

EXPERIMENTS ON ROOMS B.R.S.

Use 3 traditional rooms & compare
 the modern solutions.

limestone walls w/ fill / mud stream mortar.

red ~~and~~ brick corners / sand cement
 mortar

cement & sand mortar \uparrow

S-face external
 \wedge plaster = cement, sand & limestone $\frac{3}{4}$ "

Floor brick pattern

foundation & base of wall as house no 1

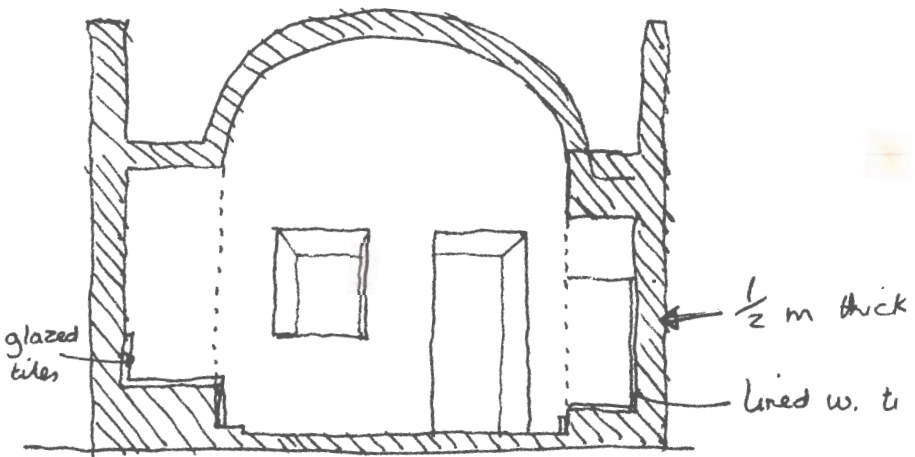
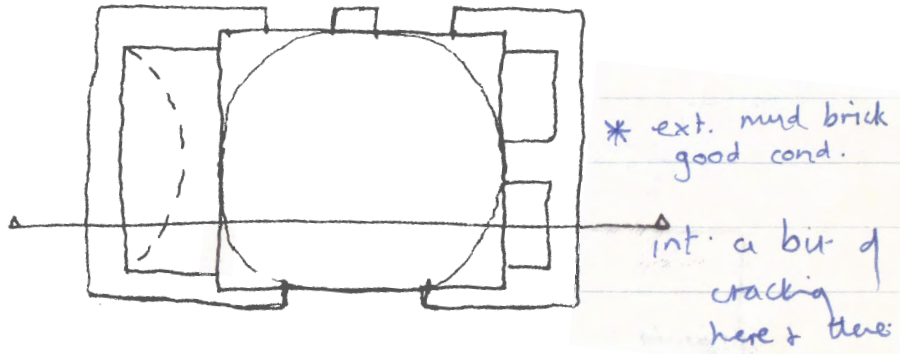
Interior: walls plaster = sand/cement

limestone / $\pm \frac{3}{4}$ "
 floor - ^{red} baked brick

8

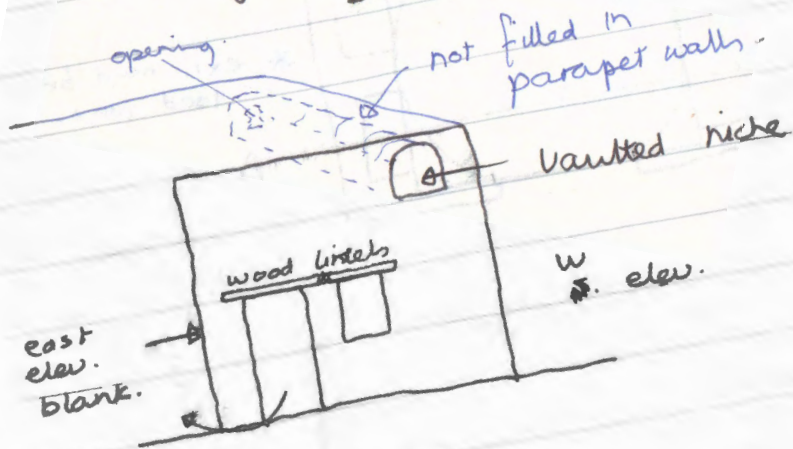
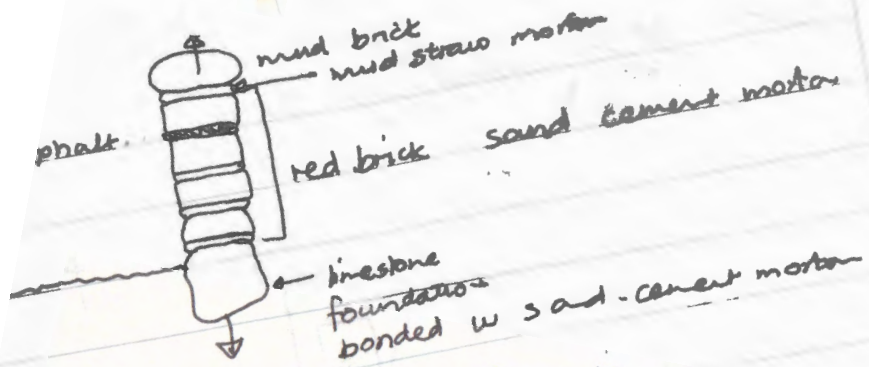
001 No 1. Vault and dome

S ?
↑



Mud brick, mud straw mortar, mud straw plaster, white, lime or chalk painting.

baked Brick floor on limestone foundations



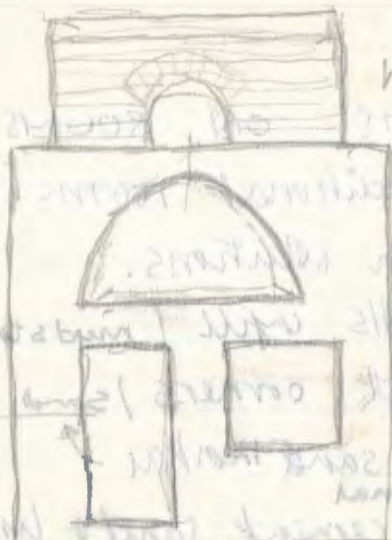
SOUTH ELEV.



ROOM 2

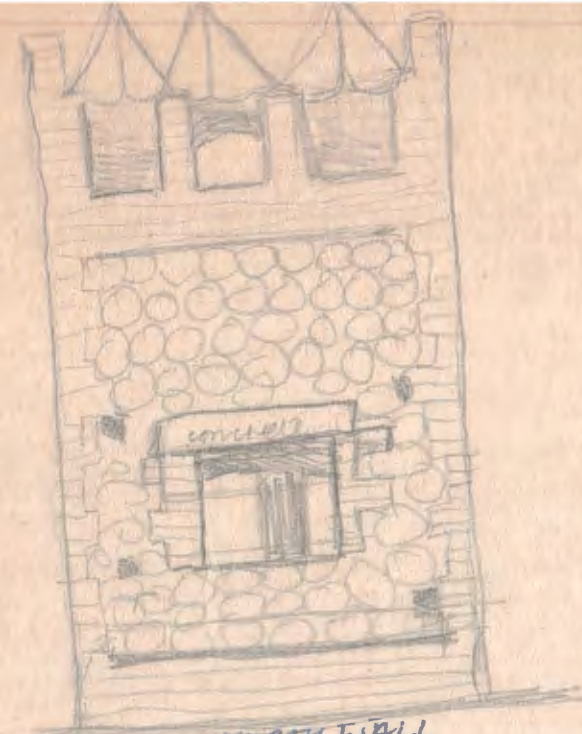
45

WIND LATCH

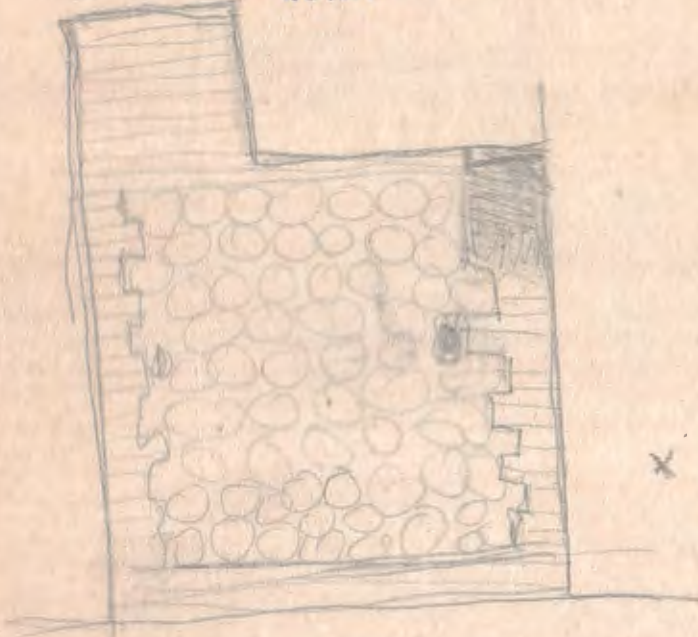


SOUTH WALL





NORTH WALL



x

2 mins e

Measurements

4 mins each.

note where tested.

TIME

2mins 4mins

Room ①

13.30	south wall	ext	40°	40°
14.33		int	29.5	
13.30	north wall	ext	32°	
15.03		int	30	



ROOF Time

EXT	43.5°	13.2
INT	26	13.2

Room No. 2 Vault and Windcatch.

Wendy E.

Wall thickness $\pm \frac{1}{2}$ m.

roof ~~9" at thinnest~~ 12"

- + levelled off

ROOM 2

		12'	
South Wall	ext	41	
	int.	31.5	

North Wall	ext.	32.5	40	14.0
	int.	31.5		19.5

31.5

Time \rightarrow 13:35 Int test time

ROOF	TIME	CU
EXT	13:35	30.5
INT	13:45	26

Shadow Diagram



HOUSE 3

47

TIME 13.40

2 min TIME

South Wall

ext	44	13.40
int	31	14.39

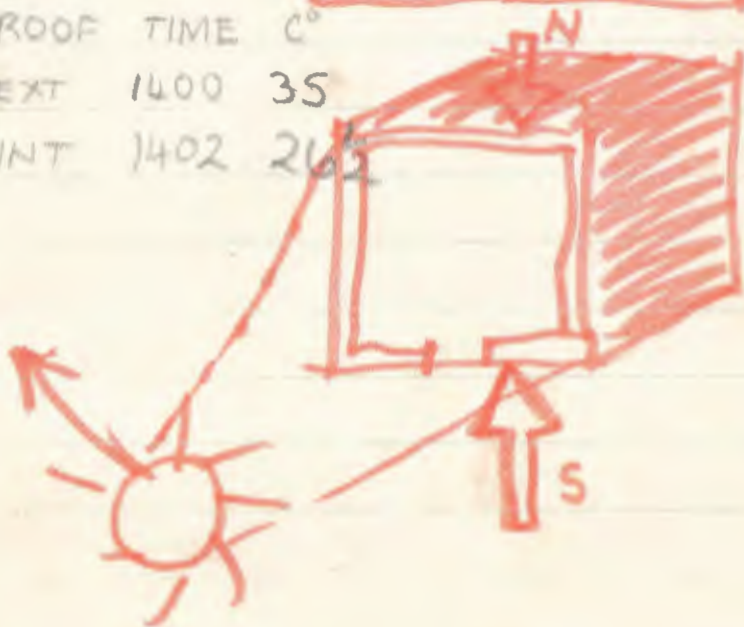
North Wall

ext	32	14.07
int	31	14.54

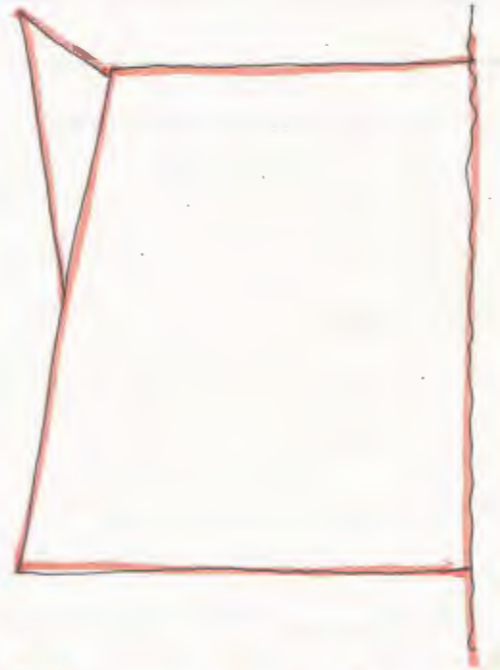
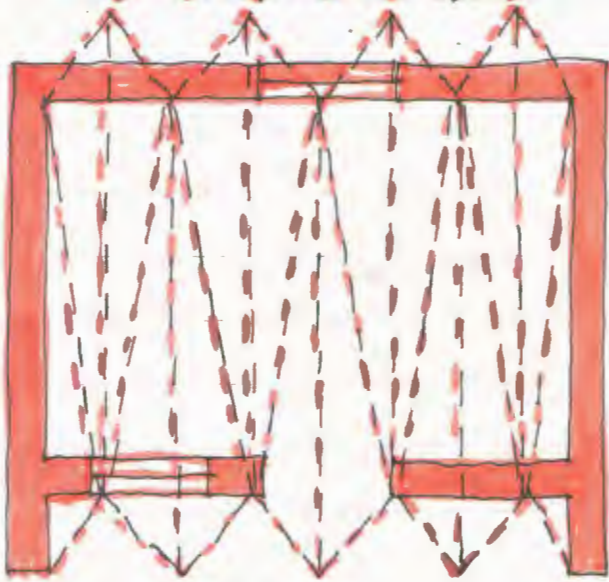
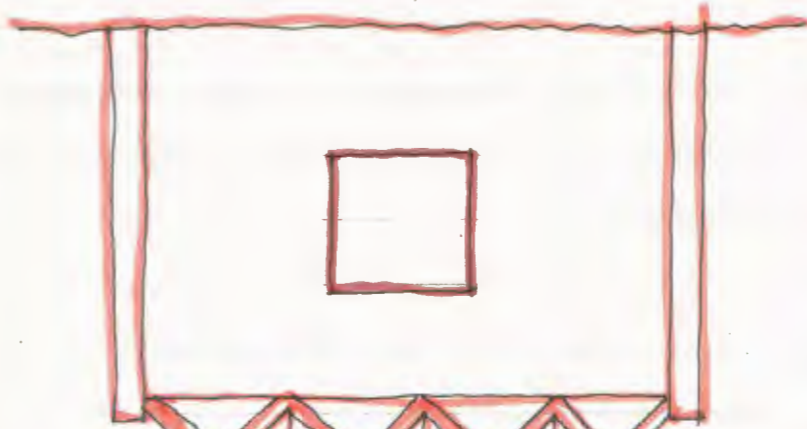
ROOF TIME C°

EXT 1400 35

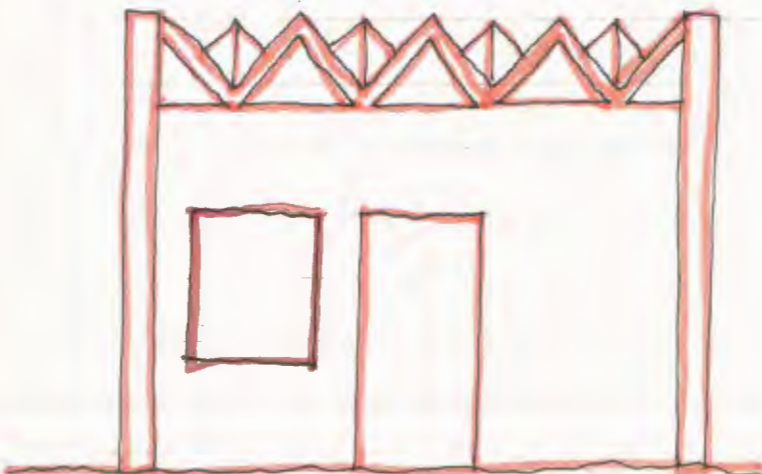
INT 1402 26.5



NORTH WALL



Palm Frond Roof



SOUTH WALL

ROOM N° 5. Chicken wire roof.

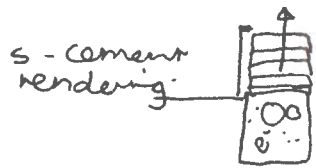
Peter.

Materials. (external) } good cond. N° 2
* int. cracking in places

2. Concrete beam foundation.

then red baked brick 4 courses

w. sand cement mortar.



whole roof

red brick + sand

cement mortar

+ totally internal + external

sand cement rendering.

9" thick wall. + ($\frac{1}{2}$ " x 2) rendering.

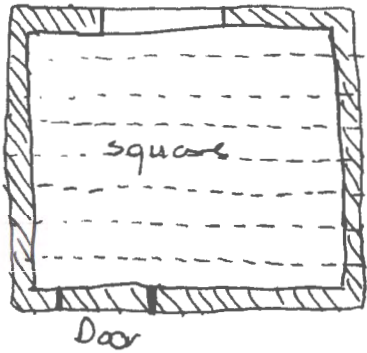
roof s-cement reinforced w. palm
fronds. 3 to 4" thick.

* Span governed by length of fronds.

floor - red baked brick.

* cracks in roof. underside. otherwise
good condition.

4. * in & out good cond.

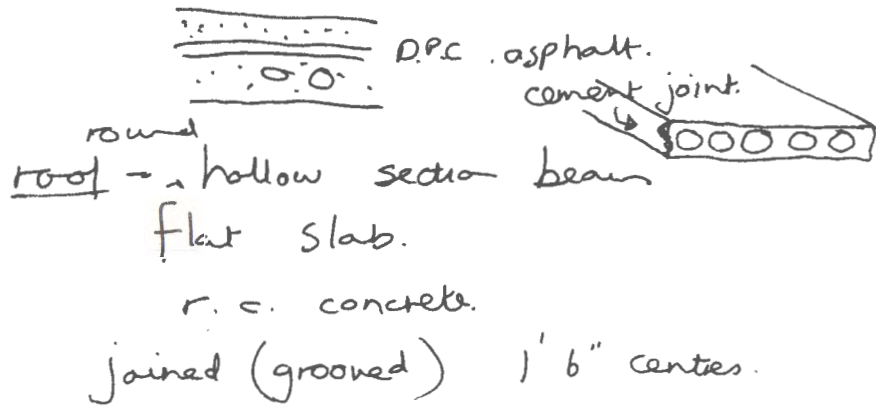


walls of hollow concrete blocks.
(clinker aerated)

1'6" x 8" x 8". sand - cement mortar

Floor

Concrete slab w. sand cement screed of 2" ±



r.c. concrete.

joined (grooved) 1'6" centres.

HOUSE 4

TIME

13.45

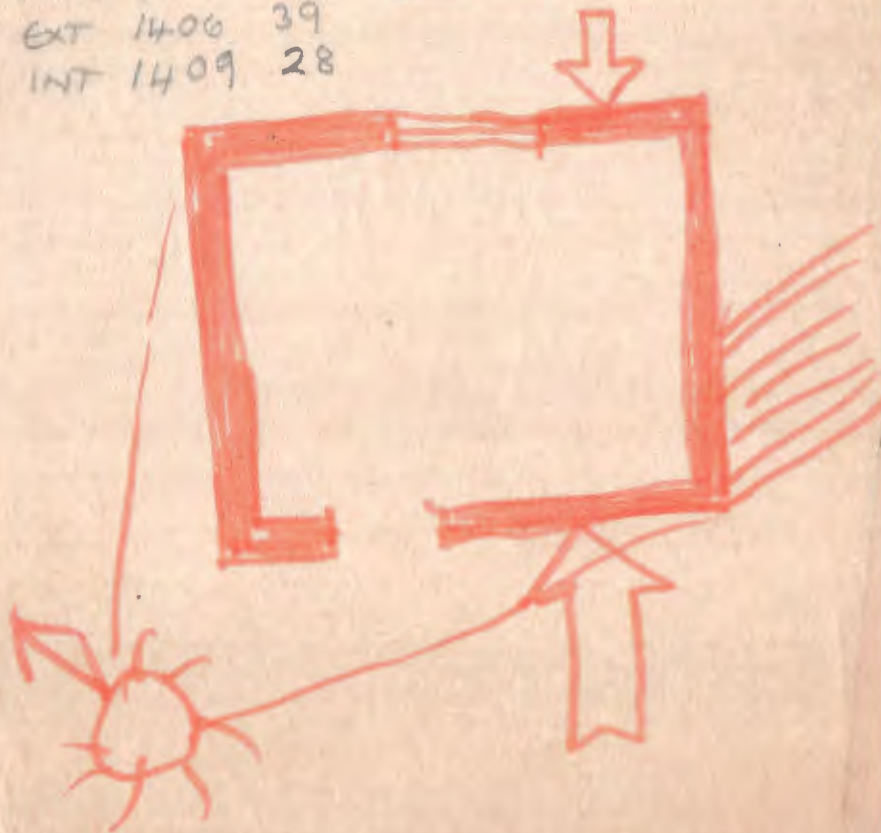
2 min

South Wall

ext	42	13.45
int	33	14.43
ext	33.5	13.57
int	26	13.52

North Wall

ROOF TIME C°
 EXT 1406 39
 INT 1409 28



HOUSE 5

Temp ~~13.14~~

2 min

S. Wall

ext	43	13.47
int	34	14.47

N. Wall

ext	34	13.55 13.55
int	26.5	13.50

ROOF TIME C°
EXT 14.18 41
INT 14.13 31

feels warmer than previous



HOUSE 6

TIME FIRST EXT. 13.49

2 min

S. Wall

ext	40	13.49
int	32	15.06
ext	33	13.52
int	31	15.09

N. Wall

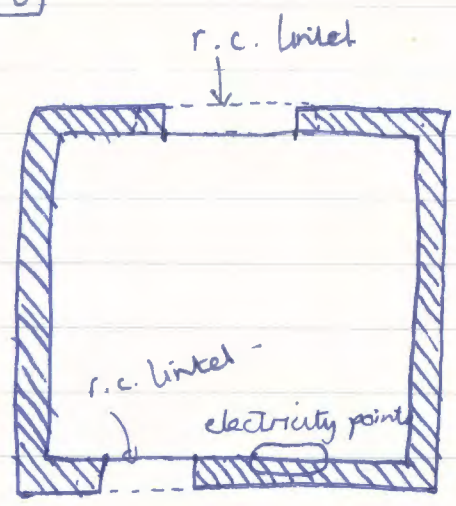
ROOF TIME 2°

EXT 14.22 39°

INT 14.27 33.5°



Room 6



walls

red bated brick, with sand, cement, lime?

mortar. rendered with ± 1 " sand cement

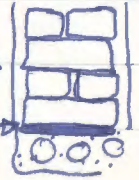
on inside surface. & about the same on

outside surface. (front (S) wall only)

concrete floor slab

D.P.C.

ground



the other 3 walls are unrendered

flat reinforced concrete roof slab. on ring beam ± 12 " deep.

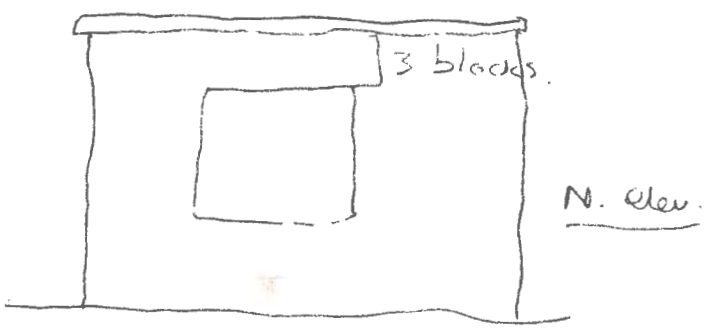
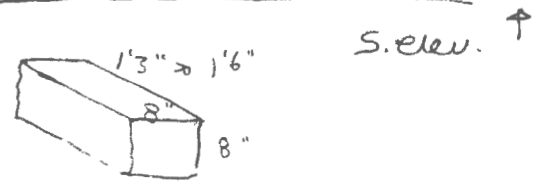
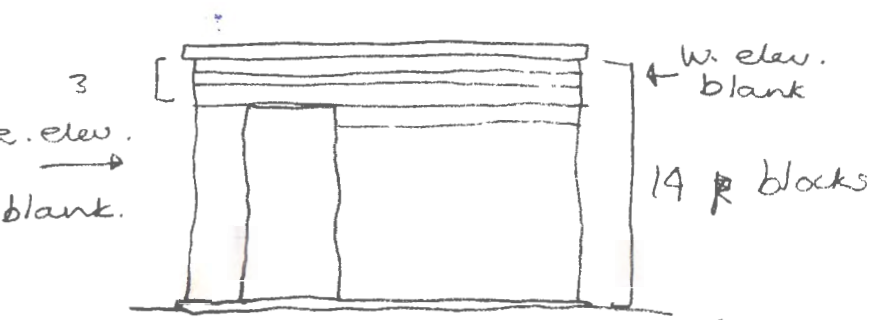
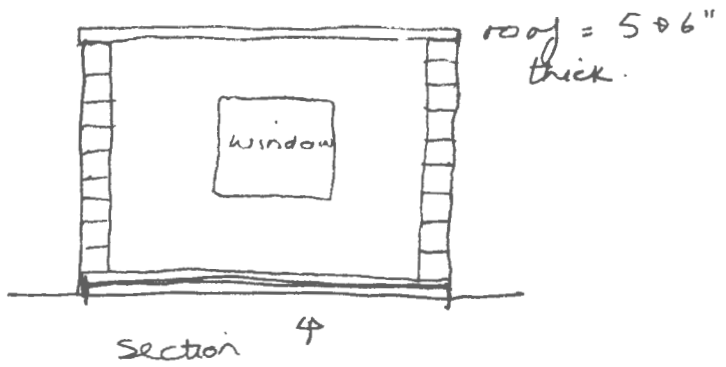
* relatively good cond. no cracks inside

All rooms face exactly
2° S.E.

Air Temp

Air Humt

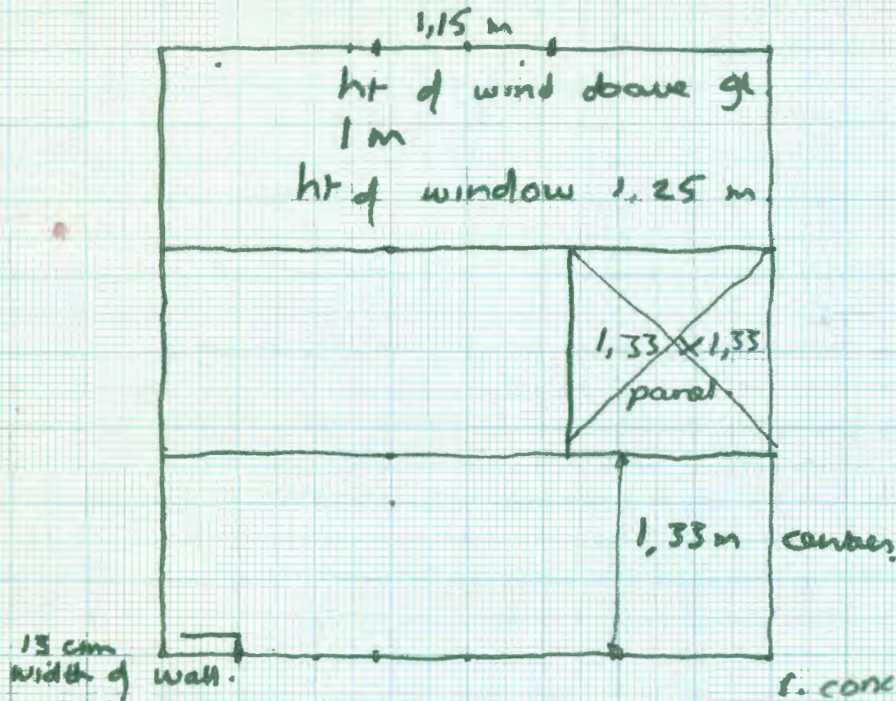
Thermal Compt.



House 5. Scale 1:50.

3,95 4,20

3/20/20
5/15/15



ht of ^{wall} door 2,25 m.
+ roof slab. 20

~~2,45~~

ht of wall = 2,75

2,95 m.

each block size.

80 x 25 x 13

white conc. slab.
r.c. beam foundation

#φ ?

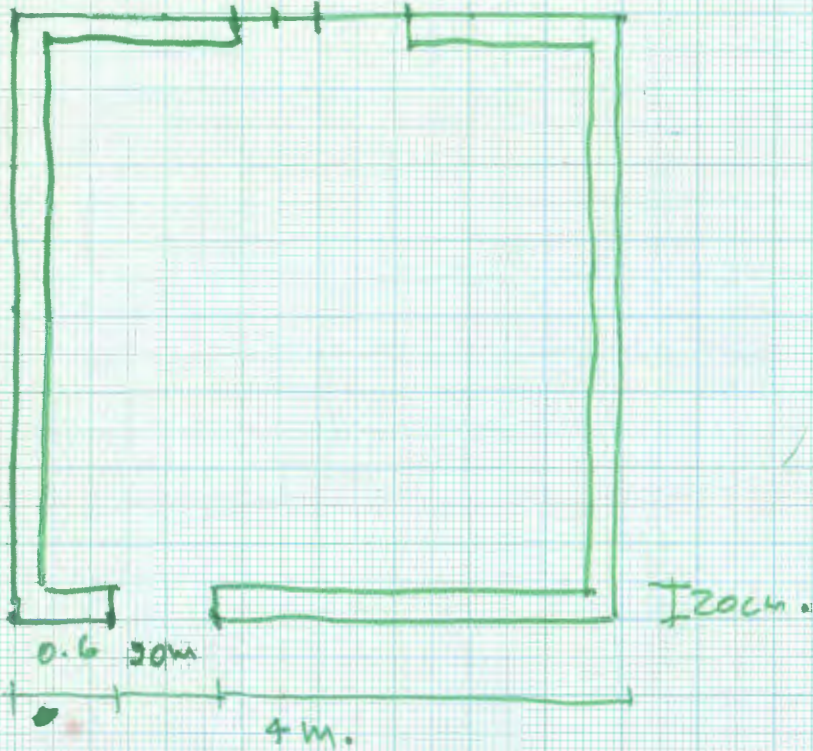
not hollow cement
w. mortar.

prefab units on panel beams.

found. white conc slab
r.c. ~~slab~~ beam
on brick level.

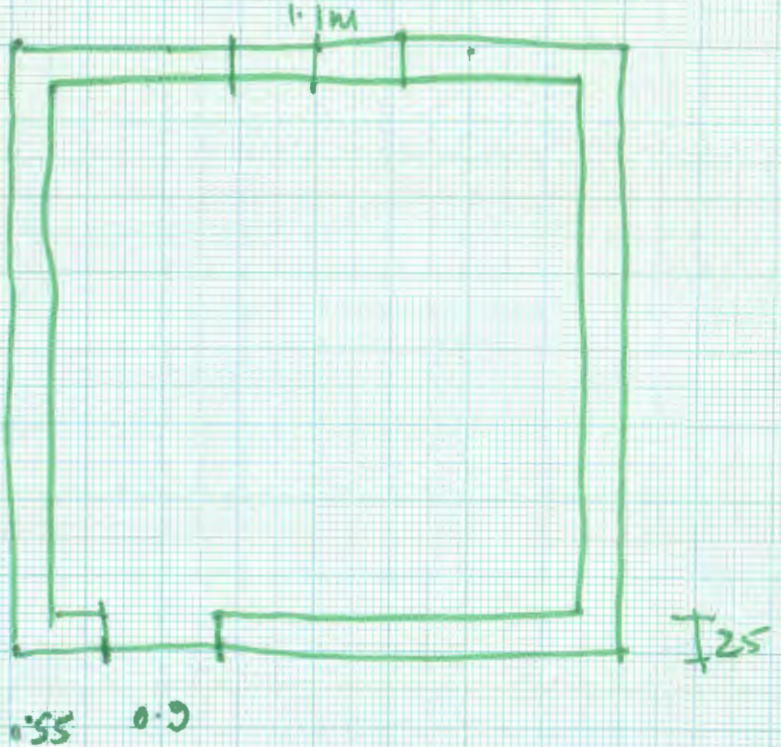
hollow cement. block 20x20x40.

window 1'x1.2m. door ht. 2.2m.
 trans. 1m. ceiling ht. 2.8m.
 slab 0.15m.



hollow conc. blocks.
 cement mortar.
 saw fd. an. 5.
 hollow conc. beam.

door ht = 2m.
 wind. ht = 1'15"
 ht. trans. = 1.1m.
 ceiling ht. = 3m.
 total ht = 3.25



red brick mortar
 D.P.C. asphalt.
 white conc. slab.
 wall. beam
 + roof slab, conc.