The Sahara
Past, Present and Future

Edited by
Jeremy Keenan
Funerary Monuments and Horse Paintings: A Preliminary Report on the Archaeology of a Site in the Tagant Region of South East Mauritania – Near Dhar Tichitt

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Introduction

In April 2004 the authors visited Mauritania to photograph and make records of rock paintings for the Trust for African Rock Art (TARA) and the Andrew Mellon Foundation website ArtSTOR. Upon arrival, we found that rock art was by no means the chief archaeological element of the site: stone walls and what seemed to be funerary monuments of massive construction proliferate along the length of the ridge, indicating that at some point – not necessarily at the same time as the execution of the paintings – this site had been extensively inhabited by a reasonably large population, and one that could sustain organised and repeat-patterned dry-stone building. Evidence of a large iron smelting site at the foot of the ridge, and the profusion of stone tools, grindstones and pottery of all kinds indicate that this site was occupied

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at many points in time and sometimes by many people. It should be emphasised that due to time restrictions, this was a cursory expedition and was chiefly concerned with the photographic documentation of rock art. Archaeological observations made here are preliminary, and are an attempt to correlate with established and current research, or show variance where necessary.

Guilemsi in Context

Much resembling an island in the sea, this 11 km long ridge, just north of Tidjikja, lies on the Trans-Saharan trade route that linked Koumbi Saleh (once capital of the ancient kingdom of Ghana) in the south, via Dhar Tichitt to Sijilmasa in the north. It is approximately within 200 km of the well known Neolithic site of Tichitt: approximately half the distance from Tichitt to Néma.² As it is so close to Tichitt and exhibits a large amount of stone-walling, inevitably the question of its association with the Tichitt tradition arises. The large amount of heavy stone-walled construction on the ridge has not entirely escaped the eye of archaeologists, yet no written report of the site was found by the authors. Robert Vernet of the University of Nouakchott has included the site on a map of ‘Principal villages of the Tichitt culture’.³ Indeed Guilemsi and other sites that skirt the western end of the Hodh Depression, such as Achram, Meksem Boubacar, and Edderoum,⁴ are presumably those that comprise the Tagant part of the ‘Tagant-Tichitt-Walata chain’ described by MacDonald et al.⁵ Vernet has published three illustrations of Guilemsi stonewalling in his Dictionnaire Archeologique de la Mauritanie (pp. 82, 91. See note 24), yet without interpretation or mention of rock art. Therefore it seems the ridge is not unknown so much as undocumented. Expatriates resident in Nouakchott, encountered en route, were aware of the site and had been there to collect curiosities. The locals too, we found, were not unaccustomed to collecting grindstones and pottery for the benefit of interested visiting parties. Guilemsi was initially reported to us by Stephen Oliver-Taylor, an English traveller who had arrived there on a camel and had spent several days being shown the paintings by the local head of the Kunta clan, Doman Ould Ahmed. He returned to London with tales and photographs of a ‘neolithic city’ and paintings of people ‘riding lions’.

As our expedition was preliminary, it was, of course, inappropriate to undertake any excavation or sampling. Therefore any proposed chronology for the stonewalling or the paintings, has to be set against the chronology that is known for the surrounding area.

Normally acknowledged to spread from Dhar Tichitt eastwards to Dhar Oulata and Dhar Néma (and even the Méma in Mali), though sometimes inclusive of the Tagant to the west, the Tichitt tradition is said to comprise four phases.⁶ These four phases are very general, but mark the most distinct changes over time and the concurrent peopling and economies of the region:

1. Prior to 2,000 BC, hunter-gatherers inhabited the region.
2. At around 2,000 BC, nomadic pastoralist herders, without domesticated cereals, arrived.
3. At around 1,400 BC, domesticated pearl millet (*Pennisetum glaucum* appeared), and at the same time, the sedentary architecture associated with Dhar Tichitt and Dhar Oulatta.

4. Between around 800 and 200 BC, the Tichitt civilisation declined due to environmental stress and the repeated raiding of proto-Berbers from the North.⁷

Given the proximity of Guilemsi to the Tichitt ‘type site’, it would be in keeping to examine our findings against this established chronology. However, without excavation and proper analysis, any suggestions made here should be treated as preliminary observations.

**Stone Construction**

The construction of stone-walled enclosures, dwellings and monuments has formed the basis for debate over the arrival of pastoralism and the subsequent genesis, in situ, of agro-pastoralism.⁸ The classic architectural era (1,400–800 BC) of the Tichitt tradition is normally associated with the instigation of social hierarchies and the emergence of elites.⁹ Yet MacDonald¹⁰ sees the roots of social hierarchies in the nomadic pastoral beginnings of the agro-pastoral towns. Prior to 1,400 BC, there were no permanent stone structures: herder sites were ‘temporary, serving as [wild] grain-gathering, fishing, and pastoral encampments’.¹¹ Modern Sahel-Sudanic pastoralists have been portrayed as minimally stratified societies.¹² Yet MacDonald¹³ argues that pastoralists, exemplified by the Wodaabe of Niger, retain mobile elites through cattle wealth, that under drought conditions become more crystallised. With increasing environmental deterioration after 2,000 BC: ‘Droughts may have also caused greater competition for pasture areas, leading to conflicts, an increased sense of territoriality, and a greater importance of long-term loyalty to a centralised authority’.¹⁴

It is the idea of ‘mobile elites’ and temporary ‘pastoral encampments’ that springs to mind when one considers Guilemsi. The stone construction we found is dissimilar to that found at Tichitt: there are no paved areas, and no obvious granaries; we did not find evidence of the recognisable upright pillars one might associate with Tichitt, yet the most striking features were the walled enclosures and the funerary monuments.

**Funerary Monuments**

The ridge is dominated by scores of flat, rectangular platforms approximately 4 m wide by 6 to 8 m long and between 0.5 and 1 m in height. Each platform incorporates a central trench about 0.5 m wide, almost all of which appear to have been exposed and probably looted. It is possible that the trenches were always exposed but many show evidence of capstones having been removed. No bone remains were found, yet the trenches often contain a concentration of broken pottery. While examples of cremation are rare in this region, there are instances of the disposal of the goods of the dead by breaking pots on their graves. These however come from Mande/Sefuno ethnographies and may not apply to this site.¹⁵
Dwelling structures were present, at times in numbers that suggest individual ‘villages’ along the ridge, yet the monumental structures seem to far outweigh these, built with greater precision and seemingly given pride of place – sometimes associated with the rock shelters in the cliffs, but more often along the top of the ridge, near large, flat spaces circled with boulders that one immediately assumes were aggregation points for ritual.

Stone Walls
Wide stone walls enclose small and large areas, mostly on the raised shelf at the base of the ridge. These could have been used as much for keeping cattle in as intruders out. There are no other indications of defensive structures although the ridge itself provides a natural defensive position. During its early occupation phase this may not have been a consideration, yet as the Sahara opened up for trade and conquest, this surely would have been a place of notable advantage. Some low walls in the rock shelters enclose spaces that could have been purpose built to contain a sand floor; others were probably built as wind breaks. Some of the enclosed spaces may be what Holl\textsuperscript{16} refers to as ‘compounds’: the archaeological remains of households. The aggregations of these compounds constitute communities, yet at Guilemsi we did not find many compounds with ‘inner dwellings’\textsuperscript{17} and therefore their exact purpose remains uncertain.

Dating the Stone Structures
With an absence of visible evidence of dwelling structures to match the numbers of funerary monuments, it would seem problematic to ascribe the site to the Classic Tichitt tradition in its strictest sense. In any case the rectangular monuments are unlike any funerary structures or tumuli in Dhar Tichitt.\textsuperscript{18} The funerary monument most closely resembling these structures is perhaps the ‘Foum el Hadjar’, also in the Tagant,\textsuperscript{19} yet this is larger and has an entrance at one end.

The proliferation of grindstones indicates that the area was inhabited prior to the ingress of desert, and implies that the grinding was for domesticated cereal. This, and the quantity of stone built structures suggest that the land was able to support a large population.

Marked climate change at around 2,000 BC, confirmed by archaeological evidence from Dhar Tichitt, which has yielded some of the earliest examples of domesticated pearl millet,\textsuperscript{20} show that it became difficult to sustain such populations by around 500 BC. Without excavation it is not possible to date, but it is suggested that the massive stonewall construction, with its pastoral enclosures, compounds, and what appear to be funerary monuments belong to a phase of occupation broadly contemporaneous with the Tichitt/Néma traditions, approximately between 2,000 and 500 BC – the only time in the last 4,000 years when the area is known to have been able to support agro-pastoral sedentism.

However, the nature of this sedentism is uncertain. The funerary monuments indicate a degree of social stratification in-line with complex society, yet the evidence for
large-scale sedentism is lacking. Indeed Guilemsi may exhibit signs of the symbiosis between nomad and sedentist implied by MacDonald between Dhar Tichitt and the Middle Niger. Mobile elites that crystallised and became sedentary in Dhar Tichitt may have kept ties, either biased (patron and client) or unbiased, with other, outlier nomads, who in turn became ‘elite’ in their own regions and moved towards sedentism themselves, thus expanding – at least in structure if not appearance – the Tichitt tradition. Another possibility may be that, like the Ména to the south, Guilemsi had only the seasonal presence of the Tichitt pastoralists. Of course, without excavation, these are speculations, and the stone-walling may be attributable to pastoralists occupying the region after the decline of the Tichitt tradition, yet this seems unlikely given the amount of building evident on the ridge and the organisation that would have been required to implement it. It is likely though, that such post-Tichitt pastoralists would have taken advantage of the dwelling structures, the rock shelters, and the defensive position of Guilemsi, as did the ‘Proto-Berbers’ from around 500 BC onwards. The impact of the arrival of these Proto-Berbers on the Neolithic cultures of the Tagant-Tichitt-Oulata chain is made evident in the rock art of Guilemsi.

Rock Art

It is notable that, as Mauritania is rich in rock art sites and has attracted the attention of scholars since the 1930s, none has seen or recorded Guilemsi. Indeed, three other sites we visited some 300 km further south-east in the Ajoun province – Oued Jrid (including four sites), M’treoka and the Grotte des Ecritures – were also found to be undocumented. Senones and du Puigaudeau record a number of different paintings classified by style and content. Many of these can be seen reproduced at Guilemsi and though it is probably no longer fashionable to use such classifications, they are generally useful for producing relative chronologies. For example, the bi-triangular (or double-triangle) style, is attributed to the caballine (horse) period, therefore a giraffe painted in the bi-triangular style is probably of the same period.

Painted in open shelters in cliffs or boulders below the top line of the ridge, Guilemsi’s rock art suggests occupation, either at intervals or contemporaneous, by pastoralists, warlike nomads and nomadic traders. The depiction of antelope, elephant and giraffe may suggest the presence of hunter-gatherers yet these species are most often portrayed in panels alongside cattle and frequently appear to have been painted in the same episode. Depictions of camels and inscriptions of Tifinagh point to Guilemsi’s connection with the cameline period and its probable use by the Medieval trans-Saharan caravans.

Authorship of the paintings of cattle is difficult to attribute. The Neolithic agro-pastoralists would certainly have held cattle in the highest esteem – doubtless forming a central symbol in religious beliefs and practices. So too, though, would the nomadic pastoralists, if not to a greater extent. Examples throughout Africa invariably reveal cattle as perhaps the most important aspect of life, in status, marriage and religion, for both pastoralists and agro-pastoralists. This is almost always reflected graphically where a rock art tradition exists. Sheep and goats feature as secondary where cattle are present, and depictions of plants, domestic or wild, are very rare.
Cattle though, should not necessarily be interpreted as the paintings of cattle-people. Hunter-gatherers engaged in relations – hostile, trading, or in clientship – account for a great deal of African cattle imagery. This should be borne in mind when discussing any images of domesticates.

Without being able to sample for direct dates, and because the art of this region has not been fully incorporated into the stylistic chronology developed in the central Sahara, the certainty of locating images of cattle in time, is questionable. As Muzzolini states, ‘All schools of Saharan rock art, including the earliest, show images of domestic cattle’. Cattle paintings were performed by hunter-gatherers, nomadic pastoralists, agro-pastoralists, through the Berber migrations, right up until the consolidation of Arab Islam. Certain images – such as those where cattle are associated with horses or camels, or where they are yoked to a chariot or cart – are easier to determine. Yet a far tighter stylistic chronology, aided by direct dates whenever possible, should be a key research objective for the archaeology of this region.

**Horse Paintings**

Of particular interest, and the images that sparked the expedition itself, are those of the horse. Evaluation of their authorship and date, however, is almost as problematic as it is for cattle. The main panel at Guilemsi (Figure 1) depicts at least twenty mounted horses, mostly galloping right to left, though some are stationary, and at least five face right. There are also some un-mounted horses and at least eight human figures on foot. Some of the horse’s heads have a strangely short muzzle. This may be a convention in style, although no such other examples are known in the area. It could, however, be due to unfamiliarity with the subject matter, if the artists were those experiencing an incursion of horse riders. To the right of the main panel are depicted four mounted figures holding raised spears and shields, with three similarly armed figures on foot. They face seven prone figures, presumably those who have fallen before the riders. Painted lines – presumably spears – are painted scattered or flying all over this panel.

Without further work at Guilemsi, including excavation and, if possible, direct dating of the paintings, it is impossible to say when, or by whom they were painted. In North and Meso-America, and southern Africa, the appearance of the horse can often be accurately dated to a known period in time. This is usually because horses were introduced by European explorers and colonists whose accounts are well documented.

In attempting to assess the date of horse paintings in the Tagant region of the Mauritanian Sahara, one is faced with a far greater time-depth, much of it unrecorded historically, and with relatively few archaeological studies. In general western Saharan terms, Mauny placed the ‘horse period’ from 1,200 BC to the present, yet this early date has been brought into question: Muzzolini holds that horses and chariots enter the Sahara no earlier than 700 BC; in Mauritania, Vernet and Naffe place images of chariots, and some horses between 500 and 0 BC, with other horses in the later Islamic period from AD 700 onwards.
Somewhat controversially, MacDonald doubts such an early date for the Western Sahara, holding that horses only appear with certainty in the stratigraphic record by AD 600.39 He does, however, dismiss the example of a horse tooth in Rop rock shelter in Nigeria dating to the first millennium BC. Some of this scepticism possibly
systems from the assumption which others have made,\textsuperscript{40} that the horse and chariot are a package, or that chariots pulled by oxen\textsuperscript{41} are an indication that horses were unavailable or unsustainable.\textsuperscript{42} Cavaliy, of course, need not include chariots. However, the deposited sequence is not the only archaeological material. Munson observes that there is a long hiatus after about 300 BC where no villages are found attributable to the Tichitt tradition, yet ‘What are found are numerous pecked and painted figures of mounted warriors and tifinar inscriptions ... and pre-Islamic, Libico-Berber rock tombs...’\textsuperscript{43}

The horse period, or caballine period of the central Saharan is generally attributed to the Proto-Berber (or Libico-Berber) migrations westwards from the Egyptian Sahara, starting by at least the second millennium BC.\textsuperscript{44} By the classical era, the migrant groups were widely spread across North Africa and had become culturally diverse: there are at least four different alphabets found in Libyan inscriptions.\textsuperscript{45} Classical writers understandably had a limited knowledge of the peopling of North Africa beyond the borders of empire, yet repeatedly we find references to exotic, barabaric, cattle-driving peoples (either nomadic or farming) to whom the horse, and horse rearing were economically central. Hannibal’s battles in Italy, at Lake Trasimeno and at Cannae, brought Romans face to face with North African horse people. Hannibal’s cavalry is said to have consisted of Numidians, Gaetulian ‘bareback cavalry’, Massyllians, Nasamones, Garamantes, javelin throwing Mazax, and Maecae.\textsuperscript{46}

Two of the most populous nations, the Gaetuli and the Garamantes were thought by the Romans to have been nomadic pastoralists, yet archaeological research in the Fazzân\textsuperscript{47} has shown that irrigated cultivation formed the basis from which Garamantian, (and therefore probably many neighbouring) peoples, drew their strength. Far from nomadic, they were able to claim suzerainty over great stretches of the Sahara because they could sustain a raiding cavalry and dominate the trade routes. It seems likely from the paucity of classical reports that ‘Garamantes’ was a name given not only to the Garamantes themselves, but also to those groups who were either affiliated or subjective to the Garamantes in their vast geographical range, or those who were similar in appearance and economy. However, among classical authors there seems to be a consensus that the Gaetuli were a confederacy of many nations of people from the Atlantic seaboard to the Fazzan,\textsuperscript{48} where they neighboured another confederacy: the Garamantes.\textsuperscript{49}

In the first century BC, Strabo noted that horse rearing was very important among Garamantes and the Gaetuli – their southern and western neighbours.\textsuperscript{50} There are numerous classical references to the ‘nomadic’ (i.e. far-ranging) way of life and the barbarous and warlike conduct of the Gaetuli and Garamantes.\textsuperscript{51} Ptolemy noted in the second century AD that Roman expeditions into the Sahara – notably that of Julius Maternus – had taken four months and reached ‘Agisimba’ where rhinoceros congregate. This location may either be around Lake Chad,\textsuperscript{52} or the Niger.\textsuperscript{53} Mattingly,\textsuperscript{54} agrees with Liverani,\textsuperscript{55} that the routes described by Herodotus correspond almost perfectly with the traditional medieval trans-Saharan trade routes, and that the basic elements of the Saharan economy were being developed by the sixth–fifth centuries BC.\textsuperscript{56} Indeed Herodotus, in the fifth century BC, gives an
account of ‘Nasamonians’ travelling southwest across the Sahara to a great river – possibly the Niger.\textsuperscript{57} Therefore it does not seem unreasonable to assume that at the time of the decline of the Tichitt tradition, Libico-Berbers were venturing southwards from the northern, and central Sahara, probably on horseback, and returning on horseback – thus leaving scant evidence in the archaeological deposit.\textsuperscript{58} But what was drawing them to make the desert crossing?

One possible connection between the Garamantian Fazzan and western Sahara is the trade in carnelian beads.\textsuperscript{59} This bead-making focused on the Western Sahara and Niger in the latter millennia BC,\textsuperscript{60} and could have attracted North African traders for supply to the Roman market. Amazonite is said to have a source in the Hoggar (Ahaggar),\textsuperscript{61} and at Tidjikja – near Guilemsi. Amazonite beads are found in prestige goods in the Dhar Tichitt,\textsuperscript{62} and also in the Fazzan,\textsuperscript{63} yet a trade connection remains to be investigated.

More definite though, is the trade in slaves. The ‘hunting’ of cave-dwelling (Troglodytæ) ‘aethiopes’ or ‘Ethiopians’ – famously from four-horse chariots – is attested in Herodotus from the fifth century BC.\textsuperscript{64} Although Richard Smith warns against assignment of ethnicity or ‘race’ in working from historical texts,\textsuperscript{65} it does seem as though Tichitt’s raiders were similar in economy to the Gaetuli. Munson makes this connection; that while these references may not refer specifically to the Tichitt area, ‘it might reflect a pattern of Libyan incursions that was occurring throughout the western Sahara’.\textsuperscript{66} The selling-on of raided captives may not have been as important to Libico-Berber cultures, as keeping slaves to work on their labour-intensive irrigation systems and the dangerous building of foggara wells.\textsuperscript{67} Brooks, Raffin and di Lernia comment on the ‘stelae’ burials of the Western Sahara being reminiscent of the Libyan Fazzan: ‘Hypothetical direct or indirect cultural connections...should be comprehensively investigated, notwithstanding the large distances separating these African regions’.\textsuperscript{68} It should be noted that there are several ‘stelae’ type burials at the foot of the Guilemsi ridge, whose excavation may prove vital to the understanding of this period.

The horse paintings attributed to the Proto-Berbers are often painted in the well-known ‘double triangle’, or even in the more linear style of the ‘Libyan Warrior’ school.\textsuperscript{69} Double triangle horses are found at Guilemsi, and in profusion in the Oued Jrid where over sixty mounted horses are painted.\textsuperscript{70} They have also been recorded some 3,500 kilometres to the east of Guilemsi in Chad.\textsuperscript{71} With this extremely wide distribution it seems reasonable to suggest that these images are those the Libico-Berbers made of themselves. Indeed the double triangle the Garamantes used to depict themselves\textsuperscript{72} would seem to bear this out. What is perhaps most striking about the main horse panel at Guilemsi is its stylistic difference to almost all examples of horse paintings attributable to Proto-Berber artists.

An explanation for this may be that the artists of the main panel at Guilemsi had witnessed an incursion of armed horsemen. To its right is the depiction of conflict. One at first assumes the horizontal bodies to be those of the dead. In ethnographically supported analyses of similar paintings in southern Africa, North America and Mexico, such depictions are often the product of those people subject to as opposed to perpetrators of incursions on horseback.\textsuperscript{73} The act of painting, as is
virtually all well-understood rock art, is a ritual practice reflecting religious beliefs — not a menu of animal species or a ‘record’ of everyday life. Thus the performance of such painting may be an attempt to alleviate the stress of the situation through contact with a spirit realm — possibly to a divine power to return to a state of relative normality by confronting evil spirits which may have caused the unrest. In discussing the horse and chariot engravings of the Fazzan, Tertia Barnett remarks that these depictions — normally attributed to the Garamantes — are far more numerous in the central Saharan massifs of Tassili and Tadrart. This, she suggests, may be a function of the reflections (religious or otherwise) of the late pastoral groups affected by Garamantian raiding or trading, rather than being the art of Garamantian peoples themselves. Thus it might appear that we have at least two artistic traditions — that of the raiders, and possibly that of the raided. Exactly when they were performed is the subject of further investigation.

The importance of bringing this site to the attention of the academic community lies not only in its contribution to the study of Saharan rock art, but in its value as a large, as yet unexcavated Neolithic complex, which must have been known to, if not incorporated within, the Tichitt Tradition. Of great importance was the discovery of iron slag on the sand surfaces below the ridge. Found in association with ceramic furnace-bellow pipes and large quantities of pottery, this smelting is probably associated with the Pastoralists who seasonally occupied the ridge from 500 BC, though, again, further research is required. Consequences of excavation at Guilemi will doubtless be highly informative and far-reaching. Rock art sampling and dating, both direct and relative, is key to understanding the chronology and use of the site, and could throw light on the events during the decline of Tichitt.

NOTES

1. The expedition was funded by the National Geographic Society in Washington DC, The British Academy in London and TARA in Nairobi.
4. Ibid. The site, with pictures of the stone walling, is also mentioned in R. Vernet and B.O.M. Naffe, Dictionnaire archéologique de la Mauritanie (Nouakchott: Université de Nouakchott 2003).
5. Vernet (note 3), p. 73.


10. MacDonald 1998 (note 6).

11. Ibid. p. 93. (Parenthesis added).


17. Ibid. p. 94.

18. e.g. Munson (note 8); Vernet (note 3); MacDonald, 1998 (note 6).


22. Ibid; MacDonald et al. (note 2).


30. e.g. Muzzolini, 2003 (note 27); Holl (note 23).


32. See note 30.

33. Muzzolini, 2003 (note 27). This statement is highly questionable as there are no known representations of domestic cattle in the ‘roundhead’ period, generally considered the earliest period of Saharan rock art.

34. cf. Senones and du Puigaudeau (note 24).


36. Mauny (note 24).

37. See note 27.

38. Vernet and Naffe (note 24).

40. e.g. Muzzolini (notes 27, 29).
41. See note 3.
42. MacDonald and MacDonald (note 39), p. 139.
43. Munson (note 8), p. 462.
45. Ibid.
46. Ibid.
48. Pliny, quoted in Mattingly (note 44), p. 29.
54. Mattingly (note 50).
55. Liverani (note 51).
56. Mattingly (note 50), pp. 81–82.
57. Herodotus 2.32–33, quoted in Mattingly et al. (note 47), p. 76.
58. cf. MacDonald and MacDonald (note 39), p. 139.
63. Mattingly et al. (note 47), p. 356.
64. Mattingly et al. (note 57).
69. e.g. Muzzolini 2003 (note 27), p. 102; Senones and du Puigaudeau (note 24).
70. Campbell et al. (note 25).
72. Mattingly et al. (note 47).
75. T. Barnett, in Mattingly et al. (note 47), p. 345.