COLLECTION: Papers of Frank H.H. Roberts at the National Anthropological Archives

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ERRATA: Copy too light or dark in some places.

COMMENTS: Handwritten document.

CITATION: Shepard, Anna
1925 Judd's and Shepard's notes on the analysis of the pottery test sections. In Papers of Frank H. H. Roberts, Box 1, National Anthropological Archives, Smithsonian Institution, Washington, D. C.

7/28/37

Bonito & other Chaco Sherds examined with binoc. mic.

(1) 334175 B. (Test sect. II)
Organic paint B/W. only checked since there was an intrusion of late B/W in this set.

S	B	Sh	Sh + B
2	6	16	8²

{ 1, two sherds with micaceous slip
{ 2 fine " " "

(2) Mr. Judd's Pit house ¼ mi. E. of Bonito.

Storage (136/4)

324809	Small unpainted bowl	- B.
324811	Dipper	= V B
324810	" half gourd type	- M Sh
324806	Bowl	- M Sh

(3) B.M. III site 9 miles E. of Bonito 334122.

Shabik'eschee Storage (200/2)

B/W. min. paint . . . . . — 18
Sand temper (large well rounded quartz) 17
Andesite, similar to that of La Plata Valley 1
B/W. vegetal paint - Sand temper 1
Plain surfaced, sand temper 24
(6 oxidized pastes, 2 with polished black interiors graphitic appearance, 3 with smooth interiors like Red Rock buff. These and three others tool polished)

Color of paint & paste. M. paint S temper

Paint		Paste
Black	[illegible]	light gray-white
Brown	2	
Red "	12	8 cream to buff, other gray.

(4) Temper of Selected type sherds

Hachure A	min. paint	Sherd temper	27
" B	"	" Sherd "	5
	"	" S. Basalt "	1
" C	"	" Sherd "	23
Mesa Verde reg	"	Sherd "	38
	"	Andesite "	16/54 = 29.6%

San Juan Chaco - Technologically very heterogeneous.

Veg. paint		Sherd temper	45
"	"	Sand (coarse) "	4
"	"	x temper medium to fine sand no sherd recognized - -	7
"	"	sanidine basalt temper	6
"	"	Sherd & conspicuous sanidine basalt	3
Min.	"	Sherd temper	18/83 this group does not seem to belong

Pre Pueblo - all vegetal paint and stylistically consistent

Sherd temper	7	21.8%
Sand "	18	56.2
Sanidine basalt "	6	18.7
andesite	1	3.2
	32	

(Anna Shepard)

Symbols used to indicate tempers in Bonito Sherds examined with binocular microscope - 7/21-28/37.

Letters underlined to distinguish them from catalogue numbers

B - sanidine basalt. Sherds of utility ware with this temper are unmarked all other utility sherds marked.

S - Sand

Sh Sherd temper. Painted ware sherds with this temper are unmarked all other painted ware marked.

A. Andesites rocks of intermediate composition comparable to those of the La Plata valley but having a wide distribution.

C. Sand in which fragments of secondary quartz are conspicuous. May or may not have regional significance.

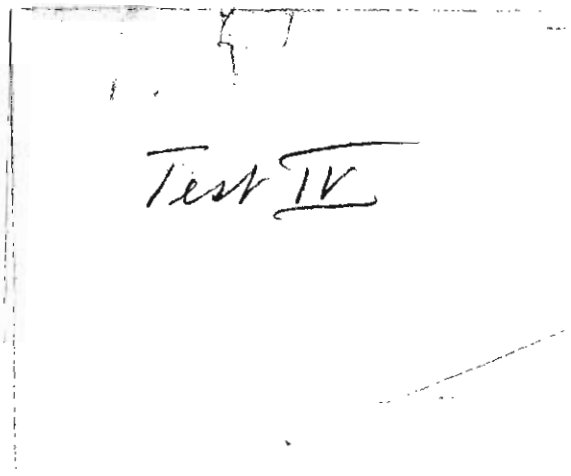
SS Sandstone

Sh+B. Mixtures of sherd + sanidine basalt in which the rock appears as abundant as the sherd. The latter is more difficult to distinguish, however, and the mixture may result from the use of sherds tempered with rock

Paints-

V - organic

unmarked - mineral


Test IV

Stratig.

Test IV @ PB, was made on N. slope of W. mound.

Contained mixture of P II & P III sherds (Anna Shepard in CA #19 p. 280)

Test II in older rubbish under W. Ct. (almost all P II)

Frank —

Anna Shepard points out our Chaco – S.J. can't have a Chaco technique because it is stone polished & has organic paint. What features are Chaco? ~~Will any reversion suffice~~ ?

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*

Test II

Sects. A – K. incl. 12' deep.

Straight hachure only in A, B, C = upper 4'2"

Squiggled hachure – in all but J & K (~~very little below I~~)

Polished-over-design in A – I (except H)

Chaco-~~San~~ Juan only in A – C

M.V. – 1 sherd in B – (depth 1'6" – 2')

Corrugated coil – in A – D upper – (upper 4½ ft.)

Broadbands – in all

P.I. slab-house @ bottom

VI (Anna Shepard) | Sanidine Basalt

Total B/W sherds.		No. B	No. V. paint	No. B.
J.	3	0	0	0
I	58	4	4	0
H	53	4	1	0
G	130	5	1	0
F	193	26	25	18
E	95	15	17	15
D	79	7	10	7
C	127	11	20	8
	738	72		
IV				
D	43	0	1	0
C	69	2	6	2
B	120	6	8	5
A	7	0	0	0
	977	80.00	93	55

977)93.00
8793
5070
4885

(9.5% V. paint among total B/W.)

80.00
73 16
6 840
6 839

(8.7% with B temper)

93)55.00
465
850
837

(58% of V. paint tempered with B)

V. paint sherds — Sec. II {from a. s. table}

	s	B	sh	sh & B
I	3		1	
H	1			
G	1			
F	4	18	3	
E	3	14		
D		7	3	
C	2	9	4	6
B	2	6	16	8
	16	54	26	14
	14%	49%	24%	13%

Total: 110

no V. paint in J & K

Test II (anna shephard data)

Layer	S.	B (Basalt)	Sh.	A (Andesite)	C	Total
F	16	40	4	1	14	75
E	14	18	2	0	4	38
D	12	13	0	1	1	27
C	11	48	3	1	9	72
	43	119	9	3	28	212

212) 119.00 (56.1% Basalt temper.
1060
1300
1272
280

A. S. notes, July 21-28, 1937

Test II:

- "Mineral paint B/W preponderantly sherd-tempered with higher percentage in upper cuts ---" (C, 95.5%; D, 97.1; E, 97.5; F, 84.5; G, 77.2; H, 63.0; I, 84.1%

- Vegetal paints very rare in lower cuts, G-I: more common in upper cuts (highest, 17.9% for E) as temper, sanidine basalt, sand, & sherd all occur but sanidine basalt is most abundant (70-82% for D-F)

- B/R is indistinguishable fr. La Plata Valley P.I B/R where andesite is also the principal temper. A few examples of sherd- & sanidine basalt temper in level I & upward.

- Banded neck + plain surfaced pots are preponderantly sand tempered. Total sand tempered sherds varies from 62.0 to 76.7% in cuts G-I; from 39.0 to 50% in cuts C-F. Sanidine basalt present in lowest cuts, ranges fr. 13.9-28.0% of plain surfaced in G-I to 46.0-57.0% in cuts C-F. Marked increase begins in F in which occurs the "marked increase of vegetal paint B/W with sanidine basalt the principal temper."

– Sand, in 20–28.6% plain surfaced sherds in cuts F–H; is very rare in indented corrugated.

– Sherd temper in banded neck pots occasionally; in 3–10% of indented corrugated of Test IV, D–B.

– 1 only example of andesite temper in banded-neck sherd (Test II. 7) is "almost certainly an intrusive".

Of 32 Pre-Pueblo sherds, all vegetal paint & stylistically consistent.

Andesite temper in	1
sanidine basalt "	6
sherd tempers "	7
sand " "	18

Chaco–S. J. is vegetal paint, varied tempers.
M. V – is sherd tempers, 38; andesite 16 out of 54.
Late Hatching: A. min. paint, sherd temper 27

B	" " "	55
	" " sanidine basalt	1
C	" " sherd	23
		106

Test II — B/W.

Mineral paint mostly sherd temper, % increases in upper levels. (C-7)

Vegetal paint, Types very rare in lower levels; more common in upper. Temper = sanidine basalt, sand, ~~sherd~~. In level 7, ~~marked increase of~~ V. paint B/W with sanidine basalt temper 1st appears in marked increase.

Storage:

334175 — Test II, Levels C-K. Level F contains 1 sherd with unidentified rock. Anna wants this to stay with rest & keep for her series. OK.?

Test II Banded-neck pots.

Temper = ~~mostly~~ sand in lower cuts (G-I); less sand tempers in cuts C-7. Sanidine basalt present in lowest levels; % increases greatly in upper levels (C-7)

X

A few pots with sherd temper, especially in upper levels; 1 pot. with andesite temper is doubtless intrusive.

About ¼ of sherds in 7-H shows sand with secondary quartz (very rare in indented corrugated)

(sherd temper in 3-10% of indented corrugated in levels D-B, Test IV.)

Test II — B/R.

"Indistinguishable fr. P. I B/R from the La Plata Valley the principal temper of the Chaco Type is andesite like that of the La Plata."

Both sanidine trachyte & sherds used for temper as early as level I, but not commonly.

Test II

Free B. temper in a few mineral B/W paint types but preponderates in B/W organic paint types. (1-8% in lower levels; 12-17 upper)

Less free B. temper in handled neck & plain pots than in Test IV (13-28% in lower; 39-50% in upper Increase parallels increase in organic paint types).

Summary

(B) rare in early mineral B/W. & preponderant in organic which form small minority (prob. imported)

(B) important in culinary ware & use increases "steadily & uniformly fr. early to late levels" (25% in lower to 75% in upper)

II — Mineral point B/W

	Total Num. B/W.	Num. B.	%
J -	1	0	
I -	44	4	
H -	46	4	
G -	92	3	
F -	168	8	
E -	77	0	
D -	69	0	
C -	107	3	
	604	22	

B/W - V-point

J -	0	0	
I -	4	0	
H -	1	0	
G -	1	0	
F -	25	18	
E -	17	14	
D -	10	7	
C -	20	8	
	78	47	

pot	lyts.	Total all pots	wide coil	Narrow coil	plain rim	indented coil	All bases Total B.	temper
II	~~K~~	~~3~~			~~3~~			
	J	21		2	4		6	28.5%
	I	58	3		14		17	29.3%
	H	51	1		8		9	17.6%
	G	118	11	3	23		37	31.3%
	F	75	30	10			40	53.3%
	E	38	17	1			18	47.3%
	D	27	10	2		1	13	48.1%
	C	72	11	7		30	48	66.6%

W. Ct. Test # II (3/5/41)

K – Plain & B/W. sherds + solid design
some slipped; others "puddled".

J – 2 sherds only B/W – all puddled
1 " B/Bl. interior; gray outside
deco. = pendant orn. solid △s
& parallel thin lines

T B/W = mostly thin ‖ lines + solid
△s, etc : 4 pots (bowls + jars) with
curvilinear design & squig. hach.
kaolin washed (?) but few with
definite slip.

H Mostly ticked lines, parallels,
etc. ; 6 with waved lines. No hach.
None with definite slip

G Trans. designs include waved
lines & 3–4 squig. hachure
none with positive slip;
many puddled.

F Trans. designs include waved
& curv. squig. hachure

Iw. Ct Test II 3/4/41

E Trans. designs incl. a few waved lines & squig. hachure – both curv. & rectilinear.

D Trans. – curvilinear design + squig. hach.; 1 waved line
Few with def. slip

C Trans. designs + 3 straight-line hach. & 6 with curvilin. squig. hach.; 1 waved line
2 with apparent slip

W Ck. Trench – Sects. I & II

I – 13' deep ; 27' N. of R. 136
II – 12' " ; 44' N. of R. 136

Late Bonito sherds not found below upper 4'.

27 44
3 30
30 14'

#II is 14' N. of I

AOS letter 11/21/36

Chaco-B/? =
B paint but various tempers.
"least uniform in paste."
1 sherd tempered with "diorite identical with that found in La Plata types."
1 ~~frgt~~ tempered with sanidine basalt
1 " " - sherd + " "
1 " " - " + unidentified rock
1 " " " + felspar & quartz
1 " " with sand (only sand-tempered fgt noted among B/w types, except Kayenta P.I.

18 fgts with mineral paint & sherd temper do not belong.

Sanidine basalt

Shepard (1939) - p. 279

Not found in any La Plata types.

La ∴ pottery fr. E. of Chuska Mts.

"A study of paste of sherds from (PB) showed that the sanidine basalt is a common tempering material in corrugated pottery, that it sometimes occurs as inclusions with the sherd temper of (B/10) types. [Since sanidine basalt occurs commonly in pottery of the Chaco district & is absent in all except recognized or suspected intrusives of the La Plata the presence of this rock in Chaco-like pottery of the La Plata districts is good evidence of importation from the Chaco."

porphyrics vanderites Tempered La Plata wares

Shepard 1939, p. 279

@ PB "sanidine basalt is a common tempering material in corrugated pottery, & that it sometimes occurs as inclusions with the sherd temper of B/w types."

p. 281

"(S. b.) was a common tempering material in the district @ the foot of Washington Pass."

Shepard, 1939, p. 280

PB Tests II & IV together show s.b. rarely if ever used as primary temper – none found in 190 sherds – but was introd. in sherd-temper.

"The rock temper does occur (tho rarely, in some of the earlier mineral-pt types, & it is the preponderant temper in the organic-pt. types, which form a small minority ... On the other hand, s.b. is an important temper in the culinary ware, & rises steadily & uniformly fr. early to late levels, making up a quarter or less in the lower levels & well over three-quarters in the latest."

(Bennett Peak dist., E. of Chuska Mts.)
Suggested source of s.b.: Washington Pass, near crest of Chuska Mts., 80 km. W. of PB, where s.b. is predominant temper. As in C., low % of s.b. in mineral-pt. types.

higher in organic

Shepard 1929, p. 780 Type sherds

35 in all Thin-sectioned for petrographic study

Mineral paint Types
s. b. sherd temper in 3 out of 26 Early & Late Hachure

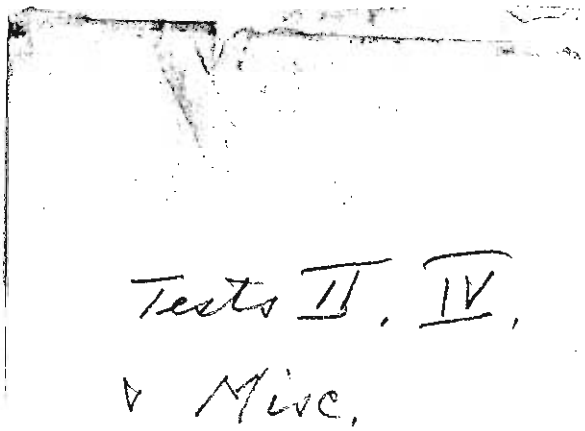
no s. b. in degenerate or Solid B/w.

Organic paint C-P-J
sherd tempered
s. b. in 3 out of 6

In both mineral & organic pt. Types, s. b. secondary in sherd-tempers.

s. b. does occur, but rarely in organ.-pt B/w types in Test IV (P. II - P. III)

Corrugated
1 sherd (only 3 sectioned) had s. b. as temper.


Texts II, IV,
& Misc.

Anna Shepard

Temper, BB pottery MS. notes 7/28/37

Types

× Pre-Pueblo: (all V. paint) Of 32 sherds examined:

sherd temper in 7 (21.8%)
sand " " 18 (56.2%)
sanidine B. " " 6 (18.7%)
andesite " " 1 (3.2%)
32

Hachure A: min. paint; sherd temper (27)

Hachure B: " " " " (5)

" " , sanidine B. (1)

Hachure C: " " , sherd temper (23)

Mesa Verde: V. paint, sherd temper (38)

" " , andesite " in (16)
or 29.6%

54

as. MA notes 7/28/37

Chaco – San Juan

V. paint, sherd temper 44
" " , sand (coarse) " 4 (3 from same bowl)
" " , × temper + fine sand 7 (2 from same bowl
" " , sanidine basalt 6 (4 from same bowl
" " , sherd + san. basalt 3 (2 from same bowl

[Min. paint, sherd temper 18 (6 from same 2 bowls
"This group does
not seem to belong"]

83

2.

1- ~~Temper in Rfleck interior~~

See Shepard letters in

~~Symbols~~

sherds examined by
Anna Shepard
stored in
Sect. 133(6) 1926 series

~~426~~(2) } #334177 ✓ Test II (11 lots)

" 131(1)(3) } ~~77~~ Test IV
~~428~~ (4 lots)

" 440(2) BM III

"

334178 (20 lots)
— 179 (14 lots)

334174 (11 lots)
Sec. ~~Test~~ I
334176 (2 lots)
Sec. ~~Test~~ III

II & IV — Total min. point B/W

II - 604
IV 190
794) 27.00 (.7 % B. Tempered
1588
6120
5558

Total V. point

II - 78 47
IV - 15 ?
93) 54.00 (58 % = B. Tempered
46
740
744

B/W min, paint & sh. tempd
occurs in lowest part Test II
Also, 1 sherd andesite
cook pots below II-7 are
mostly S. tempd; above 7
mostly B. " . But B
occurs in bottom level; &
S. occurs in Top level.
Indent. corrug. first appears
in our test in II-D ——
1 sherd, B. tempd. Of 39
ident. corrug. frgts in II-C,
30 tempered with B., & with S.

In Test IV - A-D only — both
S. & B. in cook pot frgts; B.
predominates in indent. corrug.

In both tests, B/R predominately
Andesite tempered.

Test IV B/W

Mineral paint - mostly sherd temper; % increases in levels D-B. Use of andesite or sand is rare; sherds with andesite are like those fr. La Plata; those with sand temper contain secondary quartz.

Vegetal paint - rare. Temper varies: sand, sherd, pounded basalt; latter as frequent as sherd.

Storage:

334177 - Test IV, Levels A-D

Test IV — Indented Corrugated

Temper = chiefly sandy loam; % increases in upper layers. Sand temper very rare in upper levels; shell temper more common — 3 to 10% in levels D–B.

A.S. notes, July 21-28, 1937

Test IV:

- Typical mineral paint B/W has high percentage of sherd-temper: D (82.9%); C (94.2%); B. (97.7%)
- "Exceptional" sherds tempered with andesite or sand. "the former are similar to pastes of the La Plata Valley."
- "Sherds with vegetal paint are rare."
  Sand-, sanidine basalt-, & sherd-temper represented; sanidine basalt is @ least as frequent as sherd.
- "Sanidine basalt is principal temper of indented corrugated ware; is more abundant in B than Con't."
  (B., 87.5%; C. 55.0%; D., 59.2%)

~~Pots~~ of pits	Total all pots	Wide coil	Narrow coil	plain sur.	indented	Total B.	%
IV – D.	35	2		4	16	22	62.8
C	71	3	1	6	23	33	46.4
B.	65	1	3	7	28	39	60.0

IV	Min. point total B/W	# B.	%
D –	41	0	
C –	√2	0	
B –	90	0	
A –	7	0	
	190	0	

	V. point total B/W	No. B.
D –	1	0
C –	6	2
B –	8	5
A –	0	0
	15	7