8, 9 probaly working surfaces rising behind limit og plaza VI floor, platform planned for here.

Patches 9 and probably 6: Top of original platform component, without step; ca. 25 cm. below final floor of the later plinth component. Finishing plaster

Probable masonry palace (stucco ornaments in next floor).

-3d

VI Pre-vault?

Floor patch 5, finshing plaster, below Patch 4, without latter's turn-up. Probably connected with Patch 7; latter contained ~~xxxxxx~~ stucco ornament fragments confirming earlier period in the vicinity. On subb. Platform - presumably building platform, forerunner plinth.

ca 1.60 between the two patches (front-rear); rear patch small, did not continue to rear (brak off about 60 cm. forward of final medial wall. Suggests demolition of another masonry palace.

VI - 2nd Pre-vault?

Floor "patch" 4 runs under front pier from turn-up to missing masonry about 10 cm. rear of rear of late pier. Red paint. Presumably separated from large area of red-painted Floor "patch" 3, which runs under medial wall (as does Patch 4 under pier; at medial wall, also under Floors 2a, 2b.

Later could be a thick (then thin) (5 cm.) pair of re-surfacings of same building (were absent elsewhere, as was Floor 1, the final one? Red paint traces on Floor 3.

but secondary turn-down of wall plaster absent;

Floor 2a, alternatively, could be used for -1st period, but hardly 2b also; seal-off from -1st is clear.

Further:
This is period of definite evidence of removal of masonry walls from a red palace floor. Plan of red floor survival (Floor 4) shows peculiar pattern. Turn-up to stone crossing plane of floor noted.

Vault (Into?) -1st.

On this section, presumed floor 1, not even turn-ups to -1st med wall or piers survived. } see rev. b

-3d: Floor 5 18cm thick, on Fl 9

-2nd Floor 4 5cm " on Fl 5; Turn-up of 4 shows it was not a new resurfacing of -3d, nor an early floor of -1st.

J-11-1st- C   New Double-range palace~~s~~ on same plinth platform as -2nd, which was not widened.

VI Vault Period

Feature comparable to non-vaulted J-20; vaulted J-13, J-18: transverse walls corming end rooms, standining free of ends of medial wall; but differ in being in two sections, with central narrow doorway- unique.

Unique: "T-shaped" piers, also.

Vaulted interior doorways; compare

-B   Four medium thick partitions with secondary vaulting as in J-9-
Full-depth plugs in center and extreme medial wall doorways.
Thi~~c~~ne-wall plugs in two others leaving one at each end only; also in two third transv.-wall doorways
two
Three benches with back-screens (masonry "key-stone type).
Plain one requried both partition and ~~thinxwallxplug~~. full-dpeth plug.

Note: it would be possible tocretae more sub-phases with plugging and benches.

-A   Special features:

Thin-wall plug with window, closing Throne R'm 6 from R'm 5

L-shaoe thin-wall exterior "screen", presumably functioning with simple one of Str. J-12-1st-A.

Note: The evidence is good for four sequent masonry palaces here; three phases for the final vaulted one may have had counterparts in earlier cases - digging did not suggest it except that the Floor represented by "Pa~~t~~ach 3", assigned to J-11-2nd could have been from an important phase, perhaps even a foourth destroyed masonry ~~plaxxx~~ palace (which would make a total of five).

J-12
Seq

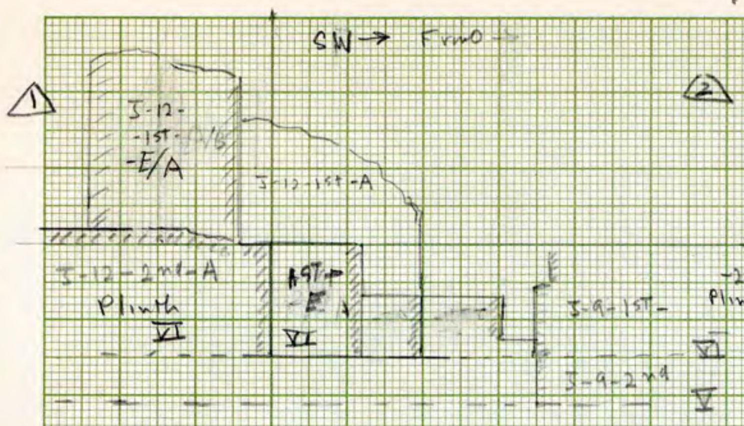
Str. J-12 Sequent architectural phases.

Pre-vault	IV?	J-12-3d	Basre of platform or wall on pre-V floor (J12-J13 gap)
" "	V	J-12-2nd-B 9.0.0.0.0	Double-range non-vaulted palace Open end; Tr. end room? Piers ??
" "	VI	J-12-2nd-A 9.9.5.0.0	Extension to SE; open end, Tr. end room.
" "	VI	J-12-1st-E 9.9.10.0.0 new long. axis	New double-range non-vaulted palace; 9 + 9 facade doorways. Open ends; 1 Tr. end room only; wider platform -
Vault	VI	J-12-1st-D 9.9.15.0.0	Second Tr. end room (secondary transverse wall at SE) (Tr. wall lighter than original one).
"	"	J-12-1st-C 9.11.10.0.0?	Numerous thin-wall door-plugs and partitions in galleries; Benches ~~2~~ 3 & 5 against partitions; Benches2, 4 and 6 assigned same period . Bench 5 was Throne 2 ? (9.11.10.0.0?) Bench 2 with slab backscreen (broken and disturbed).
"	"	J-12-1st-B 9.19.0.0.0 = 9.12.10.0.0 = 9.19.10.0.0	Interior doorway to SE end room thin-wall plugged; Bench 1, with masonry back-screen partly against it. Throne 2 "seat" removed, but not supporting "L" bench ?
"	"	~~J-12-1st~~	Interior ~~xxxxx~~ doorway to NW end room thin-wall plugged; thin-walls forming room of Bench 2 extended, further isolated it except from outside.
"	"	J-12-1st-A 9.19.10.0.0 = 10.10.0.0.0	Exterior thin-wall features in gaps between J-12 and J-[illegible] J-9; also SE end.

See earlier more detailed schem - p. 1-3. Expand this accordingly.

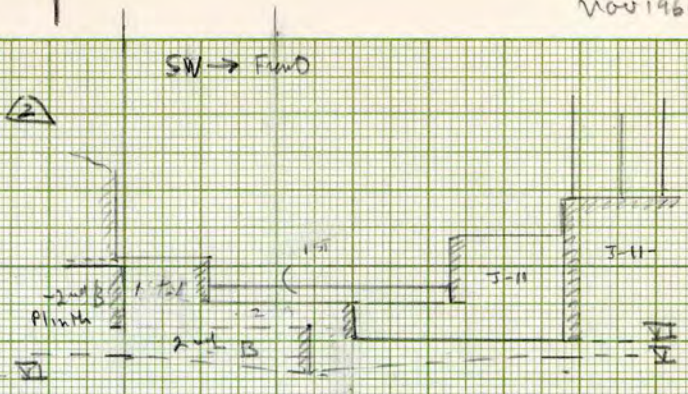
Final Ed — Nov 1960

1



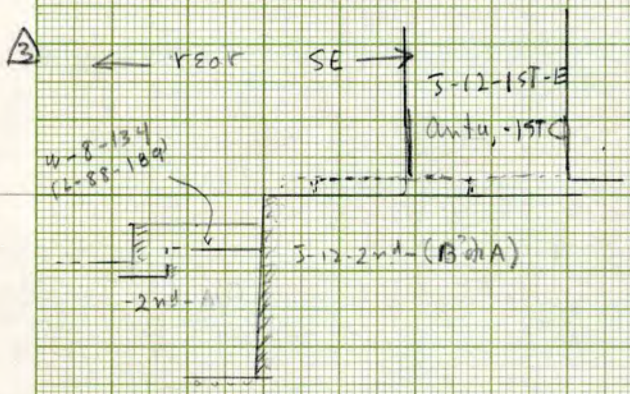
J-12- + NE end of Str. J-9
T.P.

2



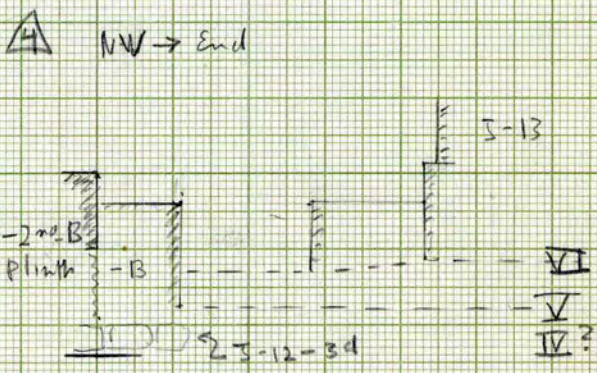
J-12-1st, Doorway 9, and NE end of Str. J-11
T.P.

3



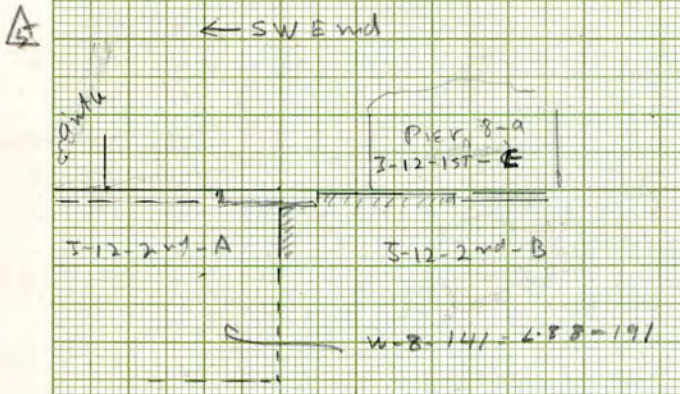
J-12. Doorway 11 (oblig.)
Cresson 5/6/37. Probably not through entrance.

4

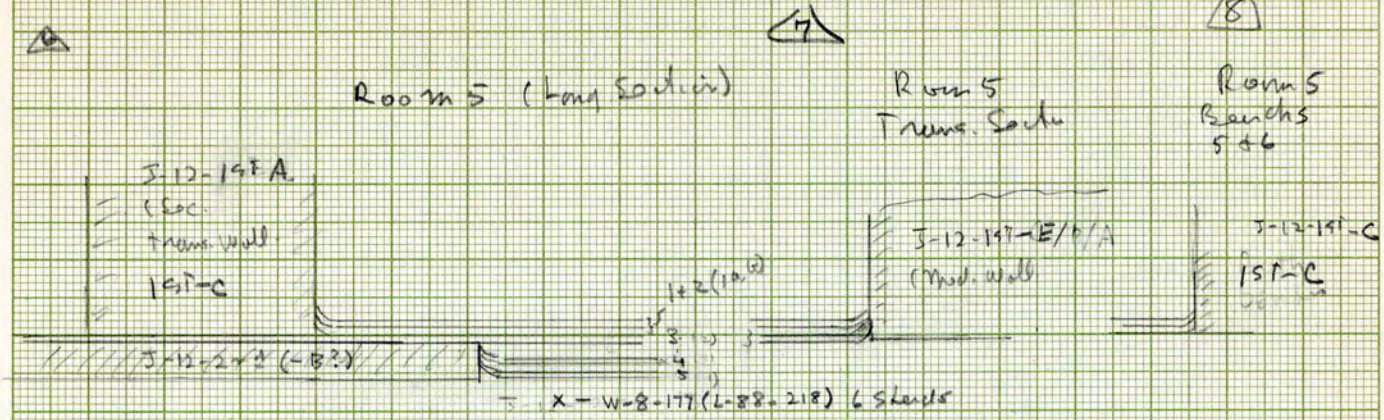


J-12-1st, NW. End TP.

5



J-12 Cr. 5/7/37
Extension of J-12 2nd Plat. wall stubs
;-- his Cresson 5/7/37. Doorway 11



Creson Sections
+ notes 5/22/37

Floors 4 + 3 served J-12-2nd-B (and A?)

Floor 2 served J-12-1st-C (not benches

Note - Reasons [illegible] check up of floors

1a = 1 - upp to mod wall, benches, sec. trans wall, over leg (stump)
1b = 2 " " " " " leg.
1c = 2
2a = 4
2b = 5

This shows that log was cut down at time of lowest floor
" placed with bench + thin walls

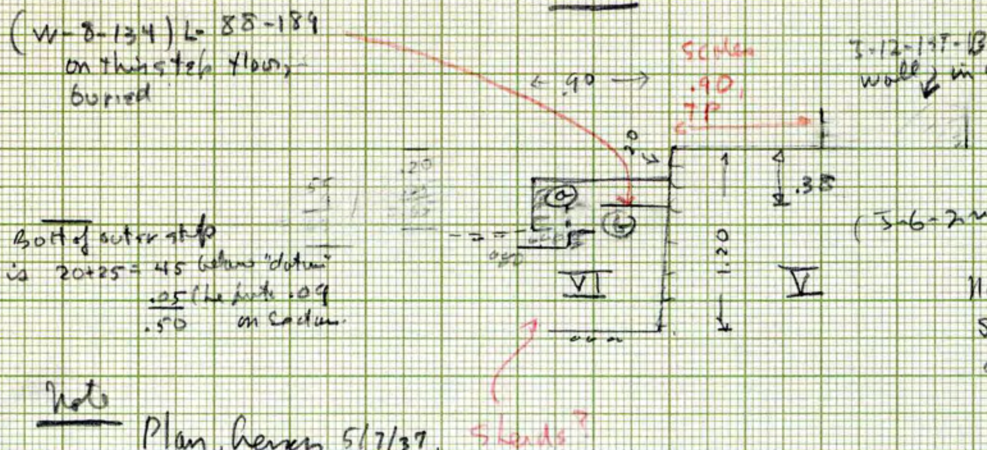
Earlier Sodeans
+ Phase
descriptions

(X) See now arrangt

45/2/190 93/2/196 38/2/76

(1) Cross Sect through Doorway 11 (rear to front → front)

Transverse Section



Note

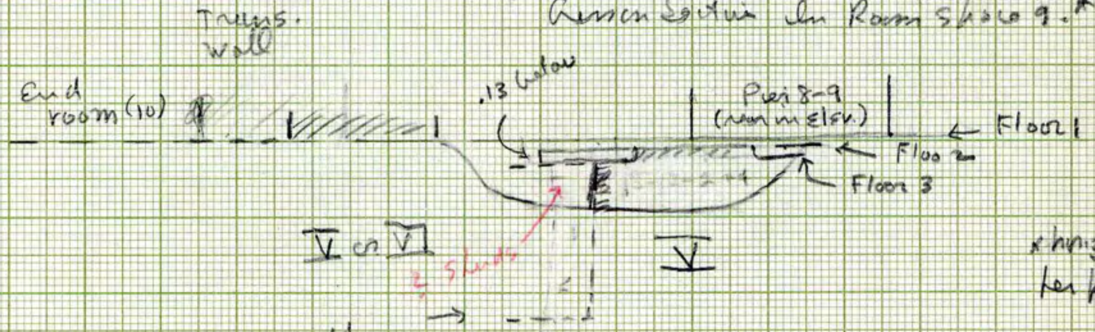
Plan, Hansen 5/7/37, by colors seems to show J-6-2nd plot was not extended on base level - i.e. this is ∴ Section through - B

Notes show clearly that step (b) was partly demolished in building step (a).

Both are far above base of Plinth wall: Per section, earlier base-surface rising was .70 m; Per note, is amount .66 m.

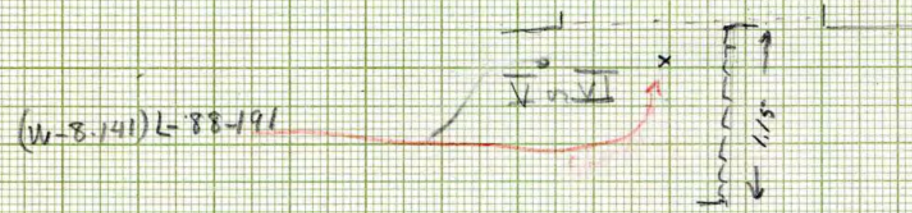
(2) Longitudinal Section

Hansen Section in Room show "9."*



* horiz. placement per plan.

(3) Long Section in Doorway 11. (Hansen



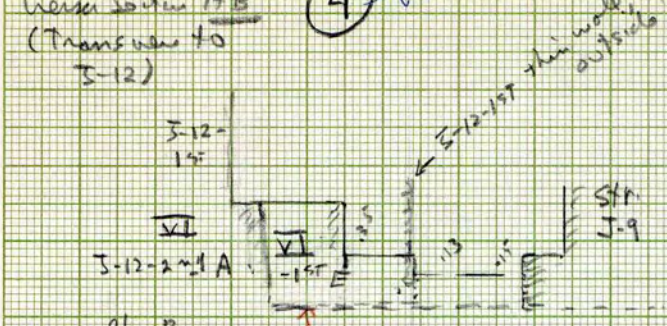
And see his plan of Early end of J-12-2nd Plat.

18/28/48 × 1.70/4 1.70 × 40 22)6800(3.09 66 200 198 36 48

(B) See new arrangement

Cross Section "AB" (Transverse to I-12)

(4) Crosses (addition to 2nd.)



3.5
1.3
.48
-.15
.33 J.9 pl. lower than I-12 plinth

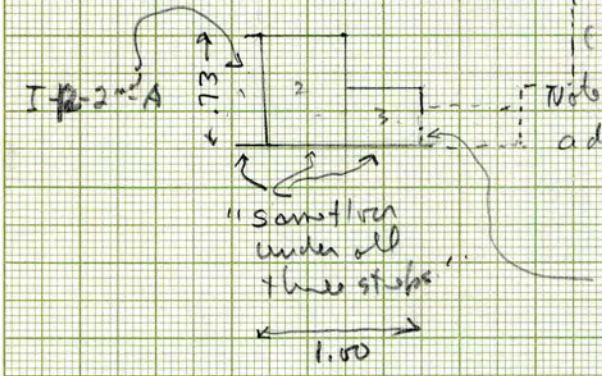
J-9-2nd at this level near center

(W-8-146) L-68-193

(W-8-150) L-88-196

Did not go to bottom here - failed to see if I-12-2nd-B extension was on Acropolis I (or VI) level.

(5) (Crosses) Section C-D (addition to 2nd.)



(I-9 restored from Sect. A)

Note: this section is through addition to I-12-2nd (i.e. Photo-A)

some doubt if step 3 went all the way down

But either way, I-6-2nd-A plinth is based on higher ground level (Pd. VI).

See Photo 39-125 Centimeters

10 Millimeters to the Centimeter

12-188
5788

73
3
146

Phases of Str. J-12.

V J-12-2nd-B Undoubted long (palace presumably) platform, remains of walls not spotted. Probably removed for building of next phase. Platform based on lower Court 2 level; About 1.20 high.

V (VI??) J-12-2nd-A Patform extended to SE (right of observer facing front), by an estimate 4.00 m. (end not dug for). This extension based on higher court floor, only 73 cms. below platform top level (Sections "4" and "5" combined make it clear that base-surface for the extension same as for Str. J-9-1st); but this probably was top of broad step at NO Room 3, not excavated, below later one of -1st period.

Masonry building, obviously of palace type, with end doorway. Walls about .85 m. thick. Plan at end unusual; partially known only. Evidence is remaining lowest course of walls (as at the temple Str. J-29) Media wall picked up in Room-spaces 17-19. Thick there J-6-1st-C 1.05 m. A doorway through it .96 m. wide. Two others, one jamb of each located.

The combined evidence is for the long place with moderately heavy walls but wide rooms, presumably thatched or beam-mortar roofed, like J-12-1st.

The medial wall remains are about 50 cm. off presumed center and conceivably belong in the earlirst -2nd-B phase

VI (V?) J-12-1st-C The platform was extened by a further increment of about 2.00 m. and an entirely new masonry palace building was built, and survived, with increments, to abandonment. Phase C is distinguished by lack of a transverse wall forming a clearly-defined end room at the right (SE end) though this seems to have been present from the first at the other end. In this, we have correspondence with Str. J-9-1st.

VI (V?) J-12-1st-B The transverse wall forming second well-defined end room(Rm 2) placed. Assigned to same phase; ~~various thin interior walls forming Rooms 3, 4,5 in rear gallery area and Rooms 6, 7 and in front gallery area;~~ Benches against medial wall in this phase? (to be checked by sections).

J-12-1st-A Introduction of numerous thin walls forming Rooms 3,4, 5, 7 and 8; ~~xxxxxx~~s and 1; closing one interior doorway to each end room (R'ms. 2,6); ~~xxxxxx~~ benches 1, 3 and unumbered (?) L-bench in R'm 5 against such walls; Three such walls across plinth and step on exterior.

Note: These modifications may have been (as assumed) made at one time - or in a series of minor phases. The unifying element is the thinness of these secondary walls - about 30 to 50 cms.

Long. axes, J-12-2nd and -1st.; Plinth platforms and buildings (ignoring "steps").

With -2nd, wall-stumps of -2nd-A show end doorway, plinth exposures ca 25 cms.

Width of building about 8.15 m.

-1st widtd about .55 less (scale 7.60 approx), the "rear" wall being set .58 cm. further back, the front being within very few cms. of being directly above the -2nd facade.

Confirming, medial wall stumps (-2nd) were meaures to show rear faces .50. .53 and .56 to rear of corresponding -1st face (C esson 6/17/37).

The -2nd-A entension fits the patter of what survived and was recorded of the end of -2nd-B, which was correct for plinth ca. 25 cms. at its end.

There: no reasonably doubt that medial wall remants and the butt of end wall corresponf to early end of -2nd-B belong together with that.

J-12-2nd-B: Outer walls about 80 cm. thick; medial wall segments Med. Wall segments about 1.00 thick (1.05 meausrement).

End doorway at SE end about 1.50 m. wide.
No evidejcne as to end room or not was uncovered.
Exposed plinth, end, "front and "rear" about 25 cm.

J-12-2nd-A

Platform extended to SE, presumably about 4.25 m. to accomodate entension of building of about 4.00, forming end room about 3.20 span; again, doorway about 1.50 wide.

Note on both: Fairly massive walls, but lighter exterior ones in earlier phase, combined with somewhat greater span. Surley non-vaulted.

J-12-1st-E See section 1. In view of about, no reason to doubt 60-cm extension of pltform toward "front" belongs in earliest Phase E : mainating wider plinth at frontas well as at rear, where the old plinth wall now gave similar plinth-widthL see Section 2.

The -1st medial wall segment ended against the travsvoerse wall and a note (to be located) shows rough stones, not a finsihed end for the segment. W conclude that at this end there was originally no transverse end room; the segment was cut back, the transvers wall erected, and a gap filled in, If the recorded evidence is not quite mandatory, we have confirmation at Str. J-9-1st for a such a change, even where vaulting was involved.

J-12-1st-B Basic roof-supporting plan balanced by cutting back medial wall and introdicing end-room forming transverse wall, noticeably thinner than the original one at the other end (ca. .75 instead of ca. 1.00 m.). Forms Room 3.

On pri cipal of earli st assignments possible:

Numerous thin walls (thickness ca. .30 m to .50 m.); benches.

a. Forming Rooms 3: access by exterior Doorway 11, interor doorways 29. Bench 3 against thin wall. 3

b. Forming Room 5: access by exterior Doorways 19, interior Doorways 22 and 23. Bench 5, ~~against thinwall.~~; Forming 5 6

c. Room 8: access by exterior Doorways 2. Original plan in some doubt. Free-standing thin walls apparently came first, on either side, with access arpund both ends of each; ~~Finally~~, then ~~the~~ two interior doorways thus formed, plugged with extensions to back of piers 1/2 and 2/3. Bench 2 centered at rear against medial wall (could precede formation of room around it, and belong in 1st-C). 2

Bench 6, served by same floors as Bench 5 and wall.

c. Forming exterior features, built against "front" facade opposite Strs. J-9 and K-11; and against SE end.

Benches 4 (in Room 4) ~~and 6 (in Room 5)~~. ~~These~~ could (with bench 2) belong in preceding *C phase, ~~for~~ evidence being lacking.

J-12-1st-A Thin wall plugging interior Doorway 27; Bench 1, partly against it and partly against transverse wall of phase *B, therefore -A.

Thin wall plugging corresponding Doorway 21 at other end. Could be *B, but is to right as one enters from end doorway, same as at other end.

Note: Clearly we may be distinguish too few a number of sequences episodes; and benches have not be proved to be entirely absent in 1st-C. There is, however, no reason to suspect them until *B. It is quite possible that the exterior thin walls belong in -A rather than -B

Specif notes

Rood type: Dimensions of L-12-2nd-B and -A call for non-vaulted roof, in all probability a beam and mortar one.

Same remark applies to *1st-C/-A, with additional conifmration: (from Cressons notes:

Room Space 2: pieces of plaster with stick impressions; one (Room 8) directly on floor plaster, another .10 m. above it.

same area - many pieces of pink plaster with white finsihing plaster, probably from walls.(This was found elsewhere).
same area- apparently no walls stones in lowest 10 cm. above floor.

Note howeveer: stick-impressed plaster tan in color with "greenish-blwish" surfaces; "Light Tan" plaster with white finishing plaster in position at base of bench (No. 2). Tan collor alone not sufficient.

And note: thin walls might be bases for wattle-daub upper portions (seems unlikely

Room Space 12-13

Both pink and tan plaster with white finish found found in various positions, from bench-top to .10 vm. above xxxo mevidence of two types of surfacing above bench level at its locus? One piece partly pink and partly tan - negatives this.

Piece of graish plaster, clear stick impressions, stick dia. 2 m. , 1 cm below "finished" surface. This looks like wattle-daub walls.

Room Space 4. Number of wall stones right down to xxrfxxx floor Near medial wall, plater fragments on or near floor.

15 ¼ink plaster in postion on medial wall.

Pink frags. fairly abundant near walls only, 5 to 10 cms. above floor. Also a few rounded waterworn pebbles and a few small bits of gray plaster or mortar. See specimen of plaster containing peblbes.and a sherd, found in this room, not less than 15 cm. above floor.

Two pieces "wattle-daub" "red" plaster.

Pieces of concrete material from center of room - plaster and small stones - just about floor level. (floor in bad condition, though. Probably floor material.

Rather good evidence for either wattle-and-daub interior walls in -1st-B, or beam-and-mortar roof. Perhaps both (stick-impressed mortar, sticks near surface in one case; gravel (good index at Str. P-4 for roof.

5-13
Sep.

Str J-18
Sequences

J-18-3d stump of bldg. or plat. wall, 55 below final floor level, about 30 above Plaza level (latter base-surface for J-18-2nd and -1st.

J-18-2nd Bld. Platform about .75 m. high; floor runs under -1st mod. wall + piers

Presumed masonry bldg. since removed — evidence not properly searched for — hence outside chance this is structural phase of -1st.

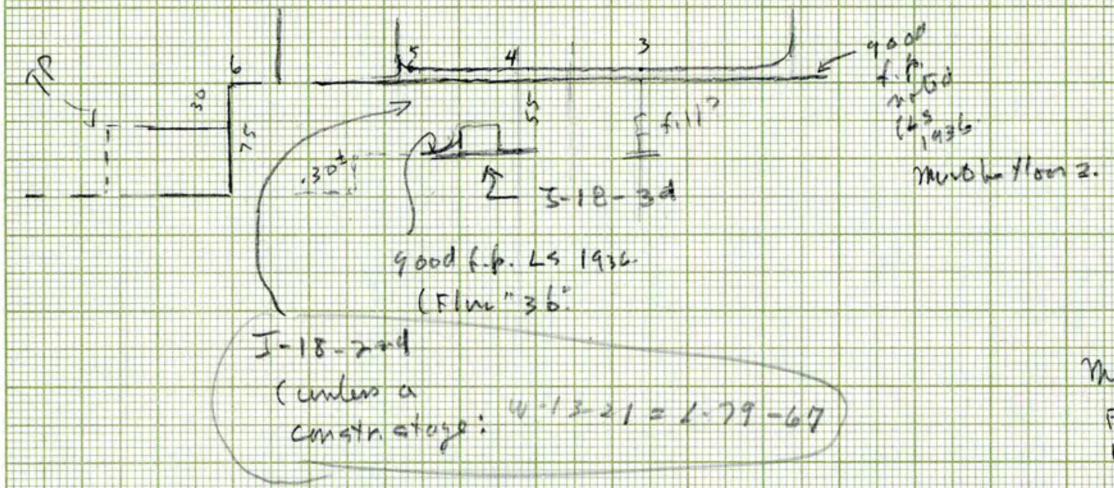
J-18-1st B Double-range masonry Palace, Trans. end rooms

- B. 60 cm Partitions; NE "room" facade & room plugged; thin-wall bldg in a back one and dwg cuts end room from gallery.

- A System thin wall "Screens" at "junctions" with J-21 (Cf. J-11, J9, with J-12)

SH I-18

1960 - check notes + in sequences



Mud wall base 2 cm below that of throne.
Floor 1a, 1b turn up to "new" (mud) wall } L.S. 1936
Floor (2?) passes under both mud w. + Pier
yellow 1b turns up to wall, runs behind Throne.
1a " " to throne.

∴ there is sec to I-18-1st

6	1.48
5	1.40
	9
3	1.40
2	1.42
4	140
	-55
	5

75
9
84
-55
29

J-21-2nd (floors 2, 3 + 4 run under mod. wall – plotted other max. height.

Based on traces of floor 15 above lowest (court) floor seen.

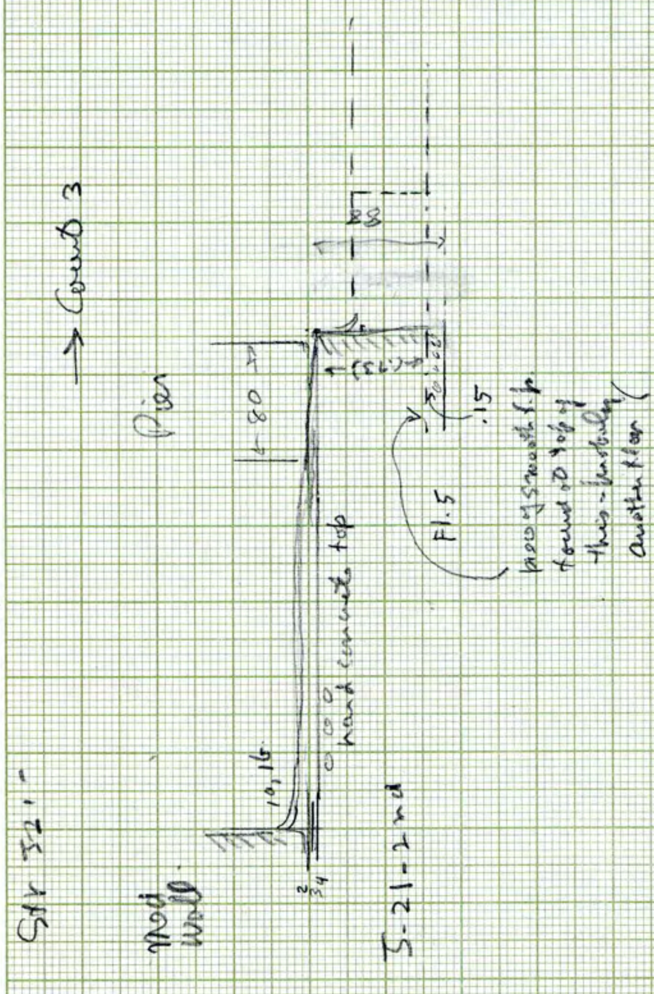
Both J-21-2nd and J-18-2nd apparently on same court level (higher one). Court level; two plotted about same height; this wall seems base reconstructed on same step level of both building.

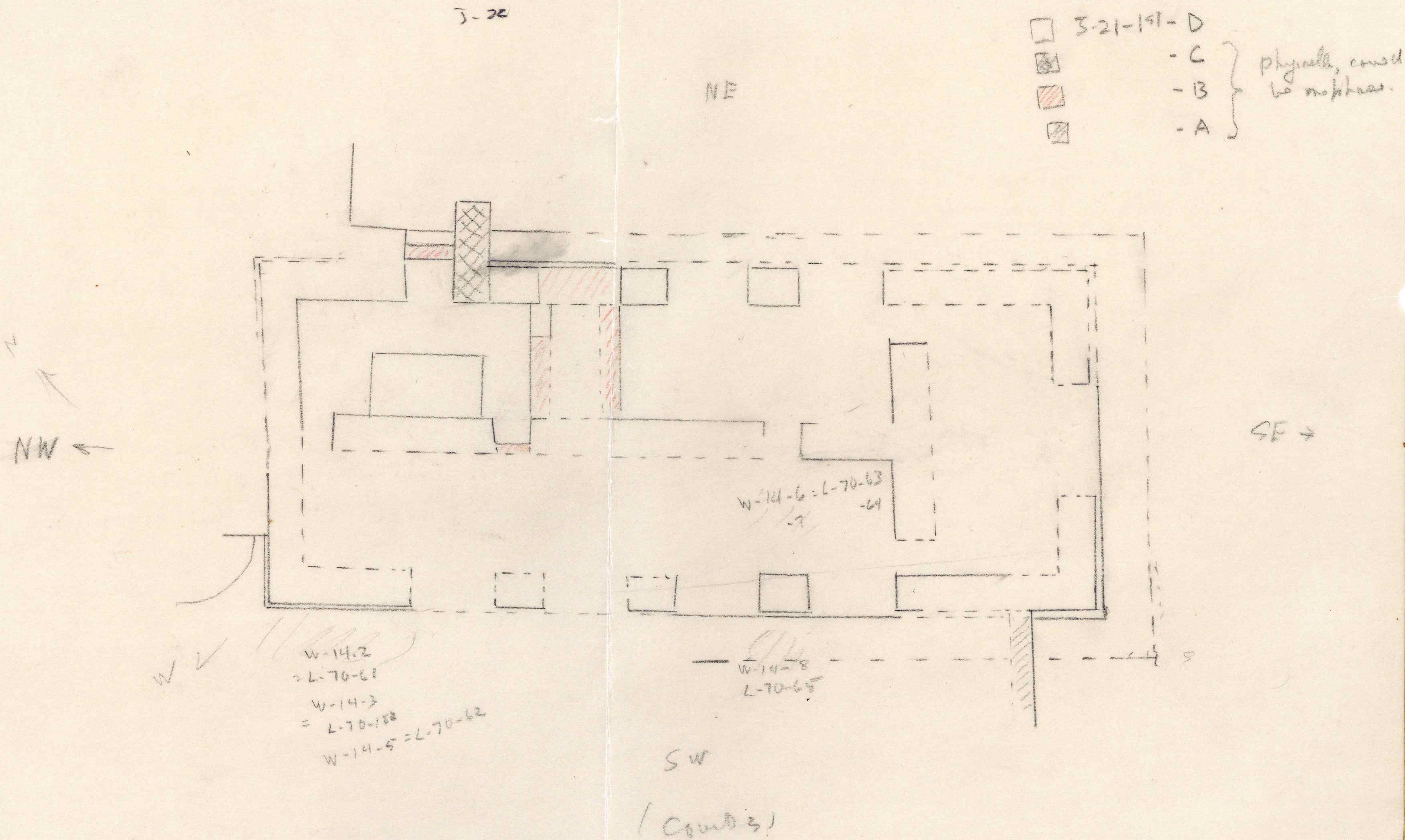
J-21-1st – D   Mas. v. palace, and room at SE only, no trans. wall to other (no room?)

– C   Partial blocking of door by J-22

– B   Thin wall partitions (one with window, other no doorway, plug facade doorway for "closed Room". Thin wall plugs, throne. (Failed to record plaster line-ups, if noted).

J-21-1st – A   Extra thin-wall seems now J-41





3-21-151-D
-C
-B
-A
NE
NW
SE
SW
W
W-14-2
= L-70-61
W-14-3
= L-70-158
W-14-5 = L-70-62
W-14-6 = L-70-63
-64
-7
W-14-8
L-70-65

J-22 Sequences

J-22a - B "answer" to J-21 WS ladder 30

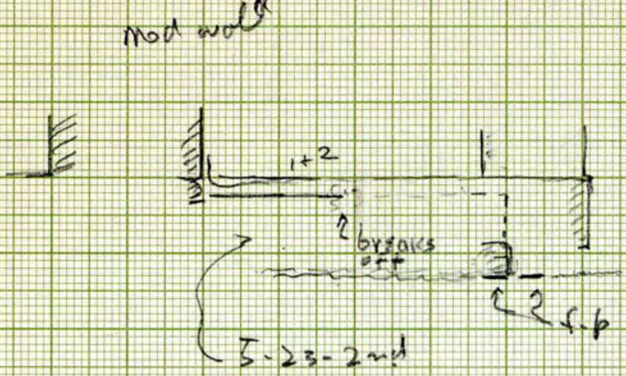
- A Connection blocked (= J-21-B)

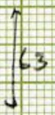
J-22b may be unit with J-22b-B, or before or after it. 32 (lower, flutter
same texo-level. vowels)

1:50

Str. J-23 Sequences.

From LS 1936 Section
(some scaling





63
-20
43 = h. of J-23-2nd Plat.
-13
30

J-23-2nd: Platform, about 40 cm high
hook in f.p. suggests removed bldg. wall (front-SE)

J-23-1ST - apparently on photo only
- raising of base level about
15 cm. (scaling sketch: partial
destruction of -2nd plat - raising
its level about same amount
and extending "forward" (to
SE about 50 cm.

63/126

135
270

85
2/10
1

From Coe entry:

wall remnant and associated floor in pit;
top of remnant 2.20 below -1st floor. Pyr. top
scales 2.70 below — Presumably remnant of
mas. temple on low Blg. Platform, .50± high

J-4-1-π-C

missing on floor below — 1st, about
level of pyramid top — Pit dug by
L.S. — notes missing. Memory
very clear (1939 (or 1950) minute?)
1956 per Coe note: Top of J-4-sub 2.20
below -1st floor
floor in front of J-4-sub wall"

J-4-1st-B

Temple Bldg. mud wall
Subst. plat. " " with "building plat";
plinth at front and front half of
sides only
Roof-comb with heroic-size human figure
(modeled — loaded)

J-4-1st-A

Partitions

"6th PN Sched"
Bul 6/5 - figs 14 - 15. ; Plate V

5-29

Str. 5-29 D

Temple + Platform (mod. rectangular Plat. also). Comb?
- Early piers. Beam mortar roof?
- 3 doorways.
Niche in rear wall with colum altar (same).

-C

Simple Platform additions, sides, overlapping front = "Secondary Terrace"

-B

Block two lateral doorways.

(Fill back to hill, now or later

Floors 20, 6, very probably (turn-ups).

-A

New piers and : roof.

-

Plat: Between "outer wall and building" etc. - must be 22-C
"Secondary Terrace" " "

K-5-Sequence
From Bull. Art. ...

K-5-4th. apron-molding terrace merging with later -3d basal terrace.

K-5-3d. Basal Plat
Pyr. (2 terraces)
Subst. Pl
Bulkwm Pl.
Building
Bench
2 cal altars. walls 2.80
.75
3.55 m more high.

K-5-2nd 2 Pyr: 2 upper terraces

Stwy - new, except old base (uses old B. Pl. steps, narrowed)

Bldg. (?) Platform; 2 cal. altars

K-5-1st-C Front & rear Pyr. extensions (center)
new stwy (uses old side walls)

5. m extension of B. Terrace
New Bas. T. stwy.

Subst. Platform (called "building Platform")
- "niche" - cache marks pos. of outside cal altar?)
Bldg. ("Plinth") Platform
- removal of building.

9.17.10.0.0? (Berlin)

- B Lintel 7 (-A??) face down in front of ... block

8 masks: ... - Secondary, not framing as in 5. ...
Stela Platform & St. 39 - 9.12.5; St. 38, 9.12.10.0.0
2 Extend Pyr. ... to the "W" (NW) - shell ... work
... rear - d. H. Secondary ext. of 1st Pyr. terrace.
Pyr. Stairway - narrow block against side walls (one side only)

New vaulted Temple
- widened Bld. Plat

K-5-1st-C

Basal Plat. extended forward : new stairway

Py.-deep front + rear terrace extensions

- new stairway over old (uses old side walls)

Suppl. Platform (new) ("building plat" in article)

- "niche" in stwy. - cache marks col. altar pos. (?)

Bldg. Plat. (new) (called "plinth")

Remnant of building

Sam Sup. p15:
No plaster floor of temple was identified.
"Floor" picked over for caches - none.
Stucco frags. cemented together - apparently in floor material (cf. R-5). Mask head among these.
Very few sherds on or near floor - most are in the niche.

K-5-1st-B.

St. 39 + Platform on + before B.Pl. stwy 9.12.5.0.0
St. 38 + Plat against " " ; 9.12.10.0.0

NW ext. of 1st terrace deep outset. (not on other side).
SE curved addition to 1st terrace deep outset (other side of rear extension)

Narrow block vs SE Py stair-side (not on other side)

Sec. Masks (3 sm., 8 round) flanking stwy.

- glyph Panel on lower SE one, ~ lost. (illegible).

Lintel 7 + block for its filling "niche" (reconst. on basis of face-down positions of lintel fragments) - large, most of the monument. Others picked up down-slope.

(Art allows possib. of lintel at back of niche, here - C; but this requires unlikely movement - highly improbable - and blocks known elsewhere. 9.12.10.0.0? (Berlin - see Thomp.

Vaulted Bldg. Mod. rectangle
- sill
- col. altar in niche
- Comb evidenced by stucco (doubt allowed for in article).
- Large size head

K-5-177- A (changes at tops only)

Lateral extension of Suppl. Plat. (see remnant)

" " Bldg. Plat (" "

Lateral & rear "shell" extension of building walls, with additional "plinth" with higher-rear level effect

Plinth probably carried up over the front, calling for new Temple room floor (apparently evidence of this destroyed without recording).

Str. O-12 Sequences
(1960 - L.S.)

No sherds.

Op. E-51 (1935 - celt only obj'd

O-12-1st-2nd Two-terrace phase of Pyramid (finishing plaster, two "steps", in position under 3d terrace wall (25, 4/24/1?), broken further in, but floor material continued.

O-12-1st-B Temple Bldg, Bld. Plat; Subst. Platform
Bl. Plat apparently simple rect.
May have been mod. rect. in missing
Earlier phase; Temple rested on
more or mod. rect. - positive evidence
lost by extreme ruination + lack of
digging.

O-12-1st-A Addition to Subst. Plat. at right (NE) - unclear what this was.

From Memo to Bill:

O-13 Sequence

MSS 16 must have come from temple-widening extension of terminal phase (= O-13-151-A). after 9.15.0.0.0? (MSS 16 date?).

L.12 in position in same.

new vaulted roof?

Changes in Blg. plat.; new Bldg. -B

Raising of Pyr top, higher building plat, (+ presumably bldg.) -C

O-13-151-C Raise Pyr top
high Blg. Platform
presumably Bldg. — Not later than Stelae

-B Changes in Bldg. plat
new building (vaulted??)

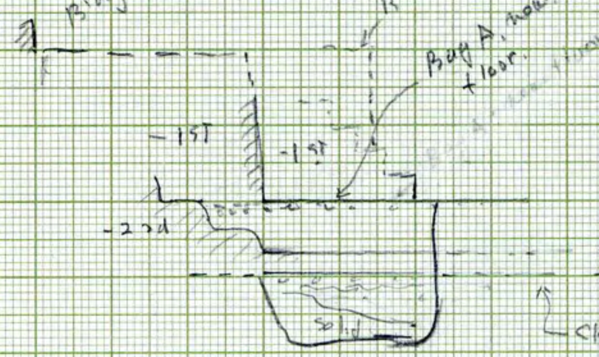
-A ~~Latter~~ front extension of front room, ~~adj.~~ front of Blg. Plat and its stairway. — Inclusions: L.12, MSS 16 almost (9.15.0.0.0?) certainly

Only on Phoce opponent, as known.

stucco head suggests R-5-2nd or -B as son.

Mms.:

LS 1939 Section:



Plaster on –2nd step shown as continuous with plaster on Court Fl. 2.
– Apparently Floor 2 did not run under –

Court Floor 3 evidently dirt

Sequence: (1) Court floor 3

(2) Court floor 2 : U-3-2nd (apparently contemp)
– used round corners plat; measured n.w. Blg:
– sloping riser tread plastered + rebuilt(?) stairway

(3) Court floor 1 (Probably with next Blg. phase (floor might run under (but not f.p. take seen).

(4) U-3-1st (entirely new Platform + Blg (non-vaulted).

One puzzle – Lab classic form with the ditch – but tomb evidently re entered + disturbed – still, why leave that if not already there?
Probably through floor 1, or with it – so ditch = need height for beams and mortar vault.

Ct Floor 2, here –.68 ← Top Tomb B10 –.60
3" –.93 Floor there –.70 ± (from illustrated stage)
These levels suggest Tomb about 10 cm. below top of tomb
Cmd. Tomb probably with Floor 1

Oversized item not scanned

Oversized item not scanned

At the right of Chart , under A', we list period and phase designations for known Acropolis places which we surely or probably non-vaulted. The position on the chart reflects the unprovable assumption that once vaulted replacement began, no new non-vaulted buildings were constructed. However, secondary changes might and probably were within the time-span of such changes to vaulted buildings; and this, as noted, may largely overlap, or even be within the span for new vault construction (i.e. of VP Grps. 1-6). There the secondary phases of Str. J-12-1st (phases Ø -D/-A) are groupedin Box C', opposite those of vaulted palaces in Box C). Arrows with three question marks suggest considerable doubt that units in Box A' belong in the vault period as do those of Box B; and arrows with one question mark suggest a proability that phases D/A post-date vault-introduction, but in a pre-vault original building.

Referring to these, Phase D marked the introdiction of a second transverse end room, correpsonding in nature to the introdicion of two of them in the vaulted J-9-1st-C. Phase C includes secondary partitiopns, wall-plugs and introdiction of benches, as does the next phase -B. These may be compared with corresponding to J-9-1st-B and J-11-1st-B. The questionable LC date for Phase C (of J-12-1st) need not be a pre-vault date. It probably appears as a PE on Throne 1, a fragment almost certainly re-rused in the masonry of the Ball count Structure K-6-K-6a-C or -A. The fragment can be reconstructed to fit a table-bench placed in Str. J-12 in Phase -C, and partly removed in Phase B, when the stump of its single leg was plaster over (Phase A). I think there is a high degree of probaility that the fragment came from this J-12 bench, and that the PE date on it was a dedicatory date, though the rest of the inscription is missing. Thus J-12-1st-C probably belongs in the time-span of VP Groups 1/

Thus, though both D and C phases may belong before J-9-1st-D (VP Grp. 1) and the beginning of palace vaulting, these phases, and especially Phase C, may belong somewhere within the span of VP Grps. 2-4, that is, before ~~Grp~~ VP Grp. 5 at 9.17.15.0.0. In considering a pre-VP. Grp. 1 dating for Throne 1

In considering this question, we have no reason to suppose the benches of the Acroplois (assuming Throne 1 was one of them)

it should be noted that ~~Stela~~ that "niche" Group of stelae seems to take on the throne idea back at least to 9.8.15.0.0 (Stela 25 in the south Group, and many may have been dismantled.
We know that Trone 1 is not from the table bench in the non-vaulted Str. R-7a of that Group. If from J-12, it was designed for one leg and and fits the situation in dimensions.
an L-shaped supporting bench, It could not be reconstructed to fit such a bench in J-6-1st, though conviebably still another bench-top of similar type was removed from there.

(79) J-29-D

(69) J9

64 O-12

(60) J-2

63* K-5-1B

(48) J-23

(48) J-13-B

53* J-4-1R

(48) J-8

? O-13-1R ?

(48) J-6-2 B

50 R-5

(43) J-6-2 A

39 J-6-1 A

×

5-5
40
2.15 = 45 Turns

9.12.10.0.0

5.0.0
×10
50.0.0
40
2.10 = 50 Turns

Oversized item not scanned

Piedras Negras: Sure and reasonably firm Dedicatory Dates in chronological order.

grp. or Section	Architectural association	Epigraphic Dedicatory Date	Supporting Epigraphic Data	Style Date (Prosk. 1950)	Remarks	Ref.
E	O-13-1st-A	9.5.16.0.19		9.11.10 ± 2 kts.		
Stelae		St. 34	Lintels		MSS	
1	St. R-16	41	1		1	
2	Py R-3	42 Plain (?-m.)	2		2	
3	J-1	"43" reused	3		3	
4	Py R-3	44 Plain (? Plun)	4		4 } B. (coast marker)	
5	R-11a	45 reused (Good)	5		5	
6		46	6 V-1 SE		6	
7		33 / 34 Stelae	7		7	
8			8 O-18 W		8	
9			9 O-18 W		9	
10			10 V-1 SE		10	
11			11		11	
12			12		12	
13			6	NE Pl.	13 J-29	m. (Panel)
14			← mns ???		14 J-9	
15					15 J-5	m.
16					16	
17	E grp.	Altars			2	
18						
19	E grp.	1	Analyze above "L" + MSS not disposed for period classification and added table.		mns?	
20	E grp.	2			16	
21	E grp.	3			17	
22		4			18	
23		(5 Plain)			19 - J-9 (in place?)	
24	S. gp. Court	4				
25						
26						
R-10 27	S gp Court. Plain? R-10					
R-1 28	S gp Ply - Good?	Thrones				
29						
30		1				
31		2				
32		2			St. 34	
33					al. 4	
34					th 2	
35					L's 6	
36		Shell Plaques			MSS 2	
37		1			Pl. 1	
38					Clf 1	
39					50	
40		1 Cliff				
		0 Sac. Rock				
53						

PN "Lintel" 7
(K-5)

Thompson, Note 39

aeds

9.12.19.15.9 9 Muluc 17 Zac

1.5.0.0

DS 9.9.8.0.?

DD 9.14.5.0.0 (?)

9.14.4.15.9 (anniv)

9.14.4.15.9 13 Muluc 17 Zac (11 Chuen is in M)

Y14 = X14 − X15

Y16 = X16 − X17

$$\begin{array}{r} 9.14.4.15.9 \\ 5.11 \\ \hline 9.14.5.3.0 \end{array}$$

(7 Ahau 8 Kayab) ← as in M.

$$\begin{array}{r} 13\ 24\ 21 \\ -\ 5.5.8.0 \\ \hline 9.8.19.13.0 \end{array}$$

(2 Cks earlier = 5 y m)

~~Cp St. 8~~

Cp AN. 1 9.12.19.13.4 3 Kan 17 Muan

1.5.0.0

St. 8 9.14.4.13.4 8 Kan 2 Zotz

What does Berlin get with other Frags.?

AN 1 9.12.19.13.4

2.5 (45 days).

9.12.19.15.9

"Double 1.5.0.0 anniversary".

Oversized item not scanned

(T, T)

'Mod. Rectangular outline Plan: covers commentaries
Subperiod. Petén-en Chenes stylistic
Traits named 1, 2, 3, 7, 8, 9, 10 in
Scott 1941.

(4) = ~~T4 (sharp)~~ ~~shades~~ Higher shutter rear room
(5) = T3 - Rear Founder mass.
(6) =
11

Numbers in parenthes

Pyramid		
	Stairway crosses 2 or more terraces; pyramid serves only 1 Bldg. if any.	T1
	Front basal platform, continuous, same 1 pyramid.	T 2a
	same, divided by stairway	T 2b!
	same, serves 2 or more pyramids.	T 2 c

Change letters accordingly & check my earlier notes.

Lg. Stucco Masks | T

Chart. Traits used in classifying Temples, Palaces and Sweathouses.

Enbeard Continuous from basal terrace

		Temples	Palaces	Sweat-Houses
Pyramid		T1		
Supplementary Platform				
Building Platform	Rectangular outline			
	Modified Rect. outline plan	T2a		
	Single level			
raised rear sidetr. level ⑥	Higher rear level (6)	T x (6) x =	=	SH x (6)
	Axial drain			SH 1
Building (Plan)	Rectangular outline			
	Modified Rect. outline Plan	T2b		
⑤	Rear mass for comb (5)	T3 (5)		
→	Higher shorter rear room(s) (4)	T4 (4)		
	Very deep room(s)			SH 2
④ "raised shorter rear room" pilas	"Janus" or "Quasi-Janus"			
	"double-range" plan		P1	
⑩	Transverse end rooms, with end doorways (11)		P2	
	Lateral asymmetry	T6	P3	
	Single-range open galleries not on pyramids; 3 to 9 doorways		P4	
	Narrow axial niche	T5		
	Sweat-chamber			SH 3
Building (Special Features)	Room-length bench or sill	T6		
close up	Column altar (axial in niche or floor of room	T7a		
	Column altar, axial outside	T7b		
	"Throne" type benches	?	P x = ?	SH x
Basal Platform, Pyramid or Supplementary Platform	Masonry blocks on stairway (for bevel?)	T8		

Note on Terms. "Pyramid Temples" have Supplementary and Building Platforms also.
"Platform Temples" have Supplementary and Building Platforms only (Str. 4-3 and O-15) or Building Platform only (Str. O-16).

Palaces may have Building Platform only; usually a "Supplementary Platform" for a palace is part of a larger system of terracing which does not give the elevated effect from all sides. That of Str. R-7 comes closest to "pyramid" criteria.

With these notes the above traits may be recognized on the Site map (3rd ed.).

Functional Types: [illegible]

At Piedras Negras it has been possible to assign considerable numbers of masonry buildings among three functional ceremonial types - temples, palaces and sweathouses. Sample deep excavations show that each type had a long history here. The eight known sweathouses have been fully published. (I think it will be granted that if these had a therapeutic and hence really utilitarain function, they were designed and placed at the site with an increment of ceremonialism in mind.) Excavations at one temple (Str. J-9) have been fully published , as has a summary account of deeper excavation at another (Str. K-5) (P.N. Arch. , Satteeth aite 19 and 19 respectively). The final phase of a palace ,Strl J-6, has been described in detail in a mimeograph report (Satterthwaite 19) and palace benches or thrones are illustrated in Satterthwaite 19 . some purposes [illegible] may be)

For the moment interested in buildings of these three types as they they remained at the surface at the time of termination of building activity. With this limitation the plans of the 14 temple and 17 place buildings (as well as eight sweathouses) on the published map of the site tell much of the story. (P.N. Architecture, Part I, No. 1). These plans were added to the original Paris map by Proksouriakoff, using all data as of termination of excavations in 1939. It would be understood, however, that the map shows latest situations only, which may include secondary interior partitions and exterior additions.

(as in chart —).

dealing with

When ~~discussing~~ particular structures diachronically that
numbers

map designations are agumented ~~with~~ by ordinal ~~letters~~ and/or letters in reverse order of time, so that the series remains open at the early end. Among the temples "-1st", "2nd" etc. distinguish periods at which the highest substructure tops were at ~~substantially~~ successively lower levels, while ~~xxxxxx~~ "-A", "-B" etc. distinguis phases in which ~~buildings~~ approxitayely the same level is maintined, though not necessarilly with the same building. In dealing with sweathouses and palaces ~~substantial changes~~ increases in platform ~~height~~ level were relatively minor, and replacements of buildings at substantially the same ~~height~~ level were probably more common. ~~In these categories "-1st", "2nd" etc. may refer to~~ In these two categories ~~Here~~ numbered periods do not necessarily imply much difference in ~~in~~ platform level, and ~~For~~ the sweathouses the matter is compliated by one "building" within another. Among the palaces ~~xxxxx~~, the numbered periods refer either to noticebky lower levels (and presumably replaced buildings) or to replaced buildings at approximately the same level. Lettered phases of places , after the earliest, refer to changeges in and additions to that same building. ~~Considering~~ The numbered "periods" and lettered "phases" ~~in the three contexts, they~~ reflect the undoubtedled fact that major and lesser changes occurred in all ~~of them~~ three categories. ~~They give, we think, a rough index of the amount of change~~

If we have an equal numbered of periods and phases at two mounds we can guess that the time-spans were similar, but a large margin of error should be allowed for, especially if they are for different types of structure. It must be remembered also that in practically all cases lack of a series of periods and phases merely reflects superficail excavation only. For better or worse, our limited resources were used to obtain a relatively complete complete ~~terminal~~ ~~surface~~ picture of architectural variety at the surface, ~~and on~~ supplemented by deep digging at a few locations only.

(For a tentative attempt to measure time with architectural sequences see Coe, 19 — bp)

On the Acropolis, in Courts 1 and 2, it was possible to combine different structure sequences to define six "Acropolis Periods", starting with bedrock, ~~Each period of this sort surely or presumably encompased various structures, xThesexAcrop and they~~ have been Roman-numbered in order of time. If the whole Acropoplis could be brought into the picture, subdivisions would certainly be called for. There is no doubt that the base-surfaces in the area of the final Courts 1 and 2 changed greatly in Period II, ~~again~~ in Period III and in Period IV; Period V involved major construction ~~for the Courtx2x~~ to provide for Court 2 (and Court 3 at a higher level?). Period VI is represented by a minor raising of the Court 2 level, but with evidence of much building, tearing down and ~~reObaulting~~ thereafter.

An account of what little is known of structures of Acropoplis Periods I and II has been published (P.N.Arch., VI, No. 6). Here, where locations of buried structures have no relationship to those at the surface, for particular structures "Sub-Acropolis" is prefixed to a series of simple numbers, with phase letters if needed. When desired, the Acropolis period may be added, as in other cases (see Chart). Parenthetically, Sub-Acrop. Str. 3-C/A (I) seems to guarantee the early presence of palaces on the acropolis. Probably they were present ~~for~~ in all six periods - but it is not impossible that in an earliest portion of Period I the hill which eventually was re-shaped to form the Acropolis was the locus of nonpcermonial architecture only.

Distribution of Temple and Palace Types

Chart ___ classifies the 14 terminal temple buildings as with or without 17 terminal pyramids, and the palaces as "single" or double" range, and further into technological classes by ~~xxxxx~~ their non-vaulted and vaulted roof types. There is reason short of absolute proof to postulate beam-and-mortar rather than thatch roofs for the "non-vaulted" terminal buildings, especially for modified rectangular temples. We know that the roof of the final P-7 sweathouse was a combination of vaulting and beam-and-mortar.

The proportion of non-vaulted to vaulted terminal temples is 8:6; ~~For palaces~~ for palaces it is 6:11, but the four vaulted single-range palaces are "built-on" to masonry rising to the rear, where beams would probably rot very quickly. The proportion for double-range palaces ~~only~~ is 6:7,

The chart supplies general guidance as to locus at the site. All of the nonpvaulted temples and three of the non-vault d palaces are in or more or less perioheral to the area of early monument erection, ending at 9.12.10.0.0, while only one temple in this area is vaulted. In contrast all other vaulted temples and all vaulted palaces are in the area of middle to late monument erection or (J-29 only) peripheral to it.

All the vaulted palaces are concentrated on the Acropolis, and here we find the other three non-avulted palaces, on the same courts.

We are doubtless ignorant of many destroyed temples and palaces. But the distribution of ~~those~~ which remain ~~suggest that they were non-avulted, and that~~ suggests at termination an uncompleted process of replacing old non-vaulted te ples and palaces with vaulted ~~has come to an end~~. If so, this goes. Among palaces it was co fined to the major grouping of them on the Acropolis; Among temples it may have just begun to extend to the South Group, well after monument erection had ceased there, but where the temples were doubtless still in use.

Thus we are led to a hypothesis of a ~~non-vaulted~~ initial period during which non-vaulted places and temples were built and replaced with others, followed by a vaulted perior in which replacements were vaulted. The relative numbers and and distribitions of the two roof types suggest that, once started, vaulted replacements only were built, the others surviving from an earlier period.

Evidence of replaced buildings falls into ~~three~~ four cagegoies. First, substnatial portions of the old walls may ~~survive~~ buried but survive. Second, the lowest courses of old walls ~~may be left~~ buried and/or plaster turn-ups to them may be left. Third, a substantially lower platform top, if more extensively invesitgated, would probably reveal evidence of demolished building walls. All three situations have been noted below both temples and palaces. Fourth, a new rear wall of a "built-on" single-range palace may be placed before the old, on the same platform, with new facade. In the two known cases (J-62nd/~~and~~ -1st; and J-10n2nd ~~and~~ -1st) the replaced buildings were vaulted, probably a requirement for this type of ~~palace~~ "built-on" building. The intervals between originals and replacements may have been short, and there is no other ~~evidence~~ known positive evidence of demolished vaultted buildings.

Technical Progress in vault-building.

If vaulting at Piedras Negras was a comparatively late innovation the earliest examples should be far from prmitive, but later ones might well show tecnological progress. This can best be looked for in the more numerous group of vaulted palaces, and Chart __ attemlts to summarize the pretinent palace data. "Group B" of palace designations covers the terminal units 11 on the map, raised to 14 by distinguishing "annexes" to Strs. J-2 and J-6, and by dividing Str. J-22 into J-22 (a) and J-22 (b) portions, in all three cases to cover horizontal startigraphies not oriigally allowed for. The total of 14 is further raised to 16 vaulted units by bringing in the earlier (demolished) but still vaulted periods at J-6 (behind J-6-1st) and J-10. The straigraphically important J-6-2nd-A remained to the end. It provided a NEly "Room 3" for J-6-2nd-B, and continued to do so for the later J-6-1st (which contained a new set of Rooms 1 and 2. That latter was undlubtedly built to accomodate Throne 1 at 9.15.15.0.0, an basically unaltered with the LC.

Little is known about J-10-2nd other than that it was vaulted and may have had a fairly deep (large) vault span. In the Chart the other 15 units are boxed in six "Vaulted Palace" groups in accorddance with changes in "Wall-span indexes", perctages obtained by deviding the vault span into the thickness of outer wall (and nearly always piers). These dimensions appear for each unit at the bottom. Immediately below the "VP group" group boxes is a "Pier-Lintel Span index for each unit, again with the dimensionsused at the bottom. Dimensions are scaled from 1:100 plans, with an attempt to come at averages for piers in an outer facade, and for those when they were the subjects.

of a vaulted replacement prgram,

If we are correct in this surmize, there was a non-vaulted period at the site, in all major groups, and it seems a reasonable postulate to suppose all terminal non-vaulted major buildings survived from the pre-vault period. Unfortunately this cannot be proved stratigraphically, but no evidence to the contrary has appeared.

These indexes reflect only some of the variables which may indicate ~~xxxxx~~ progreoss in vauot-builging , desired by the builders. I think Spinden was the first to suggest that ~~this~~ such progress might be involved in the dimensions refle ted in the WS index, with the caution that other variabkes must be considered. ~~Those consider d here me be summarxed~~: Here we assume the following:

With repect to some standard of comparision, ~~efficiency~~ technical advance (conscious and desired or otherwise) is iddicated by:

1. Deeper outer rroms	(greater vault-spands where resistance to their thrusts is minimal).	WS Index
2. Thinner outer walls	(smaller margin of safety against thrusts).	
3. Wider outer doorways	(same)	PLS Index
4. ~~Piers~~ Narrower with-door section of wall or "piers"	(same - ~~the narrower~~ the piers, ~~the smaller the margin~~ of safety)	
5. Higher outer walls (and/or piers)	(same - ~~the higher the walls,~~ the smaller the margin of safety).	
6. Flatter outer main vault-slopes	(same - ~~the flatter the slope,~~ the ~~smaller the margin of safety~~).	
7. Loaded outer half-vaults (~~heavier~~).	(same, ~~the greater the load,~~ the ~~smaller~~ the margin of safety).	

It happens that our double-range palaces were probably provided with roof-combs in several instance, but all indications are that these supported by medial wall balanced walls and vaulting, with ~~neither~~ little or no loading of outer half-vaults. There is no evideince of roof combs for single-range palaces, and they would make little "built-on" sence, with higher terracing rising behind. Information on vault-slope is very incomplete, and that on wall heights somewhat less so.

Criteria See over

In Chart ___ we list the map designations of 14 temples and 17 palaces, all at the surface and shown in plan on the site map. In Chart ___ we list certain traits which temples, palaces and sweathouse may have in common, and provide labels in "T", "P" and "SH" series for the diagnostic traits. Tratits Tx and SHx are indentical, as are Py and SHy. But since sweathouses can easily be identified if these have been eliminated, Tx (higher rear level) and Py (Throne-type benches) become valid temple and palace indicators, respectively.

We assume that if a building is on a pyramid (T1) it is a temple building. Traits T2/T8 all occur in such buildings, never in sweathouses and never in buildings which one would be tempted to class with palaces (traits P1/P4). We seem justified in using these crietria to classify three "platform" buildings not on pyramids as temples: The traits used are :

Str. U-3: T2a, T2b, Tx, T4, T6, T8

Str. O-15: T2b, T5, T7a, Tx

Str. O-16: T7b (very little excavation; no Supplementary Platform; T2b possible though not suggested on map . Column altar disturbed).

Omiited are two pyramid temples surely and possibly without masonry building (Strs. J-3 and R-4 respectively, and a platform with disturbed column altar which may have lacked a masonry building (Str. R-2).

Of course development might proceed in the adavanced direction in one or more features, with compensating retrpgression in others. Hence the desirabillty of indexes covering related factors, and consid/ation of the actual dimensions involved, as well. By-no-means complete evidence indicates that variations in wall height in this series were not great. Variation in main vault slopes may have been considerable, but we know too little about it for a comparative investigation. Very likely vault slopes varied either way in time, as compensating factors. It may be noted, however, that the flatest known slope, 45 degrees for Str. 22(b), combined with a low WS index. This is one reason for supposing that the two portions of this structure (as designated on the map) were built at different times.

In interpreting our two indexes we do not need to worry about roof comb loads. It is safe to assume that the "built-on" single-range palaces did not have them. Where there is evidence of them on the free-standing type the distrib tion of stucco fragments suggests central placement, as at Palenque, and not to the rear as on local temples. In the central position the comb load was carried on the medial wall and balanced half-vaults. There is no reason to suppose that such combs placed appreciable loads on outer half-vaults and supporting walls and piers.

With these cautionary remarks I think it is safe to conclude that the six numbered "Vaulted Palace" groups within Group A of Chart__ represent technical progress, and hence the passage of time. The groupings are such that within any one the WS index varies no more than +- 1%, requiring four grpups con aining only one unit each. Groups 1 and 2 may be considered as

transitional from WS 79% (for the temple Str. J-29) to the mean 48% for Group 3, which contains three units, and a fourth if properly reconstructed. Groups 4 and 5 may be considered as transition to Group 6, which contains seven units which again vary in the WS index by only ± 1%. If we compare Str. J-9-1st-D (Group 1) with Str. J-11-1st-B (Group 6 and facing it on the same court) the difference in WS index is about 30%. Both of these belong in Acropolis Period VI, but surely such progress was not achieved at one leap.

Concluding that our groups are sequent ones, we may note that the pier and doorway widths were fairly well standardized throughout, but there are a few excations, possibly compensatory. Str. J-23 may belong at the beginning of Group 3, with the first decision to reduce pier thickness appreciably. It has the only realtively high PLS index and the only vault-span less than 1.60 m. This suggests, at least, that thinning of walls and pier was the first innovation in this group, and that the other unusual factors were compensatory. There are three relatively low LSP indices occasioned by narrow piers, and another resulting from a wide doorway. These are in Groups 3 and 6. On the whole one is inclined to think there was little or no conscious adjustment of pier-doorway proportions to those of the WS index.

One can see a pattern in the absolute dimensions at the bottom

of the ~~table~~ chart, where relatively "advanced" dimesnions and features are boxed for emphasis. The group-position of Str. J-6-2nd-B is, unfortunately based on less than certain reconstruction. The actual index may have been lower, though scarecely higher. Apart from this, all vault spans of Groups 1/3 are ~~1.75 m. or less; while~~ about 1.75 m. or less, and all those of Groups 4/6 are about 2.00 m. or over. In these latter groups both deeper rooms and thinner walls and piers produce the low WS indexes. ~~And~~ Only in Groups 5 and 6 have niches in the vaults and ~~the~~ weakening but masonry-saving T-shaped piers been noted. The peculiar niche recorded in str. J-11-1st only. The niche of J-6-1st was for reception of Throne 1 (9.17.15.0.0); the others are triangular niches in the vaults, which (whatever the conscious purposes) saved masonry and reduced the laod ~~somewhat~~ on walls and piers. Unfortunately we cannot say that vault niches were absent where we do not note them,

So far as stratgraphic controls are ~~concerned~~ available, if the Groups are really sequent, all units of the chart were built ~~in~~ during the Acropopolis VI, since this ~~ceratin~~ for the ~~heavy~~ Group 1 structure, and for ~~two~~ of the "lightest" Group 6 structures.

since this is certain for the Group 1 structure, for one of the Group 3 buildings, and for two of the Group 6 buildings. Note also that the three J-6 units cannot be earlier than Acrop. V (by horizontal stratigraphy). The two Grp. 6 palaces on Court 3, ~~were~~ not connected with the I-VI stratibraphic sequence, ~~are~~ on the upper of two court floors, identified nearby at the non-vaulted Str. J-19, Here, near the top of the Acropolis, the ~~latter~~ of two court floors probably is no earlier than the latest at Court 2, which defines Acrop. Pd. VI.

~~Horizontal strarified sequences, not indicated in the~~ chart, are as follows: J-22(a) after J-21-1st-D (WS Indices 32%, 31%

In general we have no stratigraphic control on sequence of units within the VP groups. We have arranged them in possible chronological order. By horioztnal stratigraphy J-22(a) is later than J-21-1st-D, and probably either earlier or later than J-22(b). This rather suggests different dates for the sveven units of this group, If ~~they~~ all follow 9.17.15.0.0 (Group 5), as ~~is~~ indicated, at an arbitrary 1 hotun interval the latest vault erection would be at 9.19.10.0.0, about the time of the latest monument dedication. In such speculation one must consder whether more time should be allowed for ~~later~~ phases of three of these units of Group 6, or whether those ~~overlap the time-span of~~ new vault ererection.

In either case one is led to suppose the time-span for Group 6 covered

some appreciable but not very long time - say a minimum of 35 tuns.

If we project the same interval back from 9.17.15.0.0, to cover the same number of supposedly earlier new vaulted units, erection of J-9-1st-D would fall at 9.16.0.0.0. Allowing another gotun as the interval back to the heavi st known vault on the temple Str. J-29, we should be at 9.15.15.0.0, yet this is 65 tuns after the probable 9.12.10.0.0 for the more advanced temple vaulting of Str. K-5-1st-B,

Still speculating for what it is worth I think one may suppose that replacement with vaults began in the temples series and shortly thereafter in the palace series, - but it proceeded more slowly on the Acropolis with its more numerous palaces until modern vaulted temple buildings

and thereafter it proceeded in both categories, the several vaulted temple replacements falling within the same time-span as the palaces of our Groups 1-3. In addition, at the beginning of with the new technic, and a large step-up in the labor required intervals between new vaulted replacements were very likely longer.