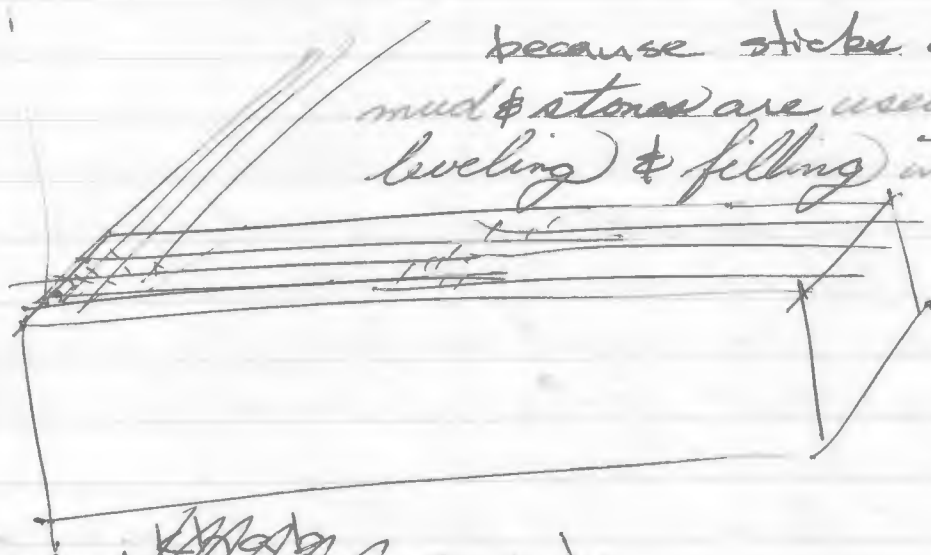


# Ali Omar Salalah

In the old houses they used to go to the mountains to get wood (hattab) for building walls, more than one floor 2 or 3 story. Tie wood together loose all tied together (like beams) (hassa)  
- 2 types 1 - mud (tine) & small stones  
2 - (hamakont)



~~khachab hassa~~

khachab hassa - small pieces of wood over the larger branches (hattab)

18" ~~18"~~ In the past they used to use two large stones (hajjar) & fill in with small stones (hasso). The walls used to be two ~~times~~ <sup>times</sup> as thick (dhira) (now much thinner)

The small stones have to be very strong <sup>hard</sup> - wall must be thick & strong. This layer of small stones & mud is used for leveling again & a base for further building.

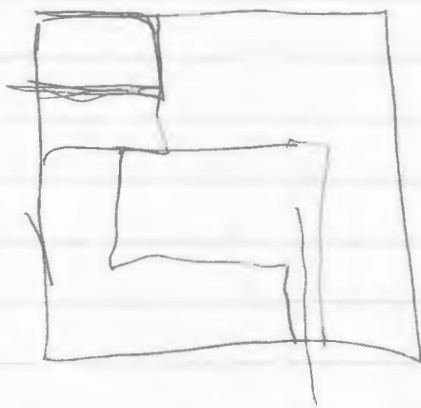
Now using 'white wood'  $3/4" \times 8"$  imported but do not trust imported wood because it does not last long.

Traditional roofing lasts much longer.

Ali Omar shows incredible confidence in Trad. building systems over imported.


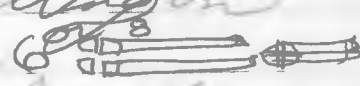
Mud used in wall construction takes a long time to dry. But in new systems when inside & outside are cement plastered the mud cannot dry out.

Calishaid claims that stone vault construction would be extravagant due to cost. Reinforced concrete probably 50 to 80 Rupee / sq. meter. Karachi conc: 125 Baiza per bag in Salalah 2 Rupee.



## Palm trees (Nakhai)

For beams - before they ~~were~~ started  
imported wood. Palm beams are  
very strong & had been used 1000's of  
years. Cut with axe. The top  
of the trunk is no good because of  
swaying due to wind & becomes  
fibrous - chopped out.

 chopped usually  
in two lengths. Then depending on  
diameter split in ~~two~~ 4 or   
The taller the tree the weaker the  
wood at top.

After the trunk is quartered etc  
it is cured in the sun.

## Wood from the mountains (houfai)

### Roof Construction

Palm beams

Wet fibers (leaf)

Red sand / ~~black sand~~ <sup>spec. int.</sup> from earth chaff

Red sand / mixed with seed casing of  
a local plant called (bur) -

good and  
wet  
10"-12"  
thick

Mixture called (Boghul) holds together  
like cement but never cracks in  
the heat of the sun.

Ali Omar claims that this way of  
building is much better than the old  
way of building.

Over Boghul put dry layer of  
some sand (ramel) - then spray with  
water after dry pounded down with  
Boghul & holds

TAPE # 1. (with Ali Omar)

A Side

50-0 Stone-cutter cutting in someone else's orchard gets 10 <sup>he</sup> ~~of\*~~ ~~2\*~~  
the stone is more valuable beco's - - - the palm

get rid of the stone by yr 2 year on then start growing palms.

60-0 arabic. on roof construction. (or wall?)

62-0 English. Each stone is set du. The stone is a little bit thicker. Roof as it was built in the old days

Side B

42'-0. 'The Lime-stone room seems to be blocked up' <sup>which</sup> on room to study Arabic -

"big difference betw. new room and old. Limestone & clay plaster needs 1-2 months to dry. Even mud-brick. (Omar)"

48-00 Old sys. of <sup>roofing</sup> ~~making~~ Ahmed's house: cannot get the special kind of palm <sup>for biomass supply tree</sup> or <sup>the clay</sup> to cover - both in the hills. not grown anymore.

13-Nearby for Green

wood bro't from Dubai. There's just not eno' of palms for the housing need now. Used only in special circumstances. A tree with alot of small branches - most useful thing is the small branches (why?) palms v slow growing. ~~fast~~ Vaulting in old mosques. Limestone more difficult to vault. But could use all sizes of stone, to vault. [Mothercat ~ Vault sys. is extravagant - rec. pretty good?

\* 'The stone cutter gives 1 in 10 stones to land owner' 'stone more malleable as softened by irrigation & roots of trees' (source 'Salla Pla - Lime-stone Quarrying')

TAPE I. Side B

But in 1 yr. should dry up.  
 Abu's notes 2000 agals shit over 4 acres fertilised.  
 dumping by trucks.  
 Controversy with Halverson. not thing to do.  
 Royal Engineers say its fine.  
 Irrigates palm groves orchards & vegetable patches. No scruples against using as fertilised.  
 Trucks take sewage from septic tanks empty at the Falaj/well head.

TAPE II.

B-side.

35'-0" with Sh. Awal. (Arabic + occas TransArab.)  
 It was Barasti now stone. Timber from Dubai.  
 10'-0" Palm tree needs to be 100 yrs. old before it is really strong.

Each beam costs 3 Rixls. Dubai. Dhah.  
 3" x 4" x 12'  
 used for ceiling.  
 How much timber for 1 Rm.  
 at least 15 beams for 23' x 10' Room.

Ali Ibn Abdullah.

Stone - 100 costs 25 R. - 10" x 8" roughly.  
 100 — 16 R. 16" x 8" Cem. Block

42-0 Stone better beco's its v. strong & can be reused. Also climatically better.  
 \* For mortar: just only sand, after bldg finished use cement plaster then more on top of this.  
 Owners: Hamid Ali.  
 Ali Ibn Abdullah has bldg. material store & delivers.  
 4 yrs. ago it was cheap to bld. but no bond given under sand. Now everyone bldg. 4000 Rixls total cost. Everyone works chips in. Gets 45-60 R. ones.

OMAN REPORT.

Notes: Sallala. Lime-stone cutting  
Machine: (26.10.73.)

Machine Type. FAS/TR. ERAUDO  
BAROFOZ. TERNI (RIVO)  
VOZABOLO BRECCIAOLO. (150-151)

Vertical & horizontal cutting.  
Vertical cuts upto depth of 30 c.m.  
Horizontal depths upto 25 c.m.  
Use horizontal blades for 10 c.m.  
width blocks & over. Less than  
10 c.m. width ~~blades~~ will ruin blocks.

Max. production would be 700 blocks  
per day if all conditions perfect.  
Target seldom reached.

work 12 hrs. @ day.  
On a good site need 10 worker  
+ machine

Hard pebbles/stone ruin machine, particu-  
larly the blade which then needs to be

4 Rooms: Ready - 4 rooms bld.  
in the whole.

80' x 80'.

The owner Hamid is a soldier in  
Riyadh. Gets 30 R = \$12,000.

Not regular assistance from govt. But if  
he writes to Sultan he may get assistance.  
Poor man will get some help maybe.

In Dubai, Bahr. could make big thing.  
with money as everything cheap.  
4 brothers. 1 for CO. Working with  
Hamid. 1 is a welder. CO. pays 75k.  
with overtime.

House will take 25 days if he has  
50-0 money. Otherwise bld as he can afford.

Arabic with owner on housing.

Got Limestone themselves.

Pl. blabs. 1200 R. will cost 5000 R.

for whole house without roof.  
(contradicts above?)

Arabic.

talking of 5200 bin Timour's time.

EXTRACT: LAND & WATER RESOURCES 1973.  
SURVEY: INCEPTION REPORT.  
Halcrow Consultants:  
5yr. Dev. Plan. Dhofar.

CONTENTS:

3. DATA INVESTIGATIONS & PRELIMINARY ASSESSMENT.

3.1. Aerial Photography surveys & Mapping.

1:8,000 aerial map. 1:10,000 received.  
1:50,000 of Salalah plain requested.  
(showing imp. catchments.)

3.2. METEOROLOGY & HYDROLOGY.

Meteorology:

RA rainfall north of Jebel is spasmodic.  
Weather pattern little in common with  
Indian Monsoon.  
Many waterholes drying up. probably  
weather cycle entering dry period.

Hydrology:

absence of any true falaj north or  
south of Jebel - may be due to coarse nature  
of sedimentary cross-tunnelling hazards.  
Virtually no man-made water control. \* exceptions in rebeds.

3.3. SOILS & LAND CAPABILITY.

Majority of coastal plain very stony. In between loamy to clay  
ey sands. max. 25%.  
Only a very small fraction of Salalah plain has  
significant irrigation potential. max. 1,500 hectares.

3.4. WATER RESOURCE EVALUATION.

considerable # of boreholes north of Jebel.\*

Pg 3. doubts 'practability & profitability' of coconut plantation.

Livestock cross-breeding, fattening: Bir Bint Ahmed & Tagah.

CLIMATE. (in 'Salalah' reference)

Ⓟ 4. Means & Extremes. ⑤ Temp. R.H. + W.D. ⑥ Rain Probability ⑦ Av. Ann. Rain.  
⑧ Mthly Rain. ⑨ Ann. Rain.

\* contradiction?

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SURVEY: INCEPTION REPORT.  
HALCROW CONSULTANTS:  
5<sup>th</sup> Yr. Dev. Plan. Dhofar.

3. Data. Investigations & Preliminary Assessment.
  - 3.1. Aerial Photography Surveys & Mapping
  - 3.2. Meteorology & Hydrology.
  - 3.3. Soil & Land Capability.
  - 3.4. Water Resource Evaluation.
    1. Wells Borehole Inventory  
~~Feeding & Man~~