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of Satterthwaite, as of August, 1933.

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Str. J-3 -Op.W-4
Str. J-4 -Op.W-16
Str. J-5 -Op.W-17

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Str. J-7 -Op.W-12
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Str. K-5 -Op.W-5*
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No.3

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No.G-1

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Programs & Recomendations
Photoraph Catalgoues
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Numerologies
Specific data readings
Miscl, data re monuments, lintels, &c.
Do. re other worked stones.
Do. re Jades. &c
Archeological areas
Maya Burials - notes on
Calendar - notes on
Po tery classifications
Pottery notes at P.N. - specific
Identifications of objects.
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CONTENTS P.N. Book G-1

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- Monuments (with Morley date list)

Architecture - Bldg. Dimension Tables, (indices etc.)
- Room dimension tables
- Sill and Bench dimensions tables
- Pyramid height tables.
- Niche dimension tables
- Lintel dimension tables (See also Yaxhilan)
- Foundation Platforms

- Vault stability sections
- Benches and Thrones
- Column Altars (with original drawings & dimensio

-Masonry Notes

-Bush Houses

-

Monuments -Hotun marking
-Dimensions
For classifications, weights and other dimensions see folder)

Misc. Notes & Data on stone (Metates, etc.)

Test Pits - Bedrock depths

Map - Data re (Parris)

~~Identifications (materials, bones~~

~~Rain Record, 1935-7~~

Original Notes not distributed in Books 1-8

Key to distribution of notes in folders.

List of old (Ricketson) and new Structure Numbers.

Roman numerals 1 to XLIV are those of Ricketson Map.
Roman Numerals XLV to ~~XXX~~ LX were applied by Univ, Museum in 1932, the Ricketson numbers above XLIV being disgarded as unusable, and sketch showing them sent to Morley. They are all on the Acropolis.

Arabic nummerals are those of the Museum map, made in 1932.

1	I	U-3
2	II	U-4
3	III	R-1
4	IV	R-3
5	V	R-4
6	VI	R-5
7	VII	R-7
8	VIII	R-9
9	IX	R-10
10	X	R-11-a
11	XI	R-11-b
12	XII	R-13
13	XIII	R-14
14	XIV	Notmapped
15	XV	"
16	XVI	"
17	XVII	"
18	XVIII	R-16
19	XIX	0-2
20	XX	0-3
21	XXI	0-4
22	XXII	0-5
23	XXIII	0-2-a
24	XXIV	0-7
25	XXV	0-12
26	XXVI	P-7
27	XXVII	0-13
28	XXVIII	N-11
29	XXIX	0-17
30	XXX	0-16
31	XXXI	0-15
32	XXXII	0-14
33	XXXIII	0-18
34	XXXIV	K-1
35	XXXV	K-2
36	XXXVI	K-7
37	XXXVII	K-6-a
38	XXXVIII	K-6-b
39	XXXIX	not mapped
40	XL	K-3
41	XLI	K-4
42	XLII	K-5
43	XLIII	J-3
44	XLIV	J-4
45	XLV	J-2
46	XLVI	J-6
47	XLVII	J-8
48	XLVIII	J-9
49	XLIX	J-10
50	L	J-11
51	LI	J-12
52	LII	J-13
53	LIII	J-17
54	LIV	J-18
55	LV	J-19
56	LVI	J-20
57	LVII	J-21
58	LVIII	J-22
59	LIX	J-23
60	LX	J-24

Our re-numbering of 1931-2.

Memorandum re Material for Piedras Negras Reports.

J.A.M.

1931 Str. O-12 (XXV)

1931 Str. P-7 (XXV1)

1931 Str. O-13 (XXV11)

1931 Str. K-5 (XL11)

1932 Str. K-5-2nd (XL11)

1932 Str. K-5-3rd. (XL11)

1932 Str. R-3 (1V)

1932 Str. O-13-2nd (XXV11)

1932 Megalithic Stairways
- -stairway of Str. R-3
- - " Str. R-7
- - " Str. P-6
- - " Str. J-1
- -refer to Str. J-6

L.S.Jr.

1931 Str. J-3 (XL111)

1931-2 Str. J-2 (XLV)

1931-2 Ball Courts, Strs. R-11 & K-6

1931-2 Acropolis Palaces
- -ground plans
- -fittings
- -design details
- -vaults
- -masonry
- &c.

1931-2 Buildings with roofs of perishable materials
- -Strs. V11 to V-1 (LX111)
- -Str. J-20
- -Str. J-17
- -~~Strs. O-18~~
- -mention
  - Strs. K-5-3d
  - R-3
  - J-12

1932 General Description of site and excavations, with map.

1932 Str. O-7 (XX1V)

1932 Str. J-6 (X1V1)
- -including stairway
- - " throne.

1932 Burials, Nos. to to 8
- -combinging reports of J.A.M. on No.4 and M.B. on No.6, Amram on Nos. 7 and 8.

Add cap. & gues.

Maler	Morely	Univeristy Museum
Templo de las 8 Estelas	I	J-4
Templo de las 3 Estelas	II	J-4
Templo de las 10 Estelas	III	O-13
Templo de las Est. 22, 23	IV	O-12
Edificio de 8 Oposentos	V	P-7
Templo de las Est. 24 - 27	VI	R-9 & R-10
Templo de la Est. 28	VII	R-1
Templo de la Est. 29	VIII	R-3
Templo de la Est 30	IX	R-4
Templo de las Est. 32 - 37	X	R-5

Table of equivalent Structure designations used by Maler, 1901, ~~Morley, Peabody Museum~~ Morley, 1920, and ~~on this map~~ by University Museum on this map.

Read - Maler's conflicts as herein.

W-1-40	West Group	Plaza Trench
W-2-22	"	Rooms, Corridors etc. Structure 1, Court 1 (J-2)
W-3-9	"	Wells, stairway etc. (J-1)
W-4-34	"	Main Plaza, near Stela #40 (J-3)
W-5-11	"	Temple #42, at East ~~ef~~ end of Main Plaza (K-5)
W-6-~~21~~ 5	"	Operation 6 Central Temple Acropolis (J-23)
W-6-6 to W-6-21		K-5 (uses W-5)
W-7-2	"	Operation 7 W. Group Ball Court (K-6 a+b)
W-8-9	"	Structure #51 (Str J-12)
? W-9-9	"	Test Pit - Back of West Court Plaza
W-10-5	"	Test Pit southwest of West Court Plaza
? W-11-7	"	First test pit in West Court Plaza
W-12-12	"	Structure #46 (Str. J-6; J-6-2 nd; J-7)
W-13-1	"	Structure 54 (Str J-18)
W-14-1	"	Structure 57 (Str J-21)
W-15-1	"	Clearing on Court 111, Acropolis North of stairway leading to Structure 56 (to str. J-2)
W-16-1	"	Structure 44 (Str J-4)
~~W-17-21~~	"	~~Test Pit Side of Structure 42~~
W-17-~~21~~		Burial #5 Side Platform of Structure #43, (J-3) Vault 1 (Str J-5)
? W-18-0		
W-19-3	"	Test pit at east side of Structure #42 (K-5)
W-20-4	"	Test Pit, 3rd Court Acropolis
? W-21-1	"	Test pit - East Edge of West Plaza
? W-22-7	"	Test pit in South Side of West Court plaza trench
W-23-1	"	Test pit in front of Pyramid #42 (Str K-5)
W-24-2	"	Test Pit West side of Structure #42 (K-5)
W-25-4	"	Test Pit East side of Structure #42 (K-5)
W-26-1	"	Test pit 2.64 from north side of ~~xxix~~ vault Side platform, Structure #43 (Str J-5)
? W-27-2	"	Test Pit Between well and trail into camp
W-28-8	"	In front of Big Stone - East of Pyramid #42 (K-5)
W-29-84 / 1935	"	Surface Collections by Architects

(over)

MARY BUTLER	L.S. Jr	J. A. MASON	D.Amram, Jr.
W-9-1	W-8-1 - Str 21	W-6-6	S-2-1
W-10-1			
W-11-1	W-12-1 XLVI		
	W-13-1 LIV	E-1-125	S-5-1
W-19-1	W-14-1 LVII		
W-20-1	W-15-1 Stm xcro LVI		
	W-16-1 - XLIV		
	W-17-1 -		
	W-18-1		
	W-2-22 XLV		
E-3-1			
E-4-1	E-7-1 (Celtus)		
	~~S-9-1~~		
S-3-1			
S-4-1	next - W-28 -		
S-6-1			
S-7-1			
S-8-1			

S.E-4-1
S.E-5-1
SE-6-1
SE-7-1
SE-8-1

S-1-49	South Group	Ball Court Operation 1 (R-11 a+b)
S-2-28	" "	Structure #4 (R-3)
S-3-4	" "	Test Pit in Front of Terrace of Structure #6 (R-5)
S-4-4	" "	Test Pit - Ravine Behind Pyramid #6 (R-5)
S-5-6	" "	Structure #5 (R-4)
S-6-2	" "	Test Pit - South Plaza in front of #6 (R-5)
S-7-11	" "	Test Pits - Ravine Between Ball Court and Pyramid #25 (R-11 & O-12)
S-8-4	" "	Test Pit - Head of Ravine between Ball Court and Pyramid #25 (R-11 + O-12)
S-9-1	" "	Mound of the Broken Lintel in Doorway (O-4) (Court N. E. of Structure #18, side next to Ravine)
S-10-3	" "	Test Pit #2 - between Ball Court and Structure 25 (R11 and O-12)
S-11-5	" "	Structure immediately East of Structure #4 (Str. R-3)
S-12-1	" "	Terrace Behind (South of) Structure #4 (R-3)

1933 - Carnis to S-18-1

S.E.-1-44	SouhhEast Group	Operation 1 (Str. V-1)
S.E.-2-5	" "	Operation 11 (Very small low mound N.E. of Str. V-1)
S.E.-3-1	" "	Operation 111 - Co 1933 Survey
? S.E.-4-1	" "	Test Pit- Plaza on top of Pyramid
? S.E.-5-1	" "	Foot of Pyramid - Test Pit
? S.E.-6-2	" "	Test Pit- Betw en two mounds - Main level
? S.E.-7-4	" "	Test Pit - In corner of Lower Plaza
? S.E.-8-3	" "	Test Pit - At foot of South East Pyramid in Transverse Valley

1933-S

Miscellaneous

M-20-3

Stones:

List of Morley's readings.
Morley's Recommendations, 1932.
Lintels & miscl. carved stones.

Miscl. stone objects.
" Jadeite " (but see burials).
Correlation dates.

Revised List of Miscelaneous Sculpted Stones, Piedras Negras

MSS No.	Cat. Nos.	Locus	Dimensions	Description	Remarks	Year found	Disposition
MSS 1	E-1-31 L-16-81	Str. O-13-1st	13x25 cm.	Portable altar Frag.	Below floor Incomplete I.S. SGM Pl 30g, 119d	1931	Phila. 1931 Guat. 194 B
MSS 2	None	Str. J-10	8x20x45 cm.	Incised squares as if for glyphs	Probably used as wall stone; see Photo 32-S-151, 3d from left	1932	Left at PN
MSS 3	W-2-20 L-16-840	Str. J-12	6x45x45 cm.	Incised squares, blank and with start of carving glyphs (no field photo in Cat.)	Crude building slab, "face" up in plinth. Nothing readable - unfinished practice slab?	1931	Phila. 1931
MSS 4	None	Str. R-11		Sly. Ball Court marker	See PNA:A/IV/Fig.11d	1931	Left at PN
MSS 5	None	" "		Nly. ditto	" " "Fig.11c; and Photo 31-314	"	" " "
MSS 6	W-6-5 L-16-974	Str. J-23	8x	Incised building slab (no f. Photo in Cat.)	Crude animal form-deer? In debris	1931	Phila. 1931
MSS 7	None	Locus doubtful		Probable throne-leg	See Maler 1901, Pl 11		Peabody, H Harvard
MSS 8	W-12-31 L-39-240	Str. J-6		Small incised building slabe (no field photo?)	Crude unfinished "glyphs" and "drawings" Practice slab? From debris over R'm2	1933	Phila. 1933
MSS 9	W-7-4	Str. K-6-a		Probably Frag. of seat of table throne see Photos 33-178 to 181; 182 to 193	"Throne 2" of SGM (1938, III Fig.96, V, Pl. 119e). CR 11 Ahau 18 Chen (9.11.10.0.0?)	1933	Guat. 1933 (Cast to Phila.)
MSS 10	W-7-9 L-39-239	Str. K-6-b	10x70x140 cm. (as restored)	Carved Ball Court Panel Frags. See Photos 33-182 to 186	Two ball-players, probably dancing; from surface of bench, centered	1933	Phila. 1933 Guat., 194 B
MSS 11	S-2-51 L-39-241	Str. R-3-3d	9x10xk5 cm	Apparently carved nfragment no field photo?	From fill about 1.00 m. below R-3-3d floor, center trench	1933	Phila. 1933
MSS 12	None	Str. K-5-1st	4x22x26	Carved fragment, glyphs, ~~(x)~~ border (See Photo 33-152) also 33-151 + 153 for large "L" 7 frags.	Dimensions indicate part of "Lintel" 7; From front slope over supposed SEly edge of stairway, about 3.00 m. SE of axis, about over narrow terrace between masks, about 3.10 higher than basal (stela) terr.	1933	Left at P..N with major Frags. of "Lintel 7"
MSS 13	NE-4-13	Str. J-29	7/11x52 x81 cm.	6 Frags. of turtle-backed panel	Reused as wall and fill stones. See SGM 1938, III Fig.106, V, Pl. 178Gc. Illegible inscription	1935	Guat. 1935 (Cast to Phila
MSS 14	W-30-6 L-70-309	Str. J-9	7.5x23x 32.5 cm.	Incised Frag.,	Crude glyphs	1935	Phila. 1935
MSS 15	W-43-11	Str. J-5		"Carved Frag."		1935	Guat. 1935 ? B
MSS 16	E-1-187 L-79-204 (2nd Frag., E-1-219)	Str. O-13		Carved Panel Frag. or stela. See Mus. Bull. 8/2-3.	God impersonator, see Photos 36-291/to -295; Mus. Bull. 6/5/ Plate VII; joined to second Frag. found later (1939)	1936	Phila. 1936 Guat. 194 B
MSS 17	~~None~~ E-1-186	Str. O-13		Incised "graffiti" buildong slab	Apparently meaningless lines; rubbing taken	1936	Left at P.N.
MSS 18	W-34-9	Str. J-10		Incised squares	Photo ~~36/36~~ 36-345, bottom, middle	1936	Left at PN
MSS 19	W-30-33	Str. J-9		Incised glyphs on jamb-stone	Photo 36-38	1936	Guat. 1937 B

— to Guatemala
B confirmed by Berlin, 1950

/ no checked in Obj. Cat
\ " " in "Concordance"

List of P. Negras "Miscl. Sculpt. Stones", 1950

Revised List of "Lintels", Piedras Negras

L. No.	Cat. Nos.	Locus	Dimensions	Description & Remarks	Year Found	Disposition
"L."1	None	Str. O-13?		Maler, 1901, Pl. 30 ; panel ~~Never found; "Lintel" No allowed by Maler~~		Peab., Harv.
"L".2	None	Str. O-13		Panel; Maler, Plate 31		Peab. Harv.
"L" 3	E-1-123 L-16-38	Str. O-13		Panel; Frags. restored; Maler allowed/ for this No.	1931	Phila. 1931 Guat. 194
"L" 4	None	Str. R-5		Panel; Maler, Pl. 32		Left at P.N.
"L" 5	None	Str. J-3		Panel Frags. See Photos. 31-139,207; P.N.Prel. Paper 5, Pl. 4c; Maler p55.	1931	Left at P.N.
"L" 6	None	S.Group		Panel? See Maler p 35; Fig. 26 ; Photo 31-140		Left at P.N.
"L" 7	None	Str. K-5-1sy		Panel. See Photos 31-26 and-60;33-152. Frags. probably part of this: M.S.S.12; Cat. Nos. W-5-76; W-5-110; W-5-111; Others possibly part of "L"7: Cat. Nos. W-5-78; W-5-79;W-5-95; W-5-216;W-5-217.	1931-1939	Main Frags. & MSS 12 Left at P.N. Cat.Nos. opposite to Guat. 1939
"L" 8	None	Str. O-18	13x71x74 cm.	Panel Frag. See Photo. 31-347 ("Throne")	1931	Left at P.N.
"L" 9	M-16-1	Str. O-18	13x	Panel Frag., glyphs; See Photo 31-233 left; SGM 1938,V,Pl. 142d; glyphs	1931	Guat. 1931
"L"10	SE-1-22	Str. V-1	10x	Panel Frag. See Photo 31-233 right; SGM V. Pl. 142e; glyphs	1931	Guat. 1931? B
"L"11	None	Str. R-3-1st	21x82x163 cm.	True lintel, found in doorway, face down; all-glyphic; illegible; See Photo 33-226; SGM V, Pl. 120 ; Ph.32-S-54	1932	Left at P.N.
"L"12	No.F.No.? L-27-198	Str. O-13	23x55x120	Two Frags., joined; used in wall of Str. O-13-1st; See Photos 32-S-81&92; SGM V, Pl.119c,27a;	1932	Phila.1932 Guat. 194
"L"13	None	Near Meg. St., Str. J-1	13x20x44	Two Frags.; glyphs. See Photo 32-N-141; S.G.M. V, Pl. 132e	1932	Left at P.N.

NB: This ends the "Lintel" series; all undoubtedly vertically-placed panels except Lintel 11.

— = To Guatemala
B = Confirmed by Berlin
✓ = Cat. Nos. re-checked, 06 Oct. ("Concordance")

O = orig. locus
X - nb

List of P.Negras "Lintels", 1950

LIST OF MONUMENTS AND THEIR DATES AT PIEDRAS NEGRAS

1932 List

or 9.4.3.0.17 5 Cehau 0 Zac (letter Dec 29, 1934)

(GTM Mian years)

Lintel 12	9. 3. 0. 0. 0	(~~4 m. M's list but not in his letter~~)
Stela 30	9. 5. 0. 0. 0	
Stela 29	9. 5. 5. 0. 0	← could be odd date (s.g.m.) - but variable element in dat. glyph is correct for this (for later is uniol & skin signs are high) - no calendar round date preserved - s.g.m.
" 42	9. 5.10. 0. 0 (???)	
	hiatus of 12 hotuns	
Stela 44 " 25	9. 8.15. 0. 0	
" 28 (?)	9. 9. 0. 0. 0 (???)	
" 24 (?)	9. 9. 5. 0. 0 (???)	
" 27 (?)	9. 9.10. 0. 0 (???)	
" 26	9. 9.15. 0. 0	
" 41	9.10. 0. 0. 0 (???)	
" 31	9.10. 5. 0. 0	
Fragment A	9.10. 6. 5. 9 (?)	
Stela 33	* 9.10.10. 0. 0	
" 32	9.10.15. 0. 0	
" 34	9.11. 0. 0. 0	
Altar 6	9.11. 5. 0. 0	
Stela 35	9.11.10. 0. 0	
" 36	9.11.15. 0. 0	
Lintel 4	9.11.15. 0. 0	
" 2	9.11.15. 0. 0	
Stela 37	9.12. 0. 0. 0	
" 39	9.12. 5. 0. 0	
" 38	9.12.10. 0. 0	← also Lintel 7, Morley thinks marks could be 9.10 + 9.12.10.00 (fossil letter to JEM, July 19, 1934)
" 6	9.12.15. 0. 0	
" 8	9.13. 0. 0. 0	
" 2	9.13. 5. 0. 0	
" 4	9.13.10. 0. 0	
" 1	9.13.15. 0. 0	
" 3	9.14. 0. 0. 0	
" 5	9.14. 5. 0. 0	
" 7	9.14.10. 0. 0	
" 23	* 9.14.15. 0. 0 (?)	(why in east group?)
" 11	9.15. 0. 0. 0	
" 9	9.15. 5. 0. 0	
" 10	9.15.10. 0. 0	
" 40	9.15.15. 0. 0	
Altar 2	9.16. 0. 0. 0	
Stela 22	9.16. 5. 0. 0	
" 17	9.16.10. 0. 0 (??)	
Lintel 3	9.16.10. 0. 0	
Stela 16	9.16.15. 0. 0	
" 13	9.17. 0. 0. 0	- only Katun marker not an alter after ~~since~~ 9-16
" 18	* 9.17. 5. 0. 0 (?)	
" 19	9.17.10. 0. 0 (??)	
" 15	* 9.17.15. 0. 0	
Throne of Structure XLVI	9.17.15. 0. 0	
Altar 4	* 9.18. 0. 0. 0	Lintel 5 - 9.16.0.0.0 month - 104 40 chance (??)
Stela 12	9.18. 5. 0. 0	
" 14	9.18.10. 0. 0 (??)	
" 20	9.18.15. 0. 0 (???)	
Altar 3	* 9.19. 0. 0. 0	
" 1	* 10. 0. 0. 0. 0 (?)	

(Mian Stela 46 - Altar 6 - Stela 29)

1930 - Dates started 9.6.0.0.0 (?)

Lintel 2, 3, 4, 5, 7 - 9.a.m.

* Initial Series is 9.15.18.3.13

* Per Year Book # 28, p. 327 (1928-9)

OVER

"Lintel" 12: per S.G.M. letter Dec 20, 1934:

T.S. 9.3.19.12.12 9 Eb 10 Tzec (NB there is a glyph between day + month)
(5-8.)

9.4.0.0.0 13 Ahau, 18 Yax (funny looking Ahau). (3 glyphs between day + month).

3.0.7 5 Cauac (0 Zac) (Zero + 7 not clear to me).
↳ A. can't distinguish this.

Miscelaneous Sculputed Stones- Piedras Negras.

M.S.S.No.		Mu Cat No.
1	Fragment of portable altar, I.S.; has been referred to as "Fragment 1" and "Fragment A", possibly in print by Morley. From Str. O-13	L-16-81
2.	Small slab from Str. J-10; squares cut by lines, as if in preparation for cutting glyphs	
3.	Similar slab from J-12, with unfinished glyphs started in several squares	L-16-840
4.	Southerly marker, Str. J-11 (left in field)	---
5/	Northerly ditto.	---
6.	Small slab (like Nos 2 and 3, probably re-used as building material), with graffiti (of deer?) from J-23	L-16-474
7.	Throne or altar leg in Peabody museum (see Maler)	---
8.	Small slab from Str. J-6, R'm 2. Lines and scratches, as if a practice block, or child's work (Field S-12-31)	L-39-240
9/	Fragment, probably from the front and end of a small stone throne seat - from Str. K-6-a. Has been called "Throne 2", probably by Morley in print. Went to Guatemala - we have cast of inscription.	W-7-4 (Field No
10	Sculptured panel from K-6-b, dancing figures.	L-39-339
11	Fragment from fill under structural floor of Str.R-3-3d (i.e. Period 3-b).	L-39-241
12	Probably fragment of Lintel 7. From front slope over supposed SEly edge of stairway, Str. K-5: i.e. about 3.00 SE of front-rear axis of mound, and about over to the narrow terrace between the two masks , and about 3.10 higher than the stela terrace. Found close to surface. Dimensions indicate part of Lintel 7. LeftPN.	blocked with Lintel 7 PN ***---
13	Fragments from Str. J-29. See 1934 notes. Went to Guatemala; we have cast of faces of fragments.	NE-4-13
14	Fragment from Str. J-9 (1935) (Field W-30-6)	L-70-309
15	Ditto from Str. J-5 (Field W-43-11) Gaut?	
16	Fragment, probably from panel, Str. O-13	L-79-204
17	Grafiti slab from Str. O-13. See Cresson notes; Object drawing book. Left in P.N.	*****
18	Small stone from J-10, incised squares (Cp 2&3) toGuat.	W-34-9 (Field)
19	Inscribed jamb stone in Str. J-9 (left in position) (1937 - removed + sent to Guatemala.)	----

Miscelaneous Sculptured Stones or Fragments.

No. 1 Fragment (about one-half) of small drum-shaped stone (altar?) found in or under floor of rear chamber of Structure O-13, with part of Initial Series on the side (Heretofore referred to as "Fragment A", also as "Fragment 1"). Cat No. L-16-81

~~[illegible]~~

No.2 A small slab from Structure J-10, with incised roughly parallel lines, crossing each other, presumably marking out glyph-blocks.

No. 3 A similar slab from Structure J-12, with similar incised lines and several unfinished glyphs in the squares thus marked out. 1964 photo

No. 4 The southerly drum-shaped "marker" of the South Group Ball Court, Structure R-11.

No. 5 The northerly "marker" of Structure R-11.

No. 6 A small slab (like Nos. 2 and 3 probably used as building material) from Structure J-23, bearing a relatively crude incised out-line drawing of an animal, possibly a deer. Cat. No L-16-974 (W 6-5) 1964 photo 1931 >

No. 7 The small "altar" leg photographed by Maler (Plate XI), now in Peabody Museum, Cambridge - probably from a throne similar to Throne 1.

~~No. 8 Central stone in main sloping wall, Structure R-11-a South Group Ball Court,~~

~~No.9 Roughly cylindrical carved stone at center, between Stelae 34 and 35, front of Structure R-5, South Group Court. (Altar 6 on Ricketson's map - "Sacrificial Column" refered to by Maler.~~

after 1932 > 1964 photo

No. 8 - "Kotalch Book" from Room 2, Str. I-6. 1933

No. 9. - Fragment of Sculptured slab, Str. K-6-a. (wall). ("Throne 2").

No. 10 - " " Center of upper vert. wall, Str. K-6-b. Cat No L-39-258

No 11 - Sculptured fragment from fill under Structural floor of Str. R-3-3 (i.e. Period 3-6)

No. 12 - Probably fragment of Lintel 7. From front slope, over supposed (SE 1/4) edge of stairway - that is about 3.00 SE of front-rear axis of mound - and about over the narrow "terrace" between the two masks, ~~about 1.50 above top of the lower one~~ about 3.10 higher than stela terrace; found close to surface. Certainly not from a right (NW) lintel, but might be from a center one. Dimensions indicate Lintel 8

No. 13 - Fragment from J-29 (1934 notes)

No. 14 - " " J-9 (1935).

No. 15 " " J-5 (1935).

1935 No 16 - "Stela fragment?" from O-13.

No. 17 - Partition slab from debris of O-13. See Cresson notes.

(OVER)

M.S.S.18 – Small stone with incised squares - from J-10 debris, 1936 (exact position unknown. Almost certainly used in walls, vault or piers of late period.

M.S.S.19 - Inscribed jamb stone in Str. J-9.

and 1964

MSS 20 Incised slab L-70-307 (E-52-10) Str P-7
19 x 9.7 x 11 cms
grid; grid started on other side(?)

1964 photo

MSS.21 Incised slab – 2 glyphs, random cuttings
L-70-309 (W-30.6)

1964 photo

Name of Monument or Object	Maximum Dimensions	Where Found	Catalogue Specimen Number	What Year Found	By Whom Found	Remarks if any	If Any Other Scol
Stela 44	156 cm x 66 cm x 21 cm	R-3	None	1932	David W. Amram, Jr.	Plain	
Stela 45	192 cm x 40 cm x 17 cm	R-11-a	None	1932	L. Satterthwaite, Jr.	Glyphs only--if a stela, re-used	
Lintel 8	74 cm x 71 cm (high) x 13 cm	O-18	None	1931	"	Re-used as common wall stone--probably was vertical panel	Left on site
Lintel 9	Failed to measure length of sides: x 13 cm thick	O-18	Field No. M-16-1	1931	"	" "	to Guatemala (?) 1931
Lintel 10	Failed to measure length of sides: x 10 cm thick	V-1[illegible]	Field No. SE- 1-22	1931	"	" "	to Guat (?) (1931).
Lintel 11	163 cm x 82 cm x 21 cm	R-3	None	1932	David W. Amram, Jr.	Incomplete--8 fragments found in doorway	Left on site
Lintel 12	120 cm x 55 cm x 23 cm	O-13	L-27-198	1932	J. Alden Mason	Re-used as common wall stones--probably vertical panel	Phila.
Lintel 13	20 cm x 44 cm (width) x 13 cm	J-1	None	1932	Fred P. Parris	Probably reused in stairway--probably was vertical panel	Left on site.
	There is no Lintel 13--We once assigned this to Malers Stela 29, but changed back--see correspondence						
Mis. Sculp. S. 9 ("Throne 2")	65 cm x 46 cm x 12 cm	K-6-a	Field No. W-7-4	1933	L. Satterthwaite, Jr.	Re-used as common wall stone.	
Mis. Sculp. S. 4	Dia. 53 cms, Thickness 18 cms ±	R-11	None left in place	1931	J. Alden Mason	Ball Court	
Mis. Sculp. S. 5	Dia. 51 cm, thickness 25 cms ±	R-11	None left in place	1931	Karl Ruppert	"Markers"	
Shell Plaque 1	7.3 cm x 3.5 cm	Vault in J-5	Field No. W-17-42	1932	L. Satterthwaite, Jr.	From Burial No. 5,	
Shell Plaque 2	8.6 cm x 6.9 cm	Vault in J-5	L-27-41	1932	"	in vault below	
Shell Plaque 3	7.1 cm x 3.5 cm	"	Field No. W-17-42	1932	"	floor of Structure J-5;	
Shell Plaque 4	7.4 cm x 3.8 cm	"	L-27-42	1932	"	~~found with many other~~ perforated shell plaques.	

Data on
Unscribed Monuments
and objects.

As supplied to
Morley, 1935

See brin lico of MSS 1 to 21 (1964)

Name of Object	Maximum Dimensions	Where Found	Catalogue Number	Year Found	By Whom Found	Remarks	
Mis. Sculp. S. 1	("Fragment 1")	O-13	L-16-81 E-1-31	1931	J. Alden Mason	Portable altar, with Initial Series	Phila Sept 1944
" " 2	Approx. 45 cm x 20 cm x 8 cm - See photo Photo 32-151.	J-10	None	1932	L. Satterthwaite, Jr.	Incised outlines for glyphs--no carving of glyphs. Probably used as wall stone	Phila ?
" " 3 (4 + 5 = Ball Court Marker)	45 x 46 x 7 (Catalogue, Mus) 45 cm x 45 cm x 6 cm	J-12	L-16-840 W-2-20	1931	L. Satterthwaite, Jr.	Incised outlines for glyphs, several glyphs started--used face up, as building stone on plinth	Phila 4+5 - [illegible]
" " 6	8 cms thick	J-23	L-16-~~474~~ 974 (W-6-5)	1931	L. Satterthwaite, Jr.	Incised quadruped, possibly deer--used as building stone	Phila
" " 7	Leg at Peabody (See Maler)		none			From a throne?	Harvard.
" " 18	Small	J-6 ~~(S-12-31)~~ (W-12-31)	L-39-240 (W-12-81) (S-12-31)	1933	"	Incised drawings, crude, unfinished	Phil
" " 10	140 cms (as restored) x 70 cm x 10 cm	K-6-b	L-39-239 (W-7-91)	1933	"	Two figures, probably ball players dancing; no glyphs.	Phil
" " 11	15 cm x 10 x 9 cm thick	R-3-3d	L-39-241 5-2-51	1933	"	Small carved fragment.	Phila
" " 12	26 cm x 22 cm x 4 cm. ~~See notes~~	K-5	None	1933	"	Glyphs--probably part of Lintel 7	Split off - came from upper edge, facing S. Left with Lintel [illegible]
" " 13	See letter	J-29	Field No. NE-4-13	1934	"	Vertical panel, re-used as wall and fill stones.	To [illegible]
Jade Jaguar Head	82 cm x 15 cm thick	Burial 5 in Str. J-5	L-27-19	1932	"	Worn on back?	
Fragments of six or more sting-ray spines, inscribed with glyphs	Various broken of lengths	Burial No. 5 in Str. J-5	L-27-46	1932	"	Undecipherable, broken and fragmentary--found with many plain ones.	

Piedras Negras (Johnson)
Expeditions.

Memorandum re Proposed Monument Designations
October 29, 1932.

Stelae.

Frags of Stela 14 = L-16-382
12 = L-27-171
13 = L-27-199
St. 14 = L-16-382
40 = L-27-168

Nos. 1 to 42 as numbered by Maler and Morley.*

No. 43 Right (southwesterly) facing Slab of right shoulder of megalithic stairway, Structure J-1. Identified and number suggested by Morley.

No. 44 Plain Stela, from left (northwesterly) slope of Structure R-3.

** No. ~~45~~ 45 From inner (southeasterly) main sloping wall of Structure R-11-a.

~~** No. 29 Maler's "Altar 6", front of Structure R-5.~~
No. 46 – Maler's "sacrificial stone" – center of R-5 stelae.
~~**See discussion on attached sheet.~~
~~*Except Maler's Stela 29, which is renumbered~~ Lintel 14"

Altars.

altar 4 leg = L-27-200

Nos. 1 to 5 as numbered by Maler.

Lintels. (Sculptured)

L.3 = Cat No. L-16-81 (?)

Nos. 1 to 6 as numbered by Maler.

Inside

No. 7 From central doorway, Structure K-5 (upper and latest temple); left at P.N.

left in situ

No. 8 Fragment (probably about one-half), used as building material in Structure O-18, near southeasterly corner. Shows badly eroded table-altar with tapering legs - more probably a throne. ~~Heretofore~~ Has been referred to as "Throne Lintel". Left at P.N.

No. 9 From same part of Structure O-18, buried in fill. Upper right corner only, bearing well-preserved glyphs.

No. 10 From rear wall of substructure of Structure V-1 (latest building), there used as building material. Lower right corner only, bearing glyphs fairly well preserved.

left in situ

NO. 11 Seven principal fragments (less than all) recovered in right (southeasterly) supposed doorway of supposed temple at top of Structure R-3. Left at P.N.

No. 12 Two pieces (forming nearly complete whole) found re-used as building material in Structure O-13 (upper and latest building). Right half found in position in right (northwesterly) buttress at rear of front gallery, its re-use being contemporary with the erection of the gallery, or later. The gallery may be later than the rest of the temple. Cat No. L-27-198
~~(Sculptured)~~

No. 13 Two principal fragments, found at base of megalithic stairway, Structure J-1 . Probably re-used in upper flight.

Miscelaneous Sculputed Stones- Piedras Negras.

M.S.S.No.		Mu Cat No.
1	Fragment of portable altar, I.S.; has been referred to a "Fragment 1"and"Fragment A", possibly in print by Morley. From Str. O-13	L-16-81
2.	Small slab from Str. J-10; squares cut by lines, as if in preparation for cutting glyphs	
3.	Similar slab from Str. J-12, with unfinished glyphs started in several squares	L-16-840
4.	Southerly marker, Str. R-11 (left in field)	---
5/	Northerly ~~ditto~~ ". (")	---
6.	Small slab (like Nos 2 and 3, probably re-used as building material), with graffiti (of deer?) from Str. J-23	L-16-474
7.	Throne or altar leg in Peabody museum (see Maler)	---
8.	Small slab from Str. J-6, R'm 2. Lines and scratches, as if a practice block, or child's work (Field S-12-31)	L-39-240
9/	Fragment, probably from the front and end of a small stone throne seat - from Str. K-6-a. Has been called "Throne 2", probably by Morley in print. Went to Guatemala - we have cast of inscription. (Field W-7-4).	~~W-7-4 (Field No~~
10	Sculptured panel from Str. K-6-b, dancing figures.	L-39-339
11	Fragment from fill under structural floor of Str.R-3-3d (i.e. Period 3-b).	L-39-241
12	Probably fragment of Lintel 7. From front slope over supposed SEly edge of stairway, Str. K-5: i.e. about 3.00 SE of front-rear axis of mound, and about over the narrow terrace between the two masks , and about 3.10 higher than the stela terrace. Found close to surface. Dimensions indicate part of Lintel 7. Left at P.N.	***---
13	Fragments from Str. J-29. See 1934 notes. Sent to Guatemala; we have cast of faces of fragments.	NE-4-13
14	Fragment from Str. J-9 (1935) (Field W-30-6)	L-70-309
15	Fragment ~~Ditto~~ from Str. J-5 (Field W-43-11) Gaut?	
16	Fragment, probably from panel, Str. O-13 (Field 8-1-187)	L-79-204
17	Grafiti slab from Str. O-13. See Cresson notes and Object drawing book. Left at P.N.	***---
18	Small stone from Str. J-10, incised squares (Cp. 2&3); toGuat.	W-34-9 (Field)
19	Inscribed jamb stone in Str. J-9 (left in position)	----

M.S.S. 10 6 Fragments joined in plaster reconstruction : 1.43 x .70 x .10 M - .2 T (rough estimate of weight).

NB. This piece has not be exhibited; is unsuitable for exhibition without special lighting because of poor condition, low relief and missing parts

Note: The foregoing 10 items exhaust the list of pieces which present serious problems in the way of spcial packing, because of size and/or weight; and which require forethought in planning an exhibition hall. Miscelaneous Sculptured Stones 16 and 10, and Lintels 3 and 12 can be supported on strong walls; Throne 1 requires special light construction, not because of its weight, but because of its form.

Lintels 1 and 2 are at Harvard; "Lintels", in many cases single small frgaments, are at present distributed as follows:

Left at the Site: Lintels 6, 7, 8, 11, 13, 5, (13 is highest "Lintel" number.
At Guatemala City: Lintels 9, 10 (small fragments); Lintel 4
At Phila. Lintels 3 and 12

Miscelaneous Sculptured Stones include mere incising. Those of any exhibition value are Nos. 1, 16 and possibly 10 at Phila; 9 and 13 at Guatemala; and 7 at Harvard (the latter is the "Altar leg" shown by Maler, which we assigned a number in this series. Nos. 10 and 16 are covered above; No. 1 is half of a small portable altar, with an I.S. inscription. These numbered pieces are at present distributed as follows:

Left at Site: M.S.S. No. 2(?); 4, 5, 12, 15(?). Questioned items to be checked. and 19 (highest MSS number).
At Guatemala City: Nos. 9 and 13 ; 18
At Harvard: No. 7
At Phila: No. 1 (part of portable altar, with I.S. inscription on side).
No. 3 rough slab, incised lines, unfinsihed glyphs in several squares
No. 6 " " , incised animal head (crude)
No. 8 " " , incised lines and scratches
No. 10 see above
No. 11 small fragment, possibly was sculptured
No. 14 rough slab, parts of three incised glyphs.
No. 16 see above, with No. 17.

. . .

General Note: I have given approximate dimensions of the separate parts of the four stelae, using maximum lengths; if totaled, these may exceed the total length of all pieces fitted; usually, different widths and thicknesses of different fragments of the same stone are not allowed for, the maximum being used. The stelae can be taken down and shipped without taking apart. This will save a great deal of labor at the other end and will minimize danger of damage by an inexperienced rigger. The necessary timbers and bolts will greatly add to widths and thicknesses , not much to lengths, of the units to be handled - and to their weights. The contract price for doing this - exclusive of freight and re-erection - was $750.00, when they were sent to San Francisco.

LSJr.

PIEDRAS NEGRAS MONUMENTS

Approximate Dimmasions (In meters) and Weights (in tons @ 2000 Lbs.)

Note: measurments are approximate, a few cms. over rather than under; and do not reflect non-rectangularities. The estimates of weight were obtained by calculating cubic meters of stone and converting to tons with the constant 2.97 (tons per cubic meter); this is derived from Trautwine's 168 Lbs. per cubic foot; and with 35.3156 cub. feet per cubic meter (Trautwine, 20th Ed. 1922, p p 213; 225).

	Total	Parts	
Stela 13 (L-27-199)	1.85 x .90 x .35 M. 1.67 Ts	Top	.90 x .90 x .35 M .84 T
		Bot.	.80 x 1.00 x.35 M .83 T
Stela 14 (L-16-382)	2.16 x .85 x .40 M 2.97 T	Top	2.15 x .85 x .40 M 2.17 T
		Bot	.80 x .85 x.40 M .80 T
Stela 12	3.10 x 1.05 x .40 M 3.99 T	Top	1.50 x 1.05 x .40 M 1.87 T
		Bot*	1.70 x 1.05 x.40 M 2.12 T
		*3 fragments joined	
Stela 40 (L-27-168)	4.20 x 1.20 x .40 M 6.26 T	Top	2.70 x 1.20 x .40 M 3.84 T
		Bot	1.70 x 1.20 x .40 M 2.42 T
	or 4.90 x 1.20 x .40 M* 7.01 T*	Butt	.70 x .90 x .40 M .75 T
	*including part of plain butt which was buried - omitted as set up in Phila.		
Altar 4 Leg (L-27-200)	.75 x .45 x.48 M .48 T	(one piece - almost identical with three legs already in Guatemala City)	
Lintel 3 (L-16-381)	1.25 x .65 x .13 M .31 T	(three fragments joined, with a fourth "filler" frag. of unsculptured stone - should not be taken apart).	
Lintel 12 (	1.20 x .55 x .25 M .49 T	(two frgments, joined)	
Throne 1	Screen (Frags., joined) :	1.80 x .60 x .15 M - .48 T	
	Seat(or "table top") :	1.80 x .90 x .15 M (fragments and reconstruction in plaster) - .19 T	
	Legs (two); eagc :	.60 x .29 x .15 M - .02 T each.	
	Total weight, about .96 T		
M.S.S. 16 +17 (L-79-204) 8-17	Tow frags. joined :	.80 x .62 x .11 M - .05 T	

To next page

P. N. Poles

Morley. Year Book #28, p. 327. (1928-9).

Stela 15 –	9.17.15.0.0	I.S.	(note. same as throne.)
33 –	9.10.10.0.0	I.S	
altar 3 –	9.19.0.0.0.	I.S.	
" 4 –	9.18.0.0.0.	I.S.	
Stel 18	9.17.5.0.0.	P. End	
Stel 23	9.14.15.0.0.	I.S.	"corrects earlier reading"
altar 1	10.0.0.0.0.	P.E.	("probably)."

Piedras Negras : Stelae dates.

Dictated from memory by S. G. Morley, 1931.

South Groups	31	9-5-0-0-0	Intaglio glyphs
	42	10-0-0	(One or the other - stylistic basis
	25	15-0-0	~~only~~
		9-6- 0-0-0	
		5-0-0	
		10-0-0	
		15-0-0	
		9-7- 0-0-0	
		5-0-0	
		10-0-0	
		15-0-0	
		9-8- 5-0-0	
	—	10-0-0	
	26	15-0-0	(first of Buddha series) single stela.
	28	9-9- 0-0-0	(? - based on provenience - large pyramid,
	24	5-0-0	(based on provenience)
	25	10-0-0	"
	27	15-0-0	
	41	9-10-0-0-0	(" " - only one for the pyramid)
	30	5-0-0	(intaglio - same style as 43 - later?)
	33	10-0-0	
	32	15-0-0	
	34	9-11- 0-0-0	
Sacr. Col.		5-0-0	
	35	10-0-0	
	36	15-0-0	
	37	9-12- 0-0-0	
West Group	39	5-0-0	
	38	10-0-0	
	6	15-0-0	(2nd. of Buddha series)
	8	9-13- 0-0-0	
	2	5-0-0	
	4	10-0-0	
	1	15-0-0	
	3	9-14- 0-0-0	
	5	5-0-0	
	7	10-0-0	
East Group	23	15-0-0	
West Group	10	9-15- 0-0-0	
	11	5-0-0	(3d. of Buddha series)
	9	10-0-0	
	40	15-0-0	
Alter	2.	9-16- 0-0-0	
East Group	22	5-0-0	
	17	10-0-0	
	16	15-0-0	
which is which?	13	9-17- 0-0-0	
	19	5-0-0	
		10-0-0	
	15	15-0-0	
Alter	4.	9-18- 0-0-0	
	12	5-0-0	
	14	10-0-0	(4th. of Buddha series)
	20 (?)	15-0-0	
Alter 3.		9-19- 0-0-0	(~~9-10-0-0-0~~ 10,0-0-0-0 ? Alter 1 west group)
	???	5-0-0	
		10-0-0	
		15-0-0	

Specials

Lintles - continued.

No. 14 Maler's "Stela 29", now renumbered as a lintel - removed from top of Structure R-3 by Maler - same style glyphs as Lintel 11, indixations that he dug it from northwesterly doorway of same Structure.

(back to stela 29).

Thane 1 = L-27-170

Controlling principles in making
the foregoing suggested designations.

Where future work is contemplated, an ideal system would not apply a functional term, such as "stela" or "Lintel" to any given monument unless the use of that monument, as indicated by the term assigned, was definitely established.

Our "Miscelaneous" group is intended to include small pieces or objects which turn up but which are not sufficiently important to merit a separate series of numbers; and also, fragments and complete pieces for which a use or function cannot by assigned when found. It serves to identify them at once. If, for instance, we later discover another throne (Throne 2) and can establish that No. 7 of this group was part of it, this piece will become a part of Throne 2 and No.7 in this group will be left vacant. The number, 7 in this case, is thus temporary or permanent as the final results determine, and the series of altar and throne numbers, the designations of which are descriptive and so misleading unless they are correct, is kept intact.

o

We have some doubts about the actual function of some of the "Lintels" and "Stelae" - Lintels 5 and 12, and Stelae 20 and 21, for example. We cannot apply the same reasoning here, because we are bound by already published designations. The principle already established there is to call what appears to be a stela a stela, and what may have been a lintel a lintel. For example, If Lintel 5 was a lintel, then Lintel 12 probably was also. They belong in the same series and we therefore add to the old series, in this case not because we are sure we should, but because we are not sure we should not.

For the same reason we have added Stela 45. The slightly rounded top, the perfectly smoothed sides and back, are difficult to understand if was made for the position in which it was found (See photo 32-S-117); but these, plus the certain evidence that nearly all if not all the front face was sculptured with archaic glyphs in double-column, make it comprehensible as a small early stela (Class 1 at Copan), here re-used. So far as the stone itself is concerned, it belongs in the same series as Stela 32, which is not so much larger.

We have violated the principle of using already published designations in the case of Stela 46 (Maler's Altar 6). Our excuse is that it was almost certainly a stela; no photograph has been published and the references are very slight. Possibly we are wrong in doing this, especially as we did not fit the two pieces (one of which seems to have been heretofore unknown) and so prove our point beyond question. We therefore especially invite comment on this particular designation, though we would like to have it on all.

December 6: Final decisions on Stelae 29 (formerly Morley's "Altar 6) and Lintel 14 (formerly Maler's "Stela 29") and on Stela 45 made per Morley's final advice in letter to J.A.M. dated Nov. 28, 1932.

Piedras Negras: List of Lintels & their
numeration, as agreed with Dr. Morely, Nov. 23, 1932.

No.

1 - Peabody, lower right corner.
2 - Peabody.
3. - University of Penna. Museum.
4. - To go to Guatemala - South Group - captives & warriors.
5. - Badly broken ' eroded - from Structure XLlll (not used there as a lintel).
6. - Used as a table in the monteria - incised line design (see Maler)

(all the above follow Maler's numeration, and he found all but 3, for which he allowed.)

7. - Heavy lintel from Structure XLll, complete, more or less, but badly split and shattered, much of design & glyphs lost.
8. - "Throne Lintel" (from surface of Structure XXXlll - probably left half or so - badly eroded design, table altar with with tapering legs, probably figure on table, possibly figures along lower margin, possibly similar to 3; much smaller than any of lintels 1 to 7.
9. - Upper right corner (well preserved glyphs) buried in fill of Structure XXXlll, not far from 8.- small.
~~10.--~~
10. - Lower right corner, used in wall or fill just behind in rear wing of Mound 1 pf Group LXll, South-east section (present provisional numeration)- well preserved glyps; small lintel, like 8 and 9.

Tablets - agreed with Morley, Nov 23, 1931

No 1 - Peabody - lower rt corner.
2 "
3 - U of P } XXVII
4 - for Guatemala (S. group - captions varia.)
5 - Moles found (Stu. 43 -
6 - Moles, ex. (
7 - new U. of Pa. - Stuc. ____.
8 - "Throne lintel" (surface) Stn. ____
9 - Upper Right Corner (well preserved - buried in fill). (
10 - SE. Sect Stn. (Lower Rt. Corner.)

A2 = ? Kin 5 Cimals
B2 = Sec. Series: terminal date indicator
A3 = ? Kan, Muluc, Ix or Cauac.
B3 - 7 Ceh. (certain).

9. A1: 1 Kin 15 Cimals
B1 10 Tuns
A2 Sec. Series - terminal date indicator
B2a 11, 12 or 13 Ben.
B2b 1, 6, 11 or 16 Kayab
(head reading).

Main tables out
to new temp
book, Dec. 1960

Platforms

1949 Meas. Chart.
trial-checked: use for Publication.

Buildings

1949.
Nm-V. Palaces

nonvaulted Bldgs - Palaces.

	Plinth Depths	Plinth Exposures Front	Plinth Exposures Rear	Building Depth	Compound Bldg Pat. Depth	Subsp. Plat. from depths	W	R	M	R' (new)	W'	minimum wall-span index.	Pier width	Doorway width	Eu Open
							W: Front wall or pier thickness	R: Subsp. 3 1.55	M: ↓ of Pier range.	R': ↓ of Pier range.	W': ~~↓ of Pier~~ range				
R-7-b	6.85 / 7.25 shrinks toward bldgs. Right about 60 cm.	?	.15±	6.75			avs: .95	1.95	.95	1.95	.95	49% 1.95 | 950 | 49; 780; 1750; 1755	.95	1.70	56% 1.70 | 950 | 56; 850; 1000; 1020
R-7-a							✓	✓	✓	✓	✓			1.02	1.90 | 950 | 50%; 95
S-17	3.95	.10	.00* Cresson Plan shows none	3.85	5.15		.65	2.55	—	—	.65	25% 2.55 | 650 | 25; 510; 1400; 1275; 125	1.05	1.65	64% 1.65 | 105.0 | 63+; 990; 600; 495; 105 = 64
S-18-1st A	4.33 min.	.08	.08*	4.17 Coll. 4.20	6.01 ~~5.33 min~~		.87	2.43	—	—	.87	36% 2.43 | 870 | 35+; 729; 1410; 1215; 195	1.60	1.50	107% 150 | 160 | 1.06+; 150.0; 1000; 900; 100
~~S-18-1st A~~	"			"	6.01		"	"			"				
S-20-2nd ~~S-17~~	? (narrow?)		? Bldg. unknown									? 2.45 | 950 | 38; 735; 2150; 1960; 190			
S-20-1st	narrow? ?		? Bldg. unknown	7.75	?		.95	2.45	.95	2.45*	.95*	39%	?		?
S-12-1st				7.85			1.05	2.28 ~~2.38~~	1.15	~~2.28~~ ~~2.38~~	.98 ~~1.25~~	2.35 | 1.050 | 1.44; 940; 1100; 940; 160 43%	1.25	1.75	71% 175 | 1.250 | 1.71; 1225; 250; 175; 75

3.15 m (meas) Pin .95 sgm

30% W-Sham

315 | 95.0
94.5
.5

25% = 26%

0-18-Sham 3.15

95 | 3.15
55

370 | 95.0
74.0
21.00
18.50
2.50

1949 Final Check-up

V. S. Ham-Andrews

Pueblo-Rancho Pueblo

Sty I-12

Main Gallery

W	R	M	R'	W'	
1.00 seven	2.30	1.10	2.30	1.00 pier	left end
1.00	2.30	1.15	2.30	.95	center
1.10	2.25	1.15	2.25	1.00	right end
1.05	3)6.85 (2.28 6 08 6 25	3)3.40 (1.13	3)6.85 (2.28	3)2.95 (.98 27 25 24 1	
1.05 av.	2.28 av	1.13 av.	2.28 av	.98 av.	

Scaling TAP plan. "F rest on court."

(truffle thicker than Gwen, consistently, bend probably not intentional).

2.28) 1.0500 (46%
912
1380
1368

2.28) .9800 (43%
912
680
684

End Rooms

Left (SE) wall	Rear		Right (NW)
.98	2.25	1.05	2.55
1.00		—	
1.05		1.05	
1.00	2.29	1.05	2.55
3)4.03 (1	3)4.54 (2.27		
av = 1.01		av = 1.05	2.55

tam from home

2.27) 1.0100 (44%
908
1020
1008

2.55) 1.0500 (41%
1020
300

P.N. Pyramids - Stylistic Details

Pyramids - Style.

	Terraces: Corners				Terraces: Outsets ?			Stwy.				Stucco Doc.			Sculpt. Doc.
	Round	Inset	Upper Moldings	Basal Moldings	Front (0,1 or 2)	Sides (0,1 or 2)	Rear (0,1 or 2)	Standard steps?	Widen top + wood?	Balustrade?	"Block"?	Masks at side of stwy.	Low relief mesa stwy?	Other masks?	Panels
J-3	?	?	?	?	?	?	?	x	?	x(?)	x(?)		x ?		L.5
J-4	x	x	x	x	1	2	?	?	?	?	?	ab	?		?
K-5-1-a	x	x	x	ab	2	2	ab ?	x	?	ab	?	x	x	ab	L.7
-b	x	x	x	ab	2	2	ab ?	x	?	ab	?	x	x	ab	L.7
-c	x	x	x	ab	2	2	1 or 2	x	?	ab	?	ab	ab	ab	ab
K-5-2nd	x	x	x	ab	2	2	1	x	x	ab	ab	ab	?	ab	ab
K-5-3d	x	x	x	ab	2	2	1 or 2	x	x	ab	ab	ab	?	ab	ab
R-1-1st	x	x(?)	x	ab	1	?	?	x ?	?	?	x(?)	x	x	?	x (mesa?)
R-3-1st	x	x	x	ab	1	2	?	?	?	?	?	ab	?	ab	ab
R-3-2nd	x	x	x	ab	1	2	?	?	?	?	?	ab	?	ab	?
R-4															
R-5															
R-9															
R-10															
R-16-a -b															
J-29															
O-12															
O-13															

Notes.

1. Block postulated because panel prevents

2. ~~Ks block~~ Block or blocks postulated on Supple. Platform

3. Excavation did not reach expected position of 2nd outset.

4. Inset by mask panels at front; side facing destroyed.

5. Front outset equals mask panel.

P.N. Pyramids Dimensions and Proportions.

(Tables 10)

J-3

J-4

K-5-1-a
-b
-c
K-5-2nd
K-5-3d

R-1-~~[illegible]~~

R-3-1st
R-3-2nd

R-4

R-5

R-9

R-10

R-16-a
-b

(Figures 24)

J-29

O-12

O-13

Pyramids - average Dimensions + Proportions

Base Lines

Pointh.[x]	Length[x]	Height	H-L ind.	P-L ind	Stny width.	Ascend angle.	No. of Terraces	Terrace Batter	Terrace Height	Terrace Width.	Terr. H-W index.	Ahem Mortu circex.	Stny content

Exceptions

Stny

x at base

Stylistic Details.

Stwy. - Balustrades?
Top step wider?
Blocks?

Terraces..

Corners - Round
- Inset
- Other moldings?

Front
1 outset ?
2 " ?

Sides 2 " ?

Rear 2 " ?

Mosiks
Other

	Walls			Rms		Under	
	front	Mod	Rear	fr.	Rear	front	Rear
J-2-2nd	75??	75	75?	1.40??		39% (?) or higher.	
J-7-Sub.	.71	90	same?	1.50	1.55	48%	

Wall Span
Indices
Final checks, 1949

J-9: Galleries

scaling TAP Plan

Front: Rear.

End Rooms

Right (SW). Left (NE)

2.20 rear end — 2.05 (rear end)

2.15 front end — 2.00 (center) + front end

2)4.35(2.18 span — 2)4.05(2.03 span

1.15 — 1.15

1.15 — 1.15

1.15 — 1.15

1.15 — 1.15

outer wall.

2.18)1.1500(52+ = 52%

1090

600

436

164

2.03)1.150(51+ = 52%

1015

350

203

147

52% index (average) for end rooms.

Gallerie Sections

	W	R	M	R'	W'	
Meas. scaled + new TAP plan, left to right	1.18 ~~1.15~~ ~~1.20~~	1.60	1.15	1.68	1.20	left end
	1.20 left pier } 1.20 right pier }	1.67	1.18	1.75	1.20	center
	1.20	1.62	1.08	1.70	1.20 (2 piers)	right end.
	4)4.78(1.19+ = 1.20 av.	3)4.89(1.63 1.63 av.	3)3.41(1.13 1.13 av.	3)5.13(1.73 21 21 1.73 av.	1.20 av. 1.20 av.	

1.18
1.60
1.15
1.68
1.20
6.81

1.63)1.2000(73+ = 74%

~~78~~

1141

590

489

101

1.73)1.2000(69%

1038

1620

~~1384~~

~~236~~

1557

63

1960

Acropolis Palaces - "Front" and "Rear"

The Acropoplis as a whole clearly belongs with the West Group plaza. Just as clearly its three principal numbered courts, and the Minor court of Str. J-17 involve adaptations to the original contours of a high hill.

The complex may be visualized as a mis-shapen rectangle facing SW, with its rear to the NE. This conception of it is justified by the lack of major ceremonial strtures to the NE, except for the temple Str. J-29 far down the slope.

Since there are individual courts, of course not all Acropolis strictures face SW; and the existence of double-range palaces with symmetrical plans complicates the matter of decideding which were front and rear facades of such structures. We have adopted the following as most probably what the Maya would have decided, if required to make the distinction:

	J-2	J-9	J-12	J-11	J-13	J-18	J-21	J-20	J-23
Front:	SW	SW	SE	SW	SW	SW	NE	SW	SW
Front									
Overlooks lower connected architecture	x	X	X			X		X	X
Approached by stairway and/or only axial	X	?	X			?		X	X
Longer/open gallery	X	X		X	X?	X			
Rear prospect partially blocked	X	X	X	X			X		
Rear at rear of Acropolis as a whole					X			X	X

In each case reference is to the earliest phase of the latest known double-range building at the locus . Presumably "-2nd" phases fronted in same directions.

Note that by these criteria the courts are base-surfaces for the <u>rear</u> facades of Strs. J-2, ~~x9x9x~~ J-9 and J-12 and J-18.

Temples

Functional Details

Col altars Sills Center niches Front niches Carta Venetus, Blocks

Bldgs.

1960 Redwoods
Temples only

Page 1a P.1

	C Front wall	D Mid wall	E Rear Wall	F Front span	G rear span	H Total wall	I Front %	J rear %
J-29-A	1.25	–	–	~~1.70~~ Scale 1.65 (TAP shows)	–		79 % (not 74%) Clock Plan	
O-12	1.05	–	?	1.65	–		64%	
K-5-15 B	1.30	–	1.20	2.07			63%	
J-4	1.08	–	?	2.05			53%	
R-5	1.05	–	?	2.10			50%	
O-13	(no data)						?	

Page 1b

1960 Ealing

mirror O
OK —

Opd
1.65 | 1.30
= .79

F/ C
1.70 | 1.2500 | 73 = 74%
1190
600
510
90

F/ C
1.65 | 1.0500 | 63 = 64%
990
600
495
105

F / C
2.07 | 1.3000 | 62 = 63%
1242
580
414
166

F/ C
2.05 | 1.0800 | 52 = 53%
1025
550
410
140

F/ C
2.10 | 1.0500 | 50%
1050
00

Top figures are "average" — consult ain Ken Sheet "X" (1960 label).

1960 Rodlock from sheet X. Fwd Span

W.S. - Indenos, Palaces only (P.2)

Page 2a

Rear Span

Total

Fwd F/C

Rear G/E

Page 2b

	C (W) Front Wall	D (M) Mid Wall	E (W') Rear Wall	F (R) Fr. Span 1960	G (R') Rear Sp. 1960	H thickness + 5 frame	I	J
I-9-15T-D	1.20	1.20 (1.05)	1.20 (1.16)	1.63 (1.67)	1.73 1.73		74 %	69 %
(Fwd span chg →)	1.20	1.13	1.20	1.63	1.73			
I-2-15T-C	1.05 (1.07)	.92	1.05 (1.02)	1.75 (1.65)	1.65 (1.72)		60 %	64 %
				1960	1960			
I-13-B	.80 (.87)	.80 (.85)	.80 (.87)	1.65 (1.62)	1.65 (1.67)		48 %	48 %
I-23	.70	1.02 (1.04)	.70	1.35 (1.40)	1.40		50 %	44 %
I-6-2nd (a) = orig.	1.15	—	—	2.44	—		47 %	—
I-8	.76	—	—	1.60			47 %	—
I-6-R'm3 = avery = I-6-A?	.93 (.90)	—	—	2.15			43 %	—
I-10-A	.60 1960 .55 to .61			1.95 (1.82) (1.88 1960 scaling) Use old "RV" Rodlock 1.90 to 2.00			31 %	—

Front F/C

1.63 | 1.2000 | 74
1171
590
5

1.75 | 1.0500 | 60%
1050

1.65 | .8000 | 48
660
1400
1320
80

1.35 | .7000 | 50%
675
25

2.44 | 1.1500 | 47%
976
1740
1708
32

1.60 | .7600 | 47%
640
1200
1120
80

2.15 | .9300 | 43%
860
700
645
55

1.95 | .6000 | 30+ = 31%
585
150

Rear G/E

1.73 | 1.2000 | 69%
1038
1620
1557
63

1.65 | 1.0500 | 64
990
600
660
25

1.65 | .80 same

1.40 | .7000 | 49%
560
1300
1260
40

Note only the front has been measured — 74% is much significant

Page 3 — Page 3a

	F.V. C	Walls mm D	Rem E	F. Shear F	Rem Shear G	H	I
J-21-13	.75 (.80)	.75 (.80)	.75 (.80)	2.41 (2.43)	2.41 (2.43)		
J-22-(a) (Array)	.70 (.72)	—	—	2.18 (2.22)	—		
J-22-(b)	.70	—	—	2.30	—		
J-18-	.75	.95	.75	2.55	?		
I-11-17-B	.75	.92	.75	2.60	2.60		
I-6-19T (R'mi)	~~.75~~ 1.00 ON .75 .78 .70 .80 3)2.28 (.76 21 18	—	—	2.00 (1.92 to 2.08) 1.960	—		

Page 3b

	From D F/C I	From E G/E I				
J-21-13	31 %	31 %	F/ 4 2.41) .7500	G/ F 2.41) 75.5000 (31 723 270 241 29	Same	
J-22-(a) (Array)	32 %		2.18) .7000 (32 % 654 460 436 24			—
J-22-(b)	30 %		2.30) .7000 (30 % 690 100			—
J-18-	29 %		F/ 2.55) .7500 (29 % 510 2400 2295 105		?	?
I-11-17-B	29 %	29 %	2.60) .7500 (29 % 520 2300 2340		Same	
I-6-19T (R'mi)	39 %	—	2.00) .7500 (37 1/2 % = 37 %			
			600 1500 1400 100			

Page 4a

P. 3

Wall-Sham Underrees

		Walls F. (C)	Walls Rem. (D)	Sham Raw (E)	Sham Fin. (F)	Sham Rem. (G)	(H)	Underrees Fund (I)	Underrees Cont (J)	
9	J-22-b	.70	–	–	2.30	–		30%	–	(Rm 1-B) LS '73
10	J-21-B	.75	.75	.75	2.41	2.41		31%	31%	
11	J-22a (next J-21)	.70	–	–	2.18 (2.00)	–		32%	2.18	(Rm 2-A) LS '73
12	J-18-B	.75	.75	.75	2.55	2.55		25%	25%	arithmetical mistakes (= 29% as on p 3b
13	J-11-197-B	.55 / .75	.92	.75	2.60	2.60		29% (–)	29% (–)	
14	J-6-197 (Rm 1)	.78	–	–	2.00	–		39% (–?)		
15	J-2-191-A (annex) (1964 scaled)	.50	–	–	1.73	–		29%	–	

Page 4b

W-Sham Under.

	F / C	G / E	
1	2.30 .7000 30=30 690 100	–	
2	2.41 .7500 31 723 280 241 29	2.41 .7500 same	
3	2.18 .7000 32 654 460 436 24	2.00 70.00 35% 600 1000 1000	1973 – comes from chart plan
4	2.55 .7500 25% 510 1400 1275 125	2.55 .7500 same	
5	2.60 .7500 29 (–?) 522 2300 2340	2.60 .7500 same, but no minus	
6	2.00 .7800 39 600 1800 1800	–	
7	1.73 .5000 29 346 1540 1557	–	

Note by LS, 1973:

Pages 4a-4b duplicate (?) pp 3a-3b, adding J-2-154-A (Rooms 5 and 6 added at SW end.).

Underrees same as on p 3b.

P. 4a gives 2.55 new room, marked ? on p 3a. Though p 4a is the final version

also 4a gives both values for J-11 fund wall (on p 3b)

Use p. 4a-4b

Pier - Pooings

1960 - Dimension to be re-checked - from "sheet x"

Pier is x% of Lintel span (supports two ½-spans)

Dimension from old ("converted") "sheet x" (1960 total)

	Pier	Pooing		Index	
9-1st-D	1.20	1.70	1.70) 1.2000 (70 = 1190, 100	70%	
J-2-1st-C	1.25	1.70	1.70) 1.2500 (73 = 1190, 600, 510, 90	74%	
J-23	1.50	1.75	1.75) 1.5000 (86 = 1400, 1000, 1050; 6 + 34	86%	
J-13-B	?	1.70	180) 1.0000 (55 = 900, 1000, 900, 100	58%	← ck.
J-6-2nd-B	1.20	1.70	(no constr)	= 70%	
J-6-2nd-A (annex) = k'ms	1.25	1.75	1.75) 1.2500 (71 = 1225, 250, 175, 75; 35	71%	
J-8	1.20	1.88	1.88) 1.2000 (63 = 1128, 720, 564, 2256; 6/5	64%	
J-21-B	1.00	1.75	1.75) 1.0000 (58 = 875, 1250, 1125, 125, 35; 73, 4L	58%	
J-22 (b)	1.15	1.70	1.70) 1.1500 (68 = 1020, 1300, 1190, 110; 3 4	68%	(embrs unit?)
J-22 (a) - Pier? unlane?					
J-18-B	1.30	2.15	2.15) 1.3000 (60 = 1290, 100	60%	
J-11-1st-B	1.28	1.85	1.85) 1.2800 (69 = 1110, 1700, 1665, 30; 4 7	69% (⊥ form)	←
J-10-1st-A	1.25	1.80	1.80) 1.2500 (70 = 1260, 90	70%	
J-6-1st (k'ms"	1.23	1.70	170) 1.2300 (72 = 1190, 400, 340, 60	72%	
J-2-1st-A ("annex")				?	

next J-21 ?

amor

	J 2	J-9	J-12	J-11	J-13	J-18	J-21	J-20	J-23
Owelooks lower areas	SW	SW	SE			SW		SW	SW
Approached by Stairs	SW?	SW?	SE			SW?		SW	SW
Larger open gallery	SW	SW		SW	SW	SW			
Room prostrate, partially blocked	X	X	X	X		X	X		
Room at rear of camp as whole					X			X	X

Vault Table (Condensed) Oct. 1936 C+C

THE UNIVERSITY MUSEUM
THE AMERICAN SCHOOLS OF ORIENTAL RESEARCH

TABLE 3

Piedras Negras Vaults

Palaces	Wall	Span	Index*	Remarks
J-9**	1.20 new 1.16	1.73	70*** 69 (new)	
J-2**	1.07	1.75	59	
J-13**	.80	1.70	48***	(no piers)
J-8	.76	1.60	47***	
J-6-2nd	1.15	2.44	47	(as reconstructed)
J-6 Room 3	.93	2.15	43	(built against J-6-2nd)
J-6 Room 1	.78	2.00	39	(build over and against J-6-2nd)
J-21*	.75	2.41	31***	
J-22-a	.70	2.18	32***	(built against J-21)
J-22-b	.70	2.30	30***	
J-18**	.75	2.55	29	
J-11**	.75	2.60	29	(T-shaped piers)
J-23**	.70	1.40	50	(Heavy comb ?)
J-10-1st	.60	1.95	~~31~~*** 40	(lack of space ?) ?
J-10-2nd	?	?	? ?	(largely destroyed)
J-2 Room 6	.50	1.65	30	(lack of space ?)
Pyramid Temples				
O-13	?	?	?	(study incomplete)
J-29 (Phases B&C)	1.16	1.75	66	(no piers)
J-29 (Phase A)	1.25	1.70	74	(built over Phase B)
O-12	1.05	1.65	64***	
K-5-1st	1.21	2.17	56	
J-4	1.08	2.05	53	
R-5	1.05	2.10	50***	

*The order within each group is believed to be approximately chronological except for palace units between lines.

**Double range, index covers main galleries.

*** Excavation incomplete, index subject to correction.

see "Sheet X", and correction sheets of that (yellow) as 1973

	W	R	M	R'	W'	C	D	E	F
R-1	0.97	1.55	--	--	--	61%	1R2		
R-3	1.30	1.55?	--	--	"Z"	84% ?	1R		
R-9	1.25	1.70	--	--	?	74%	1R		
R10	1.15	2.35 ??				40% ??	1R		
R16	1.20?	2.10?	--	--	?	59%	1R		

1973,
LS.

R1 1.55 | .970 | 60 = 61%
930
140

R-3 1.55 | 1.300 | .84%
1240
600
620
-16

R9 1.70 | 1.250 | 73 hub.
1190 = 74%
600
510
90

R10 Holes not in place.
LS big drawing scales"
W = 0.95
R = 2.35
W' = 0.95
"x"s hub gave 1.15 for W, nothing else
Dubious dimensions.

2.35 | .950 | 40%??
940

R16 Scaling big drawing
2.10 | 1.250 | 59%
1050
2000
1890
110
Dubious

240

2.70
25
2.95
- 1.25
1.70

Non-rotated
Pyr. Template.
File in PN. Bk. 81
LS 1973

Oversized item not scanned

as in published Summary Tables

1936 ??? Clearly not typed. Work sheets not surely found

Key to Tables 1, 2, 3, 4, & 5.

A Structure No.

B Type of Substructure.

W C Wall thickness - front

M D " " -medial if any

W' E " " -rear if free-standing.

R F. Room width - front; equals span if vaulted.

R' G. " " - rear ; " " " "

H. Total width of building above plinth; equals sum of Cols. C to G.

I. Per centage on cross-section occupied by walls; equals sum of Columns C to E divided by Column H, to nearest percent.

J. Ratio of front wall thickness to front room width; equals Col. C divided by Col. F, to nearest per cent.

K. Ratio of rear wall thickness to rear room width; equals Col. E divided by Col. G, to nearest per cent.

L. Maximum depth of debris on floor of room where section is taken; usually the front room; maximum usually is at rear of room.

M. Minimum depth of debris on above floor, within inner side of front wall; minimum usually at front of room.

N. Average depth of debris; equals average of Columns L and M.

O. Answer to question: "Was there a profusion of stone slabs in debris on the floor?"

P. Was there positive independent evidence of stone vaulting on building?

Q. General location: West Group, Acropolis within West Group, East Group, South Group, or Southeast Section.

R. Dates ~~Carved~~ on supposed lintels and a throne associated with buildings; readings according to Morley.

Notes: (x) indicates no ~~meas~~ statement because feature is absent in building.
(?) indicates no statement because feature is fallen, or note was not recorded; except in case of J-6-2nd (b) where
(*) it expresses doubt of the actual existence of a vault at the point under consideration.
(*) indicates an approximate figure, based on photographs, inference from known facts, &c.

Tables 1 + 2.

Table 1 : Double-range Buildings.

		VAULTED Walls			Spans			Per Cents		
A	B	C	D	E	F	G	H	I	J	K
J-9	Plat.	~~1.30~~ 1.20	1.05	1.16	1.67	1.73	6.91	51	~~75~~ 72	69
J-2	Plat.	1.05 1.07 av	.95 .92 av	~~1.05~~ 1.02 av	1.70 1.65 av	1.70 1.72 av	~~6.45~~ 6.38	47	~~52~~ 65	~~62~~ 59
J-13	Plat.	.87*	~~1.02~~* .85	.87	1.62*	1.62	~~6.00~~ 5.83	~~47~~ 44	54	54
J-23	Plat.	.70	1.04	.70	1.40	1.40	5.24	47	50	50
J-21	Plat.	.80	.80	.80	2.42	2.43	7.25	33	33	33
J-18	Plat.	~~.80~~* .75	.95	~~.80~~ .75	~~2.60~~* 2	~~2.60~~ 2.55	7.75	33	~~31~~ 29	~~31~~
J-11	Plat.	~~.82~~ .85	.95	.70	2.88	2.60	7.65	28	~~18~~ 26	~~27~~ 17
		* NON - VAULTED - STONE WALLED								
U-3	Plat.	1.20	1.50	1.20*	1.70	1.70*	7.30	53	71	71*
J-12	Plat.	1.05*	1.10	1.05	2.30*	2.30	7.80	41	46*	46

Table 2: SINGLE*RANGE BUILDINGS - FREE STANDING

		VAULTED -								
J-24	Pyr.	1.30			1.65				79	
K-5	Pyr.	~~1.40~~ 1.20	×	~~1.65~~ 1.20	2.17	×	~~5.20~~ 4.55	~~50~~	~~65~~ 56	~~77~~ 56
R-12	Pyr.	1.10 1.05	×	~~1.50~~ 1.20	1.80 1.65	×	~~4.40~~	~~58~~	~~61~~ 64	~~83~~ 65
R-5	Pyr.	1.05	×	1.23	2.10	×	4.38	~~52~~	50	~~50~~
J-4	Pyr.	~~1.10~~ 1.08 av	×	~~.75~~ .75	2.05 2.08	×	3.90 3.05	47	~~54~~ 52	37
F-3	Plat.	.65	×	.75	1.65				40.	
F-4	Rou.Pl.	.60			2.50				24	
		NON*VAULTED - Stone walled.								
R-3	Pyr.	1.30	×	1.30*	1.50	×	4.10	63	87	87
J-20	Plat.	1.00	×	1.00	3.20	×	5.20	38	31	31
J-17	Plat.	.70	×	.75*	2.90	×	4.35	33	24	26
K-5-3d	Pyr.	1.10	×	1.10*	5.00	×	7.20	31	22	22
V-1-2nd	Plat.	.35	×	.35	2.60	×	3.30	21	13	13

Petros Nogues Lenten Sallerthwaite

Oct. 1936 Indices

J-9 Front Rear

163 | 1.200 | 736 = 74%
1142
590
489
1010
978

173 | 1.20 | 698 = 70%
1038
1620
1487
1330

(Tubal 1936 Todo
ovo - ~~1200~~ 1960.)

J-2 Front Rear

1.75 | 1.050 | 595 59%
885
1650
1575
750
575

1.65 | 1.050 | 64 = 63%
990
600
660

J 13 Front Rear

165 | 800 | 485 = 48%
660
1400
1320
800
825

170 | 800 | 47%

J-8

160 | 760 | 475 = 47%
640
1200
1120
800
800

J-6-nuel

2414 | 1150 | 47%
976
1740
1708
32

J-4

205 | 1080 | 526 = 53%
1025
550
410
1400
1230

J-6 Run 3

215) 930) 43%
860
700
645
55

J-6 Run 1

200) 7800) 39%
600
1800
1800

J-21

241) 750) 31%
723
270
241

J-22-a

218) 700) 32%
654
460
436

J-22-b

230) 700) 304 = 30%
690
1000
1920
80

J-18

Front

2

Rear

255 | 750 | 29%
510
2400
2295
105

J-11

2.60 | 750 | 29%
520
2300
2340

J-23

Front

135 | 700 | 51% = 51%
675
250
135
1150
945

Rear

140 | 700 | 50%
700

J-10-1 SE

195 | 600 | 307 = 31%
585
1500
1365
3

J-2 Rim 6

165 | 500 | 30%
495

Tables 1, 2 + 3

Pebbles - Pebble

Stratigraphy? Valley Pos. an. of valley? Location

Mutar Floor? Cohesiveness? Bearing?

	max L	min M	av. N	O	P	Q	R
(J-9)	1.50	1.50	1.50	Yes	Yes	Acrop.	
(J-2)	1.40	1.00	1.20	Yes	Yes	Acrop.	
(J-13)	1.65	1.10	1.38	Yes	Yes	Acrop.	
(J-23)	1.60	1.00	1.30	Yes	Yes	Acrop.	
(J-21)	2.25	.75	1.50	Yes	Yes	Acrop.	
(J-18)	2.25	1.00	1.63	Yes	Yes	Acrop.	
(J-11)	1.80	1.00	1.40	Yes	Yes	Acrop.	
(U-3)	.50	.15	.33	No	No	South	
(J-12)	1.00*	.35*	.68	No	No	Acrop.	
(K-5)	1.50*	1.30*	1.40	Yes	No	West	9.9.8.?.?.
(O-12)	1.00*	1.00*	1.00	?	No	East	
(R-5)	1.10	1.00	1.05	Yes	Yes	South	9.11.15.0.0.
(J-4)	~~1.60~~ 1.59	~~1.20~~ 1.29	~~1.40~~ 1.44	~~?~~ YES	No	West	Yes Yes
(F-3)	1.60	1.49	1.55	YES	NO	N.E. Group	—
(R-3)	.80	.70	.75	No	No	South	9.5.5.?.?.
(J-20)	1.00	.80	.90	No	No	Acrop.	
(J-17)	.80	.80	.80	Few	No	Acrop.	
(K-5-3d)	×	×	×	×	No	West	
(V-1-2nd)	×	×	×	×	No	S.E.	

Tables 3, 4 + 5

Left end only – see TP plan; supplementary sheet

Table 3 : SINGLE-RANGE "BUILT -ON" VAULTED BUILDINGS.

A	B	C	DD	EE	F	GG	H	I	J	K
J-6-2nd, (a)	Plat.	1.25	×	×	2.50	×	×	×	50	×
J-8	Plat.	.75	×	×	1.59	×	×	×	47	×
J-10	Plat.	.58	×	×	1.25 (1.88)	×	×	×	46 (48)	×
J-6 (Rm.3)	Plat.	.90	×	×	2.15	×	×	×	42	×
J-6 (Rm.1)	Plat.	.75	×	×	2.10	×	×	×	36	×
J-22	Plat.	.74	×	×	2.35	×	×	×	37	×
J-2 (Rm.6)	Plat.	.50	×	×	1.65	×	×	×	30	×
J-6-2nd, (B)	Plat.	.75??	×	×	2.90	×	×	×	26??	×

Table 4: PYRAMID SUPERSTRUCTURES - NON-VAULTED AND SINGLE-RANGE PROBABLY STONE WALLED BUILDINGS? ~~NON-VAULTED~~.

R-1	Pyr.	.90	×	?	2.15?	×	?	?	?	?
R-4	Pyr.	?	×	?	?	×	?	?	?	?
R-9	Pyr.	.85	×	?	?	×	?	?	?	?
R-10	Pyr.	1.10	×	?	?	×	?	?	?	?
R-16	Pyr.	1.30*	×	?	?	×	?	?	?	?

Table 5: TWO VAULTED BUILDINGS OF COMPLEX PLAN

O-13, (Rear Rms)	Pyr.	.90	1.10	1.40	1.30	1.00	5.70	60	69	140
P-7, (Sant'y)	Plat.	.82	2.40	.73	2.20	×	3.75	41	37	33
P-7 (outer)	Plat	.80	.90	.90	3.70	3.80	10.10	26	22	24

Type of Substr.	Wall thicknesses: Front	Wall thicknesses: Medial	Wall thicknesses: Rear	Room widths: Front	Room widths: Rear	Total width above plinth	Per cent walls	Per cent front wall to front room	Per cent rear wall of rear room

	Depth of Debris			Protrusion of slope	Positive evid. of vaulting?		
	Max	Min	av				
	L	M	N	O	P	Q	R
(J-6-2nd, (a)	x	x	x	x	Yes	Acrop.	
(J-8)	2.00	1.50	1.75	Yes	Yes	Acrop.	
(J-10)	2.00	1.50*	1.75	Yes	Yes	Acrop.	
(J-6, Rm.3)	2.20	1.75	1.98	Yes	Yes	Acrop.	
(J-6, Rm.1)	2.00	1.00	1.50	Yes	Yes	Acrop.	9.17.15.0.0
(J-22)	2.25	1.00	1.63	Yes	Yes	Acrop.	
(J-2) Rm.6	2.00*	1.00*	1.50	?	Yes	Acrop.	
J-6-2nd, (b)	x	x	x	x	No	Acrop.	
(R-1)	.90	.90	.90	No	No	South	
(R-4)	.75	.75	.75	No	No	South	
(R-9)	.60	.40	.50	No	No	South	
(R-10)	.85	.30	.58	No	No	South	
(R-16)	.35	.35	.35	No	No	South	
(O-13, Rear Rms.)	3.00*	3.00*	3.00	Yes	Yes*	East	
(P-7, Sanct.)	~~1.80*~~	~~1.80*~~	~~1.80~~	~~Yes~~	Yes[1]	East.	9.15.18.3.13
(P-7, outer)	1.60*	1.60*	1.60	No	Yes[1]	East.	

1 Believed to be combination vault and beam and mortar roof, with vaulted part standing or, at front, fallen outside building.

	Max	Min	Aver.	Protrusion of slope?	Positive evid. of vaults.		
	Debris Depth						

3.75 | 900 750 | 1500 1200 | 315

	Outer Terrace Doors		Piers	
	Max	Min	Max.	Min
1.60+				
J-4	1.63*	1.56		
J-29	?			
K-5 1st	1.35	1.35		
K-5-3rd	3.60	3.60	1.25 (± scale)	
O-12	1.60	1.40		
O-13	2.70	.95		
R-1	1.90	X		
R-3	1.55	X		
R-4	?	?		
R-5	1.50	1.40		
R-9	1.60	?		
R-10	?	?		
R-16	1.70*			
O-15 entr.	1.21	1.12		
O-15 outer	2.10	X		
O-16	2.93	X		
O-F8	3.71	?	1.00	.95

arch.

	Outer Doorways		Pier	
	Max	min	Max	Min
J-9	1.75	1.28	1.72 ~~1.45~~	1.12
J-2	1.80	1.40	1.30	1.20
J-13	1.85	1.75	X	X
J-23	1.70	1.57	1.60	1.52
J-21	1.75	1.65	1.08	1.05
J-18	2.16	2.07	1.42	1.27
J-11	1.89	1.77	1.26	1.25
J-6 2nd (W)	?	?	?	?
J-8	1.88	1.68	1.45	1.20
J-10	?	?	?	?
Room 3 of J-6	1.80	1.65	1.25	1.20
Rm 1 of J-6	1.70	1.65	1.25	1.15
J-22	?	?	?	?
Rm 5+6 of J-6	1.65	1.25	X	X
P-7	3.15	2.95		
G-3	2.25	?		

P7 door width
F-end: 2.50 (north)
3.15 (middle)

Key to Table 6

S Height of Vault-spring above floor.

T Approximate angle of soffit slope of main vaults, based on measurements of remnants in position.

U Vault height; equals vertical distance from vault spring to under side of cap-stones. These are computed figures based on approximate soffit slopes and therefore subject to considerable error, except in case of J-8, Room 6 of J-2, and Sancturary of P-7, where cap-stones are in place.

V. Approximate roof-height; equals vertical distance between floor and top of roof, assumming flat roof; where given, indicated by floor levels behind "built-in" buildings.

V. Cap-stone height; equals vertical distance between floor and under side of cap-stones, that is the maximum height of rooms; equals sum of Columns S and U and therefore subject to same errors as in Coulmn U.

W Thickness of roof-cap; equalsb vertical distance from under side of cap-stones to upper surface of roof, assuming flat roof; equals Column X minus Column V.; approximations only.

X Approximate total height of building; equals sum of Columns S, U and W.

Y Minimum Known width (distance from doorway to doorway) of piers in outer walls. Maximums do not vary greatly from this figure.

Z Maximum Known width of doorways (distance between jambs); Minimums do not vary greatly from these figures.

Notes: (x) indicates no statement because feature is absent in building.
(?) indicates no statement because feature is fallen, or note was not recorded.
(*) indicates an approximate figure, based on photographs, inference from known facts, &c.

Table 6.

Table 6: MISCELLANEOUS DATA ON VAULTED BUILDINGS OF TABLES XX 1, 2, 3 and 5.

A	S	T	U	V	W	X	Y	Z
J-9	2.06	~~29~~ 38	~~1.22*~~ 1.24	3.28*	.		~~1.12~~ 1.25 to 1.75	1.70 1.25 to 1.75
J-2	~~2.50*~~ 2.50	~~34*~~ ?	? 1.90*	~~3.45*~~ ?	? 1.74	?	1.25 ok 1.20 to 1.30	~~1.78~~ 1.80 (1.75 ave for gallery) (min. 1.40 to 2.00)
J-13	?	?	?	?	?	?	x 1.00	1.75 1.80 (scaled 1960)
J-23	2.10	?	1.55*	3.65*	?	?	~~1.50~~	1.70 no o pier
J-21	?	?	?	?	?	?	1.08	1.75
J-18	?	?	?	?	?	?	1.27	2.16
J-11	2.25*	~~27.5~~ 24	2.52*	4.77*	?	?	1.25	1.83
J-29	2.25*						1.25	1.67
K-5	?	?	?	?	?	?	1.25	1.80
O-12	?	?	?	?	?	?	1.20	1.60
R-5	?	?	?	?	?	?	1.30	1.50
J-4	?	?	?	?	?	?	x	1.55
F-3 F-4	?	?	?	?	?	?	no piers?	1.00 1.50 capstones slide on surface
J-6-2nd (a)	2.00	~~33.5*~~ 30	~~1.32*~~ 1.75	~~3.32*~~ 3.75	.58*	3.90*	?	?
J-8	2.03	30*	1.17	3.20	?	?	1.20	1.88
J-10	2.00*	?	?	?	?	?	?	?
J-6 (Rm.3)	2.16	~~28.5~~ 28.5	~~1.67*~~ 1.52*	~~3.83*~~ 3.68*	~~.43*~~ .47*	~~4.26*~~ 4.15	~~1.20~~ 1.25	~~1.70~~ 1.65-1.80
J-6 (Rm.1)	2.17	? 23*	? 1.87*	? 4.04	? 47?	~~4.26*~~ 4.61	~~1.20~~	1.70 (1.65 to 1.70)
J-22	2.18*	?	?	?	?	?	? 1.15-1.25	?
J-2 (Rm.6)	~~2.25~~ 2.50	?	.95 ok	~~3.20~~ 3.45	?	?	x	1.25 ok
J-6-2nd (b) ?	2.00?	? 30?	? 2.10*	? 4.10*	? 48?	? 4.57?	?	?
O-13 (Rear Rooms)	?	?	?	?	?	?	x	1.55
P-7 (Sanct.)	.90	35 27 ave 1.45	1.75	2.65	?	?	x	.71
P-7 (Outer Rooms)	~~3.20~~ 3.26 ave	~~22~~ 23 ave 1.45	~~1.25~~ 1.1	?1	?	?	2.90	2.50 (combined ave of wider (3.5))

1 Vault height of P-7 outer, projecting known slope, would be 4.18; using 30° would be 2.93; using 27° " " 3.34.

Palaces - Type 1

Pyr Temples

Palaces - Type 2

Vault spring height | Approx. vault slope | Vault height | Capstone height | Roof thickness | Total height | Min. pier width | Max. outer doorway width

Table 7. PIER AND DOORWAY WIDTHS IN NON-VAULTED BUILDINGS.

A	Y	Z
U-3	1.60	2.25
J-12	1.20	1.77
R-3	x	1.55
J-20	?	?
J-17	x	.75
K-5-3d	1.20	3.65
V-1-2nd	?	?
R-1	x?	1.95
R-4	?	?
R-9	1.00	1.60
R-10	?	?
R-16	?	?

365) 120.0 (33%
1095
1050

Key to Table 7:

A. indicates Structure number.

Y indicates minimum known width of piers.

Z indicates maxiumum known width of doorways.

Notes: (x) indicates no statement because feature is absent in building.
(?) indicates no statement because feature is fallen or note not recorded.

	Min. Pier width	Max outer doorway width	
O-4		.75	height = 1.00±
S-2		.90	
S-4		1.00	" = 1.10

vaulted?

Table 8

TABLE 8: Interior doorway widths; (#) equals known to be vaulted.

	Front to Rear		To End Rooms.	
	Min.	Max.	Min.	Max.
J-9	.70	1.40	.75	.80
J-2	1.25	1.60	x	x
J-13	?	?	.81	?
J-23	.75	.75	.75	1.05
J-21	.85	?	.70	.85
J-18	.75	.80	.85	?
J-11	.70	1.25	.70	?
- Non-Vaulted -				
U-3	x	2.00*	x	x
J-12	.70	1.00	.68	.75
- Two Vaulted Buildings of Complex Plan -				
O-13 (Rear Rooms)	x	1.55	x	x
P-7 (outer Rooms.)	.90	1.05	x	x

Note: In Structures J-9, J-13, J-21, J-18, J-11 and J-12 there probably are doorways not visible without further excavation; Table gives figures for known doorways; where only one is known it is placed in minimum column unless it is kown to be the only doorway, when it is placed in the maximum column.

(*) equals approximation based on known jamb and contours of debris.

Rdghed. by DOK, Jan. 1935

TABLE OF CERTAIN CROSS-SECTION AND FACADE MEASUREMENTS

Structure:	J-9, ~~R'm 1-4~~	J-2, R'm 1-4	J-6, R'm 3	J-6-2nd	J-6, R'm 1	J-2, R'm 6
Walls:	6					
Front	1.30	1.07	1.90	.75	.75	.50
Medial	1.05	1.92	x	x	x	x
Rear	1.16	1.02	x	x	x	x
Rooms:						
Front	1.67	1.65	2.10	2.90	2.10	1.65
Rear	1.73	1.72	x	x	x	
Spring-height	2.06	2.50*	2.16	2.00	2.17	2.50
Vault-height	1.24	.90*	1.52*	2.10 *	1.87*	.95
Soffit-angle	28 deg.	34 deg.	28 deg	30 deg.	23 deg*	32 deg.
Thickness over cap stones	.85 .85*	.74*	.47*	.46*	.47*	.55*
Doorways						
Outer:						
Max.	1.75	1.80	1.80	?	1.70	1.25
Min.	1.28	1.40	1.65	?	1.65	x
Inner:						
Max.	1.48	1.60	x	?	x	x
Min.	.78	1.23	x	?	x	x
Pier Widths:	~~1.72~~		1.25			
Max.	1.72	1.30	1.25	?	1.25	x
Min.	1.12	1.20	1.20	?	1.15	x
Average: Debris Depth	1.50	1.20	1.75	?	1.50	1.75**
Indices (%)						
A.	69	59	43	26	36	30
B.	51	47	x	x	x	x
C.	31	27	x	x	x	x
D.						

* Asterisk indicates measurement on a theoretical restoration based on data believed sufficient for close approximations.

** Double asterisk indicates approximation where measurement not made.

	Rim Width	Pier Thick	Pier width	Door width	W-S Index	V-S-Pier Index	Pier-Door Index	Pier Shape Index
J-29	1.65	1.30	1.25	1.60	79	27	128	96
					10	3	-4	
J-9	~~1.60~~ 1.67	~~1.20~~ 1.20	1.25	1.65	69 (new)	25 (front)	1.32	104
					10	3	-4	
J-2	1.72	1.02	1.25	1.70	59	23	1.36	123
J-13	1.62	.87	(3.85)	1.75*	54	29(?)	-4 *	*
J-6-2nd	2.50				12	3		
J-8	1.60	.76	1.21	1.70	47	20	1.40	160
J-6-2nd	2.50	1.15	1.20	1.70	46	20	0	
J-6, R'm3	2.10	.90	1.25	1.75	43	19	1.40	139
R'm1	2.10	.75	1.20	1.70	36	18	-27	
J-21	2.43	.80	1.05	1.75	33	15	1.67	130
J-22d	2.22	.72	?	?	32	?	~~+14~~	
J-22-b	2.35	.74	1.15	1.75	31	15	1.53	155
J-23	1.40	.70	1.55	1.60	50		-12	
J-18	2.55	.75	1.30	2.15	29	14	1.65	162
					5	0	+23	
~~J-6-2nd~~	~~2.50~~ ~~2.90~~	~~1.15~~ ~~.75~~	~~1.20~~ ~~1.20~~ (?)	~~1.70~~ ~~1.70~~ (?)	~~46~~ ~~26~~	~~20~~ ~~14~~ (?)	~~1.42~~	~~1.60~~
					0	24	-26	
J-11	~~2.70~~ ~~2.85~~	.75	1.28	~~2.00~~ ~~2.16~~	28	~~12~~ 14	1.68	~~170~~
J-11								
J-23	1.40	.70	1.55	1.60	50	25	1.04	221
J-10	1.25	.58	?	?	46	?	?	?
R'-6		.50	x	1.25				x
R'm1	2.10	.75	1.20	1.70	36	18	1.42	1.60

3.85 | 1.75

2.50 | 1.150 (469)
1000
1500
1500

2.55 | .750 (294)
510
2400
2295
1050

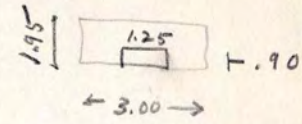
R'm 3

P.W. 1.25
P.W. 1.75
3.00
× 1.95
1500
2700
300
5.8500 gr. an

P.T. .90
½ R.W. 1.05
1.95

1.25
× .90
1125
1.1250 m.an.

5.85) 1.120
585
5350
5265
850
585



.191+ = 19%

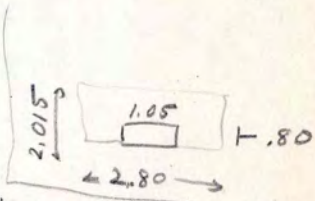
J-21

P.W. 1.05
P.W. 1.75
2.80
× 2.015
1400
280
0
560
5.64200 gr. an

P.T. .800
½ R.W. 1.215
2.015

1.05
× .80
840
.8400 m.an

5.64) .840
564
2760
2256
5040
4512
528



.148+ = 15%

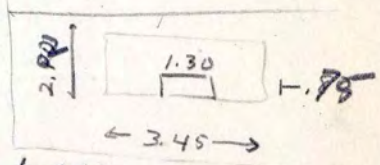
J-18

P.W. 1.30
P.W. 2.15
3.45
× 2.02
690
0
690
6.9690 = .697

P.T. .75
½ R.W. 1.27
2.02

1.30
× .75
650
910
.9750 m.an

6.97) .9750
697
2780
2788
2640
2172
468



.14 = 14%

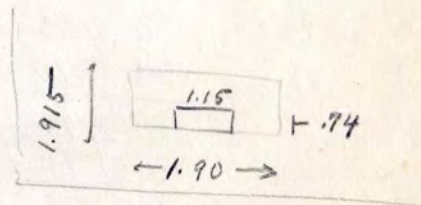
J-22(b)

P.W. 1.15
P.W. 1.75
2.90
× 1.915
1450
290
2610
290
5.553 50 gr. an
= 3.97 gr. an

P.T. .740
½ R.W. 1.175
1.915

1.15
× .74
460
805
.8510 m.an

5.55) .850
555
2950
2775
1750
1665
85

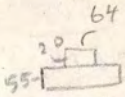


.153 = 15%

(over)

J-10

2.90
75
365
250
1.15



75
40/5

P.W. 1.28
P.W. 2.00
3.28
× 2.10
3280
656
6.8880

P.T. .75
½ R.W. 1.35
2.10
525
75
1.0125

1.28
× .55
640
640
.7040 +
+ .1280
.8320

.20
× .64
80
120
.1280

6.888 | .8320 | 135 +
6888
24320
20664
36560
34440
= 14

J-6 - 2nd

P.W. 1.20
P.W. 1.70
2.90
× 2.40
11600
580
6.9600

P.T. 1.15
½ R.W. 1.25
2.40

1.20
× 1.15
600
120
120
1.3800

6.95 | 1.380 | 198 = 20%
695
6850
6255
7.5950

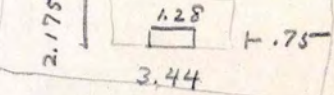
J-11

P.W. 1.28
P.W. 2.16
3.44
× 2.175
1720
2408
344
688
7.48200 per area

P.T. .750
½ R.W. 1.425
2.175

1.28
× .75
640
896
.9600 per area

7.48 | .960 | 128 = = 12%
748
2120
1496
6240
5984
256



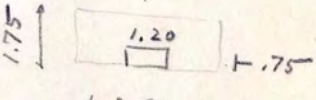
R'm 1

P.W. 1.20
P.W. 1.70
2.90
1.75
1450
2030
290
5.07 50 per area

P.T. .75
½ R.W. 1.05
1.75

1.20
× .75
600
840
.9000 per area

5.07 | .900 | 177 = 18%
507
3930
3549
3810
3549
261



J-29 -

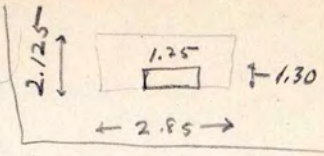
P.W. 1.20
P.W. 1.65
2.85
× 2.035
1425
855
0
570
5.79975 gros an.
= 5.80 gr. an

P.T. 1.200
½ R.W. .835
2.035

1.25
× 1.30
375
125
1.62 = gr. an

6.06 / 1.62

5.80 | 1.620 | .266+ = 27%
1212
4080
3636
4440
3636



J-9

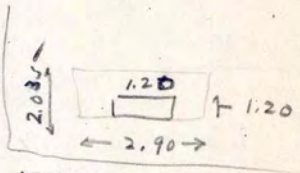
Frent

P.W. 120
P.W. 165 (?)
2.85
× 2035
5.80 gr. an.

P.T. 1.20
½ RW .835
2.035

1.20
× 1.20
240
120
1.4400 gr. an

5.80 | 1.440 | .249 = 25%
1160
2840
2320
5200
5220



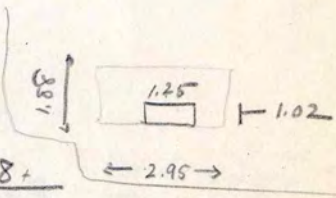
J-2

P.W. 1.25
P.W. 1.70
2.95
× 1.88
2360
2360
295
5.5460 gr. an.
= 5.55

P.T. 1.02
½ R.W. .86
1.88

1.25
× 1.02
2.50
0
125
1.2750 gr. an
= 1.28

5.55 | 1.270 | .228+ = 23%
1110
1600
1110
4900
4440
460



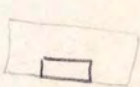
J-13

P.W. 3.85
1.75 +
5.60
× 1.68
4480
3360
560
11.4080
= 11.41

P.T. .87
½ RW .81
1.68

3.85
.87
2695
3080
3.3495

11.40 | 3.340 | .293+ = 29%
3280
10600
10160
4400
3420

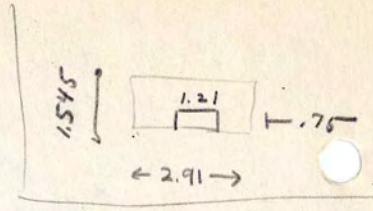


J-8

P.W. 1.21
P.W. 1.70
2.91
× 1.545
1455
1164
1455
291
4.49595 gram

P.T. .750
½ R.W. .795
1.545

1.21
× .75
605
847
.9075 pram
= .91 pram



4.49) .910 (.202+ = 20%
898
1200
1898
302

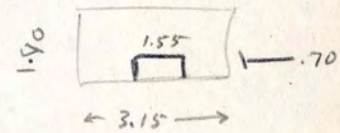
Extra

J-23

P.W. 1.55
P.W. 1.60
3.15
× 1.40
1260
315
4.410 grams

.70
½ RW .70
1.40

1.55
× .70
1085
1.085



4.41) 1.080 (244 = 25%
882
1980
1764
2160
1764
396

J-6-2nd

P.W. 1.20
P.W. 1.70
2.90
2.20
580
580
6.38

P.T. .75
½ RW. 1.45
2.20

1.20
× .75
600
840
.900

6.38) .900 (.141 = 14%
638
2620
2552
680

	Pier-Shape Index	Pier-Floor Index
J-29	1.30) 1.250 (.96% 1170 800 780 200	1.25) 1.60 (1.28% 125 350 250 1000 1000
J-9	1.20) 1.25 (1.04% 120 500 480	1.25) 1.65 (1.32% 125 400 375 250 250
J-2	1.02) 1.25 (1.227 = 123% 102 230 204 280 204 760 714	1.25) 1.70 (1.36% 125 450 375 750 750
J-8	.75) 1.21 (160% 75 460 450	1.21) 1.70 (1.40+% 121 490 484 60
R'm 3	.90) 1.25 (1.388 = 139% 90 350 270 1800 7200 80	1.25) 1.75 (1.40% 125 500 500

Per-Pour Index

J-21

.80) 1.05 (130 %
80
250
240

1.05) 1.75 (1.666 = 1.67 %
105
700
630
700

J-18

.80) 130 (162.5 %
80
500
480
200
160
400

1.30) 2.15 (1.65+ %
130
850
780
700
650

J-22(b)

.74) 1.15 (1.55+ = 156 %
74
410
370
400
370
300

1.15) 1.75 (1.53 %
115
600
565
350
345
5

J-11

.75) 1.28 (170 % + [illegible]
75
530
525

1.28) 2.16 (1.68 % + [illegible] = 168
128
880
768
1120
1124

R'm 1

.75) 120 (160 %
75
450
450

1.20) 1.70 (1.416 = 1.42 %
120
500
480
200
120
800
720

J-23

.70) 1.55 (221 %
140
150
140
100
70

1.55) 1.60 (103+ = 104
155
500
465
1350

J-29 to ~~J-8~~ K'm. Pier & doorways (widths) approx. constant. (128 to 1.40)
Piers being loaded primarily by decreased thickness
- ~~very~~ v.s. lindex, comp. lindex, drops

J-13 - do. (no piers?) 10-3; 10-3; 12-3. 4-1 (board ~~44~~ 3 or 4 to 1.

J-12 - J-8

J-8 to J-21 Pier unit to shrinks + bits + plays hard in
Comp. lindex - 10:4 (2.5 to 1)

J-21 to J-18 - Pier unit rises to comp. for thermo wall or under room,
keeping both lindices close together. 2:0; 0:1.

J-18 to J-6-2nd - Pier drops, two door more, to comp. for under room 5.0 (comp
idex maintained as was - pier strains the same

J-6-2nd to J-11

vault-span index

TEMPLES

79 J-29 after break-up of M.S.S. 13

69 O-13-2nd ↑ ? (no piers) after O-13-3d

64 O-12

56 K-5-1st after K-5-2nd & 3d; at or after "Lintel" 7 (9.12.10.0.0?)

52 J-4

50 R-5 at or after "Lintel" 4 (9.11.15.0.0)

TYPE X

33 P-7 ↑ after 8 episodes (very low walls)

OTHER TYPES

40 F-3 ↑ ? (no piers?)

24 F-4 ↑ (staggered partitions)

? O-13-1st at or after "Lintel" 3 (9.16.10.0.0)

PALACES

69 * J-9 after 6 episodes

59 * J-2 after 1, prob'ly 6 episodes

54 * J-13 ↑ ? (no piers)

46

50? J-6-2d ↓ probably after 6 e'p'd's. ? (piers removed)

50 * J-23 ↓ approach after J-22-a ? (roof comb?)

47 J-8

46 J-10 ↓ ? (space limited?)

43 R'm 3 after 6, episodes

36 R'm 1 ↓ 9.17.15.0.0; after J-6-2nd ?? (space limited)

33 * J-21

32 J-22-a after J-21

31 J-22-b

30 R'm 6 ↓ after R'm's 1 to 4 of J-2 ? (space limited)

29 * J-18

28 * J-11 ↓ later than substructure ("notched" piers)

* double range

		Col Jos K	Gr. Lab. End closing 8-11-1926	Ruled lid [illegible]	Corners	Upper zone		End room 2 inner doors?	Pavilt vaulted	Stability	
Prog Vault 4 [illegible]	a	J-17a									
	b	J-12	YES								
		J-20									
1st Vault Period	a	J-9	69	no	no	H A	V	SB	Yes	1.05 (w.o.)	+.26
		J-2	62	no	no*	L A	Sl.	SB	no	1.14 (w.o.)	+.11
		J-13	54	no	?	H B	Sl.	OS	no	1.05 (w.o.)	+.19
	b	J-8	47	x	x	?	?	?	x	1.17	+.19
		J-10	46	x	x	?	?	?	x	.75	+.17
		J-6 (Rm 2)	8	x	x	?	?	?	?		
		J-6 (Rm 3)	42	x	x	?	?	?	?	1.50	+.175
2nd Vault Period		J-23	50	YES	YES	?	?	?	YES		
		J-21	33	YES at Eng.	YES	LB(?)	?	?	no	2.05 (w.o.)	+7
		J-18	31	YES	YES	?	?	?	YES	2.41 (w.o.)	+6
		J-22	31	x	x	?	?	?		1.68 (w.o.)	+5
		J-2 (Rm 6)	30	x	x	?	?	?		.95	+4
		J-11	27	YES	YES	L B	V	OS	YES	2.42 (w.o.)	.0
		J-6-2nd (b)	26	x	x	x					-.03
		J-6-2nd (a)	50	x	x	?	?	?		2.10	
		J-6 Rm 1	36	x	x	?	?	?		2.00	
Rear Vault Period 2											

	Suffer above	Pens	Pedi (min)	Pedi (max)	Stiffness Curve	Sp. material vault section	Center arm	max. @ top or min height max sq. inches	Offsets	Bear walls	Solution
											-.35 + plinth
	29	2	1.12	1.70		2.02 (short up)			yes + no		Plinth only
	@28	8	1.25	1.78	.11	1.74			Yes		Plinth on
	@28	0 (short)		1.75	.19	1.97			?		"Double Plinth" (86 inches)
	30	4 or more	1.20	1.88	.10	1.44	out set .19	1.72	yes	yes	elevated
	@28	2 [illegible]				.86	0 or 0 .17	1.04	?		130 plinth.
		? 2			?	?	?	?	?		elevation
	25½	2 (short)	1.20	1.70					yes	yes	Plinth only
	22½ (end)	0 (short)	1	1.70					no ?		Plinth only
	@24	2 (short)	1.08	1.75		3.74		max 0, 3.43	YES (slight)		"Double" Plinth
	@24	6	1.27	2.16					?		Plinth only.
	@28	2 ([illegible])	?	2.33	.05	2.73	.05		no	yes	"Double" Plinth
	31 (from [illegible])	0 (short)		1.25	.01	.91	out set .10	1.12	no		Plinth only
	24	2	1.25	1.83	.00	3.42			yes + no (w.o.)		Both Plinth (high)
		?	?	?	.03	3.59			yes		elevated
		?	?						"		"
	@28	4	1.20	1.70	.01	2.19	out set .10	2.50	yes.		elev.

Camber Niches in vaults.
No s lifted
irregularly curved vaults.

Sandwich and vault figures

2.00 / 1.04 / 2

with offsets, true or assumed.
Slopes, true or assumed @ 28° (not less than 28°.

with offsets, true or assumed
soft slope assumed 0
steepest measured.

* Plinth only on two opposite walls.

a ~~J-8~~ Sub-J-6 Second

Vault

J-20
~~4~~ J-12
J-17
} double

---

a J-9
b J-2
c ~~J~~-13
} double

Early

d J-8
J-10-Room 2
J-6-Room 3
} single

J-21
J-18
} double

J-22 single

J-23 double - Sub. Lattertham II-22

J-11 double

J-6-2nd

J-2-Room 6 single

J-6-Room I

Period of minor modifications (block towers, battlements &c

Omit - tenables other than J-29.
J-13 + ~~J-23 (no pieces)~~.
J-10 - pieces unknown.
~~J-6 2nd~~ " " .

	Room width	Pier Th	Pier width	Room width	V-S index	Pier area index	Pier Room index	Pier shape	
J-29	1.65	1.30	1.25	1.60	79	27	1.28	96	1
check J-9	1.60(?)	1.20(?)	1.25(?)	1.65(?)	69(?)	26	1.32	1.04	2
check J-2	1.72	1.02	1.25 or	1.70 or	59	23	1.36	1.23	3
~~J-13~~ check J-8	1.59	.75	1.21	1.70	47	20	1.40	160	4 5
R'm 3	2.10	.90	1.25	1.75	43	19	1.40	139	6
J-21	2.43	.80	1.05	1.75	33	15	1.67	130	7
~~J-23~~ check J-18	2.60	.80	1.30	2.15	31	14	1.65	162	8
check J-22	2.35	.74	1.15	1.75	31	15	1.53	155	9
J-10	1.25	.58	?	?	46	?	?	?	← (J-10 is out with R'm 1 & J-23)
J-6-2nd									←
check J-11	2.85?	.75?	1.28	2.16	26	12(-)	168	170	10
R'm 1	2.10	.75	1.20	1.70	36	18	1.42	160	
J-23	1.40	70	1.55	1.60	50	25	104	221	
J-13	1.62	87	3.85	1.75*	54	29 (?)	×	×	
J-6 2nd	2.90	.75	1.20	1.70	26?	14?	1.42	1.60	9

Sep
J-23
J-10
R'm 6
R'm 1

38

250) 800 / 750 / 500

		Walls	Vaults	Rions	
					Talking R'm 1 as face.
	J-29	1.30±			
69	J-9	1.16	1.73	1.05	
59	J-2	1.02	1.72	.92	
54	J-13	1.87	1.62	.85	
50	J-6-2 wall?	1.20	2.40		11, 11. ?
47	J-8	.75	1.59		
	~~J-6-2 wall~~	~~1.20?~~	~~2.40~~		~~11.11.0.0.0?~~
	R-m 3	.90	2.10		
	R-m 1	.75	2.10		9.17.15.0.0.?
33	J-21	.80	2.42	.80	
31	J-22	.70	2.28		
31	J-18	.80	2.60	.95 (Comb)	
	J-11	.75	2.75	.95	
	P-7	.83	3.75	.88	
	J-10	.58	1.25		
	R'm 6	50	1.65		
	J-23.	.70	1.40		

2.40) 1.200 (50?
1200

2.10
.75
2.85

Temple Dimensions

One Room Temples

	Inside Length	Inside Width	Outside Diameter Wide	Outside Diameter Deep
R-5-3d	18.70 ±	4.90	20.90 ±	7.15 (or more?)
R-3	6.20 ±	1.55 ?	8.85 ±	4.50 Est ??
R-10	3.60 est.	?	6.20 Est	?
R-1	8.90 (±)	1.55 ±	?	?
R-9	8.00	1.77 (?)	9.70 ?	?
R-16	8.30 ±	1.90 ? or more.	10.50 ± (probably more)	?
J-29-D-C	8.30	1.75	?	7.20
J-29 A	7.80	1.70	11.00 (Est)	7.20
K-S-1 SI	8.70	2.17	11.70 ±	5.35 ±
G-12	8.00 ±	1.65	11.30 (±)	4.50 ±
J-4-B	8.15	2.05	12.20 ±	4.25 ±
R-5	7.60 ±	2.10	10.40 ± + side outsets?	5.40 ???
O-13-A Front room all rooms O-13 only	20.90 ±	2.95 ±	22.50 ±	9.40
Sub Level 1, Sty 3 Sep rooms.	3.70 (over all)	2.70 ±	5.30	3.30
	1.40	2.70 ±		
	1.00	"		
	1.40	"		

Not in Pyrs

O-15
O-16
5-7-Sub
R-2
U-3

O-13 - only rear rooms: rear 7.00 x .90
more 9.30 x 1.20

U-3 rear " 6.00 x 1.62
front " 12.00 x 1.62

	Inside L.	Inside Depth
O-16	6.50	2.60
O-15	6.60	2.00

2.05
1.05
1.05
4.15

	Inside L.	Inside Depth
J-4-B.		
LR	1.75	2.05
MR	2.60	"
RR	1.80	"

1.65
1.65
3.30
5

F-4

LR	2.50 (±)	2.50 (±)
MR	2.10	2.50
RR	2.50	2.50
	3.60	20.40
	1.40	8
	1.40	2.50
	2.80	
	80	

1.65
1.08
1.08
3.71
80
1.5

1.00
1.30
1.45
3.75

5 39 (7.80)
40

5 4.15 (8.30)
40
15

Temple Sills + Benches

	Heigh	"Deep"	Length
K-5-3d	50	1.25	Room l.
R-3	.10	.25 (EST)	"
R-1	.35 ±	.25 (est)	" (probably)
J-29-D-B	.34	.22 (av)	"
J-29 A	.26	(20-25) .22	"
O-12	.35 (San)	.15	" (probably)
K-5-1st	.30 ±	.15 (to .10)	"
O-4B	.40 ±	.15	" (probably)
J-4	.31	.18 ±	"
R-5	.29	.15	"
U-3.	.28	.10	"

6.78
86
5.92

	1	2	3	4	5	6	7
	Pyramid Heights			Found. Plat f. Heights		Temple Floor Heights	
	Floor to Basal Terrace	Floor to Plaza	Dolmen Top to Plaza	Dolmen Top to Floor	To Plaza	To Basal Terrace	To Plaza
R-10-1st A	5.92 (1937) ~~5.00~~ ±	6.78 (1937)	8.00	.80	.70 ± (Photo)		7.20
R-10 2nd B- on 6 terrace		6.78					
R-3-1st	7.30	8.80 ±	10.00 ±	.80	.65	7.95	9.45 (photo means)
R-3-2nd	6.20	7.70 ±		.80	.80	7.00	8.50
R-9		6.45	9.00	.55	1.80 (2 terraces)		8.45
R-1-1st		9.65	12.00	.90	1.45 (1 tr)		11.10
R-1-2nd	(?)	8.20			.45 (?)		8.65 (?)
R-16	15.98 ±	16.78	18.80	.75	1.27 (1 tr.)		18.05
R-4		~~6.0~~ ?	14.00	1.00 ±	? (low?)		13.00 ±
R-5			13.00				
K-5-3rd		?		×	?	8.30 ± ×	8.30 ±
K-5-2nd		?		×	?	11.30 ±	11.30 ±
J-29	14.90 ±	18.73		2.70	3.80 (2 terraces)		22.53
O-13-1st		13.40		3 +	2.40 (terrace)	15.00	15.80 (terrace)
O-13-2nd		?		×	2.40 (terrace)	11.00	11.40 or 12.40 (terrace means)
O-12-		8.93		1.04	2.07 (± ?)	17.00 (=~~0.00~~) 11.00	11.00 ±
K-5-1st		12.80 (terrace?)			1.00 (?) (1 terrace)	13.00	13.80 ±
J-4-1st	19.25 (1937) ~~20.65~~ ±	26.05			1.95 (1 terrace) (terrace).	28.00	28.00
J-4-2nd							
R-5		10.70 (?)	13.00	1.50	.80 (1 terrace) + another terrace?		11.50
J-3	19.65	25.99			3.20		29.19 (terrace)
Sub Group 1 St. 1							
" St. 2							
" 3							

85.19
6.34
19.65

1380
250
1130

1870
383
2253

Niche Dimensions

O-15 - From Chermis dwg measurements, 1935.

depth - .27 + .31 = .29 average.

width - .52 (front)
.47 (rear)
2 | 99 = .49 average.

49 | 290 | 6 = 60% av.
294

52 | 290 | 56%
260
300
312

J-29 - Phase D-C.

5 | 73 | 1.46 rear)
5
23
20
30
30

5 | 77 | 1.54 front
5
27
25
20

depth 1.22
1.14
2 | 236 = 1.18 av.

width = 1.46 rear
1.54 front
300 = 1.50 av.

150 | 1.180 | 79%
1050
1300
1350

154 | 1180 | 77%
1078
1020
1078

5 | 61 | 1.22
5
11
10
10

5 | 57 | 1.14
5
20
20

Phase A

5 | 375 | 75
35
25

5 | 39 | 78
35
40
40
50

5 | 19 | 38 + 50
15
40

depth 76 av.

50 | 76 | 1.32%
50
160
150
100

width = 44

J-29 Phase A	132%
~~O-12~~	
J-29 Phase D	77%
O-15	56%
O-12	?
K-5	83%
J-4	80% (or more)
R-5	

J-4

94 | 750 | 78 = 80% ±
658
920
846
74

K-5 - niche width 1.05 (from typed notes).
depth 85 to 90

105 | 870 | 83% ±
840
300
315

R-5.

108 | 123 | 1.14% ±
108
150
108
420
432

Then I write.

240) 500 (2.1 %
480
200

Place Second Notches

J-21. depth 55 av.

79) 550 (6.9 = 70%
474
760
711
49

Niches.

1936

	Wide (Frms.)	Deep (ave.)	%	
J-29 Phase P.	1.54	1.18	77	
~~O-15~~				
O-12	?	?	?	
K-5	1.05	.87	83 ±	
J-4	.94	.75±	80 ±	(or higher. easily)
R-5	1.08	1.23	1.14 ±	
J-29 Phase A.	.50	.76	1.32 ±	
O-15	.52	.29	56	

Thrme 1.

	2.40	.50	21%	
J-21 Thrm Rom	.79	55	70%	

Piedras Negras - Lintel Table.

Lintel No.	Span	Width	Thickness	Overlap (b) or Plain Ends Right	Overlap (b) or Plain Ends Left	Top (bottom) Shape	Top (bottom) Finish	Left Shape	Left Finish	Right Shape	Right Finish	Bot Shape	Bot Finish	Shape	Finish	Should Features.	Top Thick	Bot Thick
						Plain Lintels.												
	1.30 ×		.25-.30															
(St + S-2) .90	1.55	.75 to .80	.30					RW		RW		RW		42	58	Facegrute smooth		
S-4 1.50	1.75	.82	.40	37 ov	38 ov									47	57			
O-4 .85	1.43	60 (h.) 26	.28	34 ov	34 ov									2	71*	S back	Shan: .75 to base.	
R-13	1.48 G	.91 S	.46 (a)											?	?			
S-17 ?	1.55	.64	.40	Pad by over	27 each.									41	?			
I-17 .75	1.56	.76	.25	.33 ov	.34 ov				F		F			48	47			
P-7 .67	1.30 —	.83 —	.28-.30	.35 ×	.28 ×	CF	RT	?	?	?	?	F	RT	51	52	Eroded.		
← See Norm N-1																		
						Sculptured Lintels												
L.11	1.53	2.10* 1.30	.82 to .68	.21	?				RW		?			39	73	Rubble		
L.1	M	?	?	2 (.04)										?	?			
L.3		1.24 chalky	62 to .59	.14 to .13	.06 to .08	.02 to .04 to .08	CB	Fr.	chalky	Fr.	chalky	Fr.	?	50	✓		.04 to .065	.0156 .045
L.8	2.00	?	?	.71	.10 to .13		curved	curved	CB	Fr.	CB	?		?	2	S back	this is only 2nd bot - for figure?	
L.9.			?	?	.105 to .13		CB	RT?	CB	RT?				?	?			
L.2		1.29 ×	.58*	.075 to .09	.055 to .07	.05 to .075									✓	MB SMS - L = 4' to 4' 1" Wid = 1' 8" to 1' 10"		
L.4	1.40 to 1.50	1.245	1.20	.18 to .20 mid in center	.075 to .085		F		CB	(T)	CB	(T?)	CB	96	112	Rubble	B Rubble + f/p - .06 bot. .15 10 to 120 (in 20 to courses) - .05 ± .065	
L.5		1.58	1.20	.115 to .15	.06 to .06		CB	RT	?	?	CB	RT		76	X			
M.M.S. 13		.82 ±	.53		.07 to .07										✓			
L.12		1.18	.52 to .53	.20 to .24	.015 to .035	.020 .03	CB	RT	CB	RT	CB	RT	CB RT				.06 x .06 ±	.015 to .02 .02
L.6	?	1.34	1.24	.09 to .10	.085									93	?		Panel 1.00 .50 across	
L.7	1.80	1.43	1.20*	.27							F + CB.			84	126			
L.10																		
L.13		?	.415	.11 to .13										?				

* F = flat
CB = curved ~~[illegible]~~ toward face
~~[illegible]~~
CF = curved toward face.

S = smooth
RT = rough finished
RW = very rough
Fr. = fresh tore surfaces

"Lintels"

Piedras Negras.

Str.	Stone No.	Span	Length	Wall Thickness	Width	Thickness	Possible Overlap Left	Overlap Right	Total Plain Ends	Unfinished	L-Pole	L-Span %
J-17	P	.75	1.58		.76	.25					48	47
O-4	P	1.00	1.43		?	26-.28			.43		?	71*
R13 Th=.40 R7 Same	P	.67	1.30		.83	28-.30	.35	.28			51	52
S-2	P	.90	1.55		.75-.80	.30	?	?			42	58
S-4	P	1.00	1.75		.82	.40	?	?			47	57
S-19	P	?	1.55		.64	.40					41	?
R-3	L-11	1.53	2.10*	1.30	.62-.68	.21					39	73
R-5	L-4	1.40	1.25		1.20	.18-.20*	.075	.085			96	112
I-3	L-5	Nro	1.58		1.20	.13 Not .10	.06	.06			76	?
K-5-12	L-7	1.85	1.43	1.00	1.20	.27	.085	.085			84	1.26
O-13	L-1	1.70 to 2.70	?	.80*	?	?	?	.10*			?	?
O-13	L-2		1.29 m	.80*	.58	.075-.09	.055-.07	.05-.075			45	
O-13	L-3	.95	1.24	.80*	.59-.62	.13-.14	.06-.08	.02-.08			50	
?	L-12	?	1.18		.52-.53	.20-.24	.015-.035	.02-.03			45	?
?	8	?	?	?	.71	.13 (Not) .10	.00-.03*	?			?	?
?	9	?	?	?	?	.105-.13	?	.03*	?		?	?
?	10	?	?	?	?	.10	?	.08*	?		?	?
	13	?	?		.415	.11-.13	?	?	?		?	?

Lintel.

Panels

Span=.75 at bottom.

Broader border at bottom. Somewhat turtle-back.

Sug. of curved sides, two flat backs.

.20 wider than wall thickness. Flat back.

Flat back.

Only .04 flat back at left end.

Turtle back.

Flat back.

Somewhat turtle back, probably curved sides.

Turtle back

Foundation Platforms

	Frmd Panels?
R-10	no
R-3	Yes.
R-9	?
R-1	Prob'ly.
R-16	Yes
O-13	Yes, early.
J-29-D	Yes
J-29 C-A	no
O-12	No (?)
K-5-1	?
J-4	?
R-5	?

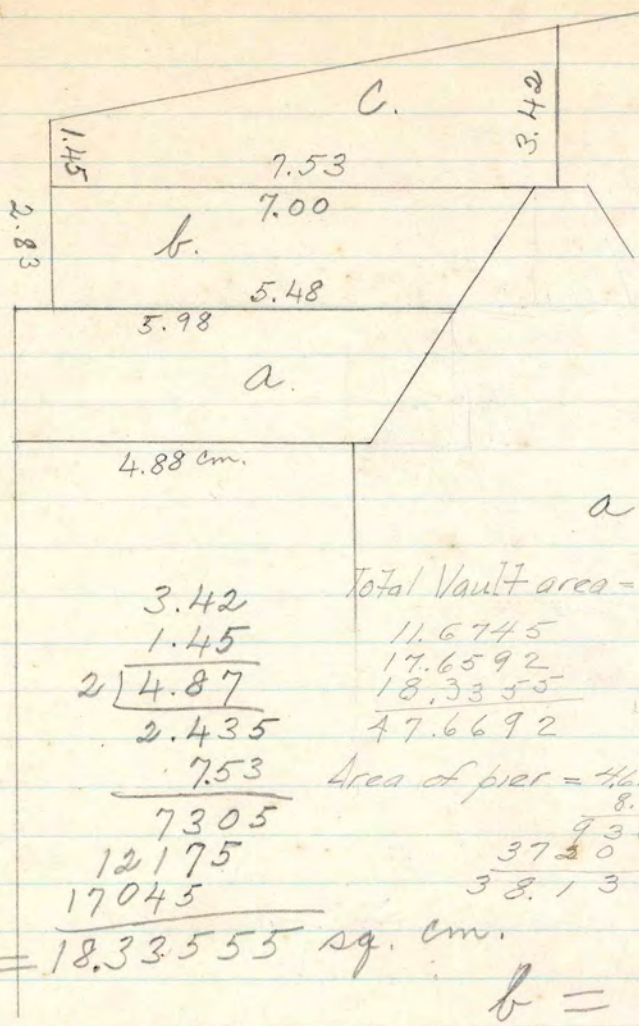
PIV Vault Sections
1935

J-9

A.

I.

(S1, J-9)



5.98
4.88
2 | 10.86
5.43
2.15
2715
543
1086
a = 11.6745 sq. cm.

3.42
1.45
2 | 4.87
2.435
7.53
7305
12175
17045
C = 18.33555 sq. cm.

Total Vault area =
11.6745
17.6592
18.33555
47.6692

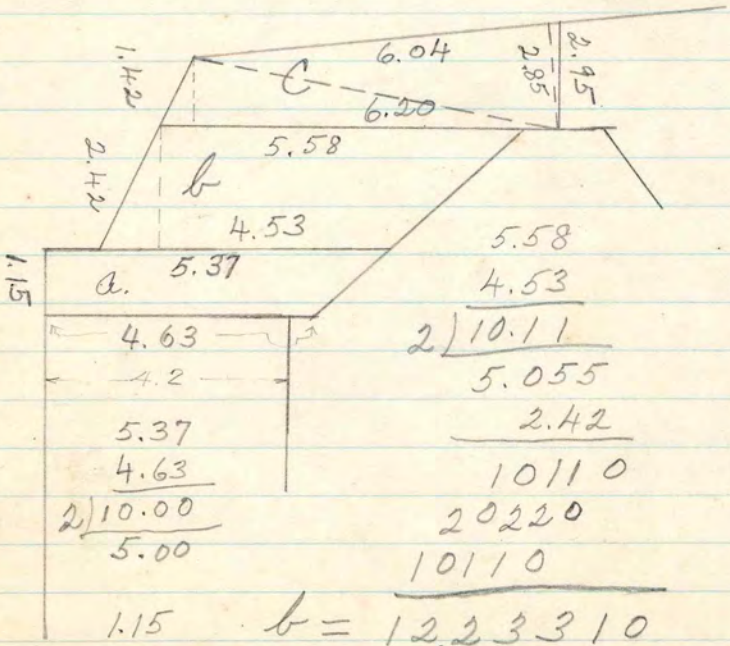
Area of pier = 46.5
8.2
930
3720
38.130

7.00
5.48
2 | 12.48
6.24
2.83
1872
4992
1248
b = 17.6592 sq. cm.

Index =
$\frac{2.9}{4.65} = .49^+$

A. II.

(J-2)



6.20
1.42
1240
2480
620
2 | 8.8040
4.402

4.402
8.607
C = 12.009 sq. cm.

5.58
4.53
2 | 10.11
5.055
2.42
10110
20220
10110
b = 12.23310 sq. cm.

area of pier —
4.2 x 10
= 42 sq. cm.

5.37
4.63
2 | 10.00
5.00

1.15
5
a = 5.75 sq. cm.

6.04
2.85
3020
4832
1208
2 | 17.2140
8.607

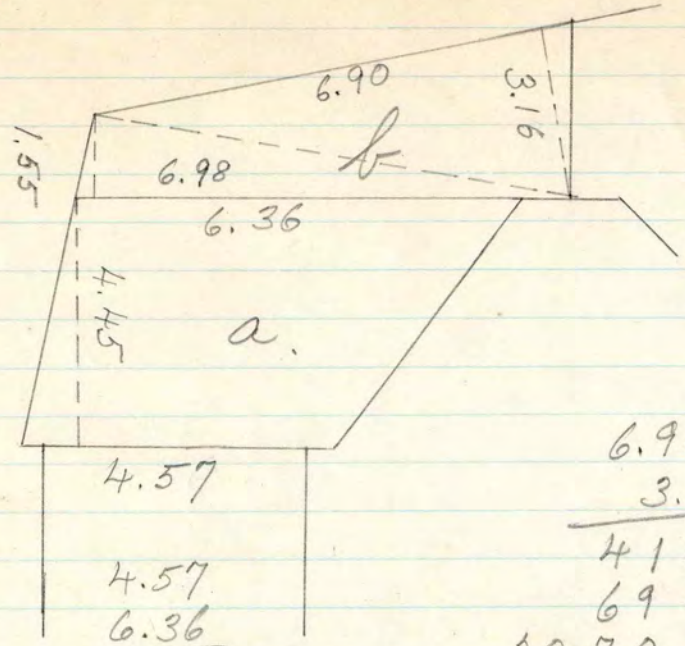
12.009
12.23310
5.75
Total area of vault — 29.99210 sq. cm.

Index = $\frac{1.5}{4.2}$ = .357 (ab ½ index = .178)

J-13

A. III

J-13



6.98
1.55
3490
3490
698
2) 10.8190
5.4095

Total vault area =
24.319
+16.311
40.630 sq. cm.

Area of pier =
3.45
x 9
31.05

Index $\frac{1.25}{3.45}$ = .362

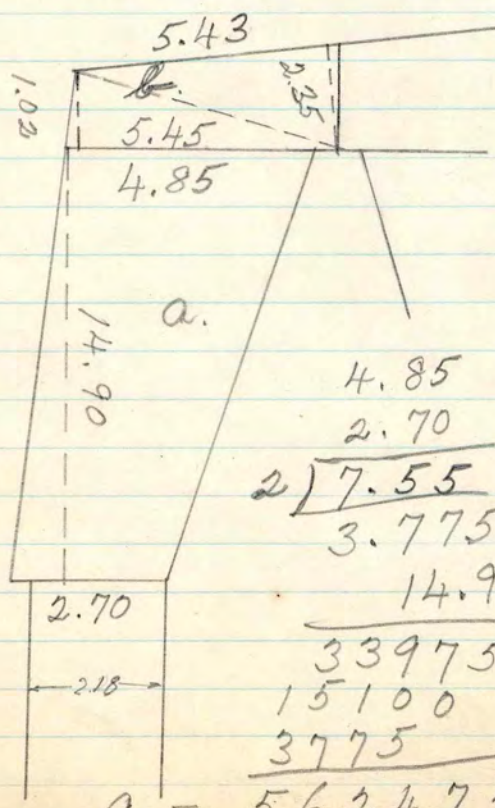
4.57
6.36
2) 10.93
5.465
4.45
27325
21860
21860
a = 24.31925 sq. cm.

6.90
3.16
4140
690
2070
2) 21.8040
10.9020
5.4095
b = 16.3115 sq. cm.

(at ½ index = .113)

A. IV

(J-1)



5.45
1.02
1090
545
2) 5.5590
2.7795

5.43
2.35
2715
1629
1086
2) 12.7605
6.38025
2.77950
b = 9.15975 sq. cm.

4.85
2.70
2) 7.55
3.775
14.9
33975
15100
3775
a = 56.2475 sq. cm.

Total vault area - 9.169
56.25
65.41

Area of pier - 2.18
9.65
1090
1308
1962
21.0370 sq. cm

Index - $\frac{.48}{2.18}$ = .22

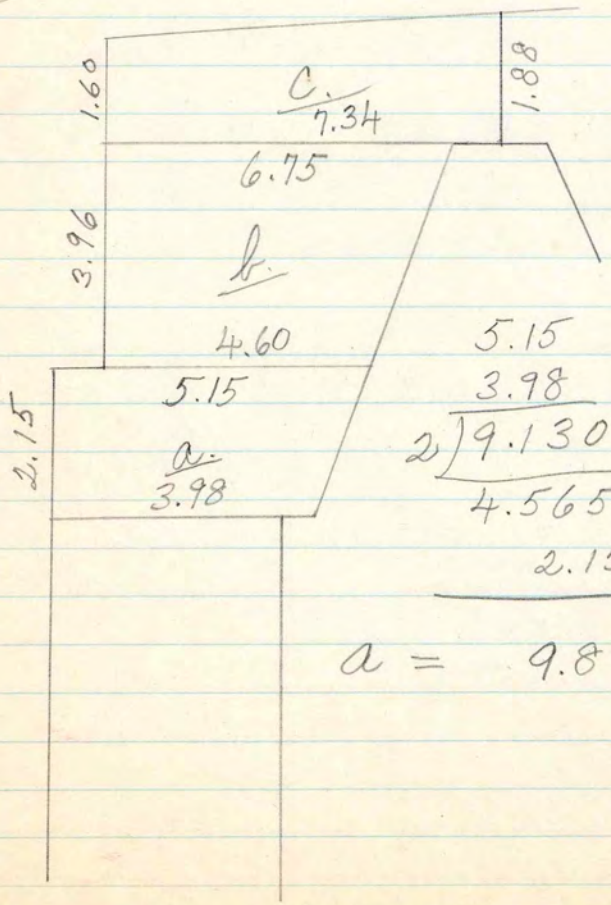
$y = \frac{1}{2}bh = \frac{1}{2}(2.819)(37.84) = 1714.624 - 1967.76 = 0$

Str. 2/45

B

I

B. II.



$$\begin{array}{r} 6.75 \\ 4.60 \\ \hline 2\,\big)\,11.350 \\ \hline 5.675 \\ 3.96 \\ \hline \end{array}$$

$b = 22.45$ sq. cm.

$$\begin{array}{r} 1.60 \\ 1.88 \\ \hline 2\,\big)\,3.48 \\ \hline 1.74 \\ 7.34 \\ \hline \end{array}$$

$C = 12.78$ sq. cm.

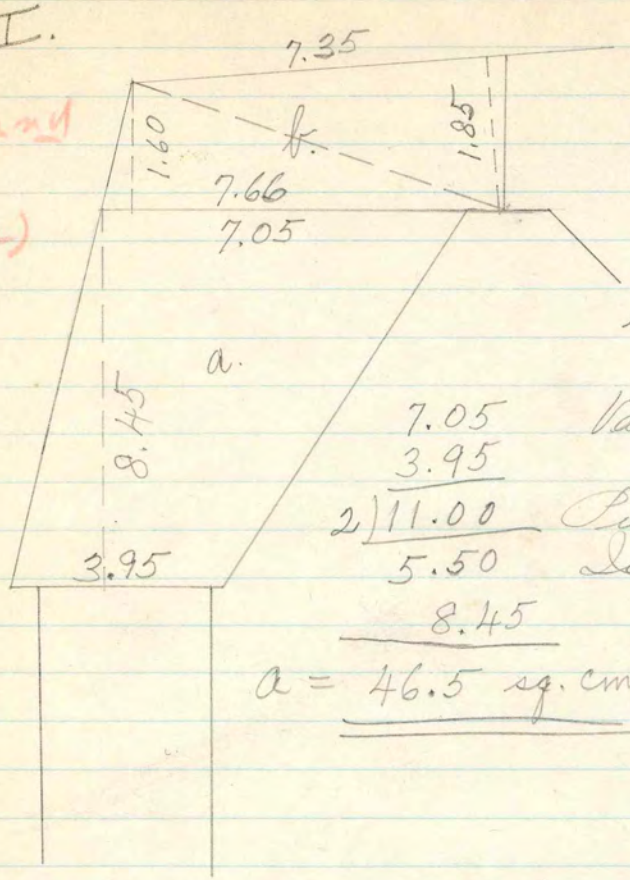
$$\begin{array}{r} 5.15 \\ 3.98 \\ \hline 2\,\big)\,9.130 \\ \hline 4.565 \\ 2.15 \\ \hline \end{array}$$

$a = 9.8$ sq. cm.

J-B-2nd(b)
L5

B.
III.

J-6-2nd
(b)
(w.t.e.)



7.66
1.60
2)12.26
6.13
6.80
b = 12.93 sq. cm.

7.35
1.85
2)13.60
6.80

7.05
3.95
2)11.00
5.50
8.45
a = 46.5 sq. cm.

Vault area = 46.5
12.93
59.43

Pier area = 3 x 8 = 24.

Index = .266

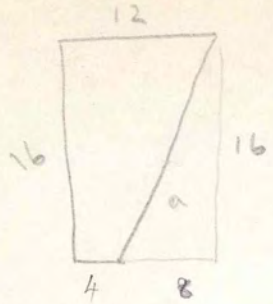
B. IV.

A

theoretical Sames

Show 4

A.2



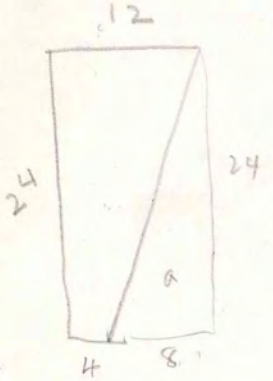
total = 16
12
32
16
192
−a 64
128 sq. cms. = lbs.

a = 16
8
2|128|64

Torq arm = 128
.3
38.4 cm lbs.
M =

F-1 arm = 16 | 38.4 | 2.4 F-1 (lbs)
32
64
64

A3



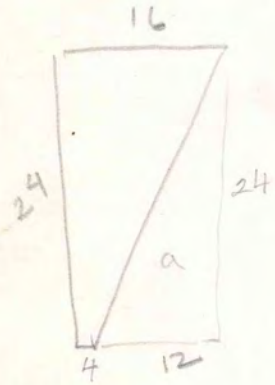
total
24
12
48
24
288
bea 96
192 sq cms (Lbs)

a = 24
8
2|192|96
16
12
12

192
.3
57.6 M of weights

24|57.6|2.4 = F-1 (lbs)
48
96
96

A.4



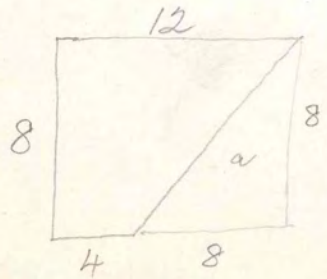
total
24
16
144
24
384
144
290 sq cms (Lbs).

a = 24
12
48
24
2|288|144

240
1.6
1440
240
3840 M

24|384|16 = F-1
24
144
144

A-1



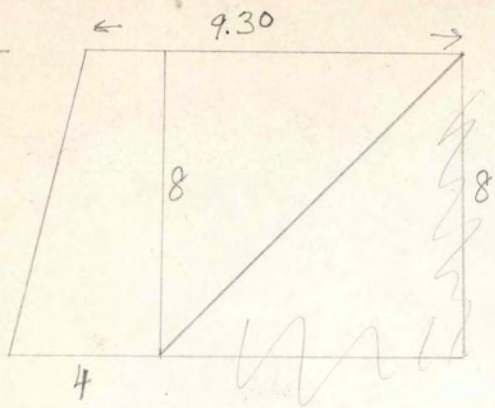
total
12
8
96
32
64 sq. cm. = (lbs.)

a = 8
8
2|64
32

B

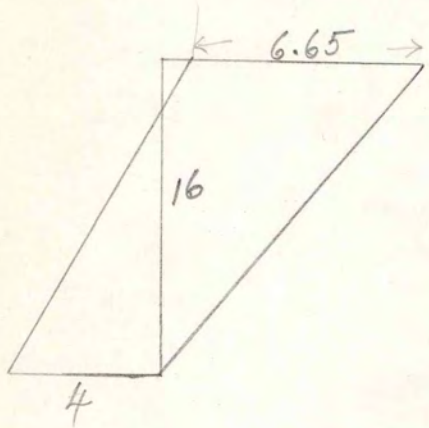
Shelb

B-1



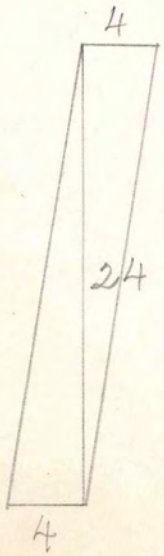
9.30
4.00
2)13.30
6.65
8
53.20 sq. cm.

B.-2.



6.65
4.00
2)10.65
5.325
16
31950
5325
85.200 sq. cm.

B.—3

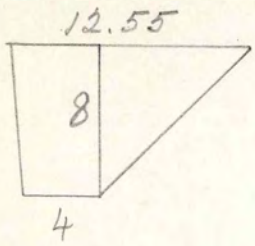


24
4
96 sq. cm.

C.

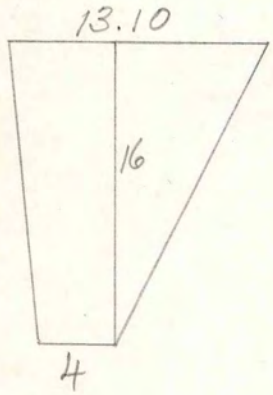
Sheet c

C.-1




```
   12.55
    4.00
  ------
2 | 16.55
  ------
   8.275
       8
  ------
  66.200 sq. cm.
```

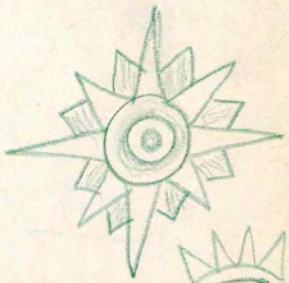
C.-2




```
   13.10
    4.00
  ------
2 | 17.10
  ------
   8.55
     16
  ------
   5130
   855
  ------
  136.80 sq. cm.
```

C.-3


```
   13.65
    4.00
  ------
2 | 17.65
  ------
   8.825
      24
  ------
   353.00
  17650
  ------
  211.800 sq. cm.
```



13/260/20

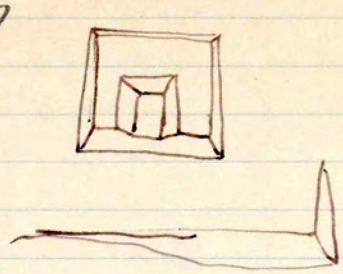
Palace thrones 1937

Table, screen.	Table ?	Bench, w. screen.	Bench?
J-6 (throne 1)			~~J-6, throne 1.~~
	J-6 (end) ?		~~J-6 end.~~
		J-9 J-9	
J-11			
		J-11	
			J-11
	J-12 ? J-12 ?		
		J-12 J-12	
			J-12 J-12 ?
J-18			
		J-21	
	R-7-6		
3	1	6	2

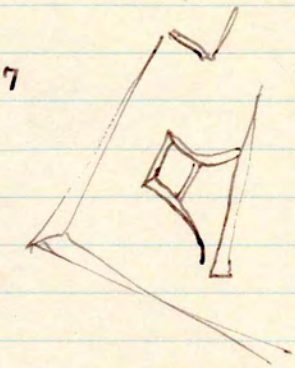
S wood Houses. P. Negros.

Possible Swood Houses:

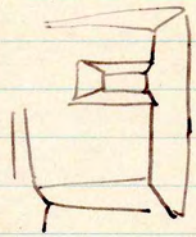
K-~~2~~ 2 3



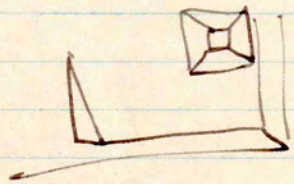
O-27



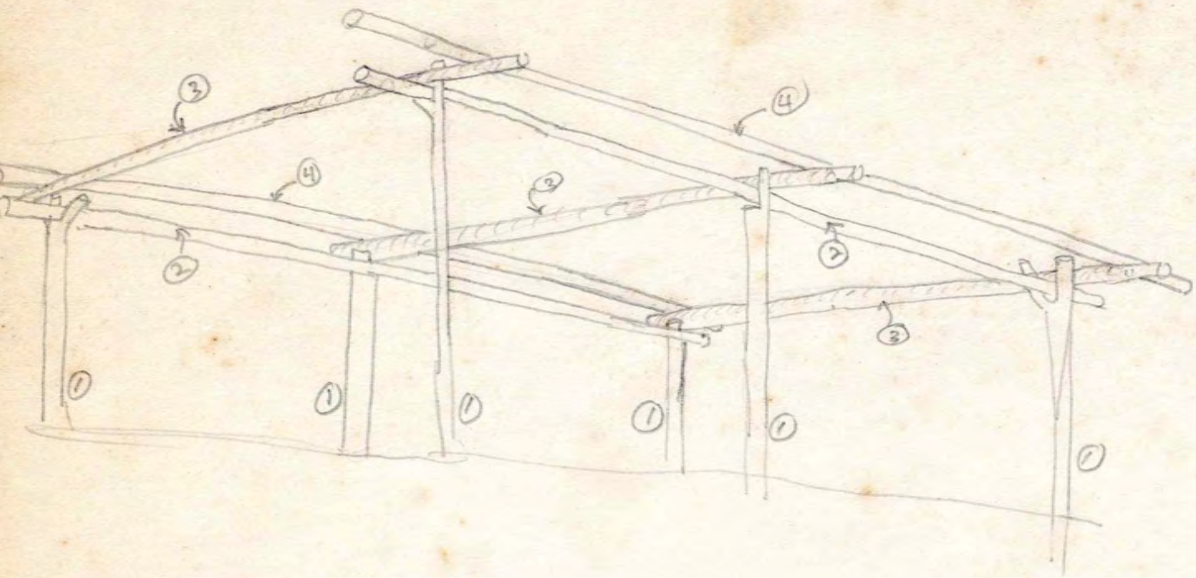
U-6



U-8



N-~~9~~ 7



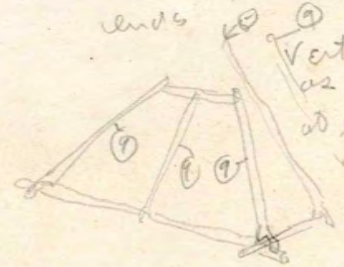
1st erect.
2nd tie in
3rd tie in
4th tie in
5th tied on ground
6th with 5. 5 on 4; 6 on center 3.

① - Arcón (same name)
② solera
③ - Bigas
④ Sobre-solera
⑤ Piez de Tijera (open ends)
⑥ garuche (heavily smoothing to hold anything up.
6½ Temporary members to walk on.

Next. ⑦ caballete

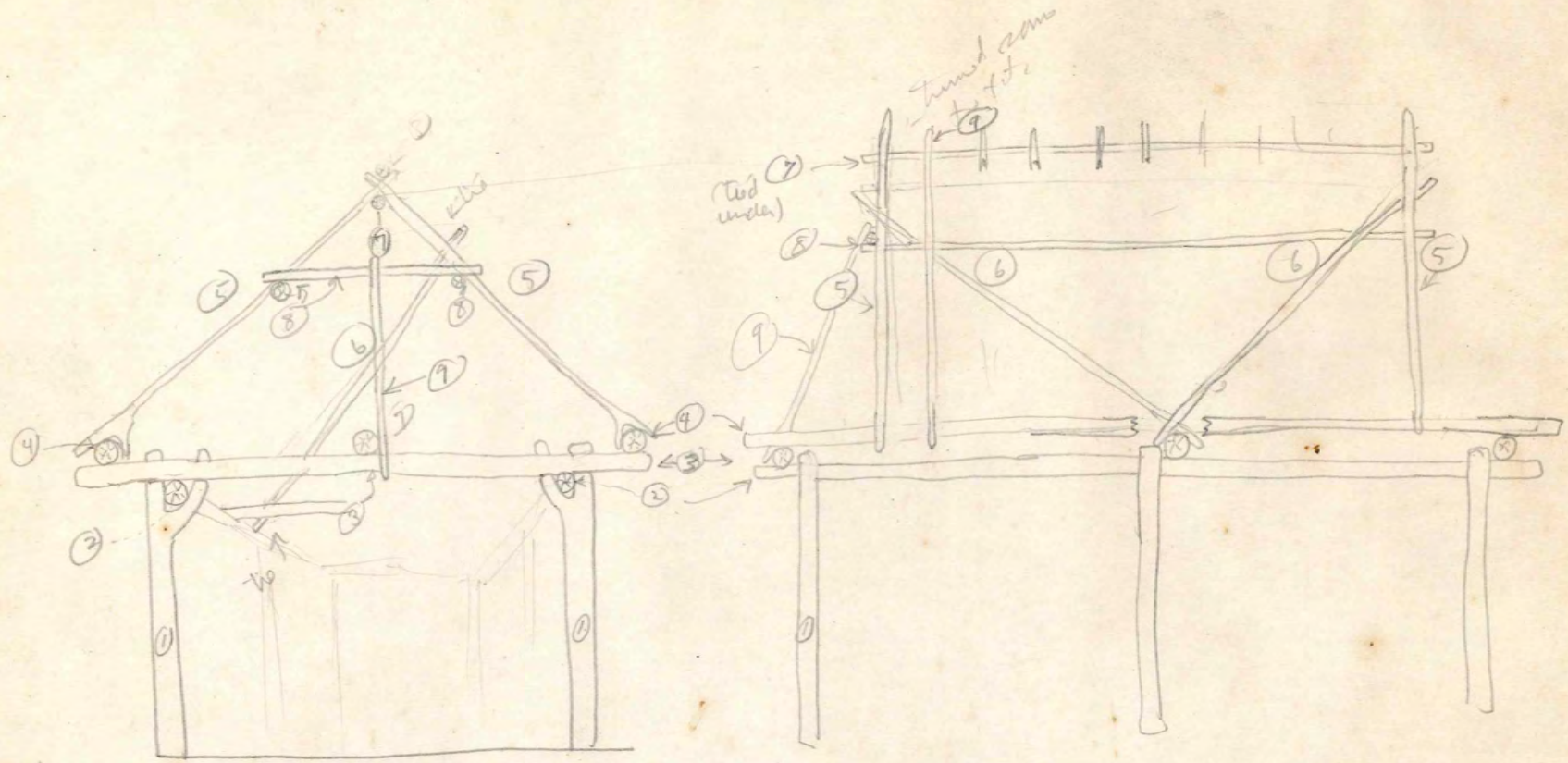
Next. ⑧ Hagotiales (2 in mm?) (4 in quadrant)

⑨ Calcontes (vert. members, + inclined at ends



Vert. are same as ⑤: 3 at end like this

Bush Houses,
PN


Turned down top of st.
(Tied under)

Re Hotun marking at P.N.

Suggested assigment of monuments in South group,
eliminating hypothesis of a large hiatus:

Assumption 1 : That Stela 29 is not a hotun marker but records an odd date: find out frpm Morley & Mason if there is any more than shown by Maler.

" 2. That katuns only were marked until Katun 8.

" 3. That Morley's assignments of doubtful monuments (excpet 42) are correct or at least that they belong after 9.8.0.0.0 - which is very probable since
- a. hotun marking is certain for katun 10.
- b. 9.8.15.0.0 & 9.9.15.0.0 were marked without question (acc. to Morley)
- c. the correct number of stones to mark the rest of the hotuns of Katuns 9 are there in the South group, before the same line of buildings as 25 and 26, which belong to Katuns 8 and 9, and there are no extra ones there.

9.4.0.0.0 Lintel 12 (clear) subject to final reading)

9.5.0.0.0. Stela 30 (clear acc to Morley)

9.5.5.?.? "Stela" 29 - assummed an odd date; ~~very likely a lintel, companion of Lintel 11.~~ leading forward to

9.6.0.0.0. Lintel 11 - unreadable, but same style as St. 29 in Katun 5; ~~and no others like them in style; both tapered; check 29 from photos to see if taper is symetrical as for a stela - 11 is not (see skecth & photo #54 (field No.)~~

9.7.0.0.0 Stela 43 (unreadable, but glyphs are incised - early)

9.8.0.0.0 Not found as yet: may easily be a ~~lintel or~~ stela buried in debris at top and on sides of Str. ~~V~~ R-4

9.8.5.0.0 Stela 42 (plain - east side of Str. ~~IV~~ R-3

9.8.10.0.0. Stela 44 (" - west " " " ")

9.8.15.0.0 Stela 25.

9.9.0.0.0. Stela 28 - and follow Morley's list.

Dimensions
Tables. 9 to Morley, 1933

3 -

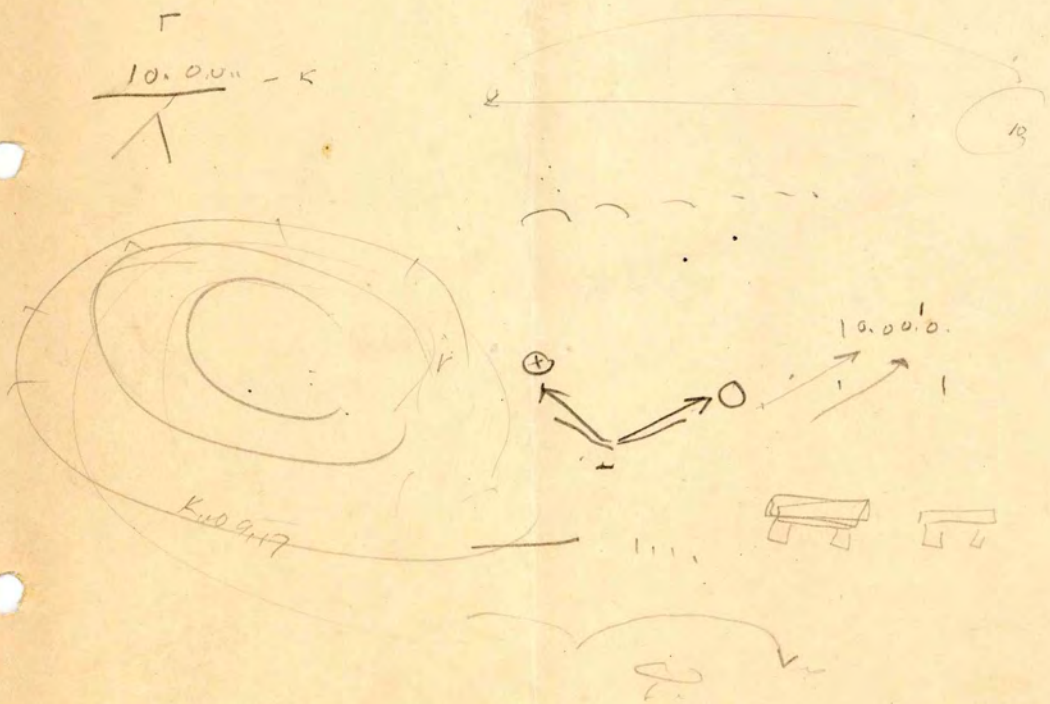
altar 4 - 1.83 (frwd) x 1.46 x 1.02 high. (??) or more. (top .36 cm th.)

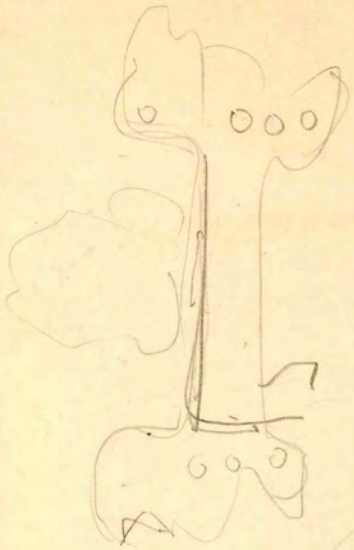
" 3 - 1.96 x 1.33 x .75 high ± (top .34 thick
(ne-sw)

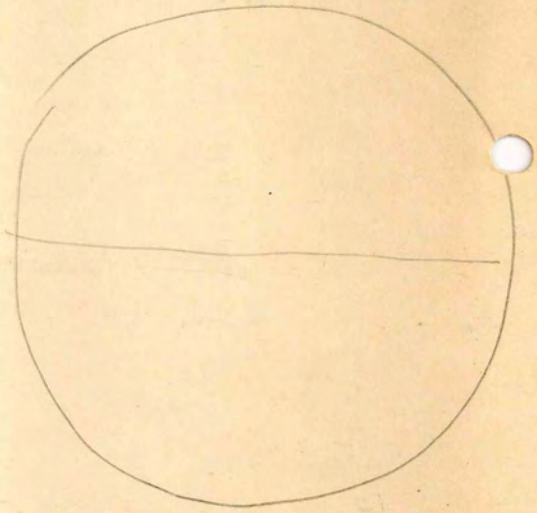
(carving on edge only)
- blank square edges.

" I 2.16 diu x —— x 1.33 ± high (.42 thick)

legs 1.37 high. (Elephants .84.







6	14 15	11-15 22	
8	23	9-15 29	
2	42	10 37	
4	48	40 42	
1	54		
3	63		
	79		
	86		

Stelae Dimensions

P.N. Z to Morely, 1937

		L.	W.	Th.	up	down
Sola 6	9.12.15.0.0	2.90	.81	.38		
					1.10±	
" 8	9.13.0.0.0	4.00±	1.30	.43		
						1.23
" 2	9.13.5.0.0	2.77	.76	.41		
					1.39	
4	9.13.10.0.0	4.16	1.31	.42		
					.18	
1	9.13.15.0.0	4.34	1.27	.46		
						.20
3.	9.14.0.0.0	4.14	1.31	.43		
					.08	
5	9.14.5.0.0	4.22	1.22	.36		
						1.07
7.	9.14.10.0.0	3.15	.96	.41		
					1.57	
23	9.14.15.0.0?	4.72	1.17 (to 1.06)	.41		
						.76
40	9.15.0.0.0	3.96	1.09	.43		
						.11
9	9.15.5.0.0	3.85±	1.09	.41		
					.25	
10	9.15.10.0.0	4.10	1.02	.51		
					.75	
40.	9.15.15.0.0	4.85	1.18	.46		
17	9.16.0.0.0	4.16	[illegible]	[illegible]		
						.69
	9.16.5.0.0					
						.60
× 17	9.16.10.0.0??	4.16	1.12	.38		
						1.17
× 16	9.16.15.0.0	3.56	1.15	.41		
					1.42	
13	9.17.0.0.0	2.39	.90	.43		
					.56	
× 15	9.17.5.0.0?	3.81	1.12	.36		
× 19	9.17.10.0.0??	4.37	1.40	.37		

lower price?

No rule existed for either height or width during the well dated period 9.12.15.0.0 – 9.15.15.0.0 (3 Katuns).

The arrangement of the doubtful groups itself violates the assumption – 17 should go after 16. This is using a non-existent rule when it is wanted, rejecting it when not.

× = "the group" of which 19 may be the latest because it is highest.

(J-13)

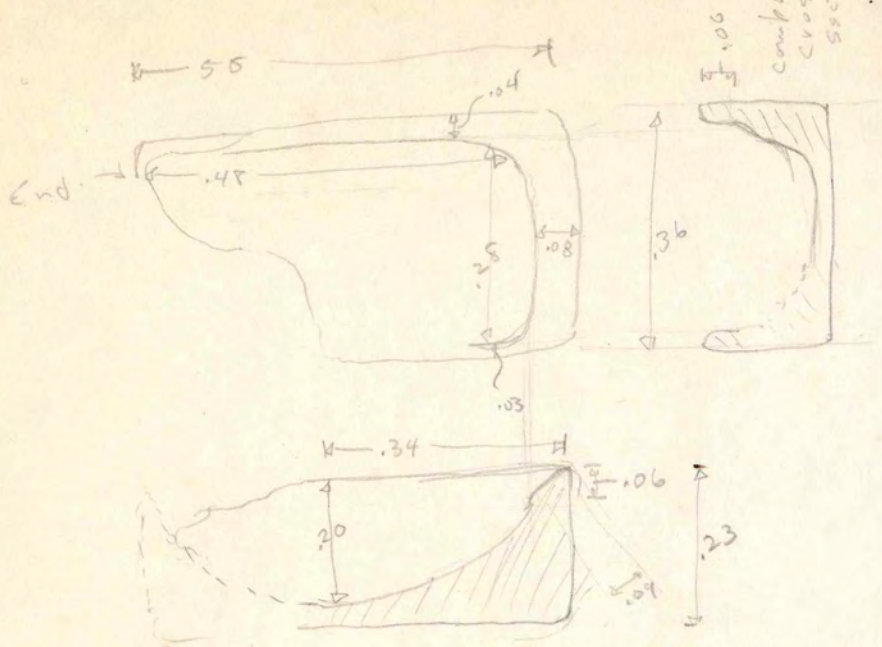
Metate from NE corner of L11 (See photo

Stone –

Miscellaneous stone objects + fragments.

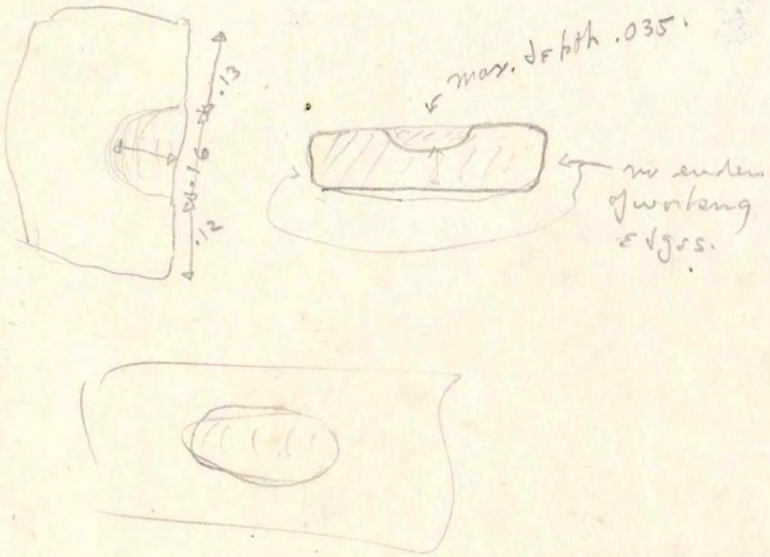
Metates

must have been drawn in field.



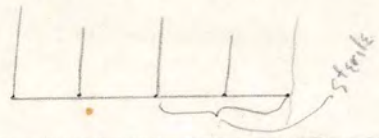
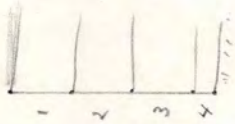
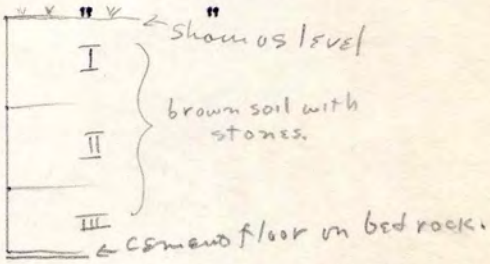
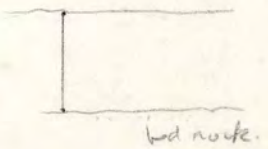
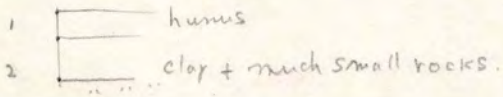
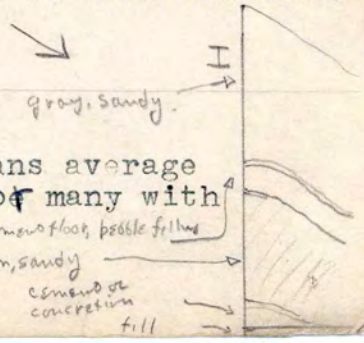
(J-11)

Metate? – from Ely side of L (debris). – See photo.



NB. Square of stone made for glyphs (See same photo) – run from .035 to .042. Mostly small.

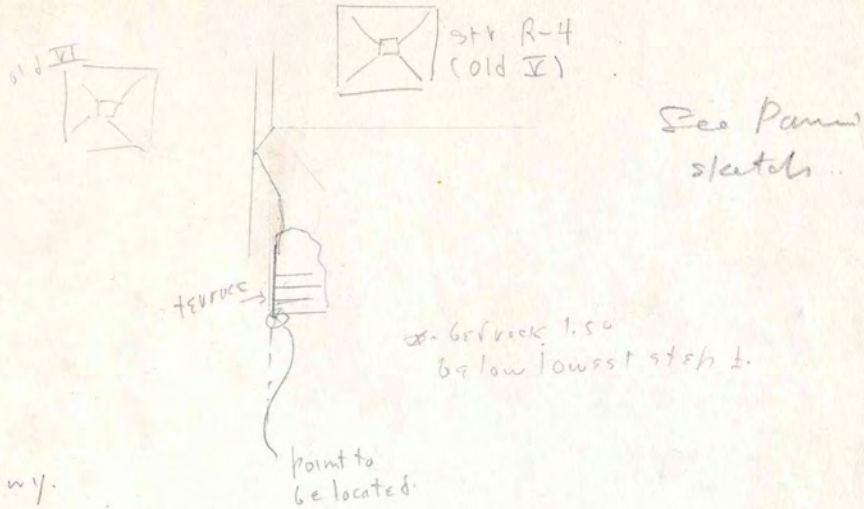
Data re bed rock depths, &c., from notes of Miss Butler on test pits dug in 1932.

Pit No. on Map	Op. No.	Total Depth	Bed rock?	Sherds ?#	Walls, floors &c encountered and other general remarks.
1	W-27	1.80*	no	F	Brown earth changes to reddish at .50, to yellow at 1.00 to dark brown at 1.40. Sterile below .80. NE. Section - valley floor - "court" area.  Total 66
2	W-25	1.35	yes	M	Cement floor laid directly on bed rock. Ceremonial area, but adjoining house mounds  Total 420
3	W-19	1.55	yes	M	" " " " Same general location. Beside Sacbe? wall, N side, E side △42 Wall, N. side. (new?) 
4	W-23	.65	yes	F	Ceremonial area.  sherds - almost none.
5	W-24	.45	yes	A	Cere. area adjoining house mound.  Total sherds 36
6	W-9	2.10-1.35	no	A	Dug to embotido, from sloping surface. Sloping cement floor or concretion, over pebble fill, at .80. Soil gray sandy above this, brown sandy below. Second floor or flow of concretion .75 below the first. Ceremonial area. 

Note: under sherds, "no" means none, "F" means few, "A" means average amount, "M" means many; in each case relatively few or many with reference to the average - approimations only.

* approximately

South group - 1937



Section through Stwy.

stones of stwy not particularly well squared.

Steps:
risers about .25
treads about .35 after
1st two.
1st 2 risers only about .20

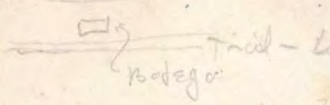
June - 1932

Mounds - 3 hrs from P.N. toward Tenejapa

Going other way: — from Tapesco.

- Then 20 to 30 minutes beyond (going to P.N.) Toledo Mundo Nuevo. Camp - 4 or 5 small shelters on either side of road - creek on right.

at San Jose

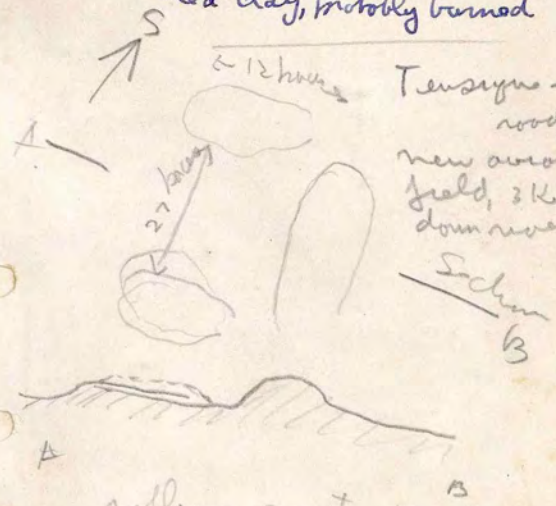


A - Flat top, vertical sided platform stairs set between balustrades

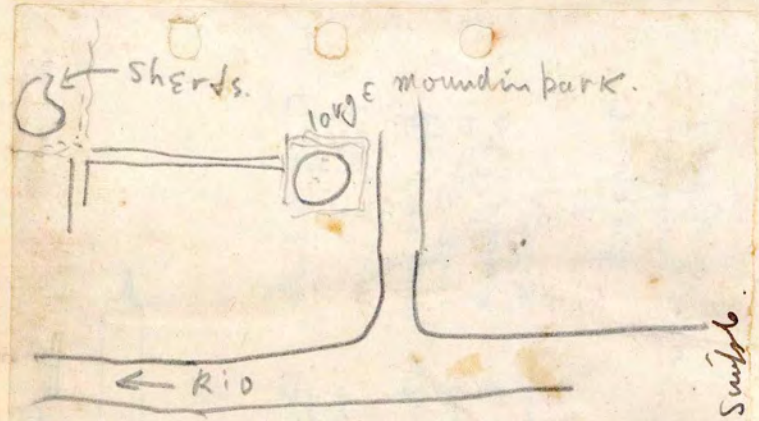
Mound - about 250 yd to left of road, Zapata to Palenque, about 1½ leagues out of Zapata, shortly after passing group of thatched huts on right.

Oval, 14 x 22 paces, about my eye height. Covered with grass, same as field, except one patch - Seems to be earth + nothing more.

Earth contains lumps of hard red clay, probably burned



rolling country, Earth + small rubble where broken - eroded to smooth contours. Behind many idoles

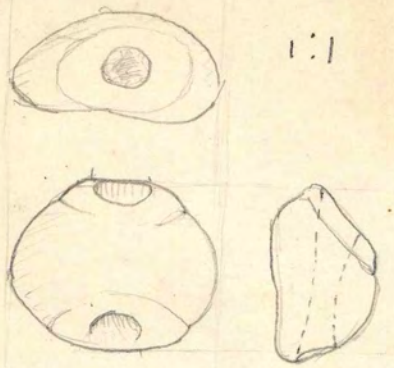


Not P.N.

P.I. - Nuevo - Nueva Santa

Miscellaneous Jasperite Forms

Bead - almost certainly from #XXVII (fire), 1932. (P. Negras)



1:1

shape due to shape of pebble?

Note "color" on each end - poorly defined, but clear.

Prum in field?

(Obvious pebbles are incised)

Key to Re-assemblage of Original notes (in folders).

By years, earliest at bottom.

- By staff member within the year.
  - numbers at lower left corner indicate the order of sheets in the member's book as he brought it back - in general, the order used in field: a sep. set of these numbers for each staff group in each year.
  - Page numbers at upper right, with year indication, run through each year group, after re-arrangement of each staff section in most logical order possible. These are for page reference in working up notes..

  - In general, the order of re-arrangement:

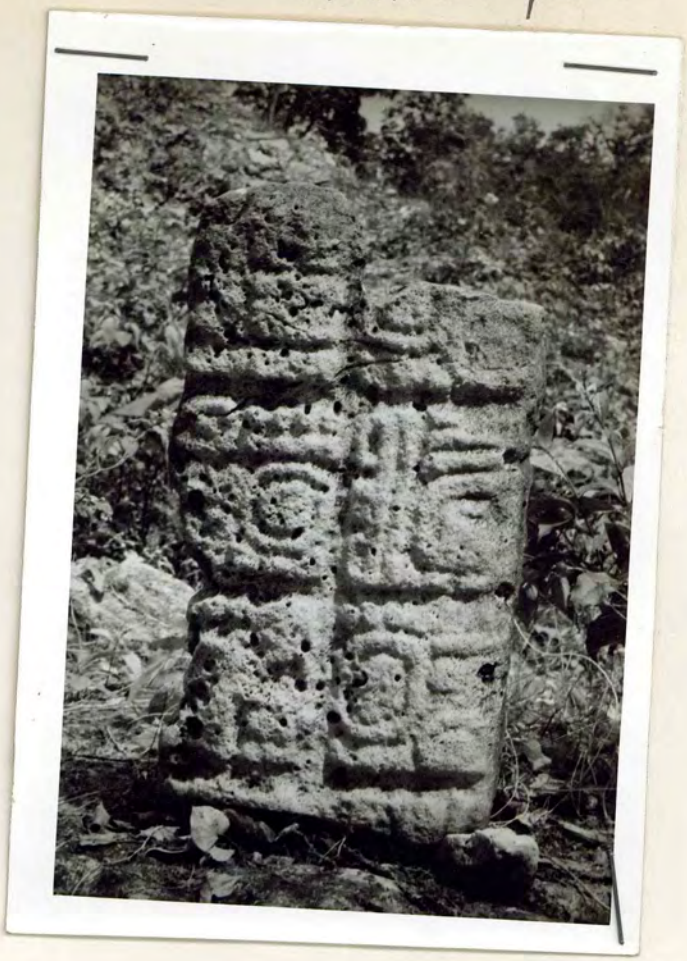
General Plans & Sections.

Bldg.
Bldg. Platform.
Subpl. Tenace.
Pyramid.
Basal Tenace.

Monuments.
Objects.

} Reports in each Staff Section of each year, if whatever.

Piedras Negras.



Frag. 9 of Stela 39 (see Ls notes,
correspondence of Morley & Bill
Andrews, 1940.
Photo by Bill.

See note
by Andrews.
This was not
shown to Riese,
1972.

Bill
Andrews Memo -

LS -
Frag. (9).

PIEDRAS NEGRAS - Stela ~~47~~ 39

A summary of the data connected with the finding of this monument and the inscription on it.

EWA - 3/19/40

This fragment was found on a visit to Piedras Negras January 2 , 1940. At the time it was raining heavily, and practically no relief showed on the fragment. I left it after inquiring what it was. My guide informed me that it was a fragment Satterthwaite knew about, and as I came prepared with neither notes nor a map I took no further notice of the stone on this visit.

It was lying on the ground, none of it buried, relief face up..... right under a fragment of terrace which had been left standing at the southwestern corner of Str.K-5. It apparently came from the rubbish of this building -- but I could not tell whether it came from outside rubbish or whether it had been removed from inside the pyramid.

From here I went on upstream to Yaxchilan, and returned to Piedras Negras on January 28, at which time I had the first look at the sun on the whole trip. In these two hours of sunlight I rushed around photographing a large number of monuments. In the course of this hasty second tour. I tried moving this fragment into a more favorable light, and was surprised to find that although the erosion was such that no interior details of glyphs remained, the coefficients stood out fairly well. Therefore I took the accompanying photo.

On return to Chichen Itza in the present month, I set about to catalogue the considerable number of glyph photos I had been unable to identify at the site. It turned out that this fragment was not part of the stelae near K-5 (38 and 39), nor was it known to SGM at that time. On consulting SGM, he confirmed having received no information about its recent discovery, and informed me that it was unlikely that Satterthwaite knew of it, as he had recently written that no glyphic material turned up during the last temporada at P.N.

It thus appears to be a new monument, or rather fragment.

On it are six glyph blocks, representing the bottom of a panel. The upper fragments are missing. The crack passed thru the middle of the blocks we shall call A and B.

The following is the glyphic evidence now discernable:

A1 - gone
B1a - may have been a day-sign cartouche
B1b - may have been a month sign.
Neither part had a coeff. to the left, but there may have been one above, as on the other glyphs of this fragment.
A2a - is effaced, but seems not to have had a coefficient.
A2a - is a day-sign cartouche on a trinal support with a clear coefficient of 9 above. Interior details are effaced.

B2a -is a secondary series. Surely 11 kins, 11,12, or 13 Uinals. Kin coeff. to left. Uinal coeff. above.

A3a - was probably the tun head, with a definite coefficient of either 3 or 4. 3 is much preferable.

A3b - is too eroded to see any detail

B3a - is a clear day sign cartouche with a trinal support and a quite clear coefficient of 4 above. No details are visible inside the cartouche.

B3b - is very probably the month sign. The coefficient is certainly 6,7,8,9 or 10 - the last being highly improbable. The glyph is composed of an eroded Cauac form at bottom with a ruined element between it and the coefficient above. The month, therefore, was almost certainly Chen, Yax, Zac, or Ceh. As double superfixes giving the aproximate form of the glypg under discussion may be found on all four of these months, little preference may be given, although the comb of Yax would make it least preferable.

If this date is connected with some period ending, the glyph at A3b might indicate that the C.R. date at B3 rather than the day at A2b would correspond to the ending.

The following are the two possible set-ups in view of the fact that one of the two calendar round expressions probably refers to some period ending.

A2b + Sec.Ser. = B3 (I)

A2b — Sec.Ser. = B3 (II)

Of the total range of possibilities, only 2 schemes emerge from our variants:

I. 9 ? + 4.13.11. = 4 ? 6,7,8, or 9 Chen,Yax,Zac,Ceh.

II. 9 ? — 3.12.11. = 4 ? 6,7,8, or 9 Chen,Yax,Zac,Ceh.

From here, we will make the assumption that one of the day declarations is a day Ahau and also a tun ending. This gives us two sets of possible locations in the Initial Series.

A.- If the last expression involves a day Ahau on a tun ending, there is but one position in Cycle 9: 9.18.18.0.0. - 4 Ahau 8 Chen. And the inscription would take one of the following forms:

9.18.18.0.0.-4 Ahau 8 Chen
4.13.11. (subtract)
9.18.13.4.9.-9 Muluc 2 Muan

or

9.18.18.0.0.-4 Ahau 8 Chen
3.12.11. (add)
9.19.1.12.11.-9 Chuen 19 Uo

B.- If the 1st expression is a day Ahau on a tun ending, the original possibilities rise to a large number. Of the 31 Cylce 9 tun endings on 9 Ahau, only one may be connected to our terminal date by adding 4.13.11. Of these 31 tun endings only 2 may be connected to the terminal date by subtracting 3.12.11. The three possibilities thus derived are:

I.
9.2.15.0.0.-9 Ahau 3 Kayab
4.13.11.
9.2.19.13.11.- 4 Chuen 9 Zac

II.
9. 9. 5. 0. 0.-9Ahau 18 Uo
3. 12.11.
9. 9. 1. 5. 9.-4 Muluc 7 Chen

III.
9.12.10. 0. 0.-9 Ahau 18 Zotz
3.12.11.
9.12. 6. 5. 9.-4 Muluc 7 Zac

These three dates have much more in their favor than that of A, as all three are hotun-endings.

I is not probable because of its very early date - earlier than any other dates at Piedras Negras -- and much earlier than any hotun-marker known anywhere. I discard it with small hesitation. Furthermore, it would make the latest date 4.13.11. beyond the contemporaneous date -- which is not a common practise. Finally, we have seen that the reading of the tun coefficient of the Secondary Series is much better at 3 than at 4.

Between II and III, the choice is more difficult. The month coefficient is 7 in both cases, and the month glyph may read equally well Chen as Zac. Both these readings involve a secondary series tun coefficient of 3 -- which we pointed out above is preferable

On stylistic grounds, there is no preference that I can see between 9.9.5.0.0. and 9.12.10.0.0. as the date of these glyphs.

A point in favor of the earlier reading is that there already is a Piedras Negras monument dating from 9.12.10.0.0. (Stela 38), and no duplication of terminal dates is known among the many stelae at this site. 9.9.5.0.0., on the other hand, is "open" (Morley's assignment of Stela 24 to this date is supported by no glyphic evidence).

Provenience, from my present knowledge, offers no clue as to the date. Stelae 38 and 39 date the top terrace of K-5, I believe -- which would put a minumum date of 9.12.5.0.0. on

Piedras Negras - Stela 47 (?) - 3a

List of the 31 original possibilities of the location of the day 9 Ahau at tun endings in Cycle 9.

1. 9. 0.3. 0. 0.- 9 Ahau 18 Zac
2. 9. 0.16. 0. 0.-9 Ahau 13 Mol
3. 9. 1. 9. 0. 0.-9 Ahau 8 Tzec
4. 9. 2. 2. 0. 0.-9Ahau 3 Uo
5. 9. 2.15. 0. 0.-9Ahau 3 Kayab
6. 9. 3. 8. 0. 0.-9 Ahau 18 Mac
7. 9. 4. 1. 0. 0.-9 Ahau 13 Yax
8. 9. 4.14. 0. 0.-9 Ahau 8 Yaxkin
9. 9. 5. 7. 0. 0.-9 Ahau 3 Zotz
10. 9. 6. 0. 0. 0.-9 Ahau 3 Uayeb
11. 9. 6.13. 0. 0.-9 Ahau 18 Muan
12. 9. 7. 6. 0. 0.-9 Ahau 13 Ceh
13. 9. 7.19. 0. 0.-9 Ahau 8 Chen
14. 9. 8.12. 0. 0.-9 Ahau 3 Xul
15. 9. 9. 5. 0. 0.-9 Ahau 18 Uo
16. 9. 9.18. 0. 0.-9 Ahau 18 Kayab
17. 9.10.11. 0. 0.-9 Ahau 13 Kankin
18. 9.11. 4. 0. 0.-9 Ahau 8 Zac
19. 9.11.17. 0. 0.-9 Ahau 3 Mol
20. 9.12.10. 0. 0.-9 Ahau 18 Zotz
21. 9.13. 3. 0. 0.-9 Ahau 13 Pop
22. 9.13.16. 0. 0.-9 Ahau 13 Pax
23. 9.14. 9. 0. 0.-9 Ahau 8 Mac
24. 9.15. 2. 0. 0.-9 Ahau 3 Yax
25.- 9.15.15.0. 0.-9 Ahau 18 Xul
26. 9.16. 8. 0. 0.-9 Ahau 13 Zip
27. 9.17. 1. 0. 0.-9 Ahau 13 Cumhu
28. 9.17.14. 0. 0.-9 Ahau 8 Muan
29. 9.18. 7. 0. 0.-9Ahau 3 Ceh
30. 9.19. 0. 0. 0.-9 Ahau 18 Mol
31. 9.19.13. 0. 0.-9 Ahau 13 Tzec

any monument within. Here we could probably make allowance for at least another katun for a re-used or discarded fragment. So we can safely say that if the fragment was in the interior rubble of the pyramid it must have dated from 9.9.5.0.0. However, there is another possibility. If the fragment was merely in the surface debris (which seems the more probable), it must have dated from after this date unless the ~~pyramid~~ terrace in which Stela 39 was laid considerably ante-dates the monument. In the case that this fragment must be assumed later than 9.12.5.0.0., it would nevertheless, most probably date considerably later; and the date 9.12.10.0.0. would be uncomfortably early. Any definite statements on this matter must be made after consulting Satterthwaite. But in advance of this, the date 9.9.5.0.0. seems better on the basis of provenience.

We therefore tentatively offer the date 9.9.5.0.0. 9 Ahau 18 Uo as the best reading for this monument.

~~9x12x~~