

Figure 2. Morocco divided into the nine zones used in this study

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|-----------------------------|---------------------|-------------------------|
| Zone 1 – North and Centre | Zone 2 – East | Zone 3 – High Atlas |
| Zone 4 – Extreme south-east | Zone 5 – South-east | Zone 6 – Anti-Atlas |
| Zone 7 – South | Zone 8 – South-west | Zone 9 – Western Sahara |

CHAPTER 7. REVIEW OF MOROCCAN ROCK ART SITES

This review of rock art sites summarised the salient features of Moroccan rock art sites in each zone (see figure 2 for zones), based on information recorded on the data-sheets. While theories constructed on the present distribution and composition of sites were inevitably weakened by uncontrollable factors, principally destruction - either past or on-going - and the absence of reliable data for a number of sites, it is considered that it was possible to form a certain idea of the extension and composition of sites using data available today.

A total of 243 sites was recorded in 1977 (Simoneau, 1977). In the present study, 54 uncatalogued sites were added, and seven sites removed as being double or incorrect entries. This gave 290 sites scattered throughout the country. Although the discovery of a site rarely led to the publication of a complete inventory recording the exact number of engravings per theme, the essentials of a site - its characteristics and its peculiarities - are estimated in this work to have generally been correctly noted by the discoverer.

A belief that even if more data become available the character of a site was unlikely to be fundamentally changed was confirmed by unpublished research undertaken during the last 15 years. For instance, an independent researcher noted about 1,000 engravings on the 11 Tazzarine sites (SE13-23, Zone 5), whereas published figures were vague and only allowed an estimate of several hundred engravings. But, significantly, doubling the number of engravings on these sites did not invalidate the initial analysis of the character of the site.

New discoveries can only fill in gaps, they cannot eliminate what already exists, although they may well modify distribution maps. Physical elimination of existing sites, however, is occurring today in the form of massive destruction. In cases where almost nothing remains of a site (often clearly the subject of much depredation), the present study has had to rely entirely on original reports. Data were from personal knowledge and published reports (see Appendix 11 for bibliographical details and recent data not included here).

Zone 1 - North and centre (figures 7, 8)

Information was available on all the 12 rock art sites in this zone, none of which were catalogued (Simoneau, 1977).

Situation of the engravings and paintings: NC1,5,7,8,10 were caves or rock-shelters; NC2,3 were very close to a cave or rock-shelter. NC3,7 were near the sea, NC5,9 had very good views over the surroundings, NC10 was totally underground. NC4,6 were localities where three anthropomorphically-engraved steles were recovered (original position unclear) (figure 8a). In all the other cases, the engravings were on rock faces, sheets of rock

or boulders.

Size of site:

1 engraving	NC3	6 engravings	NC10
1 stele	NC4	9 paintings, 4 engravings	NC5
2 steles	NC6	88 engravings	NC12
a few engravings	NC7	141 engravings	NC9
several paintings	NC1,8	434 engravings	NC11
several engravings	NC2		

Table 10. Number of images in Zone 1

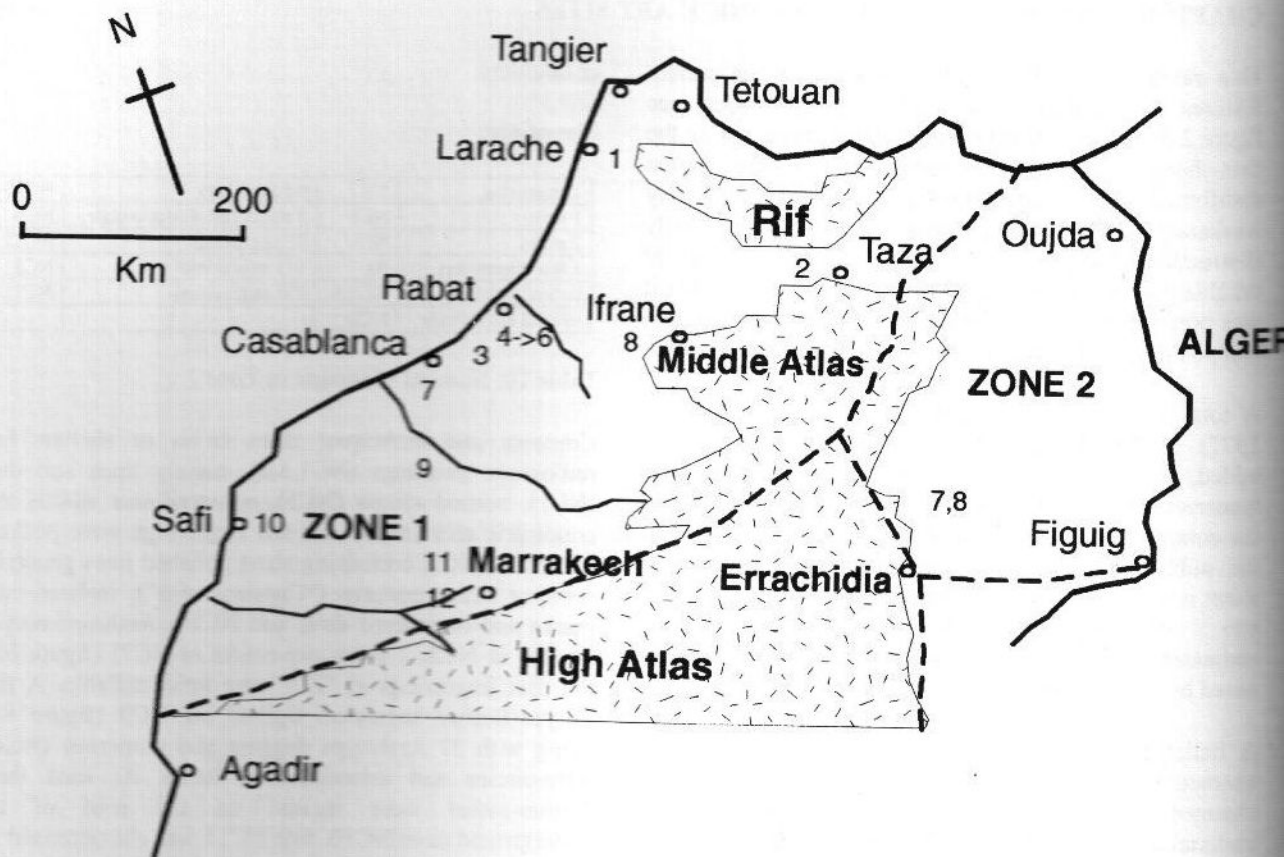
Contents and technique: three caves or shelters had red/orange paintings (NC1,5,8), mainly lines and dots (NC1), horned spirals (NC5), or curvilinear whorls and concentric arcs (NC8). All the engravings were pecked, except for NC2, containing short polished lines generally forming lattice patterns ("Capsian traits"), isolated cup-marks and hammered dots, and NC10. Anthropomorphs figured at NC3, 7 (also cup-marks at NC7) (figure 8b), the four engravings at NC5 were unidentifiable. A few Libyco-Berber horsemen figured on NC9 (figure 8c), along with 27 Arab-type daggers and numerous circles, semi-circles and miscellaneous items. At least three *haches-peltes* were incised on the roof of the underground cave NC10. Site NC11 was characterised by a large majority of horsemen and foot-soldiers, with some dogs, birds, unmounted horses, sheep/goats, all in Libyco-Berber style (180 unidentifiable, including circles) (figure 8d). The much-damaged NC12 site, with many recent images, contained a mixture of engravings, including Arab-type daggers.


Archaeological material nearby: surface finds of Lower and Middle Palaeolithic and Epipalaeolithic tools were found near NC3,7; Neolithic and Chalcolithic material was excavated from NC5. In none of these cases was any light thrown on the date of the engravings. At the most, it could be noted that Neolithic and Copper Age people used cave NC5 and could, possibly, have been the authors of the paintings and engravings. Several rock faces at NC9 had been grooved as polishers or sharpeners (date unknown).

Zone 2 - East (figures 7,9)

Unlike archaeological excavation which has taken place in the NE corner of this zone (see Chapter 4), work on rock art has been concentrated on the south and south-east: six sites reported around Figuig, two in the region of Talsinnt. Early interest in the Figuig area - it was first noted in 1902 - arose because it was at that time part of French Algeria, where rock art studies were being actively pursued. Only limited data were available for E2.

Situation of the engravings: sites E1,4,5 were rock-shelters, E3,6,8 were on ridges or boulders, E7 had engravings in shelters and in the open air.



 Land over 1,000 m

Zone 1 (north and centre)

Zone 2 (east)

- NC 1 Magara Sanar
- NC 2 Oued Zireg
- NC 3 Grotte des Contrabandiers
- NC 4 Maaziz
- NC 5 Kef el Baroud
- NC 6 N'Keila
- NC 7 Kef el Kerma
- NC 8 Ifrane
- NC 9 Koudiat el Mouneb
- NC 10 Grotte Goran
- NC 11 Ram-Ram
- NC 12 Koudiat el Mouissiera

- E 1 Jbel Youssef
- E 2 Oued Tisserfine
- E 3 Zenaga
- E 4 Jbel Melias
- E 5 Gara Melias
- E 6 Garet el Hamra
- E 7 Hassi Rhilane
- E 8 Assif Metlili

Figure 7. Situation of rock art sites in Zones 1 and 2

Size of site: at least one engraving on E2; > 17 on E4; several on E6,8; "numerous" on E1; 44 on E3; several hundred on E5,7.

Contents and technique: in the Figuig area, it was not surprising to find the theme of the "sheep with head ornament" (*bélier casqué*) (see figure 6a) in the Zenaga pass site (E3) in view of its importance in the adjoining Algerian Atlas (Monts des Ksour) (see Chapter 12 for

discussion). But it seemed that none of the other Figuig sites showed this particular type of engraving. The identifications on E3 were very doubtful. Table 11 indicates the principal contents of these sites.

All the engravings in this zone for which data were available were pecked, with the exception of E5 (polished) and some in E3,7. Two periods of patination were noted on E4, more than two on E7,8.

a



b



c



d



Figure 8. Selection of images from Zone 1

a) Stele from N'Keila (NC 6) b) Anthropomorph, Kef el Kerma (NC 7) c) Libyco-Berber horseman and Arab dagger, Koudiat el Mouneb (NC 9) d) Libyco-Berber horseman, Ram-Ram (NC 11)



a



b

Figure 9. Selection of engravings from Zone 2

a) Anthropomorph, Gara Melias (E5) (photo Simoneau, 1977) b) Ostriches, camel and Libyco-Berber horseman, Hass Rhilane (E7) (photo Bozon)

ZONE 8 - South

S 1 - **Rich de Mbidia**, Mhamid (150.043, Mhamid): a few E. *Situation*: on rocks on N edge of W end of longest of several quartzite ridges, 20 km S of Mhamid. *Bibliography*: Glory, Allain and Reine, 1955. *Archaeological material*: undated ruined citadel.

S 2 - **Zaouia Sidi Abd En-Nabi**, Zagora (150.059, Zawyat Sidi Abdenbi): c.20 P. *Situation*: in a group of rock shelters. *Bibliography*: Simoneau, 1969 [*mention only*]; Salih, 1995.

S 3 - **El-Ghoula** (150.060, El Gloa): at least 1 E. *Situation*: near Zagora. *Bibliography*: Rodrigue, 1999 [*mention only*].

S 4 - **Wiggane** (150.061, El Gloa) (grid ref: 433x348.15)

S 5 - **Oued Neffid** (150.062, El Gloa) (grid ref: 436x383)

S 6 - **Oued Oum Ech-Channa** (150.063, El Gloa) Grid ref: 426x387

S 7 - **J Lahmar**, Foug Zguid (150.064, Foug Zguid) Grid ref: 383x368: at least 1 E. *Situation*: downstream of the palm grove.

S 8 - **O Mrah**, Foug Zguid (150.065, Foug Zguid) (grid ref: 370x384): *Situation*: 4 km NE of site J Lahmar.

S 9 - **J n'Ourkour** (150.092, Mdawer) Eliminated

S 10 - **Oued Naga**, Mrimrima (150.093, Mdawer): numerous E. *Situation*: SE of Mrimrima. *Bibliography*: Simoneau, 1969; 1976 [*mention only*]. *Archeological material*: tumulus. [*Probably the site called J Mhaijiba by Viñas Vallverdu (1981), a few km E of Mrimrima, parallel to Assif Zguid, not catalogued. The engravings lie on the upper part of the NW face of the hill, to summit. The site said to be large, with mainly pecked cattle and gazelles; a few rhinoceros, 1 elephant, some ostriches, feet, labyrinths*].

S 11 - **Oued Amsailikh**, Tissint (150.094, Tissint): at least 1 E. *Situation*: on very hard gabbros, c 30 km east of Tissint, 10 km de l'O Draa. *Bibliography*: Wolff, 1982 [*mention only*]. *Archeological material*: crescent monuments.

S 12 - **Assif Zguit**, Mrimrima (150.095, Tissint). *Situation*: c 5 km NE Mrimrima, near road to Foug Zguid.

S 13 - **Glab es Seghir**, Mrimrima (150.096, Tissint) : 73 E. *Situation*: c 9 km NE of Mrimrima, near road to Foug Zguid. *Bibliography*: Rodrigue, 1994b [*mention only*]. *Contents*: at least one axe associated with 4 bovids [*6 polished, the rest pecked: anthropomorphs, bovids,*

ostriches, giraffe, circles, spirals, geometric figures]. *Archaeological material*: [*tumuli*].

S 14 - **Mrimrima** (150.097, Tissint) numerous E. *Situation*: in village and on summit and slopes of low dolerite hills nearby. *Bibliography*: Letan, 1967; Simoneau, 1976; Viñas Vallverdu, 1981.

S 15 - **Foug Timellouka**, Mrimrima (150.098, Tissint) (grid ref: Simoneau, 1974/75b: 320.5x327): numerous E. *Situation*: scattered localities on ridges, c 7km E of J Fergoussat (S 18). *Bibliography*: Simoneau, 1974/75b; Viñas Vallverdu, 1981

S 16 - **Nord Tizi Iguidi**, Tissint (150.099, Tissint) Eliminated (*no engravings found*). *Situation*: c 4 km E of site J Fagoussat (S 18), halfway to Foug Timellouka (S 15).

S 17 - **Rive Droite O Malah** (150.100, Tissint): at least 19 E. *Situation*: on right bank of O Malah. [*Contents: 5 polished antelopes, pecked bovids, serpents, geometric forms, spiral*].

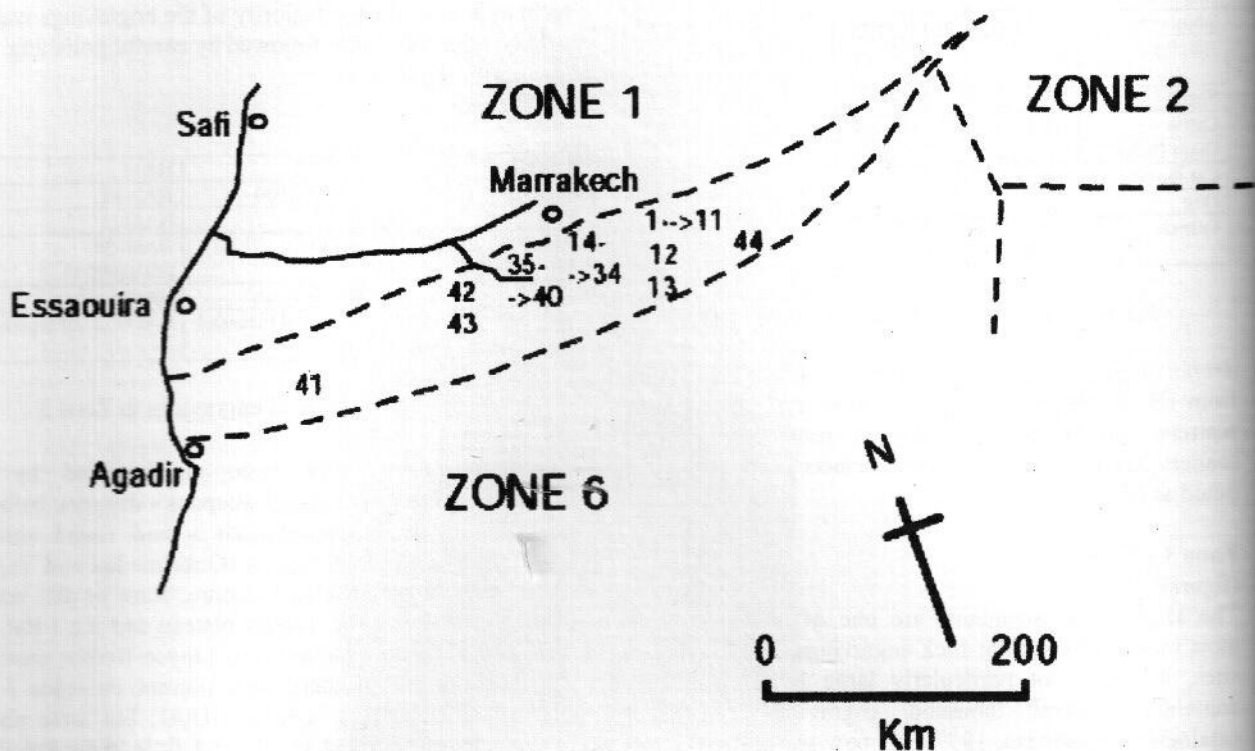
S 18 - **J Fagoussat**, Tissint (150.101, Tissint) (grid ref: 319x325): numerous E. *Situation*: on blocks on ridge and sides of W and SW end of hill, left bank O Tissint; very hard, fine-grained sandstone. *Bibliography*: Lafanechère, 1952; Simoneau, 1969 [*mention only*]; Viñas Vallverdu, 1981. *Archaeological material*: [*from Lafanechère, 1952*]: engravings overlook Neolithic lithic site.

S 19 - **Oued Kraoua**, Tissint (150.102, Tissint) (grid ref: 313x308): at least 110 E. *Situation*: on 10 km long sandstone ridge; main group opposite palm grove Sidi Ali bou Azza. *Bibliography*: Milburn, 1973 [*mention only*]; Simoneau, 1974/75b. *Contents*: polished; [*minimum figures: 3 elephants, 39 antelopes, 5 rhinoceroses, 1 giraffe, 13 bovids, 5 bag traps, 27 animals n.i., 11 ostriches, 1 anthropomorph, 1 felin, 3 spirals, 2 enigmatic*]

S 20 - **Kasbat n'Zolit**, Tata (uncatalogued) (grid ref: 311.5x250.5): 5 E. *Situation*: on side of free-standing conglomerate boulder at base of rocky outcrop, left bank Assif n'Ouissef, 4 km N of Tata. *Bibliography*: Searight, 1994b.

S 21 - **Oued Tata**, Tata (150.104, Tlata Tagmoute): c 50 E. *Situation*: on blocks on ridge on left bank of O Tata. *Bibliography*: Simoneau, 1972b [*mention only*]; 1976 [*mention only*].

S 22 - **Sidi Bouadar**, Tata (150.115, Tata) (grid ref: 300x256): 4 E. *Situation*: on blocks on sandstone ridge, 10 km SSE of Tata, S of marabout of Sidi Bouadar [*much destruction*]. *Bibliography*: Simoneau, 1974/75b [*mention only*]. *Contents*: polished; [*2 antilopes, 2 bovids*].



Zone 3 (High Atlas)

J. Rat	Yagour plateau	Oukaimeden
HA 1 Azib Tinzourine	HA 14 Talat n'Toukkourt	HA 35 Ait el Qaq
HA 2 Assif Anamrou	HA 15 Talat n'Iisk	HA 36 Azib Tiferguine
HA 3 Assif n'Ifrane	HA 16 Adrar n'Tuimelt	HA 37 Azib Abadsan
HA 4 Aougdal Tamrij	HA 17 Azibs n'Ikkis	HA 38 Abri
HA 5 Tizi n'Tirlist	HA 18 Tifert n'Ourgou	HA 39 Village
HA 6 Igoudmane	HA 19 Aougdal n'Ouagouns	
HA 7 Tizi n'Zaouit	HA 20 Aougdal n'Issoun	
HA 8 Azib Asserdoun	HA 21 Assif Aloss	HA 40 Tighremt Tidili (no information)
HA 9 Amdrouss	HA 22 Bou Oudruc	
HA 10 Tizi Ougna	HA 23 Aguerd n'Tircht	
HA 11 Tizi n'Iblouzen	HA 24 Tizi n'Rhellis	
	HA 25 Aougdal n'Tichki	HA 41 Amrdoul
	HA 26 Lalla Mina Hammou	
	HA 27 Ifgane	
	HA 28 Asrouan	HA 42 Toulkine
HA 12 Aougdal n'Oumghar	HA 29 Igoudmane	HA 43 Imi Ouzerwane
	HA 30 Azib Tighdouine	
	HA 31 Fif Gaguine	
	HA 32 Talat n'Iisk II	
	HA 33 Talat n'Iguir	
HA 13 Azibs de Tainant	HA 34 Ifar	HA 44 Oussikis

Figure 10. Situation of rock art sites in Zone 3

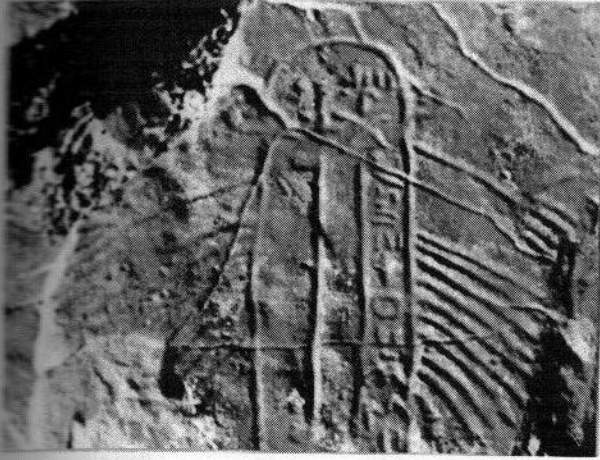
a**b****c****d**

Figure 11. Selection of engravings from Zone 3

- a) Anthropomorph with inscription, Azibs n'Ikkis (HA17) b) "Idol", Tizi n'Tirlist (HA5)
 c) Halberd, Azib Tiferguine (HA36) d) Round shield, Tizi n'Tirlist (HA5)

1989) lying below the painted ledge at Toulkine rock-shelter (HA42) could reasonably be associated with the paintings (see Chapter 4).

Zone 4 - Extreme south-east (figures 12,13)

Only two sites (ESE1,2) were recorded in this Saharan zone, both within a few kilometres of each other, close to the military post of Taouz and the Algerian frontier. Full and reliable data were available on both.

Situation of the engravings: both were open-air sites a few hundred metres from the generally-dry O Ziz. Engravings were on the summit and slopes of J Ouafilal (ESE1) (785 m) and on the slightly inclined slopes of two locations both known simply as Taouz (ESE2a,b). The rock support in every case was sloping sandstone sheets or blocks.

Size of site: about 20 engravings at: ESE2b; at least 30 at: ESE1; at least 40 at: ESE2a.

Contents and technique: the two sites were notable for their pecked chariots (figure 13a), of which at least 26 lay on ESE1, including a "convoy" of ten joined vehicles. Libyco-Berber inscriptions figured on ESE1 only, while ESE2a,b contained some 50 pecked cattle (absent from ESE1) (figure 13b). The majority of the ESE2a cattle were grouped on sheets some 25m from the most prominent tumulus. A few minute human figures were standing on the backs of the cattle. Wild animals were absent from all locations, except for one antelope at ESE2a. The style used for the cattle was unusual, the endoperigraphic surface being filled with scattered dots.

Visible archaeological features: ESE2a was surrounded by several dozen tumuli, with low dry-stone walling at the base, more elaborate than the tumuli common in Morocco. No engravings deliberately broken for the construction of the tumuli were noted by the excavators (see Chapter 4 for an account of this necropolis). Ruined stone walls were numerous on ESE1.

Zone 5 - South-east (figures 12,14,15)

Thirty-two sites were catalogued (Simoneau, 1977). One (SE33) was an error and was in fact part of another site (SE31) and a new one (SE32) was added.

A total of 32 sites was thus potentially available for analysis, but information was lacking on SE14,22,30.

Situation of the sites and engravings: three concentrations of engravings could be discerned. The most northerly was around Msissi/Alnif (SE3-11), all the sites situated in a more or less straight E-W line in a low-lying area at the foot of the J Sarhro and J Ougnat, with an extension east formed by the separate sites of SE1 and 2. A clear passage (followed by the present-day road) united it, via

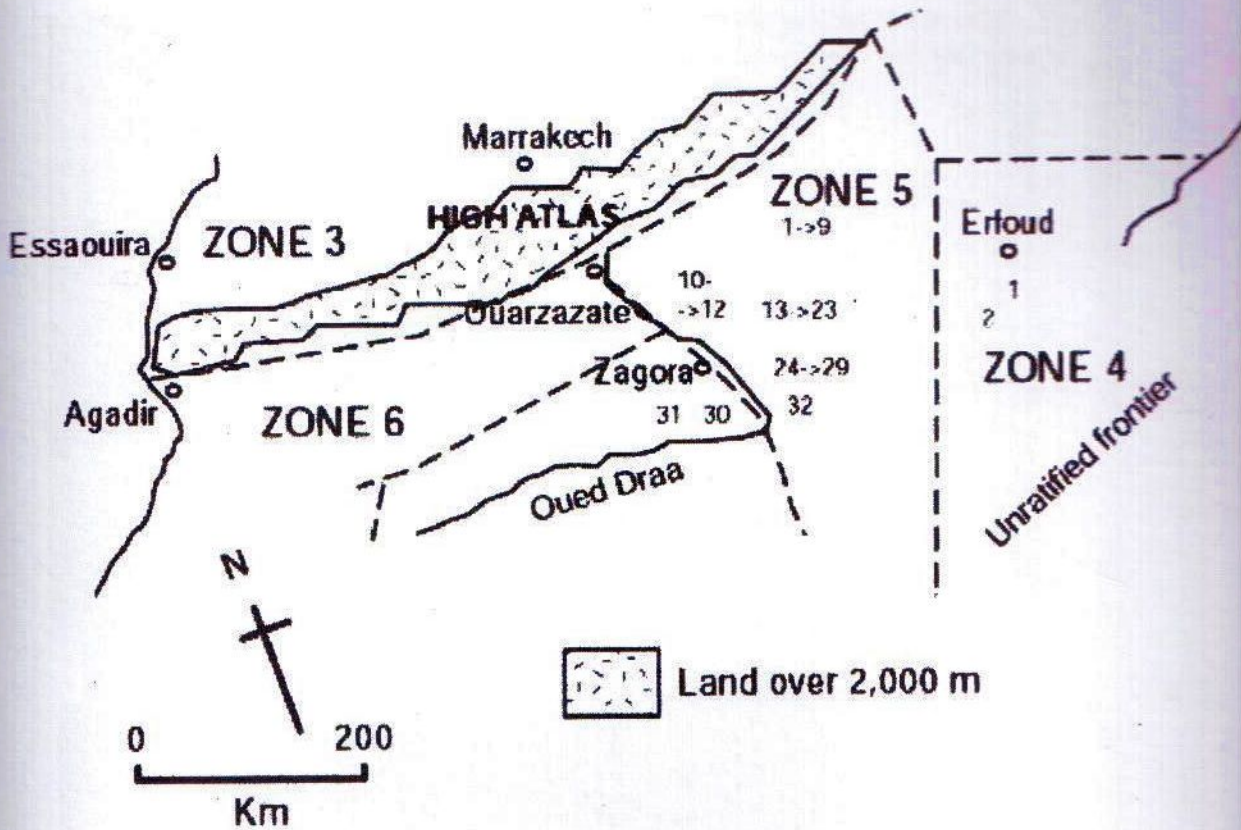
SE12, to the second concentration around Tazzarine (SE13-23). The most westerly of these sites, SE23, formed a pivotal point, where sites SE15,19,29,22 followed the dry valley of O Tisrit, hemmed in by two mountain chains, southwards to the third group of Ikhn'Ouaroun/Hassi Tafenna (SE24-29), lying SE of Zagora. Three isolated sites (SE30-32) were situated further south. Engravings on 25 sites were on sandstone sheets or boulders on ridges or hillocks (SE3,4-7,9,12,13,15-29,31,32); on three sites (SE8,10,11) they were on isolated boulders; on two sites on a sandstone rock face (SE1,2). Sixteen sites were beside, close to or overlooked a river (SE1-9,13,16-20,22); five lay within a network of small watercourses (SE24-28); one was situated close to a spring (SE29).

Size of site:

1 image	SE10	several	SE7,9,11
2 images	SE2	c 50	SE5,12,32
7-11 images	SE1,3,8	60'	SE29
19	SE4	c 200	SE24-28 (together)
Some	SE8,31	400?	SE13-23 (together)

Table 13. Number of engravings in Zone 5

Contents and technique: with the exception of SE2, which contained only 2 horned spirals, wild animals were represented in all these sites in the form of small polished engravings of Tazina style. From north to south an overall homogeneity of style and theme was clearly apparent. The familiar faunal range was present, though not always on every site: elephants, rhinoceroses, antelopes (figure 14c), lions, giraffes, equids (figure 14a). Generally, antelopes and ostriches (occasionally with other birds) dominated on all sites (40-50% of all animal engravings). Domestic cattle in the same Tazina style but also pecked were found on almost every site, sometimes with pendants hanging from their necks. They were intimately associated with the wild animals. Three possible "sheep with head ornament" (*béliers casqués*) (figure 15a) were recorded on SE24 5 (not personally found). Other sites contained a possible fox, a dog chasing an antelope and two rather poor representations of the giant buffalo (figure 14b). A variety of images considered to represent traps existed on many sites: the bag shape (figure 15b), the "spoked wheel" (figure 15c), the lattice-work design. Possible masks were noted on SE23 (figure 47c) and SE24-28 (figure 47d). Anthropomorphs, visibly male, figured on a number of sites. Naked, in profile, they sometimes brandished axes or clubs and menaced a wild animal. One, behind a lion, seemed to wear a belt (SE6), another had a false tail. Stone axes and a few metal axes close to the "Southern Moroccan" axe figured on some sites (see Chapter 6 for discussion). A few High Atlas type images were depicted: a bag (SE5), a dagger (SE17) and 2 shields, one with an anthropomorph (SE19) (figure 44c). Pecked spirals, zigzags, serpentiforms, circles and other similar forms could be found on most sites. A complex zigzag design at



Zone 4 (extreme south-east)

- ESE 1 Jbel Ouafilal
- ESE 2 Taouz

Zone 5 (south-east)

- SE 1 Hassi Kraouia
- SE 2 Assif Tikertouachene
- SE 3 Assif Msissi
- SE 4 Jbel Boukerkour 1
- SE 5 Jbel Boukerkour 2
- SE 6 Jbel Boukerkour 3
- SE 7 Jbel Boukerkour 4
- SE 8 Azag
- SE 9 Jbel Iourarhane
- SE 10 Tagouramt
- SE 11 Tamrerhout
- SE 12 Ait Saadane
- SE 13 Ouaouglout
- SE 14 Amergou (no information)
- SE 15 Anou n'Ouamersemlal

Zone 5 (contd)

- SE 16 Tazzarine NO
- SE 17 Tamsahelt SE
- SE 18 Tamsahelt E
- SE 19 Ait Ouazik S
- SE 20 Ait Ouazik O
- SE 21 SE Abdi n'Ilemchane
- SE 22 Zalou S (no information)
- SE 23 Tanoumrit
- SE 24 Ikhf n'Ouaroun (Ouzdine)
- SE 25 Ikhf n'Ouaroun (Azigzaou ou Semlal)
- SE 26 Ikhf n'Ouaroun (Asguine)
- SE 27 Ikhf n'Ouaroun (Azigzaou Brahim)
- SE 28 Hassi Bou Haiara (Ouakhir)
- SE 29 Ikhf n'Ouaroun (Tafenna)
- SE 30 Foug Takkat (no information)
- SE 31 Tidri
- SE 32 Jbel Tibasksoutine
- SE 33 Foug Larjam (eliminated)

Figure 12. Situation of rock art sites in Zones 4 and 5

a



b



Figure 13. Selection of engravings from Zone 4

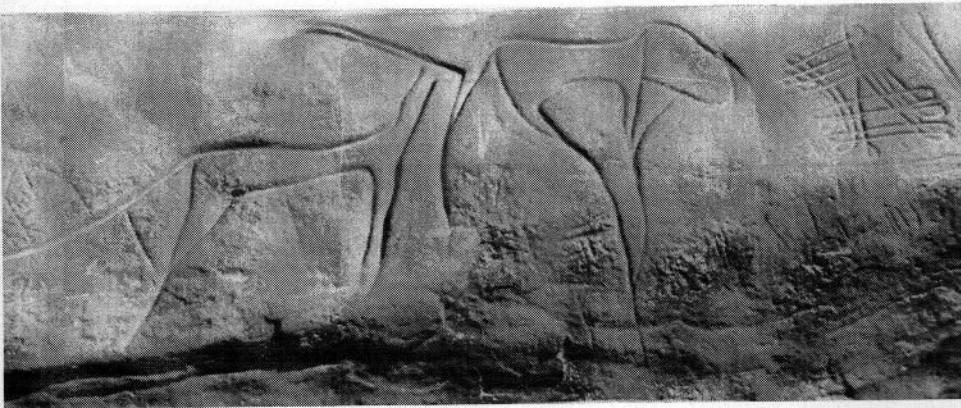
a) Chariots, J Ouafilal (ESE1) (photo Meunié and Allain, 1956) b) Cattle, Taouz (ESE2)



a



b



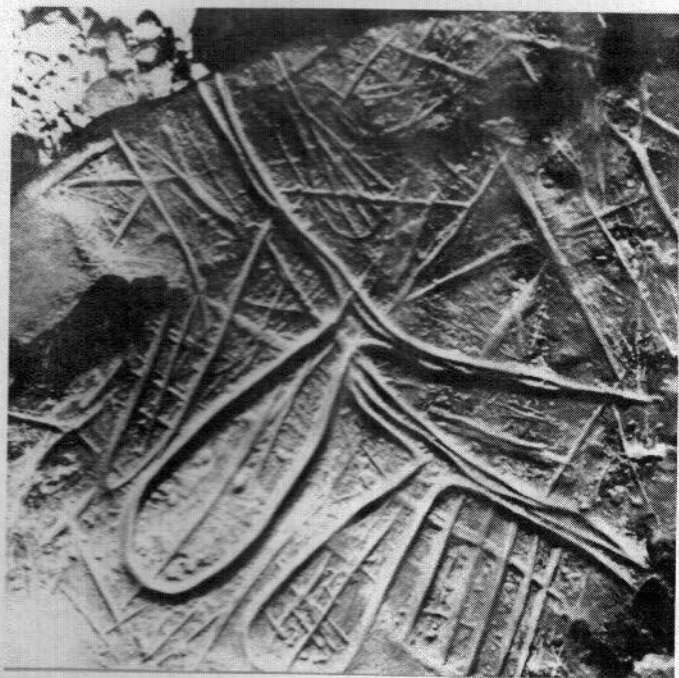
c

Figure 14. Selection of engravings from Zone 5

a) Equid, Tamsahelt (SE17) b) Unidentified animal and giant buffalo, Ait Ouazik S (SE19) c) Antelope and unidentified animal, Ait Ouazik O (SE20)



a



b



c

Figure 15. Selection of engravings from Zone 5

a) "Sheep with head ornament", Ikhf n'Ouaroun (SE27) (photo Simoneau, 1972a) b) "Bag" trap, J Boukerkour (SE27) (photo Bozon) c) "Spoked wheel" trap and unidentified animal, Ikhf n'Ouaroun (SE27) (photo Simoneau, 1972a)

SE8 had its near equivalent at SE11. SE12 and 13 both had a roughly similar complex spiral design. Two lightly pitted fibulas were engraved on SE5. A very small "scratched" chariot was noted on SE13 and three others, finished, recorded (one at SE19-20, two at SE24-28) (none personally seen). Small, stiff Libyco-Berber engravings of camels were shown at SE11 and 12. SE32 had small polished representations of horses, sometimes mounted by very small humans (a favourite theme in Libyco-Berber engravings) but the style here was more fluid. Libyco-Berber inscriptions were found at SE16 and 19.

Visible archaeological features: Lower Palaeolithic artefacts lay thickly scattered on the plain below SE32. "Pre-Islamic" tumuli were a feature in the vicinity of 13 sites (SE3,6,9,16,19,20,23,24-28,32). Four out of several tumuli were excavated at SE16 (Jacques-Meunié, 1958). At the same site, an engraved stone was incorporated in the construction of a tumulus, another placed upright in the middle of a tumulus at SE31, certainly after the construction of the mound.

Zone 6 - Anti-Atlas

(figures 16,17)

The rock art sites in the Anti-Atlas mountains were as varied in their composition as the geography of this zone. A complex hydrological system has led to the creation of isolated valleys and basins, giving a fragmented character to the region. A total of 26 sites was recorded (Simoneau, 1977), but one (AA17) was probably an error and was not included here, and one not recorded (AA11) was added. Data were lacking on five sites (AA4,15,16,25,27), leaving a total of 21 sites for analysis, but data on three (AA14,18,26) were limited.

Situation of the sites and engravings: three geographically coherent groups could be distinguished. The most easterly group (three sites) lay on a N-S axis at the eastern limit of the zone, more or less parallel to the Oghern (AA1-3). To the west, six sites clustered round Igherm, at altitudes around 1,800 m (AA6-11). A third group of eight sites was centred on the town of Tafraout (AA18-25). The nine remaining sites were scattered throughout the zone (AA4,5,12-16,26,27). No engravings

On sloping sheets beside a track (no water)	AA11
On boulders on a plateau	AA3
On sandstone blocks and rock faces in now dry valley	AA1,2
On sloping sheets by dry river-bed	AA6 sandstone, AA7 gabbro, AA8-10 unspec.
On vertical faces of blocks by generally-dry river	AA13,22,23
On vertical rock face beside river	AA24
On vertical rock face (no river)	AA21
On slabs or boulders in village	AA12,14
On isolated boulder	AA5,20
On rock faces and boulders near high pasturage	AA19
No information, except near river	AA18

Table 14. Situation of the engravings in Zone 6

lay on the sandstone ridges so familiar in Zone 5. Table 14 shows the situation of engravings on 20 sites.

Size of site:

1 image	AA5,12	Several	AA3,11,14
At least one	AA26	Numerous	AA2,7,8-10 (together)
2 images	AA20,21,22	1,1560	AA6
At least 3	AA18	Over 3,000	AA1
9-12	AA13,19,23,24		

Table 15. Number of engravings in Zone 6

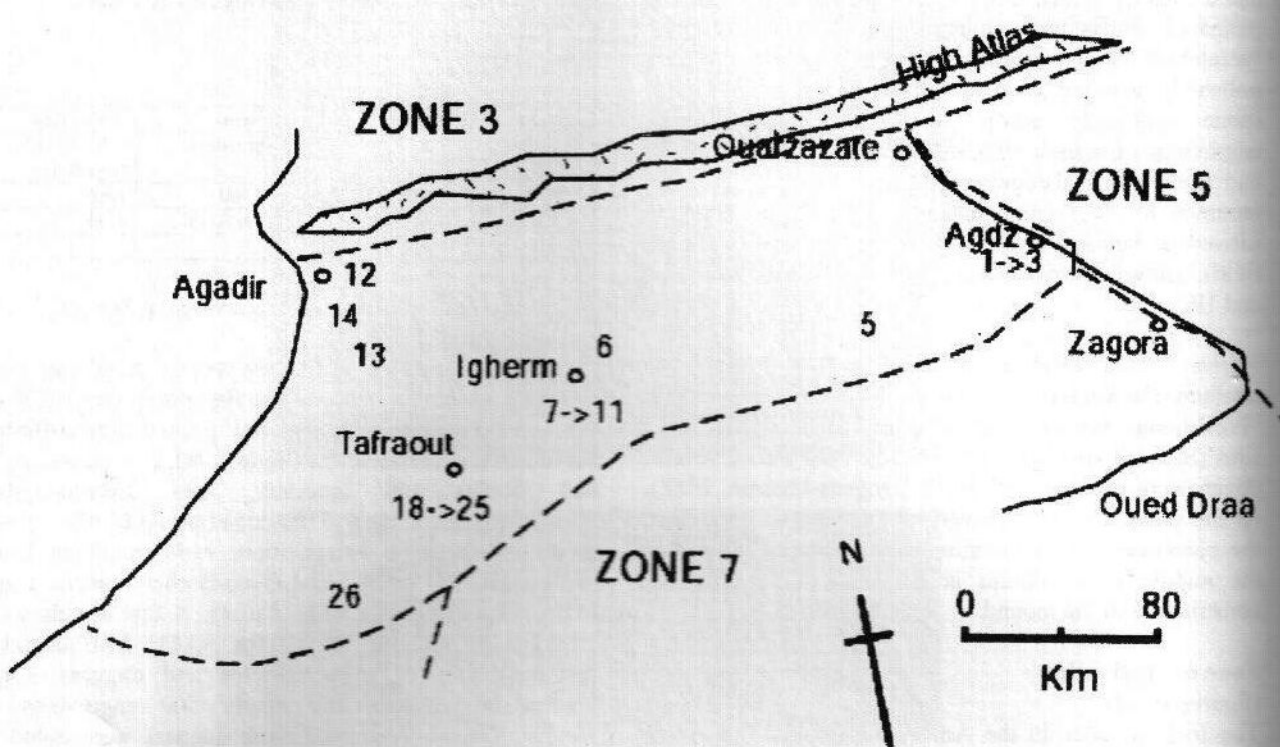
Contents and technique: the contents of these sites were as varied as their situations. The first group (AA1,2,3) all contained much the same material: pecked Libyco-Berber horsemen and foot-soldiers (figure 17a). In addition, AA3 had fibulas and bracelets, AA1 Libyco-Berber inscriptions and camels. The second group (AA6-11) was more varied in its composition, while retaining basic similarities. All contained Libyco-Berber horsemen and foot-soldiers, together with chariots. A few camels were recorded on all sites except for AA11. AA6 included representations of round shields and daggers, some nondescript animals and nearly 500 engravings of feet/sandals. Many curved Arab daggers were noted at AA11 and some at AA7; a "game" ("malcala", see Chapter 6) was engraved at AA10 as were some lines of Libyco-Berber letters. The Tafraout group (AA18-25) was in complete contrast, although less than 100 km of rough track separated the Tafraout valley from Igherm. Cattle, so conspicuously absent from the first two groups, were important in sites AA19,21,22,23,24 (figure 17b,17c). None of these sites contained wild animals, Libyco-Berber warriors or chariots, except for A18, where a chariot was closely associated with a bovid. A doubtful stick-figure was noted at AA11 and "two solar wheels" (?) (the only engravings) recorded at AA20. The isolated sites were varied in their contents: a complex design was engraved on a recumbent granite block at AA5, an anthropomorph with upraised arms was the only engraving on a boulder in the AA12 village, one or more chariots were engraved at AA14 (confused by a mass of modern graffiti), at least one rhinoceros was noted at AA26. A richer site was AA13, showing eight cattle and one elephant.

Archaeological features: an undated oppidum was recorded at AA2 and a tumulus at AA5.

Zone 7 - South

(figures 18,19,20)

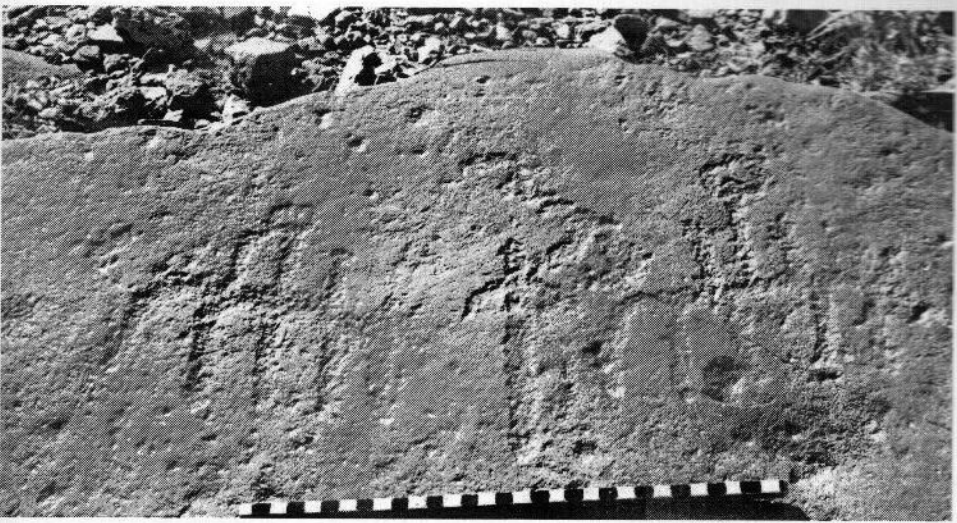
A total of 95 sites was catalogued (Simoneau, 1977) in this large pre-Saharan area stretching NE to SW across south Morocco for 400 km. Four sites were listed by mistake (here S9, 16, 37,82), and 21 added (here S20, 40,70,99-116) giving a total of 112 sites potentially available for analysis. Data were lacking on 20 sites (S4, 5, 6, 8, 12, 28, 31, 45, 47, 51, 52, 54, 56, 57, 60, 76, 78, 79, 81, 94). This leaves 92 sites effectively providing some data, though sometimes limited.



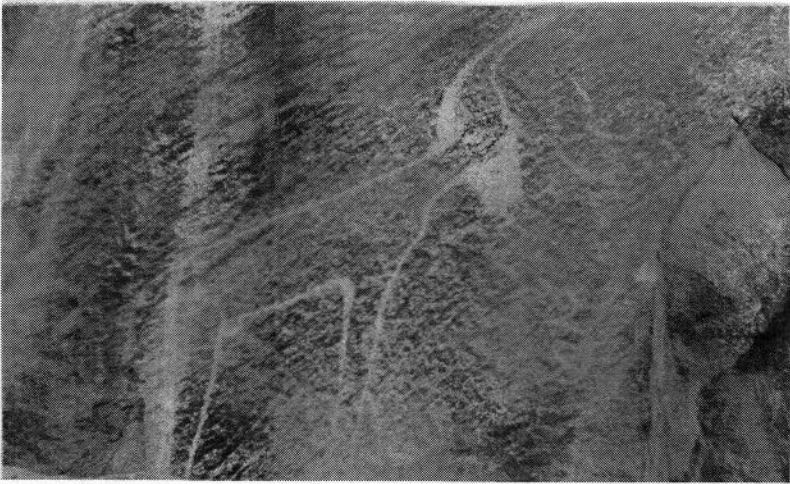
Zone 6 (Anti-Atlas)

- | | |
|-------------------------------------|----------------------------------|
| AA 1 Foum Chenna | AA 15 Ghératoum (no information) |
| AA 2 Assif Ouiggane | AA 16 Irhouz (no information) |
| AA 3 Djorf el Rhil | AA 17 Tazzalarht (eliminated) |
| AA 4 Azrou Akanine (no information) | AA 18 Assif el-Kbalt |
| AA 5 Imin Magous | AA 19 Amzlou |
| AA 6 Assif Tiwandal | AA 20 Imzilen |
| AA 7 Cheikh Iminirfi | AA 21 Tazka |
| AA 8 Waramdaz | AA 22 Taguenza |
| AA 9 N Waramdaz | AA 23 Tirhemtmat |
| AA 10 S Wameaz | AA 24 Douar Anezi |
| AA 11 Jbel Boukioud | AA 25 Souk Larba n'ait Hammed |
| AA 12 Bigoudine | |
| AA 13 Tamegdoult | AA 26 Timoulay |
| AA 14 Biougra | AA 27 Irharrar (no information) |

Figure 16. Situation of rock art sites in Zone 6



a

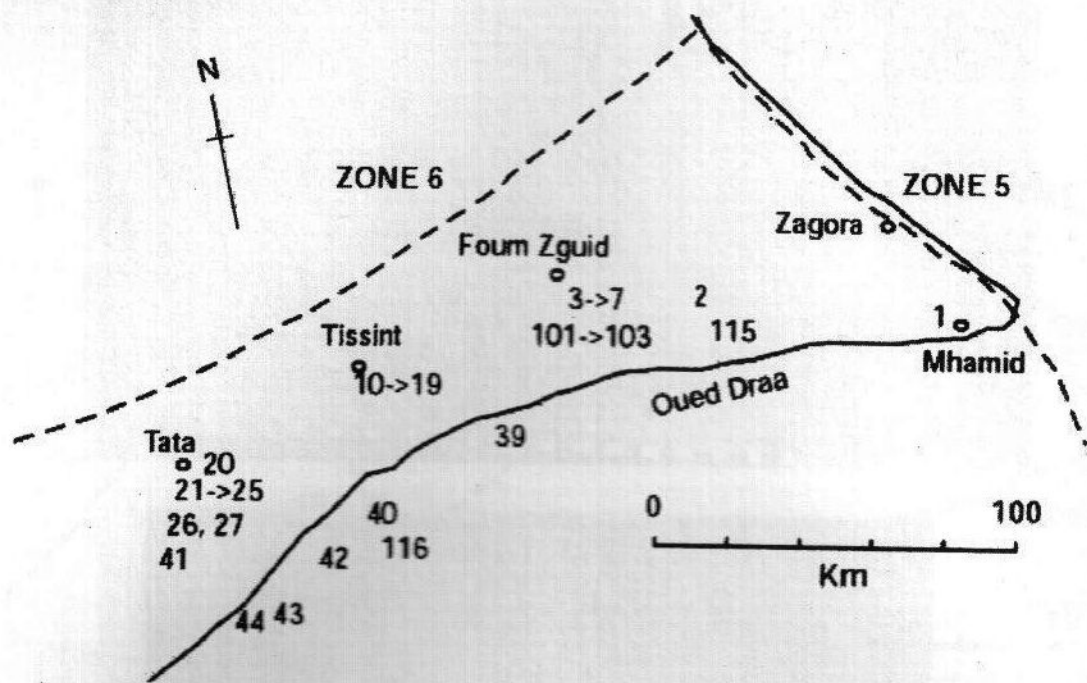


b



c

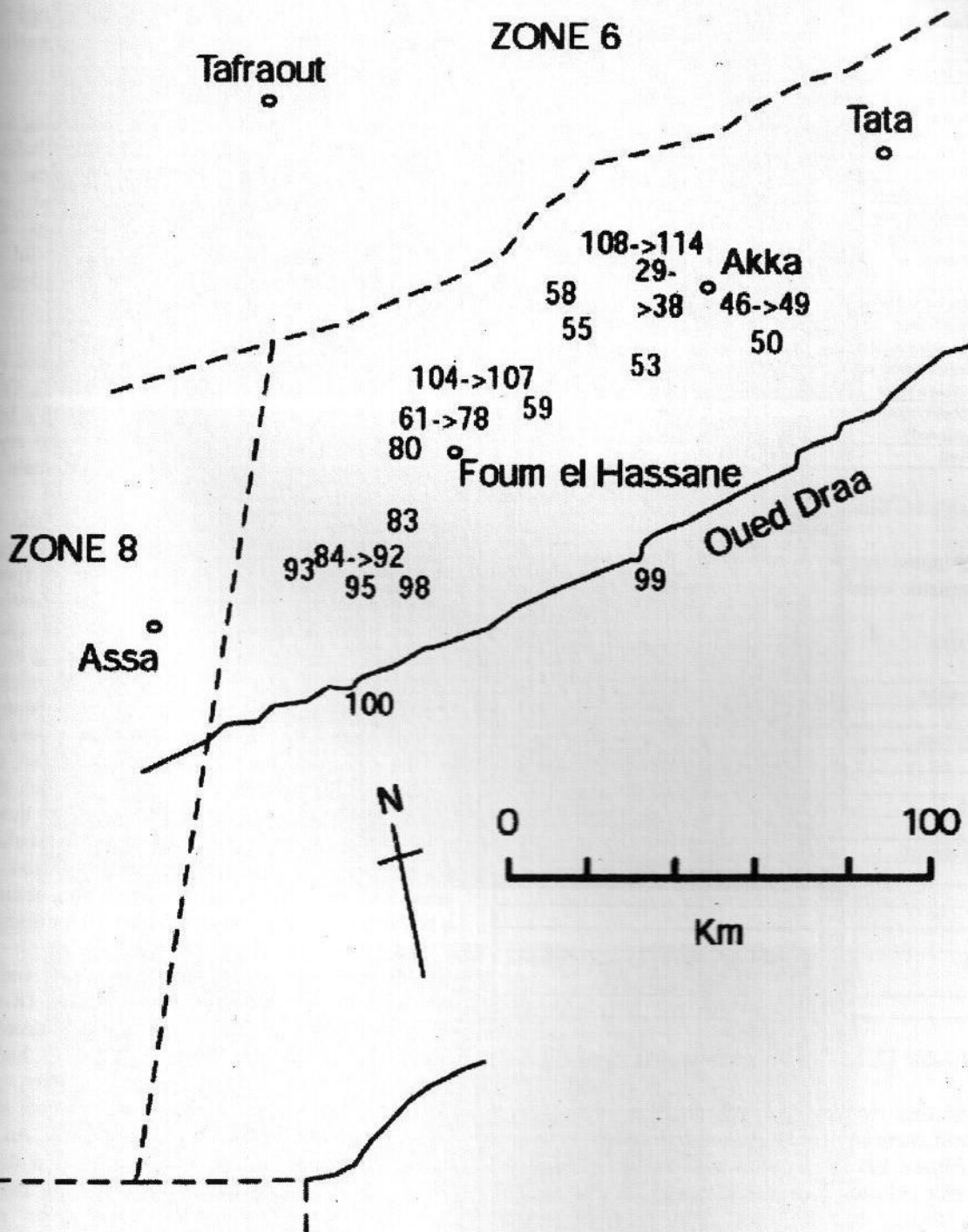
Figure 17. Selection of engravings from Zone 6



Zone 7 (south)

- | | | |
|-------------------------------------|--|---------------------------------|
| S 1 Rich de Mbida | S 41 Zaouia Sidi el-Mahdaoui | S 81 Adrar Yousguert (no info.) |
| S 2 Zaouia Sidi En-Nabi | S 42 Kheneg Ben Zerhim | S 82 Tebsist (eliminated) |
| S 3 El Ghouia | S 43 Fom Alguim | S 83 Tizgui-Tagoulgalt |
| S 4 Wiggane | S 44 Tazout Sidi Adnane | S 84 Wazzouzount |
| S 5 Oued Neffid | S 45 Gara El-Ghans (no information) | S 85 Wawkinkht |
| S 6 O Oum-Echanna | S 46 Maarda | S 86 Zerzem |
| S 7 J Lahmar | S 47 N Mou Tbane (no information) | S 87 Amtoudi |
| S 8 O Mrah (no information) | S 48 Gara Sud Mlaleg | S 88 Assif Kelmt |
| S 9 J n'Ourkour (eliminated) | S 49 S El-Gtara | S 89 Waday |
| S 10 Oued Naga | S 50 Tiouzfouine | S 90 Bou Ifecht |
| S 11 Oued Amsalikh | S 51 Assif Ikhf ou Akhf (no info.) | S 91 Idmissane |
| S 12 Assif Zguit (no information) | S 52 Tazaki n'Zida (no information) | S 92 Tanzirt N |
| S 13 Glab es Seghir | S 53 Tahcouacht | S 93 Anou el Hajj |
| S 14 Mrimrima | S 54 Mouih El-Ghérib (no info.) | S 94 Aghs Mimoun (no info.) |
| S 15 Fom Timellouka | S 55 Ait Ouabelli | S 95 J Tarchkoun |
| S 16 N Tizi Iguidi (eliminated) | S 56 Assif n'Tadakoust (no info.) | S 96 Tan Zega |
| S 17 Rive droite O Malah | S 57 Moumersel (no information) | S 97 Tachoukent |
| S 18 Oued Fergoussat | S 58 Assif Youmkat | S 98 Tirthert |
| S 19 Oued Kraoua | S 59 Tissenrhaf | S 99 Kheneg Tafagount |
| S 20 Kasbat n'Zolit | S 60 Anou n'Ait ben Yassine (no info.) | S 100 Merkala |
| S 21 Oued Tata | S 61 Douroudi | S 101 Oued El Kebch |
| S 22 Sidi Bouadar | S 62 Guelta Grinkane | S 102 Site AR |
| S 23 Tabanit | S 63 Oukkas | S 103 Site FJ |
| S 24 Jorf Lhammam | S 64 Tissifriouine | S 104 Tamzarar |
| S 25 S Toug Er-Rih | S 65 Tasselbe | S 105 Biouafen 1 |
| S 26 Tiggane | S 66 Assif n'Tadroumt | S 106 Biouafen 2 |
| S 27 Ouest Mahdaoui (= O Miskaoui) | S 67 Leksbet | S 107 Taouraght |
| S 28 Kheneg Brahim (no information) | S 68 Tirtcht | S 108 Imaoun/O Imi Tek 1 |
| S 29 Akka Arhib | S 69 Ighir Ighnain | S 109 Imaoun/O Imi Tek 2 |
| S 30 Akka Issil | S 70 Ighir Ignain II | S 110 Imaoun/O Imi Tel 3 |
| S 31 O Imitek (no information) | S 71 Aguerd | S 111 Imaoun/O Akka A |
| S 32 Imaoun Assif Touna | S 72 Irhir Tisselguit | S 112 Imaoun/O Akka B |
| S 33 Adrar Temgard Issardine | S 73 Kasba Ait Herbil | S 113 Imaoun/O Akka C |
| S 34 Adrar n'Metgourine | S 74 Imin Tart | S 114 Imaoun/O Akka D |
| S 35 Imgrad Tayaline | S 75 Tebsiste | S 115 Ifrane n'Taska |
| S 36 Guelta Targent | S 76 Tidrarine (no information) | S 116 Hassi el Haouaira |
| S 37 SO Tougounine (eliminated) | S 77 Adrar Ounar | |
| S 38 Ouine el-Khir | S 78 Fom Assif n'Wanou-Inif (no info.) | |
| S 39 Khaoui el Kteban | S 79 Tizgui n'Cheikh (no information) | |
| S 40 Sidi Bou Lanouar | S 80 Irhir Ouilouln | |

Figure 18a. Situation of rock art sites in Zone 7 (eastern end)



Situation of the engravings: the map sheet on which all the sites were located was known, but the situation of the engravings was not always indicated in the published reports. Table 16 indicates the situation of the engravings where this is known.

Rock-shelter (paintings)	S2,115
On blocks on ridges: sandstone	S13,15,22,25,46
quartzite	S1
dolerite	S14
not stated	S10
On boulders in the plain	S102,103
On schistose hillock	S100
On blocks on ridges overlooking or near a river	S18,19,21,24-27,30,32-36,38,48,49,53,65,68,84-91,95,98,99,101,105-111,113,114
On sandstone cliffs near a river	S62,69,70,72,80,97,104,112
On a cliff face and scattered limestone rocks near a river	S39,63
On a free-standing conglomerate block beside a river	S20
Very probably near a river (not mentioned)	S11,41,64,66,67,71,73,74
Near a well	S116

Table 16. Situation of the engravings in Zone 7

It can be noted that some 80% of the sites for which data were available were situated near water.

Size of site:

1-2 minimum	S3,7,10,11,29,36,55,77,83,92,100
"few"	S1,108 (much destruction)
5-7 minimum	S13,22,58,75
7-20	S2,17,20,24,25,39,40,80,96,99,103,112,116
36-70	S13,21,30,97,98
100-120	S19,53,68,69
200	S44
Several hundred	S26,63
346	S84-91 (taken together)
365	S34
435	S48
c 800	S32
Several	S22-25,35,38,43,49,59,61,62,64-67,70,72-74,93-95,102,104-107,109,110,115
Many	S14,15,18,27,33,46,71

Table 17. Number of engravings in Zone 7

Contents and technique: two main categories of sites stood out: those containing pecked engravings, mostly of cattle (figure 19a,b) but with some wild animals, and those with polished engravings, mostly of wild animals (figure 20a,b,c) but with some cattle. On eight sites the engraving technique was not indicated in the published reports. Four sites contained paintings.

Sites with a majority of pecked images outnumbered the polished group. A total of 33 sites contained a majority of pecked cattle (see Appendix 10 for all site references). Wild animals such as ostriches, lions and antelopes were also depicted on these sites. In many cases the different horn forms and coat markings of the cattle were clearly indicated (see figure 32b and c, for instance). Other sites with pecked images had unusual combinations, such as

S18 with wild animals but no cattle, the very small S20 with one large elephant, three ostriches, one anthropomorph and one bovid, and S32 with pecked cattle but a majority of curvilinear images (see figure 46). On S113 the majority of the pecked engravings were also abstract (geometric forms). Degrees of patination varied for all these engravings.

A total of 19 sites was the opposite, containing a majority of polished animals, generally wild but including cattle. The wild animals were antelopes (gazelles, oryx and hartebeest), elephants, rhinoceroses and ostriches. Giraffes were very rare and engravings definitely representing equids were absent (one doubtful on S48). A number of animals, not certainly identified, may be sheep with head ornaments.

Three sites contained both pecked and polished images in more or less equal proportions (S22, 33,68). Other sites contained a majority of pecked images with a handful of polished items, and pecked cattle were also represented on sites with a majority of polished wild animals.

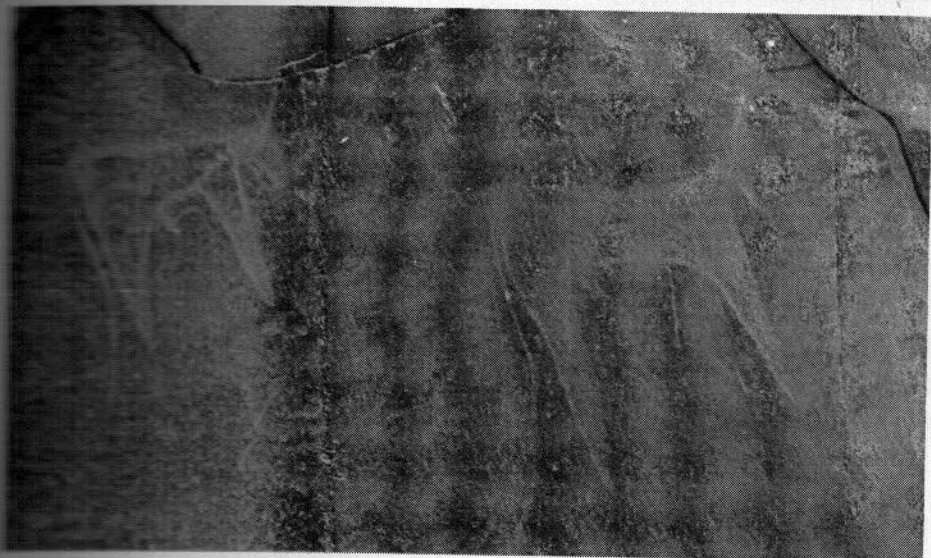
As well as engravings of wild animals and cattle, a number of other subjects were represented in these south Moroccan sites. Miscellaneous images (pecked or polished), circles, spirals and other non-figurative motifs featured on most sites. Anthropomorphs (pecked or polished) were frequently depicted attacking an elephant or a rhinoceros with an axe, armed with sticks (figure 20a) or carrying a bow (and once a quiver). Many seemed to have belts (on S27,43, for instance) and the man behind a Barbary sheep on S53 had a false tail, triangular feathered hat and carried a bow (figure 19c). On S34 a small, unarmed anthropomorph faced a large lion. Several men had an excessively large penis. Particularly large pecked anthropomorphs were noted on S104. On four sites (S32,33,34,58) a man is shown sitting or standing on a bovid (*boeuf porteur*) (see Chapter 13 for discussion).

Bag traps were very numerous, *Radnetze* and "spoked wheel" traps rare. Chariots were noted on 18 sites (one doubtful). Pecked fibulas, bracelets and curved daggers occurred on site S1. Sites S2,39,58,115 had painted images: Libyco-Berber horsemen, *tifinars*, geometric designs and, on S115, a giraffe and a horse; S58 had a white-painted bovid and an anthropomorph. An engraved *tifinar* inscription was recorded on S27 (one doubtful on S48). Libyco-Berber hunting scenes were engraved on S32,39,58,87,101,115. Axes, metallic or otherwise, figured on at least 21 sites, some held by anthropomorphs: S13, 23,25,26,27,30,32,35 38,44,53,68,70,71,74,84, 89,91,97, 106, 107. A polished dagger was recorded on S3.

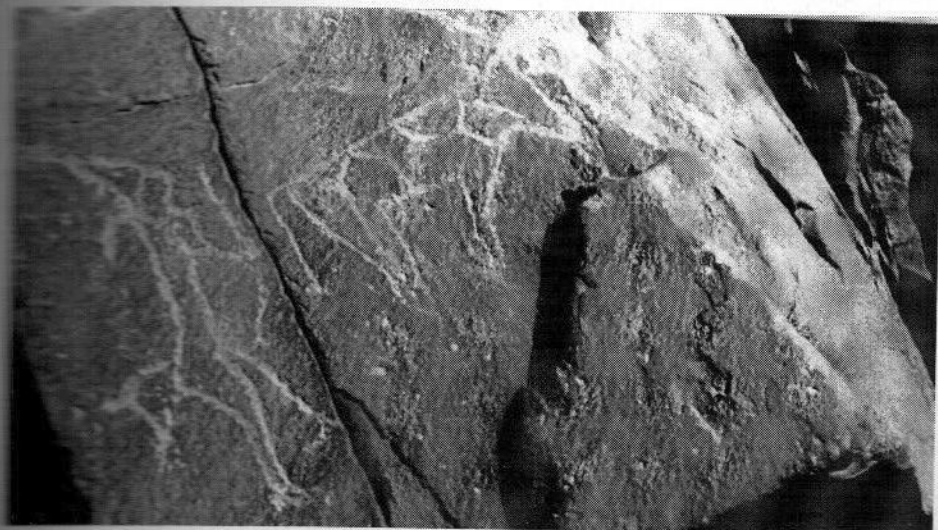
Archaeological material nearby: simple tumuli were a feature on almost every engraved site situated on a ridge. A number of crescentic stone arrangements were noted around S11. A series of more complicated monuments was visible at S53: two clear examples of a tumulus with enclosure and corridor and four in ruins. A ruined citadel



a



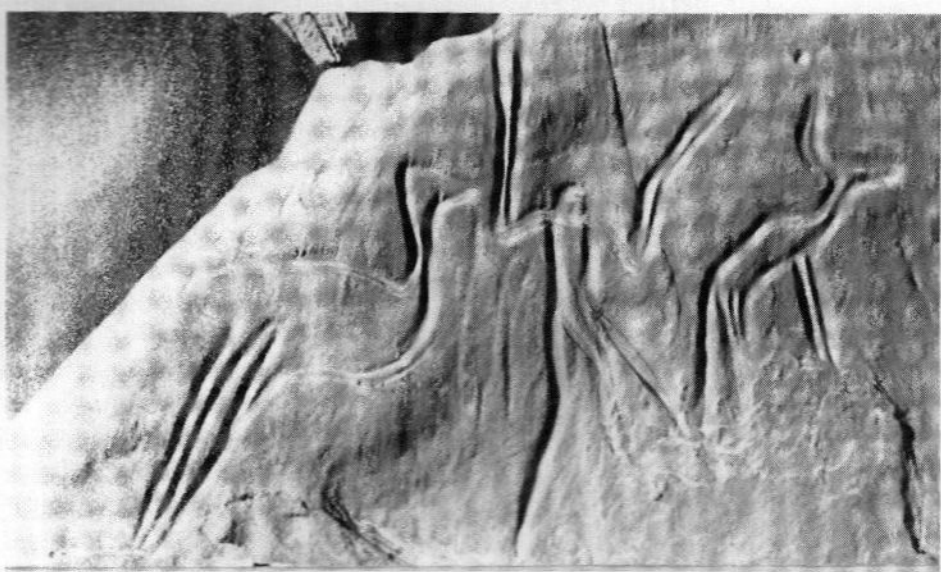
b



c

Figure 19. Selection of engravings from Zone 7

a) Cattle, Akka Issil (S30) b) Cattle, Imaoun (S32) c) Hunter and Barbary sheep, Taheouacht (S31)



a



b



c

Figure 20. Selection of engravings from Zone 7

a) Ostrich, man, gazelle, O Kraoua (S19) b) Ostrich, Tiggane (S26) c) Rhinoceros, O Miskaou (S27)

was recorded near S1 and ruined fortified granaries at S70. Neolithic stone tools were scattered around S18,34,40; S34 also yielded numerous pottery sherds.

Zone 8 - South-west

(figures 21,22)

A total of 24 sites was recorded in this zone (Simoneau, 1977). One, SW5, was eliminated because it was confused with another. One old, unrecorded site (SW4) and two new sites (SW11,27) were added (SW 11 is in fact an extension of SW1). Information was lacking on four sites (SW18,22,24,25). This left data available on 22 sites.

Situation of the sites: the known situation of 17 sites is given below.

On sloping sheets beside a spring	SW3,12,26
On sandstone rocks beside a river	SW6,7
Near a river	SW2,11,13,20,27
Vertical sandstone rock faces	SW8,9,10
On free-standing boulders	SW4,16
On sandstone outcrops in the plain	SW14,15

Table 18. Situation of the engravings in Zone 8

Size of site:

5 images and under	SW1,4,16,21
ca 10-20	SW7,12,13,14,15
25	SW3
54	SW6
"Several"	SW2,8,11,17,19,26
ca 100	SW10
2,000-3,000	SW20

Table 19. Number of engravings in Zone 8

Contents and technique: wild animals were engraved on 10 sites: rhinoceroses (SW1,7,21); elephants (SW2,3,11,12,27) (figure 22a); lions (SW3, probably SW7, SW20); antelopes (SW3,11,14,15); ostriches (SW7,12). Cattle were engraved on 12 sites: SW2,3,4,7,8,10,12,13,14,15,16,27. A collection of wild animals, including unusual species such as fish, squirrel, hedgehog and porcupine, and one bovid, possibly polished, was described on site SW6. Camels figured on SW8,20. Sites SW12-15 had chariots. Libyco-Berber horsemen were shown on SW8,20,26, this last site also with *tifinar* inscriptions. Site SW20 also had a unique engraving of a boat, along with lightly patinated Arabic writing, Berber jewellery and a mass of non-figurative images (figures 22b,c). The images on SW17 and SW19 were recent, including *kasbahs*, clocks, suns, fibulas, *swastikas*.

Both pecked and polished images occurred on SW3, where a small majority was domestic cattle with a few wild animals. The five engravings on a large block making up site SW4 were made with a fine, shallow pecked technique ("punched" according to the original researcher). Sites SW7, 8, 10, 12, 13, 14, 15, 20 had exclusively pecked images. Site SW11 had some thin-line engravings (not Tazina style).

Zone 9 - Western Sahara

(figures 23,24)

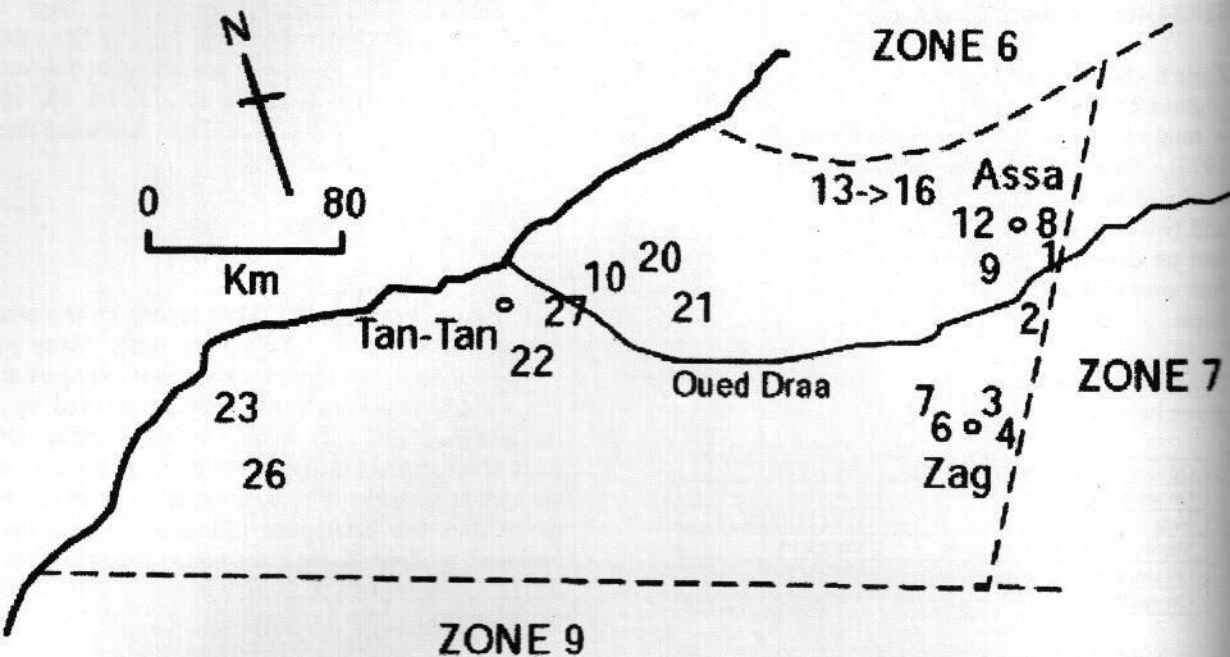
Many researchers have published reports on this area, but not all knew exactly where they were. Many judged "their" site to be totally new, whereas in fact part at least had already been published - a fact ignored by some researchers. Some data were therefore doubtful. Despite these shortcomings the general picture of this zone's rock art may be considered to be reasonably accurate. A total of 19 sites was catalogued (Simoneau, 1977); one was removed to Zone 8, ten sites not in the catalogue were added, giving a total of 28 sites for this study, with data incomplete on seven sites (WS1,7,16,17,24-26).

Situation of the sites: understandably, many sites were closely connected with the Saguiet el Hamra river and its numerous tributaries. The densest group was centred on Smara, in the middle reaches of the Saguiet el Hamra. Nine sites lay within 25 km of this town (WS2-9,28), two further east (WS10,11), the remainder rather more isolated. An excentric site, WS1, used to exist at Laayoune, near the coast, but it was destroyed in the 1940s.

On low, dark slaty outcrops near dry river-bed	WS2,3,4,5
Destroyed	WS6
Much destroyed, beside river	WS7,8,9 (sandstone ridges)
Much destroyed	WS24,25
Beside or near river	WS10,11,13 (sandstone slabs), 14,16, 17 (all 3 slaty hillocks),15,19,22,23
Slabs on small hill (apparently not near water)	WS12
Rock-shelters opposite well	WS18
Near well	WS20,21 (slate slabs)
Rock-shelters	WS27,28

Table 20. Situation of the engravings in Zone 9

Size of site: so much destruction has taken place on these Zone 9 sites that it would have been misleading to attempt to indicate the number of engravings that remained. As far as can be seen, sites contained from five to around 100 engravings (for instance, reliable figures gave one engraving on WS16, about 100 on WS2, 102 on WS22).



Zone 8 (south-west)

SW 1 Tazout (d'Assa)

SW 2 Kheneg Lakahal

SW 3 Ain Enbeibiga

SW 4 Oued Zak

SW 5 Sidi Bou Lasrar (eliminated)

SW 6 Guelb-Ouday-Sfa

SW 7 Ain Smaiera

SW 8 Palmeraie d'Assa

SW 9 Oued Tizgui-Remt

SW 10 Mou-Loucham

SW 11 Lemaltega Lefdar

SW 12 Anou Tirardourène

SW 13 Khenef Tiflet

SW 14, 15 Mader Tiflet

SW 16 Tihremt

SW 17 Sidi Bourja (no information)

SW 18 Aouinet n'Ait Oussa (no information)

SW 19 Oued Ech Cheikh (no information)

SW 20 Azrou Klan

SW 21 Teglite

SW 22 Fahra (no information)

SW 23 Oued Chebeika

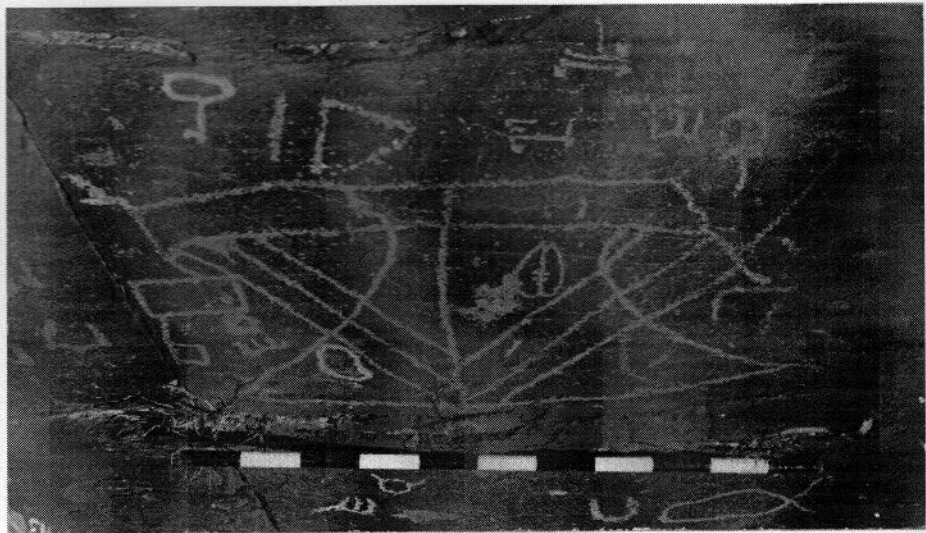
SW 24 Oued Louar (no information)

SW 25 Oued Umma Fatma (no information)

SW 26 Timatkor

SW 27 Tilemsen

Figure 21. Situation of rock art sites in Zone 8



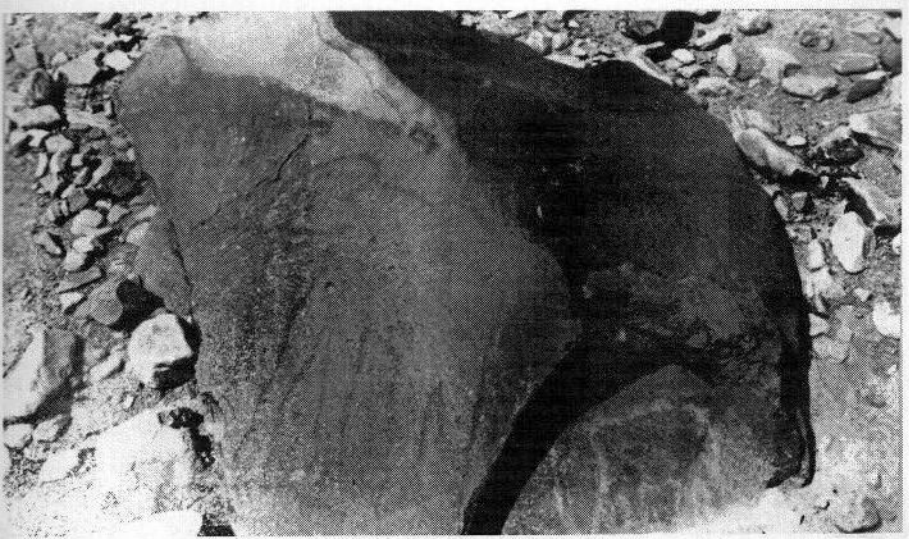
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q



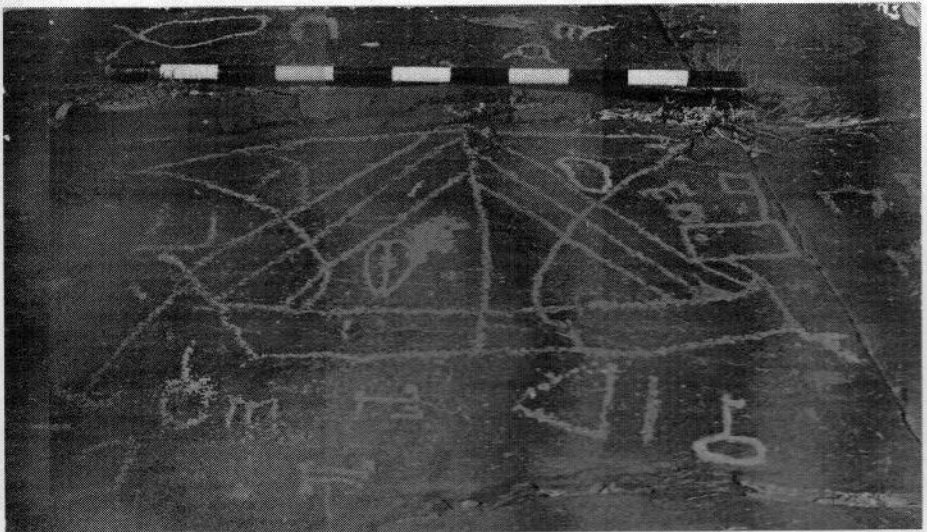
b



a



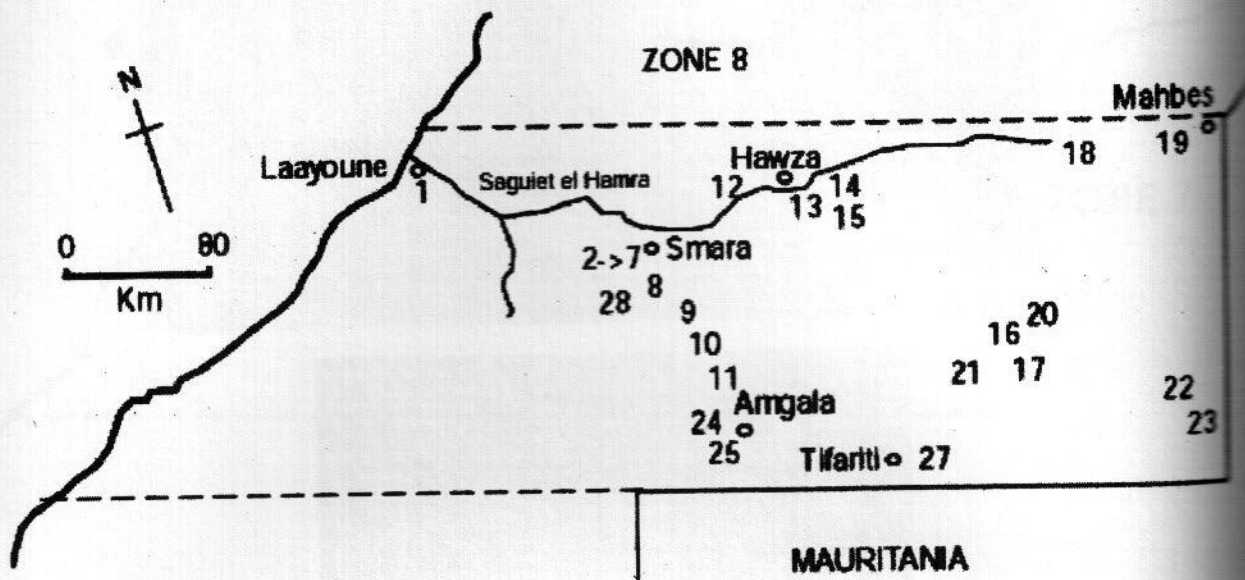
b



c

Figure 22. Selection of engravings from Zone 8

a) Elephant, Tilemsen (SW27) b) Variety of images and c) boat (SW20)

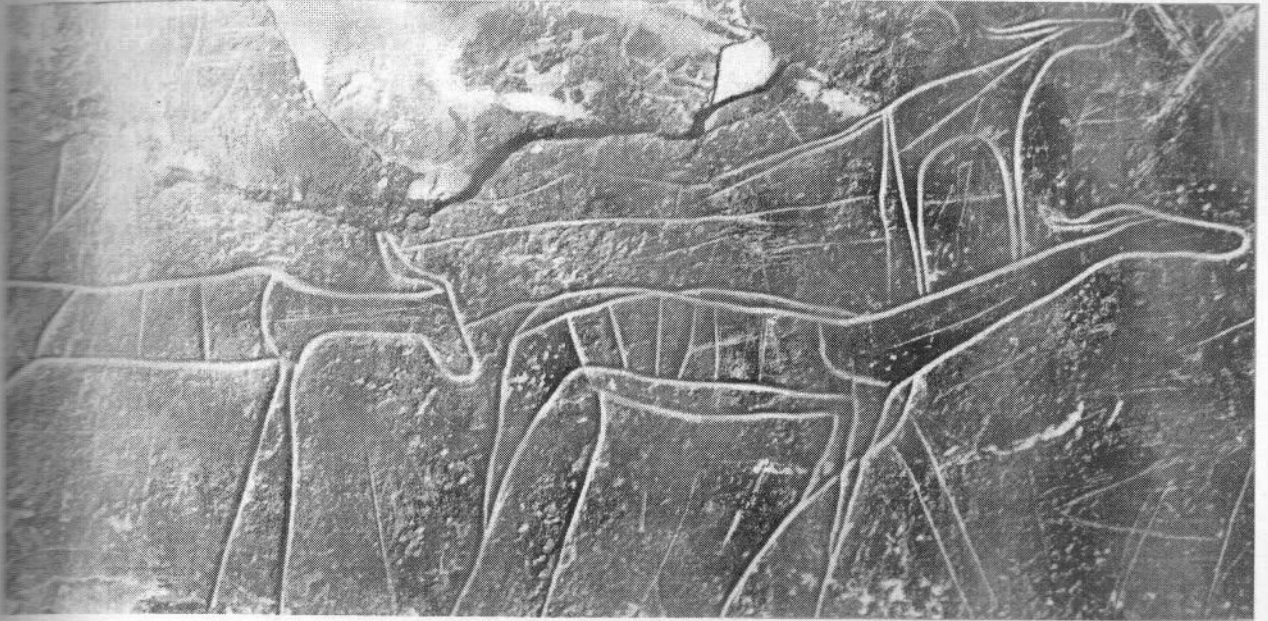


Zone 9 (Western Sahara)

- | | |
|-----------------------------|--|
| WS 1 Safia de El Aiun | WS 16 Gart Temar |
| WS 2 Lomo di Asli | WS 17 Gar Carfarsiat |
| WS 3 Asli Richies | WS 18 Pozo de El Farsia |
| WS 4 Asli Gardega | WS 19 Fet-Saccuna |
| WS 5 Cerro de Asli Boukerch | WS 20 Chelja Mairat |
| WS 6 Smara | WS 21 Pozo Mecaiteb |
| WS 7 Guera del Uad Zeluan | WS 22 Sidi Mulud |
| WS 8 Oued Tasua | WS 23 Ras Lentareg |
| WS 9 Oued Miran | WS 24 Cerro Nortoeste de Amgala |
| WS 10 Oued Sfa | WS 25 Proa Sur de Amgala |
| WS 11 Odola Amgala | |
| WS 12 Hauza | WS 26 Koudiat Haratani (situation unknown) |
| WS 13 Tucaat en Haila | WS 27 Tifariti |
| WS 14 Suiel | |
| WS 15 Fum Uad Ben Daka | WS 28 Uad Ymal |

Figure 23. Situation of rock art sites in Zone 9

a



b



Figure 24. Selection of engravings from Zone 9

Gazelle, Smara (WS6) b) Ostriches and antelopes Pozo Mecaiteb (WS1) (photo Basel Museum)

Contents and technique: as was said above, too much confidence could not be placed on all published work in this area, since researchers used different methods and criteria for identifying images and seemed often to have worked oblivious of interpretations of rock art representations elsewhere, leading to site inventories of rather strange animals and objects. The present study was cautious, relying on photographs, tracings or drawings by reliable researchers rather than texts. Three sites with paintings were known in this zone: site WS18 contained red-painted inscriptions, WS27 had paintings of hand-stencils, humans and wild animals, particularly giraffes, reminiscent of the central Sahara (see Chapter 13) and WS28 had red ochre representations of anthropomorphs. Cattle were engraved on 19 sites (WS1,4,5,8-14,16-20,22-25), antelopes also on 19 sites (WS2-8,13-15,17-25) (figure 24a,b), rhinoceroses on 12 sites (WS2,4,5,10,14,18,20-24,26) and elephants on 11 (WS1,4,5,7,8,10,14, 19, 21, 24,25). Giraffes were relatively numerous, being engraved on eight sites (WS3,4,7,9,17,21,23,25) and painted on one (WS27). Ostriches appeared on 13 sites (WS2,3, 7-9,12-14,19,21-24) (figure 24). Other wild animals were noted. The most likely identifications concerned equids (WS2,5,7), a Barbary sheep (WS11) and a giant buffalo (WS21). The 54 caprids recorded (WS4) are here considered doubtful. Anthropomorphs figured on nine sites (WS1,3-5,9,11,21-23): on WS5, armed with a bow, following an elephant, on WS9 waving a *hache-pelte*, on WS11 with "spokes" around his head (hair?) and an exaggeratedly large penis, on WS21 (holding a possible bow) behind a rhinoceros and also on WS21 (one holding a possible bow) chasing two elephants. An unusual armed anthropomorph, mounted on a horse, figured on WS9 (see Chapter 12 and figure 47e for discussion). Chariots were engraved on WS1,2 (nine times), WS26; unspecified daggers on WS2; five *haches-peltes* on WS9 (two held by anthropomorphs); five polished weapon-heads (probably metal) on WS7. A "Southern Morocco" axe figured on WS21 and WS23, an unspecified axe on WS5 and on WS24. Bag traps were shown on three sites (WS9,22,23), *tifinars* twice (WS18,21), and what look like masks twice (WS14 (fresh patina) and WS21 (see figure 47a,b). Libyco-Berber horsemen were noted on WS2,21, and unspecified inscriptions [Libyco-Berber?] on WS2,24.

Although the technique was often not indicated in the published reports, it was possible to identify 15 sites containing polished engravings (WS5-8, 10, 12-16, 19-23) and seven with pecked engravings (WS1- 5, 7, 12) (polished and pecked images often occurred on the same site). On some sites the technique was described as "punching", and this was apparent from published photographs (WS3, 6 for instance).

Archaeological features: material was limited to surface scatters of stone tools and tumuli, which were noted at eight sites: WS7, 8, 9, 13, 15, 16, 23 and 24.

General conclusions

This review has shown that no simple, single picture emerged from a study of Moroccan rock art sites. Differences existed both between and within zones, while at the same time recurrences of theme and technique were frequent.

Zone 1 (North and Central Morocco) was characterised by the extreme diversity of its few, rather small, sites, with regard to both situation and contents. Three of the 12 Moroccan sites with paintings were found here, without any apparent typological link between the images. Only two sites had engravings of a type found elsewhere, although the crude anthropomorphs had their counterparts in Zone 3. Zone 2 (Eastern Morocco) also presented a variety of facets, some sites being pecked, others polished in Tazina style, others in use over a long period and consequently containing a mixture of themes, styles and techniques.

The High Atlas (Zone 3) showed an overall stylistic uniformity, characterised by weapons and, to a lesser degree, anthropomorphic figures. Engravings of domestic cattle, together with some wild animals, also occurred. Engravings were pecked, often subsequently polished. Three major areas accounted for almost all the sites and although differences existed between them, mainly concerning the proportions of certain categories of engravings, it was possible to say that the High Atlas rock art formed a coherent whole. This was the only zone to show what have conveniently been called "idols" - mythological or ideological figures.

Zone 4 (Extreme South-east), south of the High Atlas, was already climatically in the Saharan zone of influence. The two sites here stood apart from their neighbours in Zones 2 and 5, although their engravings - chariots, inscriptions, pecked cattle - have counter-parts elsewhere. Zone 5 (South-east) was extremely homogeneous, containing Tazina style polished engravings throughout, with a very small number of pecked images.

The Anti-Atlas (Zone 6) contained two main groups of engravings, clearly separated: Libyco-Berber images to the east and centre, pecked cattle to the west. The separation was not watertight, however, chariots being represented in both groups. Polished Tazina style animals were lacking. This was not the case in Zone 7 (South), where this type of engraving was numerous in the east and centre, thinning out towards the western end of the zone. The typological similarity with the Zone 5 engravings was striking. This Saharan zone was also remarkable for its many sites depicting pecked cattle, often in some detail. Paintings occurred on four sites. In Zone 8 (South-west), no site containing typical examples of wild animals in polished Tazina style was noted. Sites were predominately made up of pecked domestic cattle, with a few wild animals, though chariots and Libyco-Berber horsemen and foot-soldiers were noted. Finally, sites in Zone 9 (Western Sahara), although much

destroyed and subject to a certain confusion in the research, again showed Tazina polished animals, along with mixed collections of pecked animals and objects. Three sites contained paintings.

This review of Moroccan rock art sites showed that several different modes of existence and ideologies influenced the populations responsible for the paintings and engravings. Differences in theme, style and patination indicated that the engravings were not all contemporary and that a number of sites experienced several periods of occupation.

This appendix gives only some of the information contained in the data-sheets established for each site (see Chapter 1). Data came from published reports and personal knowledge. As only a small number of catalogued sites has been fully published, information was inevitably uneven. The first reference number is the one used in this study, the site name is as given by the first researcher. The name, number of the official rock art inventory (Simoneau, 1977) and map reference are in brackets. The grid reference, the number of engravings (E) or paintings (P) and the situation of each site are those given in published reports (sometimes a combination of several sources), unless other information was available. Few Moroccan rock art sites have been the object of a complete corpus. Researchers tended generally to use vague terms such as "many" or "a few", so many sites could not be quantified and figures given here are minima. The select bibliography listed the first publication and others that added information, excluding analyses and syntheses. The contents of each site, noted on the relevant data-sheet site, are not generally included in this appendix. Comments or queries by the present researcher are in italics within square brackets.

Once again it is emphasised that a site's contents (indicated in the data-sheets) only represented what researchers saw or felt worth recording. Destruction has taken place on many sites, others have only been superficially reported. However, in spite of these limitations, it was considered here that the general feel of a site had been appreciated and its peculiar features noted. The undoubted lack of precision concerning the actual number of images on a site was thus felt not to invalidate deductions.

ZONE 1 – North and Centre

NC 1 - **Magara Sanar**, Larache (uncatalogued): numerous P. *Situation*: cave in the J Tasbet [*J Kasba in original report*], 50 km E of Larache. *Bibliography*: Garcia Hernandez (1941). Many articles published since, see Souville, 1973. *Contents*: red paintings (dots, circles, meanders, etc), mainly concentrated on the roof.

NC 2 - **Oued Zireg**, Taza (uncatalogued): several E. *Situation*: on large limestone blocks obstructing rock-shelter on left bank of O Zireg, c 30 km E of Taza. No engravings on walls of shelter. *Bibliography*: Grébénart and Pierret, 1966.

NC 3 - **Grotte des Contrabandiers**, Rabat (uncatalogued): 1 E. *Situation*: on vertical rock face c 20 m N of mouth of cave in fossil sandstone cliff, 17 km SW of Rabat. *Bibliography*: Roche and Jodin, 1966. *Contents*: pecked *orant* (63 cm). *Archaeological material*: excavations yielded lithic material from Early Aterian to Iberomaurusian.

NC 4 and 6 - **Maaziz and N'Kheila**, Rabat (uncatalogued): 3 steles. *Bibliography*: Souville, 1973. *Contents*: Three roughly worked steles found near Rabat at the beginning of the century, now in the Antiquities Museum in Rabat. Two from N'Kheila (84x52x11 cm for the best preserved), one from the nearby village of Maaziz. One very damaged, one slightly so, the other in good condition. In the centre of the best preserved can be seen an anthropomorph in bas-relief surrounded by an undulating line and concentric arcs, with a third series of concentric arcs at the top.

NC 5 - **Kef el Baroud**, Ben Slimane (uncatalogued): 9 P; 4 E. *Situation*: paintings on roof of cave on E face of limestone massif (561 m), 10 km E of Ben Slimane, 30 km from coast, overlooking O Cherrat; 1 engraving near entrance, 2 c 400 m N of cave-mouth; group of cup-marks 100 m further on. *Bibliography*: de Wailly, 1973/75. *Contents*: 9 pale red non-figurative paintings (horned spirals the most frequent); engravings unidentifiable. *Archaeological material*: excavated Neolithic and Chalcolithic material dated 4750±110 bp and 5160±110 bp [*see Chapter 4*].

NC 7 - **Kef el Kerma**, Casablanca (uncatalogued): a few E. *Situation*: on vertical face of rock-shelter in fossil sandstone cliff, c 250 m from sea, immediately SW of Casablanca. *Bibliography*: Antoine, 1935. *Contents*: all pecked: cup-marks, cup-and-ring marks, short furrows, 2 anthropomorphs. *Archaeological material*: Acheulean and Iberomaurusian lithics collected from vicinity.

NC 8 - **Ifrane** (uncatalogued): several P. *Situation*: mainly on walls, but some on roof, of rock-shelter in rocky outcrop 5 km from Ifrane, overlooking grassland. *Bibliography*: Choppy, 1952. *Contents*: Red-ochre, finger-wide, curvilinear abstract paintings close together: whorls, concentric arcs, short straight lines (no circles). *Archaeological material*: numerous grooved polishers, 3-25 cm long, 5 cm deep.

NC 9 - **Koudiat el Mouneb**, Skhour des Rehamna (uncatalogued): 141 E. *Situation*: 4 groups in small cavities and on flat surfaces around one of summits (581 m) of rocky conglomerate ridge. Extensive views. *Bibliography*: Searight, 1991. *Archaeological material*: rock faces grooved in 5 places (as polishers?).

NC 10 - **Grotte Goran**, Safi (uncatalogued): 6 E. *Situation*: on roof of extensive underground cave complex hollowed out in consolidated dune under thin calcareous crust, 36 km N of Safi, 1.5 km from sea (Cap Cantin). *Bibliography*: Antoine, 1952. *Contents*: 6 pecked and polished *haches-peltes*. *Archaeological material*: undated pottery.

NC 11 - **Ram-Ram**, Marrakech (uncatalogued): 434 E. *Situation*: isolated or grouped, on vertical and horizontal schist surfaces near summit of three low hills (c 476 m)

on edge of Djebilets massif. *Bibliography*: Rodrigue, 1985 and corpus, 1987/88.

NC 12 - **Koudiat el Mouissiera**, Marrakech (uncatalogued) : 88 E. *Situation*: on flat sandstone outcrop near summit of low hill, c 15 km SW of Marrakech [considered to have been 4/5 destroyed at time of original research. Most of remaining images damaged or touched up, new (white patina) engravings added.] . *Bibliography*: Malhomme, 1959.

* * *

Two engraved bedrock slabs found near Cap Cantin (Safi) (Herber and David, 1933) have been omitted. One (15x4m) was partially covered by c 200 images "reminiscent of horseshoes"; the other also contained horseshoes, a human hand, a human foot and a number of cup-marks. These engravings were considered by the authors of the article to be "religious" or belonging to the realm of "folklore".

ZONE 2 - East

E 1 - **Beni Ounif**, Figuig (Jbel Youssef, 150.001, Figuig): numerous E. *Situation*: on walls of rock-shelter and nearby cliff, on flank of J Youssef, near Figuig. *Bibliography*: Russo and Pons, 1936; Pons and Vaufray, 1938.

E 2 - **Oued Tisserfine Jachou**, Figuig (150.002, Figuig): at least 1 E. *Bibliography*: Lhote, 1970a. *Contents*: 1 elephant [at least].

E 3 - **Zenaga**, Figuig (150.003, Figuig) : 44 E. *Situation*: on walls of high sandstone rock just S of Col de Zenaga, near Figuig (frontier with Algeria). *Bibliography*: Hamy, 1902; Flamand, 1921 [mention only]; Russo, 1926; Gautier, 1927 [From the published sketches, some of the identifications looked wrong]

E 4 - **Jbel Melias**, Figuig (150.004, Figuig): 17 E. *Situation*: rock face, J Melias. *Bibliography*: Lhote, 1970a.

E 5 - **Gara Melias**, Figuig (150.005, Figuig): several hundred E. *Situation*: on 4 slabs inside rock-shelter SSW of site E4. *Bibliography*: Simoneau, 1975d. *Archaeological material*: snail shells, ostrich egg fragments, flints, pottery, charcoal on floor.

E 6 - **Garet el Hamra**, Figuig (150.006, Figuig): several E. *Situation*: low ridge. *Bibliography*: Lhote, 1970b.

E 7 - **Hassi Rhilane**, Talsinnt (150.007, Bal Ghiada): several hundred E. *Situation*: 6 groups of engravings some 60 km E of Talsinnt within a few dozen km of each other: Kerma, Jbir (both rock shelters in sandstone ridges), Petit and Grand Ghilen (on rocky chaos of rounded sandstone blocks), Borj Ali ou Hadid (large sandstone slabs), Hassi Tinjamine (2 sloping limestone slabs). *Bibliography*: Gautier, 1916; Greisson, 1973/75. *Archaeological material*: numerous lithic scatters but no

polished stone artefacts or pottery.

E 8 - **Ain Metlili**, Anoual (Assif Metlili, 150.008, Talsinnt): some E. *Situation*: on slabs of sandstone between Talsinnt and Anoual, c 40 km N of Talsinnt. *Bibliography*: Greisson, 1973/75.

ZONE 3 - High Atlas

HA 1-10 - **Jbel Rat** (150.047-056, Azilal) : 500-1,000 E. *Situation*: 10 catalogued sites at c 2,000 m on or near grazing grounds round the base of the Jbel Rat (3,397 m), in a zone c 10 x 10 km. On flat sandstone slabs, except for Amdrouss (HA8), on large isolated block. *Bibliography*: Glory, 1953; Malhomme, 1961; Simoneau, 1967b, 1968/72, 1970, 1975a, 1977.

HA 11 - **Tizi n'Iblouzen**, Jbel Rat (uncatalogued) : c 100 E. *Situation*: on sandstone slabs on small plateau, NE side of J Rat. Concentrations on N and E. *Bibliography*: Searight, 1994a.

HA 12 - **Aougdal n-Oumghar**, Telouet [correct name n'Aougdal Oumzouar] (150.057, Télouet): 50-60 E. *Situation*: on 3 sandstone slabs in centre of pasturage, at 2,500 m. *Bibliography*: Simoneau, 1970, 1977; Rodrigue, 1992c, 1999a. *Archaeological material*: 2 tumuli.

HA 13 - **Azibs de Tainant**, Igherm n'Ougdall (150.058, Télouet): 50-100 E. *Situation*: in 2 rock-shelters and scattered over 1 km on sandstone slabs on plateau overlooking prairie, on S face of Atlas mountains, at foot of Tizi n'Tainant (2,700 m). *Bibliography*: Simoneau, 1967b; 1968; 1970; 1977; Rodrigue, 1999a. *Archaeological material*: tumuli, microlithic flints.

HA 14-31 - **Yagour Plateau** (150.069-086, Oukaimeden-Toubkal): several thousand E. *Situation*: 18 catalogued sites scattered over 15x10 km on 2,500 m high plateau. Most engravings on horizontal or sub-horizontal sandstone slabs near pasturages. *Bibliography*: Malhomme, 1959, 1961; Jodin, 1964; Simoneau, 1967b; 1968/72; 1970; 1977; Rodrigue, 1994a; 1994c; 1999a. *Archaeological material*: tumuli.

HA 32 - **Talat n'lisk II**, Yagour plateau (uncatalogued): 50-100 E. *Situation*: c 300 m to W of Talat n'lisk site (qv), scattered over 1 km. *Bibliography*: Hourbette, 1992; Rodrigue, 1999a

HA 33 - **Talat n'Iguir**, Yagour plateau (uncatalogued): c 10 E? *Situation*: at W extremity of plateau on vertical rock face. *Bibliography*: Simoneau, 1967b.

HA 34 - **Ifard**, Yagour plateau (uncatalogued): 49 E. *Situation*: on horizontal sandstone outcrop in middle of narrow prairie, 600 m SE of Lake Ifar, 1,500 m E of site of Aguerd n'Tircht (HA23). *Bibliography*: Rodrigue, 1994a; 1999a.

HA 35-39 – **Oukaimeden** (150.087-091, Oukaimeden-Toubkal) : 920 E. *Situation*: engravings widely scattered over 4x2 km on the exposed sandstone slopes. The catalogued sites represent 5 geographical zones: Ait el Qaq (HA35) (large sandstone boulder N of Oukaimeden), Azib Tiferguine (HA36) (prairie), Azib Abadsan (HA37) (rock-shelter), Oukaimeden Abri (HA38) (slopes overlooking village), Oukaimeden (HA39)(village) [*much damage*]. *Bibliography*: Malhomme, 1959; Jodin, 1966b; Simoneau, 1967a; 1970; 1977; Regagnon, 1978; Rodrigue, 1986; 1987a; 1988; 1999a. *Archaeological material*: surface collections of flint artefacts, rock-shelter and 5 tumuli excavated [*see Chapter 4*].

HA 40 - **Tighremt Tidili**, Tighremt n'Ouazdidèle (150.068, Oukaimeden-Toubkal)

HA 41 - **Amrdoul**, Tizi n'Test (uncatalogued): 502 E. *Situation*: on granite ridge just S of pass (Tizi n'Oulaoune, 2,100 m) on S side of High Atlas, most on chaos of rocks, also on large horizontal slab, 10 m² (54 engravings), and large, flat slab at summit (84 engravings). *Bibliography*: Rodrigue, 1990. *Archaeological material*: 2 large tumuli.

HA 42 - **Toulkine**, Marrakech (150.141, Amizmiz) (grid ref: 215.8 x 66): numerous P. *Situation*: in 7 shallow cavities on ledges c 12 m above rock-shelter, 1,800 m alt. in limestone cliff. *Bibliography*: Bayle des Hermens *et al*, 1984. *Contents*: red ochre paintings of dots, curves, zigzags, combs, hand and finger traces. *Archaeological material and date*: Neolithic industry in underlying rock-shelter; red ochre found in an archaeological level dated 2120-2420 bc [*see Chapter 4*].

HA 43 - **Imi Ouzerwane** (150.142, Amizmiz): a few P. *Situation*: on sheltered ledge opposite Toulkine rock-shelter (HA42). *Bibliography*: Heckendorf and Salih, 1999: 233-257 [*mention only*]. *Contents*: paintings similar to HA42.

HA 44 - **Oussikis**, Msemrir (uncatalogued): 72 E. *Situation*: frieze c 4 m long on vertical sandstone rock face, Dadès valley, S side of Atlas. *Bibliography*: Rodrigue, 1989/90. *Contents*: pecked, polished, pecked+polished; 70 round shields (circles) + c 20 cupules, 2 groups of tiffin inscriptions.

ZONE 4 - Extreme south-east

ESE 1 - **J Ouafilal**, Taouz (150.009, Taouz): c 50 E. *Situation*: on horizontal or vertical surfaces (sandstone) on J Ouafilal summit and especially SE slopes. A few hundred metres from O Ziz (lost in sands). *Bibliography*: Ruhlmann, 1939; Meunier and Allain, 1956.

ESE 2 - **Taouz** (150.010, Taouz): 50-100 E. *Situation*: catalogue number covers 2 groups: a) on lightly inclined slabs on small isolated hillock; b) 200-300 m further west, on low hill, packed together on a slightly inclined slab but also a few isolated. *Bibliography*: Meunier and

Allain, 1956. *Archaeological material*: several dozen well-constructed tumuli with low dry-stone walling [*see Chapter 4 for funerary goods*] including one within 25 m of principal engraved slab.

ZONE 5 - South-east

SE 1 - **Hassi Kraouia**, Msissi (150.011, Msissi) (grid ref: 459 x 570): some E. *Situation*: on sandstone rock face along W bank of Assif Tikertouachène, 19 km SE Msissi oasis. *Bibliography*: Simoneau, 1974/75a.

SE 2 - **Assif Tikertouachène**, Msissi (150.012: Msissi) (grid ref: 463 x 569) : 2 E. *Situation*: north of site SE 1 (qv), on same sandstone rock-face on W bank of Assif Tikertouachène. *Bibliography*: Simoneau, 1974/75a; 1977

SE 3 - **Assif Msissi**, Msissi (150.013, Msissi) (grid ref: 465 x 556): a few E. *Situation*: on S side of Jbel Boukerkour, on left bank of Assif Msissi. *Bibliography*: Simoneau, 1974/75a. *Archaeological material*: Tumuli.

SE 4-7 - **Jbel Boukerkour**, Msissi (150.014-017, Msissi) (grid ref: 565x555, 465x554, 465x553, 465x551) : 50-100 E. *Situation*: group of 4 sites c 1 km one from another, on low sandstone ridges overlooking Assif Msissi on the west, a few km S of Msissi [*much destruction*]. *Bibliography*: Simoneau, 1974/75a; 1977. *Archaeological material*: tumulus close to SE6.

SE 8 - **Azag**, Msissi (150.018, Msissi) (grid ref: 471x 553) : c 10 E. *Situation*: on boulders to E of river running through Azag village, 2 km NW of Msissi. Isolated engravings slightly to E and N. *Bibliography*: Simoneau, 1974/75a.

SE 9 - **Jbel Iourarhane**, Msissi (150.019, Msissi) (grid ref: 262x539, 463x541): c 100 E? *Situation*: 2 groups: a) on summit of sandstone crest, E end of S face of J Iourarhane (c 20 km SW of Msissi), W of Assif n'Timerzit; b) c 2 km E of (a), on W edge of same assif. *Bibliography*: Simoneau, 1974/75a; 1977. *Archaeological material*: large tumulus near (a).

SE 10 - **Tagouramt**, Alnif (Tagouramt 150.020, Alnif): some E. *Situation*: on 3 sides of isolated block beside road to Achbarou, c 4 km NE of Alnif. *Bibliography*: Ruhlmann, 1939.

SE 11 - **Tameghout**, Alnif/Msissi (Tammerhout 150.021, Alnif) (grid ref. 463 x 537): numerous E. *Situation*: on sandstone boulders, about halfway between Alnif and Msissi. *Bibliography*: Ruhlmann, 1939; Simoneau, 1974/75a.

SE 12 - **Ait Saadane**, Tazzarine/Alnif (150.022, Taghbalt): numerous E. *Situation*: 2 distinct groups, halfway between Tazzarine and Alnif: (a) the most important, on horizontal sandstone slabs on plateau Taourirt n'Sidi Mohamed ou El Hadj, NE of Ait Saadane;

(b) on blocks on nearby hill Talidat, N of Ait Saddane.
Bibliography: Clariond, 1933; Ruhlmann, 1939.

SE 13 - **SE Ouaouglout**, Tazzarine (150.023, Taghbalt): numerous E. *Situation*: on sandstone ridge 8 km NE of Tazzarine, S of oasis of Ouaouglout. *Bibliography*: Simoneau, 1971b; 1977.

SE 14 - **Amergou**, Tazzarine (150.024, Tazzarine)

SE 15 - **Anou n'Ouamersemlal**, Tazzarine (150.025, Tazzarine): c 30 E. *Situation*: on isolated sandstone mound, c 25 km SW of Tazzarine. *Bibliography*: Simoneau, 1971b; 1977.

SE 16 - **Tazzarine NO**, Tazzarine (150.026, Tazzarine): many E. *Situation*: on scattered blocks on sandstone mound, 4 km NW of Tazzarine oasis [*much destruction*]. *Bibliography*: Simoneau, 1971b; 1977. *Archaeological material*: several tumuli, some excavated (*see Chapter 4*). 1 engraved stone incorporated in tumulus, another placed in tumulus centre. Several boulders grooved (polishers?)

SE 17, 18 - **Tamsahelt SE and E**, Tazzarine (150.027, 028, Tazzarine): many E. *Situation*: on small sandstone blocks on 2 ridges c 15 km W of Tazzarine. *Bibliography*: Simoneau, 1971b.

SE 19, 20 - **Ait Ouazik S and O**, Tazzarine (150.029, 030, Tazzarine): many E. *Situation*: on boulders on sandstone ridges, in dry bed of O.Akka n'Ifedzane c 15 km S of Tazzarine. *Bibliography*: Simoneau, 1971b; 1977. *Archaeological material*: tumuli; several boulders grooved (polishers?).

SE 21 - **SE Abdi n'Ilemchane**, Tazzarine (150.031, Tazzarine): 1 E. *Situation*: sandstone ridge SE of small oasis of same name, which continues as site of Tamsahelt (SE 17,18). [*Only mentioned in Simoneau, 1977, with reference to Tamsahelt in Simoneau, 1971b. So probably part of Tamsahelt.*]

SE 22 - **Zalou S**, Tazzarine (150.032, Tazzarine)
Situation: 8 km NW of Ait Ouazik (SE 19,20) in dry bed of Assif n'Tarna.

SE 23 - **Tanoumrit S**, Tazzarine (150.033, Tazzarine): several E. *Situation*: 2 groups of sandstone ridges, one just S of the village, the other 4 km SSW.
Bibliography: Simoneau, 1971b; 1977. *Archaeological material*: tumulus, including built-in slab with frieze of 3 ostriches.

SE 24-28 - **Ikhf n'Ouaroun**, Zagora (150.035-039, Hassi Bou Hayara) (grid refs: 503x369, 503x375 [502x373], 503x365 [504x361], 503x363 [504x362], 504x361): c 200 E. *Situation*: the 5 catalogued sites stretch for 10 km on a series of sandstone ridges, c 50 km E of Zagora: Azigzaou ou Semlal (SE24), Ouzdine (SE25), Asguine (SE26), Azigzaou Brahim (SE27), Ouakhir (SE28). Engravings on bedrock slabs or scattered boulders.

Bibliography: Simoneau, 1971a [*figs. only*]; 1972a; 1974/75b; 1977. [*Much current destruction, many recorded engravings missing.*] *Archaeological material*: tumuli.

SE 29 - **Ikhf n'Ouaroun, Tafenna**, Zagora (150.034, Hassi Bou Hayara): 60 E. *Situation*: most on sandstone ridges in southern part of Hassi Tafenna basin, 10 km E of Ktaoua. *Bibliography*: Simoneau, 1972a; 1977.

SE 30 - **Foum Takkat**, Zagora (150.040, Zagora).
Situation: c 16km WNW of Hassi Tafenna, where Oued Draa cuts through the Jbel Bani.

SE 31 - **Tidri**, Zagora (150.041, Tagounite): several E.
Situation: flat rock surfaces on edge of plateau containing part of Foum Larjam necropolis, right bank of O. Draa, c 50 km S of Zagora [*should be in Zone 5 but included here because of proximity to preceding sites*]. *Bibliography*: Simoneau, 1972a. *Archaeological material*: some engravings incorporated in tumuli (*see Chapter 4*); large engraved elephant and small antelope on vertical slab in middle of [*robbed*] tumulus.

SE 32 - **Jbel Tibasksoutine**, Zagora (uncatalogued): c 50 E. *Situation*: on sandstone outcrops of Jbel Tibasksoutine, left bank O Draa, c 30 km SE of Zagora. *Bibliography*: Rodrigue, 1989. *Archaeological material*: more than 100 tumuli; thick scatters of Lower Palaeolithic lithic material.

SE 33 - **Foum Larjam**, Zagora (150.042, Tagounite). Eliminated. *Situation*: necropolis just W of site Tidri (SE 31) [*No mention of engravings in article on necropolis by Jacques-Meunier (1958) (see Chapter 4). Confusion with Tidri.*]

ZONE 6 - Anti-Atlas mountains

AA 1 - **Oumchena**, Agdz (Foum Chenna 150.044, Tinzouline) (grid ref: 426.2x387.1): over 3,000 E.
Situation: on sides of stepped sandstone blocks making up rocky walls of now-dry valley over distance of c 1 km; more than 300 groups of autonomous scenes [*mostly on left bank*]. *Bibliography*: Glory, Allain and Reine, 1955; Reine, 1969; Pichler, 2000.

AA 2 - **Assif Ouiggane**, Agdz 150.045, Tinzouline): numerous E. *Situation*: on rounded sandstone blocks scattered on surface of plateau (c 100 hectares) of small hillock forming natural fortress, c 7 km S of Oumchena (AA1). *Bibliography*: Simoneau, 1968/72.
Archaeological material: oppidum on plateau (undated).

AA 3 - **Djorf el rhil** (Tasminerth 150.046, Tinzouline) (grid ref: 413.2 x 494.3): some E. *Situation*: on sandstone blocks on banks of O.Tasminerth, c 15 km NW of Oumchena (AA 1). *Bibliography*: Ruhlmann, 1939; Glory, Allain and Reine, 1955; Reine, 1969.

AA 4 - **Azrou Klanine** (150.066, Tazenakht)

- AA 5 - **Imin Magous**, J Siroua (150.067, Taliwine) (grid ref: 290x410): 1 E. *Situation*: on upper face of recumbent, triangular, prepared granite block, 1.5x0.50x0.35 m. *Bibliography*: Ruhlmann, 1935. *Archaeological material*: tumulus covering dry stone walled burial chamber
- AA 6 - **Assif Tiwandal**, Igherm [*prob.Imgoun 150.110, Igherm*] (grid ref:222.6x364): 1,558 E. *Situation*: 4 groups; most on sloping sheets of sandstone on left bank of Assif Tiwandal.
- AA 7 - **Cheik Iminirfi**, Igherm (Cheikh Imi n'Irfi, 150.111, Igherm) (grid ref: 341x205, 341x210): numerous E; *Situation*: on slopes (gabbro) in bed of Oued Cheikh Imi n'Irfi, off road Igherm-Tata, at copper mine [*site destroyed*]. *Bibliography*: Letan, 1966.
- AA 8,9,10 - **Waramdaz, N Waramdaz, S Waramdaz**, Igherm (150.112-114, Igherm): numerous E. *Situation*: 3 groups c 10 km S of Igherm: on slopes in Waramdaz village (AA8), just south of village and banks of (dry) O Wamsarda (AA9), 1 km S of Waramdaz village (AA10) [*much destroyed*]. *Bibliography*: Ruhlmann, 1934b; Wolff, 1982; Pichler, 1999.
- AA 11 - **Jbel Boukioud**, Igherm (uncatalogued) : several E. *Situation*: on two sloping bedrock slabs, on track from Igherm to Ida Ouzekri. *Bibliography*: Ruhlmann, 1934b.
- AA 12 - **Bigoudine**, Agadir (150.143, El Menizla [?]): 1 E. *Situation*: on boulder in village.
- AA 13 - **Tamegdoult**, Agadir (150.144, Ait Baha): 11 E. *Situation*: on vertical faces of rocks near (dry) riverbed. *Bibliography*: Cornand, 1933; Ruhlmann, 1939. [*The photographs published in 1939 by Ruhlmann showed 2 possible equids, 2 clear elephants, 2 possible bovids. However, visits to the site in 1994 and 1997 showed that the 2 "equids" (largest 102x72 cm) on left-hand boulder were bovids and the "elephants" (largest 90x73 cm) no longer looked like elephants (not the slightest trace of trunk) but were very clear bovids with forward-pointing horns, and only 1 of the bovids to the right was visible. One unrecorded elephant was noted elsewhere on the site*].
- AA 14 - **Biougra**, Inezgane (150.145, Ait Baha): many E. *Situation*: on flat, smooth bedrock surfaces round village (no water visible). *Bibliography*: de la Roche, 1952; du Puigaudeau and Senones, 1965 [*mention only*]; Wolff, 1982 [*mention only*].
- AA 15 - **Ghératoum** (150.146, Agadir Melloul)
- AA 16 - **Irhouz**, Tagmoute (150.147, Taфраout)
- AA 17 - **Tazalarht**, Taфраout (150.148, Taфраout). Eliminated [*confusion with site of Tazka, AA21*].
- AA 18 - **Assif El-Kbalt**, Taфраout (150.149, Taфраout): at least 3 E. *Situation*: on banks of Assif El-Kbalt (upper reaches of O Tamanart). *Bibliography*: Wolff, 1982 [*mention only*].
- AA 19 - **Amzlou**, Taфраout (150.150, Taфраout) [*grid ref: 161x301*]: 12 E. *Situation*: on top and side of large rock, on small isolated triangular rock, and on rock faces, all at foot of Amzlou peak near pass at 1,700 m. *Bibliography*: Moyen, 1959; Mazel, 1971 [*site referred to as M'Gzert*]. *Contents*: pecked, patina medium: 9 bovids, 1 rectangle with 5 short attached lines, 1 unidentified filiform animal, 1 enigmatic [*contrary to Mazel who saw 6 bovids, 2 roan antelopes, 1 deer, 1 solar symbol, 2 enigmatics and the flat-topped rock as "certainly" an altar where bulls were sacrificed ...*]
- AA 20 - **Imzilen**, Taфраout (150.151, Taфраout) : 2 E (?). *Situation*: on large basalt rock in middle of field near village of Imzilen [*Anezarene on map*]. *Bibliography*: Mazel, 1971.
- AA 21 - **Tazka**, Taфраout (150.152, Taфраout): 2 E. *Situation*: 1.5 km from centre of Taфраout on vertical granite rock face and top of large block at foot of rock wall. *Bibliography*: Klug, 1939.
- AA 22 - **Taguenza**, Taфраout (150.153, Anezi) : 2 E. *Situation*: on side of rock near small watercourse, 10km NNE of Souq el Had n'Tahala. [*Contents: 2 pecked bovids, one damaged, medium patina and fresh engravings. Inhabitant of Taфраout said inhabitants had destroyed the engravings to avoid visitors*].
- AA 23 - **Tirhemmat**, Taфраout (Douar Tighremt 150.154, Anezi) (grid ref: 141x306): 11 E: *Situation*: 5 groups, on rocks (rhyolitic conglomerate) and vertical faces on right bank of Assif n'Tahala, 600 m downstream of village Tirhemmat, over distance of c 400 m. *Bibliography*: Klug, 1939. *Contents*: pecked; cattle [9 bovids (largest 46x28 cm), 1 certain anthropomorph, 1 doubtful].
- AA 24 - **Douar Anezi**, Taфраout (150.155, Anezi): 5 E. *Situation*: on rock faces beside river. *Bibliography*: Simoneau, 1969 [*mention only*]. *Contents*: [10 pecked cattle, and 1 bird, not ostrich].
- AA 25 - **Souk Larba n'ait Hammed** (150.156, Anezi)
- AA 26 - **Timoulay**, Bou Izakarn (150.194, Bou Izakarn): at least 1 E. *Situation*: probably 10-12 km E of Bouizakarn, on road to Foum el Hassane. *Bibliography*: Simoneau, 1976 [*mention only in appendix*].
- AA 27 - **Irharrar**, Bou Izakarn (150.195, Bou Izakarn)

ZONE 8 - South

S 1 - **Rich de Mbidia**, Mhamid (150.043, Mhamid): a few E. *Situation*: on rocks on N edge of W end of longest of several quartzite ridges, 20 km S of Mhamid. *Bibliography*: Glory, Allain and Reine, 1955. *Archaeological material*: undated ruined citadel.

S 2 - **Zaouia Sidi Abd En-Nabi**, Zagora (150.059, Zawyat Sidi Abdenbi): c.20 P. *Situation*: in a group of rock shelters. *Bibliography*: Simoneau, 1969 [mention only]; Salih, 1995.

S 3 - **El-Ghoula** (150.060, El Gloa): at least 1 E. *Situation*: near Zagora. *Bibliography*: Rodrigue, 1999 [mention only].

S 4 - **Wiggane** (150.061, El Gloa) (grid ref: 433x348.15)

S 5 - **Oued Neffid** (150.062, El Gloa) (grid ref: 436x383)

S 6 - **Oued Oum Ech-Channa** (150.063, El Gloa) Grid ref: 426x387

S 7 - **J Lahmar**, Foug Zguid (150.064, Foug Zguid) Grid ref: 383x368: at least 1 E. *Situation*: downstream of the palm grove.

S 8 - **O Mrah**, Foug Zguid (150.065, Foug Zguid) (grid ref: 370x384): *Situation*: 4 km NE of site J Lahmar.

S 9 - **J n'Ourkour** (150.092, Mdawer) Eliminated

S 10 - **Oued Naga**, Mrimrima (150.093, Mdawer): numerous E. *Situation*: SE of Mrimrima. *Bibliography*: Simoneau, 1969; 1976 [mention only]. *Archeological material*: tumulus. [Probably the site called J Mhajibba by Viñas Vallverdu (1981), a few km E of Mrimrima, parallel to Assif Zguid, not catalogued. The engravings lie on the upper part of the NW face of the hill, to summit. The site said to be large, with mainly pecked cattle and gazelles; a few rhinoceros, 1 elephant, some ostriches, feet, labyrinths].

S 11 - **Oued Amsailikh**, Tissint (150.094, Tissint): at least 1 E. *Situation*: on very hard gabbros, c 30 km east of Tissint, 10 km de l'O Draa. *Bibliography*: Wolff, 1982 [mention only]. *Archeological material*: crescent monuments.

S 12 - **Assif Zguit**, Mrimrima (150.095, Tissint). *Situation*: c 5 km NE Mrimrima, near road to Foug Zguid.

S 13 - **Glab es Seghir**, Mrimrima (150.096, Tissint) : 73 E. *Situation*: c 9 km NE of Mrimrima, near road to Foug Zguid. *Bibliography*: Rodrigue, 1994b [mention only]. *Contents*: at least one axe associated with 4 bovids [6 polished, the rest pecked: anthropomorphs, bovids,

ostriches, giraffe, circles, spirals, geometric figures]. *Archaeological material*: [tumuli.]

S 14 - **Mrimrima** (150.097, Tissint) numerous E. *Situation*: in village and on summit and slopes of low dolerite hills nearby. *Bibliography*: Letan, 1967; Simoneau, 1976; Viñas Vallverdu, 1981.

S 15 - **Foug Timellouka**, Mrimrima (150.098, Tissint) (grid ref: Simoneau, 1974/75b: 320.5x327): numerous E. *Situation*: scattered localities on ridges, c 7km E of J Fergoussat (S 18). *Bibliography*: Simoneau, 1974/75b; Viñas Vallverdu, 1981

S 16 - **Nord Tizi Iguidi**, Tissint (150.099, Tissint) Eliminated (no engravings found). *Situation*: c 4 km E of site J Fagoussat (S 18), halfway to Foug Timellouka (S 15).

S 17 - **Rive Droite O Malah** (150.100, Tissint): at least 19 E. *Situation*: on right bank of O Malah. [Contents: 5 polished antelopes, pecked bovids, serpents, geometric forms, spiral].

S 18 - **J Fagoussat**, Tissint (150.101, Tissint) (grid ref: 319x325): numerous E. *Situation*: on blocks on ridge and sides of W and SW end of hill, left bank O Tissint; very hard, fine-grained sandstone. *Bibliography*: Lafanechère, 1952; Simoneau, 1969 [mention only]; Viñas Vallverdu, 1981. *Archaeological material*: [from Lafanechère, 1952]: engravings overlook Neolithic lithic site.

S 19 - **Oued Kraoua**, Tissint (150.102, Tissint) (grid ref: 313x308): at least 110 E. *Situation*: on 10 km long sandstone ridge; main group opposite palm grove Sidi Ali bou Azza. *Bibliography*: Milburn, 1973 [mention only]; Simoneau, 1974/75b. *Contents*: polished; [minimum figures: 3 elephants, 39 antelopes, 5 rhinoceroses, 1 giraffe, 13 bovids, 5 bag traps, 27 animals n.i., 11 ostriches, 1 anthropomorph, 1 felin, 3 spirals, 2 enigmatic]

S 20 - **Kasbat n'Zolit**, Tata (uncatalogued) (grid ref: 311.5x250.5): 5 E. *Situation*: on side of free-standing conglomerate boulder at base of rocky outcrop, left bank Assif n'Ouissef, 4 km N of Tata. *Bibliography*: Searight, 1994b.

S 21 - **Oued Tata**, Tata (150.104, Tata Tagmoute): c 50 E. *Situation*: on blocks on ridge on left bank of O Tata. *Bibliography*: Simoneau, 1972b [mention only]; 1976 [mention only].

S 22 - **Sidi Bouadar**, Tata (150.115, Tata) (grid ref: 300x256): 4 E. *Situation*: on blocks on sandstone ridge, 10 km SSE of Tata, S of marabout of Sidi Bouadar [much destruction]. *Bibliography*: Simoneau, 1974/75b [mention only]. *Contents*: polished; [2 antelopes, 2 bovids].

- S 23 - **Tabanit**, Tata (150.116, Tata) (grid ref: 304x 255): some E. *Situation*: 5 km SSE of Tata. *Bibliography*: Simoneau, 1974/75b [mention only]. *Contents*: polished; 2 rhinoceros (removed to municipal offices at Tata), one between an axe and an angled weapon [on the site: antelopes, elephant]. *Archaeological material*: tumuli.
- S 24 - **Jorf Lhammam**, Tata (150.117, Tata) (grid ref: 297x250): at least 20 E. *Situation*: low sandstone ridge, 11 km S of Tata, on O Akka [much destruction]. *Bibliography*: Milburn, 1973 [mention only]; Simoneau, 1974/75b [mention only]; 1975c [mention only]. *Archaeological material*: tumuli.
- S 25 - **S Toug Er-Rih**, Tata (150.118, Tata) (grid ref: 298x251): at least 10 E. *Situation*: ridge 1 km NW of Jorf Lhammam (S 24) [neighbouring site of El Aioun grid ref: 297x 258, destroyed]. *Bibliography*: Simoneau, 1974/75b [mention only]. *Contents*: polished; [antelopes, elephant, bird; pecked chariot; rhinoceros, axe].
- S 26 - **SE Tiggane**, Tata (150.103, Tlata Tagmoute): several 100 E. *Situation*: sandstone blocks and bedrock on a series of low ridges overlooking O Tata. *Bibliography*: Lafanechère, 1952; 1953; Simoneau, 1972b [mention only].
- S 27 - **Ouest Mahdaoui**, Akka (150.125, Akka) (now called Oued Miskaou): numerous E. *Situation*: on sandstone blocks and bedrock on series of low sandstone ridges SW of Tata. *Bibliography*: Simoneau, 1969; 1975b [mention only]; Pichler and Rodrigue, 2001
- S 28 - **Kheneg Brahim** (150.105, Tlata Tagmoute)
- S 29 - **Akka Arhib**, Imitek (150.106, Tlata Tagmoute): at least 1 E. *Situation*: NE of Imitek. *Bibliography*: Simoneau, 1976 [mention only].
- S 30 - **Akka Issil**, Akka (150.107, Tlata Tagmoute): c 50-60 E. *Situation*: on blocks on steep S point of sandstone ridge cut by a tributary of O Akka which has created a narrow gorge. *Bibliography*: Simoneau, 1969 [mention only]; 1972a [mention only]. *Contents*: pecked; [at least 27 bovinds, 4 elephants, 2 rhinoceros, 10 antelopes, 1 lion, 4 ostriches, 2 equids, 3 humans, several n.i. animals, 1 hache-pelte].
- S 31 - **Oued Imitek**, Imitek (150.108, Tlata Tagmoute) (but see also S108-110)
- S 32 - **Imaoun Assif Touna**, Imitek (150.109, Tlata Tagmoute) (grid ref: 273x217): 800-900 E. *Situation*: 3 locations: (a) Imaoun S: on N and W face and sloping top of southern of 2 sandstone ridges standing out from the alluvial plain (800x200m), overlooking complex hydraulic network making up O Akka (b) Imaoun N: on bedrock and scattered rocks on northern ridge (c) on blocks on top of hill 2 km W. *Bibliography*: Simoneau, 1975c [mention only]; 1977; Searight, 1996a; 1999a. *Archaeological material*: (a) 10 simple tumuli (c) several dry-stone funerary monuments.
- S 33 - **Adrar Temgart Issardine**, Akka (150.131, Akka): numerous E. *Situation*: c 20 km S of Imaoun (S 32) on ridge overlooking left bank of tributary of O Akka. *Bibliography*: Simoneau, 1977.
- S 34 - **Adrar n'Metgourine**, Akka (150.132, Akka): 365 E. *Situation*: on blocks and bedrock on sides and W face of sandstone outlier isolated in middle of plain within complex hydraulic network of O Akka, slightly S of Adrar Temgart Issardine (S 33). *Bibliography*: Simoneau, 1972b; 1977; Rodrigue, 1993; Grébenart, 1995. [Pecked chariot recorded by Wolff, 1982, not seen]. *Archaeological material*: Neolithic polished axes, arrowheads, pottery surrounding site.
- S 35 - **Imgrad Tayaline**, (N & S), Akka (150.133, Akka): at least 4 E. *Situation*: sandstone outcrop 2 km S of Adrar n'Metgourine (S 34). *Bibliography*: Simoneau, 1973 [mention only]; 1977: 68-71.
- S 36 - **Guelta Targant**, Akka (150.134, Akka): at least 2 E. *Situation*: c 3 km NW of Adrar n'Metgourine (S 34). *Bibliography*: Simoneau, 1976 [mention only].
- S 37 - **SO Tougounine** (150.135, Akka). Eliminated
- S 38 - **Ouine el-Khir**, Akka (150.136, Akka): some E. *Situation*: on blocks on sandstone ridge in plain N of Akka. *Bibliography*: Simoneau, 1976 [mention only]; 1977. *Archaeological material*: tumulus.
- S 39 - **Khaoui El Kteban**, Mrimrima (150.119, O Branes): several E and P. *Situation*: c 40 km S of Mrimrima, near site of Sidi Bou Lanouar (S40), just south of O Draa. *Bibliography*: Lafanechère, 1953.
- S 40: **Sidi Bou Lanouar** (uncatalogued) : 22 E. *Situation*: on sandstone blocks on hill overlooking river, SE of Tata, S of O Draa. *Bibliography*: Senones et Puigaudeau, 1941b.
- S 41 - **Zaouia Sidi El-Mahdaoui** (150.120, Ain Bou Mellous): some E. *Situation*: left bank O Tata, c 10 km S of Tiggane (S 26). *Contents*: [polished animals].
- S 42 - **Kheneg Ben Zerhmin**: (150.121, Ain Bou Mellous): some E. *Situation*: c 30 km NE of Foug Alguim (S 43). *Contents*: [polished animals].
- S43 - **Foug Alguim**, Akka (150.122, Ain Bou Mellous): some E. *Situation*: S of O Draa, c 60 km SE of Akka. *Bibliography*: Simoneau, 1972b [mention only]; 1977.
- S 44 - **Tazout Sidi Adnane**, Akka (150.128, Akka): 200 E. *Situation*: on 15 km long ridge, on edge of left bank of O Draa, c 50 km SSE of Akka, c 30 km SW of Foug Alguim (S 42). *Bibliography*: Simoneau, 1972a.

- S 45 - **Gara El-Ghans**, Akka (150.124, Akka)
- S 46 - **Maarda**, Akka (150.123, Akka) : numerous E. *Situation*: semi-circular sandstone ridge, c 10 km E of Akka. *Bibliography*: Simoneau, 1969; 1977.
- S 47 - **Nord Mou Tbane**, Akka (150.126, Akka)
- S 48 - **Gara Sud Mlaleg**, Akka (150.127, Akka) (261x229.5): 435 E. *Situation*: on sandstone blocks on 3 km-long U-shaped ridge, 3½ km S of Oum Aleg village, overlooking tributary of O Akka and wide plains. *Bibliography*: Simoneau, 1969; 1971a; Searight, 1996b. *Archaeological material*: [numerous tumuli].
- S 49 - **S El-Gtara**, Akka (150.130, Akka): several E *Situation*: on blocks on S side of sandstone outlier (548 m) c 500 m N of S 48. *Bibliography*: Simoneau, 1969; 1971a [mention only].
- S 50 - **Tiounzfouine** (150.129, Akka) (= S.O. Tougoumine, 150.135): at least 1 E. *Situation*: c 20 km SE of Akka. *Bibliography*: Simoneau, 1976 [mention only].
- S 51 - **Assif Ikhf Ou Akhf** (150.137, Akka)
- S 52 - **Tazaki n'Zida**, Ait Ouabelli (150.138, Akka)
- S 53 - **Taheouacht**, Ait Ouabelli (Taheouast 150.139, Akka): c100 E. *Situation*: on blocks and sides of series of sandstone ridges, 7 km SSE of Ait Ouabelli. *Bibliography*: Simoneau, 1972a; 1977. *Archaeological material*: numerous tumuli, and 4 "goulet" monuments.
- S 54 - **Mouih El-Ghérib** (150.140, Akka)
- S 55 - **Ait Ouabelli** (150.157, Foug El-Hassane): at least 2 E. *Bibliography*: Simoneau, 1976 [mention only].
- S 56 - **Assif n'Tadakoust**, Foug El-Hassane (150.158, Foug El-Hassane)
- S 57 - **Moumersal**, Foug El-Hassane (150.159, Foug El-Hassane)
- S 58 - **Assif Youmkat**, Akka (150.160, Foug El-Hassane): 4 E and 3 P. *Situation*: c 50 km NW of Akka. *Bibliography*: Simoneau, 1976 [mention only]; Heckendorf and Salih, 1999.
- S 59 - **Tissenrhaf**, Ait Ouabelli (150.161, Foug El-Hassane): several E. *Situation*: between Icht and Ait Ouabelli. *Bibliography*: Simoneau, 1976; 1977.
- S 60 - **Anou n'Ait ben Yassine** (150.162, Foug El-Hassane)
- S 61 - **Douroudi**, Foug El-Hassane (150.163, Foug El-Hassane): several E. *Situation*: between Tafraout and Foug El-Hassane. *Bibliography*: Mazel, 1971.
- S 62 - **Guelta Grinkane** (Amda Guer Inkane 150.164, Foug El-Hassane): several E. *Situation*: on sandstone cliff E of O Tamanart. *Bibliography*: Mazel, 1971; Simoneau, 1976 [mention only].
- S 63 - **Oukkas**, Foug El-Hassane (Oukas, 150.165, Foug El-Hassane): several hundred E. *Situation*: on dolomitic limestone on high walls and scattered rocks near group of rock-shelters on left bank of assif Nnint (upper reaches of O Tamanart). *Bibliography*: Klug, 1939; Simoneau, 1969; 1976 [mention only].
- S 64 - **Tissifriouine**, Icht (150.166, Foug El-Hassane): several E. *Situation*: 2 sites on left and right of riverbed, c 8 km N of Icht. *Bibliography*: Simoneau, 1975c, 1976 [mention only].
- S 65 - **Tasselbe**: (150.167, Foug El-Hassane) (grid ref: 160, 80x267, 35): several E. *Situation*: c 2 km E of Kasba Ait Herbil (S73), near river: *Bibliography*: -Contents: [several pecked cattle].
- S 66 - **Assif n'Tadroumt**, Icht (150.168, Foug El-Hassane): at least 32 E. *Situation*: 2 groups: (a) right bank Assif n'Tadroumt (b) c 1 km E of (a). *Bibliography*: Simoneau, 1975c; 1976 [mention only]; Bravin, 1997.
- S 67 - **Leksbat**, Icht (150.170, Foug El-Hassane): numerous E. *Situation*: c 3 km W of Assif n'Tadroumt (S 66), right bank O Tamanart, near well. *Bibliography*: Simoneau, 1975c.
- S 68 - **Tircht**, Foug El-Hassane (150.169, Foug El-Hassane): 120 E. *Situation*: c 10 km NW of Foug El-Hassane; (a) on blocks on right bank of O Tamanart and left bank of O Tasseft, at their junction, over c 3 km; (b) left bank O Tamanart. *Bibliography*: Senones and Puigaudeau, 1941a: Puigaudeau and Senones, 1953; 1965.
- S 69 - **Ighir Ighnain**, Foug El-Hassane (150.171, Foug El-Hassane): 108 E. *Situation*: on sandstone cliff face, on left bank of affluent of O Tamanart. *Bibliography*: Simoneau, 1975c; 1977; Rodrigue, 1992a.
- S 70 - **Ighir Ighnain II**, Foug El-Hassane (uncatalogued, Foug El-Hassane): numerous E. *Situation*: on sandstone surfaces at top of one of N cliffs slightly upstream of Ighir Ignain (S 69). *Bibliography*: Rodrigue, 1992a. *Archaeological material*: numerous ruined fortified granaries.
- S 71 - **Aguer**, Foug El-Hassane (150.172, Foug El-Hassane): numerous E. *Situation*: [seems to be a group] 6 localities (including Touzirt (in river-bed), Tirzhrine Amzaour (confluence), c 3km S of Ighir Ighnain (S 68), on O Tamanart. *Bibliography*: Simoneau, 1975c.

- S 72 - **Irhir Tisselguet**, Foug El-Hassane (150.173, Foug El-Hassane): several E. *Situation*: on summit of cliff overlooking O Tamanart, c 2½ km S of Imin Tart (S 74). *Bibliography*: Simoneau, 1975c.
- S 73 - **Kasba Ait Herbil**, Foug El-Hassane (150.174, Foug El-Hassane): several E. *Situation*: 2 localities on right and left of river below Ait Herbil, c 15 km N Foug El-Hassane. *Bibliography*: Simoneau, 1975c. *Archaeological material*: tumulus (left bank).
- S 74 - **Imin Tart**, Foug El-Hassane (150.175, Foug El-Hassane): several E. *Situation*: 4 localities grouped around confluences of O Tamanart. *Bibliography*: Simoneau, 1975c. *Archaeological material*: large tumulus adjoining two polishing stones.
- S 75 - **Tebseite**, Foug El-Hassane (150.176, Foug El-Hassane): at least 7 E. *Situation*: c 15 km W of Aguerd (S 71). *Bibliography*: Simoneau, 1976 [mention only]; Wolff, 1982.
- S 76 - **Tidrarine**, Foug El-Hassane (150.177, Foug El-Hassane) (grid ref: 157x235)
- S 77 - **Adrar Ounar**, Foug El-Hassane (Adrar Ounar, 150.178) (grid ref: 142,5x238): at least 2 E. *Situation*: near Akka. *Bibliography*: Simoneau, 1976 [mention only].
- S 78 - **Foug Assif n'Wanou-Inif**, Foug El-Hassane (150.179, Foug El-Hassane) (grid ref: 146x240)
- S 79 - **Tizgui n'Cheikh**, Foug El-Hassane (150.180, Foug El-Hassane) (grid ref: 149x241). *Situation*: 2 sites on each side of road RP30.
- S 80 - **Irhir Ouiloul**, Foug El-Hassane (150.181, Foug El-Hassane): 20 E. *Situation*: on cliff in palm grove, left bank O Tamanart, c 1 km S of Aguerd (S 71). *Bibliography*: Simoneau, 1975c.
- S 81 - **Adrar Yousguerht**, Foug El-Hassane (150.182, Foug El-Hassane)
- S 82 - **Tebseit**, Taghjiit (150.183, Taghjiit). Eliminated [confusion with Tebseite, Foug El-Hassane, 150.176, S 75]
- S 83 - **Tizgui-Tagougalt**, Taghjiit (Tagjgalt, 150.184, Taghjiit): at least 2 E. *Bibliography*: Simoneau, 1976 [mention only].
- S 84-88,90-92 - **Oued Eç Cayyad**, Taghjiit (150.185-189, 150.191-193, Taghjiit): 346 E *Situation*: 8 sites on sandstone ridges spread out along O Eç Cayyad and tributaries over c 20 km: Wazzouzout (S 84) (150.185), Wawkinkht (S 85) (150.186), Zergem (S 86) (150.187), Bou Ifecht (S 90) (150.191), Idmisane (S 91) (150.192), Tanzirt N (S 92) (150.193). Exceptions: Amtoundi (S 87) (150.188), at foot of fortified granary, and Assif Kelmt (S 88) (150.189) on left bank of river. *Bibliography*: Monteil, 1948 (site of Amtoundi); Simoneau, 1969 [mention only]; Wolff, 1976; 1978/79.
- S 89 - **Waday**, Taghjiit (150.190, Taghjiit): several E. *Situation*: 7 km N of Tanzirt (S 92). *Bibliography*: Simoneau, 1976 [mention only].
- S 93 - **Anou el Hajj**, Foug El-Hassane (150.196, Talghaicht): c 30 E. *Situation*: 15 km E of Tanzida (S 96), c 15 km SSE of Foug El-Hassane. *Bibliography*: Simoneau, 1972a [mention only]; 1976 [mention only].
- S 94 - **Aghs Mimoun** (150.197, Talghaicht)
- S 95 - **Jbel Tarchkoun**, Foug El-Hassane (150.198, Talghaicht): some E. *Situation*: sandstone headland S of Foug El-Hassane, near river. *Bibliography*: Simoneau, 1972a.
- S 96 - **Tan Zega**, Foug El-Hassane (Tanzida 150.199, Talghaicht): 17 E. *Situation*: W of Foug El-Hassane. *Bibliography*: Lhote, 1964.
- S 97 - **Tachoukent**, Foug El-Hassane (Tachokalt 150.200, Talghaicht): 36 E. *Situation*: SO of Foug El-Hassane, on vertical faces where O Foug el Mlah narrows. *Bibliography*: Lhote, 1964; Simoneau, 1972a [mention only].
- S 98 - **Tirhert**, Foug El-Hassane (150.201, Talghaicht) (grid ref: 28°55' N, 8°55' O): 50 E *Situation*: sandstone headland overlooking area between O Tamanart and its tributary O Bouguerni, 15 km WSW of Foug el Hassane. *Bibliography*: Simoneau, 1973.
- S 99 - **Kheneg Tafagout**, Foug El-Hassane (uncatalogued): 6E. *Situation*: on sloping sandstone blocks on left bank of O Draa, between narrow passage and gorge forming junction with O Tafagout. *Bibliography*: Ruhlmann, 1938 (block with 2 engravings deposited in museum in Rabat).
- S 100 - **Merkala**, Foug El-Hassane (uncatalogued): 1E. *Situation*: S of O Draa and J Ouarkiz, by track from Akka to Tindouf, on horizontal block, c 3x1 m, on summit (c 50 m) of schistose hillock. *Bibliography*: Ruhlmann, 1934a.
- S 101 - **Oued Kebch**, Foug Zguid (uncatalogued) (grid ref: 29°46' 93"N, 06°55'30"W): 486 E. *Situation*: on large boulders on 2 km-long ridge, from bend in O Kebch to foot of hill; 7 main outcrops, 2 secondary. *Bibliography*: Rodrigue and Wolff, 1999.
- S 102 - **Site AR**, Foug Zguid (uncatalogued): several E. *Situation*: c 40 km S of Foug Zguid, on 4 out of 5 large sandstone boulders delimiting a space 5x4 m. *Bibliography*: Rodrigue, 1999b.

S 103 - **Site FJ**, Foum Zguid (uncatalogued) (grid ref: 29°43'558"N, 6°47'261"W): several E. *Situation*: on vertical rock face and on bedrock outcrops. *Bibliography*: Searight, 2000.

S 104 - **Tamzarar**, Ait Ouabelli (uncatalogued) (grid ref: 29°18'83"N, 08°29'68"W): several E. *Situation*: mostly vertical surfaces, above bank of Assif Tamzarar (access difficult). *Bibliography*: Salih and Heckendorf, 1998.

S 105, 106 - **Biouafen 1 and 2**, Ait Ouabelli (uncatalogued) (grid ref: 29°16'92"N, 08°30'63"W): several E. *Situation*: on 2 parallel ridges, about 200 m apart, N of confluent of Assif Ouardest with Assif Tamzarar. a) Biouafen 1: series of vertical surfaces on level part of sandstone cliff; b) Biouafen 2: mainly on summit of ridge. *Bibliography*: Salih and Heckendorf, 1998.

S 107 - **Tauraght**, Ait Ouabelli (uncatalogued) (grid ref: 29°13'45"N, 8°36'49"W): a few E. *Situation*: summit of ridge, 25 m above NW part of *fejja*, on right bank of O Tadakoust. *Bibliography*: Salih and Heckendorf, 1998.

S 108 - **Imaoun/O Imi Tek/N1** (Tlata Tagmoute) (uncatalogued) (grid ref: 29°38'72"N, 8°17'14"W): some E. *Situation*: S of road from Hassi el Kerma to Imitek, very near road, at foot of ridge (much destruction). *Bibliography*: Salih and Heckendorf, 2000.

S 109 - **Imaoun/O Imi Tek/N2** (Tlata Tagmoute) (uncatalogued) (grid ref: 29°38'56"N, 8°16'44"W): some E. *Situation*: 400 m-long ridge, overlooking right bank of O Imi Tek. *Bibliography*: Salih and Heckendorf, 2000.

S 110 - **Imaoun/O Imi Tek/N3** (Tlata Tagmoute) (uncatalogued): some E. *Situation*: beside old track from Imitek to Akka, near S 108 and 109. *Bibliography*: Salih and Heckendorf, 2000.

S 111, 112, 113, 114 - **Imaoun/O Akka/S4**. (Tlata Tagmoute) (uncatalogued) (grid ref: 29°33'00"N, 08°19'00"W): many E. *Situation*: along O Akka, southern side of *fejja*. A large complex made up of 3 concentrations and a small isolated site, on boulders and ridge. *Bibliography*: Salih and Heckendorf, 2000.

S 115 - **Ifrane n'Taska**, Zaouia Sidi en Nebi (uncatalogued): many P. *Situation*: 5 rock-shelters near Zaouia Sidi en Nebi. In small *fejja* within J Bani, crossed by O Lmansar, near Hassi Taska well. *Bibliography*: Heckendorf and Salih, 1999; Skounti and Nami, 2000.

S 116 - **Hassi el Haoueira** (uncatalogued): 14 E. *Situation*: on left bank of Oued Zemoul, near Hassi el Haoueira well, at northern end of chain of sandstone hills, c 12 km S of Sidi bou Lanouar (S 40), S of O Draa. *Bibliography*: Senones and Puigaucau, 1941b. *Archaeological material*: microliths, 2 tumuli.

ZONE 8 - South-west

SW 1 - **Tazout**, Assa (150.202, Assa) (grid ref: 141x184): at least 1 E/*Situation*: about 25 km SE of Assa, c 10 km N of O Draa. *Bibliography*: Simoneau, 1976 [*mention only*].

SW 2 - **Kheneg Lakahal**, Assa (150.203, Assa) (grid ref: 176x120): some E. *Situation*: on O.Draa, c 18 km SE of Assa. *Contents*: [*pecked; elephant, bovid, hand, feet*].

SW 3 - **Ain Enbeibiga**, Assa (150.204, Assa): c 35 E. *Situation*: near spring, on sides of 5 adjacent rock surfaces, c 10 km S of Ain Smaiera (SW 7). *Bibliography*: Baier, 1974/75.

SW 4 - **Uad Zak**, Assa (uncatalogued): 5 E. *Situation*: main group on side of large sandstone block, c 25 km S of head of Oued Zag. *Bibliography*: Mateu, 1945/46; Almagro Basch, 1946.

SW 5 - **Sidi bou Lasrar** (150.205, Assa). Eliminated (confusion with Sidi Bou Lanouar, S40)

SW 6 - **Guelb-Ouday-Sfa**, Assa (Oued Sfa, 150.206, Assa): 54 E. *Situation*: on 2 flat and 2 vertical slabs, on edge of O Sfa, on much-used route. *Bibliography*: Monteil, 1940; 1948. [*No photographs, but from tracings by local informant instructed by Monteil contents included: fish, wild cat, fox, felins, squirrel, hedgehog, porcupine, lizards, scorpions, antelopes - a strange collection, except for antelopes; probably recent*].

SW 7 - **Ain Smaiera**, Assa (150.207, Assa): several E. *Situation*: (a) on slab near the source, on both sides of river, on slight elevation (50 m); (b) on sides of 3 slabs nearby, c 15 km S of O Draa. *Bibliography*: Baier, 1974/75.

SW 8 - **S Palmeraie** Assa, Assa (150.208, Assa) (grid ref: 9°25'W, 28°36'N): at least 12 E. *Situation*: (a) on schistous sandstone cliff, facing mosque in the old town (b) on isolated block beside track bordering palm grove at foot of cliff. *Bibliography*: Monteil, 1940; Puigaucau and Senones, 1952.

SW 9 - **Oued Tizgui-Remt** (150.209, Assa): some E. *Situation*: on cliff-face, c 20 km SE of Assa. *Contents*: [*Dark patina, but fairly recent*].

SW 10 - **Mou-Loucham**, Assa (Mouloucham-Metbouli, 150.210, Assa): several hundred E. *Situation*: on slab, c 20 m, near a well, 12 km SSE of Aouinet Ait Oussa, near O Draa, in mountainous region, at bottom of O Mouloucham, frequented N-S route. *Bibliography*: Monteil, 1940.

SW 11 - **Lemaltega Lefdar**, Assa (uncatalogued, but a continuation of SW1) (grid ref: 28°36'N, 09°02'W): several E. *Situation*: c 40 km E of Assa, on low ridges along O Amstil. *Bibliography*: Gandini, 2001.

SW 12 - **Anou Tirardourène**, Fask (150.212, Fask) (grid ref: 878x212.5): at least 20 E. *Situation*: on rock face near well, and on low ridge near road, 40 km W of Assa, on road to Guelmim (site called Tiderdar by Monteil, 1940). *Contents*: [4 elephants, 9 bovids, 2 birds, halberd and enigmatic engravings]

SW 13 - **Kheneg Tiflet**, Fask (150.213, Fask): 6 E. *Situation*: on slopes of hill (376 m), and especially on sandstone ridge plunging into O Eç Cayyad. *Bibliography*: Wolff, 1976. *Contents*: [9 bovids and very doubtful chariots].

SW 14,15 - **Mader Tiflet**, Fask (150.214, 215, Fask): at least 8 E. *Situation*: (a) on dark, hard sandstone vein on S end of W face of Adrar Ouanfarrou; (b) on dark, schistose island in plain, to W of J Ouanfarrou; (c) on low, hard, dark sandstone ridge at junction O n'Mait, tributary of O Eç Cayyad, and Assif n'Tansselfout, 400 m S of route to Assa. *Bibliography*: Wolff, 1976.

SW 16 - **Tihremt** (150.216, Goulimine): at least 1 E. *Situation*: [on free-standing boulder]. *Contents*: [1 large bovid.]

SW 17 - **Sidi Bourja** (150.217, Tafnidelt) (grid ref: 2x179): some E. *Situation*: 22 km NO of Goulimine. *Contents*: [recent - kasbas, clocks, etc.]

SW 18 - **Aouinet n'Ait Oussa** (150.218, Tanoute n'Ourhioul). *Situation*: [probably the locality some 30 km E of main road from Guelmim (Goulimine) to Tan-Tan].

SW 19 - **Oued Ech Cheik** (150.219, Taidalt) (grid ref: 557x383): some E. *Situation*: on soft sandstone. *Contents*: [recent - suns, fibulas, swastikas, etc.]

SW 20 - **Azrou Klan** (150.220, Taidalt): 2,500-3,000 E. *Situation*: densely packed on sandstone sheets, sloping down to dry O Azrou Klan, 15 km N of O Draa. *Bibliography*: Monteil, 1940; Martinet, 1996.

SW 21 - **Teglite** (150.221, Tan-Tan): at least 1 E. *Situation*: [probably the locality some 20 km E of Aouinet n'Ait Oussa (SW19)] *Bibliography*: Simoneau, 1969 [mention only]; 1976 [mention only].

SW 22 - **Fahra** (150.225, Saguïet El Hamra). [Almagro Basch (1946: 214) noted that there were rock engravings here, in the immediate neighbourhood of Tan-Tan, but that he could not visit nor get details. No knowledge by informants at Tan-Tan].

SW 23 - **Oued Chbeika**, Tan-Tan (150.222, Tan-Tan): several E. *Situation*: in valley of O Chbeika. [Never re-found.] *Bibliography*: Douls, 1888; Almagro Basch, 1946. *Contents* [from Douls]: hippopotamus, giraffes, elephants.

SW 24 - **Oued Louar**, Tan-Tan (150.223, Tan-Tan)

SW 25 - **Oued Umma Fatma**, Tan-Tan (150.224, Tan-Tan)

SW 26 - **Timatkor** (Tit Makor 150.211, Tarfaya): some E. *Situation*: near Matkor well, c 60 km S of O Draa.

SW 27 - **Tilemsen**, Tan-Tan (uncatalogued): 8 E. *Situation*: on scattered boulders, on flat stony ground beside now-dry river, c 50 km SE of Tan-Tan. *Bibliography*: Searight (in press).

ZONE 9 - Western Sahara

As was said in Chapter 7, there was considerable confusion among later researchers in this zone concerning the site they were studying. Some data were therefore doubtful (particularly concerning the situation of the site and its contents).

WS 1 - **Safia de El Aiun**, Laayoune (150.242, Saguïet El Hamra): some E. *Situation*: 2 groups, 10-15 m apart, on fallen rocks c 100 m W of town, on what was [in 1946] a public refuse area, now completely destroyed. *Bibliography*: Almagro Basch, 1944; 1946; 1971a.

WS 2 - **Loma de Asli**, Smara (150.226, Saguïet El Hamra): c 100 E. *Situation*: on eroded slate boulders near top of Loma [hill] de Asli, in middle of dry bed of O Asli, over area c 500 m, 15 km NW of Smara, on track from Smara to shrine of Sidi Ahmed Laaroussi. *Bibliography*: Almagro Basch, 1944; 1946; Nowak *et al*, 1975.

WS 3 - **Asli Richies**, Smara (uncatalogued): some E. *Situation*: on hillock opposite site of Loma de Asli (WS2). *Bibliography*: Almagro Basch, 1946.

WS 4 - **Asli Gardega**, Smara (uncatalogued): 320 E. *Situation*: on W side of 2 km-long slate hillock in dry bed of central part of O Asli (running N to join Saguïa el Hamra), c 10 km W of Smara, S of Smara-El Aaiun road, parallel to Asli Bukerch hillock (much destruction). *Bibliography*: Balbin Behrmann, 1975 [no illustrations].

WS 5 - **Cerro de El Aslein Bukerch**, Smara (Udei Asli bou Querch 150.227, Saguïet El Hamra): numerous E. *Situation*: on dark, thin, easily detachable slate slabs on small hillock forming S end of Loma de Asli chain, c 30 m above plateau, close to old airport, c 8 km SW of Smara, near site WS 2. *Bibliography*: Almagro Basch, 1944; 1946; Nowak *et al*, 1975. "Site entirely destroyed from 1935 onwards by visitors" (Almagro Basch, 1944); "The best site" (Almagro Basch, 1946) [in fact not entirely destroyed, because said to have been photographed in 1971. The Santander Prehistory Museum team visited sites in the Spanish Sahara in 1969; it 'thought' it saw Aslein Bukerch, ("difficult to identify"), and published (Cabrillo and Jesus Garcia, 1975) c 10 engravings, not taken into account here.

Under same site name, Balbin Behrmann, 1975, noted that few of the published illustrations (no mention of Santander Museum) corresponded to what he had seen in 1971 and considered his contribution was "original", with 967 engravings counted; his figures are not considered here as no illustrations given and subjects doubtful.]

WS 6 - **Smara** (150.228, Saguïet El Hamra): 1 E. *Situation:* on fairly large rock 1 km N of military post of Smara. *Bibliography:* Almagro Basch, 1946. [Nowak et al, 1975, found numerous engraved slabs in different military messes in Smara. They illustrated them (pl 89-101) under the site heading "Smara". The exact provenance was unknown but is unlikely to have been site WS 6; in most cases the photographs show engravings similar to those of WS 5.]

WS 7 - **Güera del Uad Zeluan**, Smara (Oued Uein Seluan, 150.229, Saguïet El Hamra): numerous E. *Situation:* on dark, slate slabs in 3 groups on hillocks: (a and b): on right bank of river, c 4 km N of Smara; (c) on left bank of river, c 3-5 km S of Smara. *Bibliography:* Mateu, 1945/46; Almagro Basch, 1946. *Archaeological material:* tumuli.

WS 8 - **Oued Tasua**, Smara (150.243, Saguïet El Hamra) : 61 E. *Situation:* on scattered slabs on edges of affluent of O Tasua, opposite series of wells, c 17 km ESE of Smara, where river crosses Smara-Tifariti track (much destruction). *Bibliography:* Pellicer and Acosta, 1972; Nowak et al, 1975; Balbin Behrmann, 1975. *Archaeological material:* tumulus, one with engraved slab as lintel.

WS 9 - **Oued Miran**, Smara (150.231, Saguïet El Hamra): at least 21 E. *Situation:* on sandstone slabs on ridges on right bank of O Miran, c 12 km upstream from junction with Smara-Tifariti road (c 25 km SE of Smara) (much destruction). *Bibliography:* Almagro Basch, 1971b; Nowak et al, 1975; Lhote, 1982 [mention only]; Balbin Behrmann, 1975. [The 18 engravings recorded by Balbin Behrmann, 1975, not as in earlier texts and not included here]. *Archaeological material:* 2-tier tumulus [Balbin Behrmann, 1975].

WS 10 - **Uad Sfa**, Smara (uncatalogued): 8 E. *Situation:* Oued Sfa, 28 km E of Smara [3 thin slabs now in Basel museum]. *Bibliography:* Basel Museum, 1977/78.

WS 11 - **Odoloa Amgala**, Smara (150.230, Saguïet El Hamra): 4 E. *Situation:* on sandstone outcrop, upstream of O Seluan, c 45 km SE of Smara. *Bibliography:* Morales Agacino, 1942; Almagro Basch, 1946.

WS 12 - **Hauza** (Hausa, 150.232, Saguïet El Hamra): some E. *Situation:* on slabs and blocks, on small eminence, a few km N of Hausa fort. *Bibliography:* Mateu, 1945/46; Almagro Basch, 1946.

WS 13 - **Tuccat en Haila**, Hausa (150.234, Saguïet El Hamra): some E. *Situation:* on sandstone slabs, isolated groups, c 400 m from left bank of Saguïet el Hamra, c 40 km E of Hausa. *Bibliography:* Mateu, 1945/46; Almagro Basch, 1946. *Archaeological material:* tumuli.

WS 14 - **Suiel**, Hausa (150.235, Saguïet El Hamra): 14 E. *Situation:* on slate hillock by O Suiel near junction with the Saguïet el Hamra, c 60 km E of Hausa. *Bibliography:* Pellicer and Acosta, 1972; Nowak et al, 1975.

WS 15 - **Fum Uad Ben Daka**, Hausa (Foum Oued Ben Decca, 150.236, Saguïet El Hamra): numerous E. *Situation:* 10 km E of Suiel (WS 11), c 70 km E of Hausa, almost at junction of O Ben Decca with Saguïet el Hamra, on both banks but mostly on left, near well. *Bibliography:* Mateu, 1945/46; Almagro Basch, 1946. *Archaeological material:* tumuli.

WS 16 - **Gart Temar**, Hausa (150.233, Saguïet El Hamra): 1 E. *Situation:* c 60 km SE of Hausa, c 50 km NW of Tifariti, on O Erni. *Bibliography:* Milburn, 1972; Nowak et al, 1975. *Archaeological material:* tumulus.

WS 17 **Gar Carfarsiat**, Tifariti (uncatalogued) : 23 E. *Situation:* on small slabs of slate, on large hillock adjoining junction of O Buragba and O Erni and on terrasses descending to river, 60 km N of Tifariti. *Bibliography:* Balbin Behrmann, 1975. [Is this the nearby Gart Temar, WS 16? Balbin Behrmann, when visiting the area in 1971, said he was looking for a site which he could not find, but found this one instead].

WS 18 - **Pozo de El Farsia**, Mahbes (El Farsia 150.239, Saguïet El Hamra): some P and E. *Situation:* in 2 shallow rock-shelters in low cliff (25-30 m high), opposite very well-known well of El Farsia, (said to be origin of the Saguïet el Hamra), c 75 km SW of Mahbes. *Bibliography:* Morales Agacino, 1942; Almagro Basch, 1946. *Contents* [from Almagro Basch, 1946]: various possible *tifinars*, some engraved, some red painted [look more like camel marks].

WS 19 - **Fet-Saccuna**, Mahbes (uncatalogued) : 25 E. *Situation:* near the Saguïet el Hamra, c 67 km W of Mahbes [if near Saguïet el Hamra, must be SW]. *Bibliography:* Cabrillo and Jesus Garcia, 1975. [Site considered to be "totally unknown"]. [In 1971, Balbin Behrmann (1975) visited what was for him a new site which he named *Fadrat Saccum*. The engravings were situated on slate slabs on a low ridge in bed of small dry river - *Fadrat Saccum* - affluent of O Seit, itself affluent of the Saguïet el Hamra, a few km S of El Farsia well ("said to be origin of Saguïet el Hamra"), c 60 km SE of Echdeiria [and probably 60-80 km SW of Mahbes]. He noted 16 engravings (no illustrations): 1 anthropomorphic, 3 antelopes, 1 bovid, 1 caprid, 2 animals n.i., 1 elephant, 2 ostriches, 1 inscription [tifinar? Arabic?] 4 miscellaneous forms. Same site?]

WS 20 - **Chelja Mairat**, Mahbes (150.238, Saguïet El Hamra): some E. *Situation*: on slabs on side of small promontory, c 115 km SW of Mahbes, c 40 km SW of Pozo de El Farsia (WS 18), c 6-7 km NE of Pozo Mecaiteb (WS 21). *Bibliography*: Mateu, 1945/46; Almagro Basch, 1946.

WS 21 - **Pozo Mecaiteb**, Mahbes (Pozo Lemcaiteb 150.237, Saguïet El Hamra): numerous E. *Situation*: on dark, slate slabs around well of Mecaiteb, on platforms bordering both sides of dry riverbed [Almagro Basch (1946), stated that this well was situated in the bed of O Ben Decca, c 10 km before this river joins the Saguïet el Hamra to the N, and 6-7 km SW of Chelja Mairat (WS 16); Nowak et al (1975) pointed out that AB had confused O Ben Decca and O Ben Sacca. Their map showed that the well lay in bed of O Ben Sacca, c 160 km E of Smara, c 10 km SW of Chelja Mairat]. *Bibliography*: Morales Agacino, 1942; Mateu, 1945/6; Almagro Basch, 1946; Nowak et al, 1975; Basel Museum, 1977/78.

WS 22 - **Sidi Mulud**, Mahbes (Sidi Mouloud 150.240, Saguïet El Hamra) (grid ref: 26°50' N, 9°12' W): 44 E. *Situation*: small groups on 2 mounds, 750 m, apart between O Laauach Telli and O Sluguïat; most on E mound, on light-coloured horizontal slabs; 65 km S of Mahbes, c 90 E of Pozo Lemcaiteb (WS 20), c 10 km W of Islamic shrine of Sidi Mouloud. *Bibliography*: Milburn, 1972; Pellicer and Acosta, 1972; Cabrillo and Jesus Garcia, 1975; Balbin Behrmann, 1975; Nowak et al, 1975. *Contents*: [Milburn (1972) noted: polished; rhinoceros, ostriches, antelopes, gazelles, bovids, sandals, "signs" [bag traps], anthropomorphs. In 1969, Cabrillo and Jesus Garcia (1975) visited this site - which they believed to be "totally undiscovered" and published part only (large site: 2 km²) (44 E). Balbin Behrmann visited the site in 1971 and noted (with no reference to any earlier work): 75 engravings, with themes as before except for the addition of 3 "buffalos", a spiral, a "mythical element" and without the sandals, "signs", axe and anthropomorphs.]

WS 23 - **Ras Lentareg**, Mahbes (150.241, Saguïet El Hamra) (grid ref: 26°27' N, 09°05' W): 102 E. *Situation*: 16 groups, on flat slabs near river, c 105 km S of Mahbes, close to E frontier, by well-known track to Tindouf. *Bibliography*: Milburn, 1973; Soleilhavoup, 1997b, 1998. *Archaeological material*: numerous tumuli. [This site has been called Sluguïlla Lawaj by field teams from the University of Girona (Soler et al, 1999), who considered that it extended over more than 32 km and contained 'thousands' of engraved rocks!]

WS 24 - **Cerro Noroeste de Amgala**, Amgala (uncatalogued): 107 E. *Situation*: on slabs on hillock on left bank of stream, near old airfield, NW of Amgala village (good water supplies), 130 km S of Smara at Mauritanian frontier (much destruction). *Bibliography*: Balbin Behrmann, 1975. *Archaeological material*: many tumuli.

WS 25 - **Proa sur de Amgala**, Amgala (uncatalogued): 29 E. *Situation*: on prominent rock on high hillock, near Amgala village and site WS 24 (much destruction). *Bibliography*: Balbin Behrmann, 1975.

WS 26 - **Koudia Haratani** (uncatalogued): some E. *Bibliography*: Martinez Santa-Olalla, 1944. [Said to contain wild animals and a possible pecked chariot.]

WS 27 - **Tifariti** (uncatalogued): many P. *Situation*: several sandstone rock-shelters, c 200 km SW of Ras Lentareg (WS 23). *Bibliography*: Soleilhavoup, 1998. [This site has been called Rekeiz by field teams from the University of Girona (Soler et al, 1999) who wrote of 50 painted shelters in the area.]

WS 28 - **Uad Ymal** (uncatalogued): P. *Situation*: rock-shelter, SE of Smara. *Bibliography*: Nowak, 1974/75.

ADDENDUM

(New information or new, uncatalogued sites, not included in analysis)

ZONE 2 - East

Figuig-Iche: At about 50 km north of Figuig, beside road from Figuig to Iche, large rock-shelter with red ochre paintings: abstract images and dots. Much damage. *Bibliography*: Gandini, J. 2003. *Pistes du Maroc*, IV: 224.

El Milalih: At about 20 km before Iche, close to village of El Milalih and near a spring, on a flat rock 1x2m, pecked abstract engravings with one bovid. *Bibliography*: Gandini, J. 2003. *Pistes du Maroc*, IV: 224-225.

Oued Douissa Chellala: About 10 km before Iche, beside O Douissa Chellala, on a large flat rock, deep polished line engravings including a small rhinoceros, an antelope and a possible sheep with head ornament. *Bibliography*: Gandini, J. 2003. *Pistes du Maroc*, IV: 227.

ZONE 5 - South-east

SE 16 - **Tazzarine**. Red ochre painting of bovid on wall of rock-shelter at Imi n'Taroucht, near river beside road from Tazzarine to Alnif. *Bibliography*: Gandini, J. 2001. *Pistes du Maroc*, II: 322.

Imi n'Oudraz, Tazzarine. Libyco-berber engravings, possible *tifinar* inscriptions and other themes. *Bibliography*: Salih, A. and Heckendorf, R. 2002. L'art rupestre "libyco-berbère" au Maroc: Etat des connaissances. *Beiträge zur allgemeinen und vergleichenden Archäologie*, 22: 65-94.

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SE 24-28 - **Ikhf n'Ouaroun**, Zagora. Libyco-Berber inscriptions. *Bibliography*: Pichler, W. and Rodrigue, A. 2003. *Cahiers de l'AARS*, 8: 23-24.

ZONE 6 – Anti-Atlas

AA 2 - **Assif Ouiggane**, Agdz. Libyco-Berber inscriptions. *Bibliography*: Pichler, W. and Rodrigue, A. 2003. *Cahiers de l'AARS*, 8: 23-24.

AA 4 - **Azrou Klane**, Tazenakht. Said to have contained libyco-berber horsemen among other themes. *Bibliography*: Salih, A. and Heckendorf, R. 2002. L'art rupestre "libyco-berbère" au Maroc: Etat des connaissances. *Beiträge zur allgemeinen und vergleichenden Archäologie*, 22: 65-94.

Jbel Ahardane, Tazenakht. Three major themes noted, including armed libyco-berber horsemen. *Bibliography*: Salih, A. and Heckendorf, R. 2002. L'art rupestre "libyco-berbère" au Maroc: Etat des connaissances. *Beiträge zur allgemeinen und vergleichenden Archäologie*, 22: 65-94.

AA 15 - **Gheratoun**, Agadir Melloul. Said to contain libyco-berber engravings among other themes. *Bibliography*: Salih, A. and Heckendorf, R. 2002. L'art rupestre "libyco-berbère" au Maroc: Etat des connaissances. *Beiträge zur allgemeinen und vergleichenden Archäologie*, 22: 65-94.

ZONE 7 – South

Tiouli, a small site containing pecked bovids, on plateau above O Tamanart. *Bibliography*: Pichler, W. and Rodrigue, A. 2001-2002. Tiouli: a new rock engravings site in the Tamanart valley (Morocco). *Almogaren* XXXII-XXXIII: 275-286.

ZONE 8 - South-west

Laouinate, 130 km SE of Tan-Tan. About 100 red ochre paintings on ceiling and walls of small rock-shelter. Themes include sexed archers, small anthropomorphs, ostriches, giraffes, various quadrupeds, 2 chariots. Style and themes totally unknown so far in Morocco. *Bibliography*: Searight, S. and Martinet, G. 2001/02. Peintures rupestres d'un nouveau genre dans le Sud marocain. *Sahara*, 13: 115-118.

J Talrazit, c 100 km SW of Assa. On fractured boulders on crest of small ridge overlooking O Tighzert. About 30 engravings, mostly Tazina style but also pecked. Including 3 rhinoceros, 6 elephants, 7 antelopes, 4 bovids, 2 ostriches, several non-identified animals, 1 chariot and several enigmatic images. *Bibliography*: Gandini, J., 2002. *Pistes du Maroc*, III, addendum internet of 15.12.02; Masy, P. (in press).