

A PRELIMINARY SURVEY OF THE 'BOULDER ART'
IN THE POWER STATION WADI, HATTA, DUBAI.
STEPHEN GREEN, NOVEMBER 1998.

To: GARY FEUNER
Best wishes
Thanks for 1998

Jan
Stephen Green 12/12/98.

A PRELIMINARY SURVEY AND

RECORDING OF THE

'BOULDER' ART

WITHIN THE ANCIENT

TERRACE VILLAGES IN THE

POWER STATION WADI

NEAR HATTA, DUBAI.

May – November 1998

STEPHEN A. GREEN

1 of 5 copies

CONTENTS

Page no.

INTRODUCTION	1-2
POWER STATION WADI, HATTA - GENERAL DESCRIPTION	3-22
SURFACE FINDS	23-37
INITIAL INSPECTION	38+39-85
GRAVEYARD AREA	40-60
A. THRESHOLD BOULDERS	41-47
B. PICTOGRAPHS	48-54
C. WASUMS	55-57
D. SCRATCHES	58-60
HILL FORT AREA	61-85
A. THRESHOLD BOULDERS	62-66
B. PICTOGRAPHS	67-75
C. WASUMS	76-82
D. SCRATCHES	83-85
THOUGHTS & THEORIES	86-104
APPENDIX - SITES FURTHER UP THE WADI	105-133
A. TERRACED FIELDS	107 + 112-113
B. BORDER POST	108 + 114-115
C. CAIRN BURIALS	108 + 116-119
D. MOTHER GODDESS	109 + 120-133
REASSESSMENT	110-111
"IN CLOSING"	134-139

INTRODUCTION

INTRODUCTION

The stone buildings and associated rock carvings (possibly better described as **'BOULDER ART'**), were found by accident during a visit to the POWER STATION WADI, near Hatta for an investigation into the wadi's freshwater mollusca by Stephen Green, Gary Feulner and Adam Green in May 1998.

The largest sections of interest found so far are bisected by the wadi into three main areas that we have called;

1. **"GRAVEYARD" AREA.**

This includes around forty small graves, stone buildings and 'BOULDER ART' on large stones.

2. **"HILL FORT" AREA.**

This is the largest single area and includes dozens of stone buildings, some quite large, along with two or three sections dedicated to 'BOULDER ART' and also scattered single carvings.

3. **"VILLAGE" AREA.**

There are about fifty small to large buildings. Up to now we have found no rock carvings in this area.

Most areas have small amounts of surface pottery shards, other objects are rare.

There are other areas of a similar nature further up the valley, all of which are smaller in size. These include small terraced fields (?), scattered stones, small mounds of boulders (graves?) and also usually include small numbers of 'BOULDER ART'.

POWER STATION WADI

HATTA

GENERAL DESCRIPTION

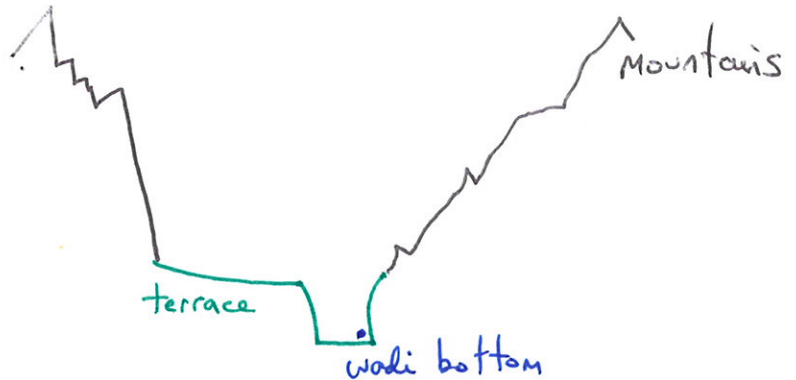
POWER STATION WADI, HATTA

GENERAL DESCRIPTION

Such mountain wadi's can typically be sectioned in to three distinct and different environments;

1. The mountains.
2. The terrace.
3. The wadi bottom.

Sketch:



It is along the thin 'terrace' sections that evidence of ancient mans previous existence is obvious.

The stream within the wadi bottom of our Power Station wadi approaches the area of archaeological interest in an approximately east to west flow, it then does a sharp 90 degree curve and heads off south to north (roughly).

It is around this sharp bend that we have noticed our archaeological sites.

GRAVEYARD AREA

This can be approached by walking along the path that curves its way along between the mountain face and the wadi gorge.

Along this path there are occasional wasums and pictographs and small settlement sites. The most obvious area consists of about 30 to 40 small graves, generally directed north-south, rectangular in shape, perhaps 2 to 4 feet long by 18 inches wide. They seem too small for adults laid out length ways, - buried standing up? Sitting/crouched? Secondary burials (burnt or skeletons?). The stones used are rough, not like the nice rounded boulders used for pictographs etc., Also common are small white stones. The graves have head and foot markers.

There are also a number of medium sized round stone built constructions, some of which include the 'Threshold' stones, and quite a lot of other buildings and constructions. Occasionally pottery is found.

HILL FORT AREA

This is an extremely large and varied area. From a distance it resembles a typical English Iron Age Fort. On closer inspection the protective walls are naturally formed rims of boulders caused by ancient flooding along the terraces.

Central to the site are some very large stone walled buildings. Around the site there are approximately 60 to 80 different types of buildings and constructions (possibly more).

Pictographs occur all over but are frequently found in batches. A few areas have extremely poor quality scratches, carvings and wasums etc.,

Pottery shards can be found in a number of places.

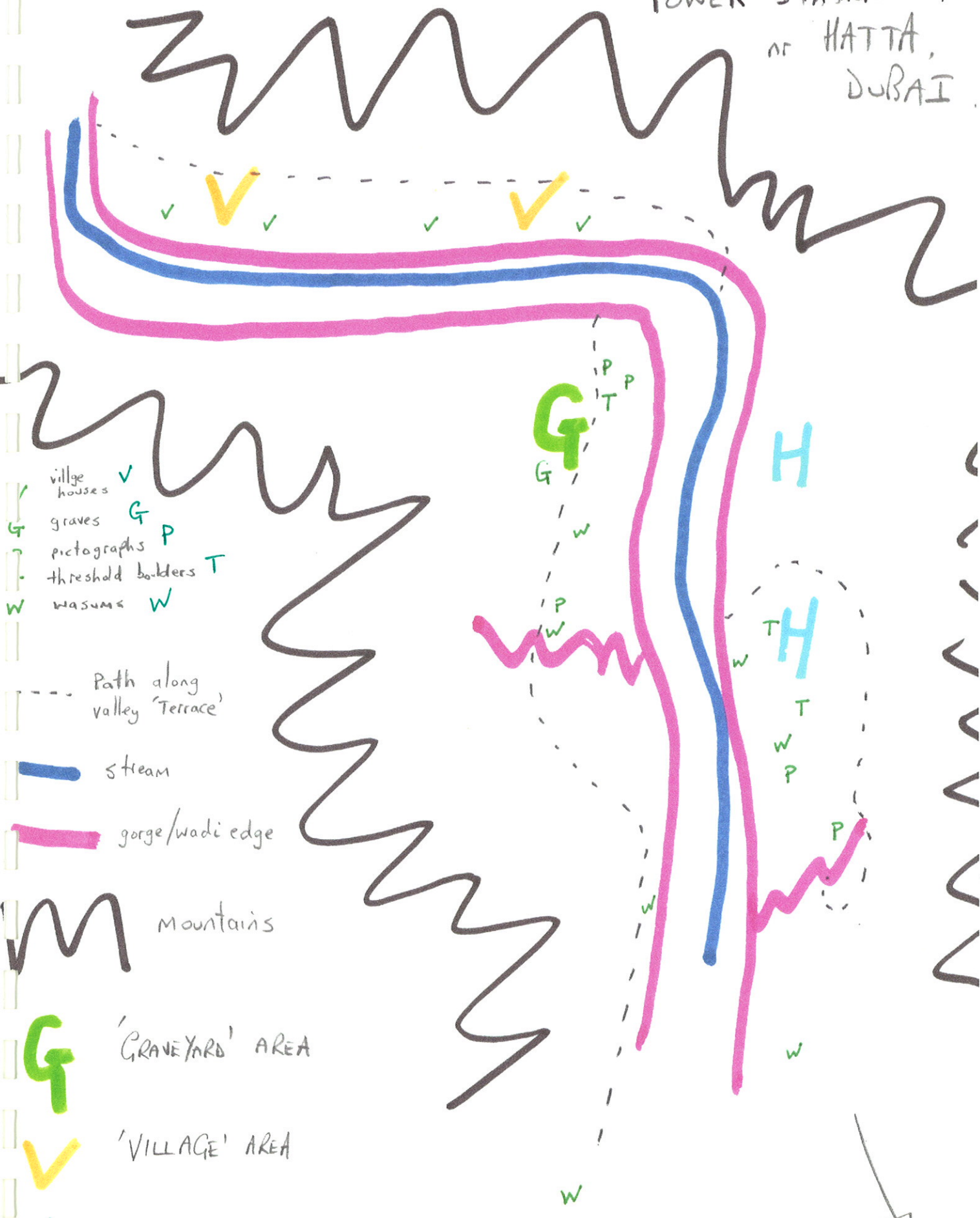
VILLAGE AREA

The stones used appear different, they are more orange (rather than the dark black of other areas). The buildings are often dug in to the ground, with the occasional steps down.

About 30 to 50 such buildings occur, in varying shapes and sizes and out-buildings, in a long line spread out along the terrace edge. **NO** carvings of any sort have yet been found in this area.

ROUGH SKETCH MAP

POWER STATION WADI
OF HATTA,
DUBAI



- v village houses
- G graves
- P pictographs
- T threshold builders
- W wasams

--- Path along valley 'Terrace'

— stream

— gorge/wadi edge

⌞ mountains

G 'GRAVEYARD' AREA

v 'VILLAGE' AREA

H 'HILL FORT' AREA



POWER STATION WADI, HATTA

GENERAL VIEWS APPROACHING THE ARCHAEOLOGICAL SITES

TOP Approaching the 90 degree curve along the wadi bottom.
To the right of the bush is the upper entrance to the Hill Fort area.
Straight ahead and centre is the entrance to the lower part of the Village Area.
At upper left is the gorge edge of the terrace on which the graves occur.

BOTTOM At middle left Adam can be seen travelling along the path leading to the Graveyard area.
On the right across the wadi is the Hill Fort terrace.



POWER STATION WADI, HATTA

GRAVEYARD AREA

TOP Gary can be seen compass in hand, apparently facing north. The graves are therefore orientated north to south.

BOTTOM A general view of some of the graves.

The Graveyard area is roughly rectangular, the main area is perhaps @ 100 metres by 200 metres.



POWER STATION WADI, HATTA

GRAVEYARD AREA

Top & Bottom Close up of some graves.

Small rough stones are used, in a rectangular shape.
Head and foot stones are obvious.



POWER STATION WADI, HATTA

HILL FORT AREA

Top & bottom General panoramic views across to the Hill Fort area.

The lines of boulders can be seen.

The Hill Fort area is shaped like a large square, perhaps 200 to 300 metres to each side.



POWER STATION WADI, HATTA

HILL FORT AREA

Top, middle & bottom

Some of the larger stone structures



POWER STATION WADI, HATTA

HILL FORT AREA

Top A rather rare and unusual broken piece of boulder art. It has been re-used in the wall of a Building.

Bottom Close up of same pictograph showing the unusual style and the combination of both Carvings and poundings.



POWER STATION WADI, HATTA

VILLAGE AREA

TOP A typical building.

It is dug in to the terrace floor, with a step at the entrance.

The boulders are more orange (therefore more recent?).

Pottery can be found in a few areas collected near such buildings.

BOTTOM Some of the larger buildings in the Village area.



POWER STATION WADI, HATTA

VILLAGE AREA

Top & bottom General views along the thin terrace within which the Village area and its buildings exist.

The Village area site ranges from 20 to 60 metres in width and continues along for about 500 to 600 metres.



SURFACE FINDS

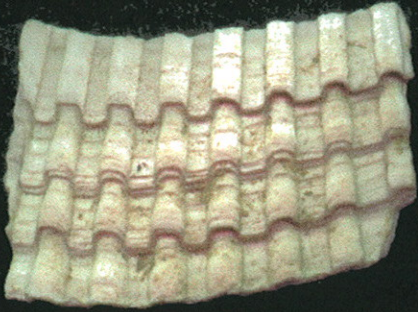
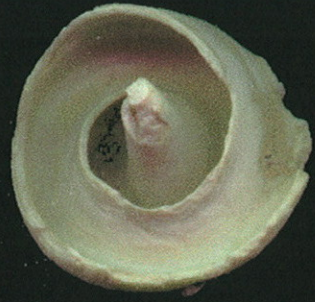
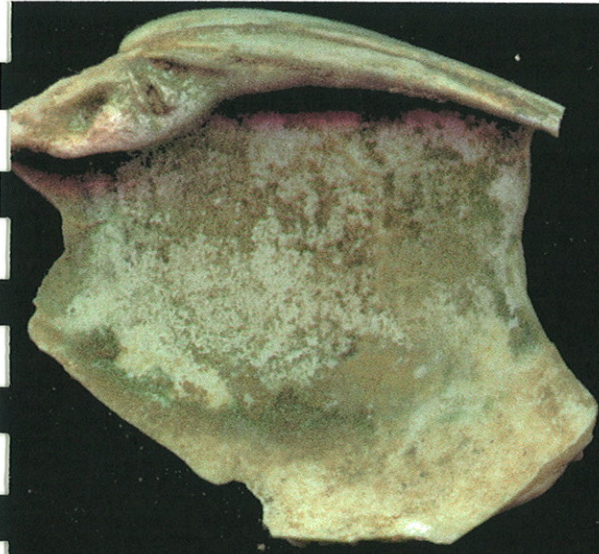
1. SEASHELLS
2. OBJECTS
3. GLASS
4. POTTERY

SURFACE FINDS

1. SEASHELLS

- | | | | |
|-------|---------------|---|--|
| (i) | TOP LEFT: | Broken bivalve, probably <i>Callista erycina</i> .
Interior green, possibly cosmetic holder (?). | h 42mm (broken)
w 46mm (broken) |
| (ii) | TOP RIGHT: | Broken gastropod (apex), probably
<i>Strombus persicus</i> . | h 23 mm (diameter)
w 24 mm (broken) |
| (iii) | BOTTOM LEFT: | Broken bivalve, possibly
<i>Scapharca inflata</i> . | h 21 mm (broken)
w 31 mm (broken) |
| (iv) | BOTTOM RIGHT: | Whole single valve, bivalve, probably
<i>Barbatia obliquata</i> . | h 13 mm
w 27 mm |

All four shells seem reasonably normal Arabian Gulf molluscs. The inclusion of the large Arcidea, *Scapharca inflata* tends to indicate an east coast habitat rather than say Abu Dhabi.



SURFACE FINDS

2. OBJECTS

- | | | | |
|-------|------------|---|------------------------------|
| (i) | TOP LEFT: | Spearhead made from seashell.
Broken edge from a large bivalve, possibly
<i>Tivella ponderosa</i> . | h 39 mm
w 21 mm (base) |
| (ii) | TOP RIGHT: | Clay spindle whorl (?). | 31 to 39 mm
dia. (uneven) |
| (iii) | BOTTOM: | Broken off part of a large pounding stone (?),
blue/black stone (fragment only). | h @ 40 mm
w @ 55 mm |



SURFACE FINDS

3. GLASS

A rather beautiful blue/green glass handle, heavily patinated externally white (or coated?), seemingly complete, probably broken off glass cup (?).

max 75 mm (ignoring curve)

length of 'snake' head fold 21 mm

length of flat base 21mm

minimum handle width 6 to 8 mm (not circular)





SURFACE FINDS

4. POTTERY (A)

(i) UPPER LEFT AND RIGHT

Rather Ubaid-like brown and cream externally.
Internally dirty orange brown.
Grit inclusions visible.

Total measurement both pieces joined together;

max w 85 mm (top)
min w 20 mm (bottom)

h 42 to 50 mm

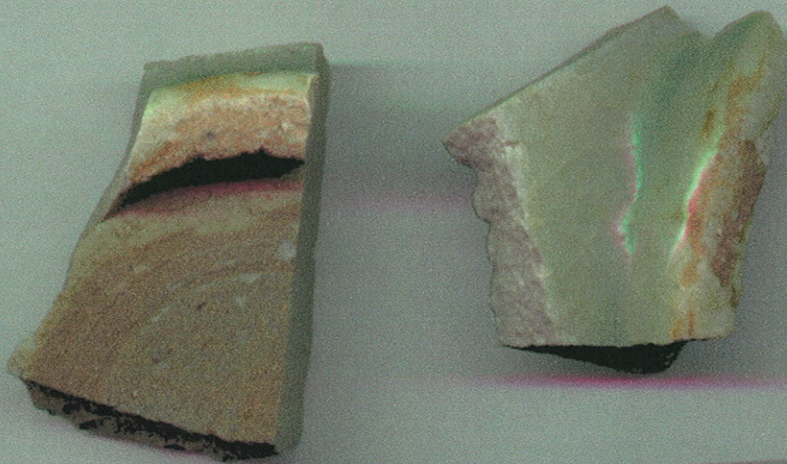
(ii) BOTTOM LEFT AND RIGHT

Two small broken pieces of celadon

L R

h @ 35mm @ 25mm
w @ 20mm @ 17 mm





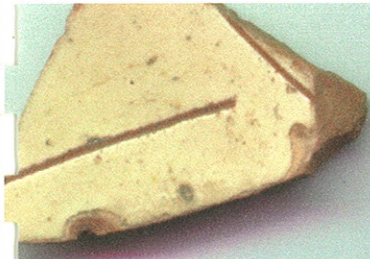
SURFACE FINDS

4. POTTERY (B)

Rather nice 'Sgraffito' (?).

800 to 1300 A.D. (?).

		max h	max w
TOP LEFT:	scratches on cream	34 mm	24 mm
TOP RIGHT:	circles on green	18 mm	33 mm
BOTTOM LEFT:	hatched lines on green	34 mm	32 mm
BOTTOM RIGHT:	hatches on yellow	40 mm	45 mm



SURFACE FINDS

4. POTTERY (C)

'ISLAMIC WARE'

		max h mm	max w mm
TOP LEFT:	red paint on black (?)	28	48
TOP RIGHT:	highly glazed (out & in) dark brown	40	32
BOTTOM LEFT:	base, interior blue glaze exterior cream	40	62
BOTTOM RIGHT:	rim, in - blue/green glaze out - cream	30	56



INITIAL INSPECTION

INITIAL INSPECTION

BOULDER ART

Our initial inspection seemed to indicate four major types of uses;

1. **'THRESHOLD' boulders.**

These are where the art is placed at the building opening (entrance or doorway?), or exactly opposite the opening.

2. **'PICTOGRAPHS'.**

These includes representations of animals, people, objects and articles etc., etc.,

3. **'WASUMS'.**

Tribal or personal identifications, border and path markings, solitary items.

4. **'SCRATCHES'.**

Writing and/or counting (?).

[Note, types 2, 3 & 4 may include Proto-Bedouin, Thamudic and Arabic script.]

No 'BOULDER ART' has yet been found in the terrace called "VILLAGE" area.

'GRAVEYARD' AREA

- A. THRESHOLD BOULDERS
- B. PICTOGRAPHS
- C. WASUMS
- D. SCRATCHES

'GRAVEYARD' AREA

A. THRESHOLD BOULDERS

GRAVEYARD AREA

THRESHOLD BOULDER

Crouching animal, viewed from above.
Possibly a leopard (?).

Boulder opposite to entrance.



Leopard?

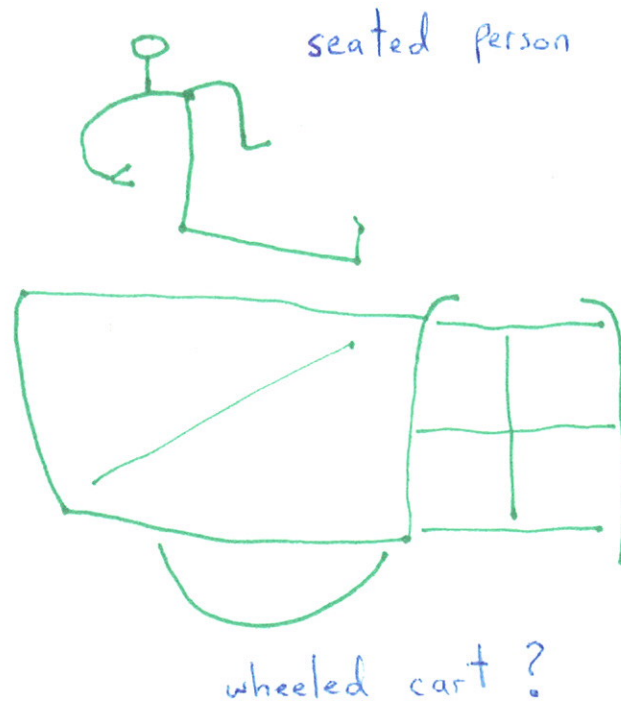


GRAVEYARD AREA

THRESHOLD BOULDER

Possibly a man seated on a
shafted and wheeled cart.

Boulder placed at entrance.





GRAVEYARD AREA

THRESHOLD BOULDER

Single 'Wasum' sign.



Wasum

Boulder placed at entrance.



'GRAVEYARD' AREA

B. PICTOGRAPHS

GRAVEYARD AREA

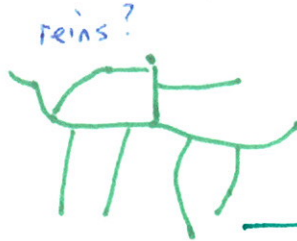
PICTOGRAPHS

TL Horse rider with reins.



horserider

TR Horse rider with reins. Plus ground marked?



horserider

ground or wasum?

ML Moon, scorpion and sun.



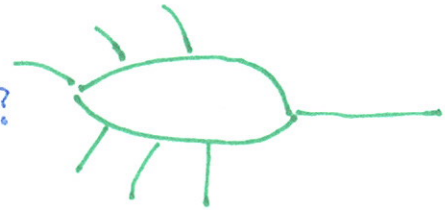
MOON

scorpion

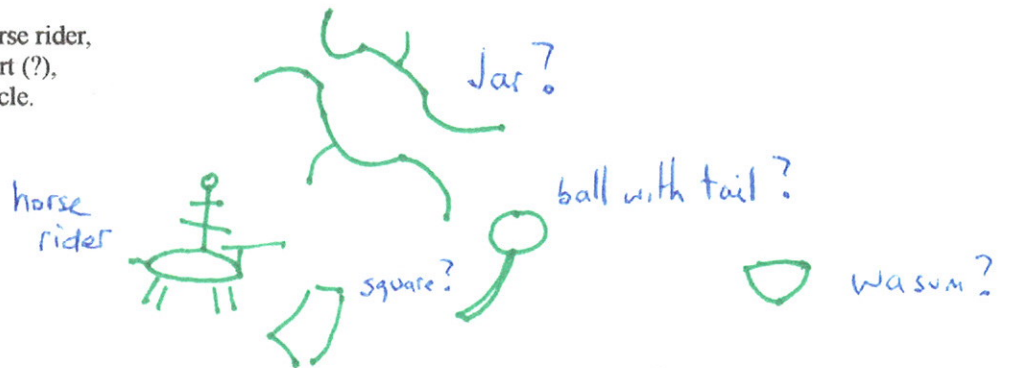
SUN

MR Water scorpion (insect) or boat with oars?

water scorpion?
(common wadi water insect)



BL Vessel/jar(?), horse rider, horse pulling cart (?), ball with tail, circle.



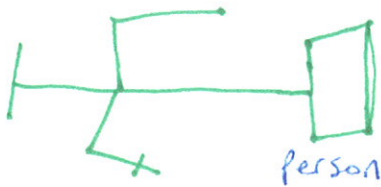
Jar?

ball with tail?

wasum?

square?

BR Person, circle and bull(?)
DIFFERENT style.



person



circle/wasum



BULL?



GRAVEYARD AREA

PICTOGRAPHS

TL Mother and baby (?).



mother and baby?
(abstract?)

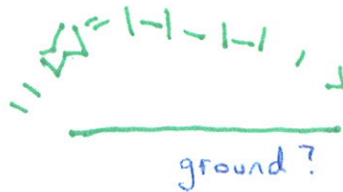
TR & MR Two broken parts of one boulder.
Boat (?), or flag (?).



sail?
boat?

ML Abstract or hedgehog (?)

(abstract?)



hedgehog?

B DIFFERENT STYLE.

Whole boulder used and larger bold carvings.

Horse rider, person (?) and signs (?).

DIFFERENT
'WHOLE' BOULDER approach

horse-rider



person on animal?



GRAVEYARD AREA

PICTOGRAPHS

Top & Bottom are the same pictograph.

Dancing man with 'extras'.



Dancing
MAN!



'GRAVEYARD' AREA

C. WASUMS

GRAVEYARD AREA

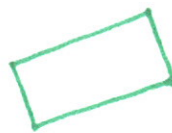
WASUMS

TOP Solitary wasum on path
at entrance to wadi.



boundary/path
marker

M Wasum on path at
break in pathway.



boundary/path
marker

B Wasum next to path.



path marker



'GRAVEYARD' AREA

D. SCRATCHES

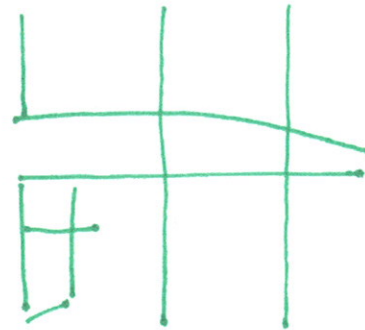
GRAVEYARD AREA

SCRATCHES

TOP DIFFERENT

'Scratched' in technique. (i.e. not like normal dots).

Possibly a 'tally' chart (?).



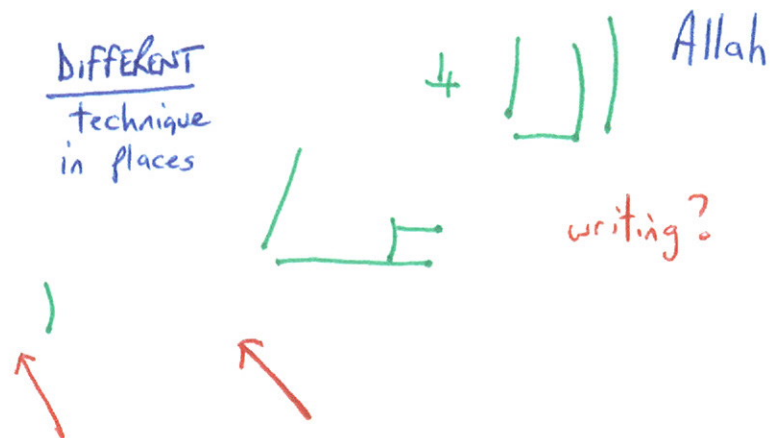
Counting chart?

DIFFERENT
technique
'scratched' in

BOTTOM DIFFERENT

Includes Arabic writing (?) - ALLAH

Surface also includes many thin scratches
Possible defacement (?).



DIFFERENT
technique
in places

Allah

writing?

includes many
thin surface scratches



'HILL FORT' AREA

- A. THRESHOLD BOULDERS
- B. PICTOGRAPHS
- C. WASUMS
- D. SCRATCHES

'HILL FORT' AREA

A. THRESHOLD BOULDERS

HILL FORT AREA

THRESHOLD BOULDER

Complicated design,
unusual style.

Hairy animal (?) + person (?)



hairy animal (?)

person (?)

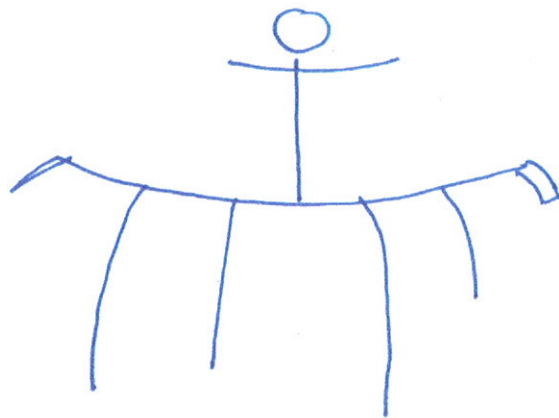
slightly different style



HILL FORT AREA

THRESHOLD BOULDER

Happy person balancing
on horse (no reins).



person on horse
balancing, no reins.



'HILL FORT' AREA

B. PICTOGRAPHS

Sun



rider?



CAMEL

HILL FORT AREA

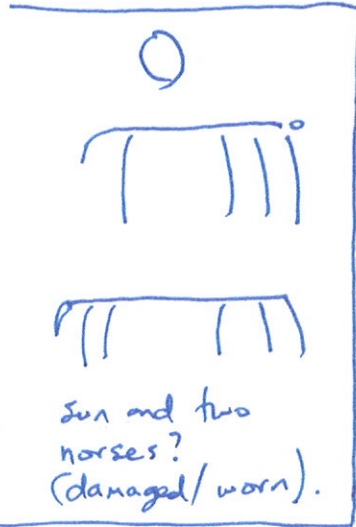
PICTOGRAPHS

slightly different style



Soldier with shield and sword?

TL Sun, camel, person, stick person & snake (?)



stick person and snake?

TR 2 horses. (?) worn/damaged



Sun and two horses? (damaged/worn).

BL DIFFERENT style- lightly applied & full person.

DIFFERENT Lightly applied Full body.

Screaming djin (?) [spirit/ghost]



djin

BR 'Viking' long ship



'Viking' style long-ship?

Sail?

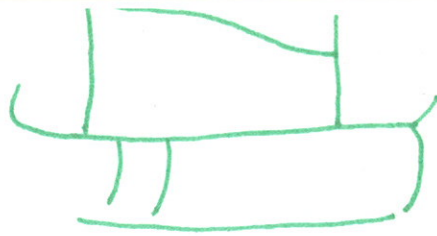
mast or person?

Prout/figurehead?



HILL FORT AREA

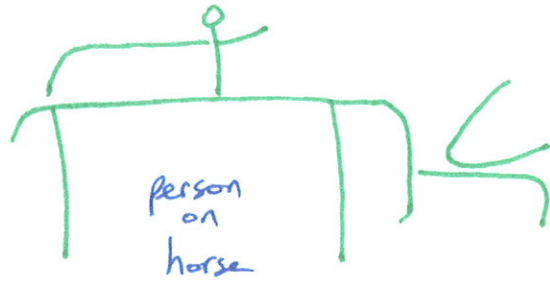
PICTOGRAPHS



boat and sail
(junk or dhow?)

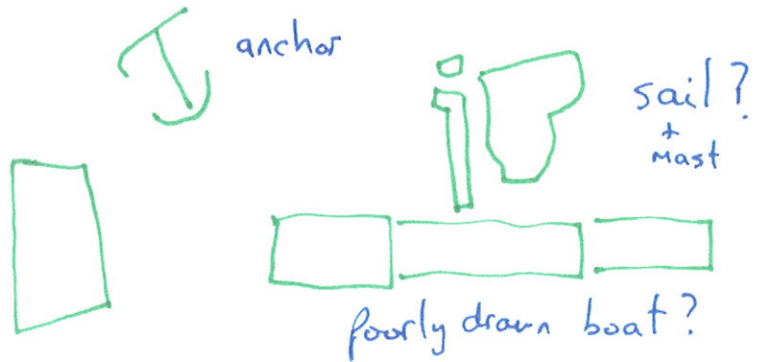
TL Chinese junk
(or dhow?)

different style



pulling
plough?

TR Horse with rein
(slightly different style)
+ pulling plough (?)



anchor

sail?
+ mast

ML Boat and anchor.

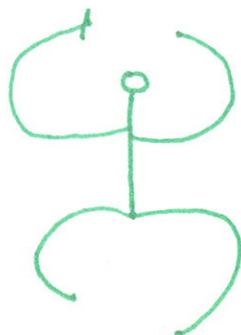
fourly drawn boat?

MR Animal with curly tail (?)
(cat ?)

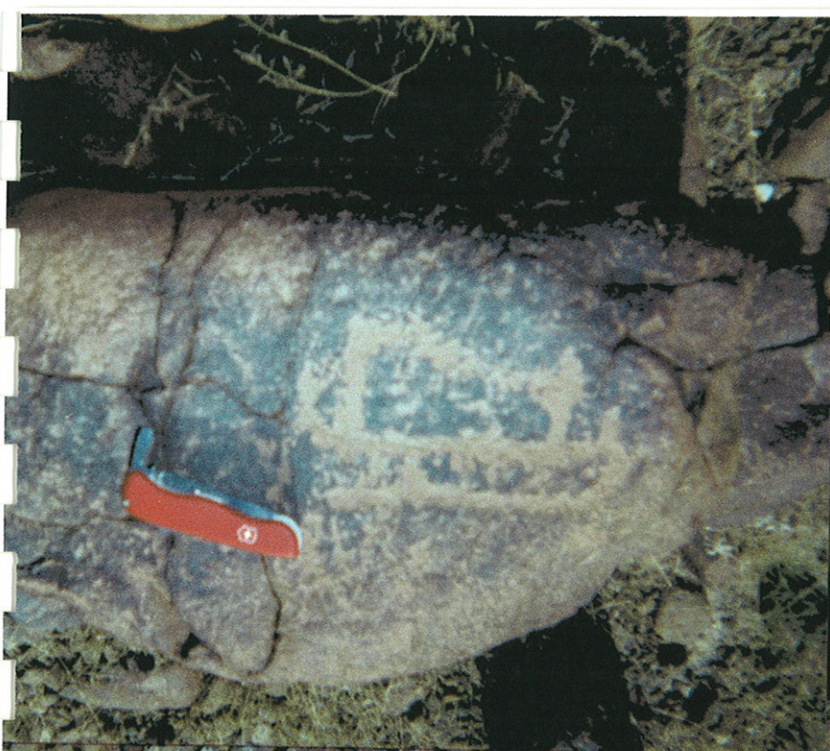


possible animal
with curly tail?
cat / scorpion ??

B Monkey !!



dancing monkey.



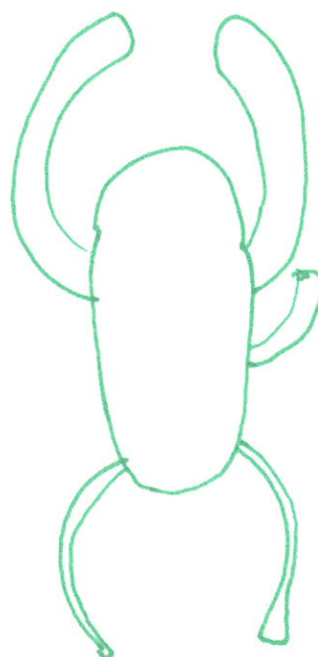
HILL FORT AREA

PICTOGRAPHS

Top and bottom are the same pictograph.

FROG

Paced near the edge of an extension to the normal area, at the extreme limit of the site.



'Jumping
'TOAD'



HILL FORT AREA

PICTOGRAPHS (??)

There are in some areas boulders on which rather meaningless dots, dashes, scratches and shapes occur.

Some boulders are chipped allover, with no apparent pattern.

Are these possibly practice stones? or perhaps even school yards ??



'HILL FORT' AREA

C. WASUMS

HILL FORT AREA

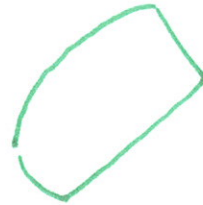
WASUM'S

upside-down eee



TL 'e'

TR Rectangle



bad rectangle

ML Scorpion/'Y'

'Y' or scorpion



MR 'V'



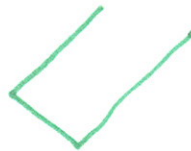
vee



square + dot



BL 'U' or 'C'



c/u or box?

BR Broken 'M' (?)



broken 'M'



HILL FORT AREA

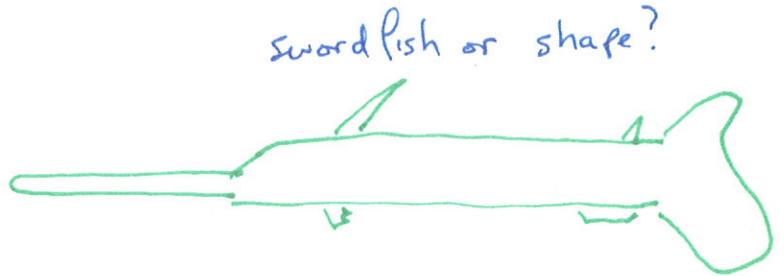
WASUM'S

TL Wasum or shapes (?)



shape or wasum?

TR Wasum or lizard/fish (?)



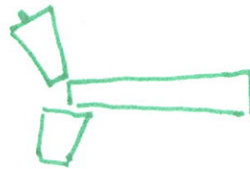
Sword fish or shape?

ML Wasum or bad rectangle (?)



bad rectangle

MR Possible 'T' or 'Y'



bad 'Y'

BL Bad rectangle (?)



wasum?

BR Bad 'C' or shape (?)



wasum?



HILL FORT AREA

WASUMS (?)

 morse code!

TL dots and dashes

TR circle and scratches



ML dashes



MR 'U'



BL dots together



BR possible shape/letter (?)





'HILL FORT' AREA

D. SCRATCHES

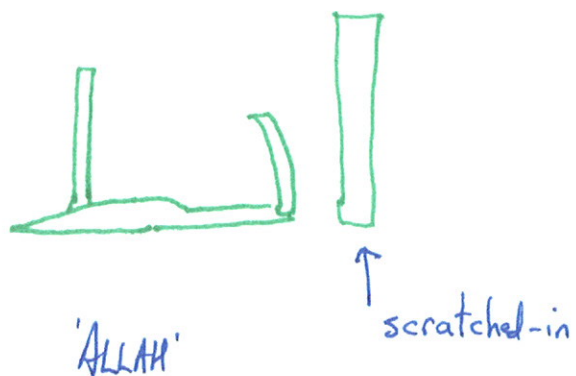
HILL FORT AREA

SCRATCHES

Arabic writing.

'ALLAH' stone.

Partly scratched in (A)- or defaced (?)





THOUGHTS & THEORIES

THOUGHTS & THEORIES

1. AN ANALYSIS OF THE BOULDER ART FOUND

No.	type	description1	desc. 2	desc. 3	desc. 4	desc. 5	desc 6
1	AW	leopard ?					
2	PO	person	& wheeled cart				
3	W	C					
4	PA	person	& reined horse				
5	PAW	person	& reined horse	line			
6	AO	moon	scorpion	sun			
7	A	insect					
8	AOW	vessel?	Horse rider	ball & tail	square	circle	animal & plough ?
9	APW	person	bull ?	circle			
10	P	mother ?	baby?				
11	AP	horse ?	rider & flag?				
12	A	hedgehog?					
13	AP	person	& reined horse	animal?			
14	P	nude man					
15	W	W					
16	W	rectangle					
17	W	U					
18	O	tally chart?					
19	R	Allah					
20	AP	bull?	Person?				
21	AP	person	& horse NO reins				
22	OAP	sun/ball?	Camel & rider?	soldier?	Snake?	& Person?	
23	A	horse?	Horse?				
24	P	Djin?					
25	O	ship					
26	O	ship					
27	APO	person	& reined horse	& plough?			
28	O	ship	& anchor				
29	A	leopard?					
30	A	monkey					
31	A	toad					
32	X	markings					
33	X	markings					
34	X	markings					
35	W	e					
36	W	rectangle					
37	W	y					
38	W	v	square	ball			
39	W	C					
40	W	broken M					
41	X	shape?					
42	X	possible fish?					
43	W	bad rectangle					
44	W	bad Y					
45	X	bad square?					
46	W	bad reverse C?					

47	W	dot dash dash
48	O	ball/sun?
49	W	dash dash
50	W	bad U
51	X	crowded dots
52	X	shape?
53	R	Allah

A= animal
 W= wasum
 ?= best guess
 X= no idea
 O= object
 P= person
 R= writing
 &= joined together /treat as one

What can these boulders tell us?

Our initial inspection has found 53 individual boulders.
 Disregarding errors, this can be broken down as follows;

Boulders	containing no of Individual carvings	approx total carvings
41 x	1	41
7 x	2	14
3 x	3	9
1 x	4	4
1 x	6	6
	total=	<u>74</u>

Therefore most pieces of boulder art have one message.
 I assume this signifies it is for an individual person.

Some are more complicated.
 I assume these are for some form of special occasion/event, a message,
 or a group (tribal/village) relationship.

Individuals were therefore either important in their own right, or had something important to tell other members of the same community.

ANIMALS

D= domesticated

W= wild & local

E= 'exotic'

W	leopard ?	2
D	horse (& rider)	7
D	horse	3
D	horse & plough ?	1
W	scorpion	1
W	insect	1
D	hairy animal (&person Plough)	2
D	bull	1
W	hedgehog ?	1
D	camel (& rider)	1
E	monkey	1
W	toad	1
W	fish ?	1
W	snake ? (& person)	1
	Total	<u>24</u>

Domesticated = 15

Wild/local= 8

Exotic= 1

Domesticated and farm animals predominate, with the reined horse taking pride of place. (where did the horses come from? Were they used in the mountains? Or seen on travels?)

Only one camel has been found. Does this indicate a lack of relationship with the desert?

Many of the animals (horses, camel & hairy animal) are associated with humans.

Why are there NO goats, sheep or dogs ?

Local wild animals are also quite important.

Why are there NO clear snakes (vipers), eagles, owls, butterflies, gazelle or tahr etc.

The monkey could come from a variety of places e.g. Yemen, East Africa or India.

PEOPLE

S= single figure
C= coupled with something

C	on cart	1
C	with bull/hairy animal	2
C	on horse	reined 7
C		no rein 1
C		+ plough 1
C	mother & baby ?	1
C	soldier & sword (in pictograph)	1
C	+ snake (in pictograph)	1
S	nude man	1
S	djin	1
C	on camel	1
	Total	<u>18</u>

People appear to be mainly associated with (or only important with?) other items, mainly domesticated animals. Is this a sign of wealth or power?

Features or detailed bodies are rare, e.g. hands, feet, eyes or hats. The man on the cart has hands and feet. The nude man has 'normal' genitals. The mouth is possibly shown in the djin (a screaming spirit?).

Are negatives important?

There are NO sexual acts
Phallic symbols/exaggerated genitals
Women (large bottoms/breasts)
Hunting scenes (e.g. horse rider and spear, bows & arrows)
WAR/killing (one possible soldier with shield and sword)

The pictograph that includes three possible humans I would interpret as a warning sign;
"where the sun shines and the people ride camels there are soldiers with swords and snakes" i.e. = DANGER!!

All in all I would suggest that the overall impression given is one of a peaceful community dominated by domesticated animals.

OBJECTS

M= man made
N= natural

M	boat	3
M	cart	1
M	plough	2
M	jar	1

M= 7

N	moon	1
N	sun/ball	4

N= 5

Total objects 12

Farming and the Sea predominate.

The boats are rather special. Where would the local port have been located ?

Certain objects like weapons and houses are missing.

MISCELLANEOUS ITEMS

Writing (Allah)	2
Tally chart	1
No idea	8

SUMMARY

ANIMALS	PEOPLE	OBJECTS	WASUMS	WRITING	MISC
24	18	12	20	2	9

On the assumption that we have not found all the pieces of boulder art, this analysis of the site should not be considered as definitive.

It would seem that animals (especially the reined horse being ridden), individual wasums and people (schematic) are the centre of attraction.

With reference to other sites I have seen in the UAE there seems to be a comparable lack of; Snakes (esses) , feet and phallic symbols.

The wasums will be dealt with in more detail in the next section.

2. A PROPOSAL TOWARDS IDENTIFYING THE RELATIONSHIP AND DEVELOPMENT OF WASUMS IN THE POWER STATION WADI

Upon analyzing and reviewing the Wasums at the power station site it became quite obvious that there were certain 'types', and that below and within these types there were also sub-divisions.

I will try to explain my findings and assumptions below.

FULL or DOUBLE WASUMS

These are large 'full' size wasums.
Those find at this site were;

Capital W



Rectangle



Crouching Leopard



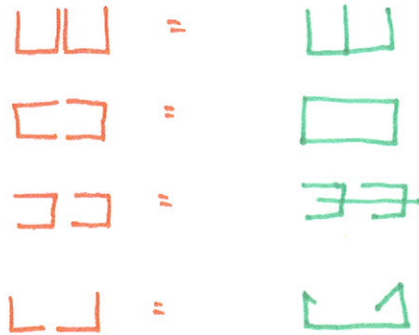
Broken M



Two things are noticeable.

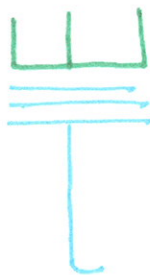
Firstly, the "Double Wasum" is always based around the two capital U's of a capital W.

i.e.



As the W wasum is the first wasum found at the border or entrance to the wadi I would suggest that the W is the 'senior' wasum, and that other wasums are subsequent or socially inferior.

Secondly, the capital W is discernible within the pictograph of the scorpion;



I would therefore further suggest that the tribe could be labeled "AL-SKORPION", with the ruling family being called bin W.

The double wasums below the W indicate a sub-family of a lower status.

HALF WASUMS

It then became obvious that for every double wasum there also existed an almost exact 'HALF WASUM'.

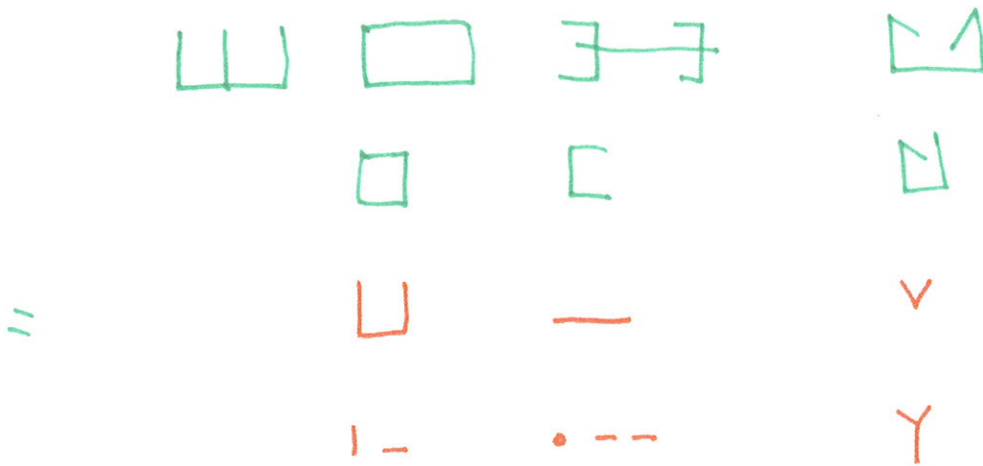


It seems highly probable to me that this signifies a split within the senior family (c.g. too many living descendants, a family member that becomes semi-independent).

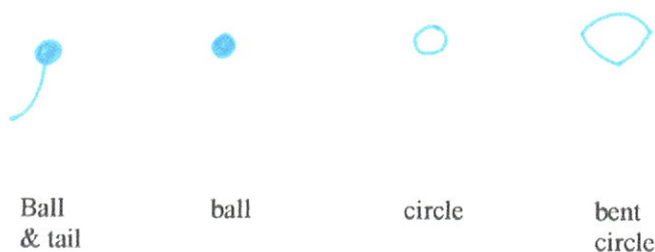
PARTIAL WASUMS

Most of the remaining wasum type carvings are generally smaller than a half wasum and normally fit in to sub-divisions or a diminution of the half wasums.

i.e.



This only leaves a few variations on balls and circles:



These are obviously quite different from the majority of wasum types at this site (although common elsewhere) and may signify natural objects like the sun, moon or meteors, or it could indicate a different sub-group within the village. Possible ideas; marriages, visits, captives, alliances etc.,

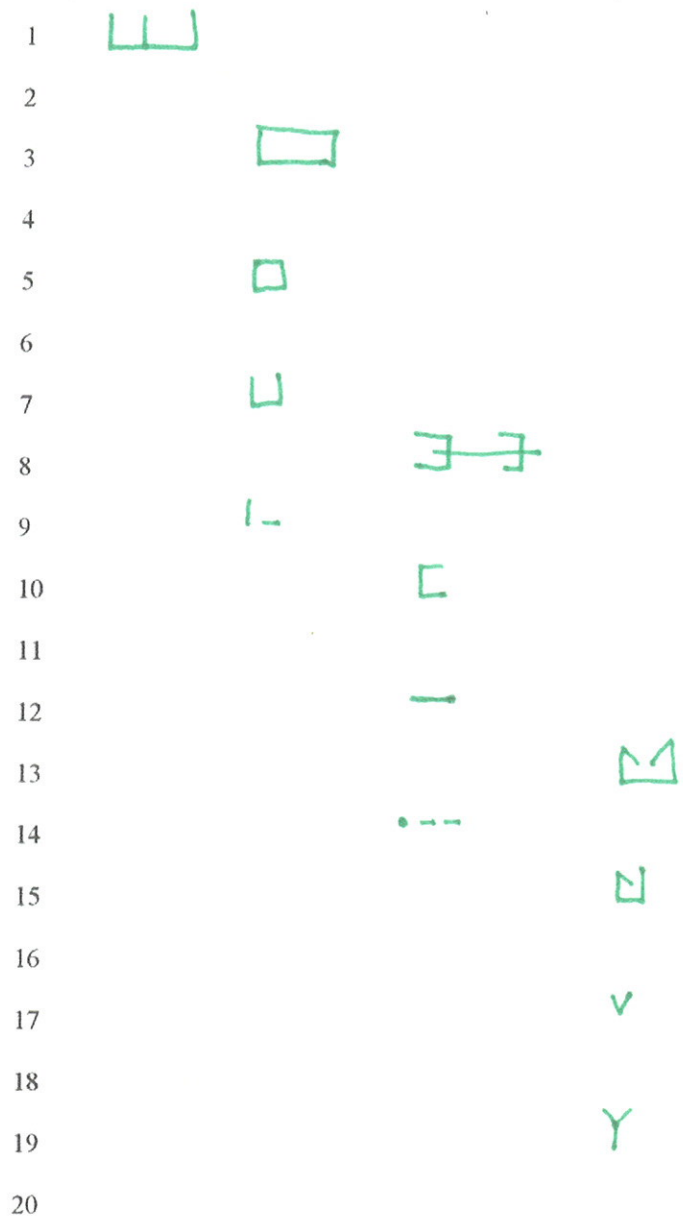
The almost impossible diminution or meaningless reduction below three or four stages may require a new 'family' double wasum to be developed. Population dynamics, population growth, survival rates, economic population sustainability (i.e. how much could the wadi and the relevant technology feed) and many other items must have put demands on the identification levels of each family.

I tend to imagine that the royal wasum W would pass down through the first son forever, like a royal insignia or title.

The family double wasum likewise could pass from father to eldest son.

The single wasum would therefore indicate a living grandson or strong surviving second son of either. Partial wasums could therefore show 4th to 5th generations, by which stage a new family double wasum would have been developed and be in use, probably due to population growth.

A GUESS AT THE GENERATIONS INVOLVED;



20 generations at a 30 year average gives 600 years of use.

13 families, with say 2 surviving generations, at a family average of 4 would give a maximum population at one time of 104.

A typical family name;
 y bin v bin c bin broken M bin W Al-Skorpion
 dot dash dash bin line bin c bin crouching leopard bin W Al-Skorpion

Questions;

Where is the obvious M double wasum ?
 The half leopard is missing – C is not a best fit.

THOUGHTS & THEORIES

3. SIGNIFICANT FEATURES OF THE SITE, RELATIONSHIPS, USES, CHRONOLOGY

A. POSSIBLE CHRONOLOGY & AGE OF THE SITES

- (i) The "VILLAGE AREA" I believe is related to the 'RECTANGULAR GRAVES' in the graveyard area, and the rectangular graves are not related to the Threshold Buildings in the same area. I would guess a date of between 600 AD to 1400 AD for the Village Area and the associated rectangular graves.
- (ii) The "ROUND THRESHOLD BOULDER BUILDINGS" I believe are related to the Wasums. I would guess an age of around 500 BC to 1000 AD for the threshold boulders and the wasums. The placement of many of the wasums at borders, on paths, next to buildings and some form of constant in the majority of the designs clearly suggests identifications, warnings/informing and tribal/family associations.
- (iii) The "HILL FORT SITE" has
 - a]. round threshold buildings
 - b]. square village type buildings
 - c]. re-used 'older' (?) boulder art
 - d]. quite modern looking pictures

I would guess an age range between 1000 BC to 1500AD.

The Hill Fort site is not a single period site, but appears to have been used over many years. Different parts of the area are probably contemporary with other areas. The multiple and succeeding periods of use create difficulties in assessing chronology.

B. AGEING CRITERIA USED

Celadon Chinese pottery and the pictograph of the Chinese Junk indicate the period 800 to 1400 AD.

Sgraffito pottery tends to indicate the cross over period between pre and post Islamic times @ 700 to 1200 AD.

The Pictographs and Wasums have an expected range in the UAE of perhaps 3000 BC to 1500 AD.

There does NOT appear to be any really old styles (one possible example in secondary usage).

There are no totally repatinated boulders (some are fading).

I cannot find any superimposed carvings (indicates continuous use without breaks or invasions?).

I personally find it difficult to imagine a use before 1AD.

THOUGHTS & THEORIES

C. SOME POSSIBLE RELATIVE CHRONOLOGY WITHIN THE SITE

The long time period involved in the use of the various sites makes dating and differential chronology very difficult.

- The circular 'threshold boulder' buildings and most wasums are probably pre Islamic. The circular threshold boulder buildings I would guess are defleshing chambers or spirit areas for the laying out period after death.
- The boulder art is related to the buildings in the adjacent area and indicates important cultural and social aspects of the occupants.
- The rectangular graves, the celadon and the sgraffito all clearly indicate slightly pre and certainly post Islamic activity. The site could therefore shed light on the incredibly important period in history around the conversion to Islam of the UAE.
- The placing of wasums as path markers and border indicators is obviously a territorial issue associated with the settlement area and the designs also probably reflect the internal family and tribal ownership.
- Not many stones are re-used or defaced, showing a continued respect or veneration. Following generations and those occupying the site in later periods must have had some indication of the importance of previous meanings and purposes.
- Methods of applications to the boulders differ;
 - Scratching/carving e.g. with a knife or sharp point (these are not common).
 - Rubbing (rare)
 - Pounded or smashed (this is the most common)
 - Within the pounded stones different categories can be established;
e.g.
 - Schematic (human & animal forms),
 - Lack of body features,
 - Use of entire boulder face
 - These categories if studied may indicate the chronological development of certain pictographs and wasums.
- Possible aging pointers;
 - Reined horses,
 - Wheeled cart,
 - Plough,
 - Bull,
 - Chinese Junk,
 - Anchors,
 - Arabic writing,
 - Full body vs. schematic human/animal forms.

THOUGHTS & THEORIES

D. 'EXOTIC' BOULDERS

Especially the boats and monkey.

My son Adam believes that these are related to the tales told by village members who were sent to the sea ports to trade the excess products (skins? cereals?) for other items (ceramics? metals?) and that on their return they would have to describe and/or play act to their family/tribe the story of the most unusual and interesting thing seen whilst away. This would then be recorded by the village artist for posterity (and in some instances cause a good laugh for years to come!).

E. USES

The boulders, pictographs and wasums seem to have had many uses;

1. Tribal, family and personal indicators (wasums), is there a relationship to other UAE sites?
2. Identifier, warning, ownership (possibly also tattoos, brands & engravings?) is there any evidence that suggests an extended use of similar markings on other objects ? e.g. family, animals or chattels ?
3. Messages & proto-writing (proto-bedouin, Thamudic) is it cross cultural to Saudi/Oman?
4. Keepsakes, religious or spiritual meanings (e.g. death, worship & remembrance).
5. Useful - border markers, path markers, warnings & information.
6. Recording – stories of travel, major events (new technologies), natural occurrences, visits by other tribes and alliances.
7. Art for arts sake, beautifiers, pleasant objects.

THOUGHTS & THEORIES

4. FUTURE IDEAS

It seems that there are three major options;

- (1). To do as FULL a survey as possible of the Power Station Wadi, Hatta. Including all the side wadis, terraces, valleys and mountain foothills.

Points against;

- [a] I do not have a detailed map on which to base my plans.
- [b] I doubt I would find anything else of significance, the payback in time spent would drastically reduce.
- [c] It would be repetitive and boring. At around 1.5 to 2 hours walk from the car to reach the more interesting and plausible new areas it is a lot of dead time.

Having said all this it may be worth looking at some of the large plains and terraces towards the mountain range and in the large valleys at the upper parts of the wadi.

- (2). To go THROUGH the mountains west to east to see if the archaeology/wasums extend through the mountain range and to test if the wasum design remains constant/similar.

Points against;

- [a] Which mountain path or final valley/fork do I follow through?
- [b] There may be border/police/visa problems if caught going through in to Oman.
- [c] It is about 3 hours walk to a mountain pass.

It may be worth a quick look.

THOUGHTS & THEORIES

- (3). Go SOUTH TO NORTH along the UAE/WESTERN side of the Hajjar mountain range and try to plot other large unsurveyed wasum sites.

Against; I have got NO idea which wadi's to look at and it is a massive area.

However, I like this idea.

I have found an **extremely** large boulder art site near Masafi, which I cannot find described in the literature. On initial investigation it seems to have between 100 to 150 boulders with carvings. Some are totally repatinated and there is also superimposition. There are also **MAJOR** differences to Hatta, in both the pictographs used and wasum designs.

I would estimate that for safety's sake ancient villages would place themselves around 20 to 30 kilometres apart i.e. to avoid a short sharp raid from a neighbours village.

Therefore if I take Masafi as my northern terminus and Al Wasit as my southern terminus I would expect there to be around 4 to 5 big unsurveyed sites to find.

Probable requirements for a large site are;

- terraced valleys
- almost permanent flowing water
- an east to west mountain pass

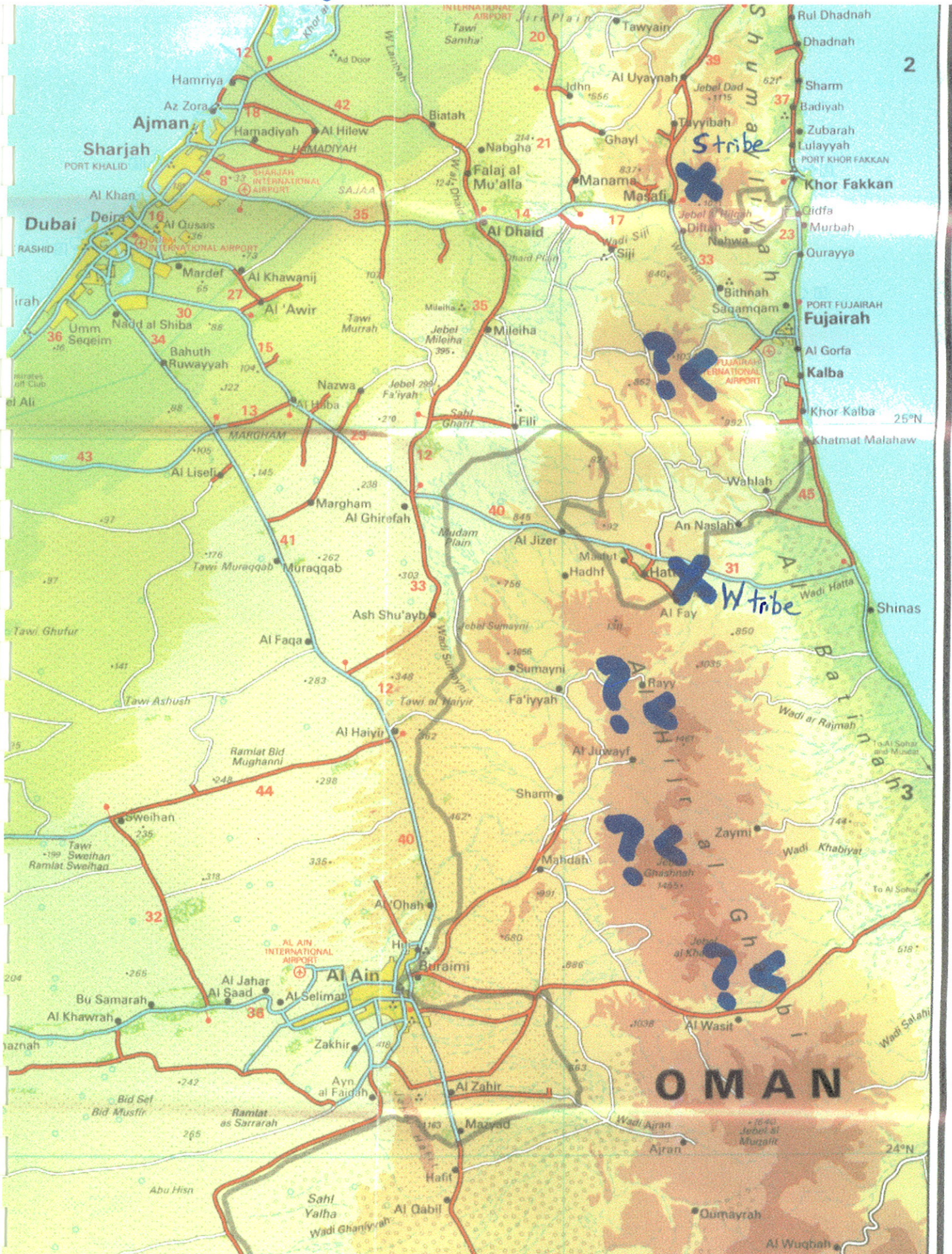
Questions?

Will the wasums overlap – north to south?
&/ or west to east?

Do the wasums and their possible similarities show ancient tribal affiliations?

X = known large sites

? = suspected



THOUGHTS & THEORIES

(5) CURRENT PLANS

- [A] To do a similar preliminary survey and report on the Masafi sites.
- [B] I will then try to do a north to south review of possible locations on the western side of the Hajjar mountain range. (Ask Gary to help with the planning).
- [C] It may be worthwhile to try the occasional west to east survey when I obtain an Omani multiple visa. (Ask Peter Hellyer to see if Dr Potts will give some advise on what to look for and how to record it).

APPENDIX –

SITES FURTHER UP THE WADI

December 1998

APPENDIX –

SITES FURTHER UP THE WADI

- A. TERRACED FIELDS
- B. BORDER POST
- C. CAIRN BURIALS
- D. MOTHER GODDESS

REASSESSMENT

APPENDIX

SITES FURTHER UP THE WADI

In mid November 1998 I decided to ascend the wadi from the known sites and go up to the mountains (@ 5 kilometres) and do a quick survey on the way, just in case there was anything of obvious significance. The findings of this brief visit are covered in the following pages. Unfortunately due to intensive work pressures I cannot give these extra findings the attention they deserve. However, I hope the enclosed will give some idea of what lays upstream and it's possible meanings.

The quick trip up wadi has I believe been worthwhile, but it has also added a lot of further potential work to my initial studies in this wadi – just when I thought it was near completion.

A. TERRACED FIELDS

These are placed on the side of a small cleft in the mountains just opposite the upper end of the Village Area. The stones are rough and there appears to be no associated boulder art or carvings. The fields (?) are normally around 10 to 15 feet square/rectangular, with flat, small, walled-in leveled areas internally.

I would guess that they are associated with the Village Area dwellings, or even more recent.

B. 'BORDER POST'

About 1.5 to 2 kilometres up the wadi from the first areas I decided to investigate a reasonably small terrace.

There are a few unnatural looking stone arrangements (not unusual in these areas – hunters, campers, soldiers and fireplaces etc.,).

Then I spotted what I have taken to be a **"BORDER POST"**, between the lower wadi 'W' tribe and the upper wadi 'M' tribe.

The boulders and carvings are placed in such a way that the W and M face in the appropriate opposite directions.

Is it a warning ?
Is it an alliance?
Is it for information only?

I believe that it is a clear warning. The upside down animals under both the W and the M indicating that animals which stray over this border point will be killed.

It also fills in the missing M (inverted W) noted earlier, and possibly expands the full wasum theory and tribal groupings mentioned before.

C. CAIRN BURIALS

About 4 to 5 kilometres further up from the original sites is a medium sized terrace on a wadi fork, upon which, as normal, there are natural rows of boulders. However, within these rows are about 20 to 30 small (from 2 to 4 feet long and 1 to 3 feet high) oval cairns of boulders (they are quite difficult to spot).

Most are badly damaged, one seems to be intact.

Some seem to have internal structures and a small arched opening.

Are they old fox traps? (if so why are they all located on only one terrace?), or is it a small burial site?

I have found a small number of items of boulder art (there are not many in the immediate vicinity of the stone cairns).

Duplication of the crouching leopard from the threshold building in the graveyard area 5 kilometres away occurs!

The terrace opens out and continues right to the mountains around 1 to 1.5 kilometres further way. Possible stone structures can be seen, I have not gone to look. Paths through the mountains are also visible and may be worth a trip.

D. MOTHER GODDESS

I looked at a couple of small to medium sized terraces near the cairn burial site without any success. About 300 metres away I noticed some possible stone structures on a small terrace near some trees. On investigation there were 8 to 10 quite large stone buildings and structures.

I was initially disappointed as there appeared to be no carvings or wasums and I thought I would have to report buildings without pictographs and boulder art. Then I started to notice the carvings. Some are very faded, some seem to be repatinating (older than most?), some are lightly scratched, and there are a few that are significantly different from the lower areas of the wadi.

Once again the valley opens up and there are large areas yet to investigate.

There are a series of older looking wasums and carvings near to the buildings, and there is another series of carvings about 50 metres away (a number of which are on relatively smaller boulders than normal).

The most wonderful pictograph is the **Mother Goddess** complete with breasts. The half wasum that exactly fits the crouching leopard and finally some of the expected feet were both hoped for additions.

REASSESSMENT

There are some extremely significant differences.

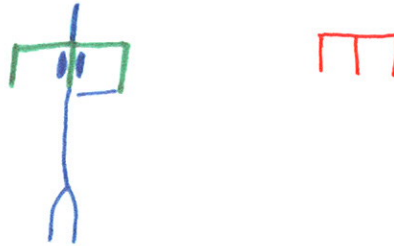
More realistic

Feet are present, a possible branded full bodied animal occurs, a ~~fuller bodied~~ running action man can be seen, and there are lightly scratched in full wasums.

Along with the faded and repatinating wasums I would tend to think that this indicates an earlier time period than previous areas – say 2500 to 1500 BC (?).

I assume, as the earlier site is upstream near the mountains that the tribes came from the east (Oman), and spread down the valley, probably as the population grew.

The wonderful Mother Goddess I assume is the form from which the tribal letter M is derived;



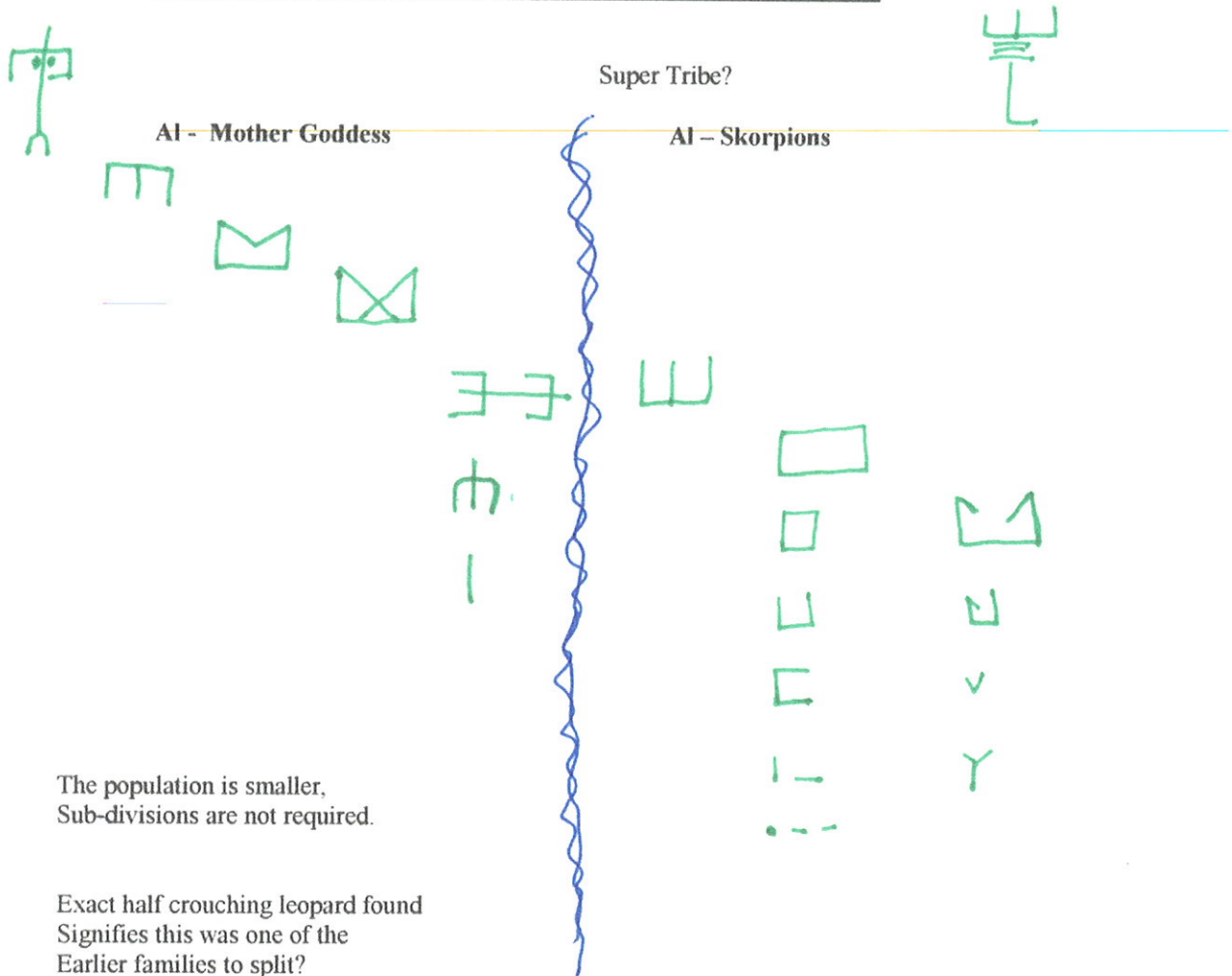
As the population grew it was forced to adopt new full wasums to signify different families. It may indicate that there were fewer surviving family members or generations by the absence of half and partial wasums.

The tribal name I would take to be '**AL-MOTHER GODDESS**' and the ruling family indicator to be the capital **M**.

The M would be senior to all others. It is probable that the inversion to W further down the valley indicates direct decent. It is possible that at first the split was friendly and the W and M's constituted a super tribe, but that later the split in location developed in to enmity, as shown by the border stone. M stayed in the upper valley, the tribe split and W developed in its own right ?

There appears to be no pottery at either the Mother Goddess or Cairn Burial sites. There are some very different wasums and pictographs. A picture of a women exists. The foot and a fuller bodied running man can be seen. To me all these confirm an older period of initial settlement. A number of the wasums are also on smaller boulders, that could easily be lifted up and removed, unlike all the carvings lower down – does this indicate a more transient population that may think it could move, and take its carvings? Or just that the inaccessibility has meant less visitors to pinch the art?

A FINAL ATTEMPT TO ANALYZE THE TRIBAL WASUM RELATIONSHIPS
AND DEVELOPMENTS IN THE POWER STATION WADI



Then the population grew
(c.g. new technology – the plough, damming
the wadi, bulls, horses, new type of grain?),
this required more room so the tribe spreads
down wadi. Initially as an affiliated tribe and
using the same or similar full wasum
designs to signify important sub-clans or
major families.

SITES FURTHER UP THE WADI

A. TERRACED FIELDS

Top & Middle show shots of typical small walled areas.

Bottom; The bottom picture shows a small side valley a little further up the wadi, which has at some time possibly been dammed or has had a very large building of some sort within the bottom of the valley.



SITES FURTHER UP THE WADI

B. BORDER POST

Top; A view from above looking down. Both the M and the W can be seen.

Middle; Close up of the M boulder.

“If your animal wanders past the M stone then it will be killed”

(plus the moon sign?)

Bottom; Close up of the W boulder.

“If your animal wanders past the W stone then it will be killed”

(plus the sun sign?)



SITES FURTHER UP THE WADI

C. CAIRN BURIALS

TL Passages through the mountains.

TR Rows of boulders and cairns.

BL Small cairn.

BR The largest undamaged cairn showing a small entrance with lintel.



SITES FURTHER UP THE WADI

C.
~~D.~~

CAIRN BURIALS

TL & TR Bashed and dotted boulders.

BL Crouched leopard (wasum?)

BR Possibly a horse running over a man (?)



SITES FURTHER UP THE WADI

D.

~~E.~~ **MOTHER GODDESS**

Top & bottom

Quite large stone structures on a small terrace near trees.



SITES FURTHER UP THE WADI

D. MOTHER GODDESS

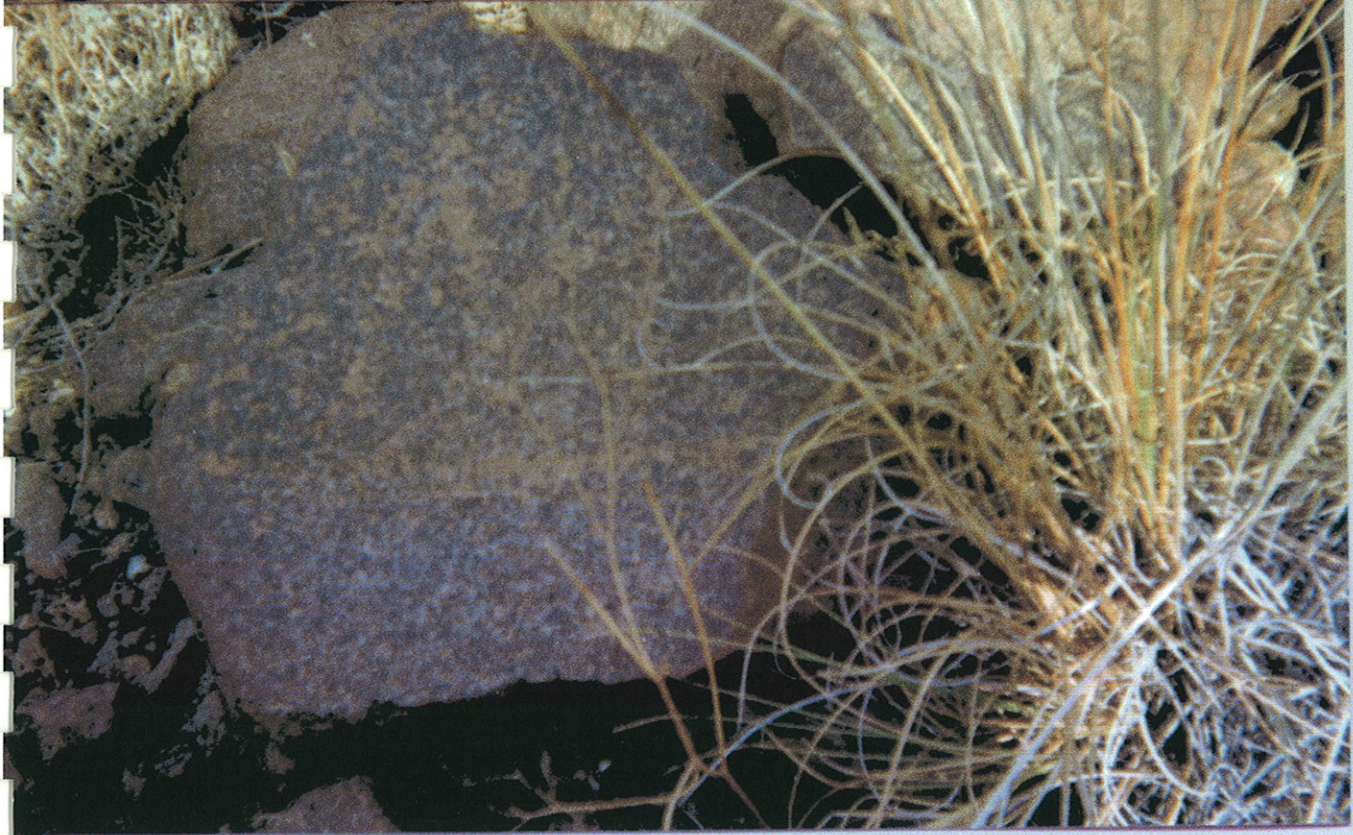
Top An unusual full wasum, a scratched in M (many scratched lines).



Bottom A slightly different M on the next boulder.



Both of the M's are difficult to see.

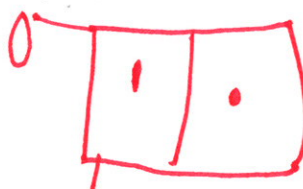


SITES FURTHER UP THE WADI

D. MOTHER GODDESS

Top A very large boulder near the stone structures.

Middle Detail of the same.
A branded sheep?



Bottom Detail of the same.
Encased person?



SITES FURTHER UP THE WADI

D. MOTHER GODDESS

The rather splendid "**MOTHER GODDESS**"



127

SITES FURTHER UP THE WADI

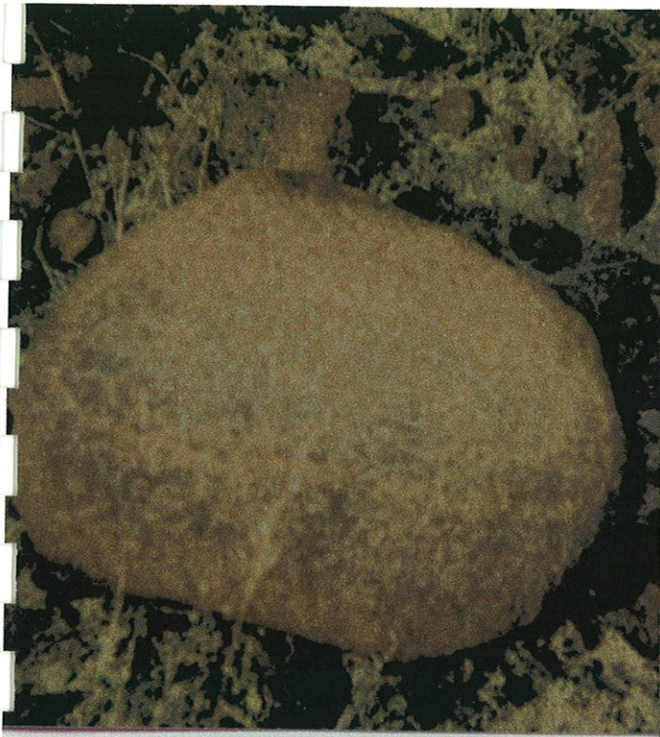
D. MOTHER GODDESS

TL An almost faded foot.

TR A foot

BL a line wasum

BR The missing half wasum, half the crouched leopard (faded/repatinating?).



SITES FURTHER UP THE WADI

D. MOTHER GODDESS

Top & bottom

Some large boulders have very worn/repatinating? Sun bursts or balls.



SITES FURTHER UP THE WADI

D. MOTHER GODDESS

Top	Poor circles.
Middle	Geometric design.
Bottom	Running action man (?)



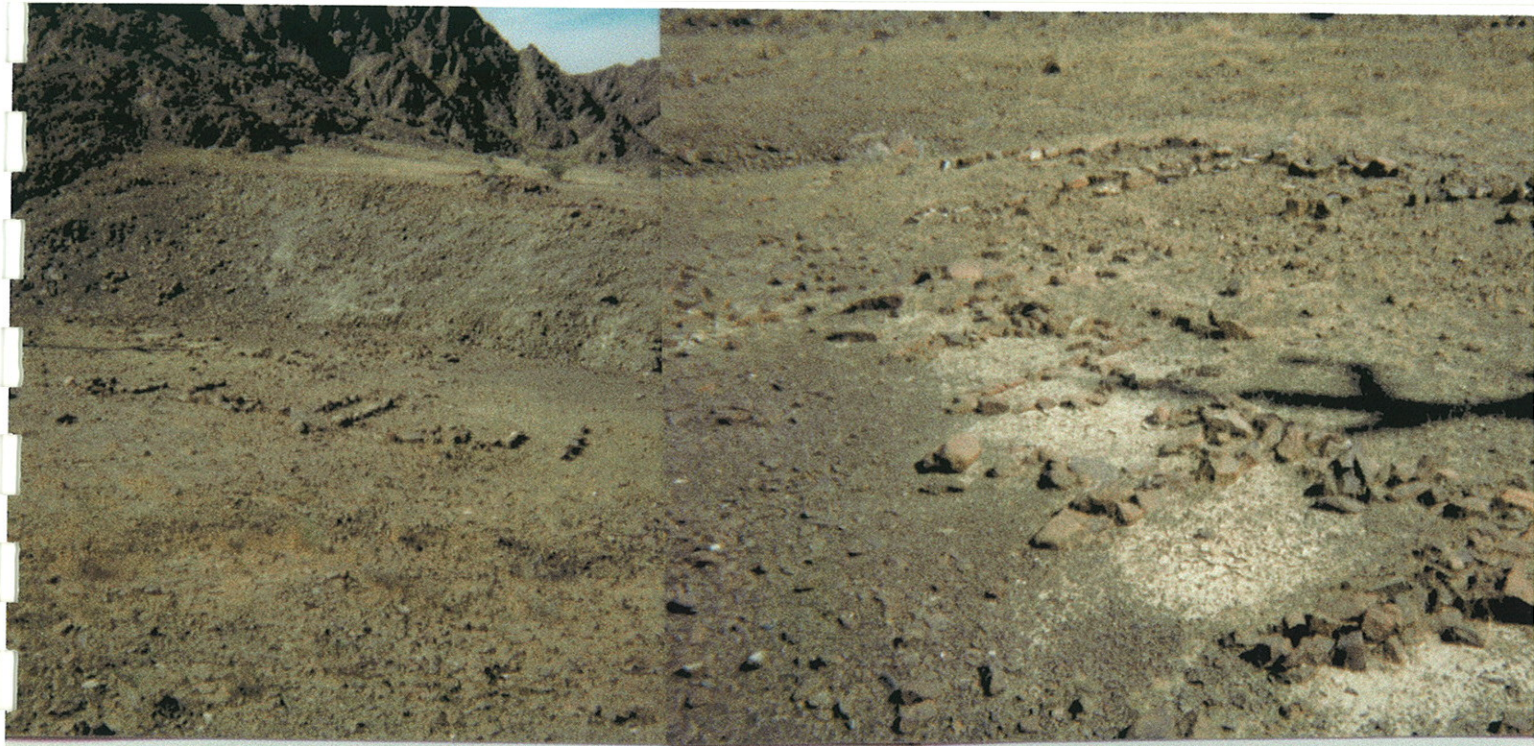
"IN CLOSING"

"IN CLOSING"

TL & TR Rather nice writing made from patterns of stones.

BL Arabic graffiti in black and white.

BR English message in black.



"IN CLOSING"

A panoramic view of the wadi mouth turning into a QUARRY.



138.

IN CLOSING

In closing this preliminary survey I would like to end with a few general comments and one plea for help.

Mankind's necessity, urge or demand to use the boulders, rocks and rock-faces within the Power Station wadi, Hatta, has not diminished over the millennia.

As can be seen from the examples photographed we still find it necessary and important to leave our mark.

From the artistic and rather delightful use of carefully placed rocks and stones to be used as words to the rather crude, graffiti-like and nature defacing paintings (in both English and Arabic).

Lets try to find one of the idiots who in the last ten years have bothered to carry cans of white and/or black paint up the wadi, just to leave rather useless and meaningless messages, and ask them to tell us why they did this? Perhaps we would then have a key to the boulder art of earlier man.

It is not an impossible scenario to imagine the village elder 2000 years ago grabbing the local teenage lout and chastising him for wasting his time making pretty pictures on stones – not only did it deface good building material but his time would be better spent if he was off raiding and rampaging through local villages! I.e. it has been suggested by some that the boulder art may serve no purpose – I DO NOT agree.

Unfortunately on a more serious note, I must report that during the last 2 months modern civilizations demand for nature's raw materials has turned our wadi into a **QUARRY!!** During these few months almost 200 metres of the wadi mouth, floor and surrounding terraces have been dug out and taken away for gravel. The bulldozers and diggers are less than 200 metres from the start of the Hill Fort area . On the Graveyard side the land has been leveled to less than ten metres from the capital W border wasum.

We obviously cannot stop the landowner from using his property as he wishes. However if there is anyone reading this report (Peter can you help?) that could ensure a more complete and scientific study occurs before whole areas are totally destroyed and the Boulder art of Hatta vanishes forever then that would be appreciated.



Stephen A. Green