

Fortified Farms and Defended Villages of Late Roman and Late Antique Africa

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Abstract

Les fermes fortifiées et les autres sites pareillement défendus marquaient les paysages de l'Afrique du Nord au cours de l'Antiquité Tardive. Leur présence a été relevée dans toutes les provinces romaines de l'Afrique du Nord, même dans les zones au-delà des frontières, comme le cœur de la contrée des Garamantes dans le Fezzan (Sud-Ouest de la Libye). Huit types de fortifications sont ici définis afin de servir de base à un réexamen de la diffusion des fortifications rurales publiées à la suite des principales prospections archéologiques conduites dans ces régions. On constate de nettes prédominances régionales (par exemple les villages fortifiés en Numidie, les temples et mausolées convertis en maisons carrées dans la steppe tunisienne et les églises fortifiées en Cyrénaïque). Toutefois, dans presque tous les régions, les sites fortifiés jouent un rôle essentiel dans le hiérarchie des établissements. En Tripolitaine et au Fezzan, par exemple, ces sites fortifiés sont majoritaires. Les constructions le plus précoces sont datées du 2^e siècle après J.-C. et leur occupation a continué jusqu'à l'époque islamique, mais, en Libye au moins, le pic des constructions se situe au cours du 4^e siècle. Bien que certains sites fortifiés s'inspirent de modèles militaires, on soutient l'hypothèse que loin d'être stimulé par l'armée romaine, ce phénomène de protection doit être interprété dans un contexte de faiblesse de l'autorité centrale et d'essor de l'indépendance régionale.

Fortified farms and other fortified sites were a key component of the Late Antique landscapes of North Africa. Their presence has been noted in all the Roman provinces in North Africa and in areas beyond the frontier such as the Garamantian heartlands of Fazzan (south-west Libya). Eight broad morphological types are proposed and are the basis for a review of the distribution of rural fortifications from all major archaeological surveys. There are strong regional preferences (e.g. fortified villages in Numidia, temples and mausolea converted into block houses in the Tunisian steppe and fortified churches in Cyrenaica). However, in almost all areas fortified sites were important elements in the settlement hierarchy and in Tripolitania and Fazzan, for instance, they were the dominant settlement form. The earliest constructions have been dated to the 2nd century AD and their development continued into the Islamic period, but. In Libya at least, there was a peak in construction in the 4th century. Although some of the types of fortified site seem to follow military models, It is suggested that rather than simple emulation of the Roman army, these fortifications should be seen in the context of a weakening central authority and growing regional independence.

Introduction

The rural landscapes of African in pre-Islamic times have been the subject of intensive archaeological investigations in recent decades¹. The phenomenon of fortified farms and fortified villages in late antique Africa has long been recognised as a key characteristic of rural settlement patterns². The pattern is distinctive in relation to most other areas of the

¹ Hobson 2012; Leone and Mattingly 2004; Leveau *et al.* 1993; Mattingly 1997; Mattingly and Hitchner 1995, 189–96; Stone 1997; 2004.

² For example, Blanchet 1898; 1899; di Vita 1964; Gaukler 1902; Gentilucci 1933; Goodchild 1950b; 1953; 1954a/b; Pericaud 1905.

Roman empire³. Many of these fortified sites are described or named as *qsur* (singular *qasr*), though in reality a wide range of sites types is covered by this term. The creation of landscapes liberally studded with fortified sites has been variously explained as a response to inherent insecurity due to the depredations of nomad raiders⁴, as a by-product of military cost-cutting in which real units were replaced by soldier farmers⁵, as an expression of status and power within rural societies⁶, as a symptom of an era of increased violence (real and latent) within the Roman provinces⁷ and as a side-effect of the decline of Roman power⁸. A combination of factors is in fact more probable than a single uniform explanation. Despite the prevalence of fortified rural sites in the various North African provinces from the Atlantic to the Egyptian borderlands, there has been a lack of overall consideration of the similarities and differences between these classes of site and their chronological synchronicity (or otherwise).

In this paper we first offer some reflections on the place of fortified sites in the African countryside in the 1st millennium BC and 1st millennium AD, seeking to understand how far the late antique pattern was a continuation or revival of earlier tendencies and how far it was a distinctive departure. We present a discussion on the principal types of fortified sites present in late Roman and late antique times and provide a partial distribution map of these types of sites. Our overview is also novel in that it seeks to bring together settlement data for both a range of provincial territories and the Sahara lands that lay outside the empire, notably from the territory of the Garamantian kingdom far to the south. Indeed the comparison between developments in the Mediterranean (Maghrebian) and the desert (Saharan) lands will be a recurrent theme of this paper. Finally, we shall consider the

³ Bowden *et al.* 2004, 23–24; Christie 2004, 15–20; Sarantis and Christie 2013.

⁴ Guey 1939; Leschi 1942; Rachet 1970.

⁵ Goodchild 1949; 1950a/b; 1952b; Haynes 1959, 139, 148–52; Ward-Perkins and Goodchild 1949.

⁶ Barker *et al.* 1996a, 328–31.

⁷ Shaw 2011.

⁸ Mattingly 1987; 1989; 1995; Rushworth 2004.

dating evidence now available to question whether the *qasr* phenomenon was a synchronised development or whether in fact we are witnessing evidence of many regional trends that were separate and unrelated.

Fortification and African Rural Communities

The rural *qasr* is certainly a prominent feature of a wide range of North African landscapes across a long time-frame from late Roman times through much of the Islamic era⁹. Were it not for the impressive evidence for open and undefended rural settlement in the early and mid-Roman imperial eras¹⁰, it might be more logical to consider fortified settlements as the norm rather than an exceptional form. In this light, we propose to first examine the long-term settlement trends in a range of African landscapes, looking back to what is known of the 1st millennium BC pattern, prior to the Roman conquest. The Roman sources tended always to emphasise the pastoral and uncivilised lives of African peoples¹¹, but there is a good deal of evidence now accumulating to show that there were substantial sedentary sites, associated with agricultural or mixed farming communities from early in the 1st millennium BC in northern and eastern Tunisia where the Numidian kingdom would later emerge¹². Some references in the Roman sources confirm the existence of these fortified settlements¹³. In the central Saharan lands of the Garamantes similar patterns are evident, with the emergence at this time of nucleated and sedentary settlement sites of oasis farmers¹⁴. Diodorus indicated that oases in the Libyan desert were defended by fortified structures (*pyrgoi*) and Pliny likewise alludes to desert *oppida*¹⁵.

⁹ For the Islamic afterlife of *qasr*, see Cirelli 2004; Despois 1935; Fenwick 2013. 16–20; Louis 1975; Pentz 2002, 113–20; Sjöström 1993, 84–85.

¹⁰ Hitchner 1988; 1990; Mattingly 1997; Mattingly and Hitchner 1995, 189–96; Sehili 2009; Stone 1997.

¹¹ Mattingly 2011, 34–37. Strabo 17.3.1, 17.3.14.

¹² Sanmarti *et al.* 2012.

¹³ Strabo 17.3.9–13; Sallust *BJ* 46, 54, 75–76, 89–91.

¹⁴ Mattingly 2003, 346–51.

¹⁵ Diodorus 3.49.1–3; Pliny *NH* 5.35–38.

The characteristic settlement types in both desert and cultivated zones were fortified villages and hillforts. In all instances, security seems to have been an issue in site placement – typically utilising hilltops, escarpments, high spurs and peninsulas that could be enhanced by the construction of walls controlling access. In the Numidian case, some of the sites were dramatic perched hillforts, like Khalat Senane or Cirta, but others were sited closer to the agricultural lands they farmed, making use of lower hilltop locations or narrow low-lying plateau sites defined by deeply incised dry-river (wadi) channels on two or more sides¹⁶. The site of Althiburos is a good example of the low-lying fortified village and deep sondages beneath the later Roman town have demonstrated the existence of substantial stone-footed rectangular buildings dated to the 10th or 9th centuries BC.¹⁷ This was a sedentary community practising agriculture at this early date¹⁸. The site is typical, one suspects, of a numerous other proto-Numidian villages, which later went on to become towns in Roman Africa. Such settlements were almost invariably fortified agrarian communities. This is the impression to be gleaned from the Roman sources too – when describing the conduct of Carthaginians and Roman wars against the Numidians it is clear that the countryside was studded with defensible villages and hillforts¹⁹.

The heartlands of the Garamantes lay in the oasis belt of the Wadi al-Ajal in Fazzan (south-west Libya, c.1000 km south of Tripoli). This people can now be recognised as a powerful Saharan state, with a predominant sedentary and oasis cultivating lifestyle. They also engaged in trade with the Roman empire and sub-Saharan regions²⁰. The story of the Garamantes can be tracked back to the early 1st millennium BC when they were already engaged in oasis agriculture and started to construct hillforts and other fortified settlements

¹⁶ M'Charek *et al.* 2008.

¹⁷ Kallala and Sanmarti 2011.

¹⁸ Sanmarti *et al.* 2012, 30–36.

¹⁹ Sallust *BJ* 46, 54.

²⁰ Mattingly 2003; 2007; 2010; 2013.

perched on the steep escarpment that bordered the oasis. The type-site of the Early Garamantian hillfort settlements is Zinkekra, surveyed and excavated by Charles Daniels in the 1960s. This site was founded by a community of pioneer oasis farmers early in the 1st millennium BC and was gradually elaborated with enhanced defences and complex architecture to a Proto-Urban form²¹. There are at least another 13 of these early sites known in the Wadi al-Ajal²².

In summary, then, there are clear indications that the pioneer agricultural and sedentary rural communities in Africa tended to construct fortified settlements in the initial stages of agrarian development. The typical settlement, at least to judge from currently available evidence, was of village scale, rather than based on household units. The first indications of smaller dispersed rural settlements in the Maghreb zone can be traced to the Carthaginian period in territory under the control of the Libyphoenician towns²³. The pattern in the Numidian and Mauretanian rural landscapes probably remained more closely focused on the defensible villages as before.

Under Rome, changes in landholding and the creation of numerous estates across the African landscape fundamentally altered the nature of rural settlement, with the emergence of widely dispersed and undefended settlements based on individual households alongside a continuing pattern of village scale sites²⁴. Many of the latter were no longer defended to the same extent as previously.

Viewed from this perspective it is not the late Roman/late antique period that stands out as unusual, but the early centuries AD, when rural landscapes filled up with large numbers of smaller and undefended settlements. The late antique and Islamic pattern of smaller

²¹ Daniels 1968; Mattingly 2010, 19–84.

²² Mattingly 2003, 136–42; 2010, 85–119.

²³ Fentress 2001; Fentress *et al.* 2009; Green 1992; Stone 1997.

²⁴ Hobson 2012.

numbers of larger or more defended sites was in some ways a reversion to the long-term regional norm. It is certainly pertinent to look at the evidence for the function of such fortified sites in rural communities in the Islamic era, though it can be questioned whether there was a shift in emphasis from individuals constructing fortified sites to reflect their prestige and to protect their dependent communities, towards a more communal enterprise related to creating secure granaries and store-houses for sedentary farmers²⁵.

The diachronic range of fortified rural structures in Africa makes difficult the secure identification of the period of construction of specific examples, especially with sites identified via remote satellite image analysis or published in the 19th- and early 20th-century archaeological atlases without reference to firm dating evidence. Nonetheless, we believe that careful consideration of the precise morphological characteristics of such sites, in concert with the dating evidence available from the occasional ground surveys and excavations, can in many cases provide an indicative range. It remains a priority for the future that more sites are dated on the basis of associated pottery or, better still, by direct radiocarbon dating on material that can be associated with their construction²⁶.

Morphology of Late Antique Fortified Rural Sites

Fortified sites were a feature of many rural landscapes across the African provinces from late Roman times onwards, but morphologically there was much diversity at both inter- and intra-regional levels²⁷. The architectural models for many of these defensive structures have most commonly been traced with the contemporary styles of fortification of the

²⁵ This certainly seems to be the case with the southern Tunisian and north-west Libyan Islamic *qsur* which served as communal granaries, see Cirelli 2004; Louis 1975; Despois 1935. See also Meunié 1951, on the Moroccan parallels.

²⁶ See for instance the programme of dating *qsur* in the Garamantian territory, Mattingly 2003; 2013; Sterry and Mattingly 2013; Sterry *et al.* 2012.

²⁷ For general discussions of the phenomenon of fortified rural sites, see Barker *et al.* 1996a, 326–31; Brett and Fentress 1996, 67–76; Mattingly 1995, 202–09; Modéran 2003, 251–78; Sarantis 2013, 303–04; Troussset 1974, 133–39.

Roman frontier installations and outposts²⁸. There is no doubt some overlap with official military foundations and except where we have clear epigraphic testimony the judgement between military/civilian is far from simple. The tendency in the late 19th century was to simply label such structures as ‘fortin romaine’ or ‘fortin byzantine’, but the multiplication of examples soon far exceeded the potential for the small garrison forces to have manned more than a small fraction of the sites²⁹. It remains a plausible hypothesis that Roman military architecture was a persistent and strong influence on the styles of fortified buildings that appeared on a range of rural settlement sites. The use of military terminology to describe both official frontier installations and sites erected by civilians is a further confusion and the same term can occur across a radical different range of sites³⁰. For this reason, we have in general avoided the application of Latin terms to particular forms and have concentrated more on formal morphological criteria. Here we define and describe some of the common types of fortified sites.

1. Tower-like qsur

Isolated tower-like structures with or without ditches

This category covers a range of sites, with the smaller examples being similar in design to Roman watch-towers and the larger ones to small outposts of the Roman frontier (fig. 1). The classic examples are those published by the Libyan Valleys Survey³¹. The smallest sites were generally square multi-storey towers of 5–10 m side, with a single entrance door and few windows (none low on the structure). The larger examples, commonly 10–25 m

²⁸ Mattingly 1995, 90–106, 192–94 for discussion of the typology of military sites.

²⁹ Toussaint 1906; cf Lecat 2012, 1123–27; Mattingly 1995, 194–95; Pringle 1981, 140–43.

³⁰ Mattingly 1995, 90. For example, the term *centenarium* could refer to a Diocletianic fort with external towers (Leschi 1943) or Tripolitanian fortified farms (Goodchild 1950); *castellum* had both a military and civil useage (Leveau 1984, 492–94); *Turris* also features at civil *qsur* (CIL 8. 22774), and so on.

³¹ Barker *et al.* 1996a, 127–33; 1996b, 20–22, 27, 43–52, 62–67, 76–77, 91–93, 113–20, 125, 131–43, 151–55, 162–64, 173–99, 204–05, 212–22, 235–38, 258–68, 273–76, 286–93, 307–08 for some prominent examples; see also Barker *et al.* 1991; Welsby 1992; Sjöstrom 1993, 81–87, 112–19, 131–307.

side, frequently had only two storeys, but more complex internal plans. The internal arrangements generally included a small court or lightwell placed fairly centrally providing light and air to suites of rooms around the outer walls. Masonry quality can be very variable, from ashlar to small irregular blockwork, with doorways and corners sometimes reinforced by the use of larger blocks. Tower-like *qsur* were also sometimes surrounded by a ditch or outer enclosure wall.

Tower-like structures within larger settlements

Some *qsur* of the first type are found within larger settlements, in many cases clearly being additions to existing undefended settlements. This is evident in the Jabal Tarhuna area of Libya, for instance, where Oates first recorded the structural sequence and Ahmed has recently recorded many further examples³².

Block-house style structures within larger settlements

At a number of locations in Tunisia, the conversion of rural temples and mausolea into fortified structures (block-houses) has been noted³³. Some undefended urban sites also acquired such small-scale fortified buildings, as noted most notably at Sbeitla³⁴.

Clusters of tower-like structures at a single location

Most rural settlements contained only a single *qasr* structure, but a number of examples have been recorded of sites with two or more examples in close proximity to each other. The most notable site is Ghirza, a substantial village of about 40 buildings, many of fortified character³⁵, but another example has been recorded at Bir Kimen³⁶. Also recorded

³² Oates 1953; 1954 (particularly the latter for the superposition of the fortified sites on the earlier open farms recorded in the former article); Ahmed 2010.

³³ Ben Baaziz 2003 on western Tunisia; Ghalia 2005, 57–62 on Segermes villa, etc.

³⁴ Duval and Baratte 1973, 92–98; Fenwick 2013: 21–24.

³⁵ Barker *et al.* 1996a, 133–34; Brogan and Smith 1984, 45–80.

³⁶ Brogan 1977, 121–22.

by the Libyan Valleys survey are a number of other instances of dense clusters of intervisible *qsur*, such as in the Wadi Kharab, Wadi Buzra or the Bir Scedua area³⁷.

2. Larger rectangular walled qsur

Some of the *qsur* in Tripolitania were of larger dimensions (over 50 x 50 m) and their morphology appears distinctive compared to the more tower-like *qsur* considered above (fig. 1, above; among the largest examples are Gb38, Mm10 and two of the buildings at Ghirza and a *qasr* in the Wadi Tessa were also of exceptional size: 47 x 47 m, 46 x 48 m and 46 x 46 m)³⁸.

3. Larger rectangular embanked and ditched enclosures

Between the watchtower/smaller outposts and the full-scale fort suitable for an auxiliary unit or a substantial legionary detachment, there was a class of military site that is commonly described as a fortlet. These sites were typically of 40–60 m side (c.0.12–0.5 ha) and in the early centuries AD had the distinctive playing card shape of the larger forts and were protected by ditches and ramparts or ditches and walls (fig. 2)³⁹. Unlike the larger forts, they tended to have just a single entrance in one of the short sides. The classic examples of such sites in Africa are Bezereos and Tisavar in southern Tunisia⁴⁰.

Fortified compounds within village scale settlements

There are quite large numbers of sites of a similar morphology identifiable on satellite imagery in the frontier zone in Roman Africa that may be either additional examples of fortlets or evidence of some civilian settlements taking on the form. Typically, these sites tend to have evidence of a single central building or complex within the enclosure and, in

³⁷ Barker *et al.* 1991; 1996b: 43–55, 62–75, 131–49; Buck *et al.* 1983; Welsby 1992.

³⁸ Barker *et al.* 1996b, 90–92, 118–19, 212–14, 307.

³⁹ Daniels 1987, 247.

⁴⁰ Mattingly 1995, 98–101; MacKensen 2010; Trouset 1974, 131–33.

many examples, evidence of extramural settlement. In the Bled Segui of central Tunisia these settlements reach areas of 15 ha and include evidence of olive presses and ceramic production (pottery wasters, in some cases there are charcoal-rich areas that can be identified through satellite remote sensing).

Embanked rural settlements

Mrabet has recently published evidence for a regional sub-type of fortified embanked settlement in southern Tunisia where the ‘fortified farm’ interpretation seems the most probable explanation⁴¹. These sites had a bank on the outside of a broad ditch around a central building, with the overall footprint typically covering 30 x 40 m. Some sites did not have the ditch/bank on all four sides, further weakening the case that these were primarily fortified for defence. Nonetheless, it is possible that the morphology of these sites was influenced at the outset by the appearance of Roman fortlets in the frontier zone.

4. Large square or rectangular qsur with projecting towers at angles, gates and along sides

A very distinctive class of late Roman fortification, common in many frontier areas of the empire comprised large square or rectangular *qsur* with projecting towers of varied shape at angles, gates and along the sides (often referred to as the *quadriburgus* or *quadriburgium* type)⁴². This class of sites varied in size from c.0.05–1 ha (fig. 3)⁴³. A number of examples from North Africa were indisputably of military origin, but many others visible on satellite imagery or aerial photographs have never produced epigraphic evidence. There was once a tendency to ascribe all examples of this type of site to the

⁴¹ Mrabet 2011, 228–31.

⁴² Daniels 1987, 260–63; Johnson 1983; Lander 1984; Leschi 1943; Welsby 1982.

⁴³ For the origin of the form in Africa, see Euzennat 1986; Lenoir 2011, 289–98; Napoli 1999.

Roman army⁴⁴ but more recently a more sceptical view has started to emerge. Attribution to the military or farming community must be made on a case by case basis, carefully weighing the available evidence, strategic location and relative probability. Thus a Type 4 site at a strategic road junction of the Numidian *limes*, seems a likely candidate as a military post, but the miniature example at Mselliten in the Tripolitanian pre-desert has more of the characteristics of a fortified farm⁴⁵. As a general guide, sites with projecting towers only on one facade, or lacking major towers at the gate, are more likely to be civil sites⁴⁶. The fortified site at Nador gives an initial impression of strength with its projecting towers on its front facade, but an unequivocally civil inscription and the substantial pressing facilities counterbalances this⁴⁷. It seems a fair assumption that late Roman styles of fortification were imitated at a range of contemporary civil sites, some more exact copies and others distinctive variants on the military norm.

However, the picture becomes more complicated with the recent identification of numerous fortified village sites utilising the rectangular plan with projecting towers in Garamantian Fazzan, where there is no possibility of any direct involvement of members of the Roman military community. As we shall see, the dating evidence there is consistent with the adoption of this style of plan by the Garamantes from visual acquaintance with the form on the Roman frontiers 500 km and more to the north⁴⁸. It might be possible to argue that the Garamantian state initially adopted an architectural style from the Roman empire for its own garrison installations overseeing the constituent oases of the kingdom. However, the numbers and density of such sites go far beyond the requirements of a security conscious state and they have a broad dating range from c.AD 350–540.

⁴⁴ Mattingly 1995; Trouset 1974.

⁴⁵ Contra the view expressed in Mattingly 1995, 194. The towers and walls were not particularly high and there were no towers flanking the entrance.

⁴⁶ Lenoir 2011, 280–81, rejects previous military interpretation of Benia Guedah Ceder; cf. Trouset 1974, 67–68.

⁴⁷ Anselmino *et al.* 1989; Mattingly and Hayes 1992.

⁴⁸ Sterry and Mattingly 2011; 2013; Sterry *et al.* 2012.

The rectangular fortified site with projecting towers comes in a variety of sizes and settlement configurations:

Tower-like qasr with projecting towers at angles, gates and along sides

Some of the Garamantian examples were quite small, consisting of a multi-storey building with high enclosing wall and projecting towers, with an internal area similar to the classic fortified farms of Tripolitania to the north. These occur not only as isolated fortified structures, but as part of larger settlements which form our next two categories.

Qsur with external towers as focal points in larger unfortified settlements

Some of the Garamantian *qsur* were clearly constructed as focal points within larger settlements, which lacked an outer enclosing defensive circuit and sometimes more than one example occurs at a single site.

Qsur as focal points within larger enceintes with projecting towers

Some of the Garamantian fortified sites comprise a central *qasr* lying within a much larger defensive enceinte which was also provided with projecting towers at the corners, gates and along the sides.

5. Irregular defensive enceintes with towers

A number of examples of sites in the Libyan Valleys Survey and in the Garamantian heartlands had a more irregular shape to the defended area, but still made use of external projecting towers (fig 4, top).

6. Irregular defensive enceintes without towers

There are many examples of hillforts in the Maghreb and the Sahara, with irregular defences (fig 4, middle). Some at least of these sites are pre-Roman in origin⁴⁹, but many have revealed evidence of continuing use in the Roman era and some seem to have been still active as refuges in late Roman times⁵⁰. A number of late Roman sites appear to have been deliberately sited in upland positions to take advantage of the defensive potential of such locations⁵¹. The distinction between defensive enceintes and *qsur* is not always clear, some of the Tripolitanian *qsur* have a very irregular shape, due to being built on narrow spurs⁵².

7. Fortified churches

The main evidence for fortified churches comes from Cyrenaica, where a number of villages (especially those lacking a *qasr*) had the church walls reinforced by masonry batters or surrounded by a ditch (fig.4, bottom)⁵³. It could be argued that such structures served to buttress churches affected by earthquake damage or to protect against the potential effects of future earthquakes. However, there are a number of other features (high thick walls, ditches encircling, etc.) that suggest that the possibility of the community protecting themselves within the church was a factor in their design. It is plausible that even without these additional defensive elements, churches in many rural villages across North Africa were the most substantial buildings in the settlement and could have served as defensible strongpoints or refuges for the community.

⁴⁹ Ferchiou 1990a/b; 2004.

⁵⁰ Barker *et al.* 1996a, 116–18, 160–61; Marion 1957; 1959; Morizot 1991; 1997.

⁵¹ Hitchner 1988, 29–32, site Ks81; Wanner 2006 XX.

⁵² Barker *et al.* 1996b, 273–75, Site Sc001.

⁵³ Ward-Perkins and Goodchild 2005, 16–17, for a good review of the Cyrenaican evidence of ‘defensive’ features of churches. See also Ben Baaziz 1999, 45–48 for a possible example of a fortified church from Byzacena.

8. Fortified villages

An important category of site in northern Numidia and Mauretania was defined by the Latin term *castellum*. When applied to civil settlements, this term denoted large villages, with subordinate juridical status to towns. The borrowing of a military term suggests that in origin these are likely to have been fortified Moorish or Numidian settlements and some retained, or regained, a fortified aspect in late Roman times. However, not all sites designated *castella* were fortified and not all fortified villages can be shown to have this juridical status⁵⁴. The important point here is that it raises awareness of the possibility of fortified sites larger than the types described to this point, but smaller than urban sites.

In fact, our examination of aerial photographs and satellite imagery has revealed a considerable number of villages that appear to have been enclosed within fortified enceintes. Some of these may have had military associations – especially examples along the frontier road in Algeria (fig. 5). However, others appear civilian in nature and this certainly appears to be the case for a large number of examples from the Garamantian kingdom, beyond the frontier. More detailed work is required on village level settlements in the Maghreb to gain a better understanding of this category.

Distribution of Late Antique Fortified Rural Sites

In this section we shall first consider the distribution of different forms of site within the various provincial and extra-provincial areas of North Africa on a region by region basis. In the second part of our analysis we shall then explore aspects of the overall distribution of *qsur* across the Maghreb and northern Sahara as a whole. At this scale it is particularly

⁵⁴ Leveau 1984, 492–94 on *castella* in Mauretania Caesariensis. A number of substantial agglomerations in the area of Caesarea do not appear to have had late defences (e.g. Ichèrene, Leveau 1984, 365–67), though they occupied defensible positions typical of the proto-urban Mauretanian phase. See also Février 1964, on *castella* of Setif area.

interesting to note zones where we have plentiful evidence of rural *qsur* and areas where they are largely absent.

Mauretania Tingitana (fig. 6)

Studies of rural settlement in Mauretania Tingitana are still somewhat underdeveloped and the only report of fortified farms from near Tangiers: Daïat, a blockhouse structure with two projecting towers at the front that dates to the Mauretanian period⁵⁵, and a group of 7 late Roman sites mentioned on a map as fortified farms also⁵⁶. On the other hand, there is still a tendency to assume that all fortified compounds and towers located in the countryside were military installations. Rebuffat's map of the military installations includes c.50 fortlets, towers and small guard posts. One wonders if some of these might be civil structures in origin⁵⁷.

Mauretania Caesariensis (fig. 6)

The phenomenon of substantial castle-like rural buildings being erected at estate centres is well attested. The site of Nador is a rare excavated example of such a fortified estate centre, with its olive oil and wine processing facilities emphasising the agricultural connections of the site and a dedicatory inscription that identifies it as an estate centre⁵⁸. The imposing front facade of the complex with its high wall and projecting corner towers evokes military architecture and power, though the rear of the building lies against a down-slope that would have left it vulnerable defensively. Two other Mauretanian sites illustrate this fashion for fortified estates centres. Petra (Mlakou) was known on its dedicatory inscription as both a farm and a fort (*Praedium Sammacis* and *praesidium aeternae*) and

⁵⁵ Ponsich 1970, 215–217

⁵⁶ Ponsich 1964, 253–290; 1970, 345–346;

⁵⁷ Euzennat 1989; Rebuffat 1999, 267, 270–72, 289.

⁵⁸ Anselmino *et al.* 1989.

was clearly designed from the start as a focus for the exercise of local power⁵⁹. Many of the garrison settlements became effectively urban in scale (if not always in juridical function) and were mainly provided with defences. The *oppidum* of Usinaza was specifically founded c.AD 203 as a fortified settlement to house civilian settlers from Africa Proconsularis and there were numerous villages designated as *castella* (some of which were certainly fortified).

Numidia (fig. 7)

Numidia has the highest concentrations of military installations in the North Africa *limes* with at least 107 forts and fortlets dating to several reorganisations of the frontier. It also has the main concentration of Type 4 (*quadriburgi*) in the pre-desert/*limes* zone. Many of these forts and fortlets had surrounding civilian settlement with agricultural facilities such as olive presses⁶⁰. Although these sites were constructed by the military it is far from certain that all retained their function. *Burgus Spectacularis* is a prime example with the fort restored by one *Caletamera*, either a Roman official, commander or a local leader⁶¹. Elsewhere in Numidia there are a number of Type 7 fortified villages, often containing one or more *qsur*; Baradez identified a number along the Wadi al-Kantara and Wadi Djedi and this type of settlement appears to be an integral part of the site hierarchy in the frontier zone. Sources-du-Lions, for example, measures 6.5 ha with one *qasr* built into the eastern wall and at least two more just beyond the northern gate. A number of oil presses were found within the village. Unfortunately many of these sites, including Sources-du-Lions, have since all but been destroyed by the growth of oasis agriculture in the Biskra region, although there are likely more within the valleys of the Saharan Atlas and Morizot has

⁵⁹ *AE* 1901, 50; Laporte 2011, 134–35; 2012; Shaw 2011, 39-40, for the inscription and discussion.

⁶⁰ Gsell 1911; Baradez 1949. Fentress 1979; 1985; Morizot 1991; 1997.

⁶¹ Pringle 1981, 280 (*CIL* 8, 2494).

identified some beyond the frontier at Laghouat⁶². The few sparse reports within Baradez and the *Atlas Archéologique de l'Algérie* suggest these might often have been Type 1 *qsur* rather than fortified villages. The Aures Mountains also follows this pattern, but there are also a number of Islamic fortified granaries (*guelaa*) that are similar in form to Type 2 *qsur* with many rooms around a central courtyard⁶³. It is possible that some of these are constructed upon or are related to late Roman rural fortifications in the region.

Constantine to Thala (fig. 7)

In the high plains north of the Aures there are numerous references in the *Atlas Archéologique de l'Algérie* to fortified farms and fortlets⁶⁴. There has been very little archaeological work undertaken in this region making distinguishing between late Roman, Byzantine and Islamic fortifications problematic. However, the sheer density of reports indicates that this was a major area for rural fortifications. Indications of satellite imagery show that these are mostly Type 1 and 2 *qsur* with rare examples of Type 3 *qsur*. They are regularly located within agglomerations of rural settlement and extensive areas of likely Roman field systems, but it is difficult to discern to what extent they pre- or post-date surrounding features. Site 12 from the Belezma survey is one of the few examples that can be dated: a large rectangular structure surrounded by a ditch (Type 3) it is found in association with finewares from the 5th century⁶⁵.

Zeugitana and Byzacena (fig. 8)

⁶² Morizot 1999.

⁶³ Morizot 1997 esp. 155-57, 170-73, 188-89.

⁶⁴ Babelon 1893; Gsell 1911; Ben Baaziz 2003; *Carte Nationale des Sites Archéologiques et des Monuments Historiques*.

⁶⁵ Fentress et al. 1986, 110.

In both Zeugitana and Byzacena there is a much lower incidence of fortified rural sites, but they are certainly not absent⁶⁶. For instance, the Dougga survey,⁶⁷ although barely touching on the subject, recorded 10 rural fortifications in area of c.300 km² and there are a substantial number of sites recorded in the *Atlas Archeologique Tunisie* and the published volumes of the *Carte Archeologique Tunisie*. As with the Mauretania and Numidia there are problems of identification and dating that are not helped by the substantial modern agricultural growth. Many of the sites must be linked to the Byzantine military rather than rural populations, but many must have belonged to private estates. The identifiable sites are mixed in their typology. There are block-houses both with and without corner towers, converted temples, churches and mausolea and a number of hilltop refuges (many of which may be pre-Roman in origin). Identifying regional patterns from the uneven evidence of the different types of survey is not easy, but there seems to be a strong topographic correlation with the mountains and uplands of northern and central Tunisia. The picture is further complicated by the density of urban sites in Northern Tunisia and there is some evidence both of fortification and of agricultural production moving into some of these towns in late antiquity, as for example at Uchi Maius⁶⁸.

Southern Byzacena and Tripolitania (figs. 9 and 10)

In the area of the Bled Segui there are a large number of Type 3 nucleated villages with a central fort-like enclosure that are close to the Asprenas road that links Tacape (Gabes) to Capsa (Gafsa). At their densest these occur approximately every 5 km and appear to be the dominant settlement type in this area, reaching areas of c.10 ha and containing evidence of olive presses and ceramic production, probably for local and regional circulation, which may explain the lack of imported pottery. Visited examples suggest a long occupation

⁶⁶ Babelon 1893; Carte Nationale des Sites Archéologiques et des Monuments Historiques.

⁶⁷ De Vos 2000.

⁶⁸ Vismara 2007.

sequence beginning in the 1st or 2nd century AD and continuing at least until the late Roman period, evidenced by a drop in imported pottery and the predominance of handmade forms. Additionally, there are some smaller Type 1 *qsur* that also typically have substantial extramural houses and enclosures and there are also examples of Islamic fortified settlements from this region suggesting a long continuation of this habitation type⁶⁹.

The area of the Tripolitanian frontier contains a variety of fortified sites⁷⁰. These include what appear to be enclosures of originally open farms within ditches as in the Tebaga area⁷¹ and Type 3 coastal ditched sites⁷². In general these are smaller than the Bled Segui sites (the central mound c.400–900 m²) and have little or no extramural settlement (although some examples are c.6 ha). There are also numerous examples of Type 1 *qsur* and Type 4 towered *qsur*⁷³.

Along the Jabal escarpment there are only occasional *qsur*, but a large density of Type 6 hilltop enclosures and other smaller fortifications of <1 ha. There has been very little ground-truthing to provide dating evidence for this area or even clearly distinguish between pre-Roman, Roman and Islamic settlement types, but it is notable that here as in some other frontier zones (e.g. the Libyan pre-desert) there is a settlement system that seems to be almost entirely based on *qsur* without any urban centres. In the Jabal Tarhuna area further to the east satellite imagery has started to greatly expand this portfolio⁷⁴. Here there is more consistency with predominantly Type 3 enclosure *qsur* from Zintan to the Jabal Tarhuna and in the region of Misurata.

⁶⁹ Donau 1904b; Trouset 1978.

⁷⁰ Mattingly 1995, 202–209.

⁷¹ Trouset 1974; Guery 1986; Mattingly 1995.

⁷² Mrabet 2011, 228–32.

⁷³ Trouset 1974, 133–35.

⁷⁴ Ahmed 2010; Brogan 1977; Oates 1954.

The UNESCO Libyan Valleys Survey (ULVS) in the eastern Tripolitanian pre-desert zone recorded a total of 263 *qsur*, of which 155 produced some dating evidence⁷⁵. The ULVS dossier of sites includes a considerable variety in overall form, architectural features, qualities of stonework. There are additional examples, though more sparsely distributed along the Syrtic coast to the east⁷⁶. The mixture of different forms of fortified sites is striking – from many variants on Type 1 tower *qsur* and Type 2 larger more open *qsur*, to some (rare) variants of the Type 4 rectangular or Type 5 irregular enceinte with external projecting towers (Nf083, Nf084a), to Type 6 hillfort sites (e.g. Nf039, Zz001–4) and irregular *qsur* (e.g. Nf033, Sc001, Sc005), to at least one example of a Type 8 fortified church (Sf110)⁷⁷.

Fazzan (fig. 11)

In the Wadi al-Ajal and Murzuq/Hofra Basin, south-west Libya (500 km beyond the frontier region) *qsur* make up c.250 of 478 recorded settlements⁷⁸. Type 4 towered *qsur* are the major type with a number of variants that are unique to the region although there are some Type 1 *qsur* and some Type 5 defensive enceintes (although the majority of these are 1st millennium BC in date). These occur on their own and within larger settlement agglomerations. The primary agricultural role of these fortified settlements is demonstrable by the presence of well-preserved field systems and irrigation works that have a strong correlation to the size of the *qsur* and settlement. The largest fortified rural sites can be considered Type 8 fortified villages and are planned settlements behind towered enceintes. Although it was originally considered that many if not the majority of these sites might be

⁷⁵ Barker *et al.* 1996a/b.

⁷⁶ Reddé 1988; cf Lesquesne *et al.* 2010; Longerstay 1999.

⁷⁷ These sites are well illustrated in Barker *et al.* 1996b. For distribution see also, Goodchild 1954a; Talbert 2000, Map 35.

⁷⁸ These sites are being catalogued as part of the Trans-Sahara Project, but see Mattingly 2003; 2007; 2010; 2013 for the work of the Fazzan Project in the Wadi al-Ajal and on the Murzuq/Hofra basin: Sterry and Mattingly 2011; Sterry *et al.* 2012; Sterry and Mattingly 2013.

medieval in date⁷⁹, solid dating evidence (see below) shows that they were predominantly constructed in late antiquity. These must therefore be considered as part of the same phenomenon of rural fortification found across Roman North Africa and the Roman empire in general. This also has major implications for the common assumption that such fortifications in many other Saharan oases were medieval foundations, especially in the Tuat oases⁸⁰, the Saharan Atlas⁸¹, and the Moroccan Atlas.

Cyrenaica (fig. 12)

There is good evidence of unsettled conditions in the countryside of late Roman Cyrenaica, with raids on farming communities and the cities alike by a group known as the Ausuriani, probably emanating from the Syrtic oases⁸². As in Tripolitania tower-like *qsur* became a common element on many rural sites⁸³, and these fortified farms reveal quite a lot of variation in size, layout, architectural and defensive features. There are evident differences between *qsur* in the coastal region (which are fairly rare also), those of the upland escarpments of the Jabal Akhdar and those of the pre-desert to the south. The densest distribution of *qsur* is found in the area of the Wadi al-Kuf, but the vast majority of these seem to be civilian in character⁸⁴. Some of the *qsur* in the pre-desert were demonstrably military installation and others have suggestive features that differentiate them from the majority of fortified farms (lack of associated cultivation and settlement)⁸⁵. The majority of fortified sites were Type 1 tower-like *qsur*. Some rare examples of Type 4 larger rectangular enclosures with projecting towers appear to be military in nature. Rural villages are common, but these seem not to have been enclosed within walls, though *qsur*

⁷⁹ Mattingly 2003, 151–54.

⁸⁰ Echallier 1972

⁸¹ Morizot 1999

⁸² Goodchild 1976c; Mattingly 1983; Modéran 2003; Tomlin 1979.

⁸³ Goodchild 1953; 1954b. A current Leicester PhD student, Ahmed Emrage, is working on the Cyrenaican *qsur* and this section draws to some extent on his work.

⁸⁴ Goodchild 1954b; Talbert 2000, Map 38.

⁸⁵ Reynolds 1971; Bennett *et al.* 2008.

were added to many. In addition, churches at a number of villages seem to have been reinforced to improve their fortified character (Type 7 defences)⁸⁶.

Overall distribution of fortified sites in Africa

We have collected all references of rural fortifications from the various field surveys⁸⁷, specialist studies⁸⁸, the regional surveys of Algeria and Tunisia⁸⁹ and our own satellite prospection⁹⁰. This is by no means comprehensive, but as **fig. 13** shows, fortified sites were a common factor in rural society in many regions of North Africa, not just in the frontier zone, by the late antique period. However, it is also apparent that the distribution of such sites was very variable in terms of morphology and density. As a general rule, it appears that in the frontier regions bordering on and extending into the pre-desert *qsur* of various types were very common – in some areas almost ubiquitous. Many open settlements of earlier foundation were reinforced by a fortified building or enceinte. Large numbers of sites that were not reinforced were abandoned. In the Libyan Valleys and Fazzan this resulted in fortified farms becoming the dominant settlement type (fig.14), whilst in Numidia fortified villages were of greater importance and along the Jabal of the Tripolitanian frontier there was a mixture of fortified farms and hilltop enceintes. The fortified farm and fortified village were thus in many respects characteristic settlements of the Roman frontier zone. Yet, as this paper has shown, the adoption of fortified rural building forms went well beyond those associated directly with the military community in the frontier districts and also appeared in parts of provincial territory far from the frontier

⁸⁶ Ward-Perkins and Goodchild 2005, 16–17, for examples see 226–230, 316–325, 349–351, 397–399, 412–413.

⁸⁷ Fentress 1986; Barker and Mattingly 1996; De Vos 2000.

⁸⁸ Baradez 1949; Sjöström 1993; Morizot 1997; Ahmed 2010.

⁸⁹ Due to the uneven nature of site recording in Babelon 1894, Gsell 1911 and the *Carte Nationale des Sites Archéologiques et des Monuments Historiques* we have recorded all mention of fortin (romain and byzantin), ferme fortifiée, fort, forteresse, etc. (dating for the vast majority of these is problematic at best, but the overall distribution is still useful).

⁹⁰ This was conducted by a combination of purchased imagery, aerial photographs, imagery available within Google Earth and imagery available through ArcGIS online.

as well as in oases communities hundreds of kilometres outside the empire. In the high plains of eastern Algeria and Tunisia fortified farms were fitted into a settlement system that was still primarily urban focussed. Similarly the hinterlands of Tripolitanian cities such as Gighis and Lepcis Magna contain many Type 3 ditched fortified farms of substantial size. It is not clear whether these fortifications were in addition to, or substituted for, the late Roman villa sites more widely known elsewhere.

The old theories that linked the construction of such sites simply to endemic security problems and the nomad menace have long been discredited⁹¹. It is certainly possible that the relationship between Rome and the desert peoples was changing as Roman military resources became more stretched and the economic interconnectivity between peoples was weakened. We can identify moments when raids by desert peoples were a real and present danger for rural communities – as in the Austuriani/Ausuriani attacks on Tripolitania and Cyrenaica⁹². There are also indications from the Mauretanian evidence that rural insecurity could be the result of internal feuds between the powerful families and individuals who built the *qsur*⁹³. This was the case in the history of the family of Sammac and his brothers Firmus and Gildo. Religious divisions in North Africa were also a source of heightened inter-communal violence⁹⁴. However, there are other indications that notwithstanding some level of insecurity the late Roman and late antique landscapes of Africa remained prosperous and populated⁹⁵. Another way of looking at the evidence is that the *qasr* (in all its many aspects) was fundamentally an elite or upper echelon marker. Constructing a fortified site marked individuals and communities out as being powerful and influential in their neighbourhood, while at the same time providing a measure of security for the

⁹¹ Mattingly 1989; 1995, 171–85; contra Rachtel 1970.

⁹² Mattingly 1983; 1995, 173–76; Modéran 2003; Roques 1985; cf Ammianus Marcellinus 26.4.5, 28.6.1–5, 28.6.10–14; Synesius, *Letters* 57, 58, 104, 108, 125, 130.

⁹³ Laporte 2011, 130–37; 2012; Modéran 2003; Matthews 1976.

⁹⁴ Shaw 2011.

⁹⁵ Dossey 2010; Leone and Mattingly 2004.

protection of people and other key assets of the community (such as stored surpluses and seed, tools and portable wealth)⁹⁶. Dossey and Shaw have drawn renewed attention to the late Roman period as one with a growing and more restless rural poor drawn into conflict with landlords and city dwellers and it is notable that so many fortifications are constructed in these more fertile areas.

Fortified communal granaries are a common feature of the medieval period across North Africa with especially notable concentrations in the Moroccan Atlas, Aures Mountains, Southern Tunisia and the Jebel Nafusa⁹⁷. Not only did these provide agricultural storage for individual farmers, they could also act as sites of refuge, market and political assembly. Such was their importance that when the Ottomans quelled a rebellion in the Jabal Nafusa in the 19th century they deliberately destroyed the communal granaries to reduce the independence of the villages. At present these medieval granaries can be dated back as far as the 14th centuries⁹⁸, or even the 9th century⁹⁹, and although it seems likely that some originated even earlier there is as yet no evidence to back this up. It is notable that communities in these areas continued to make extensive use of rural fortifications and tempting to draw a direct link between the Roman and medieval era constructions although they are found in somewhat different locations and with a different morphology, This also raises the obvious question as to whether any of the Roman era fortifications were used as granaries, communal or otherwise. The substantial cells at the Type 1 blockhouse KH022 in the ULVS are suggestive of storage¹⁰⁰, but these are not a common element in other recorded floor plans of Roman-era *qsur* and at present it would seem that these were predominantly buildings for habitation rather than storage.

⁹⁶ Fontana 1997; Mattingly 2011, 246–68.

⁹⁷ De Meulemeester 2003.

⁹⁸ De Meulemeester 2003, 4.

⁹⁹ Cirelli 2004.

¹⁰⁰ Welsby 1992, 87–90; Barker *et al* 1996b. 133–134.

Dating

Relatively few of the areas of rural settlement described above have been subjected to detailed dating analysis. While the late Roman/late antique designation is demonstrably correct for many of the sites, a more precise dating within this broad period is not at present possible. Outside of the more detailed dossiers from the ULVS and Fazzan Project (discussed below), Nador (Algeria) is a rare excavated example.¹⁰¹ This important Libyan evidence demonstrates the potential for taking the analysis further where such data are available.

Qsur were recognised as a key component of the landscapes of the Libyan Valleys¹⁰². Of the 263 surveyed, many were shown to have been added to pre-existing undefended settlements that had been occupied from the late 1st century AD. The earliest construction date for the *qsur* themselves is the early 3rd century and the form of such sites suggests that they emulated (or in some cases adapted) 2nd-century Roman outposts (*Qasr* Banat, Gheriat ash-Sharqiya, etc)¹⁰³. However, by the 4th and 5th centuries, much denser numbers of *qsur* had been constructed, with some distinctive clusters, whether in the form of a village of *qsur* at Ghirza, or linear concentrations along wadis as in the Wadi Buzra and Wadi Umm al-Kharab¹⁰⁴. Some local clusters have such a high degree of uniformity of architectural form that they are likely to have been constructed as a group by a single authority or community, as at Bir Scedua¹⁰⁵.

The *qasr* settlements of the Libyan pre-desert seem to have stayed in use until at least the 6th century. Roman finewares from the Libyan Valleys Survey were used by Mattingly and

¹⁰¹ Anselmino *et al.* 1989.

¹⁰² Barker *et al.* 1996a, 127–33 (typology); 155–58 (dating); 164–67 (distribution).

¹⁰³ Barker *et al.* 1996a, 155 on finds of Corinthian relief ware from a foundation trench at *qasr* Mm10, indicating an early 3rd-century TPQ.

¹⁰⁴ Mattingly 1995, 195–200; Welsby 1992.

¹⁰⁵ Buck *et al.* 1983; Barker *et al.* 1996b, 43–52.

Dore to construct an overall trend of occupation. Four sites produced convincing dating material for their construction: Mm10, Lm3, Kh41 and Bz906. Of these Mm10 dated to the first half of the 3rd century: there was one sherd of ITS (1st century BC–1st century AD) but the finewares were mainly early ARS such as Hayes 3, 6, 31, 32, 33 (AD 80–250) and a few later forms such as Hayes 58, 61, 84 and 99 (AD 275–500), plus TRS Hayes 2, 3, 4, 5 and 7, which are generally 250–400+. Lm3 dated to the late 3rd century: datable finewares included Hayes 50 and 59 (mid 3rd to early 5th century) and TRS 3, 4 and 10, ranging from AD 250–400+. Bz906 dated to the late 4th century: finewares such as Hayes 3 and 45 and TRS 3 suggest a chronology between AD 80–350. Kh41 dated to the 5th century: early ARS Hayes 6, 27/31, later Roman 50, 67, 68, 81, 91 and 105 (up to 7th century) and many TRS Hayes 3 (mid to late 3rd century) plus Hayes 4, 5, and also a 10 (which take us into the 5th century).

Mattingly and Dore summed the total fineware evidence for all *qsar* in the Libyan Valleys to obtain a broader view of their dating¹⁰⁶. This suggested that peak occupation occurred sometime after the late 3rd century although in some Wadis (Mimoun/Buzra and Gobbeen) it occurred earlier in the 3rd century. The end of *qsar* occupation was difficult to assess due to the apparent very low levels of imported finewares during the 6th and 7th centuries that artificially deflates the totals. Looking at other ceramic classes does nevertheless tell a similar story: the amphora tend to be late 1st to perhaps late 4th century (Tripolitanian I–III and Africana ‘piccolo’ and ‘grande’), plus a few later types such as Leptiminus Types 10 and 11 of the late 5th and Libyan Valleys nos 27 and 28 with flanged rims, also possibly late 5th century. The coarsewares are generally mid Roman such as Libyan Valleys nos 62–3 (Sabratha 59) of the early 3rd century, no. 66 (a Hayes 197, mainly 2nd to 4th century) and nos 68–9 being Tripolitanian variations of the classic Hayes 183 casserole (Bonifay

¹⁰⁶ Mattingly with Dore in Barker *et al.* 1996a, 155–58.

Culinaire 17) of the 3rd to 4th century. However, radiocarbon dates obtained from *qsur* in the northern wadis suggest that in some areas occupation continued on into the Islamic era, a point also supported by certain architectural features that typify *qsur* in this area and the Gebel to the north (vaulted ceilings and decorative plaster work)¹⁰⁷. On the other hand, there is evidence of violent abandonment at Ghirza during the 6th century and it has been argued that both the economy and population of the pre-desert were in decline from the 3rd century onwards.

The evidence from fortified sites in Fazzan is more reliant on ¹⁴C AMS radiocarbon determinations than ceramics, though diagnostic Roman era pottery has been recognised at most of the surveyed sites¹⁰⁸. A total of 25 dates reliably relate to the construction of individual *qsur*, the earliest (HHG006) to cal AD 76-254, and the latest (TEK010) to cal AD 860-1020, but the majority lie in the 4th-6th centuries AD. The largest *qsur* and those associated with outer enceintes (Type 8 fortified villages) are strongly associated with the end of this range, for example GAT001 and HHG001 (illustrated in fig. X and fig. X above) date to cal AD 424-539 and cal AD 425-541 respectively. The data suggest that the period was one of population expansion and rural intensification rather than decline.

In an attempt to refine this chronology for the two Libyan sub-areas, the authors have reassessed the evidence of the ULVS finewares (essentially ARS and TRS)¹⁰⁹. By assuming that each diagnostic sherd has an equal chance of being produced at any time during its production period and weighting by site, it is possible to produce a summed probability curve of *qsur* occupation that can be compared to a similar curve derived from the 14C AMS Radiocarbon samples for Fazzan (fig. 15)¹¹⁰. As with radiocarbon summed

¹⁰⁷ Dore and van der Veen 1986; Barker *et al.* 1996a, 352–57.

¹⁰⁸ Sterry *et al.* 2012; Sterry and Mattingly 2013.

¹⁰⁹ Dore in Barker *et al.* 1996 b, 319–25.

¹¹⁰ For explanation of the methodology see Sterry and Mattingly 2013, XX–XX.

probability curves several cautions must be placed upon these data. Firstly, the positioning of the peaks and troughs of the ULVS data relate in part to the standardisation in production periods for ARS and TRS forms, for example, the first peak is at the point at which forms produced until the mid-2nd century overlap with Hayes form 27 (produced c.AD 160–250). This can be partly compensated for with a rolling average. Secondly, the overall consumption of imported finewares in the Libyan Valleys dropped in the 6th and 7th centuries due to the decrease and eventual end of production around the 7th to 8th centuries. There is no firm data for this, but it would appear that TRS consumption, especially of later forms, was substantially lower, perhaps only half or a third that of ARS.

This distribution fits remarkably well with that which we find in Fazzan, though we need to recognise that these are only spot dates and relate to occupation span rather than construction date. Despite these caveats the resulting graph is still useful for considering settlement development of in Libya. In general, ULVS *qsur* pre-date *qsur* in Fazzan, both in terms of initial constructions and peak occupation. This is in keeping with the previously observed trend that within the Libyan Valleys survey area the northerly *qsur* pre-dated the southerly *qsur*. The drop in *qsur* occupation seem more closely linked, (assuming that TRS numbers are underrepresented in the ULVS) with most occupation being curtailed by the end of the 7th century. That said though, there are structural features of *qsur* that appear to be particularly representative of the Islamic era (decorative plaster on vaults) and at least one *qsur* from the Wadi Merdum produced a 9th-century AD radiocarbon date on structural timber sample¹¹¹. Additionally, the sharp decline in fineware production in the 7th century meant that local handmade productions were used instead, which are rarely recorded or dateable, so occupation could well have continued beyond the era of ARS/TRS production.

¹¹¹ Mattingly 1995, 216 and 233, n. 11.

Conclusions

Fortified sites in rural North Africa were the long-term norm in many districts – especially those where sedentary farmers were in close and regular contact with pastoral communities or with expanding states like Carthage and Rome. Much of the evidence remains poorly mapped, but the availability of high resolution satellite imagery opens new possibilities, especially if it can be linked to ground-truthing and ceramic and radiocarbon dating programmes.

The High Roman empire is exceptional as a period where many rural sites were unfortified and where there was a substantial element of dispersed household settlements. In most other periods across most regions, village settlements and often fortified villages have been the norm. The late Roman resurgence of fortified settlements was a reversion to the norm.

The frontier zone was in general far more profoundly affected by the construction of fortified rural settlements, many of which emulated Roman military architectural styles¹¹². Defence and security concerns remain plausible contributory factors to the changing styles of rural architecture, but it is equally likely that the adoption of these building forms related to their being perceived as representing upper echelon sites of these regions, and thus expressions of regional power and authority. The political conditions in which the rural population (or select individuals?) in the frontier zone were allowed to construct (or constrained from building) fortified sites remain unclear. A relaxation of rules might have been a strong spur to their construction¹¹³. We have expressed scepticism that meaningful equations can be made between specific types of fortified sites and individual terms in the

¹¹² Baradez 1949; Cagnat 1913; Troussset 1990; cf Gichon 1974.

¹¹³ Donau 1904a; Lenoir 2011, 279–81.

Roman military lexicon. Though there was certainly some degree of adoption of such terms, usage appears neither consistent nor exact¹¹⁴.

The parallels between the architecture of military and civilian sites are certainly very evident if we consider the replication of the rectangular form with projecting towers, both at sites that were certainly Roman garrison posts (Aqua Viva) and at a range of other sites where the private designation is either explicit or probable (Nador, Mselliten). There has inevitably been much speculation down the years about the links between the private adoptions of this type of plan and people who associated strongly with the military community (the soldier-farmer argument). This receives some support in famous instances such as the *praesidium* of Sammac, which can be linked with a historical figure who combined local authority with imperial power-broking¹¹⁵. Although such a close tie-in with the imperial government cannot generally be established for the Type 4 sites, these were certainly imposing settlements involving considerable investment. Many of them were built in ashlar quality masonry, when cheaper alternatives were available.

The influence of this new architecture of power in rural districts is also evident well outside the Roman empire in the land of the Garamantian kingdom. The abundance of fortified sites in the late Garamantian era suggests that, whatever the original inspiration, *qsur* in the Sahara rapidly developed a distinctive regional style that fitted with local technologies and landscapes. Here surely we are looking at the wider adoption in Garamantian society of a form of site that evoked high status and power although to many (perhaps most) of the inhabitants the nature of the relationship with Roman military fortifications may have been quite unknown. Fortified structures gave structure to late Roman communities at a time when security concerns had increased to varying extents

¹¹⁴ Goodchild 1950a; Isaac 1988; 1990; Leschi 1943; Smith 1971.

¹¹⁵ On Sammac, see Brett and Fentress 1996, 71-75; Laporte 2011; Matthews 1976; Modéran 2003, 511; Shaw 2011, 38-46.

across North Africa. However, we should resist the temptation to look for a universal explanation or common chronology. To be sure, there is some correlation in dating evidence for the surge in *qasr* construction between Fazzan and Libyan pre-desert. In the absence of dating evidence of comparable quality from other areas, it is safest to assume at present that this patterning is regional and tied in to localised behaviours rather than being pan-Maghrebian. Better dating evidence (especially more ¹⁴C AMS radiocarbon dates) is needed of a larger range of the sites discussed in this article in order to make sense of the chronological sequences involved. We anticipate that the construction of fortified rural sites was spread across a long period in the late Roman, late Antique and Early Islamic eras.

Figures

Fig.1. Examples of Type 1 and 2 *qsur*. Top: Possible military parallels, a – Henchir Mgarine, b – Henchir Medina, c – Bir Rhezene, d – El-Medina Ragda, e – Gasr Duib, f – Gasr Wames (a-d from Mattingly 1995, 99; e and f after Barker et al. 1996b ; Middle: Assorted Type 1 *qsur* from ULVS (from Barker *et al.* 1996b); Bottom: Assorted Type 2 *qsur* from ULVS (from Barker *et al.* 1996b).

Fig.2 .Examples of Type 3 *qsur* drawn from ArcGIS Online imagery (copyright ESRI). a – AAA Sheet 40 Site 123, b – AAA Sheet 28 Site 162, c - Henchir Lassoued CAT Sheet 128 Site 16, d – *qasr* in the Tarhuna region.

Fig 3. Examples of Type 4 *qsur*. Top: Possible military parallels, a – Seba Mgata, Algeria, b – Ksar Tabria, Tunisia, c – Henchir El-Hadjjar, Tunisia, d – Henchir Rjjjila, Tunisia, e - Aquae Herculis, Algeria, f – Benia Bel Recheb, Tunisia, g – Henchir Temassine, Tunisia (a and e from Baradez 1947; b-d, f and g from Mattingly 1995); Bottom: Assorted Type 4 *qsur*, a – Benia Guedah Ceder, Tunisia, b – Mselletin, Libya, c – FJJ013, Libya, d – GRE015, Libya, e – FJJ056, Libya, f – HHG006, Libya, g – HHG007, Libya, h – HHG008, Libya, i - GAT010, Libya (a and b from Mattingly 1995; d and e from Mattingly 2007).

Fig 4. Examples of Type 5, 6 and 7 fortified sites. Top: Type 6 hilltop enceintes (from Barker *et al.* 1996b); Middle: Type 5 irregular towered enceintes (a from Barker *et al.* 1996b; b and c from Wanner 2006); Bottom: Type 7 fortified churches (from Ward-Perkins and Goodchild 2005)

Fig 5. Examples of Type 8 fortified villages (a from Wanner 2006; d-h from Baradez 1947).

Fig. 6. Distribution of rural fortified sites in Mauretania Tingitana and Caesarensis. Imagery copyright Esri.

Fig. 7. Distribution of rural fortified sites in Numidia. Imagery copyright Esri.

Fig. 8. Distribution of rural fortified sites in Zeugitana and Byzacena. Imagery copyright Esri.

Fig. 9. Distribution of rural fortified sites in southern Byzacena and northern Tripolitania. Imagery copyright Esri.

Fig. 10. Distribution of rural fortified sites in southern Tripolitania. Imagery copyright Esri.

Fig. 11. Distribution of rural fortified sites in Fazzan. Imagery copyright Esri.

Fig. 12. Distribution of rural fortified sites in Cyrenaica. Imagery copyright Esri.

Fig. 13. Overall distribution of rural fortified sites in late antique North Africa. Imagery copyright Esri.

Fig. 14. *Qasr* landscapes in Libya. Left: Bir Scedua area, Libyan Valleys (from Barker *et al.* 1996b); Right: Zizaw area, Fazzan.

Fig. 15. Summed Probability curves of dating material from qsur surveyed in the Libyan Valleys and Fazzan. Each curve shows the percentage of dating material by 50 year interval.

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