

MIROBRIGA

WEST BATHS

S. Service A.

Room 4

Room 5

Water Channel

NW Ctyd S, '82

NW Ctyd S, '84

NW Ctyd N, '82

NW Ctyd N, '84

8. Service Area

18 July 1982

001 #2

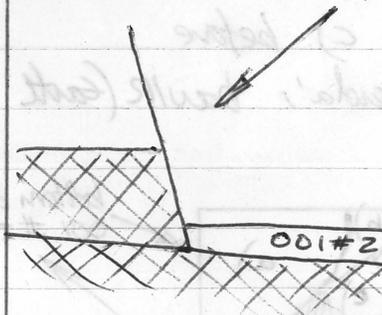
After cleaning whole service area of loose earth rubble of weeds + Almeida's buttress wall set out area 1.50 m x 2.00 m to the N.E. of Almeida's sondage. The NW section is parallel w/ the NW wall of the service area 3.30 m from it. It continues the line of Di Almeidas NW section that was trimmed making it parallel with the wall in 2 stages (the balk was sloping it towards the bottom) - the upper part 3.10 m the lower 3.30 m from the wall.

See general plan of area.

Within the area selected a channel has formed draining storm water from the baths to a hole under the threshold of the room. This channel runs approx. NE through the room.

Locus 001 #2 is the washed earth that has accumulated since Almeida excavated.

Starting in the channel itself there is a layer of wash c. 4 cm thick covering the ash accumulation. In the section cut into the bank of the gully the Ash layer exists at a higher elevation than within the gully.



To the north of the cutting a raised area of earth appears to have slumped from an Almeida balk over the Ash deposit. Although this is possibly original earth eroded by water action it is excavated as 001 to avoid

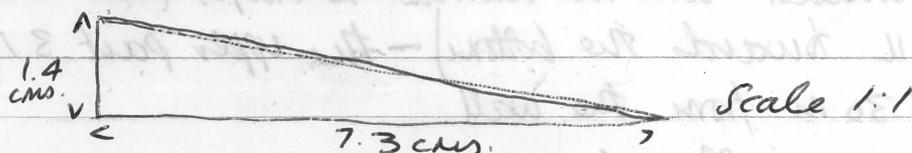
contamination.

Barnet starts 164 - 153 below datum in Gulley.
148 - 160 — " — in NE Part.

Colour: 10 YR 4/4 Dark Yellowish Brown.
Large cobbles, clayey silt + sand particles w/ random distribution.

Slope. Down 15° to south.

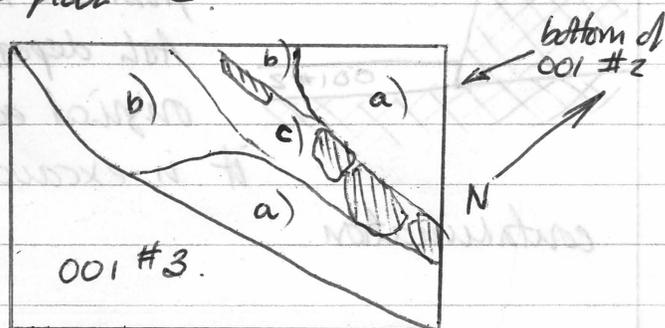
From within earth in NE corner came a wooden wedge (still in good condition) proving that deposit is recent.



After excavation of bucket #2 3 new Loci are apparent & will be named later.

- A layer of carbon etc laid in this deposits (005) interspersed with orangey earth sloping towards east $5^\circ \pm$. In this are numerous small fragments of brick & tile.
- Under of is a deposit of Black ash deposit overlying (005)
- a feature consisting of lemon yellow coloured sandstone? (rain) cobbles exposed by a channel formed by recent water action predating that presently in use.

This water channel had sandier soil within it & had cut through both a) & b) down to c) before being partially blocked by slump from Almeida's bank (earth in N corner of area) of Top Plat #2.



18 July 1982.

001 #2 continued.

M.C. { 9 frags of (Amorphous) tile - Thrown.
 { 2 frag roof tile?
 { 1 Sherd + a number of other pieces sent up

19th July 1982

002 #3.

Consists of uppermost layer of earth in scatter triangle of top plan #1.

Colour 7.5 YR 6/4.

Very hard compacted surface made of:

Silt w/ sand particles & occasional small pebbles.

c. 7 cm max depth before coming on layer of sand.

at top plan #1.

Earth breaking off surface of a more red coloured sandy layer w/ pebbles 3-7 cms down.

cleared off whole area for photograph.

Pottery - 3 frags (2 tile frags).

Photograph.

82-257 Bottom of Lows 001 #2 and 002 #3.

Loading to N.W.

003 #4 Gritty coarse grained sand w/ small pebbles + occasional tile fragments. Flocks of charcoal present

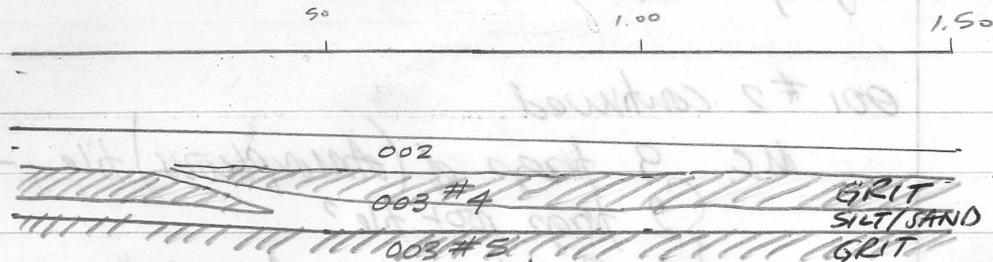
Slope - gently down to East.

Colour 10 YR 4/4 Dark yellowish Brown.

Beneath coarse grained earth becomes silty/sandy again & then Gritty of sketch of section (S.W.)

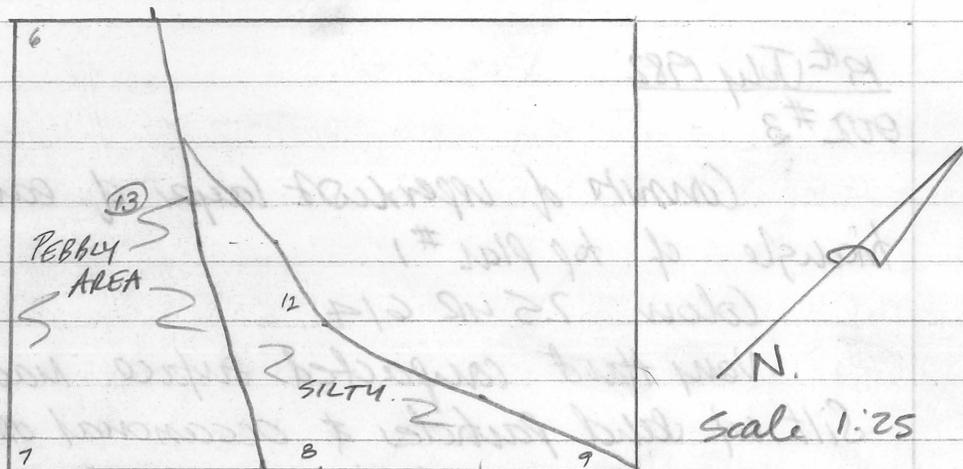
SCALE
1:12.5

SW SECTION



Datum. 223.53.

- 6 125
- 7 115
- 8 125
- 9 135
- 12 130
- 13 127



These changes appear to be lenses of earth within the layer of wash - representing climatic & material changes & method of transport of material transported. Change of magnet to reverse initially, the pebbly material

003 #4. Material culture

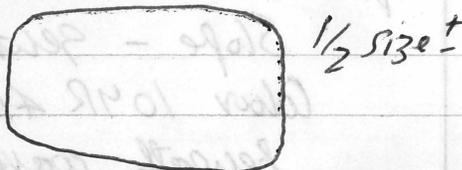
003

- 2 bone frag. Numerous (bones)
- 22 frag of tile (some very worn)
- Sherds ~ 100 frag - 1

B.S. (including 1 sm. frag. sig.)

Worn? 4 covered sherd 2

(broken by pick)
perhaps used for other
things?



B.S. Spanish sigillatum sherd (probably from Baetica) 1/2 size+
fabric w/ many lime chunks (largest) Matt brown slip



003 #5

20 July cont.

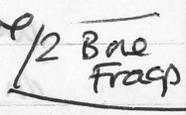
pebbly layer of silt.

5 yr 4/4 Reddish Brown.

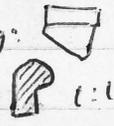
Merely a lens within wash? Very pebbly iced schist fragments from small pebble size -> small cobbles. Very little earth of silt/sand size grains. Some tiles.

Slopes down towards north under earth left to north of east. Excavated fault as part of lower 003 Barnett #5.

In south part of square ~~east~~ pebbly layer 15 cms deep. c. 50 cms from SW bath starts to slope steeply until it becomes merely 1cm thick above gently sloping layer of silt. 25 frags tile.



Numerous bs. including 1 S. Gallic sig? / Spanish sig 1st c. AD? 1 Rim sig:



003 #6

Layer of silt under pebbles.

Starts	6/	127	—	222.26	223.53
	7/	127	—	222.26	
	8/	138	—	222.15	
	9/	143	—	222.10	
	12/	140	—	222.13	

Colour 10 yr 4/4 Dune yellowish Brown.

21st July

Excavation of c. 15 cms of silty wash colour 10 yr 4/4 w/ very little material in it - some bone, & tile appearing at bottom of spit.

Slopes gently down to north.

At bottom of 003 appears layer of fallen roof tile. Saw curved some flat resting on surface of black ash & charcoal. - Cleared off for photograph & for

drawing.

Photographs 82-258 Top of Locus 004 Tile tumble on Ash
Surface to N.W. (color taken also)
82-259 — Ditto —
view to south. (color taken also)

M.C. in 003 #6 mainly tile from top of
Locus 004. Some bone. No sherds. Tile given to 004 #7

004 #7 Top elevations 222.20 - 221.97 m.
Tile tumble. Randomly strewn denser in
west becoming less numerous in N. & W. Resting
on very dark layer of charcoal
see top plan # 4. for area of elevation.

Slopes down towards North c. 5-10°

Tiles seem to be from roof - some curved, some
flat with cusp for interlocking (Pan + cover tiles)

4 buckets of tile 2 buckets of earth in 3m² area

No sherds

7 Bone frags

Bottom elevations.

Silt among tiles must have washed in (after roof
breached & taller?) charcoal pieces in silt of
003 bottom layer & 004 probably popped off
Surface of Ash by rot & animal action.

At bottom of 004 Ash layer has tile in it - JB suggests
ash was soft & tiles sunk in.

22 July 82

005 # 8

Photograph

82-263 Top of Locus 005 Looking towards NW from Above
Color: charcoal 2.54R 2.5/1 Black start 222.4 - 221.95.

Excavation of very dark ash layer under tile & brick fall contains much charcoal + tile & brick that may have sunk into ash or may have been cleaned out of hypocaust with the ash.

In SW corner 8 cms + down a red lens becomes apparent. Color: 54R 4/6 yellowish red.

Sandy (mainly) + silt perhaps from clay & brick material cleaned out no MC within it. @ 6-7 cms thick in SW most corner becoming thinner to south & east. (cf sections) before running out 30-40 cms from SE Bath and elsewhere in mid trench.

Charcoal black layer is obvious both over & under it & no change of locus could be detected.

Charcoal layer comes down on second lens in SW corner of Top plan #5

Color: 7.5 4R 5/4. Strong brown

36 Buckets of earth.

This extends just below red lens over about same area covered by two red, however a gully bisects it filled with charcoal (run E-W)

will change bucket but not locus.

1 Bag of sherds (including 2 rim frags (4th 5th AD) ↑

1 Iron Fragment

1 bag charcoal

1 bag bone.

Many tile fragments. 4 buckets containing 250 ± frags.

23 July 82.

005 #9. Lens of 'yellow' earth in SW Quarter.

7.54R 5/4 strong brown.

Silty material - burnt clay \rightarrow reddish particles

fine powdery lime frags \rightarrow yellow particles

cf Top plan # 6.

Start 222.02 - 221.91

Slopes down towards North $10^{\circ} \pm$

Little M.C. ~ 1 bag of tile/brick fragments only comes down. on black ash layer w/ tile in it

$1\frac{1}{2}$ frags = $1/3$ Bucket of tile. No frags above.

001 #10 Excavation of small area of Modern?

Wash in NW corner that contains chemical

kecks. cf top plan #3

Top elevation: 221.88

Bottom

4 tile fragments - thrown

1 BS. kept.

$1\frac{1}{2}$ buckets of earth.

In extreme NE corner 001 #10 overlies yellow stones like those revealed in channel under 001 #2. May be similar channel like feature.



(9A #2) spot nr S (including 5 m frags)

1 bag of earth (including 5 m frags)

1 bag of earth

1 bag of earth

1 bag of earth (including 5 m frags)

23 July.

005 #11

cf Top plan # 7.

Starts. 221.95 - 221.83

Slopes down towards North 5° .

Ash layer w/ brick/tile covers whole area except where gullying from rain wash? has occurred in N.W. corner exposing yellow stones of sub floor(?)

Starting in NW corner yellow stones turn out to be possibly the walls of a ~~the~~ drain running East-West across the service area. To the west of this at the same elevation is blue/gray bedrock w/ broken bricks laying flat on it in no apparent order

Although removed elsewhere except the SW corner the ash & tiles of 005 #11 probably largely represents the broken up make-up of the rubble brick cobble floor

1 1/2 buckets of tile 120 \pm tile frags.

1 Frag Lead.

1 bag of Shards.

006 #12

So called rubble brick floor in SW corner of square of Top plan # 9.

Tiles sized ~~20~~ 20 x 20 x ~~1 1/2~~ 1 1/2 cm to 10 x 5 x 4 1/2 and smaller.

Most are lying flat on surface of bedrock. Elsewhere disturbed by whatever - roots, human agencies (process of clearing out system).

Starts. 221.90.

Fault between bricks is of Carbon (Black - 7.5 yr ago.

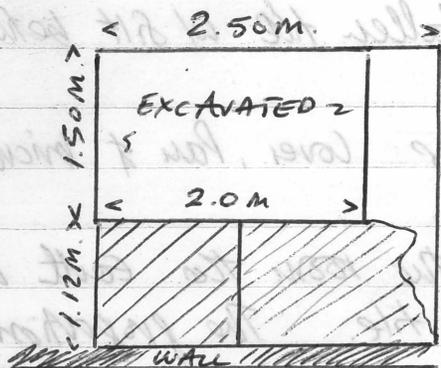
Sand (broken down mortar?) 10 yr 4/4 Dark Yellowish Brown.

3 buckets of earth, 2 buckets of tile (75 \pm).

25th July

003#13

Excavating wash layer from SE. 1.00m x 1.15m ± of bank of earth left between 1st trench and SE wall.



After 30 cms extended to NE Part also. Tile frags. bone, some shreds including 3 frags red glass. Earth pebbly then silty in layers - layers of wash sloping down towards NW of NE.

Starts 222.54 ±

Ends 222.24 ±

37 tile, Pottery, Bone.

26th July

003#14

Continues removal of wash of pebbles from above layer of tile fall cleaning surface of 004.

Start ~~222.24~~ 222.24 ±

Handle of glass bowl,

Tile 13 Brick 1/2 bucket

21 cover

1/2 bar

56 indeterminate frags.

Ribbed 1:1

Dic Glass 91am.

Total 1 1/2 buckets.

Some pottery of bones.

After 10-15 cms comes down on 004 layer of taller tile → mainly part tiles of cover tiles + some bricks. Earth very damp in SE corner next to wall

Excavation - Top plan # 10.

End elevations: 221.92 - 222.18 (N End).

27th July

004#15 005#15

005

Photograph. - Top of 004#15 Looking to SE.

82-284.

Elevations: of Top floor #10

Layer of Broken fallen tile w/ silt between containing much Ash + charcoal

Tile + sandstone floor Cover, Pan & brick tiles.

In this part of the room the earth is far less ashly w/ much brick tile. The proportion of bricks is high & many still have decaying plaster mortar adhering. Earth is less ashly than 004 to NW.

Much mortar : 10 YR 5/6 Yellowish Brown.

5YR 3/3 DK Reddish Brown.

Earth colour

+ Black Ash.

This earth more closely resembles clean out from Hypocaust of tile & brick + mortar rather than roof fall of room. Some cover & Pan tiles are present but not nearly as densely as to the east.

① Will I remove remaining rotting material & close

Locus

② Keep same locus # & continue because tile does continue down vertically -

- 2, can re designate Locus # later if necessary.

270 brick frag

37 Pan ?
16 Cover ?

Decided to re designate Locus as 005#15.

9 1/2 buckets. total

: so called tile concentration in W. part of area was

No Pottery, No B.P.

early defined sitting on thick black ash layer. Also 004#7

No Notings

contained large amounts of Pan & cover tile less prevalent here.

27th July
005#15

Amount of brick in earth reducing → clean up of
bracket clause for tomorrow.
Ends 221.87 - 222.05.

001#16
ii Cleaning recent wash from on top of black earth
50 cm addition to trench.
2 BS Thrown.
8 broken frags.

Starts 221.80 - 221.87.

Ends

Wash layer overlying black earth of 005.

28th July

005#17

Starts 221.87 - 222.05 m.

Less tile, more ash reddish brown earth (
) Ash, Tile

ca. 140 frags of micks
ca. 50 tile frags.

1 frag bronze

1 frag lead

6 holes sherd

29th July

Draw top plan of bulks.

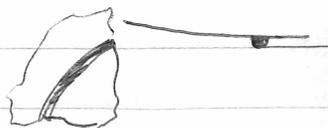
30th JulyTWO 82-396
B/W & COLORPhoto of top 006
taken to ~~SW~~ SE

001 # 18

Jan cleaning of post - Almeida wash to North of area excavated leaving temporary 10cm skin bank.

Frag of Copper Alloy - Brass shell casing?

Piece of T. Sig. Hisp. Pottery - Base comes right down to bedrock which is cut for drainage channels issuing from entrances to both hypocausts. Only c. 10cm deep, cut in bedrock, & running a L joint c. 1.00m from entrance.



006 # 19

'floor' of floor made up - some tiles lying flat on Ashy earth or on bedrock itself. In westerly area it took appearance of a floor, but could easily be another layer of Ash & clean out that contains much large fragments of tile.

Clayey ^{colours}

Sandy orange earth in SE cor. (7.5 yr 5/6 strong brown) w/ pebble size frags of Schluff, tile & sandstone. + charcoal. Must be decomposed brick, ~ C. 5 buckets full but no m.c. apart from the chunks of tile.

soil
(cont)

003 P.B. 20

NO POTTERY

Removal of small spit of earth at 2.50 m.
North of South wall.

Top -

Bottom - .51

005 P.B. 21

NO POTTERY

Removal of loam 005 beneath 003 in small
spit.

13 frags of tile & brick

1 piece bone

3 August

006 #22

After much rain resumed removal of
Ash of tile from top of bedrock. So called Floor
actually is more likely another Level of Ash
like those in 005. Floor proper that is
apparent in entrance of hypocaust probably
would have long since delapidated by the
time the service area & hypocaust were cleared
for the last time

Towards the doorway the drain again becomes
apparent w/ broken down sidewalls & broken tile
floor. Displaced yellow sandstones from wall of drain are
scattered in area of Final top plan.

210 tile in 5 Buckets.

4 August

006 #23 Ash in drain proper.

4th August

006 #23.

Material inside brick floored drain 2-5 cms deep
Ash deposit. ~ 1 coarse wave strand (Base)

It is quite evident that the ash layer extends over the whole of the area except where removed by de Almeida in the N. part. Almeida did leave 2 rock cut drains w/ Ash in them. These join at a 90° angle of flow towards the hole under the threshold. These were excavated with dingo bucket.

527.

007. 2 Stone feature near east wall.

008. Brick floored drain

~~009~~⁰¹². Bedrock

009 Rock cut drain → N.

010 — " — → W

011 Floor of Hypocaust & N.

Photographs

82-527

Final Photograph of Area ~ Showing drains of bedrock to S.E. (Colour taken Also.)

-528.

Detail of Drains 008, 009, 011 (Colour taken Also.)

-529.

Detail of 'South bank. showing stratigraphy (colour)

12 JULY 1982

- 82-237 S. Service Area: Almeida trench + Arches of Hypocaust entrance
To WEST.
- 238 S. Service Area: Double Arch construction of H. Entrance.
To NORTH.
- 239 S. Service Area To EAST

16 JULY 1982

- 250 S. Service Area Pier of furnace for Caldarium after cleaning
To SE FROM ABOVE.
- 251 Westerly Pier of furnace To SW.
- 252 Easterly Pier of furnace To NE.
- 253 S. Service Area showing 3 Hypocaust entrances To NORTH.
after cleaning.
- 254 S. Service Area - Caldarium H. Entrance + Almeida trench
To NW.
- 255 Trench in S. Service Area 001 top To NW.
- 256 " " 001 top To SW.

19 JULY 1982

- 257 BOTTOM OF 001 #2 & 002 #3 To NW.

21 JULY 1982

- 258 TILE ON ASH SURFACE 004 TOP (Color also) To NW.
- 259 " " 004 TOP (Color also) To SOUTH.

22 JULY 1982

- 263 TOP OF 005 #8 ASH, To NW.

27 JULY 1982

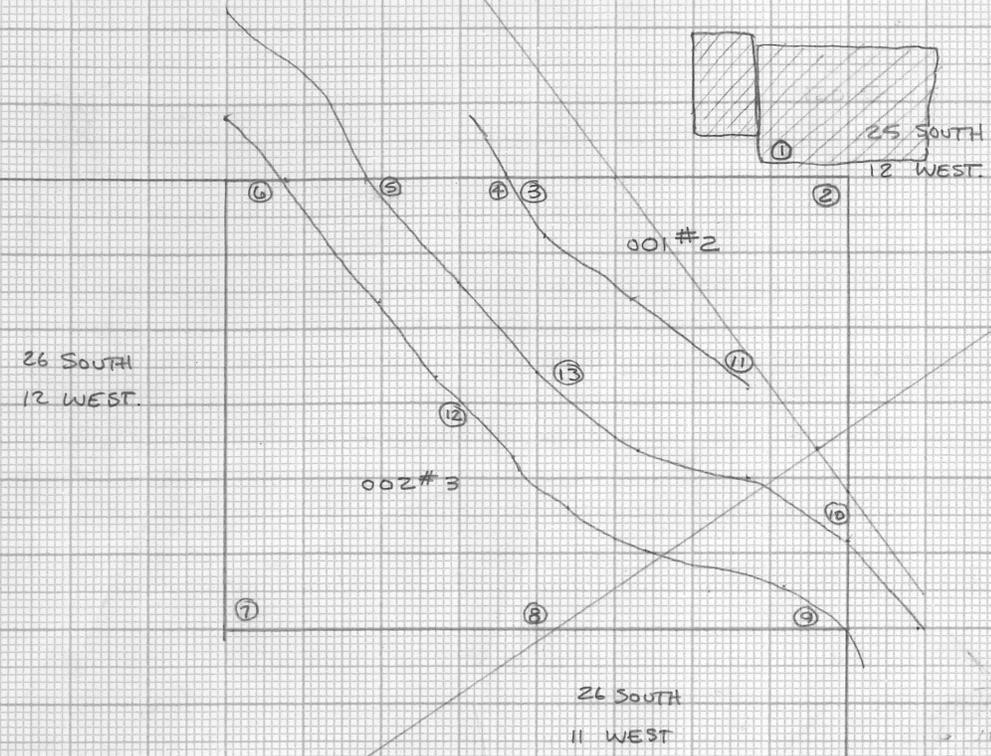
- 284 TOP OF 005 #15 To SE.

82-520

Detail of West bank showing Drain & Ash in it.

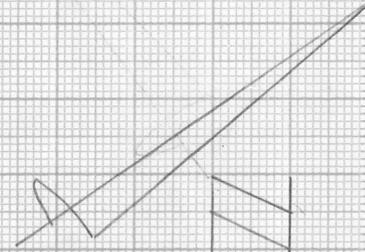
521

Detail of Drains leading from Appocawsts.
(Colour Also)



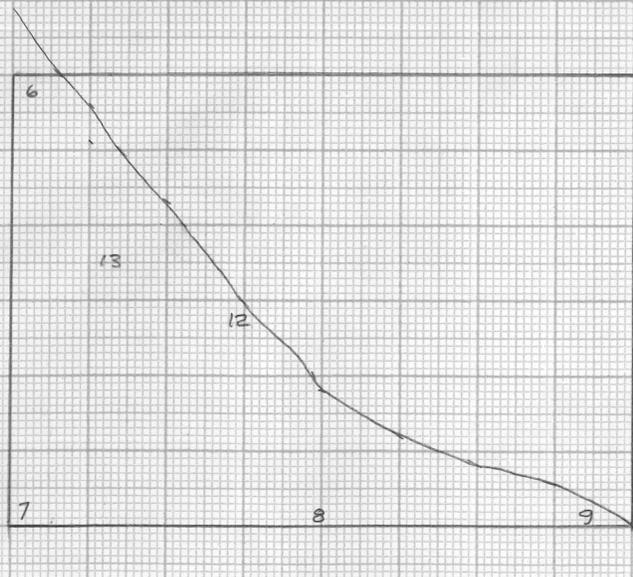
1	132	222.21
2	160	221.93
3	148	222.05
4	156	221.97
5	153	222.00
6	108	222.45
7	105	222.48
25 SOUTH	8 113	222.40
11 WEST	9 134	222.19
	10 164	221.89
	11 165	221.88
	12 115	222.38
	13 160	221.93

WEST BATHS SW SERVICE AREA.
18 JULY 1982 G SANDERS.
TOP PLAN #1



SCALE 1:25

223.53



TOP OF 003#4 (TOP OF 003).

6	115	222.38
7	112	222.41
8	119	222.34
9	130	222.23
12	118	222.35

TOP OF 003#5

6	125	222.28
7	115	222.38
8	125	222.28
9	135	222.18
12	130	222.23
13	127	222.26

TOP OF 003#6

6	127	222.26
7	127	222.26
8	138	222.15
9	143	222.10
12	140	222.13

19 JULY 1982 G.D.R.S.
TOP PLAN #2
LOCUS 003

△ 223.53

TOP PLAN #3
BOTTOM OF OOI #2.



1	165	221.88
2	163	221.90
3	169	221.94
4	161	221.92
5	161	221.92
6	172	221.81
7	175	221.78
8	169	221.84
9	162	221.91

N.  SCALE 1:25.



TOP PLAN #4
TOP OF LOCUS OOA (TILE FALL)

△ 223.53

1	133	222.20
2	135	222.18
3	140	222.13
4	142	222.11
5	140	222.13
6	149	222.04
7	156	221.97
8	139	222.14
9	154	221.99

Shaded Area Ash/charcoal layer below OOA.

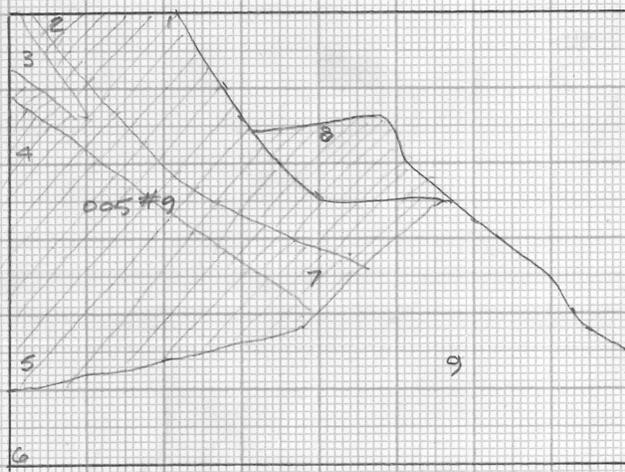
223.53 Δ OLD
 -113
 222.40 Δ NEW



1	28	222.12
2	26	222.14
3	31	222.09
4	32	222.08
5	31	222.03
6	45	221.95
7	41	221.99
8	—	221.92
9	—	221.91

↑
 NORTH (APPROX)
 SCALE 1:25

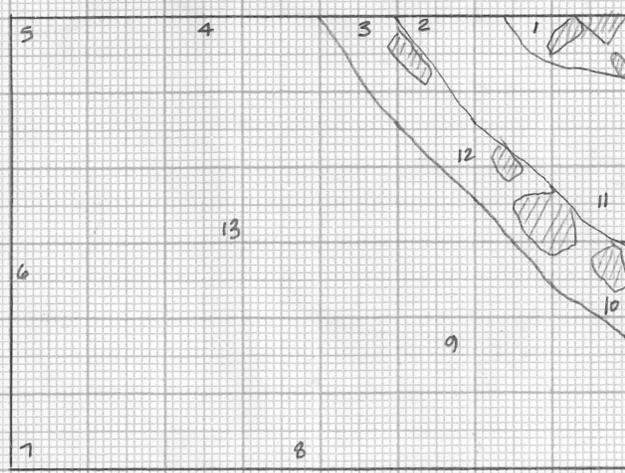
TOP PLAN #5
 22 JULY 1982 GORS
 TOP OF CO5 #8



TOP PLAN #6
 23 JULY 1982
 TOP OF CO5 #9

1	39	222.01
2	39	222.01
3	46	221.99
4	38	221.02
5	43	221.97
6	44	221.96
7	49	221.91
8	—	221.92
9	57	221.83

↑
 N (approx)



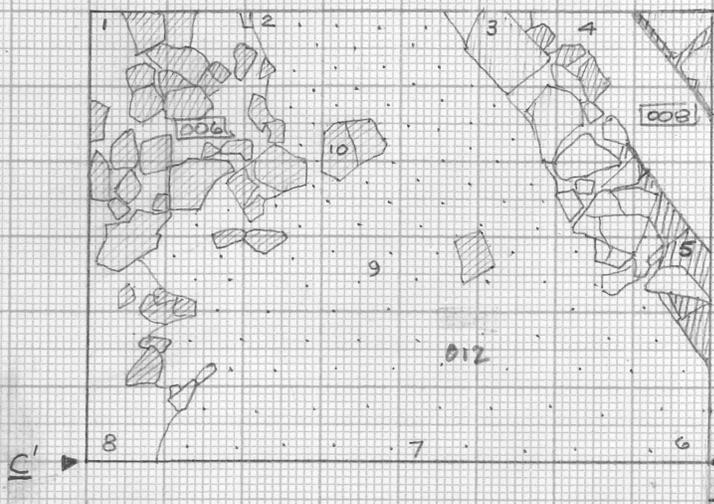
TOP PLAN #7 23 JULY '82
 TOP OF CO5 #11

1	221.80	
2	221.90	
3	221.84	
4	221.92	
5	221.93	11 221.84
6	221.93	12 221.81
7	221.95	13 221.84
8	221.88	
9	221.83	
10	221.78	

↑
 N. Approx

Δ 222.40.

TOP PLAN 8

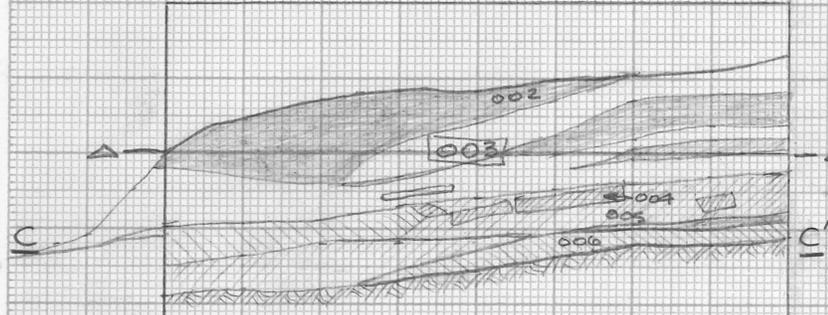


1	50	221.90	JULY 82
2	53	221.87	TOP OF 'FLOOR' 006
3	57	221.83	BEDROCK 009
4	65	221.75	DRAIN 007
5	65	221.75	
6	68	221.72	
7	63	221.77	
8	50	221.90	
9	60	221.80	
10	51	221.89	

TILE
 BEDROCK

NORTH 1:25

SOUTH EAST SECTION C-C' 3/20/82
SCALE 1:25



Δ DATUM ELEVATION 222.18M.

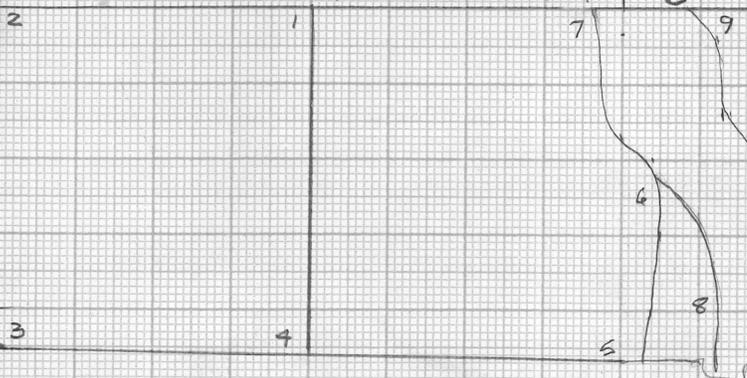
TILE
 BEDROCK
 MUCH TILE IN SECTION + ASH
 WASH PEBBLY LAYERS
 ASH.

EXCAVATED TO BEDROCK 1982

TSP PLAN #9
TOP OF 003 + 13.

Δ TBM 223.53

ALMEIDA BAULK UNEXCAVATED



1	105	222.46	
2	99	222.54	
3	102	222.51	
4	115	222.38	
5	119	222.34	
6	125	222.28	8 222.03
7	129	222.24	9 221.81

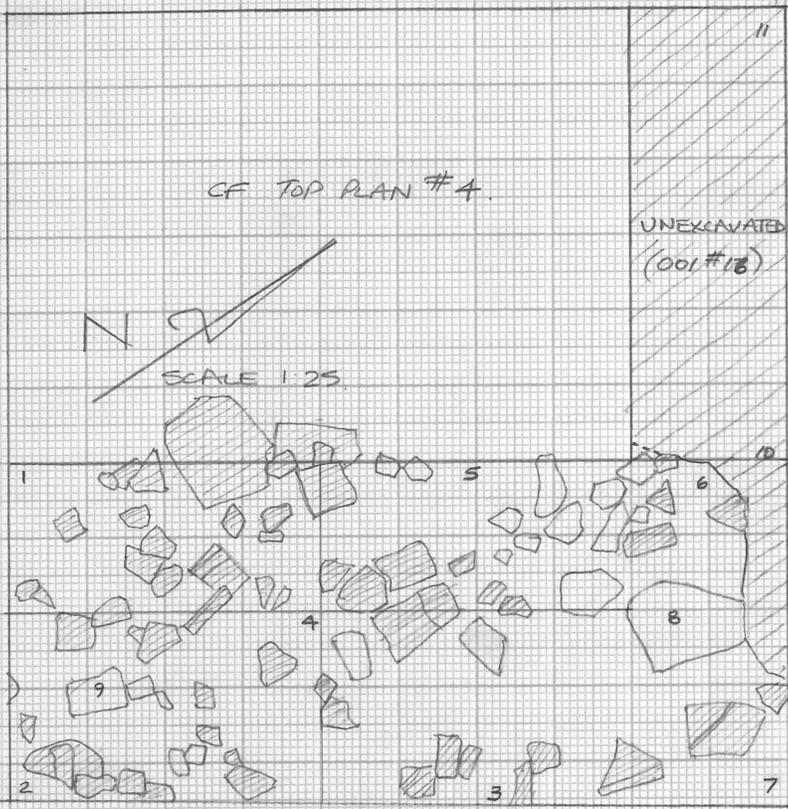
THRESHOLD.

150
170

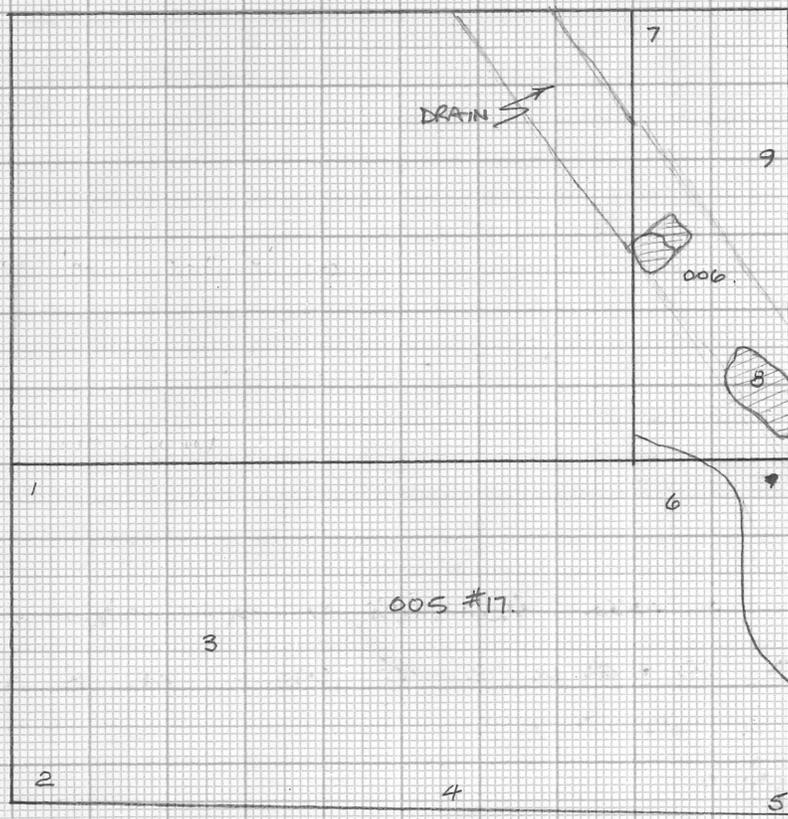
WALL OF SERVICE AREA

CORRECTED TO
005#15 (27 JULY)

TOP PLAN #10 /
TOP OF LOCUS 004 #15
Δ DATUM 222.53
222.50

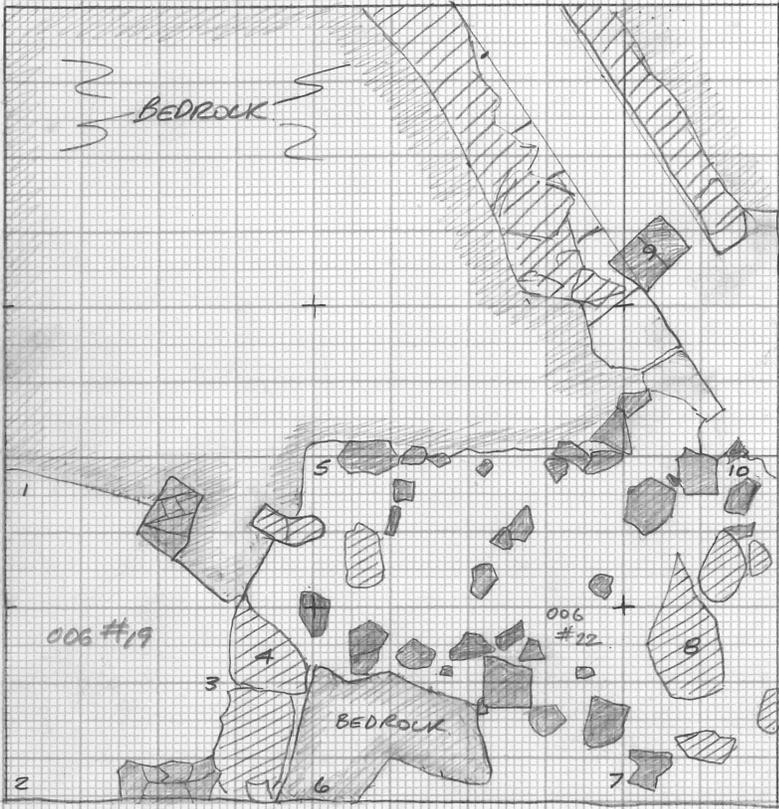


1	41	222.09
2	38	222.12
3	41	222.09
4	47	222.08
5	58	221.92
6	57	221.93
7	50	222.00
8	48	222.02
9	32	222.18
10	70	221.80
11	63	221.87



TOP PLAN #11
TOP OF 005 #17.
Δ 222.50

1	51	221.99
2	45	222.05
3	55	221.95
4	48	222.02
5	56	221.94
6	63	221.87
7	69	221.81
8	72	221.78
9	75	221.75



TOP OF 006.
TOP PLAN 12.

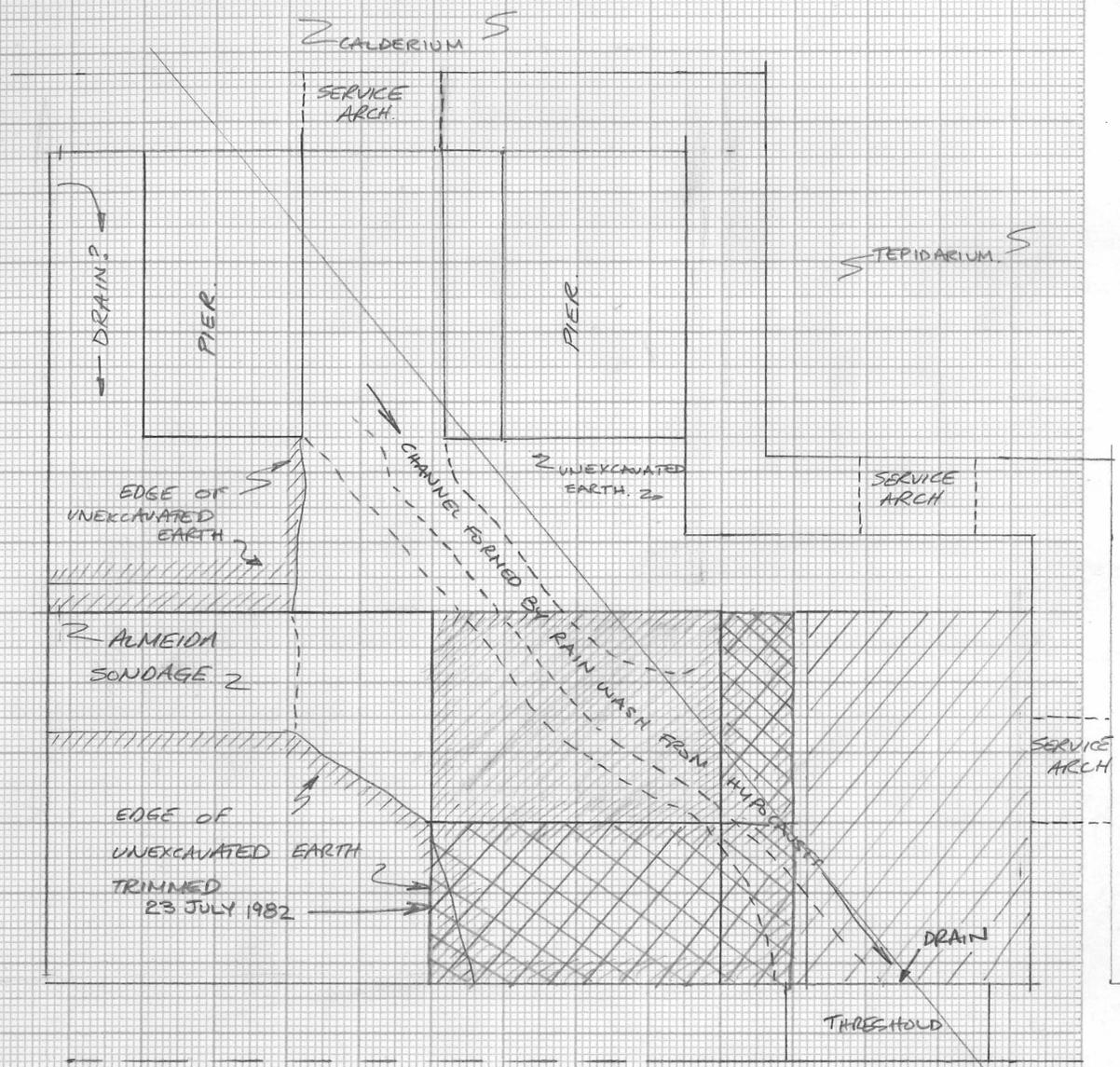
SE WALL

DATUM 222.50.

-  STONES.
-  BEDROCK
-  TILE.

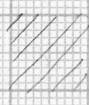
+	1	58	221.92	+	6	57	221.93	+
+	2	57	221.93	+	7	63	221.87	+
+	3	61	221.89	+	8	67	221.83	+
+	4	51	221.99	+	9	69	221.81	+
+	5	53	221.97	+	10	73	221.77	+

6.80

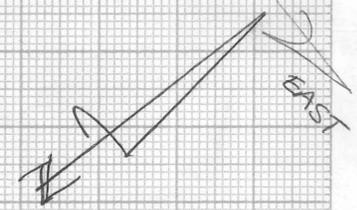


 EXCAVATED? 19th JULY 1982
STARTING

 EXCAVATED? 23 JULY 1982
STARTING

 EXCAVATED? 27th JULY 1982
STARTING

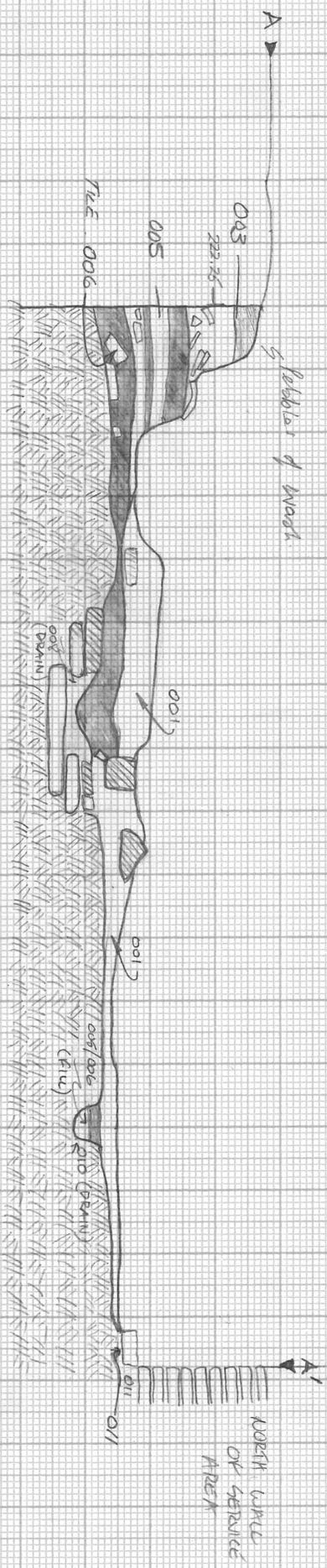
SCALE 1:50



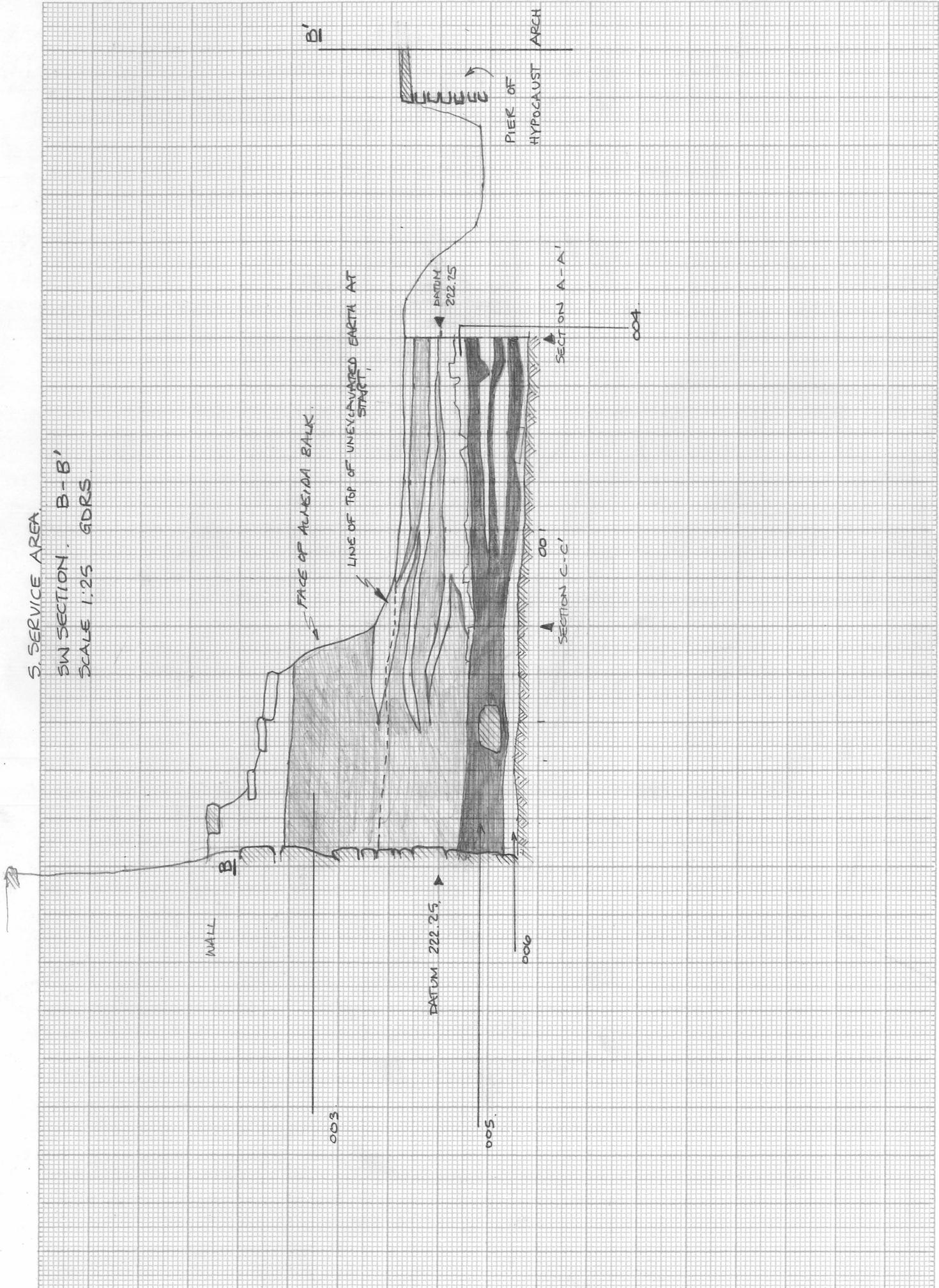
WILPOBDEGA 1982

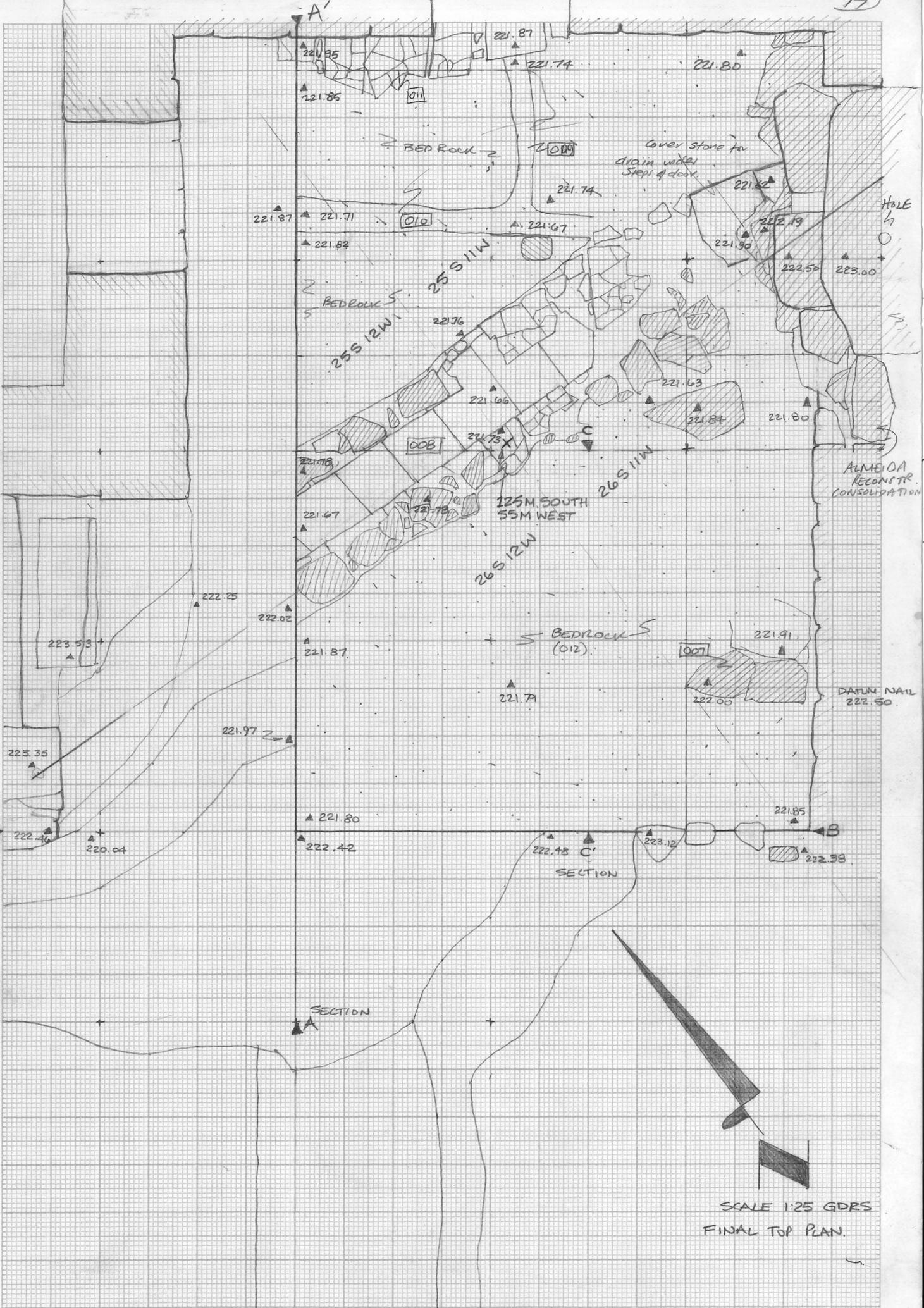
WEST PATH
SOUTH SERVICE AREA
NORTHWEST PATH
SCALE 1:25

J. Saunders
JMS



S. SERVICE AREA
SW SECTION. B-B'
SCALE 1:25 GDRS.





SCALE 1:25 GDRES
FINAL TOP PLAN.

- 1 11-18 July 001 cleaning basket.
- 2 18th July 001 ✓ 9 tile, 1 wooden wedge. Pottery
- 3 19th July 002 ✓ 8 frag pottery (2 tile frag)
- 4 19th July 003 ✓ Bone, 22 tile frag, 1 bag sherds (1 sp. sig).
- 5 20th July 003 ✓ (Pebbly wash) 25 tile, bone. 1 bag sherds (2 spanish sig).
- 6 20th July 003 (Silt under pebbles) No sherds, bone.
- 7 21 July 004 ✓ 4 buckets tile frag. No sherds 7 bone
- 8 22 July 005 ✓ 1 bag sherds, 1 frag iron, charcoal, bone, 4 buckets tile
- 9 23 July 005 (Yellow lens) No sherds 15 tile frag.
- 10 23 July 001 ✓ 1 Body Sherd. 4 tile frag.
- 11 23 July 005 ✓ 1 bag sherds, 1 Lead frag. 1 1/2 buckets of tile.
- 12 23 July 006 ✓ 2 buckets of tile. No sherds.
- 13 25th July 003 Pottery bone 37 tile frag.
- 14 26th July 003 Handle/bracelet of glass, sherds, bone. 2 buckets tile.
- 15 27th July 005 ✓ No pottery, No bone 9 1/2 buckets tile.
- 16 27th July 001 ✓ (in some addition) 2 BS thrown, 8 brick.
- 17 28th July 005 ✓ 1 bronze frag, 1 lead frag. 5 BS. (190 pieces of tile frag)
- 18 30th July 001 Sherds (1 sp sig). in Area to N. Tile.
- 19 30th July 006 ✓ SE corner of area. c. 15 tiles.
- 20 30th July 003 ✓ Small bulk. No sherds.
- 21 30th July 005 ✓ — " — No sherds 13 frags tile/brick bone
- 22 3 August 006 - Some pottery, Some Bone. 210 tile frags.
- 23 4 August 006 ✓ in drain 1 Sherd-base coarse ware.

YEAR 1982
SITE MUROBLIGA
GENERAL IDENTIFICATION WASH

GRID AREA SW SERVICE AREA
LOCUS NO. 001
DATE (s) 11, 18, 23, 27, 30 July

Top levels 222.05 / 221.80 Top plan #1 #10; Bottom levels 221.92 / 221.78 Top plan #2 #10
Sections NW Drawn by architect — Photo No. 82-255 / 82-256

PHYSICAL DATA

What is it made of?: Earth

What size particles? Large cobbles, clayey silt, some sand Color 10 yr 9/4 / Dam Yellow/L Brown

<u>Features</u>	<u>Soil Layers</u>
Compass orientation _____	Direction & Degree of slope <u>15° Down to south</u>
_____ courses high; _____ rows wide	Degree of compaction: <u>Hard</u>
Overall dimensions _____	Distribution of particles (e.g., random, laminated, graded bedding)
How was it built?: _____	<u>Random.</u>

STRATIGRAPHIC DATA

This Locus is below Loc. Av. & is above Loc. 005, 008, 006

Lateral extent N. Triangle Max. thickness 0.23 m touches balk(s) NW & NE

How does this Locus relate to all other loci it touches?:

Recently deposited earth in area excavated by Almeida is N part of area deposited on top of exposed loci

This Locus is contemporary with which loci mentioned above?:

None

How was this Locus formed?:

Wash / root etch.

POTTERY

Basket No.	Date Dug	Level	Field Reading	Reg. Sherds
2	18 July	221.8.	3 Tite } Le Coarse BS } Undatable	Thrown
16	27 July		2 BS coarse	Thrown
10	23 July	221.80.	1 BS coarse 4 tile frags	Thrown
18	30 July		1 Base T Sig thsp. 1 bronze object, unidentifiable	saved. Discarded

MATERIAL CULTURE AND OBJECTS

MC	Reg. No.	Assoc. Pottery Basket No.	Identification
	318	Basin 1	Opal Stone - 1984 Discarded not man made

YEAR 1982

GRID AREA W Bell's S. Jemio Area

SITE MIROBRIGA

LOCUS NO. 002

GENERAL IDENTIFICATION WASH

DATE (s) 19 July

Top levels ^{222.48}222.38 Top plan 1; Bottom levels ^{222.41}222.35 Top plan 2

Sections SE, NE Drawn by architect No Photo No. ⁸²⁻²⁵⁵82-256

PHYSICAL DATA

What is it made of?: Earth

What size particles? Silt, some sand, some pebbles (small) Color 7.5 YR 6/4
Light brown.

Features

Compass orientation _____

_____ courses high; _____ rows wide

Overall dimensions _____

How was it built?: _____

Soil Layers

Direction & Degree of slope 5° to Down to N

Degree of compaction: Very hard.

Distribution of particles (e.g., random, laminated, graded bedding)
Random.

STRATIGRAPHIC DATA

This Locus is below Loc. AR. & is above Loc. 003.

Lateral extent ^{of Top Plan 1} SOUTH Δ Max. thickness 7 cms. touches balk(s) SW, SE, NW.

How does this Locus relate to all other loci it touches?:
A layer of not disturbed wash probably deposited in ancient times ~ disturbed surface of 003.

This Locus is contemporary with which loci mentioned above?:

003 disturbed.

How was this Locus formed?:

Rain wash & gravity deposited particles coming into room from south - SW

YEAR 1982

GRID AREA W. Baths
S Service Area

SITE MUROBRISA

LOCUS NO. 003

GENERAL IDENTIFICATION WASH.

DATE (s) 19th 20th 21st July
25 26 30 July

Top levels 222.41 222.35 Top plan 2,9; Bottom levels 222.20 221.97 Top plan 84.10

Sections SW, SE Drawn by architect No Photo No. 82-257

PHYSICAL DATA

What is it made of?: Earth

What size particles? Silt, sand, pebbles, some cobbles.

Relobby layer.
5YR 4/4 Reddish Brown
Silt layers
Color 10YR 4/4
Dark yellowish Brown

Features

Compass orientation _____

_____ courses high; _____ rows wide

Overall dimensions _____

How was it built?: _____

Soil Layers Louises to N.

Direction & Degree of slope 5°-15°

Degree of compaction: hard, firm.

Distribution of particles (e.g., random, laminated, graded bedding)

Laminated.

STRATIGRAPHIC DATA

This Locus is below Loc. 002 & is above Loc. 004, 005

Lateral extent see top plan 3 S Δ Max. thickness 0.32m touches balk(s) NW, SW, SE

How does this Locus relate to all other loci it touches?:

Washed over surface of Ash of Debris

This Locus is contemporary with which loci mentioned above?:

002, 004

How was this Locus formed?:

Wash from up slope

POTTERY

Basket No.	Date Dug	Level	Field Reading	Reg. Sherds
4	19 July		1 frag Spanish Sig (1-2nd AD?) 1 Rim 1 AT3 12 BS Coarse ware 1 BS (base) 1 Shoulder frag BS. Sand coated.	Discarded SDNR (To L.N. type collector) Rest Discarded.
5	19 July		1 Rim.   1.1 Spanish Sig 1st c AD. 1 BS Spm Sig 1st c AD (worn) 2 fine decorated (white fabric) 6 Coarse BS. 1 Coarse Rim All turned.	
6	21 July		No sherds	
20	30 July		No Sherds.	
13	25 July		37 tk frag turned	28 BS coarse misc 2 BS Spanish Sig EC 1st AD? 1 Base " Sig " " 1 Base Pink fabric lamp (4th AD?) 1 Base Coarse fabric 3 micaceous rim frag.
14	26 July		3 BS fabric 3 orange? 1 Rim fabric 1, white Silver clay fabric	Saved.

MATERIAL CULTURE AND OBJECTS

MC	Reg. No.	Assoc. Pottery Basket No.	Identification
Bone.	88	4	8 frag bronze bone } Discarded. 2 frag bone
Bone.	83	5	2 frags (saved) at site
B		6	
B	88.	13.	51 bone frag. Many joints
B	90.	14	4 bone frags.
G	19	14	Handle/bracelet frag black glaz <u>ON SURFACE</u> of Ash.

YEAR 1982

GRID AREA S Service Area

SITE MILOBURGA

LOCUS NO. 004

GENERAL IDENTIFICATION TILE FALL

DATE (s) 21 July

Top levels ^{222.20} 221.97 Top plan 4; Bottom levels ^{222.14} 219.91 Top plan 5

Sections SE, SW Drawn by architect No Photo No. 82-258
82-259

PHYSICAL DATA

What is it made of?: TILE, EARTH.

TILE - VARIOUS REPAIRS
CHARCOAL!

What size particles? FOR TILE SEE POTTERY P. 2
SILT + CHARCOAL FLECKS

Color SILT:
10 YR 9/4
Dark yellowish brown.

Features

Compass orientation _____

_____ courses high; _____ rows wide

Overall dimensions _____

How was it built?:

Soil Layers

Direction & Degree of slope Down to N. & NE.
5-10°

Degree of compaction: LOOSE.

Distribution of particles (e.g., random, laminated, graded bedding)

Random.

STRATIGRAPHIC DATA

This Locus is below Loc. 003 & is above Loc. 005

Lateral extent ^{SOUTH Δ} cf Top plan 4 Max. thickness 6 cm touches balk(s) NW, SW, SE

How does this Locus relate to all other loci it touches?:

Rather than tile fall should be considered as part of Ash II.
005 - Extent of tiles was insufficient to really be considered fall.

This Locus is contemporary with which loci mentioned above?:

005

How was this Locus formed?: TILE TUMBLING FROM ROOF W/ SILT WASHING OVER
DEBRIS.

POTTERY

Basket No.	Date Dug	Level	Field Reading	Reg. Sherds
7	21 July		13 14 13 BLACK 4.5-4.8 <u>cms</u> . NONE COMPLETE. 1/2 Bucket.	
No pottery			ROOF TILE COVERS & PAN PANTILES: 12 RIMS (3 SENT UP).	Draw and inventory 1983?
Wot Basket 7, July 21, but			230 PAN BODY FRAGS: 1.5 2.0 2.5 3.0 0.8 1.8 <u>cms</u> - 2 1/2 Buckets	
Bask 8, July 22			43 COVER B FRAGS 1.5-1.7 2.3, 3 sent up. - 1 Bucket FM. 3 COVER RIMS: 3 SENT UP.	
NB says no sherds with Bask 7			2 frags, joining, ^{inward thickened} open possible body shard of amphora.	
			2 w jug frag 4 non-joining frags of amphora or large pitcher 4 pieces tile - discarded.	
			18 cw frags.	

MATERIAL CULTURE AND OBJECTS

MC	Reg. No.	Assoc. Pottery Basket No.	Identification
B.	85	7.	7 bone frags. saved.

YEAR MUROBILGA. 1982

GRID AREA S SERVICE AREA

SITE MUROBILGA.

LOCUS NO. 005 - 006

GENERAL IDENTIFICATION ASH.

DATE (s) 22, 23, 27, 28, 30 July

Top levels 22.12 22.95 Top plan 5, 10; Bottom levels ^{22.90}22.72 Top plan 8, 12

Sections NW SW - Drawn by architect No Photo No. 263, 284
SE.

PHYSICAL DATA

What is it made of?: fault, Ash, Bricks.

What size particles? bricks 0.20 x 0.20 x 0.045 m Color _____
Silt, pebbles, sand.

<u>Features</u>	<u>Soil Layers</u>
Compass orientation _____	Direction & Degree of slope <u>10° down to N.</u>
____ courses high; ____ rows wide	Degree of compaction: <u>loose soft - hard.</u>
Overall dimensions _____	Distribution of particles (e.g., random, laminated, graded bedding)
How was it built?:	<u>Random.</u>

STRATIGRAPHIC DATA

This Locus is below Loc. 003, 001 & is above Loc. 008 012 006

Lateral extent _____ Max. thickness _____ touches balk(s) _____

How does this Locus relate to all other loci it touches?:

where Almeida dug to soil/wash developed over exposed portions => 007. elsewhere after abandonment a thin layer of wash covered the Ash 003 over top of bedrock 012 but 006 is same material as it
cf.

This Locus is contemporary with which loci mentioned above?:

= 006

How was this Locus formed?: cleared off material from Hypocaust

W. Baths, S. Service Area,

POTTERY

005

Basket No.	Date Dug	Level	Field Reading	Reg. Sherds
8	22 July		2 JOINING? Rim FRAGS. 1 HANDLE + BS FROM SAME COARSE WARE 27 COARSE BS.	} SDNR
			4 buckets tile thrown.	
9	23 July		15 tile frags. Thrown	
11	23 July		1 1/2 buckets tile/brick thrown. 1 C frag from same ampl. dark coarse 3 frags white Alentejo; 2-3 frags CW 3?; 6 other coarse wares	
15	27 July		9 1/2 buckets tile/brick thrown.	
17	28 July		1 from Alentejo (white) 4 fabric 1 white Alentejo 5 BS saved 1 fabric 3 (2 w micaceous fabric. 1 saved. 190 frags brick/tile thrown. 1 frag bronze, not identifiable	
21	30 July		13 tile frags thrown	

MATERIAL CULTURE AND OBJECTS

MC	Reg. No.	Assoc. Pottery Basket No.	Identification
B	93	8	11 frags of bone.
M		11	✓ 1 fragment lead NR#
M		17	✓ 1 fragment lead NR#
M		17	✓ 1 frag bronze NR#
B	93	21	1 bone frag.
Q	20	8.	2 slag frags.

1982.

Mirobriga. S. Service Area

GENERAL IDENTIFICATION Ash / brick / tile layer

Locus No. 006 = 005.
Date (s) 23.30 ~~July~~ 3.4 August

Top levels 221.93
221.90
221.87 Top plan 8, 12; Bottom levels 221.91 Top plan final.

Sections NW, ~~SE, SW~~ Drawn by architect no. Photo No. 82-396

PHYSICAL DATA

What is it made of?: Earth, d bricks, Ash

7.542 g/6 strong brown in SE cor.
Carbon - black

What size particles? Pebbles, sand silt
Brick 0.20 x 0.20 x 0.045 m. Color 10 YR 4/4 the yellowish brown.

<u>Features</u>	<u>Soil Layers</u>
Compass orientation _____	Direction & Degree of slope <u>4° down to north.</u>
_____ courses high; _____ rows wide	Degree of compaction: <u>Ext. moist in places.</u>
Overall dimensions _____	Distribution of particles (e.g., random, laminated, graded bedding)
How was it built?: _____	<u>Random.</u>

STRATIGRAPHIC DATA

This Locus is below Loc. 005, 001 & is above Loc. 008, 012, 011, 010

Lateral extent see plans 8 & 12 Max. thickness 10 cm. Touches balk(s) NW SW

How does this Locus relate to all other loci it touches?:

Although thought to be a broken down floor initially it is almost certainly a lens of Ash clear out from hypocausts & = 005.
covers the drains if goes down inside them. directly over/over bedrock.
floor when it existed would have covered bedrock & drains, but floor broken up / removed => Ash & reddish covering bedrock & inside drains.

This Locus is contemporary with which loci mentioned above?:

005

How was this Locus formed?:

clear out from hypocausts = 005.

Tirunbaga 1982, S. Service Area

GENERAL IDENTIFICATION 2 Rock feature

Locus No. 007
Date (s) —

Top levels 222.00 Top plan see trial plan; Bottom levels 221.85 Top plan see trial plan

Sections No. Drawn by architect No. Photo No. 528

PHYSICAL DATA

What is it made of?: Rocks

What size particles? Boulders Color 1 Yellow, 1 Red No mortar
porridge

Features

Soil Layers

Compass orientation NW-SE

Direction & Degree of slope —

1 courses high; 1 rows wide

Degree of compaction: —

Overall dimensions 0.65 x 0.25 x 0.15 m.

Distribution of particles (e.g., random, laminated, graded bedding)

How was it built?: 2 stones banded on bedrock & bolted up against walling in bedrock

STRATIGRAPHIC DATA

This Locus is below Loc. 005/006 ~~012~~ & is above Loc. 012

Lateral extent 0.65 m x 0.25 m. Max. thickness 0.16 m. Touches balk(s)

How does this Locus relate to all other loci it touches?:

Resting on bedrock & bolted up against a walling in it that looks intentional

This Locus is contemporary with which loci mentioned above?:

Impossible to ascertain relationship of this feature to other loci may be part of earlier wall, or even part of a structure cased up.

How was this Locus formed?: with use of room.

Row cut of stones bolted up against it.

Mirobriga 1982, S. Service Area

GENERAL IDENTIFICATION Brick floored Drain.

Locus No. 008

Date (s) —

Top 221.78.
Bottom 221.67-

Top levels 221.62. Top plan final; Bottom levels 221.61± Top plan final.

Sections NW

Drawn by architect Yes.

Photo No. 527, 528, 530.

PHYSICAL DATA

What is it made of?: Brick & Sandstone.

NOTE * Tile to 44 x 30 x 4.0-4.5 cms.

What size particles? Stones Cobble. small boulders. Color NOT READ.

Features

Compass orientation E-W.

3 courses high; N/A rows wide

Overall dimensions 3.5 M x 0.72 x 0.16

How was it built?: As expected
Bricks laid crossway
in shallow cutting in bedrock ca. 16 cms deep
Half bricks w/ * 0.72m straight edge
inwards. Course of yellow stones on top of
them. Flow down to East.

Soil Layers

Direction & Degree of slope —

Degree of compaction: —

Distribution of particles (e.g., random, laminated, graded bedding)

STRATIGRAPHIC DATA

This Locus is below Loc. 005, 006, 007. & is above Loc. 012

Lateral extent of final top plate. Max. thickness 0.16 cm Touches balk(s) NW

How does this Locus relate to all other loci it touches?:

Drain almost certainly had cover tiles which were removed or broken
before accumulation of Ash layer 005/006. on top of it & associated fragments
of tile still in it. Ash covered sides & ran over inside of drain.
Ameida dug down in parts of the area & subsequent erosion alluviation &
plant action dumped 001 on top of yellow stones.

This Locus is contemporary with which loci mentioned above?:

cutting in 012

How was this Locus formed?: Intentionally built drain of brick & stone.

Nimbriga 1982, 3. Service Area

GENERAL IDENTIFICATION Rock cut Drain to North East Locus No. 009
Date (s) 4 August

Top levels 221.82 221.74 Top plan Final; Bottom levels 221.74 - 221.67 Top plan Final

Sections No. Drawn by architect No. Photo No. 527, 528, 531

PHYSICAL DATA

What is it made of?: Bedroom.

What size particles? / Color /

<u>Features</u>	<u>Soil Layers</u>
Compass orientation <u>NE down to SW</u>	Direction & Degree of slope <u>/</u>
courses high; rows wide <u>/</u>	Degree of compaction: <u>/</u>
Overall dimensions <u>0.90 x 0.13 x 0.08</u> m.	Distribution of particles (e.g., random, laminated, graded bedding)
How was it built?: <u>cut out of bedroom.</u>	

STRATIGRAPHIC DATA

This Locus is below Loc. 005/006, 011 & is above Loc. /

Lateral extent See top plan Max. thickness / Touches balk(s) none.

How does this Locus relate to all other loci it touches?:

005 & 006 filled it after floor destroyed. post date it
011 acts as cover & is probably contemporary with part of its use
through probably a replacement of the original floor.

This Locus is contemporary with which loci mentioned above?:

See ~ 011.

How was this Locus formed?:

rock cut channel

Tinobriga 1982, S. Service Area

GENERAL IDENTIFICATION Rock cut Drain

Locus No. 010

going to NW Date (s) 4 August

Top levels ^{221.82} 221.74 Top plan See final; Bottom levels ^{221.71} 221.67 Top plan final

Sections NW Drawn by architect no Photo No. 527,528,531

PHYSICAL DATA

What is it made of?: Bedrock

What size particles? — Color NOT READ BLUE ROCK

<u>Features</u>	<u>Soil Layers</u>
Compass orientation <u>NW down to SE</u>	Direction & Degree of slope <u>—</u>
courses high; <u>—</u> rows wide	Degree of compaction: <u>—</u>
Overall dimensions <u>1.60 x 0.15 x 0.106</u>	Distribution of particles (e. g. , random, laminated, graded bedding)
How was it built?: <u>Rock cut</u>	

STRATIGRAPHIC DATA

This Locus is below Loc. 005/006 & is above Loc. —

Latera extent See final plan Max. thickness 10cm deep Touches balk(s) NW

How does this Locus relate to all other loci it touches?:
005/006 fills drain. post-dates it

This Locus is contemporary with which loci mentioned above?:
None

How was this Locus formed?:
Contemp with 009.
Cut from bedrock sloping down to SE

Mirabriga 1982, 3-Service Area

GENERAL IDENTIFICATION Hypocaust Floor.

Locus No. 011

Date (s) /

Top levels ^{21.95.} 21.91 Top plan final top ; Bottom levels 21.85 Top plan Final
Plan

Sections N.W. Drawn by architect NO Photo No. 581, 528

PHYSICAL DATA

What is it made of?: brick.

What size particles? 0.32m x 0.30 brick Color /

Features

Soil Layers

Compass orientation No ORIENTATION

Direction & Degree of slope None

1 courses high; 4 rows wide

Degree of compaction: _____

Overall dimensions ^{In Area} 1.50 x ~~0.21~~ (max) 0.045
m.

Distribution of particles (e.g., random, laminated, graded bedding)

How was it built?:
Small 0.32 x 0.30 5 cm bricks laid flat on earth levelling layer. broken at edges.

No 0.21 x 0.30
0.21 x 0.32

STRATIGRAPHIC DATA

This Locus is below Loc. / & is above Loc. 012, 009

Latera extent of final plan. Max. thickness / Touches balk(s) NW.

How does this Locus relate to all other loci it touches?:
Acted as cover ties of drainlet 009 of probably 010 + 008 when it existed. Sandy earth in levelling layer separate it from 012

This Locus is contemporary with which loci mentioned above?:

009

How was this Locus formed?:

See under features.

YEAR Missoula

GRID AREA W. Bath S. Service Area

SITE 1982

LOCUS NO. 012

GENERAL IDENTIFICATION Bedroom

DATE (s) 9 August

Top levels 221.91 ~ 221.63 Top plan final; Bottom levels — Top plan final

Sections SE, NW & SW Drawn by architect NB Photo No. SM

PHYSICAL DATA

What is it made of?: Room

What size particles? N/A Color 2.5 x 7/0 Light Grey.

Features

Compass orientation —
— courses high; — rows wide
Overall dimensions —
How was it built?: —

Soil Layers

10° down from N
Direction & Degree of slope to from S.
Degree of compaction: V. hard.
Distribution of particles (e.g., random, laminated, graded bedding)

STRATIGRAPHIC DATA

This Locus is below Loc. 001, 006, 008 & is above Loc. —

Lateral extent whole area (not exposed under drain) Max. thickness — touches balk(s) All.

How does this Locus relate to all other loci it touches?:

This Locus is contemporary with which loci mentioned above?:

How was this Locus formed?:

Coco
Rock

MIREBRIGA 1982

SOUTH of SOUTH WALL of EAST
PLUNGE of Room 4

founders.

August 1

Open small area to S of S wall of E
plunge of Room 4. This area is east of
the remains of a surface foundation ~~work~~.
It measures .50m from N/S & ca. .50m from
E/W. Nail placed in north wall for datum. 223.89

Locus 001

P.B. 1

NO POTTERY

Top 223.73

Bottom 223.63

Soil of sand sized material w/ a mottled
composition predominantly 7.5 4R 4/4 dark
brown. Ca. 20% inclusions of cobble sized
stones chunks of mortar & brick frags as
well as large pebbles of slate.

PHOTO 82-429
E/W

Locus 001

View to North wall

Locus 001

P.B. 2

NO POTTERY

Top. 223.63

Bottom 223.60

P.B. 1 removed 001 to level just at bottom
of ~~floor~~ floor foundation to west. P.B. 2
will begin removing material below this level.
At present, it appears to be the same material
as P.B. 1 - a bit sumpier in the east, but
this may be due to this morning's rain.
The eastern .25m of this small area shows
an increased percentage (ca 40% - 60%) of
pebble sized stones that look like working chips.
(from wall construction?)

MUROBRIGA 1982

SOUTH of SOUTH WALL of EAST RANGE
of Room 4

Standers

August 2
Monday

Locus 001
P.B. 3

NO POTTERY

Top. 223.60
Bottom. 223.58

Removing similar material - fill w/ large amount of inclusions. Some change in color to 5YR 4/6 yellowish red. (This may be due to damp conditions. Along west edge, a large chunk of the bedrock material is appearing. It is not clear if it is part of the fill or the bedrock top elevation in this area. Level is severely below bottom level of concrete floor foundation.

New Locus 002
P.B. 4
NO POTTERY

Top. 223.58
Bottom 223.50

Change locus because soil color & consistency change. The material is much more compact & has at least 40% inclusions over whole .50 x .50m area. Many of these inclusions are working chips - some brick frags.

Locus 002
P.B. 5
NO POTTERY

Top . 223.50
Bottom bedrock uneven 223.61 to 223.40

Bedrock appearing in SW corner w/ clear cuts along N & E for foundation benches (of walls) of walls. Material still same w/ 40% inclusions. This pottery bucket revealed bedrock covering

MIZOBIRIGA
1982

South of South wall of EAST
PLUNGE of Room 4.

Standers

August 2 (cont)

The southern .35 m of this small area. Apparently the bedrock was cut along its eastern edge & the N/S running wall (extending southward from the South E/W running wall of the plunge of room 4) was built directly up against this cut.

NEW LOSS 003
P.B. 6
NO POTTERY

Top 223.80
Bottom 223.49

This new loss is the material in the northernmost .15 m of this small .50 x .50 m area. The bedrock was cut in a line roughly parallel to the S wall of the East plunge of room 4. Loss 003 is 5/8 3/4 Jack reddish brown. It is composed of sand sized particles & is quite compact. This material came down on a horizontal arrangement of tiles (4 tiles visible) at 223.49

PHOTO 82-476
B/W & COLOR

FINAL PHOTO
View from above towards E.

PHOTO 82-476
B/W & COLOR

FINAL PHOTO
View from above towards N

PHOTO 82-477
B/W & COLOR

FINAL PHOTO
View from above

PHOTO 82-478
B/W & COLOR.

FINAL PHOTO
view from above towards W

OVER

PHOTO 82-522
B/W & COLOR

PHOTO 82-522
VIEW TO N

PHOTO 82-522
VIEW TO N

(100) 2 1/2

PHOTO 82-522
VIEW TO N

MICROBRIGA 1982

SOUTH of SOUTH WALL of EAST PLUNGE. Foundations of Room 4

Description

A small area .50m x ca. 50m was opened south of the south wall of the east plunge of room 4 to try to explain the presence of a small (1.0m E/W x 1.20m N/S) room at this location. The .50m to the west of this small area is the remains of subflooring for this small room. The .50m to the east is a N/S running wall.

Bedrock was exposed, its top elevations greatly varying even in this small area - 223.62 to 223.40. Bedrock had been cut in a fairly straight line .15m S of the N wall & it appears to have been cut along the eastern edge of the area where it ran up against the N/S running wall (Actually, the N/S wall was built up against the cut)

On the northernmost .15m of this area, a horizontal row/surface of tiles was exposed. ~~Earth~~ Earth fill (ca. .05m wide) is between the easternmost tile & the N/S running wall. The south of the east plunge of room 4 looks to be built directly on this brick layer in this small area. The bricks seem to continue under the subflooring to the west.

There are some bricks used randomly in the wall construction & elsewhere leveling courses of bricks are common. It is unclear how these bricks functioned.

Deposited directly above the bricks was a

Bricks measure

.21m x ? x ?

Thickness of bricks

in wall 0.045 &
0.042

very thin (.01m) layer of sandy material, locus 003.
This may be decomposed mortar.

Locus 002 covered the whole area above locus 003
& bedrock, its bottom elevation 223.40, its top 223.58. At least
40% of this locus was composed of inclusions of brick & mortar
fragments especially chips of worked stone.

Locus 001 was deposited above 002, its top elevation
223.73. It was a fill material w/ fewer inclusions.

Thickness of bedrock
in wall 0.045
0.015

YEAR 1982

GRID AREA S of SW corner of E
through Room 4

SITE MURBRIKA

LOCUS NO. 001

GENERAL IDENTIFICATION SOIL LAYER

DATE (s) August 1

Top levels 223.73 Top plan None; Bottom levels 223.58 Top plan None

Sections None Drawn by architect No Photo No. 82-429

PHYSICAL DATA

What is it made of?: sandy soil
20% inclusions - stones, brick frags
mortar

What size particles? sand Color 7.5YR 4/4
Dark brown

Features

Compass orientation _____

_____ courses high; _____ rows wide

Overall dimensions _____

How was it built?: _____

Soil Layers

Direction & Degree of slope None

Degree of compaction: compact

Distribution of particles (e.g., random, laminated, graded bedding)

random

STRATIGRAPHIC DATA

This Locus is ~~below~~ loc. SURFACE & is above Loc. 002

Lateral extent covers whole .50 x .60m area Max. thickness .15 m. touches balk(s) N/S/E/W

How does this Locus relate to all other loci it touches?:

Locus 001 is a fill material that was deposited later than loci 002 & 003.

This Locus is contemporary with which loci mentioned above?:

Locus 001 may be roughly contemporary w/ locus 002. They both have similar make-up & both are fill.

How was this Locus formed?:

intentionally deposited fill to support sub floorings - w/ top soil action on top.
BUT - Locus 002 has more inclusions of chipped working fragments.

YEAR 1982

GRID AREA S of SWall of E
Plunge of Room 4

SITE MIROBRIGA

LOCUS NO. 002

GENERAL IDENTIFICATION SOIL LAYER

DATE (s) August 2

Top levels 223.58 Top plan None; Bottom levels 223.40 Top plan None

Sections NO Drawn by architect NO Photo No. NO final Top Plan of house
below 002

PHYSICAL DATA

What is it made of?: compact soil w/ 40% inclusions of
brick frags & stone working chips.

What size particles? grains Color 5YR 4/6
yellowish red

Features

Soil Layers

Compass orientation _____
_____ courses high; _____ rows wide
Overall dimensions _____
How was it built?: _____

Direction & Degree of slope None
Degree of compaction: compact
Distribution of particles (e.g., random,
laminated, graded bedding)
random

STRATIGRAPHIC DATA

This Locus is below Loc. 001 & is above Loc. 003 & bedrock.

Lateral extent 3.5m ~~of area~~ whole area Max. thickness .18m touches balk(s) S/E/W/N

How does this Locus relate to all other loci it touches?:
002 is an earlier deposit than 001
002 is later than 003.

This Locus is contemporary with which loci mentioned above?:
It may be roughly contemporary w/ locus 001 as part of the
foundation for the subflooring!

How was this Locus formed?:
intentionally deposited fill w/ working chips from wall
construction.

YEAR 1982
SITE MIROBRIGA
GENERAL IDENTIFICATION SOIL LAYER

GRID AREA ^{s of SWall of E} ~~Plunge of Room 4~~
Locus No. 003
Date (s) 2 August.

Top levels 223.50 Top plan none ; Bottom levels 223.49 Top plan none
Sections none Drawn by architect no Photo No. no (final Top Plan shows tile below 003)

PHYSICAL DATA

What is it made of?: sandy soil w/o inclusions

What size particles? sand Color 5YR 3/4 dark reddish brown

<u>Features</u>	<u>Soil Layers</u>
Compass orientation _____	Direction & Degree of slope <u>none</u>
____ courses high; ____ rows wide	Degree of compaction: <u>compact</u>
Overall dimensions _____	Distribution of particles (e.g., random, laminated, graded bedding)
How was it built?: _____	<u>random</u>

STRATIGRAPHIC DATA

This Locus is below Loc. 002 & is above ~~Loc.~~ tile surface / floor

Lateral extent Western 1.6 m Max. thickness 0.1 m Touches balk(s) N/E/W

How does this Locus relate to all other loci it touches?:

Locus 003 is earlier than 002 & 001

This Locus is contemporary with which loci mentioned above?:

none

How was this Locus formed?:

003 resembled decomposed mortar & may simply have been the remnants of a layer of mortar which was later covered w/ foundation for subflooring.

15
Rogin

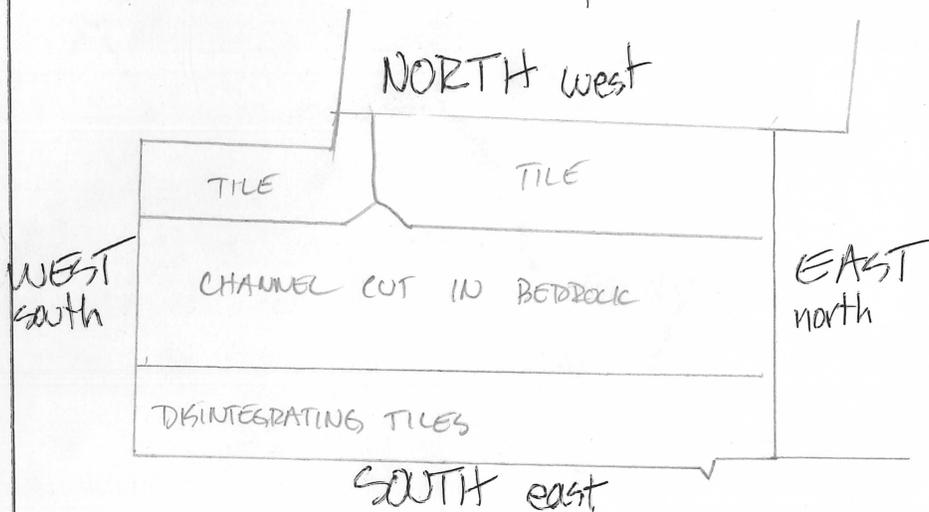
MIDOBIRIGA

1982

HYPOCAUST of Room 5

Faulders

In excavating the small drain area on July 22 & 23 I used different compass orientations than those used elsewhere in describing the bath complex.



The compass orientations I used in the notebook are noted in this sketch in uppercase letters. The compass orientations used elsewhere in describing the bath complex are noted on this sketch in lowercase letters.

In describing the earth fill between the 2 fallen hypocausts along the north (i.e. north as used in describing whole bath complex) wall of room 6 excavated beginning 23 July, I will use the compass directions as used in describing the whole bath complex by Dr. J. Piers.

MIROBZIGA 1982

HYPOCAUST of Room 5

July 22 P.1
Janders.

PHOTO-82-270
B/W & COLOR

View to SW of 2 tiles to be removed.

Datum established on hypocaust along w wall.
.60m above architect's datum. Architect's datum is

222.12 & area datum is 222.72
Remove 2 tiles 222.72

Top of western tile 222.12 along N 222.02 in crack
Top of Eastern tile 222.12 along N 222.06 in crack

NEW LEWIS OPI
P.B. 1

Top elevations from N to S. 222.07, 221.97, 222.05
Bottom " " " 222.08, 221.98, 222.11

NO POTTERY

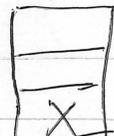
This is the fill material directly below the tiles. In the SW quadrant a very thin layer (ca .01m) of sand sized particles rested directly below the tile. It is 10 YR 6/3 pale brown. It is very dry & easily worked. Elsewhere this sandy layer is very very thin & is removed w/ a small trowel scrape. The western tile was broken into thirds (across ) & this .01m thick sandy deposit was beneath the southernmost third. Beneath the central third of the western

PHOTO 82-271
B/W & COLOR

View of 2 tiles from above.

tile is a silt sized material, very compact, &

10YR 4/3 dark brown. Beneath the upper third of the western tile is another tile.

J. Sanders

MIDWATER 1982

HYPOCAUST of Room 5

July 22

NO LOCUS 2
P.B. 2.

TOP elevations N to S. 222.02, 221.98
Bottom. 221.95

NO POTTERY
1 BONE

The removal of locus 1 uncovered the tiles w/ fill material between as described on p. 1. On the eastern half of this probe area the removal of locus 1 revealed the same arrangement, i.e. a disintegrating tile in the south, solid tiles in the north & the same fill material between. This fill material is locus 2. It is silt sized particles of a very clay like compact consistency. 10 YR 4/3 dark brown. This P.B. will begin removing the fill. There is a great deal of charcoal appearing w/ a burned bone & some f.c. debris

NEW LOCUS 3
P.B. 3.

Top. 221.95
Bottom. 221.91

NO POTTERY

Change locus to remove layer of charcoal that covers whole area of drain. 50% charcoal in matrix of same 10 YR 4/3 dark brown material of locus 2. w/ excavation soil material of locus 3 is very mottled. 50% charcoal w/ sand sized particles, some flecks of terra cotta & ca 10% chips of bebrick. 10 YR 3/2 very dark greyish brown is the revised color reading. The channel of the drain appears to be cut in bebrick.

MIDOBZIGA

1982

HYPOCAUST of Room 6

P. 3.
June 10 to 16

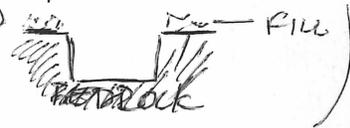
July 23

Locus 3
P.B. 4

Top 221.91
Bottom 221.90

NO POTTERY

Cleaning & removing all of locus 3 to reveal bedrock base of drain channel. Drain channel in this small area varies from .15 m to .22 m in width. Locus 2 was deposited. A fill material similar in composition to locus 2 was deposited above the bedrock sides of the channel (i.e. on top of the horizontal edges



to evenly support tiles which in turn supported the cover tiles of the drain.

PHOTO 82-274
B/W & COLOR

Drain w/ west wall. View to SW.

Above the drain in the west wall of room 5 a single block was held in place w/ mud instead of mortar. This block was removed. The blocks to either side of it as well as the block above it form a regular opening. Below this block, there is a stone slab ~~considered~~ ~~as~~ ~~the~~ ~~drain~~ ~~cover~~ ~~slab~~ ~~not~~ ~~integrated~~ ~~ca~~ .15 m shorter than the drain cover slabs at the North end. Its top is ~~ca~~ .025 m below the top of the next drain cover slab.

YEAR 1982

GRID AREA HYDROLOGIST OF ROOM 5 DRAIN

SITE MUROBRIGA

LOCUS NO. 001

GENERAL IDENTIFICATION soil layer

DATE (s) July 22

Top levels ^{222.07} 222.06 Top plan NO; Bottom levels ^{222.08} 222.08 Top plan NO

Sections none Drawn by architect NO Photo No. NO

PHYSICAL DATA

What is it made of?: Thin deposit of sandy material w/o inclusions. Varying w/ silt sized hard packed fill

What size particles? sand & silt Color 10YR 6/3 pale brown
silt 10YR 4/3 dark brown

Features

Compass orientation _____

_____ courses high; _____ rows wide

Overall dimensions _____

How was it built?: _____

Soil Layers

Direction & Degree of slope series cor. 10m in middle following crack in tile

Degree of compaction: not very compacted

Distribution of particles (e.g., random, laminated, graded bedding)

random

STRATIGRAPHIC DATA

This Locus is below loc. drain tiles & is above Loc. 002

Lateral extent whole area Max. thickness .06m touches balk(s) N, SE, W

How does this Locus relate to all other loci it touches?:

All locus 001 may be wash deposited after the abandon of the drain. It is certainly later than locus 002 which filled in the drain.

This Locus is contemporary with which loci mentioned above?:

none

How was this Locus formed?: rains wash probably.

YEAR 1982

GRID AREA HYPOCAUST OF ROOM 5

SITE MICOPAZIGA

LOCUS NO. 002 DRAIN

GENERAL IDENTIFICATION SOIL LAYER

DATE (s) July 22

Top levels 222.02 - 221.98 Top plan NO; Bottom levels 221.95 Top plan NO

Sections none Drawn by architect NO Photo No. NO

PHYSICAL DATA

What is it made of?: thin layer of charcoal, iron, & terra cotta debris

What size particles? silt Color gray & white
scale brown

Features

Compass orientation _____
_____ courses high; _____ rows wide
Overall dimensions _____
How was it built?: _____

Soil Layers

Direction & Degree of slope to ca 5° down
Degree of compaction: very to comp
Distribution of particles (e.g., random, laminated, graded bedding)
random

STRATIGRAPHIC DATA

This Locus is below Loc. 001 & is above Loc. 003

Lateral extent all drain channel Max. thickness 0.7m touches balk(s) 5 W

How does this Locus relate to all other loci it touches?:
002 is later than the drain & a later deposit than 003
002 is earlier than 001

This Locus is contemporary with which loci mentioned above?:
none

How was this Locus formed?: probably wash

YEAR 1982

GRID AREA HYPOLAUST 6 of Roomy DRAIN

SITE MIZOBIRIGA

LOCUS NO. 003

GENERAL IDENTIFICATION SOIL LAYER

DATE (s) July 22, 23.

Top levels 221.95 Top plan NO; Bottom levels 221.90 Top plan Final

Sections NO Drawn by architect NO Photo No. NO

PHYSICAL DATA

What is it made of?: very mottled soil layer w/ ca 50% charcoal
melanoids, 10% bedrock chips

What size particles? grains Color 10YR 3/2 very
dark greyish brown

Features

Compass orientation _____

_____ courses high; _____ rows wide

Overall dimensions _____

How was it built?: _____

Soil Layers

Direction & Degree of slope none

Degree of compaction: well compacted

Distribution of particles (e.g., random, laminated, graded bedding)

random.

STRATIGRAPHIC DATA

This Locus is below Loc. 002 & is above Loc. bedrock

Lateral extent a drain channel Max. thickness .05 m touches balk(s) E-W

How does this Locus relate to all other loci it touches?:

003 is earlier than 002
003 is later than the bedrock cutting of
the drain channel.

This Locus is contemporary with which loci mentioned above?:

003 may be roughly contemporary w/ locus 002. There was a
high higher percentage of charcoal in 003, but they could have been deposited
close in time

How was this Locus formed?:

wash when drain at of use.

MIDOBRIGA

1982

HYPOCAUST of Room 5

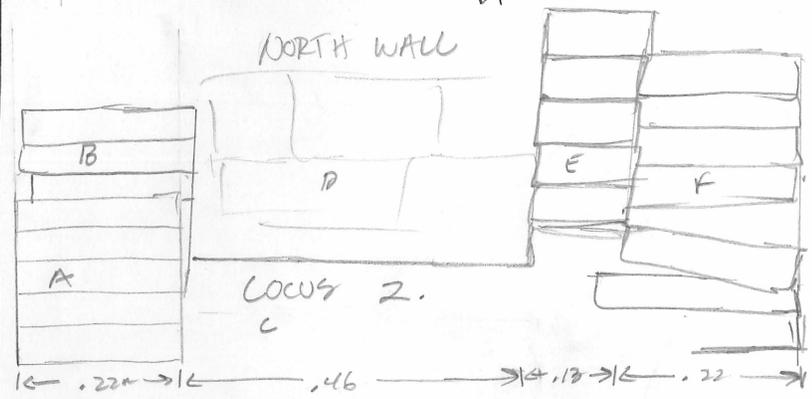
Jansen

25 July Sunday
~~25 July~~

NEW
Locus 2
P.B. 3.

Top 222.19
Bottom 222.05

It appears that all the file of brick fall has been removed. An irregular construction has showed up in the eastern hypocaust column.



- A. The southernmost face of A is .62m S of N wall
- B. The southernmost face of B is .27m S of N wall.
- C. New locus 2 that runs up to A, B, D, & it seems to run up to F as well.
- D. North wall
- E. .24 x .05 x .11 m bricks resting on locus 2 & leaning against F. The southernmost face of E is .33m S of N wall.
- F. Hypocaust files .22 x .22 x .05 (same as B & A) Southernmost face of F is .33m S of N wall (i.e. flush w/ southernmost face of E)

It looks as if locus 2 w/ the associated column of bricks (E on sketch) is part of a patch or rebuilding of F hypocaust column. F is not in good repair, locus 2 may be good fill into which the patch E was built

MURBOROUGH 1982

HYPOCAUST of Room 5

p. 6

26 July (cont.)

Course 2 is very compact 104R 4/4 dark yellowish brown. The particles are silt sized & in places scrape shing white in other places the surface appears more sandy (or sounds more sandy) when scraped w/ the trowel. These lenses are very thin & variable. Less than 10% shale inclusions & chunks of brick, tile, mortar frags. Fragment of stone masonry. Soil matrix appears to be a wash deposit. No evidence of ash.

w/ removal of Course 2, soil at deeper level is looser & is becoming darker. 104R 4/2 dark greyish brown. No change in texture or inclusions.

Two bricks that were mortared together came apart w/ jiggling & it is clear that the sandy textured material noted above was composed mortar that had become colored w/ by the earth of the soil matrix/fill.

The lowest course of hypocaust column B on sketch is at 22.04. The floor tile below it is cracked down the middle & buckling in, as the cover tiles of the drain running N/S to the S of this column. Directly on the cover tile, the soil is a darker 104R 3/2 very dark greyish brown & looks to have some charcoal flecks w/ it.

PHOTO 82-282
B/w

Hypocaust of Room 5
North Wall Final Photo
View to NE

MUROBRIGA

1982

HYPocaust of Room 5

Janitors.

(2 July)
(cont)

Having finished a small drain in west wall, move to north wall to begin removing fall of earth between 2 fallen hypocaust columns.

PHOTO 82-277

Hypocaust along "North wall"
after cleaning View to NE.

Datum 222.81 established on hypocaust column to east of fill.

NEW LOUJS 001
P.B. 1

Top. 222.58
Bottom. 222.33

N. POTTERY
1 piece worked (?)
stone

Begin removing fill. Very compacted earth of silt sized particles. 10YR 4/4 dark yellowish brown. One complete brick. .326 x .056 x .066 m. Rest is brick & tile fragments. The earth fill of tile & brick fall extends southward from the north wall for .53m. The earth fill is w/o inclusions of tile fragments, 4 brick fragments, & 1 whole brick were removed w/ this P.B.

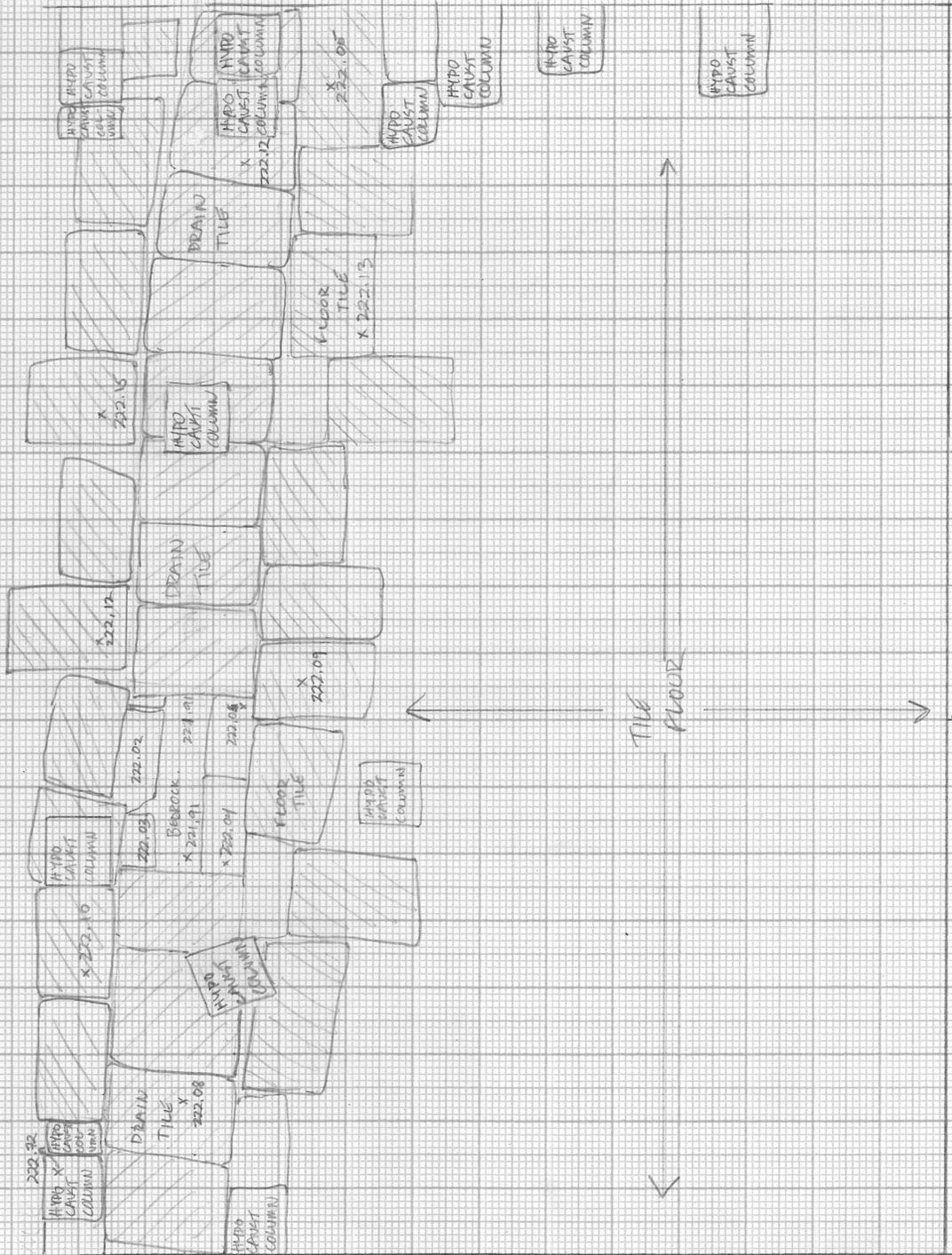
LOUJS 001
P.B. 2

Top. 222.33
Bottom. 222.19

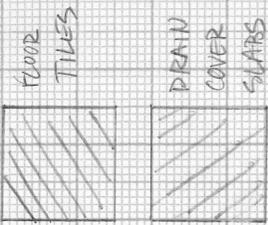
2 pieces pottery.

The # of tile & brick fragments seem to be increasing & the earth fill has some inclusions of shale chips, mortar fragments & stones. Soil remains 10 YR 4/4 dark yellowish brown. Occasional chunks of marble/granite, local stone used in revetment. 10 tile frags & 1 brick frag.

WEST BATH
HYPOCAUST OF ROOM 6
SCALE 1:25



DESIGNATED NORTH



EAST CORNER

WEST

4

3

2

1

EAST

SOUTH

SOUTH CORNER

TILE FLOOR

YEAR 1982
SITE MUROBRIGA
GENERAL IDENTIFICATION COIL LAYER.

GRID AREA HYPOCAUST OF ROOM 5 / EARTH FILL ALONG NORTH WALL
LOCUS NO. 001
DATE (s) 28 July

Top levels 222-58 Top plan FINAR.; Bottom levels 222-19 Top plan none
Sections NO Drawn by architect NO Photo No. 82-277

PHYSICAL DATA

What is it made of?: compacted earth fill w/ ca 35% brick, hle, mortar frags. Inclusions of shale chips, pebbles.

What size particles? silt. Color 10YR 4/4
one whole brick .305 m x .055 m x .065 m. dark yellowish brown

Features

Compass orientation _____
_____ courses high; _____ rows wide
Overall dimensions _____
How was it built?: _____

Soil Layers

Direction & Degree of slope none
Degree of compaction: fairly compact.
Distribution of particles (e.g., random, laminated, graded bedding)
random.

STRATIGRAPHIC DATA

This Locus is below Loc. surface & is above Loc. 002
Lateral extent whole area Max. thickness 39 m touches balk(s) N, E, W.

How does this Locus relate to all other loci it touches?:
Locus 001 is later than locus 002.

This Locus is contemporary with which loci mentioned above?:
no.

How was this Locus formed?: Locus 001 is a fall layer - as evidenced by hle, brick, & mortar frags in its make up.

Pottery

Bank No.

2

Date dug

July 23, 1982

level

Field Reading

2 coarse ware sherds
undatable, thrown.

PHYSICAL DATA

What is it made of? - compared with ...
What size particles? -
Color -
What is the texture? -

Features

Compass orientation

courses high: rows wide

(overall) dimensions

How was it built?

Soil Layers

Direction & Degree of slope

Degree of compaction: *fairly compact*

Distribution of particles (e.g., random, laminated, graded bedding)

STRATIGRAPHIC DATA

This locus is *contemporary* & is above loc. *602*

Lateral extent *1.5 m* Max. thickness *0.2 m* touches bank(s) *U, E, W*

How does this locus relate to all other loci it touches?

This locus is contemporary with which loci mentioned above?

How was this locus formed? *four layers*

YEAR 1982 HYPOCAUST OF ROOMS
 GRID AREA EARTH HILL ALONG NORTH WALL
 SITE MIZOBIRIGA LOCUS NO. 002
 GENERAL IDENTIFICATION SOIL LAYER DATE (s) 25 July
 Top levels 272.19 Top plan none; Bottom levels 272.05 Top plan none
 Sections no Drawn by architect no Photo No. no
 of final photo 82-282
 of E section.

PHYSICAL DATA

What is it made of?: compacted soil w/ less than 10% inclusion
of shale & chunks of brick, tile, & mortar frags.
some charcoal flecks at lowest level.

What size particles? silt. Color 10YR 4/2
late greenish brown.

Features

Compass orientation _____
 _____ courses high; _____ rows wide
 Overall dimensions _____
 How was it built?: _____

Soil Layers

Direction & Degree of slope none
 Degree of compaction: compact
 Distribution of particles (e.g., random, laminated, graded bedding)
random.

STRATIGRAPHIC DATA

This Locus is below Loc. 001 & is above loc. drain & floor tiles
3.5m x .45m
 Lateral extent whole area Max. thickness 4cm touches balk(s) N, E, W.

How does this Locus relate to all other loci it touches?:
locus 002 is earlier than 001. 002 seems to be accumulation
fill between 2 main hypocaust columns (cf sketch in field
notebook page 5). when the eastern column (E on sketch)
fell into disrepair, the new support (E on sketch) was (over)

This Locus is contemporary with which loci mentioned above?:
none.

How was this Locus formed?:
accumulation fill.

founded directly on loess 002. Loess 001 then accumulated
 above this. Although both loci have similar features,
 color & inclusions they are distinguished by this
 2nd building/repair.

Top levels 225.19 Top plan 1975 ; Bottom levels 222.02 Top plan 1975

Sections 10. Drawn by architect. Photo No. 10.

PHYSICAL DATA
 What size particles? What is it made of?
 Color 10/12.

Soil layers	Features
Direction & degree of slope	Compass orientation
Degree of compaction	courses high: rows wide
Distribution of particles (e.g., random, laminated, graded bedding)	Overall dimensions
	How was it built?

STRATIGRAPHIC DATA
 This locus is below loc. 101 & is above 102.
 Latest extent with area. Max. thickness 1.4 m. touches bank(s) N.E.

How was this locus formed?
 How does this locus relate to all other loci it touches?
 (Locus 001 is earlier than 002, 002 seems to be accumulation
 All known 2 main important columns (of strata in field
 adjacent part of) over the other column (1 m thick)
 This locus is contemporary with which loci mentioned above?

Milobniga 1982

West Baths, South Service Area

In the south east corner of the west bath complex is an 'L' shaped service area that gave access to three separate hypocaust systems. The western arm of the room served a system that extended under the calderium and the western room of the tepidarium. The northern arm served the Eastern room of the tepidarium and another entrance led to an annex of the tepidarium that is conceivably an added hot room. This annex was entered by a narrow doorway excavated by J.S. in 1982; its hypocaust columns are constructed of completely ~~different~~ or different tiles than elsewhere (as is the floor), while the airflow system is awkwardly not linked with the area directly to the west.

In the northern arm the majority of the earth was removed leaving a narrow baulk along the west wall to reveal a section that was intended to traverse the room North to South (not completed). The south baulk was aligned with the almost vertical cut of one of Dr Almeida's trenches in the area where he had excavated the majority of the wash layer but had left the ash of a 0.40 m covering of silt & pebble fill. Diagonally across the room runs a channel formed by ~~water~~ storm water coming out of the hypocaust system. This channel had cut down into the ash layer itself. In the northern most part Dr Almeida had excavated completely to bedrock of a thin layer of recent wash had formed over it.

Work was started in this area to try to find datable material in the ash layer associated with the final clean out of the hypocaust system. None of the scanty amount of material was of identifiable date.

Initially bedrock was cut back & roughly levelled for the construction of the service area and hypocaust system. and channels of 3 drains were cut from bedrock itself, 008, 009, and 010. Two of the drains are unimproved and lead from the entrances of the hypocaust, join at right angles and run towards the threshold of the room where they flow into drain 008. These lesser channels are c. 10 cm deep with vertical sides and a rounded bottom. Drain 008 runs diagonally across the area perhaps originating beneath the north pier of the calderim and runs under the threshold of the door/steps into a major channel that flanks the south of east sides of the bath complex. 008 has cut sides in bedrock c. 0.20 m deep and a floor of bricks 0.47 m long, 0.30 m wide and 0.045 m thick that correspond with the size of bricks found in the first phase of construction on the temple hill (cf G.S. House of the bath trench 55.57 1982) (also Mike Eller's trench in drain and in wall of Taverna). The wall of the drain is made of broken tiles, with the broken edges set against bedrock, and a course of yellow limestone blocks giving a channel c. 0.16 m deep and c. 0.27 m wide. No cutting in bedrock is about 70 cm wide.

Part of the original floor of the room survives in the extreme north part against the north wall (p11) This was laid of small bricks @ 0.30 x 0.30 m laid on a thin foundation of earth/mortar over bedrock. This acted as a cover ~~slab~~ for the small drain, Locs 009, and probably for the other two drains as well. The floor however, is completely destroyed elsewhere in the area, and a thick layer of Ash, ~~and~~ brick, mortar and debris overlies bedrock & fills the drains (005, 006, 004). This contained very little material - merely a very few sherds and some bone, also some lead & iron? fragments. At times during

The course of excavation attempts were made to make the stratigraphy more involved but the fire fall (004) and floor (005) transpired to be merely part of the clean-out that contained large amounts of brick material. Also within the Ash were 2 distinctive lenses ~~of~~ of non-ash material, one red and one orange that made the scarp extremely attractive. They were debris of ~~from~~ decomposed building material of the hypocaust columns etc.

After the building went out of use material was transported down the hill and covered the ash with lenses of ~~of~~ silt and lenses of pebbles to a depth of ≥ 1.25 m.

Wade's Journal
1984

Mimbanga 1984

West Baths, Retaining walls 0001
water channel to SW of Baths

June 12

Began cleaning faces of retaining wall where it extends to SW over water channel at NE end from small apse pool in Room 6. Purpose to find corner from where wall SW of service area extends. Must be retaining wall here as manhole in channel below shows. Also want to distinguish modern from Roman construction and to examine relationship of water channel to retaining wall.

June 13

(Only 2 workmen)
continued cleaning walls of water channel and retaining wall above ground level and at NE end.

Basket 1
001

At top (SW end) of channel cleaned fill from above stones of arch of water channel. Small bronze earring lying on top of stones.

With Basket 1 uncovered NE end of E-retaining wall over water channel.

With Basket 2 cleaning top of water channel looks as though retaining wall rests on arch of water channel.

GENERAL IDENTIFICATION

Locus No. 001
Date(s) June 13, 1984

W. Bank, Above water channel

Top levels _____ Top plan _____ ; Bottom levels _____ Top plan _____

Sections _____ Drawn by architect _____ Photo No. _____

PHYSICAL DATA

What is it made of? loose earth

What size particles? _____ Color _____

Features

Soil Layers

Compass orientation _____

Direction & degree of slope _____

_____ courses high; _____ rows wide

Degree of compaction _____

Overall dimensions _____

Distribution of particles (e.g., random, laminated, graded bedding)

How was it built?

STRATIGRAPHIC DATA

This Locus is below Loc. _____ and is above Loc. _____

Lateral extent _____ Max, thickness _____ Touches balk(s) _____

How does this Locus relate to all other loci it touches?

This Locus is contemporary with which loci mentioned above?

How was this Locus formed?

Fill washing in from hillside

NW Coastal
South, 1982

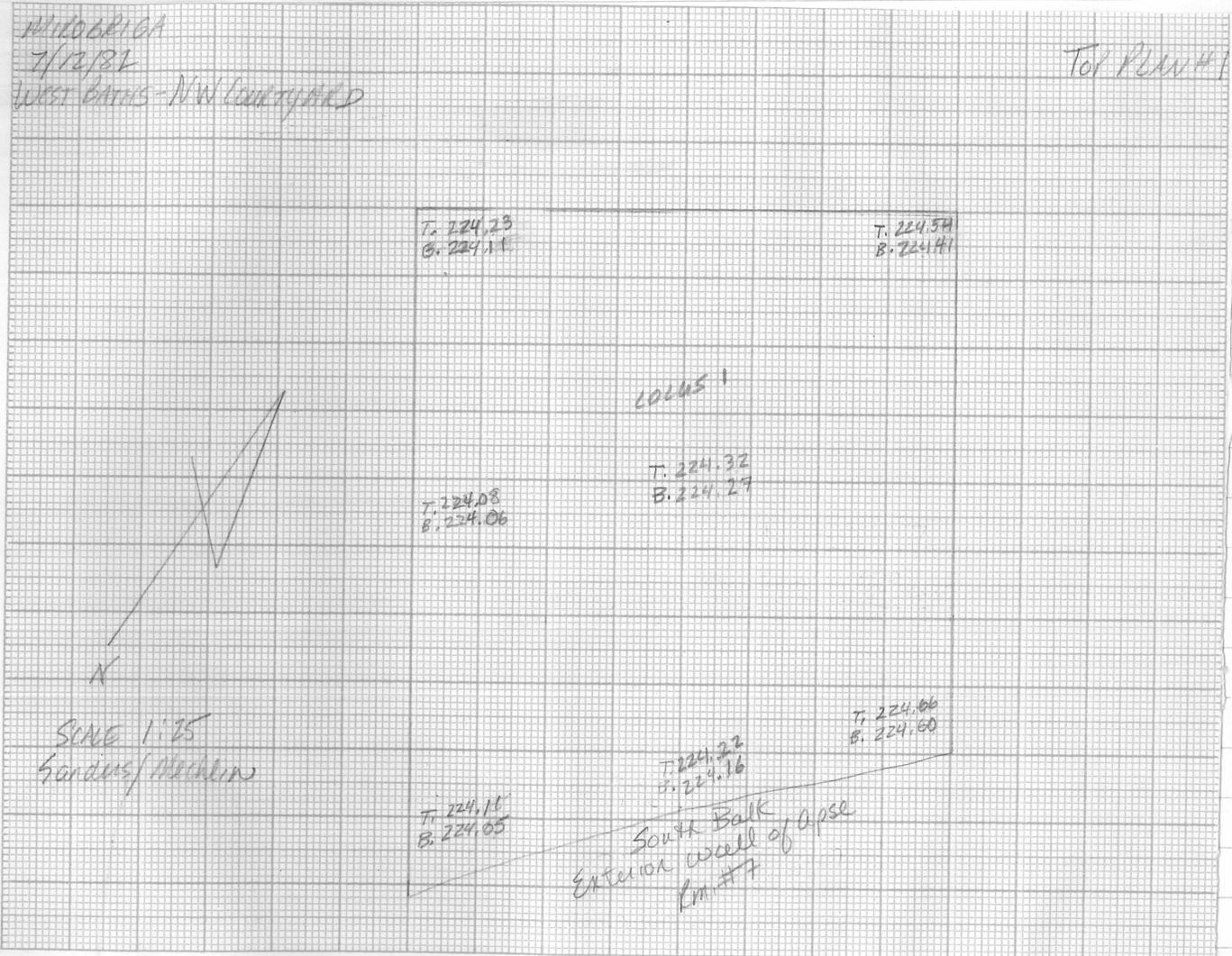
MIROPRIGA 1982

WEST BATH
NW COURTYARD

Amy Meehan
Jan Samuels.

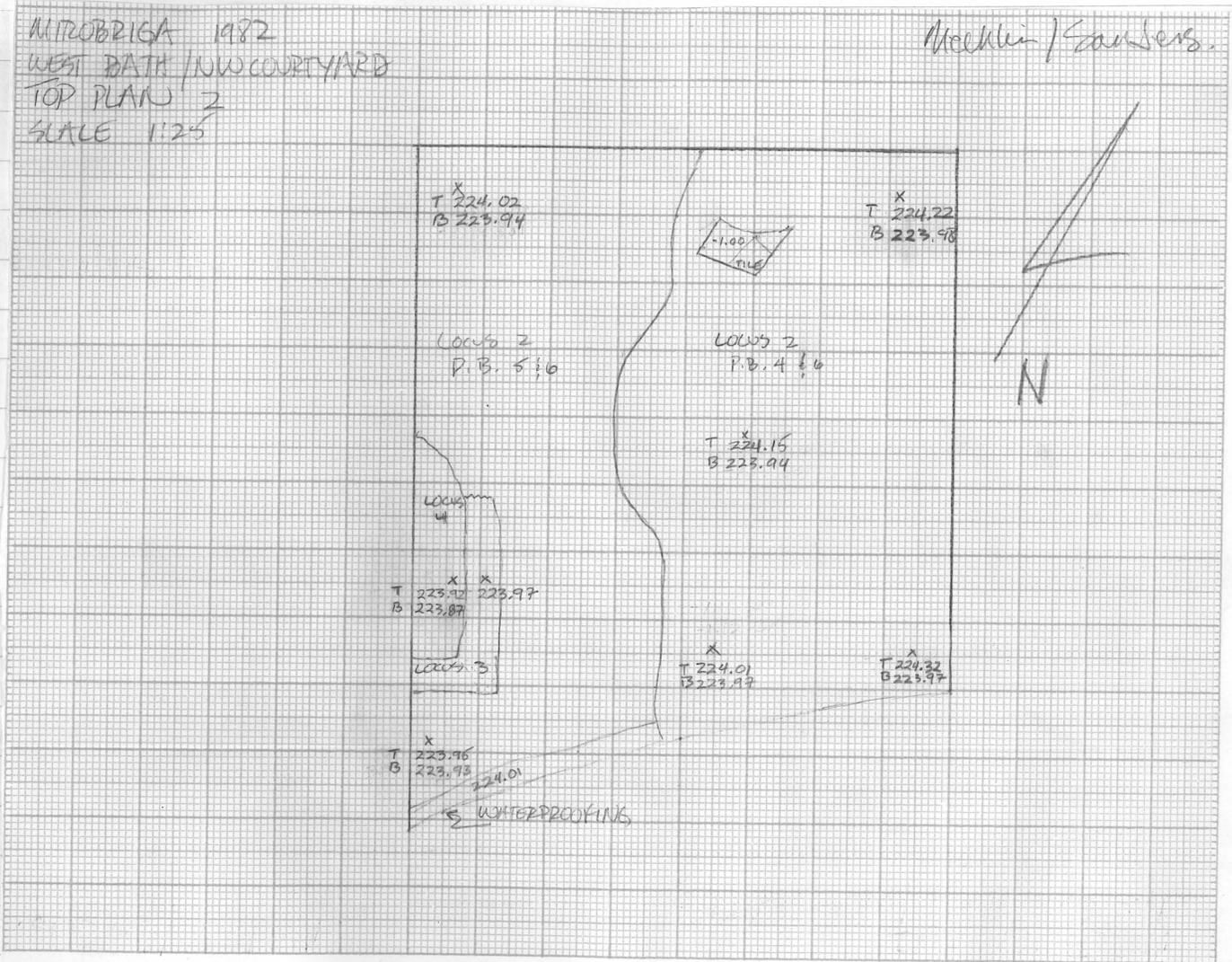
MIROBRIGA 1982
WEST BATH / NW COURTYARD.
TOP PLAN 1
SCALE 1:25

Meeklin/Sanders.



MIROBRIGA 1982
 WEST BATH / NW COURTYARD
 TOP PLAN 2
 SCALE 1:25

Meeklin/Sanders.



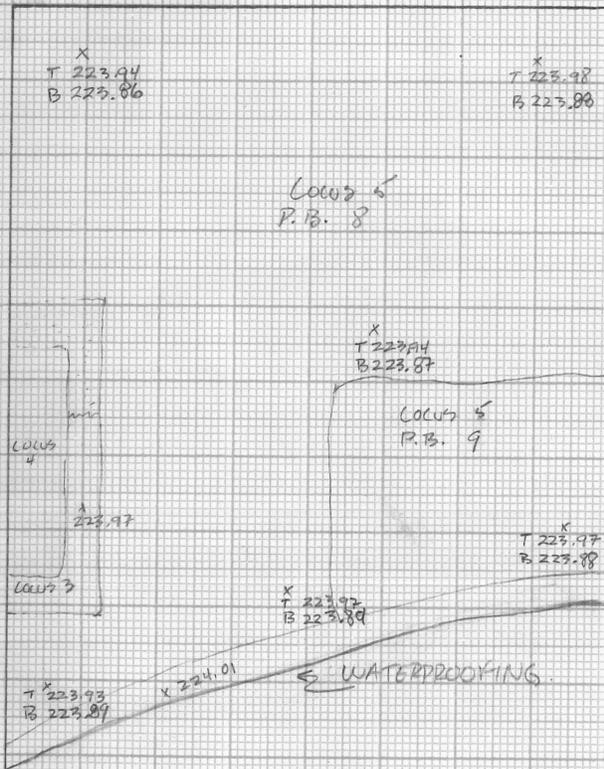
MIROBRIGA 1982
 WEST BATH / NW COURTYARD.
 TOP PLAN 3
 SCALE 1:25

Mecklin / Sanders.

MIROBRIGA 1982
 WEST BATH / NW COURTYARD.
 TOP PLAN 3
 SCALE 1:25

Mecklin / Sanders

LOCUS 6



Minoia 1982
N. W. Courtyard

Mecklin/Sandus

This area to be excavated overlaps two different grids and thus will be designated the Northwest Courtyard of the West Baths. The area is located on the exterior of the west apse of Room Seven of the West Baths. The dimensions of the area to be excavated are 2m. x 2m, one side of the area is flush with the exterior of the west apse and is thus curved. The balks have been designated north, south, east, and west even though they do not run directionally true. (See top plan #1). The datum point for the area is a nail in the side of the exterior west apse wall. (Elevation 225.13)

A feature, Locus three, was partially visible before excavation began. The impetus for excavating the area is to gain more information as to what is going on in the Northwest Courtyard area, ^{both} structurally and concerning a date for the area.

The Northwest Courtyard of the West Baths was dug by Jan Sandus and Amy Mecklin.

MIROBRIGA 1982
NW COURTYARD

Micklin/Sandus

12 July

Focus 1
P.B. 1

Top slope from E 224.66 down to W 224.06
Bottom slope from E 224.60 down to W 224.04

Area cleared and square was laid out. Some pottery taken from surface cleaning. Began removing focus 1, loose fill and top soil.

Focus 1
P.B. 2

Still removing focus 1, very little pottery.
Top 224.60 down to W 224.04
Bottom 224.57 down to W 224.00

Focus 1
P.B. 3

Focus 1 still coming off, but a new layer of destruction debris is appearing in the N.E balk area. The soil is much harder in this area and includes approx. 30% debris. Will finish removing the remainder of focus 1 to expose the new material.

Top 224.57 - 224.00
Bottom 224.57 - 224.00

MIROBRIGA 1982
NW COURTYARD

Medlin/Sanders

13 July

Locus 1
P.B. 3.5
NO POTTERY

Top slope - E 224.60 down to W 223.96
Bottom 224.32 irregular 224.01

finish removing locus 1 - loose sandy fill / top soil.

NEW Locus 2

Top slope from E 224.32 down to W 224.01

Locus 2 was revealed in E half of area by removal of locus 1. It appears a debris layer composed of sand of silt sized particles w/ 20% inclusions of tiles & mortar. Concentration of inclusions along E back diminishing toward W & stopping at ca. 1.20 m W of E back. (cf. Top Plan 2.) 7.5 YR 4/6 strong brown

NEW Locus 3

Installation of mortar w/ large pebbles ($.02 \times .02$ to $.04 \times .03$ m) aggregate. 10 YR 8/1 white L shaped in SW corner (cf. Top Plan 2) its exact function is not yet clear.
Top. 223.97

Locus 2
P.B. 4

Top slope from E 224.32 down to W 224.01
Bottom. 224.00

Try to remove locus 2 w/ its 20% fill to see relation of locus 2 to material to W.

MUDOBRIKA 1982
WEST BATH / NW COURTYARD

Mehlin/Sanders

13 July (cont)

Locus ~~2~~ 2 Top. 224.02
P.B. 5 Bottom 243.94

SUMMARY

This P.B. is to remove the material from the west bank to 75 - 90 m E of wharf. In excavating P.B. 4 it became clear that the material along the W bank is the same as that in the east, w/ the exception of its lack of inclusions. It seems that locus 2 in the east, w/ 20% brick & mortar inclusions is a higher level of fill. This was dug w/ P.B. 4. P.B. 5 in the west has only < 5% mortar inclusions, but is the same silt size 7.5 YR 4/6 shony brown material. Both P.B. 4 & P.B. 5 easily break away from a harder & much more compacted material beneath!

NEW LOCUS 4 Top. 223.92
P.B. 6 Bottom 223.87

This P.B. is to remove the loose fill w/ (installation) locus 3. Very loose 10YR 5/4 yellowish brown. When excavated locus 4 found the northern edge of locus 3. At this edge locus 3 turns a right angle into the west bank.

- 1.07 - length from outside of locus
- .75 - length from inside of locus

The northern most 40cm. are badly damaged as it turns into the bank.

MILOBRIKA 1982
 NW COURTYARD

Muchlin/Sanders

14 July

Locus 2

P.B 7

NO POTTERY

Top ~~223.96~~ 224.00

Bottom 223.96

Pottery basket 7 is the continuation of the removal of material above locus 4. Working from the E to the W balk locus 4, a fairly level layer, is exposed. No pottery.

New Locus 5

PB 8

Top 223.96

Bottom 223.88 Down to W 223.84

PHOTO.

82-240 (colour)

TOP LOCUS 005

VIEW TO NE

Completed removal locus 2 and new locus 5 has appeared. Locus 5 is very ^{compact soil (clay?)} hard material, Munsell 7.5 YR 6/4 "light brown". This layer covers the entire surface of the square except for the southeast corner. The material in this corner is different, and it runs up to the waterproofing which is now completely exposed. Locus 5 looks as if it might be a layer of mud which dried and then cracked. A tiny bit of floor (mortar aggregate) has appeared near the west balk. Want to remove locus 5 & expose floor, and to determine what is happening in the southeast corner of the area. One fragment of roof tile from this PB.

MIDOBRIGA 1982
WEST BATH / NW COURTYARD

Meeklin / Saunders

Locus 5	Top	223.97
P.B. 9	Bottom	223.88

Material in SE corner of the area is a more compact lens with inclusions that don't appear in the same locus⁽⁵⁾. The material is on the same level as locus 5 and also under locus 2. Material from locus 2 broke cleanly off this lens as it did from the rest of locus 5. Inclusions are mortar, brick, schist, and pebbles. The soil is tight and Munsells 10 YR 5/4 "yellowish brown". The material in the SE corner breaks cleanly away from the floor surface as does the remainder of locus 5. Perhaps still a wash-type layer, but w/ inclusions carried along the wall by environmental factors. ~~One~~ ^{one} piece of marble moulding ~~seen~~ from this locus { Top. 223.88
Bottom.

New Locus 6
~~XXXXX~~

Floor surface has appeared. Concrete w/ pebble aggregate material, 10 YR 7/1 "light gray" (Same material as locus 3) Floor is damaged in the NE corner w/ a g. crack running from this corner across the area into the West wall. Floor & waterproofing & basin? all same material & contemporary.

MIROBRISA 1982
WEST PATH / NW COURTYARD

McElhin/Sanders.

15 July Thursday

PHOTO 82-245
B/W & COLOR

Top of floor locus 6 taken
to NE

PHOTO 82-246
B/W & COLOR

Top of floor locus 6 taken
to SE

Extension of area 4 m to E, overall
Dimensions now 6 m E-W & ca 2 m
N/S depending on curvature of N wall of
rooms 7 & 6

PHOTO 82-247
B/W

view of enlarged area to SE/S.

Locus 1
P.B. 10

Top. 224.15
Bottom. 224.11 in W slope down to E 223.98

This P.B. will remove loose topsoil material
sand sized particles w/ great deal of sticks
& roots. 10YR 4/2 dark greyish brown. This
topsoil includes some material that may be
considered locus 5 (by color). The root
action however has gone into locus 5 so
we will remove the upper limits of it in
this P.B. Removal of this bucket revealed
western limits of locus 3 & shows that
the waterproofing continues to follow the
base of the wall.

MADDEGIA 815

7/15/82

WEST BAMS NW CORNER AND
NORTH/SIDEWALKS
LOUIS 2 (is extended over)

NORTH BALK

T. 224.20
B. 224.09

T. 224.20
B. 223.99

T. 224.11
B. 224.02

WEST
BALK

T. 224.18
B. 224.11

T. 224.18
B. 224.00

T. 223.98
B. 224.00

T. 224.12
B. 224.09

EXTERIOR WALL RM 6
APSE

SOUTH BALK

T. 224.19
B. 224.06

T. 224.12
B. 223.99

T. 224.10
B. 223.98

EXTERIOR WALL RM #7
APSE

N

SCALE 1:25

TOP PLAN # 4

20

15

10

5

5

10

15

20

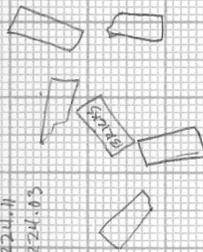
25

MIOBELISA M82
WEST PATH / NW COURTYARD
TOP PLAN 5
SCALE 1:25
Mechanics / Standards

T 224.09
B 224.07

Locus 7
P. 10. 11

T 224.11
B 224.03



T 224.09
B 225.99

T 223.99
B 223.98

Locus 5

T 224.06
B 223.85

T 224.02
B 223.88

Locus 6

T 224.00
B 223.87

T 223.87
B 223.8

T 223.99
B 223.92

WATERPOCK N 15

MILOBRIA 1982
WEST BATHS/NW COURTYARD

Michlin/Sanders

16 July Friday

New Locus 7
P.B. 11

Top. 224.09 in W
Down to E 223.99
Bottom. W-224.07
Slopes down to E
223.98

NE half of the area is a different material, inclusions of brick, schist, + sm. amount of mortar. Perhaps scattered debris* from a fall. (Not the same as Locus 1 though)
Material is looser than Locus 5 which is appearing underneath this layer. Locus 7 extends approx. 2m. + touches the N, S, + E balks. Note - root action has disturbed this entire locus.

* Debris is concentrated along the S balk.
Colour - 10 YR 5/4 "yellowish brown".
Largest brick (in entirety) measures 21cm x 9cm x 6cm.
Locus seven contained a few frags. of modern pottery.

Locus 5
P.B. 12

Top. 223.98
Bottom. 223.86

PHOTO# 82-249
Top of Locus 5
View to SE (colour)

Locus 5, the mud layer above the floor (6), is darker against the S balk. Roots and any mortar or broken brick are also concentrated in this area. The shade caused by the walls of the apse - Rm. 6 + 7 (S balk)

MICROBRIA 1981
WEST BATHS - NW COURTYARD
7/16/81
Locus 5
P.B. 12
NO POTTERY

Micklin/Sandus

may keep the soil damper, thus a darker colour soil. Layers of successive mud-wash cleave off of one another while going down through this locus.

18 July
Sunday

Locus 5 Top 224.07 in W slope down to 223.98 in E
P.B. 13 Bottom 223.83.

NO POTTERY

Continue removing locus 5 to reveal surface of floor locus 6. Material remains silt sized particles deposited by water - layers in sedimentation break off easily one from another. ~~No inclusions~~. 7.5 YR 5/4 brown 10 YR 5/4 yellowish brown. In a few places, the silt sized particles resting directly on the floor locus 6 are a much lighter 2.5 Y N7/ light gray. Lenses of this same material are now visible in the N & E bays in the NE corner also w/ locus 5. Along the exterior of the apses of Rooms 6 & 7 locus 5 has inclusions of mortar chunks & brick frags.

MIROPOSLGA 1982
WEST PATIA / NW COURTYARD.

Mecklin/Sanders

18 July (cont)

Lower	#4	Top.	223.94
P.B.	14	Bottom.	223.87 223.87

NO POTTERY

This P.B. will begin removing Locus 4 - which is the fill material w/i the square feature Locus 3. At present the material of Locus 3 appears to be the same fill/wash material as Locus 5. The soil has become essentially darker

7.5 yr. 4x4 about the particles remain the same size as in Locus [also pieces of charcoal.] and compact in consistency. Particles + small frag of mortar and pieces of tile are -ments of bed present. Due to colour change rock] buckets are being changed.

SW	128	SE	123
NE	128	NW	126

Locus 4 P.B 15

Top elevations

SW = 97	223.85	Top.
SE = 102	223.90	Bot. 223.71
NE = 97	223.85	
NW = 99	223.87	

NO POTTERY

Thin piece of metal 3.7 cm long and 4mm wide found in P.B 15.

OVER.

Archives / ...

Bell elevation for

P.B. ...

1985 ...

083

83.

$$\begin{array}{r} 225.13 \\ 1.42 \\ \times 223.71 \end{array}$$

~~P.B. Elevations~~

The rubble fill seems to lie directly above the top of the arches on each side. Their average lengths are 22 cm long and 14 cm wide. This rubble fill is made up of limestone blocks and large pieces of tile. max thickness 14.5 cm.

MIREBZIGA 1982
 WEST BATH / NW COURTYARD
 19 July Monday

Hecklin / Sanders.

Locus 4
 P.B 16

Top: 223.71
 Bottom: 223.13.

NO POTTERY

The soil remains the same colour. but seems less compacted. Large angular limestone and tiles present. Rim and part of body of a metal container found ^{above} rubble fill. The ^{lime} stone coursing has altered from horizontal to a vertical position on NW-SW section of basin. This feature is repeated on the NE-SE WALL.

cont
 table of
 pg. 9

Locus 5
 P.B 17

Top: 224.05
 Bottom: 223.81

Still removing Locus 5 to reveal floor surface. Layers of sediment very thick & tight. Drain has appeared in S balk, will be assigned a new locus & excavated. More modern pottery and 1 metal saucer lid (NW corner) have been removed from Locus 5-PB17.

MIROBRIGA 1982
WEST BATH/NW COURTYARD
19 JULY MONDAY

Michlin/Sanders

Locus 8
P.B. 18

Top. 223.84 (inside drain) ^{223.85 above} outside drain
Bottom. 223.68

Locus 8 is a drain and appears to run under the south balk. Above this drain bricks run horizontally in the apse wall. Waterproofing runs up to the drain & turns an angle to surround it, this area of waterproofing is almost completely destroyed. Soil inside of the drain is very compact, silt size w/ schist + sm. brick^{frag.} inclusions. Munsell 7.5 YR 4/6 "strong brown". Fragment of animal jaw bone found in this P.B. + a few broken bricks. Drain is still going down below opening on opposite side of apse in pool.

20 July Tuesday

Locus 4
P.B. 19

Top. 223.68
Bottom. 222.74

Still going down through locus - earth is damp + full of bricks + stone. Small bits of ash are also w/in the matrix. Recent material (plastic tubing, glass, + bones) are contained w/in this P.B.

MIRBOR16A 1982
WEST BATH / NW COURTYARD

Hecklin / Sanders

20 July (cont)

Locus 4
P.B 20

Top. 222.74
Bottom. 222.52

Soil is sandier now, much crumblier than before. Still have bricks + stones w/in matrix. Earth is also very damp now. Munsell 10 YR 4/2 "dk. grayish brown". Arches going east + west are exposed now. Went fill in these passageways fills the space. Only the uppermost portion of the arch vault ceiling can be seen using a flashlight. Extended distance is yet unknown.

Locus 6
P.B. 21

Top. 223.81
Bottom. 223.74 - 223.81

This P.B. is cleaning down the disturbed area of surface locus 6. This area extends from the N walk to ca. 75 m S of N walk + from W walk to ca. 4.00 m E of W. walk. The soil matrix is 10 YR 5/4 yellowish brown. The white mortar material that makes up the smooth surface of locus 6 is missing in this area. Instead the large

MIROBRIGA 1982
WEST BATH / NW COURTYARD

Meeklin / Sanders

20 July (cont)

pebble aggregate w/ the silt sized soil matrix is on the surface. w/o the mortar this surface is quite crumbly. The mortar appears to be no thicker than .02-.03 m.

21 July Wednesday

PHOTO 82-260
B/W & COLOR

FINAL PHOTO of whole area to SE

PHOTO ~~82-260~~ 82-261
B/W & COLOR

FINAL PHOTO of whole area to SW

PHOTO 82-262
B/W & COLOR

FINAL PHOTO of whole area to NE.

~~Loc 6~~ ~~Loc 6~~ Loc 6
P.B. 22

Top. 223.77
Bottom 223.46

NO POTTERY

This 1 x 1 m probe locus is located in the NW corner of the area. Plan to remove the floor locus 6, which is partially destroyed in the probe area & to explore the foundations of the floor & the material beneath.

MIROBRIGA 1982
WEST BATH / NW COURTYARD.

Meeklin/Sanders

21 July (cont)

Aggregate w/i disturbed floor 6
is w/i preserved mortared surface
of 6 are same sizes, varying
from .015 x .015 m to .04 x .02 m.
Beneath the preserved mortared
surface larger cobble sized aggregate
(or foundation fill) is appearing
ca. .09 x .06 x .05 m. w/i
this larger aggregate fill are several
tile fragments? brick fragments.

New Lows 9
P.P. 23

Top. 223.46
Bottom 223.62

This new lows is the soil fill / foundation
beneath the surface 6. The large
cobble aggregate formed a loose layer
resting in Lows 9. These cobbles were
supporting the smaller pebble aggregate
which was directly beneath or well as
w/i the mortared surface 6.
Very hard, predominantly shale material w/
some earth fill (filtered down from matrix of
Lows 6?) shale 5/6/2 light olive gray.
bedrock?

PHOTO 82-267
B/W

Lows 9 bedrock to w.

MROBEIGA 1982
WEST BATH/NW COURTYARD

Meeklin Sanders.

Locus 4
P.B. 24

Top 222.57
Bottom - 222.14 - floor

Still going down through locus 4, soil is wet and sticky, no pottery or other material has been found in this P.B. Floor of the drain has been exposed, built of nice flat tiles measuring .46m x .31m x .05m. Since that has leached from drain wall stones may perhaps mark the water level (on back)

Locus 4
P.B. 25

Top 223.01
Bottom 222.14

Beneath w arch.

Have begun removing earth from under the west arch. Soil consistency & colour remains the same as previous P.B.'s of the locus. The earth fill closest to the arch ceiling is dry & gets progressively moister nearing the tile floor. W/ the aid of a flashlight can see that the drain continues westward w/ a vaulted (arch) ceiling, a higher arch than that of the entrance. Plan to remove the earth immediately obstructing the entrance to expose the regular fill (level layer of undisturbed material in drain) so as to measure the drains extent as far as possible.

inside the drain - approx. 81 cm^{up} from tile floor.
Soil still contains debris such as brick & stone
extending down to floor level.

MIROBRIGA 1982
WEST BATHS / NW COURTYARD

Mecklin / Sanders

22 July

Locus 9
P.B. 26

Top. 223.60
Bottom 223.56

~~NOTICE~~ This P.B. will explore a cut in the bedrock OVER very close to the S edge of this probe area.

SUMMARY

→ It looks as if what has been called the disturbed surface of locus 6 was in fact an earlier surface w/ the hard smooth mortared finish. Locus 3 (the personhole) & locus 4 that Amy is excavating shows a tunnel cut into the bedrock running at least to the west bank of our large area. The bedrock cut which appears in the probe area is probably part of this channeling operation. The mortared surface of locus 6 seems to follow closely along the line of the bedrock cutting. The sequence of events may have been as follows. The unmortared surface 6 was destroyed from ca. 75m S of the N bank to the exterior of the apron walls of rooms 6 & 7, to allow the bedrock cut channel to be built. After the tunnel was completed the smoothly mortared surface of locus 6 was laid running up to the unmortared surface along the N. bank.

Miscellaneous

WESTBATH / WILSON / 1985

The soil w/o the cut in the bedrock is
a silt sized particle compact 7.5 YR
1/4 dark brown. The line of the cut is
a straight line at .80 m S of N
back.

100.00
100.00
100.00

very close to the edge of the probe over
collected the surface of the
was in fact an earlier surface of the
and weather fractured first. (see the
is just that they are
extending a tunnel cut into
the bedrock turning at least to the
west part of our track over. The
bedrock in which appears in the probe
was a probably part of the channel
operator. The fractured surface of the
of the bedrock follows closely along the line
of the channel. The surface of the
was a weathered surface from ca. 25m
of the bedrock to the extent of the
and weathered surface of the
channel to the west. After
the tunnel was completed the weathered
surface of the bedrock was
turned up to the weathered surface
of the bedrock.

MIROBETA 1982
WEST BATH / NW COURTYARD

Meeklin/Sanders

22 July (cont)

PHOTO 82-268
B/W & COLOR

Probe area loci 9 & 10
View to SW.

PHOTO 82-269
B/W

Probe area loci 9 & 10
View to NE

~~PHOTO 82-270
B/W & COLOR
Probe area loci 9 & 10
View from above~~

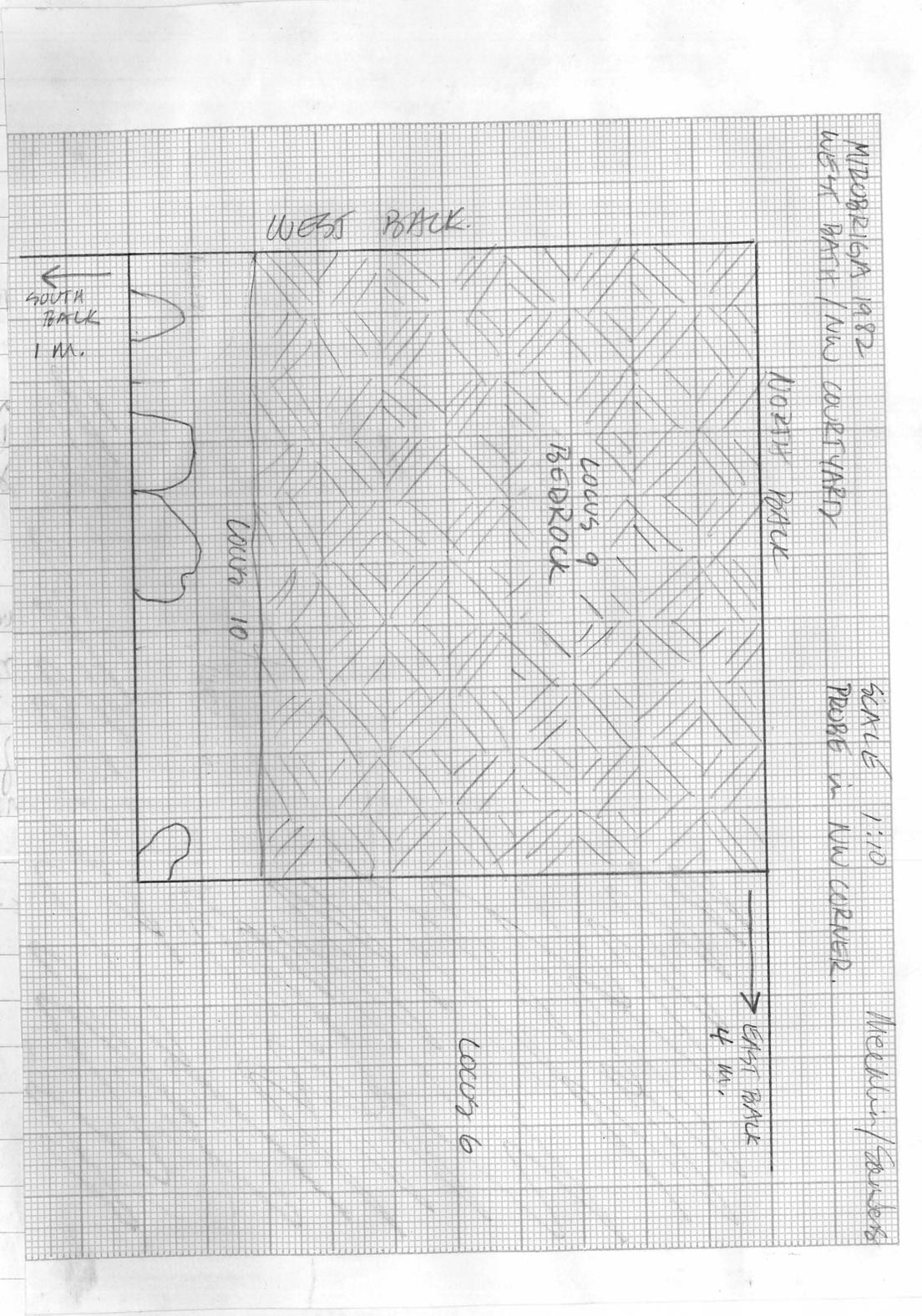
New lows 10 TOP 223.56.

This low is the material w/ the bedrock at. At present low 10 is appearing only in the area of the probe. It runs along the southern 20m of the probe area. It is a compacted silt sized material 7.5 YR 4/4 dark brown. It has inclusions of pieces of bedrock shale.
cf over for SCALE 1:10 sketch.

81.9

Mellin/Sanders

1981
MIDORRIGA 1982
WEST BATH / NW CORNER



horizontal
arrangement
to
east
of
the
red to

01

←
SOUTH
BACK
1 m.

WEST BACK

NORTH BACK

MIDORRIGA 1982
WEST BATH / NW CORNER

SCALE 1:10
PROBE IN NW CORNER.

Mellin/Sanders

→ EAST BACK
4 m.

LOUS 6

LOUS 10

LOUS 9
BEDROCK

MIDOBREGA 1982
WEST BATH / NW COURTYARD

Meeklin/Sanders.

22 July (cont)

Locus 4
P.B. 27

Top 223.01 Beneath Waich
Bottom 222.14

Removing Locus 4 under the w
arch have gone back into the
tunnel 56 cm. Earth on top of
tunnel very crumbly but wet now -
earth below + especially on top
of floor very wet. No material
from this P.B. Stone walls are
regularly laid as in the man-
hole. Tile floor is still present
tiles are 31 cm. x 46 cm. Scattered
bits of ash are w/in the mud.
Successive deposits of sediments appear
w/in the mud near the floor.
Arch vaulting continues W approx
4 m. 70 cm ^{+ further} to another rise in the
accumulation. (Perhaps another
opening). Approx. 2.50 m. near
the ~~opening~~ apex of the arch two
tiles? stone + may be a spout
from which the drain (Locus 8)
may connect.

MIROBRIGA 1982
WEST BATH / NW COURTYARD

Mecklin/Sanders

July 23

House A
P.B 28

Final cleaning for photographs.
Section drawn.

PHOTOS

- 82-278 View to SW showing vault ceiling
(taken from below) colour
- 82-279 View to NE showing E vault
(taken from below) colour
- 82-280 View to SW (taken from top
looking down) colour
- 82-281 View to NE (taken from top
looking down) colour

NOTE: All compass directions given in this final report are those used in the field notebook, but vary 90° from the compass directions used elsewhere in describing the bath complex. Thus what is NORTH in this final report is actually WEST, what is SOUTH is actually EAST, EAST is actually NORTH & WEST is actually EAST.

An area measuring 2m. x 2m. was laid out along the exterior of the apse of Room 7 in the Northwest Courtyard of the West Bath. This area was later extended 4 m to the west. It is not a rectangular area as its south bank was formed by the apses of Rooms 7 & 6.

Bedrock was exposed in a 1m. x 1m. probe in the NW corner of the area. As elsewhere on site, bedrock is a shale material, 5/6 light olive grey. The top elevation of the bedrock is 223.62.

A vertical cut in the bedrock of this probe area at .80m south of the north bank formed a narrow trench in the southernmost .20m. of the probe. This vertical cut follows roughly the northern edge of locus 003, a service hole set into the surface locus 006. The construction of locus 003 seems to be as follows: The cutting in the bedrock that appeared in the probe area is the northern edge of a large deeply cut trench to allow the construction of a barrel vaulted drain channel of which locus 003 is a service entrance. The removal of locus 004, the fill of silt sized particles 10/24/2 ^{dark grey} ^{red brown} deposited probably by rain ^{or by drainage} in locus 003 showed that the service entrance 003 is .85 m. deep w/ a floor of tiles .45m x .30 m x .05m. At ca .80 m. above the tile floor begins the arch that forms the barrel vaulted ceiling. The arch & walls are constructed of roughly worked local stone blocks .30m x .11m x ca. 10 & .18m x .08m x ca. 10m. w/ 0 mortar. * (see back page 3)

Following the construction of the barrel vaulted channel the upper levels of the bedrock trench were filled w/ locus 010, as supported by the material recovered from the probe area,

MIRDRIGA 1982

WEST PATH

Meklin / Saunders

NW COURTYARD

p. 2 of 3

FINAL REPORT

a material of silt sized particles 7.5YR 4/4 dark brown w/ inclusions of pebbles & chips of bedrock. The top elevation of locus 010 was recorded as 223.86 but the locus was assigned only after cleaning down the bedrock & the top elevation of locus 010 was probably close to the top elevation of the bedrock. (223.62)

Deposited above the bedrock to the north & above locus 010 was locus 009, a foundation course for the mortared surface locus 006. Locus 009 was primarily large pebbles & small cobbles, tightly packed in an earth fill of 10YR 6/4 yellowish brown. The top elevation of locus 009 is 223.46.

Locus 009 & 010 & the bedrock appeared only in the 1m. x 1m. probe area but it seems likely that they extended over all of the area w/ the exception of the service entrance 003. The smoothly mortared surface, locus 006, was found in 009. The northernmost 80m of surface 006 extending from the west bank to 2 m. west of the east bank is slightly disturbed. There is not as much mortar remaining in its make up as the better preserved portions of 006.

Locus 006 is a 10YR 7/1 light grey mortar w/ pebble sized aggregate. Its top elevation is 223.88 & it slopes slightly from the south bank to the north before leveling out ca. .50 m north of the south bank. At the base of the walls of rooms 6 & 7, locus 006 forms a 1/4 circle waterproofing molding. A similar molding was constructed around the 1.10 m. x .95 m. opening of 003.

Several loci of wash material were found on top of surface 006. Locus 008, a 7.5YR 6/4 light brown material of silt sized particles w/ few inclusions, covered the whole area. This in turn was covered by loci 002 & 001 in the east, & 007 in the west. The winter rains, draining into

MIZOBRIKA 1982

WEST BATH

Mecklin / Saunders

NW COURTYARD

p. 2 of 3.

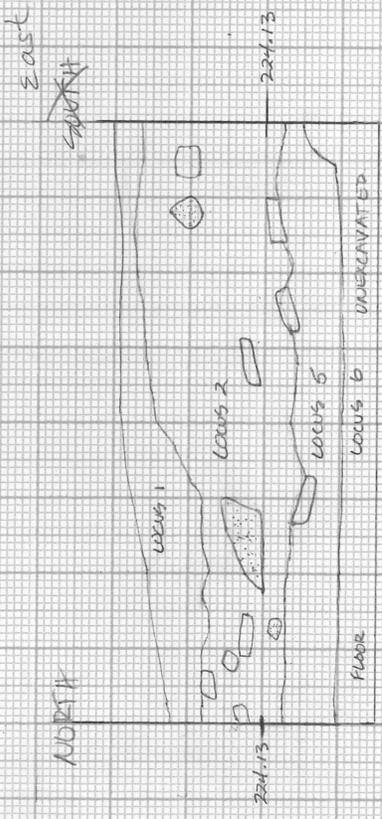
FINAL REPORT

This area may have been responsible for the several shards of modern ceramics; the saucepan is found in lows 005.

The winter rains may also have washed across the surface of cob along the north bank, resulting in the disturbed appearance in this area. It might be, however, that the floor was laid at two different times. In excavating the probe area it became clear that, although both the disturbed area & the smoothly mortared area are founded on a large pebble / small cobble foundation. The disturbed area has no remains of mortar in its actual makeup. The southern edge of the disturbed area follows roughly the line of the bedrock cutting. It could be that the surface of this area was originally like that of the so-called disturbed area. The old surface was destroyed at the construction of the channel & the new smoothly mortared surface was laid when the channel was completed. The new surface extended only up to the disturbed surface.

The west channel of the drain extends (as far as could be measured by a meter tape) ~~the~~ 4.70 m (+more). Approximately 2.80 meters back into the drain a crude type of spout exists near the apex of the barrel vault. This appears to be connected w/ the drain opening, Louis 008, located on the floor level. However since 008 was not completely excavated this is just a working theory. The drain also extends to the east but full made measuring an impossibility. The construction of the service entrance (Louis 003) and the vaulted drain is very similar to the drain west of Rm # 6 just beyond the small pool in that Room. These two drains are most likely contemporary & serviced a lg. amt. of water from the West Baths.

MURO BRIGA 1982
WEST BATH / NW COURTYARD
EAST PORCH
SCALE 1:25
Meehan/Sanders.



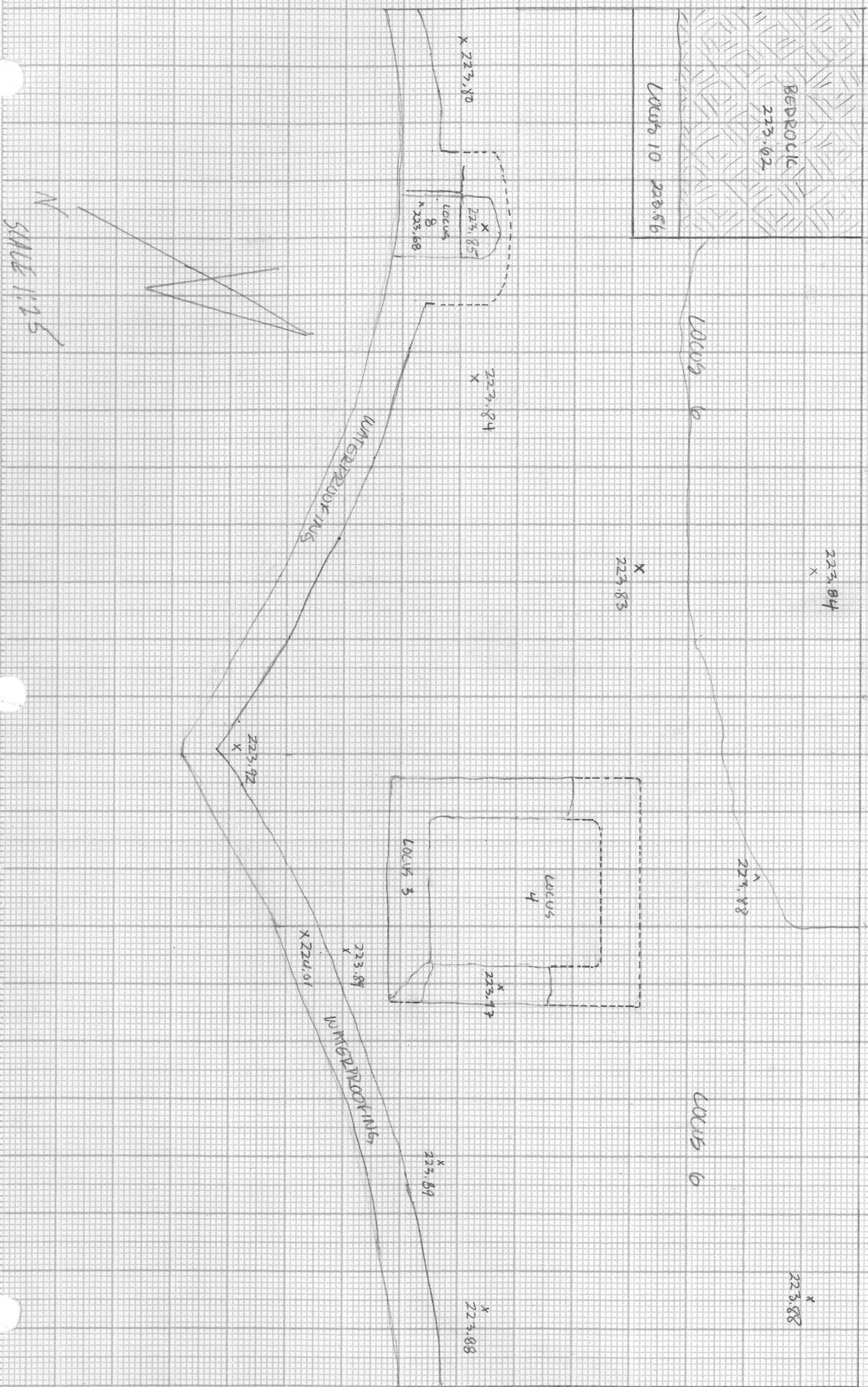
M1000104 81

7/18/82

WEST BATHS NW QUARTER

NE 1/4 SW 1/4

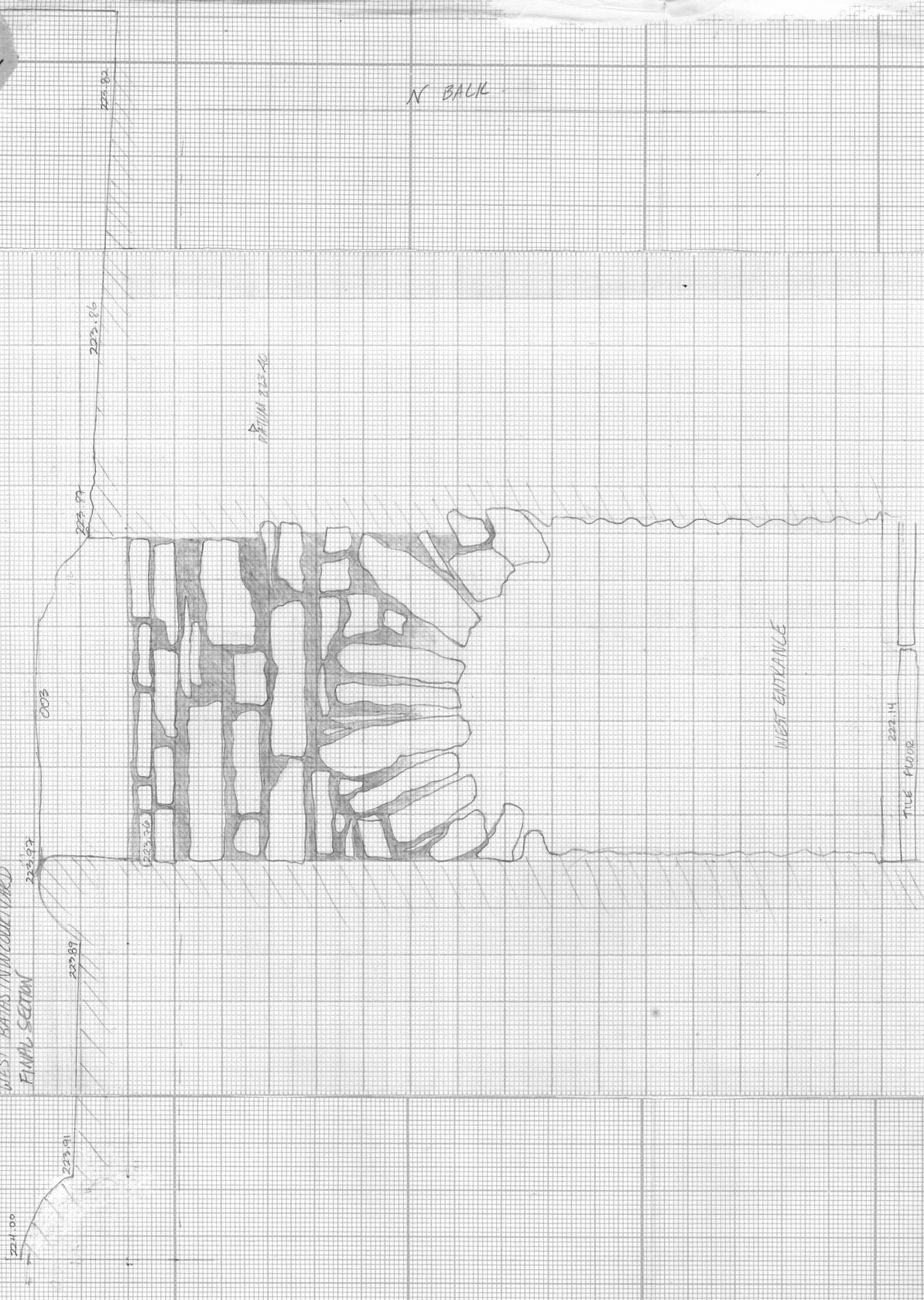
FINE TOP PLAN



1.34

1.34 N 0611C

MICROBE 16A 1982
7/13/82
WEST BATHS/NUWCOURTYARD
FINAL SECTION



SCALE 1"=10'
AMY MECHAN

YEAR 1982

GRID AREA N23 W14

SITE M. ROBRIGA

LOCUS NO. 001

GENERAL IDENTIFICATION N.W. COURTYARD
West Path

DATE (s) 7/12/82

Top levels 224.32 Top plan #1 #4; Bottom levels 224.16 Top plan #1 #4

Sections no Drawn by architect no Photo No. 82-240
82-247

PHYSICAL DATA

What is it made of?: soil, roots, pebble size stones

What size particles? SAND SIZE Color 10YR 4/4 DARK
YELLOWISH BROWN

Features

Compass orientation _____

_____ courses high; _____ rows wide

Overall dimensions _____

How was it built?: _____

Soil Layers

20° EAST DOWN

Direction & Degree of slope TO WEST

Degree of compaction: LOOSE

Distribution of particles (e.g., random, laminated, graded bedding)

RANDOM

STRATIGRAPHIC DATA

This Locus is below Loc. air & is above Loc. 2, 5, 6, 7, 3, 4, 8

Lateral extent COVERS ENTIRE AREA Max. thickness aprox. 16cm. touches balk(s) N-S E-W

How does this Locus relate to all other loci it touches?:

Locus 001 rests on top of 2, 001 is thus later than 2. Locus 1 also lies above Loci 3, 4, 5, 7, + 8, Locus 1 is ~~earlier~~ later than all of these.

This Locus is contemporary with which loci mentioned above?: none

How was this Locus formed?: Naturally - Rain wash, wind, & root action all helped in the formation of Locus 1.

YEAR 1982

GRID AREA N 23 W 14

SITE MIROBRIGA

LOCUS NO. 002

GENERAL IDENTIFICATION N.W. COURTYARD
WEST BATHS

DATE (s) 7/13/82

Top levels 224.15 Top plan #2; Bottom levels 223.94 Top plan #2

Sections NO Drawn by architect NO Photo No. NTR

PHYSICAL DATA

What is it made of?: SOIL, BROKEN BRICK & TILE, MORTAR, SOME STONE FRAGMENTS

What size particles? SILT size Color 7.5 YR 4/6
"STRONG BROWN"

Features

Compass orientation _____

_____ courses high; _____ rows wide

Overall dimensions _____

How was it built?: _____

Soil Layers

Direction & Degree of slope 15° EAST DOWN
TO WEST

Degree of compaction: VARIABLE

Distribution of particles (e.g., random, laminated, graded bedding)

RANDOM

STRATIGRAPHIC DATA

This Locus is below Loc. 1 & is above Loc. 5, 6, 3, 4

Lateral extent ~~_____~~ Max. thickness approx. 21cm touches balk(s) N-S E-~~W~~
to N wall from E wall to 2m W of E wall. (i.e. whole area - except loci 3 & 4 - before extension)

How does this Locus relate to all other loci it touches?: extension

Locus 2 lies below locus 1, thus later than 1.

Locus 2 lies above loci 3, 4, 5, & 6, thus is earlier than these loci.

This Locus is contemporary with which loci mentioned above?: none

How was this Locus formed?: Perhaps Locus 2 is debris which fell from the upper portions of the S. wall of the West Bath (Rm. 6+7) This layer has been disturbed since the fall - this area has been →

YEAR 1982

GRID AREA N23 W14

SITE M. ROBRIGA

LOCUS NO. 003

GENERAL IDENTIFICATION WEST BATHS NW
COURTYARD ^{FINAL}

DATE (s) 7/18/82

Top levels 223.97 Top plan #3 ; Bottom levels 223.88 Top plan #3 ^{FINAL}

Sections #FINAL Drawn by architect NO Photo No. 82-245 colour
82-246 - colour

PHYSICAL DATA

What is it made of?: mortar w/ pebble size aggregate (0.03 x 0.03 x 0.03)

What size particles? mortar is sand size aggregate pebble size Color 10YR 7/1 "light gray"

Features

6 x 7
8 x 20

Compass orientation slows w/ floor 10° S down
above arch to N
18 courses high; 3 rows wide
moulding → 17 cm. thick

Overall dimensions small cutaway -

How was it built?: dry wall, limestone blocks (av. 6 cm x 17 cm) make up walls of entrance, moulding around rim is a formed waterproofing of mortar + aggregate

Soil Layers

Direction & Degree of slope _____

Degree of compaction: _____

Distribution of particles (e.g., random, laminated, graded bedding)

STRATIGRAPHIC DATA

This Locus is below Loc. 1, 2, 5 & is above Loc. 4 partially

Lateral extent 1m. 20 x 98 cm Max. thickness 20 cm. touches balk(s) none

How does this Locus relate to all other loci it touches?:

003 Bonds w/ 006 thus contemporary
004 fill w/in 003 is later (modern fill)
003 lies below 001, 002, + 005 all of which are later

This Locus is contemporary with which loci mentioned above?: 006 (floor)
008 (drain in floor)

How was this Locus formed?: man-made by Romans

YEAR 1982 GRID AREA N23 W14
 SITE MICOBRI6A LOCUS NO. 004
 GENERAL IDENTIFICATION NW COURTYARD DATE (s) 7/8/82
WEST BATH 8
 Top levels 223.94 Top plan # 6; Bottom levels 222.14 Top plan # 6
 Sections # FINAL Drawn by architect NO Photo No. 82-278
82-279

PHYSICAL DATA

What is it made of?: layers of wash (modern fill) stones, broken brick, tile, + mortar. - Rubble fill essentially

What size particles? silt + sand size Color 10YR 4/2 dk. greyish-brown

Features
 Compass orientation _____
 _____ courses high; _____ rows wide
 Overall dimensions _____
 How was it built?: _____

Soil Layers
 Direction & Degree of slope level
 Degree of compaction: compact w/ descend elevation of
 Distribution of particles (e.g., random, laminated, graded bedding)
Random

STRATIGRAPHIC DATA

This Locus is below Loc. 001, 002, 005, 006 & is above Loc. _____
 Lateral extent 1.20 x 95cm Max. thickness 1.80 m touches balk(s) no

How does this Locus relate to all other loci it touches?:
If 004 had been undisturbed fill a true relationship would exist. However, 004 is later than other loci, only towards the bottom elevations of the locus was a good fill layer exposed which would still be later than all loci except
 This Locus is contemporary with which loci mentioned above?: 001, 002, 005 + 007
none

How was this Locus formed?: rain wash, or perhaps back fill of service entrance by a recent agent

YEAR 1982

GRID AREA N 23 W 14

SITE MIROBRIGA

LOCUS NO. 005

GENERAL IDENTIFICATION WEST BATHS - NW
COURTYARD

DATE (s) 7/14/82 7/15/82

Top levels 223.96 Top plan #3; Bottom levels 223.88 ^{223.74} Top plan #3

Sections E, N, W Drawn by architect no Photo No. 82-240 (cobble)
82-249

PHYSICAL DATA

What is it made of?: soil - only few inclusions
soil works like clay

What size particles? silt size Color 7.5 YR 6/4 "light brown"

Features

~~Compass orientation _____
_____ courses high; _____ rows wide
Overall dimensions _____
How was it built?: _____~~

Soil Layers

Direction & Degree of slope level surface
Degree of compaction: compact - fairly hard
Distribution of particles (e.g., random, laminated, graded bedding)
random distribution of particles
but sections clearly show several strata of rain wash.

STRATIGRAPHIC DATA

This Locus is below Loc. 2 & 7 & is above Loc. 6

Lateral extent whole area Max. thickness .26 m. touches balk(s) N, E, W, S

How does this Locus relate to all other loci it touches?:
Locus 5 is a wash fill resting directly on surface locus 6, it is:
later than locus 6 & locus 3
Locus 2 is above (∴ later) locus 5 in the east
Locus 7 " " " " west.

This Locus is contemporary with which loci mentioned above?:
Locus 6 is not contemporary of any other locus

How was this Locus formed?: Rain wash.

YEAR 1982

GRID AREA N13 W14

SITE MIROBR16A

LOCUS NO. 006

GENERAL IDENTIFICATION WEST BATHS NW
COURTYARD

DATE (s) 7/14/82

Top levels 223.88 Top plan #3 ^{FINISH} ~~TOP~~ _{PLAN}; Bottom levels unexcavated Top plan unexc.

Sections N, E, W Drawn by architect 10 Photo No. 82-245 colour
82-246 colour

PHOTOS 82-260, 261, 262

PHYSICAL DATA

What is it made of?: mortar w/ ~~small~~ pebble sized aggregate
(aggregate - .03 x .03 x .03 average)

What size particles? mortar & sand sized particles Color 10 YR 7/1 "light gray"
aggregate - pebble sized.

Features slopes < 10° from S
down to N & then
levels out.

Compass orientation levels out.

Not applicable
courses high; rows wide

Overall dimensions covers whole area
6m x 2m

How was it built?:
large pebbles & cobbles on soil fill
as foundation for mortar w/ pebble
aggregate

Soil Layers

Direction & Degree of slope level

Degree of compaction: very compact

Distribution of particles (e.g., random, laminated, graded bedding)

STRATIGRAPHIC DATA

This Locus is below Loc. 5 & is above Loc. unexcavated

Lateral extent covers whole area ^{except loc 3 & 4} Max. thickness .31 m touches balk(s) N, E, W

How does this Locus relate to all other loci it touches?:

locus 6 was founded on locus 9 & is later than 9
locus 8 a drain hole was excavated by a masonry of the same material
as locus 6 & is presumably earlier than locus 6
locus 3, the person hole, ~~was excavated by a masonry of the same material~~ also has a masonry (OVER)

This Locus is contemporary with which loci mentioned above?:

Drain hole locus 8 & the person hole locus 3 may be part of
the same constructional phase that was completed w/ the masonry
of the floor locus 6. Locus 8 & locus 3 may be contemporary w/

How was this Locus formed?: locus 6.

of above under new built - made by Romans.

composed of the same material as locus 6 &
again presumably the hole was cut earlier
than the laying of floor locus 6.
Locus 5 was a wall structure deposited above locus
6 across the whole area. Locus 6 is earlier than
locus 5.

YEAR 1982 GRID AREA N13 W14*
 SITE MICROBL16A LOCUS NO. 007
 GENERAL IDENTIFICATION WEST BATH DATE (s) 7/16/82
NW COURTYARD
 Top levels 224.09 Top plan #5; Bottom levels 223.99 Top plan #5
 Sections _____ Drawn by architect no Photo No. no

PHYSICAL DATA

What is it made of?: soil, brick + schist frags., mortar, disturbed by root action
largest brick measures 21cm x 9 x 6cm.

What size particles? sand size soil Color 10 YR 9/4 "yellowish brown"

Features

Compass orientation _____
 _____ courses high; _____ rows wide
 Overall dimensions _____
 How was it built?: _____

Soil Layers

Direction & Degree of slope from N.E. Down 5° to the SE
 Degree of compaction: loose
 Distribution of particles (e.g., random, laminated, graded bedding)
Random

STRATIGRAPHIC DATA

This Locus is below Loc. 001 & is above Loc. 005, 008, 006, 009, 010
 Lateral extent 2 meters Max. thickness 10 cm. touches balk(s) N, S, E

How does this Locus relate to all other loci it touches?:
005 lies below 001 & is ^{earlier} than 001
005 lies above loci 008, 006, 008, 009, 010; 005 is later than all of these loci.

This Locus is contemporary with which loci mentioned above?: none

How was this Locus formed?: Rainwash

YEAR 1982

GRID AREA N23 W14

SITE MROBR16A

LOCUS NO. 008

GENERAL IDENTIFICATION WEST BATHS
NW COURTYARD

DATE (s) 7/19/82

Top levels 223.84 Top plan FINAL; Bottom levels 223.68 Top plan FINAL

Sections none Drawn by architect no Photo No. 82-260

82-261
82-262

PHYSICAL DATA

What is it made of?: soil w/ sm. inclusions of brick and schist (sm. frags.)

What size particles? silt size Color 7.5 YR 4/6 "strong brown"

Features

Compass orientation _____

_____ courses high; _____ rows wide

Overall dimensions _____

How was it built?: _____

Soil Layers

Direction & Degree of slope level

Degree of compaction: very compact

Distribution of particles (e.g., random, laminated, graded bedding)

random

STRATIGRAPHIC DATA

This Locus is below Loc. 001, 005, 006, & is above Loc. unexcavated

Lateral extent 27cm X 27cm. Max. thickness unexcav. touches balk(s) South

How does this Locus relate to all other loci it touches?:

008 runs up to the waterproofing surrounding its perimeter which is contemporary w/ the floor (006). 008 lies below 001, 005, 006, 007 and is thus earlier than these loci. Loci 009 + 010 lie below 008 + are both earlier

This Locus is contemporary with which loci mentioned above?:

none

How was this Locus formed?:

fill deposited by rain + other agents have caused an accumulation compacted over time.

YEAR 1982

GRID AREA WEST BATH / NW COURTYARD

SITE MUROBRIGA

LOCUS NO. 009

GENERAL IDENTIFICATION soil layer

DATE (s) 21 July

Top levels 223.46 Top plan ~~XXXX~~ ^{NOTE}; Bottom levels 223.67 Top plan ~~XXXX~~

Sections none Drawn by architect NO Photo No. 82-267
82-268
82-269

PHYSICAL DATA

What is it made of?: Large cobbles & pebbles aggregate in soil matrix

What size particles? soil-silt sized particles Color shale yellowish grey, 54 6/2 light olive grey
pebbles & cobbles .015 x .015m; .04 x .02m; .09 x .06 x .06m

Features

Compass orientation _____
_____ courses high; _____ rows wide
Overall dimensions _____
How was it built?: _____

Soil Layers

Direction & Degree of slope none
Degree of compaction: fairly compact
Distribution of particles (e.g., random, laminated, graded bedding)
random

STRATIGRAPHIC DATA

This Locus is below Loc. 6 & is above Loc. bedrock

Lateral extent appears in 1m x 1m probe in NW corner Max. thickness .16 touches balk(s) N & W

How does this Locus relate to all other loci it touches?:

Locus 009 is earlier than floor locus 006
Locus 009 is later than all locus 010.

This Locus is contemporary with which loci mentioned above?:

Locus 009 may be part of the same constructional phase as 010. It is foundation for 006 & 6 ∴ contemporary w/ 006.

How was this Locus formed?: Roman kilns

YEAR 1982

GRID AREA WEST BATH NW COURTYARD

SITE MUROBRIGA

LOCUS NO. 010

GENERAL IDENTIFICATION fill layer

DATE (s) 22 July

Top levels 223.86 Top plan FINAL; Bottom levels not excavated Top plan

Sections none Drawn by architect NO Photo No. 82-268
82-269

PHYSICAL DATA

What is it made of?: silt sized soil fill of chips of bedrock shale.

What size particles? silt Color 7.5YR 4/4
Dark brown

Features

Compass orientation _____

_____ courses high; _____ rows wide

Overall dimensions _____

How was it built?: _____

Soil Layers

Direction & Degree of slope none

Degree of compaction: compacted

Distribution of particles (e.g., random, laminated, graded bedding)

random.

STRATIGRAPHIC DATA

This Locus is below Loc. 9 & is above Loc. unexcavated

Lateral extent appeared only in NW corner Max. thickness unexcavated touches balk(s) (u)

How does this Locus relate to all other loci it touches?:

locus 010 is earlier than locus 009

This Locus is contemporary with which loci mentioned above?:

locus 010 filled in the bedrock wt. channel. locus 009 as foundation for floor locus 006 was deposited above 010.

How was this Locus formed?: intentionally deposited fill. OVER

010 may be contemporary w/ locus 009.

SITE MUSEUM

GENERAL IDENTIFICATION

TOP SHEET 223

SECTION A116

PHYSICAL DATA

What is the mode of...
What size particles...
Color...

SOIL LAYERS

FEATURES

Direction & degree of slope...
Degree of compaction...
Distribution of particles...

Compass orientation...
Course high...
Overly dimension...
How was it built?

STRATIGRAPHIC DATA

This locus is below...
Locus...
How does this locus relate to other loci?

This locus is contemporary with...
Locus...
How was this locus built?

NW Courtland
south, 1984

58 Tumbina 1984

West Ballin, NW courtyard South.

June 26

001

Opened a trench here 1.50 m. wide from scarp of 1982 trench up to retaining wall.

Basket 1

Uncovered courtyard floor running up to retaining wall.

Basket 2

Began clearing fill south of Room 6 between wall of room and courtyard retaining wall. Courtyard floor reached with bumper at base of walls. Two fragments of marble revetment with milled face. Uncovered top of manhole at W end of trench section.

June 27

001

~~Came down in~~

Basket 3

Continued workmen clearing deeper within manhole to drain S^E of Room 6. Removed fill to depth of 0.73 m. below top of wall of manhole and decided to dig no further. Soil very compact, area very narrow. The top of the ash on both sides is now exposed. Modern flowerpot within manhole. Also bottom of flanged brick.

Mimbanga 1986

West Bath, NW Courtyard, South.

July 1 Two workmen removed fill from manhole at SW corner of W. Bath. Reached tile floor level at 222.075 m. Wall of manhole constructed of stones with some brick. Walls destroyed for 0.20 m above floor level. Construction: walls of channel built first and arched ceiling resting on them. Manhole walls then built from level of arch upwards. Floor tiled - did not measure tiles.

Fill from manhole dumped on fill of NW courtyard and spread out to make an even layer.

Locus 001 Fill - ^{very dense} chocolate brown, brick and tile
Basket 4 frags, charcoal - no pottery or other finds.

Höbbriga 1985

West Bahr, NY County and

June 27

Began to remove some fill from the entrance to the water channel SW of Room 6, hoping to find floor and prove which way the channel flows. Only ca. 10 cm of fill could be removed. stopped at ca. 222.73

West Bath
GENERAL IDENTIFICATION
NW Courtyard South

Locus No. 1
Date(s) June 26

Top levels _____ Top plan _____ ; Bottom levels _____ Top plan _____

Sections _____ Drawn by architect _____ Photo No. _____

PHYSICAL DATA

What is it made of? _____

What size particles? _____ Color _____

Features

Compass orientation _____

_____ courses high; _____ rows wide

Overall dimensions _____

How was it built?

Soil Layers

Direction & degree of slope _____

Degree of compaction _____

Distribution of particles (e.g., random, laminated, graded bedding)

STRATIGRAPHIC DATA

This Locus is below Loc. _____ and is above Loc. _____

Lateral extent _____ Max, thickness _____ Touches balk(s) _____

How does this Locus relate to all other loci it touches?

This Locus is contemporary with which loci mentioned above?

How was this Locus formed?

POTTERY

Basket No.	Date Dug	Level	Field Reading	Reg. Sherds
1	June 26		2 pieces modern "French" tile	} Thrown.
			1 modern glass base	
2	June 26		1 frag modern china (see Locus 004?)	} No chyd ARS?
			4 joining non-join pieces	
			1 coarse ware slip	
			2 joining frag of base of medicine bottle	
			All thrown	
3	June 27		1 modern flange pot - Thrown	
			All	

MATERIAL CULTURE AND OBJECTS

MC	Reg. No.	Assoc. Pottery Basket No.	Identification
		2	2 joining frag of base of medicine bottle - Thrown.
		3	1 other glass
			2 bone frag - Thrown

MS C051904
N. 1982-Lounge

John Large.

Microbriga 82.
West Bath. NW. Courtyard.

West Bath N.W. Courtyard.

Locus 001 P.B.1.

Top Elevations	NE	59.0 = 224	963
	NW	67.5 = 224	878.
	SE	63.5 = 224	918
	SW	70.2 = 224	851.

This locus is composed of varying sizes of angulated and rounded pieces of limestone debris mixed with tiles, mortar, and bedrock chippings. This top soil layer was deposited by 2 agents. The first being the result of material being washed down from higher ground and secondly by tumble down fill from the make up of the wall either side of the doorway of room ①.

The debris from the wall is concentric in the NW and SW section of the trench and has been labeled locus 002.

The soil in locus 001 is a distinctly pale, greyish, brown colour 10YR 5/3 and a contrast to the yellowish soil of 002. 10YR 5/4.

Bottom elevations for locus 001. P.B.1)

designated

NE	72	= 224	883
NW	68	= 224	873
SE	65	= 224	903
SW	70.2	= 224	851

The soil particles in locus 001 are medium to fine grain with a low

degree of compaction.

down 001 P. 01

1758	108 = 854	AW
818	232 = 804	AG
858	224 = 824	AP
828	224 = 824	AP

After level is composed of various sizes of angular and rounded pieces of limestone debris mixed with clay, mortar, and cobble chips. This top soil layer is not typical of a typical first layer the result of material being washed down from higher ground and brought by tumbler down the face of the slope of the hill to deposit the debris from the well to compact side of the bottom of level. The debris from the well is compacted in the 1/4 inch and 1/2 inch of the core and has been tested level 001.

The soil in level 001 is a silty fine grained, brown color 10 x 2/8 and a contrast to the yellowish soil of 002. 10 x 2/8.

Bottom specimens for level 001 (P. 01)

851	224 = 824	AP
103	224 = 824	AP
873	224 = 824	AP
883	224 = 824	AP

10 x 2/8

The soil particles in level 001 are medium to fine grain with a few

Locus 001

P.B. 5.

July 28th.

Top elevations

NE = 109 cm

NW = 111.5 cm

SE = 112.5 cm

SW = 115 cm

Between pottery B. 4 and 5 a the surface of a concrete feature emerged that ^{runs} diagonally from the SE corner. This feature is * composed of small pieces of bricks in a very brittle matrix of white concrete. There is a ridge of waterproofing that runs along the NE SE wall. It could be dealing with several different phases. The concrete waterproofing could be contemporary with the doorway. The narrow wall could be contemporary with the concrete feature. The soil is becoming fine grained and loose. but essentially remains the same colour. Large metal spring found in this P.B. This layer is still essentially modern fill. According to Dr Boers the large wall is first phase, a doorway with brick face put in at a second phase. In this second phase the floor and the narrow wall are contemporary. The narrow wall acted as a retaining wall for the above waterproofing which is also second phase. The soil has altered to a coarse clay like composition which seems to lie just above the concrete floor which is a kind of silt wash brought down from above and similar to the

Kind of silt material found in
the West Courtyard.

Due to colour change and
composition of soil PB are
being changed and a new course
established.

*
→ course Brick and tile in a
white cement matrix.

Bottom elevation for PB 7.

Top

PB 8.

belongs
to 002.

N.E. 86.

N.W. 85.

S.E. 80.

S.W. 79.

Locus 001 P.B. 2.

July 25th.

Top elevations N.E. = 224.883
 N.W. = 224.873
 S.E. = 224.903
 S.W. = 224.851.

The soil has essentially remained the same in composition and colour but less compacted. Small lenses of 10yR 5/4, the same soil as 002. These may have been a result of clumps being washed into 001 or may be the levelling early signs of a levelling off of locus 002 which seems to be sloping from W-E. The direction of slope of locus 001 is from N-S.

Bottom elevations for P.B. 2.

N.E. = 74.4 = 224.809.
 N.W. = 80. = 224.753.
 S.E. = 79.2 = 224.761.
 S.W. = 83.5 = 224.718.

P.B. 3.

July 26th.

The soil has become darker but it is still the same locus. The change in colour can be accounted for by increased moisture helped by an extensive root system. No pottery has been found but all that has been found has been mixed with 20th material — tin foil and wire. This could be a slip trench made by adonada

and has been filled in or that it has been washed down from above. We have still pt to reach virgin soil although locus 002 seems to be the side of Armada's section.

Photograph 82 - 283 view to SW.

Bottom elevations for P.B. 3.

NE. 88' = 224.673.

NN. 95.5 = 224.598.

SE. 106.5 = 224.498.

SW. 101 = 224.543.

Layer of very large limestones - see drawing for approximate sizes. Random displacement in a fine to medium ^{grained} soil. The material cult. - we is still 20th mixed with ^{a small amount of} pottery.

P. B. 4.

July 27th

107R 4/4
The layer of limestones has been removed and the soil has altered to a darker shade of brown but is still the same locus. Grain size fine to medium. The level is just above the brick threshold. There are also small lenses of soil containing bedrock, tiles. There is a ~~less~~ decrease in mortar.

Soil is becoming finer, sandy texture, but still maintaining colour. Again small lenses of soil.

Louis 002.

Top elevation P.B. 7.

NE	=	72.	=	224.833
NW	=	68.5	=	224.868.
SE	=	74.5	=	224.813
SW	=	73.5	=	224.823.

The soil is very coarse and fine grained and is a yellowish brown colour 10YR 5/3. Like Louis 001 there are tiles and angular pieces of bedrock but differs in the considerable amounts of mortar. There is a high degree of concentration of limestone building blocks, both angular and rounded from the make up of the adjacent wall. There appears to be a gentle slope from N to E but plunged down 1m from W bank buttersing 001 and before Almada's Trench lay on top of 004.

Bottom elevations for P.B. 7. Aug 1st.

NE	=	92.89
NW	=	93.5
SE	=	92
SW	=	91

The eastern bank of 002 seems to be the section of Mr Almada's trench. Pot handle found in this P.B. The majority of the stones and tiles found are smothered in patches of mortar. The mortar is either a white or yellow colour. There are also lenses of soil mixed up with the wall debris.

Traces of charcoal in this
locus. Course ware & sherds.

August 2nd

P.B. 8.

Soil is still quite compacted
with white grains of mortar mixed
in. 2 bases of course ware were
found with bones.

Round sized fragments
of bedrock.

Decreasing amount of large
limestones found. Large
pieces of tiles present. Soil
has altered to a reddish
brown colour. (5YR 4/4)

locus.
006.

Bottom elevations for
PB8.

N.E. 131.5

N.W. 124

S.E. 134

S.W. 132

This locus seems to be a
wash of silt from above.
with lenses of fine grained
course soil. Essentially

made up of 5YR 4/4
reddish brown from
above locus. and an
orangey brown colour.

Large rounded pieces of limestone
& tile with rounded pebbles
and bedrock. High degree
of compaction with considerable
mortar particles with pieces of
charcoal.

Louis 003

July 28th.

P. B. 6.

for 6.

Top Elevations and Bottom elevations for
P. B. 5.

NE	109	=	224 - 463
NW	111.5	=	224 - 438.
SW	118	=	224 - 373.
SE	123.5	=	224 - 318.

This Louis is a soil layer that lies just above the concrete floor. The soil particles are very fine and are densely compacted. Their colour is 7YR. 4/4 in the shade. The soil is composed of small river pebbles + washed pieces of fragmented bedrock, and smaller limestones. Small pieces of tile and coarse bricks + mortar are present. - debris from the decaying floor. Maintains a north to south slope.

July 29th

The floor was dug down to and exposed for a period of time for a deposit of silt, with grains of sand to be seen. Then was filled in by Alameda with large limestone rubble. So far there has been no trace of 20th material culture. Rounded pieces of marble. White and yellow mortar fragments.

V - SW from above
82 - 399.

82 - 400

V to NW - colour.

Bottom elevations for

P.B.G. N E 125

N N. 135

SE 130.

SW 134.5.

Locus 004.

This locus is a cement floor with a waterproof border. It is essentially made up of course bricks and tile in a white cement matrix.

Bottom Elevations.

P.B. for 003.

NE = 125

NW = 135

SE = 130

SW = 134.5

The floor is well preserved and even surface.

Final Photo =

82 - 560

82 - 561

82 - 562

001 B1 - 1 COURSE
WARE SHARD

DISCARDED

001 B2 - 2 COURSE
WARE SHARDS.

001 B3 MODERN WIRE
9 COURSE W
SHARDS.
1 BONE

B4 NO POTTERY

B5 - MODERN

003 1 COURSE - B6 - MODERN
BED SPRING.
1 MODERN BRICK PIECE -

002 RIM B. 7 2 shards
Discarded

DISCARDED

2. BONE
1 COURSE WARE
HANDLE

B8 - 2 BONES
7 POT FRAGS
COURSE WARE

Locus 004.

P.B. 12.

N.E. = 105.5²⁴⁴ 498.
 N.W. = 110.244 453.
 S.E. = 105
 S.W. = 110.5.

Aug 3rd.

Locus 006.

This P.B. lies just on top of the surface of the concrete feature. Because we are dealing with a separate feature from the floor. The soil is the same colour as locus 001 and similar composition. It is fine grained and compacted to a high degree. Small pieces of mortar from the decaying edges as well as coarse red bricks. There are also large limestones on the the surface of this locus. 2nd material culture present in this locus. 1 small button found. Mixed up with this modern material is some Spanish Coy. that has washed down from above. There is a large limestone slab in the hole which runs underneath the concrete upper level. There also appears large broken tiles. This seems to be a band of fill used for the upper level of the floor. The feature is V shaped and could be a means of channeling water from the wall.

Locus 00† is extended in north direction
- only 60cm.

Top elevations for this locus.

P.B. 9

$$N.E. = 8 \text{ cm.}$$

$$N.W. = 10 \text{ cm up-}$$

$$S.E. = 16 \text{ cm.}$$

$$S.W. = 16.5$$

This locus is now called 005 that
runs para to the retaining wall.
Essentially made up of same mat
as 001. Soil contains lenses of
soil similar to 002.

P.B. 10

$$N.E. = 52.5.$$

$$N.W. = 53.$$

$$S.E. = 59.$$

$$S.W. = 56.$$

Soil is becoming more heavily comp-
acted.

12
Modern material culture being found in this locus. One piece of serrated metal on both sides. Also an iron nail has been found.

Soil becoming darker due to increased moisture of soil

Brick dimensions in door jambs

L. 0.40, 0.23, 0.25, 0.24 m.

W. 0.22, 0.28, 0.32

One brick 0.32 x 0.32

0.32 x 0.18

0.32 x 0.16

Th. 0.04 - 0.05

Hirobaga, West Basin - Doorway from Rm 1 17
to NW Courtyard

Description of Architecture.

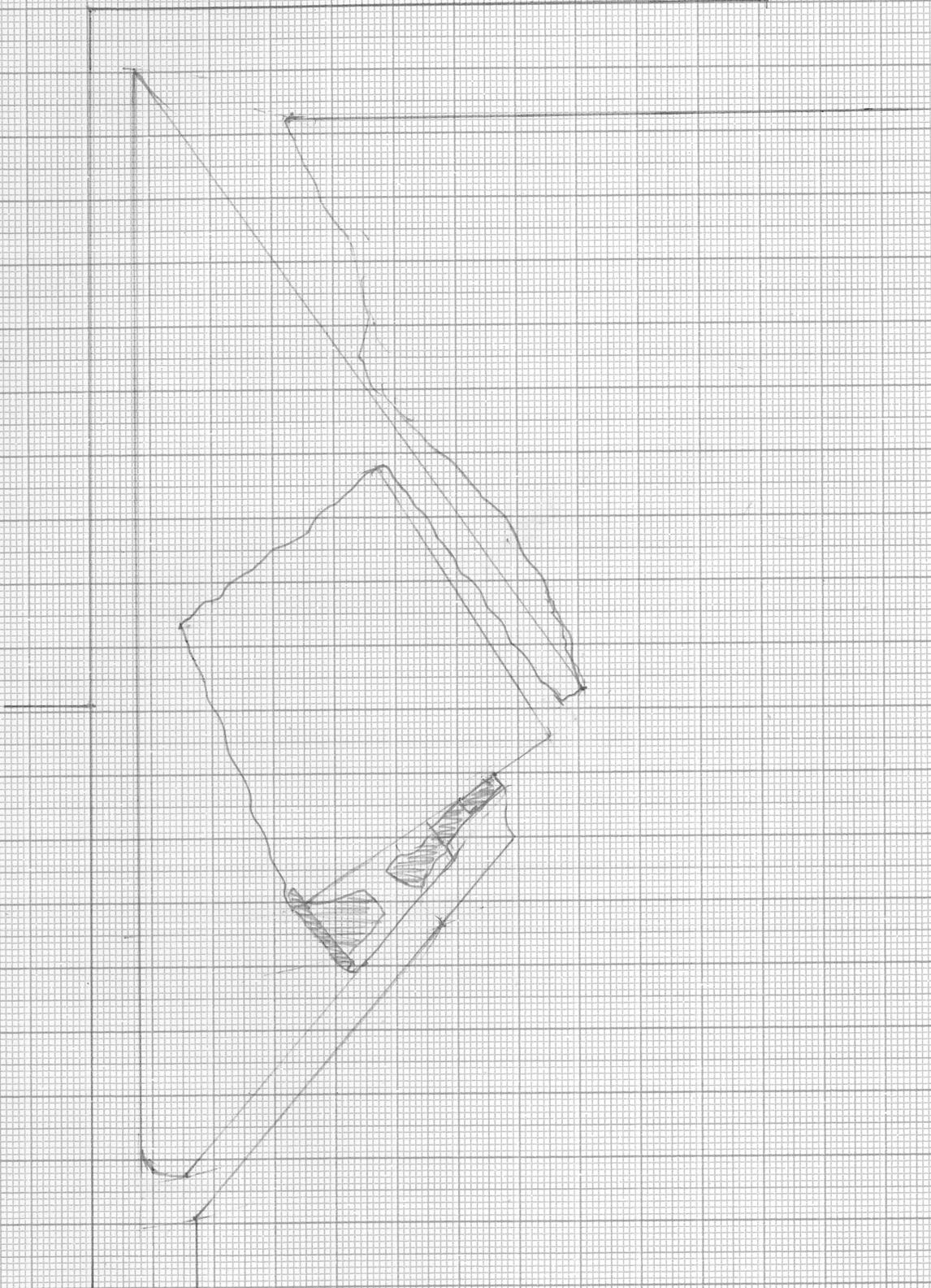
A large limestone threshold at base of doorway (locus 005) with a red brick inner face on either side. This technique of construction perhaps belongs to the late 3rd and early 4th AD. In front of the threshold there is a ridge of worn, waterproofing that frames the concrete floor of locus 004. The floor is made up essentially of coarse red brick and tile surrounded in a fine, grained, white matrix. A triangular feature extends from the SE corner of the wall, where locus 007 and 008 meet and the N. E. corner to a mid-point between the two and steps down onto to locus 004. There is a large limestone slab in the middle of this feature which appears to go under the concrete surface. This probably acted as a fill with ^{large medium sized} coarse, red, brick for the surface of the feature. The outer wall of room ① appears to be a first phase wall, (locus 008) that has been cut through in order to make way for a later doorway. The floor, 004 and the narrow returning wall of locus 007 which stops short of the far, back returning wall. seem to be contemporary with one another. A further note must be added that there are 2 pivoting niches for a door that opened in the middle on the limestone threshold.

Mimbiqua, West Bath - Doornay mm Pl 19
to NW Courtyard

Summary of Soil and Debris Deposits.

Level 001 is composed essentially of modern 20th materials mixed with coarse, ware sherds, and tile. There seems also to be a series of lenses of soil which are similar to level 002. This level was formed as a result of Alameda's trench refill and debris from 002 which at one time covered the surface of 004 and had been cut through with a ship trench with the intention of exposing the concrete floor. This floor was exposed for a certain period of time for the accumulation of a silt, sediment deposit before the area was covered up. This deposit is known as level 003 and contained 20th material culture. Level 002 which lies adjacent to 001 and represents the western section of the ship trench is of an entirely different composition altogether. There is a high degree of concentration of limestone debris with chunks of mortar attached in this layer. There are also large tiles with bedrock fragments closely bonded in fine, grained, coarse soil. This level was formed as a result of debris falling from the make up of the phase 1 wall west of the doorway. Below this layer lies level 006 which is composed of lenses of soil and sediment from higher levels which deposited themselves when the west bath was in disuse. Insufficient pottery or material culture was found to allow an approx date of destruction.

1:10



NW courtyard
NW of door from Room 1

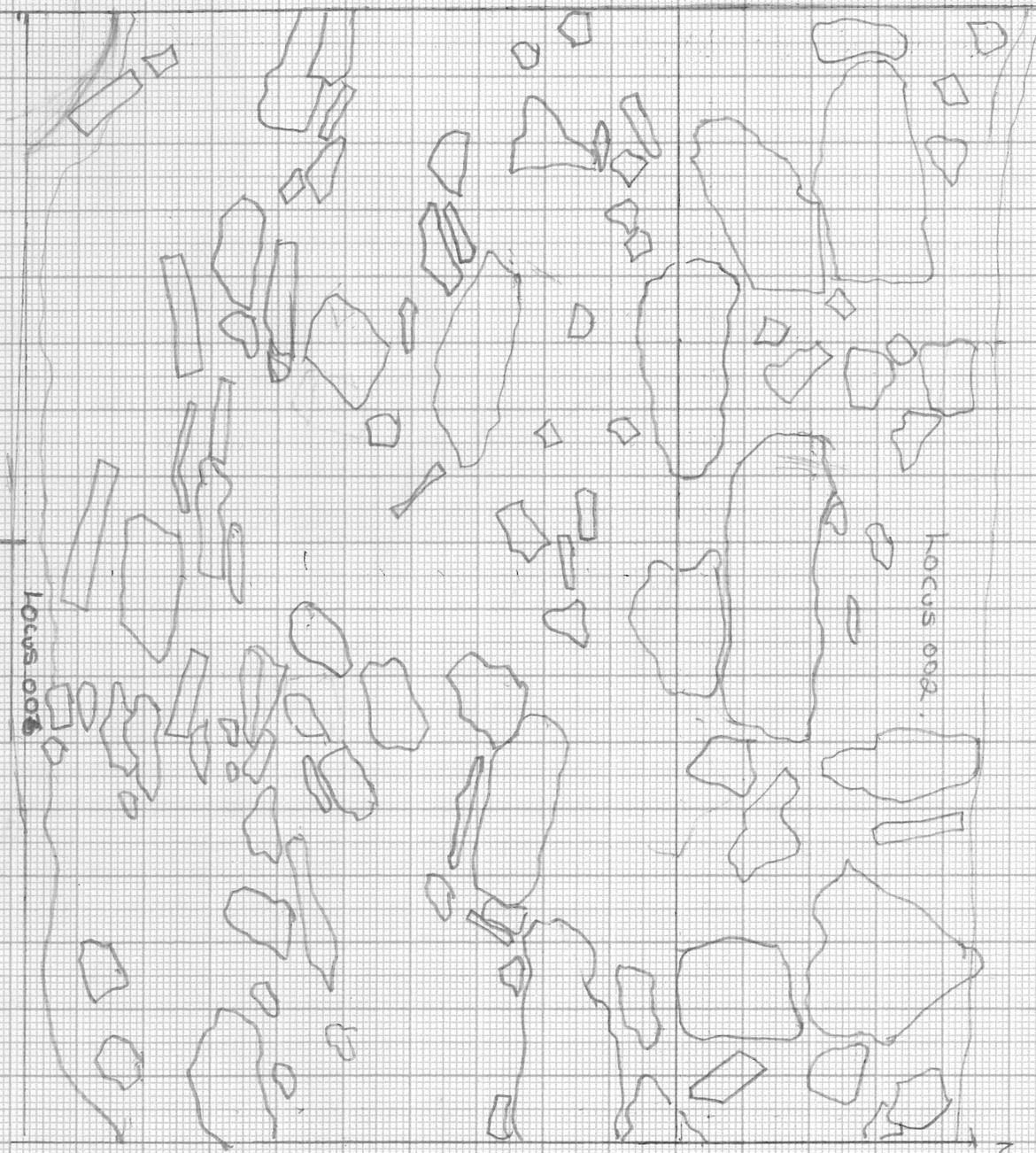
W. Batu - NW - Courtyard

SCALE 1-20.

150
10 20 30 40 50 60 70 80 90 100



W. Bath, NW Courtyard



SW

NW

Locus 006

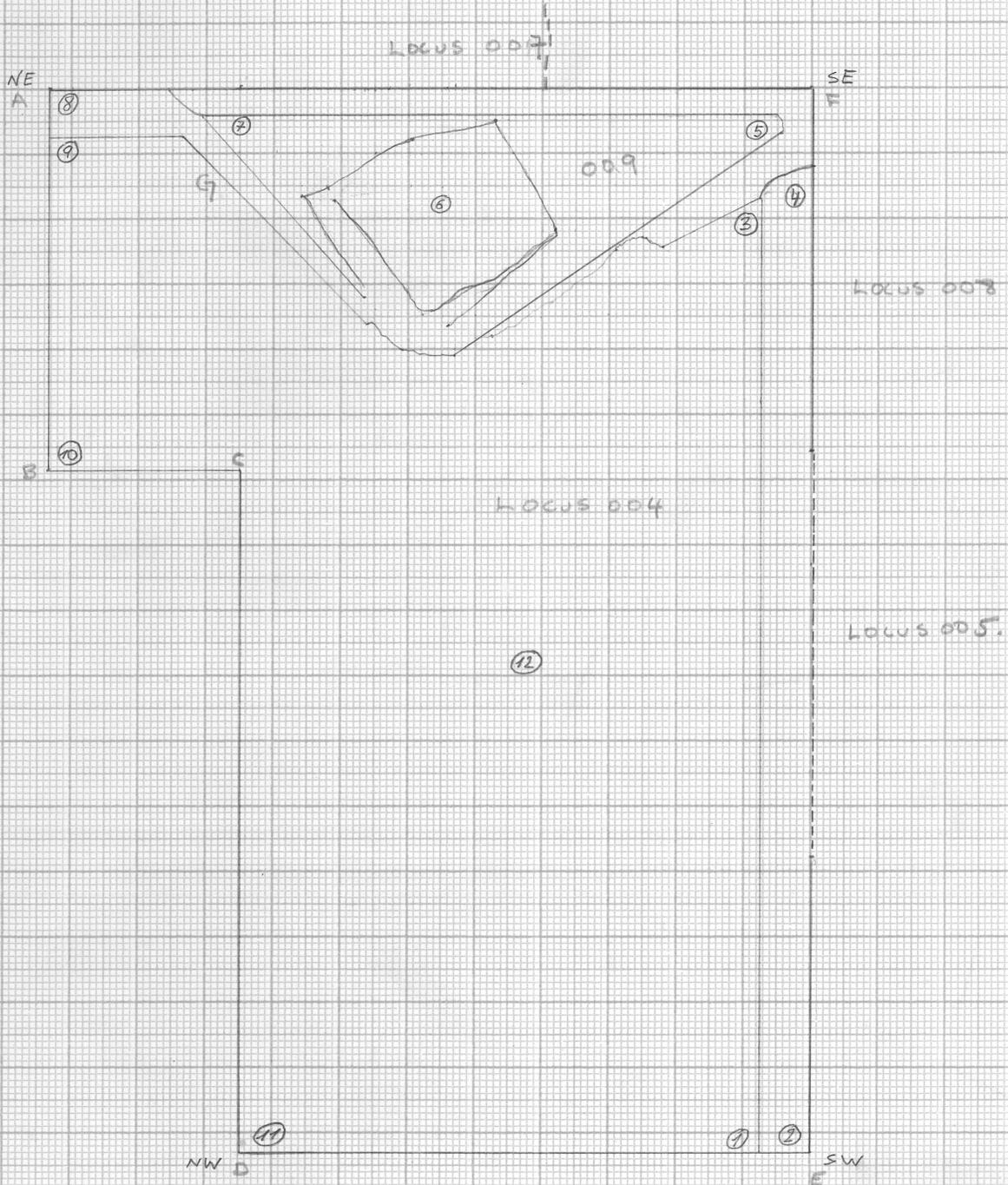
Locus 002.

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

SCALE 1:10

W. Bath, NW Courtyard

TOP PLAN LOCUS 004
SCALE 1:20



- 1 139.5
- 2 126.5
- 3 130.5
- 4 120.
- 5 108
- 6 112.
- 7 108.
- 8 115
- 9 127
- 10 134.
- 11 135
- 12 137.

NW Courtyard, North.

GENERAL IDENTIFICATION

Locus No. 001

NE 224. 963
NW 224. 878
SE 224. 918
SW 224. 851.

Date (s) July 24th 82.

NE 224 463
NW 224 438
SW 224 378
SE 224 318

Top levels _____ Top plan _____ ; Bottom levels _____ Top plan _____

Sections NW-NE Drawn by architect _____ Photo No. 82-399

82-400

PHYSICAL DATA

What is it made of ? Composed of varying sizes of angular and rounded limestone mixed with tiles, mortar and bedrock chippings

What size particles ? medium to fine Color greyish brown
10YR 5/3

Features	Soil Layers
Compass orientation _____	Direction & Degree of slope <u>gentle</u> <u>slope to NW direction</u>
_____ courses high; _____ rows wide	Degree of compaction : <u>fairly high</u> <u>to low degree of compaction.</u>
Overall dimensions _____	Distribution of particles (e.g., random, laminated, graded bedding)
How was it built ?	<u>random.</u>

STRATIGRAPHIC DATA

This Locus is below Loc. 004 & is above Loc. 003, 006, 005

Lateral extent _____ Max. thickness 1m 20cm Touches balk(s) NW-NE
SW, SE

How does this Locus relate to all other loci it touches ? This locus extends to the western edge of doorway where it touches locus 002 which was later extended in westerly direction by 50cm.

This Locus is contemporary with which loci mentioned above ? This locus is contemporary to locus 003, 006.

How was this Locus formed ? 001 was deposited by essentially 2 agents. The first by Dr Almafah when room of the W Bath was excavated. Secondly by material being washed down from higher ground.

POTTERY

Basket No.	Date Dug	Level	Field Reading	Reg. Sherds
PB1			1 COURSE WARE SHERD	
PB2			2 COURSE WARE SHERDS	
PB3.			Modern ware 9 course ware sherds FB	
Bask 9			3 coarse ware body sherds 1 rim frag	Thrown
Bask 11			11 coarse ware body frags 2 frags modern china	Thrown

MATERIAL CULTURE AND OBJECTS

MC	Reg. No.	Assoc. Pottery Basket No.	Identification
		PB3	modern ware
			1 frag of Bone
		PB5	1 modern Bed Spring
		Bask 11	3 bovine teeth

Northwest Courtyard, W

GENERAL IDENTIFICATION

Locus No. 002
Date (s) July 30th 82.
NE 224-433
NW 224-431
SE 224-213
SW 224-233

Top levels SW 224 Top plan _____; Bottom levels _____

Sections SW-NW Drawn by architect _____ Photo No. 82-399
NW-NE 82-400
82-560
82-561
82-562

PHYSICAL DATA

What is it made of?: This locus is made up essentially of large limestones with mortar attached, tiles with mortar and bedrock chippings

What size particles? fine grained Color 10YR 5/4

Features	Soil Layers
Compass orientation _____	Direction & Degree of slope <u>gentle</u> <u>degree of slope to NW direct-</u> <u>ion</u>
<u>courses high; rows wide</u>	Degree of compaction: <u>high degree</u>
Overall dimensions _____	Distribution of particles (e.g., random, laminated, graded bedding) <u>random.</u>
How was it built?: _____	

STRATIGRAPHIC DATA

This Locus is below Loc. 7. 8. & is above Loc. 003. 4, 5, 6.

Lateral extent _____ Max. thickness 1m 40cm Touches balk(s) SW-NW
NW-NE
SW-SE

How does this Locus relate to all other loci it touches?: This locus is at the same level as 001 and lies directly on top of locus 006.

This Locus is contemporary with which loci mentioned above?:

How was this Locus formed?: This material is a combination of debris from the adjacent 1st phase wall of locus 003. and sediment from above.

GENERAL IDENTIFICATION Northwest Courtyard, N

Locus No. 003.
Date (s) July 28th 82.

Top levels NE 244-463
NW 244-432
SE 244-377
SW 244-312 Top plan _____; Bottom levels NE 244.303
NW 244.253
SE 244.223
SW 244.203 Top plan ①

Sections NW-NE. Drawn by architect _____ Photo No. 82-399
82 400.

PHYSICAL DATA

What is it made of?: This locus is composed of small river pebbles, rounded pieces of bedrocks, and small limestones. Traces of red course brick and mortar.

What size particles? fine grain Color 7 YR 4/4.

<u>Features</u>	<u>Soil Layers</u>
Compass orientation _____	Direction & Degree of slope <u>gentle slope to south.</u>
_____ courses high; _____ rows wide	Degree of compaction: <u>high.</u>
Overall dimensions _____	Distribution of particles (e.g., random, laminated, graded bedding) <u>random.</u>
How was it built?: _____	

STRATIGRAPHIC DATA

This Locus is below Loc. 001, 002, & is above Loc. 005, 004,

Lateral extent _____ Max. thickness 15cm. Touches balk(s) NW-NE, SW-SE.

How does this Locus relate to all other loci it touches?:

This Locus is contemporary with which loci mentioned above?: This locus is contemporary to the locus 001

How was this Locus formed?: Fine grained silt wash deposited after the exposure of 004, (floor) before modern locus 001 was deposited.

GENERAL IDENTIFICATION

(A) NE 244-498
 (B) NW 244-453
 (C) SE 244-503
 (D) SW 244-442

Top levels _____ Top plan _____; Bottom levels _____ Top plan ①.

Locus No. 006.

Date (s) Aug 3rd. 82.

ANE = 244 = 283
 ONW = 244 = 213.

Sections _____ Drawn by architect _____ Photo No. 82 560

82 561
82 562

PHYSICAL DATA

What is it made of? Soil layer with angulated pieces of tile and course red brick with mortar and frags of limestone.

What size particles? fine Color 10YR 5/3

Features	Soil Layers
Compass orientation <u>N - NW</u>	Direction & Degree of slope <u>NW - SW slope</u>
<u>1</u> courses high; <u>1</u> rows wide	Degree of compaction: <u>fairly high</u>
Overall dimensions <u>1m</u> ^{wide} <u>65-80cm</u> ^{thick}	Distribution of particles (e.g., random, laminated, graded bedding) <u>random</u>
How was it built?: <u>Large limestone + course red brick covered by a layer of concrete.</u>	

STRATIGRAPHIC DATA

This Locus is below Loc. 001 & is above Loc. 004.

Lateral extent _____ Max. thickness 25cm Touches balk(s) NE-NW, NE-SE

How does this Locus relate to all other loci it touches?: This locus relates to locus 001 but differs in that it surrounds the upper level of the floor 004 which is called 009.

This Locus is contemporary with which loci mentioned above?: This locus is contemporary to locus 001.

How was this Locus formed?: This appears to be made up of lenses of fill and sediment deposit.

NW Courtyard
W 1984

Tinsbrign 1984

West Baths, NW Courtyard, Outside
Door to Room 1.

June 12

Began a test trench, 1.50 m N/S x 1.0 m. E/W, through courtyard floor. Purpose to elucidate construction of doorway in Rm 1 and to see whether water channel continues to this point.

Floor v. hard white mortar with aggregate of stone — limestone, silt. Proved to be so hard that gave up on test. Unlike cut made through courtyard floor to south where it was possible to go through floor easily. To go through floor here would require a mechanical tool and that is not possible. Made a small hole ca 0.15 x 0.15 immediately west of doorway and then gave up.