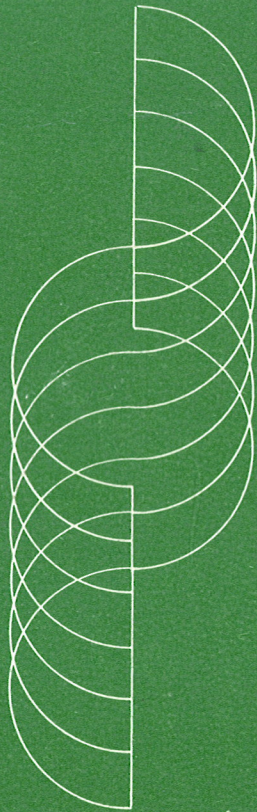


r2 82

III



pignastyl

a5



July 2 (cont)

The soil profile of baulk in N'-6. Samples taken from layers (1) (2) and (3). ~~4~~ for analysis (Must be moist for color reading - (4) is continuation of (3) but just above tiles and burned area and latrine which form layer (5). Layer (6) was described using Munsell.

Baulk in O'-6. Similar but no burned layer. Layers (5) and (6) are greyer. At bottom of layer (6), mass of large water vessels, a surface of small nodules.

Layer 6, but 2 in both O'-6 and N'-6 bumps up down on top of a pavement of fine



And frags of large vessels  
heavy BG bases and rims  
lots of the thin coarse ware  
(englozes) called Terradina  
pitchers by Pepe.

Some wood and bone  
In O-6 two rim fragments  
of archaic amphora!!

~~Sounding~~  
This is probably found at  
south extreme near Claydike  
and could have something  
to do with archaic frag  
found in O-7 ~~earlier~~  
earlier this week

Sounding below layer (6) but 2 O-6  
fine gravel. Complete profile  
of BG bowl. This came out at  
top of sounding. The rest is all  
gravel. ~~Leonardo~~ Leonardo  
takes it down 25 cm and we lay off.



The pavement in N'-6 is  
~~also~~ even more evident  
lots of large fragments of  
Terra-cotta were right on  
the river stones \*

Clear around monumental  
wall. At south end the  
last upright block rests on  
pure clay. Near the bottom  
of the block, rim of ionic  
cap. [Keep in mind archaic  
material found along upper  
surface of clay barrier in  
O-7 earlier in the week  
The dike apparently did not  
carry west beyond the wall  
It is entirely free of material  
~~with~~ there are exceptions  
Check 1977 notes to see if any-  
thing like a sterile clay strip  
found in O'-5

\* over



clean a strip of ~~bat 2~~  
layer (6) bats 1 and 2  
to west of NS baulk (which  
was, and is no longer)  
it cuts into the ~~NS~~ EW baulk  
about 10 cms and into the  
gravel fill we put in in 1978  
We do this to see how  
pavement behaves up to  
virgin rise in ground (or  
should) on which the  
mountain wall. It  
doesn't have any  
surprises except for torso  
of satyr



Take down the baulks left  
in M'-7, M'-8 against  
trench wall. They really  
serve no purpose. We  
will take pollen samples from  
E-W baulk once its north  
face is exposed.

From this comes a very nice  
female bead w/ posos. It  
has an archaic look to it, but  
the ceramics, cups, miniature  
beehives seem surely 4<sup>th</sup> cent.  
The removal of baulks makes  
the next battlement uniform  
over the whole of the area north  
of baulk.

~~The~~ The next battlement exposes  
large area of terrace in  
west half of M'-7. ~~The~~ next  
to baulk. Will remove this  
evening.



The second battuta today,  
the uniform one exposes more  
of the wall which runs along  
the north edge of the cut and  
the hill (behind the wall point)  
The tiles seen in south face  
of EW baulk should appear  
in this battuta in last half  
of M'-7

Large unit of detans from  
under baulk in ~~west~~<sup>east</sup>  
half of M'-7, but also  
also a large piece of  
branch

We are still above the  
tile level evident in south  
face of EW baulk

cleaning around stores  
~~into~~ at the bottom of bat 3  
M'-7 East it is clear  
that what has been identified  
as detanic contains alot



of grape. Two big sections  
of wood, probably vine removed  
from this area (one several  
weeks ago, one today.)  
Sample of this soil taken  
near rock line up with  
those which from West barrier  
to the fall, but run only  
to middle of trench then turn  
last. Much vine, matter  
organic material found in this

light brown sandy layer  
under lathum, on north side  
of trench, under but 3 next to  
~~to~~ ~~the~~ large stones has  
insect casts lots of vine



July 3

Levels for balluta		3
	South	North
N'-7	-9.80	-9.71
mid point	-9.70	-9.615
N'-8	-9.60	-9.405
mid point	-9.515	-9.385
N'-9	-9.42	-9.41

July 5.

Finish cleaning monument wall. I take mensell readings and describe the NS bench in N'-5. and we begin to take it down in N'-5, O'-6. Wall going not drawing in N'-5.



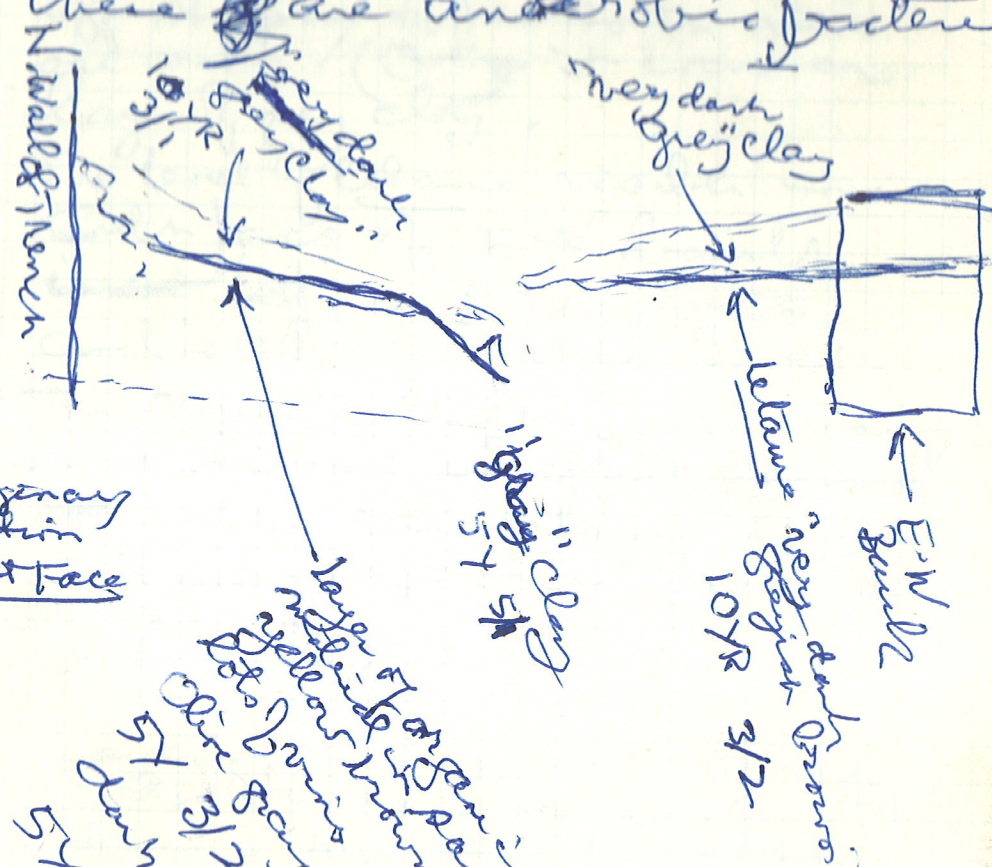
Continue to expose the  
layer of organic material  
in West half of M-7 which  
was discovered on Friday.  
It appears in the north  
part of the trench, covered  
by clay. There are lenses  
of white, pure clay in  
it; and also also ~~it~~ it.

~~away~~ The thin layer has  
many vines, a ~~network~~  
The soil color is yellow  
brown and sandy. There  
are tiles in and around it.

Toward the South in this  
West half of M-7 the alpha  
alpha was discovered and  
covered with a plant for  
several weeks, as wheelbarrow  
passed over. Lorenzo wants  
some more samples of it, the  
Ajenda wants some of



detamine to try to grow  
 Tomatoes in. I would like  
 to take a sample to see if  
 these are anaerobic bacteria



Imaginary  
 Section  
 West face



The level of organic material  
in sandy yellow soil is exposed  
in west half of M'-7 for a  
width of one meter. It drops  
off sharply to the south after  
one meter. (Over it was a  
layer of grey clay.

The level of delaware visible in  
south face of E wall baulk  
~~is~~ begins to the south  
and is at a higher level.

The organic layer (with many  
vine stems) in effect passed  
~~to~~ under the delaware layer  
and was separated from it  
by grey clay.

Layer of organic material  
with vines fig wings etc  
found in NW quad 1X1 m



The organic level dips  
down almost to level  
of field tins in NW quad  
and begins to peter out.

Letame in SW and SE quads  
(especially SE) corresponds  
to that seen in South face  
of section.

Note

N-S O-S Bauls. There  
is a uniform layer of pebbles  
(with lots of tile in O-S)  
which makes a pavement.

It is a hard surface  
and uniform for whole length  
of bauls. It corresponds to  
level of top of stone of monoweld  
wall.

Level of stone  
layer at bottom  
of L.3

Level of "padding"  
stone blocks in wall

Dec 1/2000 [L3 = level 3 in N-S bauls]  
Section H-H'



July (Day of Italy's win  
over Brazil)

3 points near well are not  
drawing.

Leonard discovers intact  
votiv vase, beads, female  
statuette immediately under  
pebble floor of L-3.

at 61 cms above the level  
of virgin earth in N-5 (and  
level of sandy grey fill of W.  
channel from spring).

All the pottery is archaic  
below these pebbles, but we  
are at a level well above the  
channels and the spring.  
Roughly at the height of  
the top of the large calcium  
block in front of the spring.

The level of pebbles which  
forms the floor of L-3 layer there



Rises gradually to the north  
in M-5. baulk I corresponds  
roughly to the level of the  
middle of the upright Carparo  
block on the the west face of  
well. It could be the lower  
part also. In which case it  
would seem that the stacked  
Carparo blocks ~~do~~ revealed  
in face of well could belong to  
an archaic phase of Spring -  
well - The top level of these  
stacked Carparo blocks ~~at~~  
corresponds with top of the  
TC drums of well.

Note large fieldstones on  
virgin soil ~~on~~ ~~to~~ west of  
Spring are nearly at the level  
of the stacked Carparo blocks.  
The level of pebbles above  
this one (level 2) comes in  
at top of existing well structure  
The fill below corresponds  
with the rough and irregularly  
placed blocks of upper well  
structure



If the well was operational  
in the period corresponding  
to fill (layer 3) these blocks  
would already have to have  
been in place. The use of  
roof tiles for walls in this  
part of interior of well structure  
corresponds to similar construction  
in ~~the~~ Hellenistic farmhouse  
to the west.

Thus the ~~three~~ phases of the  
well are three, two of which  
are archaic.

I - Spire and channels

II - tiles, fieldstone and  
~~the~~ Calpurno blocks of  
uniform dimension. Corresponds  
to level of statues found 7/6/82  
TC drums?

III - ~~roughly~~ sized banded  
stones, in body architecture  
fragments on outside and  
the wall.

IV - Same as III.



Conclusions to be drawn -  
The water level, or fill -  
of archaic period is as  
much as 60 cms. or  
roughly equal to that of  
the classical - hellenistic  
phase [ Layer (3) ]

A problem area is the  
around well, especially to  
the east of well where there were  
many 4<sup>th</sup> cent vases - between  
well and first of pudding stone  
blocks in monumental wall

The well could have continued  
in use in period of collecting  
basin - that is the TC drum  
surrounded by uniform Carpent  
blocks is at level of the  
small pebble pavement which  
separates 4<sup>th</sup> cent and archaic  
levels. There could have been  
vase deposit at east.



The pebble pavement at bottom  
of layer (3) is also at level  
of top step of monumental ~~floor~~ wall.  
→ first important structure  
here was collecting basin and  
monumental wall, ~~after~~  
followed directly after archaic  
period.

Next phase, that of farmhouse  
and ~~the~~ crude extension of  
wall dates to late 4th cent  
and corresponds to second  
building inside monumental  
wall and collecting basin —  
the stall?

Area, however, continues  
to be full of water. and water  
carries rotive figs and RF  
from NW corner all over the  
site. — Just as water  
continued to deposit archaic



Abductiles and cups in  
area of channel of archaic  
at level of 60 cms above the  
original channel.

P.M.

Yolwe cup and shell in layer  
(5) of N'-S

In M'-7W excavate leaves  
at contact point between  
brown organic layer, and  
lighter brown sandy soil  
underneath. Olive. This  
is under layer lifted  
as sample yesterday. NW  
quad. Photos.

in SE Ditarants in corner  
extensive pine system.  
at level of letame photo



July 7

N'-5 } hardly loess layer (5)  
O'-5 }

Where worked was suspended yesterday. Photographed a nice collection of archaic vase frags in ~~the~~ floor of trench N'-5 layer (5/6) a cap, a base.

In well trench continue troweling under lat. I large concentration of stones above fallen stones in N'-TE half. Organic material, mainly vine stems among rocks, large frags of big BG vessel.

We are trying to find the spot from which seeds of *Jacqueline* plants came. I remember it was against rocks at level of pavement in NE corner



Night at the Bodmann  
point of the projection of  
the large blocks. - a black  
malma (~~is~~) Now we understand  
that water left the area  
along the east side between  
the two mass of stone which  
mark the NE and SE corners  
along fieldstone which extend  
eastward beyond the rectangle  
It's possible that the aquatic  
plants grew just at the  
boundary of basin, and that they  
were removed inside basin  
We should ~~take~~ <sup>take</sup> a sample to  
east of rectangle at level of  
basement.

Revision of well, spring  
hypothesis, should the well IC  
cylinders prove to be 4th Cent.  
(Similar ones used for tomb  
found on N side of hill in PPA  
- recognized after Francis's restoration)



The layer of tiles and fieldstones resting on virgin were the face of spring, holding back the hillside. This is analogous to the construction at north end of the collecting basin as we now know, after yesterday's excavation. This barrier had in front a basin formed by large fieldstones and jagged pieces of pearly stone and limestone, and its front was closed off by the rectangular limestone block, from which point the overflow channel begins (on the east) -

This ~~level~~ spring disappeared as water table rose. (Archaeic statuettes and Cuzco carried along about 60 cms above virgin)

Well made in fourty using squared limestone blocks



Uniform size placed in  
lined courses directly on  
top of foldings of archaic  
period. These protect  
the wall TC wall tiles.

A later fourth century/3rd  
century phase is that of  
odd blocks and tile built  
curving walls -

This change in the theory  
requires that some excavations  
made below level of pebbles  
which separate archaic from  
4th cent material. This pebble  
layer is weaker than mortar  
in M' - 5. Some how the  
4th cent builders rediscovered  
archaic spring wall.



Leonardo observes that  
material in baulk N-5/O-5  
is concentrated at north  
and south ends

Levels on layer ⑤ N-5 O-5 baulk

HI	<del>2.82</del> -0.102	floor
North end	<del>2.82</del> -2.82	-9.47
slope 0.5*	-2.85	-9.50
South end P-5	-2.89	-9.54
layer ④ ⑤	was	25-30 cm thick.

Layer ④ floor, approx.  
9.20 on the average



Material washed by Meshovits  
Should use it by the name  
treatment

PZ 82

M' - 7

Cotawa level.

CARRUBA  
SEED

BLACKBERRY

FAYINA

possibly  
Lentisco or  
tamerici



P.M.

Spent all morning trying to get diesel pumps hooked up to clean out points on west end. They were clogged with fine sand and clay. Clay impregnated with sand is the composition of the hills below the basin.

The drainage channel from spring - the ancient one works. So does our cut through clay dike ~~fill~~ on south side of basin. The basin fills up with water of diesel pumps, but drained out almost immediately. The level around the western points ~~dropped out~~ dropped drastically almost immediately.

I continue in Leonardo's place on layer (2).

Clay over breccia and sand at one point there is a little lump ~~in~~ which is very black. It might have organic material well wash some



tile, cup of some (nearly complete)  
and a shale head with  
nose intact.

Pipe during a m. trowels found  
stone in and make sandy  
to west of copper block which  
appeared in situ to south of  
bank.

Washed sample from N-6  
bank below level on  
north end.

Lots of aquatic plants -  
"Coontail" etc.  
Clover, barley, grass, iris  
wheat! (few grains)  
Comparison w/ barley



July 8

Laonada continues in  
0' - 5' at layer (6). The joints  
are all drying and the ground  
has dried out again. There  
is about 1/2". No more water  
in area of well or north end  
of collecting basin.

Pepe continues washing soil to  
kettle level.

Suzanne is labeling the soil  
in sections.

I make a collection of tiles  
from all structures on the  
site.

Layer (7) Grey clay with  
material south to about  
0' - 5' strike then a layer of  
black sand and fine gravel  
which has nothing. It is  
like that encountered under  
the clay dyke in 0' - 7.



The grey clay is encountered again about 1.5 m south of O'-5 strike. It is full of material. Ledge rims etc. This second exposure of grey clay should be the continuation of the widening of Overflow Channel. In 1977 Ditaranto and I excavated archaic material here.

The western Channel probably turns westward in the southern half of N'-5/N'-4, passing under the NS wall N'-4/O'-4. The mass of pottery which is now appearing in S half of O'-5 probably corresponds to that which Pope discovered in the canal bank in 1974. Same type of stuff.



M-7 west, letame  
level with much barley  
(sample taken) and with  
whole grape plant (sample  
taken). This is SW quadrant  
(earliest <sup>thru</sup> are sampled organic  
material from NW and  
letame from SE. for Lorenzo)  
Under letame in SW is blue  
clay, and under that is  
brown earth with some  
indication of organic material.  
We'll sample, too. and  
wash it here.

The organic level below  
the letame (separated by veins  
of blue clay has many leaves  
olive grape?, and seeds.  
seed of aquatic plant in  
perfect state of preservation



organic layers under below  
 and this clay in SW quadrant  
 N-7W has hummocks,  
 many insects. Just above  
 foldstone pavement come out  
 archaic structures holding  
 fragments, and archaic  
 head. I found the first, gave  
 the second within 30 sec interval  
 Antine head. Rounded tone  
 features. Some of the pebbles  
 (cup handles) is archaic

July 9 -

Continue in N-7W

Remove piece of square 1x4  
lumber.

Pollen caught	A	between layers of
from baulk	B	<del>from above</del> between
	C	from between
		and pavement
		<del>from pavement</del>



N'-8 Pops finds the water  
wall of the basin. Covered  
of large flat scales of sandstone  
They are covered by a lot of  
river stones. The few loose  
pieces are near the wall. These  
all or were dislodged and  
the river stones poured over  
those still in place. The river  
stones may have been placed  
directly behind the sandstone  
wall - (perhaps between it and  
the cut which must have  
been made when the modern  
drainage canal was passed  
to help the water to filter  
in. The cut should have been  
almost vertical since on the  
other side of modern drainage  
canal we have virgin earth.  
The fall of ~~the~~ river stones  
is also over the tiles seen  
in <sup>FW</sup> section # N'-7, N'-8



This means that whatever was  
going on under the tiles, where  
the letane layer is found must  
have gone on while the North  
Wall of the basin was still  
intact.

In the fall of riverstone a  
very nice RF Sherd (Photographed  
in situ)

N-5

~~Layer~~ Layer 8 We go below the  
level of virgin soil into the  
West Channel. There is a  
circular hole on the East side  
of this channel which contains  
in contact with vases. Now  
that I remember all the vase  
vases come from this side ~~of~~  
~~to~~ and the material —  
Cups, large vessels etc  
like those found yesterday in  
O-5 come from the widening



to the south of the east channel  
or overflow channel. As  
Leonardo says: Water takes  
erupting in front of it, it is  
man who divides the  
material

M-7W

layer of light brown soil - which  
is found between bitume layer and  
pavement, sometimes with large  
veins of blue clay. contains  
many small pebbles. Sample  
taken. also leaves. (one seems  
to me to be acquaticum. -  
photographed)

There is a fall in NE corner  
of M-7W which has large flat  
stones, discussed earlier today, over  
bitume, which in turn is over  
this light brown sandy soil.



N<sup>o</sup> 6  
Layer B  
This pit on east side of W  
channel contains water cups  
and piece of wood or vine  
(See Saved!) Cleaning of  
west channel produces the  
usual assemblage of cups etc  
and now it is clear that  
west and east channels join  
about 1 m ~~south~~ north of 0'-5  
stake.

As we move into 0'-5 and  
the water drainage ditch, nice  
collection of bones, all lined up  
in a ~~thin~~ ~~shallow~~ channel of clay  
In this area this is layer of  
b.2. Since the south end of  
the trench needed to be taken  
down more to allow drainage for  
The ~~hole~~ <sup>pit</sup> on the ~~east~~ west side  
of trench which seems to have  
same dimensions as pit  
above it is full of grey clay



To the south of this point  
it is cut by into the area of  
black sand and small pebbles  
which does not have much  
material

Diagonal line of river stone  
then begin in west wall of  
trench about a meter to the  
north of P'-5 runs to NE  
to a point about 1.5 m to  
south of strike 0'-5 and  
halfway between east and  
west channels. Large concentration  
of material all around the  
stone. Cuffs etc



July 12-13

Work in Rome tending to  
N&C and checking into Lorenzo  
over results of earlier field  
exposures, to regulate the  
final work at P2. I think  
it would be useful to take out  
a whole section from bank  
to north wall of basin, to  
study the micro-stratigraphy  
— how the deposit was made  
in botanical terms.

These days were spent at  
P2 cleaning the calcare  
from east side of basin and  
straightening up around the  
spring in preparation for  
photography. Some pottery  
collected in very general  
lots.



July 13  
2 m 15-13

July 14

Prepare a section at M' = 7 1/2  
Straighten up face and ~~take~~  
up the full 1/2 to the west. Some  
good quality pottery left in  
face of section, some collected.  
Suzanne begins work.

In 0'-4 / 0'-3 a sounding  
1 1/2 m. wide running slightly  
obliquely NW to SE to allow  
water to drain. The object  
is to discover relation between  
spring and its channels and  
the large archaic structure  
to the west. First day spent  
largely in clearing out canne  
but 1 produces Archaic  
Pottery.

Galinsky visits site

EW "flagstone" wall discovered at  
N end of NS wall in N'-AS material  
from above it collected separately - 4th



14  
No wall, but perhaps below it slightly,  
July 15

Some fragments  
of pottery  
seen in  
the  
mound

The mound of river stones  
in O-3 is cut through. There  
is much archaic pottery  
in and around the mound.  
Just below it is a layer of  
breccia, smaller river  
stones, which seem to form  
a battuta. This is only a small  
area on NW side of mound.

It seems that the two large  
fragmentary pudding stone  
blocks noted exist, or on  
a similar ~~to~~ layer, slightly  
below its level.

Water is a problem.

Material from mound selected  
separately.

Battuta 2. A strip about  
a meter wide running N-S  
of gravel, black sand is separated  
from east end of trench  
by grey clay.



Some of the other specimens with the  
MS. note, but perhaps below it slightly  
July 15

The mound of river stones

in 0-3 is cut through. There

is much archaeo pattern

in and around this mound

Just below it is a layer of

limestone smaller than

stones, but in some to form

a belt. This is only a small

area on NW side of mound.

It seems that the first large

fragmentary building stone

blocks were of quartz, or in

or similar ~~to~~ layers, slightly

below its level. Water is a problem

Water is a problem

Materials from mound clearly

of ~~pattern~~ 2. A strip about

a meter wide running N-S

is quartz, black sand in ~~Apparatus~~  
Apparatus from east end of ~~stone~~  
~~stone~~ by ~~open~~ clay.



Image 2  
The map shows the location of the site and the location of the site

This clay would appear to have divided E and W channels from spring. The black strip is where the W Channel should be. In Vat 2, a very large lethane with complete profile. This approximately at level of water cups found high up in East side of bank and photographed in situ several weeks ago.



Some fragments of pottery  
In open mound above

About 30 cms below the level of mound of fields come in O'-3 we encounter pure clay no ceramics. Vases? The bank on which the west wall of enclosure of Spring was footed? It is possible that the monumental wall was east wall of an enclosure of Spring in Archaic period. Steps leading down added later, in Fourth? The fragments of puddingstone in O'-3 ~~1-3~~ seem to be in line roughly with larger complete blocks in P'-3 (Note 1981 plan does not represent these fragmentary stones correctly. Look at 1977! They do not respect the NS wall which is of later date they go under it.) Would like to find some continuation of monumental wall to north in N'-4



July 10

0'-4. Remove debris, photographs  
in situ last evening. Barbara  
continued photographic documentation  
of site

We isolate the channel. In lat 3  
in channel. Mudbrick 14x14  
1-2 cm thick, on the bottom  
of West Channel. Vessel at contact  
with beach sand + gravel on bottom  
of channel  
Clear the tops of walls etc in  
IV'-4, of grass and Remove  
bank in N'-3, N'-4

stones placed close together  
They ~~are not~~ do not make  
a perfect L with wall A.  
Seem instead to NW-SE and  
~~to have a NE direction~~



July 19

(For lettering of walls see plan)

Structure defined by walls A, BC has associated pavement. A small gravel. It is at a slightly lower level on East side of space defined by these walls. Changes level at point (F) where seems to be exposed south end of another wall of the same type.

Pavement also ~~defined~~ <sup>associated</sup> with walls D and E, which are surely part of the sewer structure and they are at roughly the same level as the pavement west of (F)

Wall B is composed of flat stones placed close together. They ~~are not~~ do not make a perfect  $\perp$  with wall A.

Seem instead to NW-SE and ~~to make a NE direction~~



and to make it into a NE  
oriented wall (?) of same  
construction. The structure  
defined by these walls and within  
these pavements is earliest  
structure after the Archaic  
Phase. Wall C overlies  
lies a ~~long~~ series of three  
conglomerate blocks in 0'-3'  
which have the same orientation  
as monumental wall on West  
side of collecting basin.  
They are divided from overlying  
wall (C) by a layer of clay.  
Wall (C) made out of chunks  
of conglomerate.  
Same pavement found to south of  
wall (D)

Where is wall D? 2112



walls y, x, z define another structure, which has associated pavements, and tile fall. Pavement has large flat stone broken tiles on it. It is, so far, only in corner to west of wall y and north of wall x.

In cleaning of this area a both pavements of associated with walls D and E and those with walls X and Y were exposed, but material collected as a single lot.

To the east of wall y and north of wall x, first ~~part~~ battuta goes just below the upper running stones of this wall and below the level of the tile fall exposed in SW corner of walls X, X. (in earlier campaign) Large squared limestone block in this corner.



Baulk comes down in two  
batturas. 2nd. goes below  
the level of tile fall in the  
baulk and its continuation  
to the north of the now  
non-existent baulk (~~clear~~  
tile fall to north cleared in  
earlier campaign).

Excavation in this area  
aims:

1) to ascertain if conglomerate  
blocks which are based on  
fine gravel layer and clay, do  
in fact pertain to structure  
around archaic spring, do  
in fact form a parallel wall.  
We need to find one more  
in situ, to north in N-4.

2) Define the later structures  
and their relationship.

a) Building formed by walls

A, B, C

b) Building formed by walls X, Y, Z