

AMENDMENT NO.2 - JANUARY 1999
A PRELIMINARY SURVEY OF THE BOULDER ART IN THE
POWER STATION WADI HATTA DUBAI, STEPHEN A. GREEN

To: PALY FEVENCE regards. Jegh

Jan 99,

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

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SECTION A

FEEDBACK FROM

GARY FEULNER

#### SECTION A.

#### FEEDBACK FROM GARY FEULNER

GRAVEYARD AREA - The graves would be better described as 'rounded' rectangles (outlined by Square/flat rocks), to distinguish them from graves in the Ru'us Al-Jibal that are strictly rectangular. Also it is worth noting that several of the graves are substantially "raised and filled", some being almost a foot high - this magnitude of fill is greater than most other UAE grave sites.

#### VILLAGE AREA -

Orange boulders do not have to be more recent than varnished ones, they only have to be from an area where they were not continuously exposed on the surface for such a long time. For example, they could have been taken from an eroding slope or gully.

#### **WASUM**

**INTERPRETATION -**

The suggested interpretations about social and economic organization (e.g. private property, hereditary leadership etc.,) are not necessarily correct. For example, leadership in most tribal societies is usually not strictly hereditary they have to select the best.

#### INTERPRETATION OF PICTOGRAPHS -

These are somewhat subjective. The least convincing is the Chinese Junk – why not an ordinary dhow with lateen sail? The monkey could be a human with bent arms and legs. The wheeled cart is not good either - why not a person being lowered into a grave? The Running Action Man is at best unclear - why not just a shape?

#### **POPULATION** MOVEMENT (LOCAL)

The Power Station wadi is an unlikely candidate for population overflow from areas deeper in the mountains. It flows from deep within a roughly circular and very rugged massif centered on Jebel Hatta, and is surrounded by other wadis that do the same. The massif itself is nevertheless surrounded by 'easy travel' routes. There is no visible evidence that the Jebel Hatta area and its surrounding wadis were used for transit, it certainly could not be done by horses or bulls. This does not, however, preclude the possibility that local people used upstream areas before downstream ones, or perhaps that earlier inhabitants used the whole wadi, and later ones used mainly the downstream areas. It is more probable that the 'centre of gravity' was downstream, probably at the wadi mouth, on the plains, or along the Wadi Hatta - not upstream.

#### SECTION A.

#### <u>POPULATION</u> <u>MOVEMENT</u> (REGIONAL) -

The Hatta area has easy geographical access to both the East coast (the Batinah coast of Oman) and the gravel plains of the mountain front. It is probable that in early times that the Hatta area would have been orientated primarily to the Gulf of Oman, which remains fertile and also had the advantages that come with easy access to the sea (e.g. fish and foreign commerce). The Oman coast could be walked to in less than two days. However, there are several reasons why the East coast is not the best direction to rely on. One is invasion and protection, the Batinah coast is very exposed to invasion. People could have moved to the mountains to avoid this possibility. (Why are there no mountain forts within the wadis and valleys around the Jebel Hatta massif?)

A good example of western (Arabian Gulf/UAE) orientation is given by the election of certain tribes in the Hatta and Masfut area to give their allegiance to the Al' Na'im tribe of Ajman and therefore become part of the UAE, rather than to the more politically unstable region closer at hand in Muscat & Oman. Stability and security over-ride practical closeness and easy access.

#### THE HORSES -

These should be a clue to dating the Boulder Art – but what are they trying to tell us? When and where were horses used in such a way that mountain dwellers would come to depict them? Horses certainly were not used in the mountains, they could however, have been used on the gravel plains and along the major wadis (e.g. Hatta, Qaw). Are we sure they are horses? Why not donkeys? Many look like horses to our eyes, but is this necessarily a true interpretation?

#### **CLIMATE** -

How wet did it have to be to live comfortably up a wadi? This depends in part on how, why and when these areas were used (e.g. semi-nomadic or seasonal use). Derek Kennet felt that, as to the Ru'us AI-Jibal, there was evidence of only two periods of use; one in Hafit times (@3000 BC) leaving stone mounds, and one from 1300 AD to the present leaving cultivated terraces and seasonal dwellings (bayt al-qufl). He speculated that the recognized 'drying out' after 3000 BC (and certainly after 2000 BC) was the reason for the interregnum but wondered why people started to go back up @ 1300 AD. Was the climate shift and settlement pattern similar further south towards Jebel Hatta? Is the boulder art necessarily very old? – could it all be relatively new? Were the sites abandoned during a long interim period?

# RELEVANCE OF RU'US AL-JIBAL ROCK ART -

Rock art is not uncommon in the Ru'us Al-Jibal and some seem very similar to the art at Hatta. It is not abnormal to see designs such as men on horses, quadrupeds and other designs fairly closely resembling some of those from Hatta. If the Ru'us Al-Jibal rock art is limited in time does this mean Hatta is as well?

# SECTION A.

# **USE OF THE BOULDER**

<u>ART AREAS -</u>

What were the artists and builders doing there anyway? There does not seem to be a great deal of evidence for cultivation/agriculture. What did they eat? Were these temporary or seasonal settlements? Refuges in times of danger? The Village Area is too large to be the odd accommodation for a couple of shepherds. Local people still cultivate date palms up wadis and walk extremely long distances to tend and harvest them, all for what seems to us like not many dates.

THAMUDIC LANGUAGE -

How do we assess this possibility?

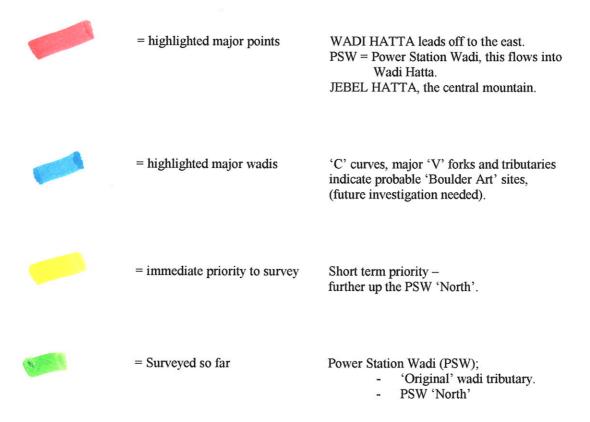
(Note; Peter Hellyer has taken some of the photographs of both Hatta and Masafi and is sending them to an 'expert' for review).

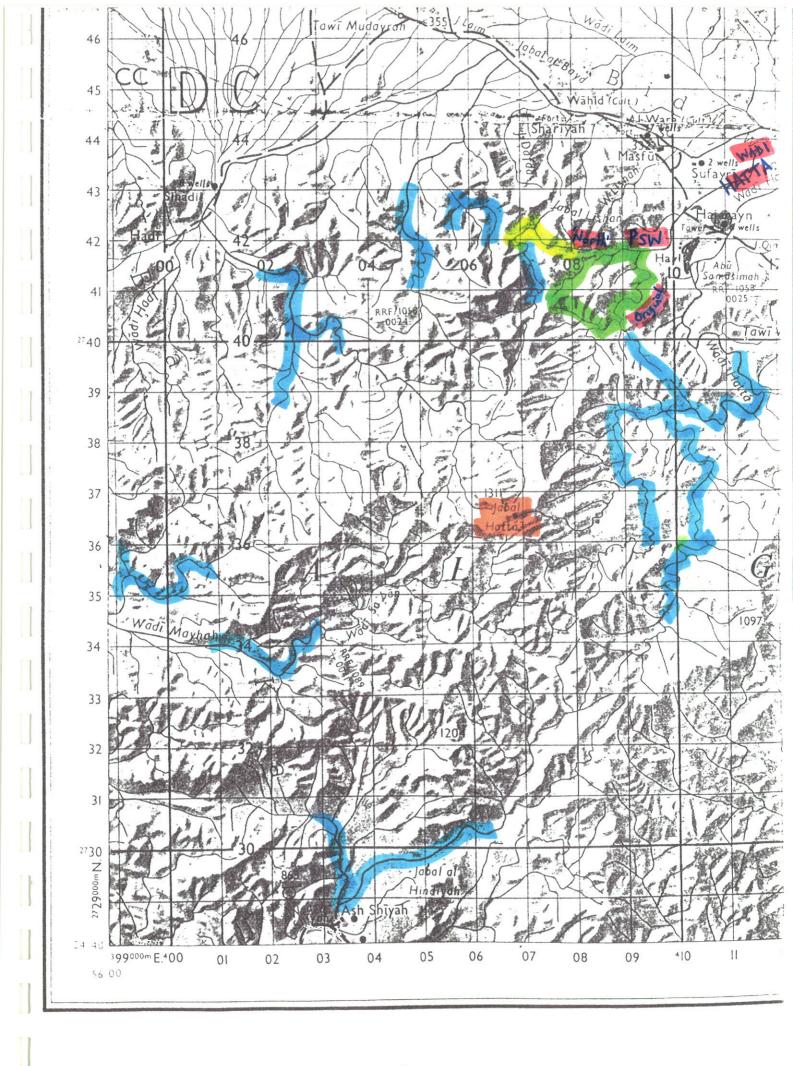
SECTION B

**RECENT** 

**ACTIVITIES** 

A map showing the central position of the Jebel Hatta and its surrounding massif. The radiating wadi system is quite clear.





A map showing the Power Station wadi (PSW) in greater detail.

# Surveyed Areas Highlighted;



PSW - 'original'



PSW - 'North'

# The 9 sites found so far;

H = HILLFORT

G = GRAVEYARD

V = VILLAGE

B = BORDER

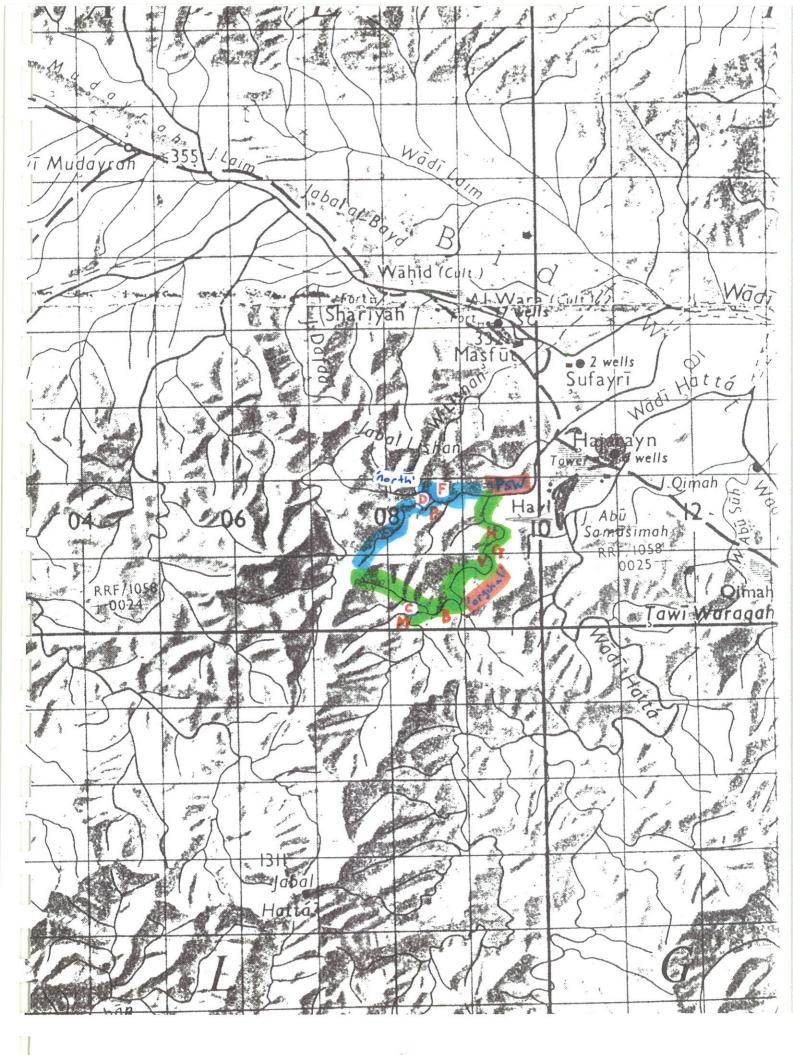
C = CAIRN

M = MOTHER GODDESS

P = PLATE PEOPLE

D = DONKEY RIDES

F = FOOT



#### **SECTION B**

#### RECENT ACTIVITIES

The enclosed map shows the central position of Jebel Hatta to the radiating wadi system, of which our Power Station wadi is a part. There are approximately 6 to 7 wadis cutting into the Jebel Hatta massif.

The Boulder Art and associated settlement and/or agricultural areas seem to be situated in certain areas;

- (i) 1 to 3 kilometres from the first wadi bifurcation.
- (ii) In the lower to middle part of the wadi.
- (iii) Half an hour to one & half hours walk from the first major bifurcation.

It may therefore be possible to start predicting boulder art sites using this information within the Jebel Hatta area. The Boulder Art is also associated with 'Terraces' within the wadi system. The following attributes appear necessary;

- (i) Reasonably difficult frontal access (all sites).
- (ii) Sub-wadi fork, or side wadi 'V' (sites B, M, C, P).
- (iii) Large 'C' bends (sites H, G, V, F, D).

Predictions of probable sites may be possible from large scale maps.

The following conditions usually occur for a Boulder Art site;

- (i) Many rounded boulders (i.e. not rock faces, scree or sharp rocks).
- (ii) Many boulders covered in 'desert varnish'.
- (iii) Small to medium boulders.
- (iv) Flat spaces upon a terrace.
- (v) Trees (or close by).
- (vi) Pathways.
- (vii) Buildings (or stone constructions) except site B.

This information can be used in the field to 'predict' good areas to investigate (in the Hatta area).

I am also beginning to be able to predict carving location within a settlement/building/terrace site. I cannot as yet qualify this statement but in the field I can probably find 4 to 5 carvings to every 1 of Gary's. I believe this is because I have spent around 15 visits to the Hatta sites specifically to search for boulder art whilst Gary has only visited a couple of times just to search for carvings.

The following comments are made in order to possibly develop further analytical methods;

- 1. From photographing carvings it has become obvious that on most occasions carvings specifically point either;
  - a). To the sunrise.
  - b). To the sunset.
  - c). Away from the mid-day sun.

Approaching a site from certain angles in the morning, mid-day and evening brings different results due to varying visibility.

The direction of the terrace/wadi is obviously therefore critical in relation to the direction of the sun and subsequently to the angle of the face of the carvings within the terrace.

- 2. Certain specific geographical attributes effect the location of a carving;
  - a). Positive wadi edge.
  - b). Negative rock faces or loose rock scree.
- 3. Certain areas within a settlement site appear popular and can create batches;
  - a). Entrance ways.
  - b). Central/core districts.
  - c). Pathways.
  - d). Some buildings (search doorways & walls).

If you stop on a path and scan the site with the sun behind you this can be productive. If you find the larger boulders/buildings towards the middle of a site, sit down or stand still and carefully review the surrounding areas this can be productive. Certain sites/sections are inward/insular (e.g. site M and the central foot area of site F). Certain sites/sections are outward advertisements (e.g. pictograph at entrance to H and carvings at P & D).

With this knowledge we decided to;

- (i) Reach/explore the very end of a wadi.
- (ii) Go through/over a mountain.
- (iii) Wadi hop, and
- (iv) Explore the next wadi.

To see:

- (i) If the boulder art continued in the upper part of the 'original' Power Station wadi. (Answer Buildings and stonework's YES, carvings NO).
- (ii) How difficult/easy it would be to travel over a mountain ridge. (Answer Reasonably easy).
- (iii) To see if the boulder art etc., would appear 'next door'.

  (Answer YES, some similar but most slightly different).

We decided to go to the very end of our currently surveyed wadi near the cairn burials, but then swing north and enter the northern tributary of the same eventual Power Station wadi.

On the way up the 'original' Power Station wadi we very quickly reviewed some of the known sites.

# **GRAVEYARD AREA**

To show how easy it is to miss boulder art, a carving was noticed next to the area we park our vehicles, near to the entrance to the Power Station wadi Graveyard site, very near to the large capital W wasum.

Wasum? possible M or half person?



This also clearly indicates we have not spotted everything and a proper/fuller survey would probably reveal more carvings etc.,



# **MOTHER GODDESS SITE**

It was obvious on this trip how inward looking and insular this site is (relative to the boulder art). There are no entrance or path markers, there are no wadi edge adverts to the outside world. We did not find anything in the buildings.

Three new pieces of boulder art were spotted;

Top Wasum?

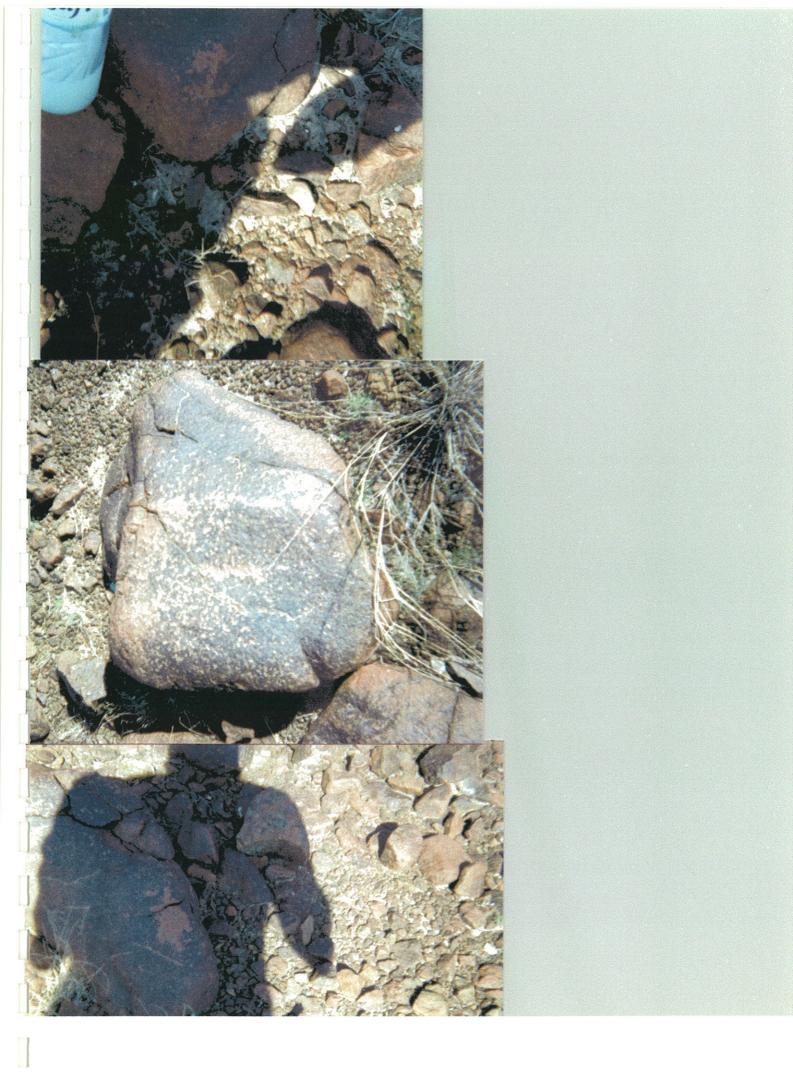
Capital I or No. 1

Middle Wasum?

Line

Bottom Wasum?

Line through a Ball/blotch line??



tobotarica

We performed a virtual circle up the lower fork of the 'original' wadi, through a mountain crest and back down the northern arm of the Power Station wadi. No rock art (occasionally rock circles and buildings/constructions were seen) was found in the upper wadis of either the original Power Station wadi tributary or its associated Northern arm. At the fork to the very large main wadi 'North' we found 3 new sites (bringing to a total of 9 the distinctive separate sites found so far).

For the future I intend to;

- (i) Revisit D, F, P.
- (ii) Go further up the Northern tributary.
- (iii) Pick one of the other radiating wadis nearby to search (I will probably cross over to wadi Hatta.

It would be informative to visit the 9 known sites with a trained archaeologist.

I would like to map in detail the 9 sites, dividing the carvings into;

Possible subdivisions

Threshold Wasum Pictograph Writing No. off carvings (per boulder)
Percussion, scratching, rubbing
Motif type (person, animal, object, writing)

To additionally plot the direction, relative to;

Sunset
Mid-day sun
Sunrise
Away from sun/dark side
In/on building
Wadi edge
Pathway
Settlement entrance

Mark location on site; central or peripheral

Association; near building

Near other carving (batches)

Solitary

It appears that the proper scientific name for items of rock art is "PETROGLYPH" (literally carving on rock).

In relation to the specifics of the Hatta Power Station wadi this term could be slightly misleading.

The 'ART' is

NOT on rock faces.

NOT on rough/square rocks/stones. NOT on extremely large rocks.

NOT on loose scree.

NOT many items (except those relating to buildings) seem to be placed. There is no

obvious evidence the boulders have been artificially altered in any way.

My original term "BOULDER ART" is more appropriate (as a sub-division perhaps) relative to the specific examples in the Power Station wadi Hatta. They are always on water rounded BOULDERS, mainly those covered in a dark black/purple natural desert varnish.

SECTION C.

NEW FINDS IN

POWER STATION WADI

'NORTH'

#### NEW FINDS IN THE POWER STATION WADI 'NORTH'

#### 1. PLATE PEOPLE

Located along the thin straight section (perhaps 10/20 metres wide x 150 metres long) along both sides of a major side wadi, that runs south off the PSW 'North'.

Various items of stonework and constructions are visible on each (@ 10 each side) side terrace. Some of the stonework is unusual as it uses large square/sharp rocks and not the normal nice rounded boulders. Only a few items of 'Boulder Art' have been found so far – it may be that the art has been damaged/destroyed.

An unusual aspect, not spotted elsewhere, was noted. A number of round to oval, thin, flat, smooth, disc-like boulders were found laid out (I have assumed they are implements), some in groups, some singular near buildings. No rock varnish at all was visible, they were quite red/orange. They were therefore probably quarried out of the side of the wadi and selected for a specific purpose. I think they were large dinner plates/small dining tables, (they could also be; grinding pads, bread plates, seats or platforms on which to place something).

No pottery or artifacts were found on either side. There is one large (relatively) pictograph, unfortunately half broken, it is only visible from the other side of the wadi on the opposite small terrace. It is near the gorge edge facing away from the site/buildings on its own side. There are two small carvings (possible wasums?), that seem to be either broken and/or used to make small stone structures e.g. a fireplace (secondary use?).

# PLATE PEOPLE

Examples of the 'Dinner Plates'.

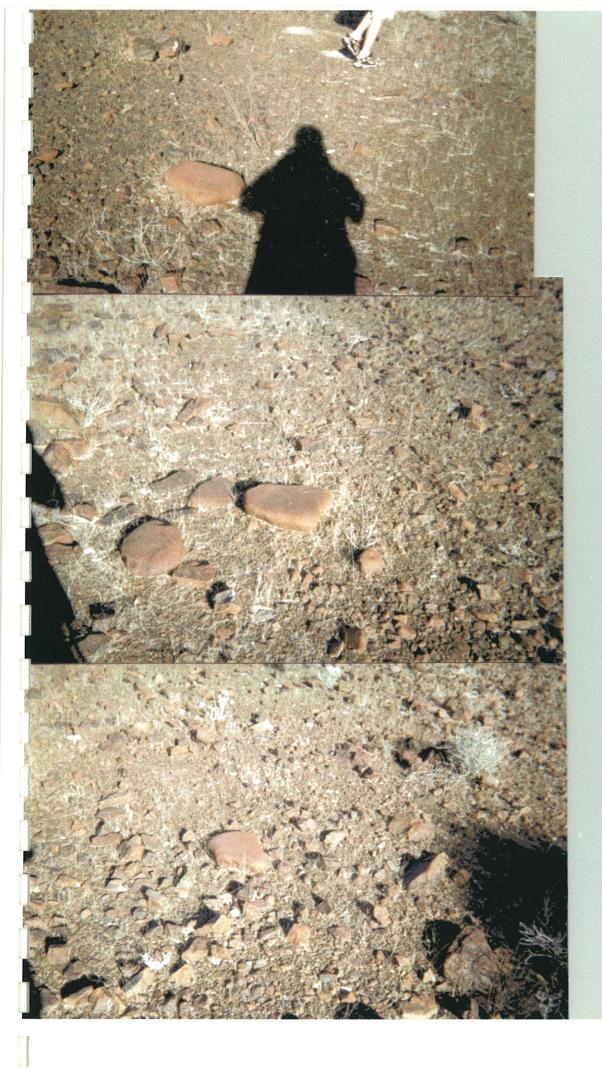
TOP

Two in 'line'.

**MIDDLE** 

Three together.

BOTTOM A single plate.

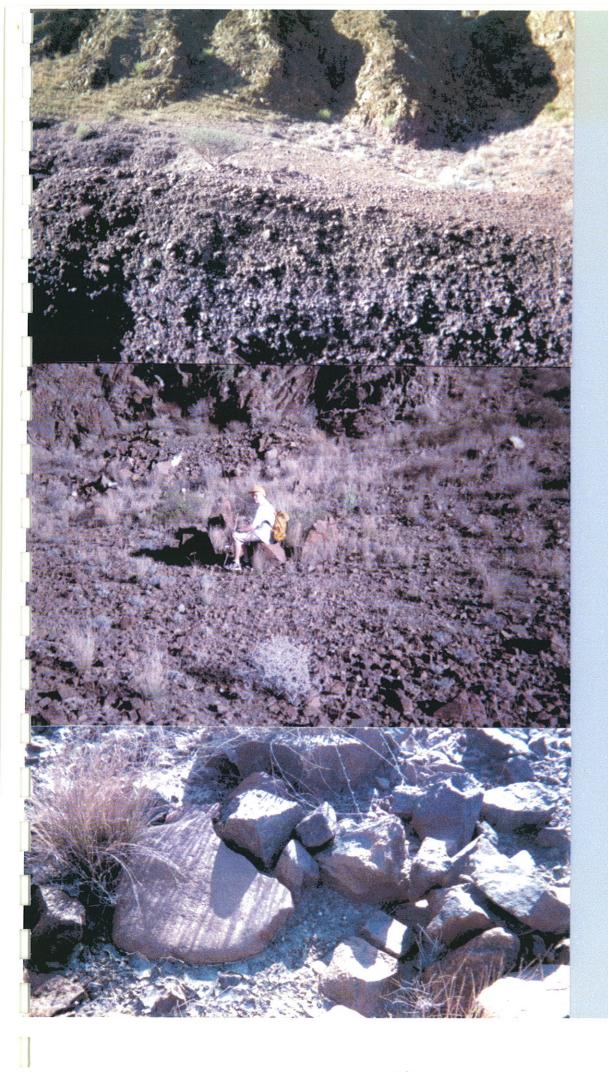


# PLATE PEOPLE

TOP A picture of the thin side terrace.

MIDDLE An example of a ring of large rough/angular rocks.

BOTTOM A plate amongst building stones.



# PLATE PEOPLE

C40%

进一带

TOP

A large Pictograph (half missing), near the gorge edge, facing the opposite terrace/side.

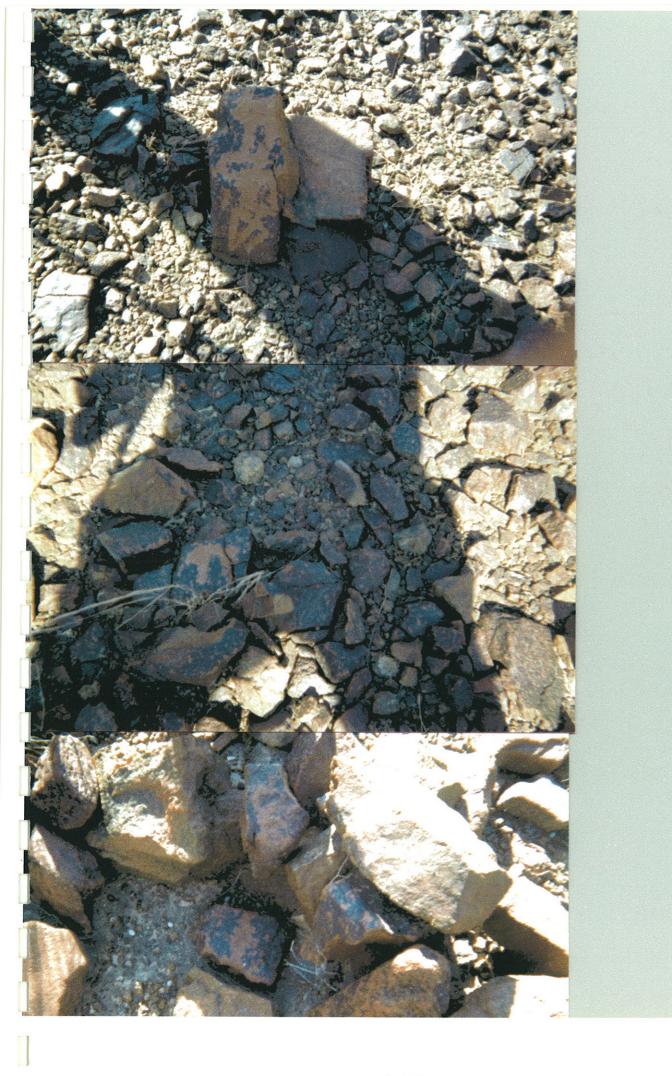
**MIDDLE** 

A possible Wasum? (or animal?), amongst building stones.

T wason

BOTTOM A possible wasum amongst a fire place made of stones (secondary use?). The carvings/poundings continue around at least 2 faces of the stone.

/ Line



#### NEW FINDS IN THE PSW NORTH

# 2. DONKEY RIDES HERE

The site is just round the corner and slightly upstream from the Plate People, but on a terrace parallel to the main wadi. Access is difficult, the gorge edge is 60 to 80 feet of sheer rock face. The site/terrace is about 25/30 metres wide and perhaps 120 metres long. It is placed on a small, gentle 'C' bend. There are numerous stone buildings and structures (@20).

There are a few carvings, including two beauties;

'DONKEY' RIDES HERE
An obvious donkey/ass, it has a large muzzle and 2 big ears. It is not a horse in my opinion. The carving is very bright, clear and visible, it stands proud – advertising itself to the mountain-side pathway.

WADI EDGE 'WARNING' A falling/flying person, indicates what will happen if you step over the gorge edge. It is right on the edge of the wadi/gorge face, clearly warning about the 60 foot drop. Is it commemorative of a person that went over the edge – RIP?

No pottery or artifacts were found.

Dinner Plates are replaced by 'Door Mats' at building entrances. Gary suggested these might be the articles used to prop shut small wooden doors when the livestock is herded inside the buildings.

# **DONKEY RIDES HERE**

TOP

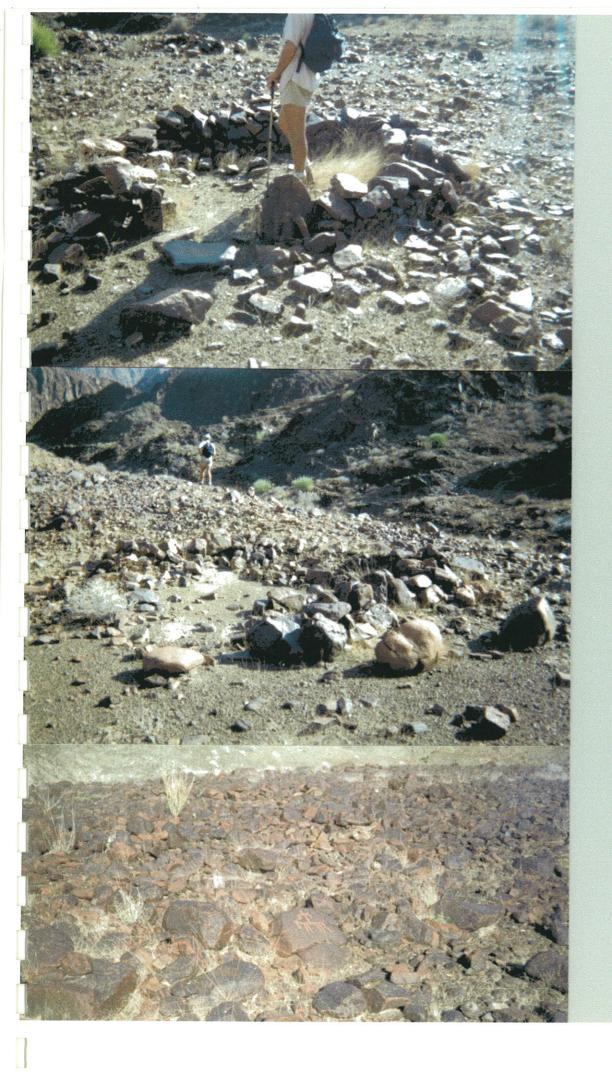
Building with Door Mat or Door Stopper/Prop at entrance.

**MIDDLE** 

Building with Door Mat or Door Stopper/Prop at entrance.

**BOTTOM** 

General view of terrace from mountain-side pathway looking across site/terrace towards wadi/gorge edge. The Donkey Ride advert can be seen at middle foreground.



# **DONKEY RIDES HERE**

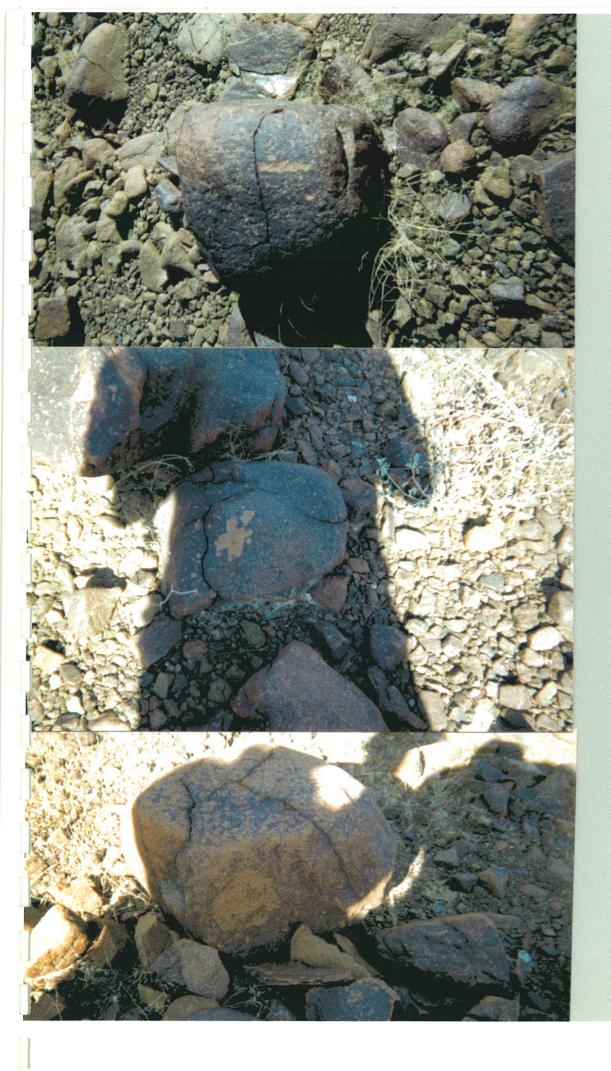
TOP Wasum

Line and two dots

MIDDLE Wasum
Cross and dot

BOTTOM Wasum

Circle, cut by line

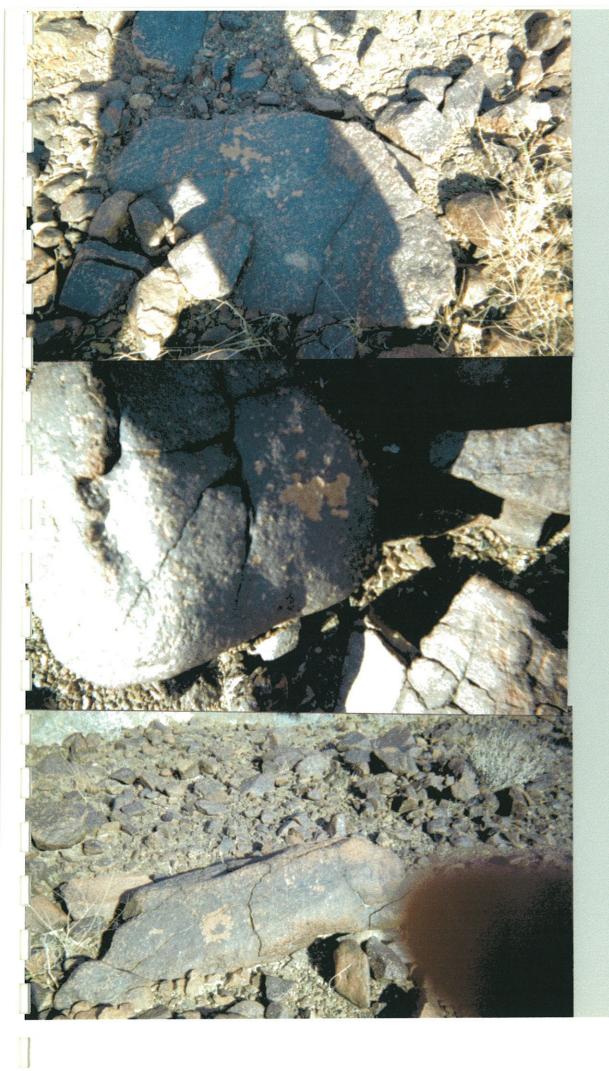


# **DONKEY RIDES HERE**

TOP Wasum? or mark

MIDDLE Mark or doodle?

BOTTOM Wasum, circle



# DONKEY RIDES HERE

TOP

Pictograph. Possible dog or Ram?

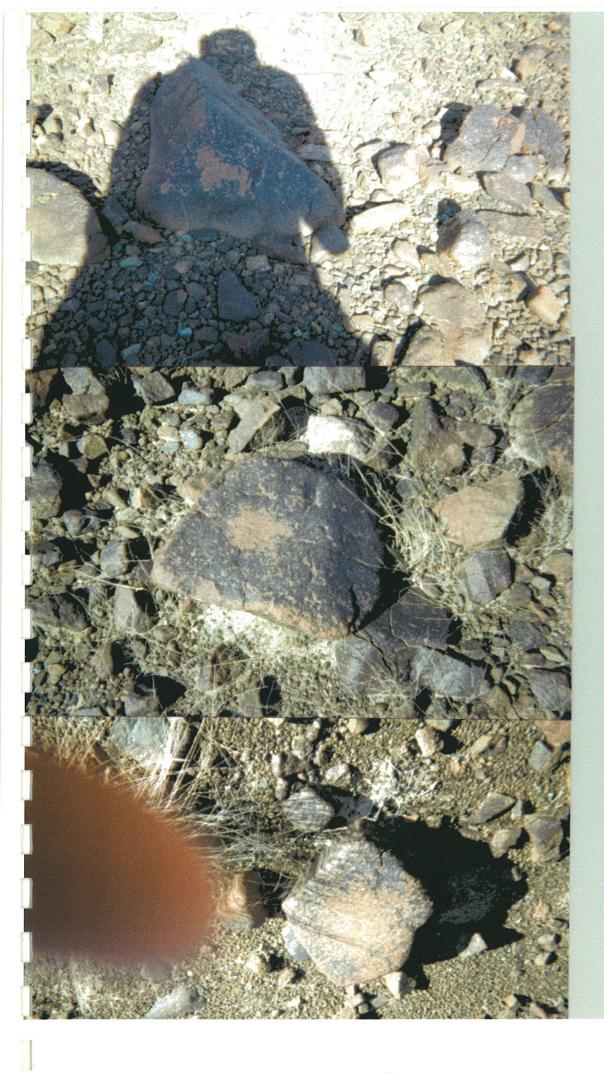
**MIDDLE** 

Grinding stone or Sun Burst?

**BOTTOM** 

Grinding stone or Sun Burst?

193



**DONKEY RIDES HERE** 

TOP

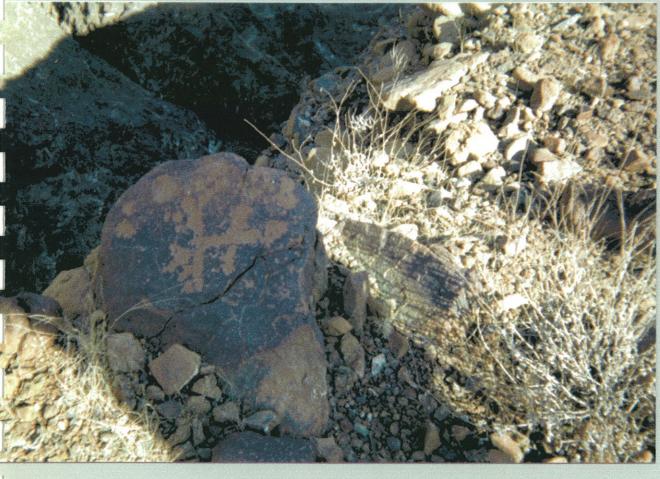
PICTOGRAPH 'Donkey Rides Here'

Note the large muzzle and two prominent ears = ass or donkey.

**BOTTOM** 

PICTOGRAPH A falling or flying person? Note the wadi edge and the 60/80 foot drop.





#### 3. FOOT

A large (long) terrace, @ 500 metres x 40 metres, along a large gentle 'C' bend on the main PSW 'North'. There are numerous buildings and structures (@ 30 +), some quite large. From a distance we thought we had found a graveyard as there seemed to be numerous large white stones at the centre of the site.

On investigation the site seemed to be newer and slightly different from other sites and not quite right for carvings.

Not many carvings were initially found, it then seemed that the Pictographs were batched toward the central region of the site, especially near the path (the inside path running along the mountain side), furthest away from the wadi edge,

+ peripherals

With some spread around near the site entrance and on/near buildings.

One quite large flat boulder covered in feet (@5 to 6) catches the attention. Some feet have toes, some are bisected, some are plain and some are crude – a real mixture of feet!

#### Where are the W and M wasums?

Does the absence of M & W's etc., mean anything?

Are the wasums and carvings older than the buildings on the site?

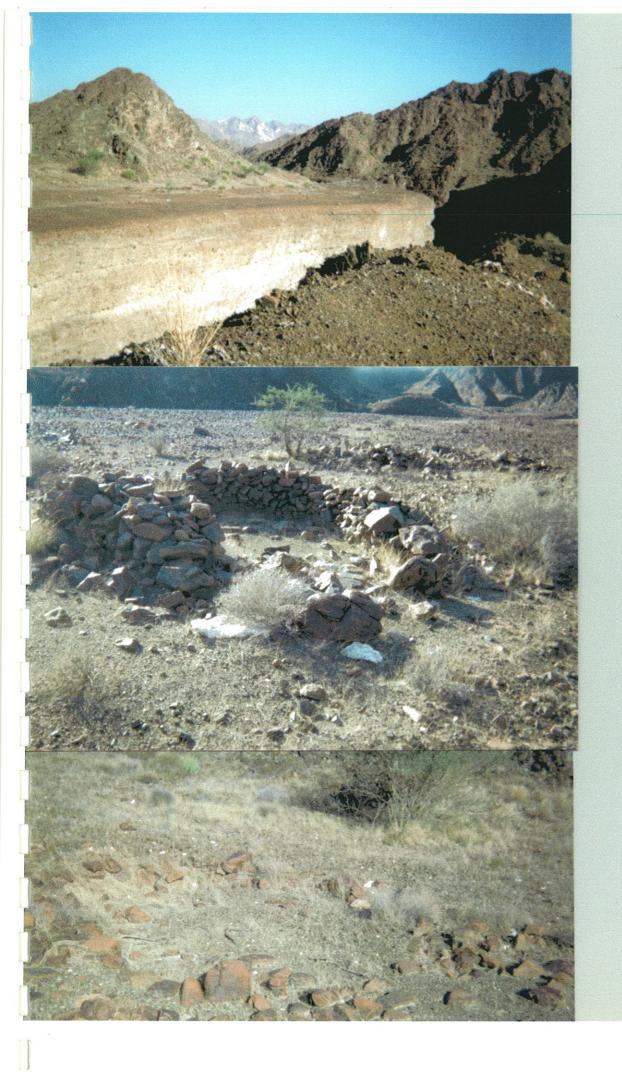
There is lots of pottery, most certainly Islamic – possibly Julfar and sgraffito.

## **FOOT**

TOP General view of the FOOT terrace and large 'C' bend.

MIDDLE One of the large buildings.

BOTTOM One of the cruder less obvious stone structures.



## **FOOT**

Typical Pottery (x2)

Julfar ware

Possible Sgraffito



### **FOOT**

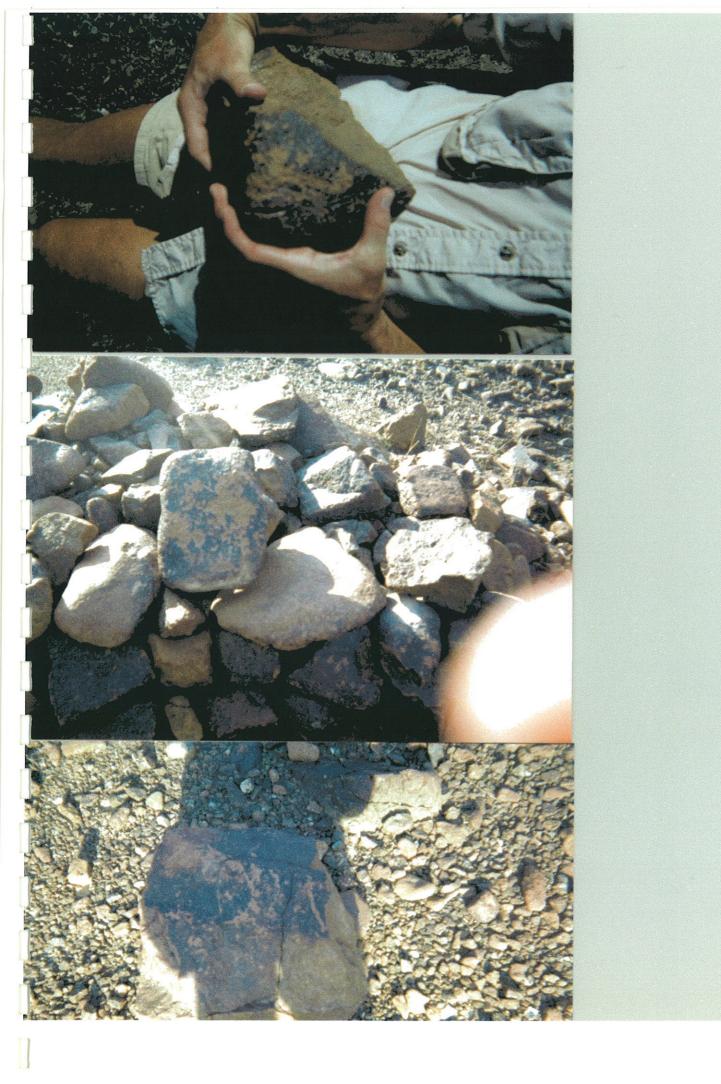
TOP Broken boulder near entrance, Possible Y or scorpion.

Y?

MIDDLE Possible pictograph on building wall.

BOTTOM Crude carvings, wasums? Circle and dots + line.





### **FOOT**

**BOTTOM** 

A more realistic foot.

Various Feet -	Is the Foot a Wasum?? (I think so).	foot + circle
TOP	Crude sectioned Foot (oval) and circle.	
MIDDLE	Very crude sectioned Foot and oval.	Joseph Small fort?



1? 2 3? 4

**FOOT** 

TOP

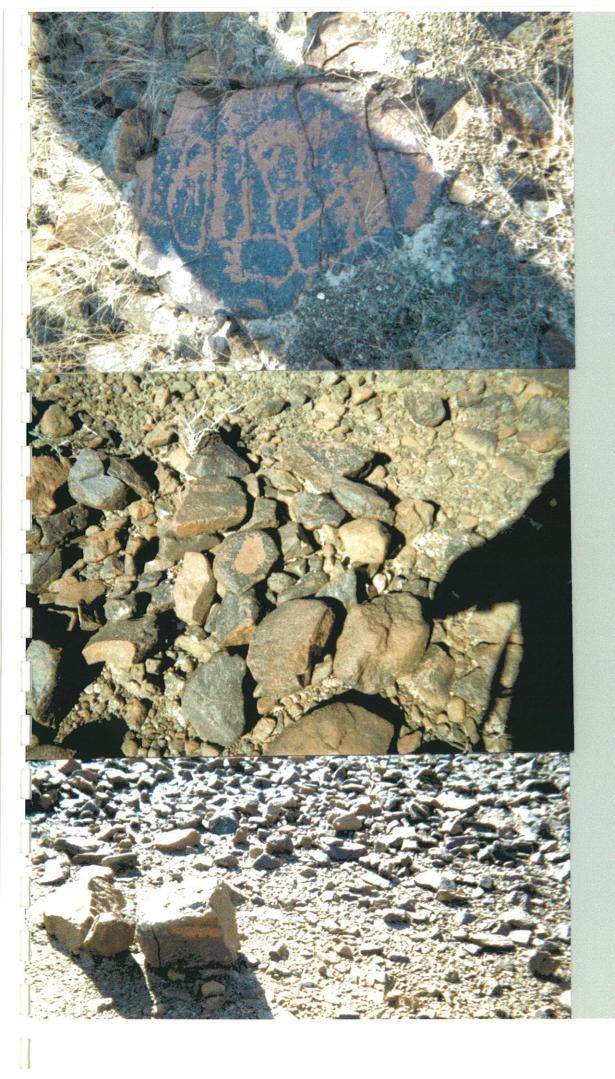
The large boulder with various Foot wasums.

**MIDDLE** 

Central Abrasion, amongst a pile stones.

**BOTTOM** 

Large thick line on broken boulder.



#### AMENDMENT NO. 2

SECTION D

OVERVIEW & SUMMARY OF THE

BOULDER ART IN THE 9

SITES FOUND SO FAR

## OVERVIEW & SUMMARY OF THE BOULDER ART IN THE 9 SITES FOUND SO FAR

A = Animal

W = Wasum

X = No idea

O = Object

P = Person

R = Writing

& = Joined together

? = Best guess

### 1. ADDITIONS TO GRAVEYARD & HILLFORT AREAS

No.	Type	desc1	desc2	
54	X	X		Secondary use in wall of house – broken Pounded & carved (See pages 17 & 18)
55	W	M type		

#### 2. ADDITIONS TO BORDER, CAIRN & MOTHER GODDESS AREAS

No.	Type	desc1	desc2
20	W	I	
21	W	line	
2.2	W	blotch & line	

#### 3. ANALYSIS OF PSW 'NORTH'

<u>A.</u>	PLAT	E PEOPLE	
No.	Type	desc 1	desc2
1	X	X	
	(Broke	n Pictograph)	
2	W	N type	
3	W	line	

<u>B.</u>	DONKEY RIDES				
No.	Type	desc1 desc2			
1	W	line & dots			
2	W W	cross & dots circle & line			
4 5	X X	X X			
6 7	W A	circle dog??			
8	X X	sunburst??			
10 11	AP P	Donkey & person falling man			
	-	Caronina primary			

<u>C.</u>	FOOT	-		
No.	Type	desc1	desc2	desc3-7
1	W	Y		
2	A?	X		
3	W	circle/dots	line	
4	W	foot &	circle	
5	W	foot &	small foot	
6	W	foot		
7	W	foot	foot	x 5?? foot
8	X	blotch		
9	W	line		

#### **REVIEW OF PSW NORTH:**

Boulders	No. off Individual o	carvings	Approx total carvings
19	x 1		19
3	x 2		6
1	x 7 !!		7
Total 23 Boulders		Total carvings	32

Again the single carving per boulder face predominates

ANIMALS	PEOPLE	WASUMS	<b>OBJECTS</b>	MISC	WRITING
3	2	22	0	5	0

### COMMENTS;

No writing

No man made objects A number of unclear items

Few animals – 1 donkey, 1 dog?? = domesticated Few people – 1 with donkey, 1 falling/flying

**WASUMS** – or wasum type carvings predominate

#### **WASUM ANALYSIS PSW NORTH**

Circle based	line based	foot based	other
4	4	11 or 5 (multiple use x7)	3 (x n y)

Circles, lines and letters seem just about equally popular.

The FOOT motif is the most popular – does this indicate a different tribal affinity as compared to the 'Original' PSW, I think probably yes, further investigation further up PSW north is required.

There are as yet no W or M based wasums. Therefore it would be fair to say that there is no clear commonality to the original wadi, although some vague similarities exist.

#### 4. TOTAL REVIEW/SUMMARY

TOTAL BOULDERS FOUND TO DATE: APPROX ANALYSIS OF TOTAL CARVINGS:

		A	P	Ο	W	R	X
Graveyard & Hillfort Border, Cairn, MotherG Plate, Donkey, Foot	55 22 23	24 6 3	18 5 2	12 3 0	21 15 22	2 0 0	10 6 5
Total Boulders	100	carvings 33	25	15	58	2	21
		Orde	r of occur	rence =	Wasu Anim Peopl Unck Object Writi	als le ear ets	

### AMENDMENT NO. 2

### SECTION E

OBVIOUS ERRORS IN

AMMENDMENT (SIC) 1 etc

#### SECTION E

#### **OBVIOUS ERRORS IN AMMENDMENT (SIC) 1 etc**

#### 1. PAGINATION OF AMENDMENT NO.1

To enable future cross reference please paginate Amendment No. 1 as follows;

Ignore the front cover, ignore the contents page. Start numbering from "Ammendment No 1, Section A, Obvious Errors In The Preliminary Survey" = 140. The pages should run through to 160.

The contents Page should then be marked to read;

		Page No.
SECTION A	Obvious Errors	140
SECTIONB	"HATAL" – Graveyard	142
SECTION C	Additional Analysis	145
SECTION D	A Quick Preview	152

#### 2. GRAMMAR

Page 5.

Replace: "60-80 different types of buildings" With: "60-80 buildings of different types"

#### 3. SPELLING

- A. On all pages of Amendment No. 1 replace "AMMENDMENT" With "AMENDMENT"
- B. It would appear that the proper English spelling for camel brands etc., is now agreed to be; singular = wasm
  Plural = wusum

This has not worked its way through to common usage as yet and there are still a variety of spellings in use. Please feel free to replace my versions with the above as you would like.

#### AMENDMENT NO. 2

### SECTION F

### **BIBLIOGRAPHY & REFERENCES**

#### SECTION F

#### **BIBLIOGRAPHY & REFERENCES**

1. ATLAL "The Journal of Saudi Arabian Archaeology" Vol. 14, (1416 AH – 1996 AD) Ministry of Antiquities and Museums, KSA Includes:

Comprehensive Rock Art and Epigraphic Survey (1990) Critical Review of Anati's Books on "The Rock Art of Central Arabia"

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2. THE ORIGIN & EVOLUTION OF ANCIENT ARABIAN SCRIPTS By: Majeed Khan, 1993, Dept Antiquities and Museums, KSA

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3. A STUDY OF THE PETROGLYPHS FROM WADI AL-HAYL, FUJAIRAH, UAE By: M C Ziolkowski, Arabian Archaeology and Epigraphy 1998: 9: 13-89, Denmark

(Wasm & wusum - who & when agreed spelling usage?)

[NOTE: Does anyone know where I could get a photocopy of "White-Cooper D. Rock Engravings in the UAE and Musandam Peninsula, Unpublished Manuscript] ??