SOLDIERS AND TRIBESMEN:

THE ROMAN ARMY AND TRIBAL SOCIETY IN LATE IMPERIAL AFRICA

VOLUME II

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APPENDIX A

EVALUATION OF THE ARCHAEOLOGICAL SOURCE MATERIAL

A.1 INTRODUCTION

It is not necessary to assess the written and carved sources here. A good general survey may be found in the relevant chapters of Jones' *Later Roman Empire*, which covers the variation in their quality and quantity within the Late Roman period and provides a better understanding of their chronological and other biases. North Africa broadly conforms to the pattern outlined by Jones. Thus, military epigraphy is most abundant for the Tetrarchy, whereas the best historical record is provided for the 360's-370's, when Ammianus describes two episodes affecting the region, namely the Tripolitanian affair - the scandal arising from the Austuriani raids against Tripolitanian cities - and the revolt of Firmus.¹

In contrast, an evaluation of the archaeological evidence may be useful, since this material is often hidden away in difficult to obtain journals of the French colonial era, and presents a number of serious difficulties. In particular civilian sites have often been misinterpreted as military posts. Secondly, it is not easy to differentiate between Later Roman and Byzantine fortifications.

A.2 THE ARCHAEOLOGICAL EVIDENCE

There are a number of solid kinds of evidence denoting the deployment of Late Roman troops in the frontier zone. On the one hand fortifications displaying the typical architectural style of the Late Empire - projecting towers, single gateways and ranges of rooms set against the enceinte - are likely to have been built new in this period. Conversely, the addition of projecting towers (particularly angle and interval towers), characteristic modifications to internal buildings or the presence of Late Roman military building inscriptions are all good indications of the continued occupation and modernisation of earlier military installations.

The evidence set out above is obviously structural and epigraphic only. This reflects the bias towards these categories in the archaeological record. In the Tripolitanian pre-desert many fortifications survive as impressive standing monuments. The above ground survival of mud brick built forts in the Numidian frontier zone is less spectacular, but Baradez' stunning aerial photography was able to reveal at least partial plans of many sites in this region without the turn of a spade. Unfortunately the structural record is not uniformly of such quality. Many sites are known only from descriptions made by travellers, colonists or military surveyors between the eighteenth and early twentieth

centuries. This particularly applies to those in Algeria, which roughly corresponds to the Roman provinces of Mauretania Caesariensis and Numidia. The state of preservation of the monuments at that time was clearly, often, very good. In some regions it is no exaggeration to say that a Late Antique landscape greeted the colonists. Despite this the general quality of their accounts are frustratingly poor and often downright contradictory. Few plans were drawn and some of these are of very dubious reliability. The picture is bleakest in Caesariensis. Subsequent colonial settlement at sites along the Praetentura, for example, has removed most standing remains and surface traces of the Roman forts and completely built over many of them. Nor is there extensive published air photography, comparable with Baradez' work in Numidia, which would in some measure compensate for these deficiencies.

If the quality of the structural assemblage is variable, with some high peaks but also low troughs, the other classes of data are all too consistent. Only limited excavation has been carried out on Late-Roman military sites and none of it could be considered as having been executed to modern standards. Although coinage recovered by this means can be used to date a few forts, others have produced nothing more than a few stray finds, whilst the study of pottery from Late Roman military sites has only just begun and has been collected by surface sherdng rather than excavation. Despite these problems the quest is not entirely hopeless. Some patterns do emerge from the scattered fragments and this information, derived from the more reliable sources, can then be applied to the remaining more uncertain evidence.

Recent syntheses by Trouset and Mattingly, together with the work of the Libyan Valleys Survey, mean it is relatively easy to draw conclusions regarding military deployment in Tripolitania, but Fentress' study of fourth century arrangements in Numidia is far less satisfactory whilst Mauretania Caesariensis remains a particular problem despite the work of Salama and Lawless.

A.2.1 'Fortins de Basse Epoque'

Rather more serious problems are posed when attempting to use the archaeological evidence to illuminate military deployment within the North African provinces, as opposed to the frontier zone. In the central provinces there is little

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2. For a list of sites built over and those where no remains are visible but the site is clear see Lawless 1970 I, 113 & 121 n.64.

3. Both of the most recently excavated fort sites, Thamusida and Bu Ngen, were abandoned before the period under consideration here. Excavations of Late Roman military sites include Bourada and Drah Soud East; Baradez' 'sondages' at Seba Ngata and 'Castrum du Confluent', the latter shown to be an earlier fort retained in use; other earlier forts that may have been retained in use and have been excavated comprise Gemellae, Ras el Aïn, Remada, Aras, and Ala Willaria.

evidence of military construction work during the fourth and early fifth centuries. The Notitia Dignitatum suggests the bulk of the frontier troops were stationed on the frontier of Numidia. Inscriptions, on the other hand, show the presence of field army soldiers in the interior, but it is likely these were for the most part billeted in cities like their counterparts elsewhere in the empire. Archaeology is thus of little help in pinning down their movements and deployment. The 'fortins de basse époque' or 'fortins byzantins' which are such a ubiquitous feature in Gsell's Atlas surveys of the settlements north of the Aurès, can probably be assigned a later date, their construction perhaps beginning in the mid-late fifth century and continuing possibly as late as the eighth-ninth centuries. Some were perhaps official structures, whilst others were built by private individuals. The appearance of such fortifications reflects changes in Late Antique-Early Medieval society as well as the increased level of insecurity after the Vandal invasions, the growth of the Moorish kingdoms and the Eastern Imperial reconquest.5

A.2.2 The 'Postes Militaires' of Mauretania

The Mauretanian sheets of Gsell's Atlas are similarly full of 'postes militaires'. These present more of a problem, for in theory they could represent Roman fortifications. Analysis of the Notitia shows that there were military commands in the rugged interior of Caesariensis and Sitifensis.

Nevertheless, there are strong reasons for doubting the value of the bulk of these identifications. There are simply too many of them. In some areas they outnumber traces of the civil population they would presumably have been intended to defend, whereas common sense would suggest that military structures can only ever have represented a small proportion of the sites in any given area, being greatly outnumbered by farms and the like. Gsell himself made some efforts to weed out the more dubious 'postes'. He frequently notes that a supposed example was more likely to represent a mausoleum (a type of structure especially likely to be misinterpreted as a watchtower) but he is more active in this respect on some sheets than others. Much of the early antiquarian work was done by French military officers, who naturally construed what they saw in terms of their own experience. It is difficult to avoid the conclusion that some officers interpreted every substantial ruin as a fortification. Mercier, for example, when collating survey reports by various officers relating to the Grande and Petite Kabylies, was particularly prone to this misconception. This is unfortunate, since the areas he covered did experience internal security problems. Some of the 'postes militaires' he identified may well be exactly that, but in all except a of handful cases there is no direct evidence to support his labels and they have to be ignored.6

5. Cf. Gsell & Graillot 1893, 1894A and 1894B. These surveys provided some of the most detailed information in the Atlas archéologique de l'Algérie.
6. Cf. Mercier 1885, 1886, and 1888. The question of false military postes has been tackled by a number of scholars recently, notably Leveau (for example 1978), 275, 278 & 102, Benseddik (1980), and Février
A.2.3 Tripolitanian Gsur

In Tripolitania, the problem of distinguishing military from civilian structures takes on a rather different form, namely the question of the gsur. These tower-like fortified farms are in very many cases still well-preserved today. Despite this their function has been the subject of much controversy. They were once envisaged as housing farmer-soldier limitanei. Later, after the concept of the farmer-soldier had been discredited, they were associated by Jones with his suggestion that the frontier zone was guarded by a tribal militia known as gentiles. These theories have been re-evaluated by recent work, most notably by the UNESCO Libyan Valleys Survey. Certainly a few strictly military fortlets were built in this form during the third and fourth centuries, for example Gasr Duib and Ksar Tarcine. However, the bulk of these sites represent dwellings and storehouses of the local Romano-Libyan population, or at least the senior members of its social hierarchy, from the third century onwards. The manner in which some of the gsur's inhabitants were integrated into the regional security system is discussed in Chapter VIII (VIII.1.2).

The work of the Libyan Valleys Survey has also helped to define some of the features likely to distinguish military sites, such as location alongside communications and transhumance routes, controlling access to waterpoints and the like. Stylistic features are a less secure basis for ascertaining the function of a site, since it is possible that some military gsur may have been built in lieu of taxation by the local tribal communities. In such circumstances a fortlet might well have been virtually indistinguishable from neighbouring structures built by the same groups for their own use.

A.3 THE VALUE OF MILITARY ARCHITECTURE AS A CHRONOLOGICAL AID

Recently the value of the architectural elements cited above as good a priori indicators of Late Roman military activity has been challenged from two different directions. Euzennat (1989A, 185-195 & 255-274) has argued that some North African forts may have been built with projecting corner and interval towers from a much earlier date, during the early third century. This theory is based on the analysis of two forts in southern Tingitana, close to Volubilis, namely Ain Schkour and Sidi Moussa bou Fri. Euzennat's hypothesis is considered in detail in Appendix E, where it is rejected. On the other hand, Trousset (1985) has emphasised that some sites interpreted as fourth century fortifications may in fact belong to the sixth-seventh centuries, and represent the work of the local Romano-Libyan population.
FORTIFICATIONS IN THE ZIBAN
(after Baradez 1949)

Sidi Fellaoueche - the 'castellum around the Marabout

Lichana - the 'castellum'

Bigou - the southern Fortlet
of Justinian and his successors rather than Diocletian, Constantine or Valentinian.

A.3.1 Byzantine Fortifications

The case made by Trousset forms a more serious challenge. Military installations incorporating much the same range of architectural elements as their fourth century counterparts were indisputably built at this time. The question is most acute in those parts of the former Late Roman military zone recovered by the East Roman forces. These consist of the regions south and west of the Aurès, around the Hodna massif, in the Jérid and Nefzaoua, and perhaps in western Tripolitania. Nevertheless, careful analysis can remove some of these problems despite the lack of proper stratigraphic excavations at most sites. Trousset's study forms an invaluable starting point and his conclusions are largely followed here.

Trousset focuses attention on a particular group of sites lying south of the Aurès, and built of fired brick. These comprise two forts of either oblong-rectangular or slightly trapezoidal form, Thabudeos and Mdila (and also a watchtower, on a spur overlooking El Habel, 11 km north of Thabudeos), which have previously been assigned to a putative Valentinianic group of trapezoidal forts. Trousset (1985, 371-373) shows that a much better parallel for the two sites can be found in North Africa itself, in the shape of the oblong sixth century forts such as the fine example at Timgad. In this case they would belong to the great building programme undertaken by the general Solomon in 539-544.

If Trousset's study has clarified the position with regard to one group of sites, it has thereby thrown the uncertainty over the date of other sites into yet starker relief. Several oases in the Ziban, such as Tolga, Lichana, Sidi Fellaoueche and Biskra, contain fortifications built in many cases of ashlar masonry and which have been allocated to either the Byzantine or Roman periods by different scholars. For example, a 30 x 22 m rectangular fortlet, built of ashlar masonry with rectangular projecting angle towers, has long been recognised at Tolga, one of the larger oases north-west of Gemellae. This was been assigned to the Byzantines by Gsell and Blanchet, and to the Romans by Guey and Baradez, followed by Pringle. There seems no way of discriminating between the two alternative dates at present. On the one hand if Thabudeos was occupied by Byzantine forces there is no reason why they should not have pressed on westwards and

1. The supposed Valentinianic group and Trousset's case for a 6th century date is examined in greater detail in Appendix F.

The watchtower overlooking El Habel falls into the 6th century group because of the identical brickwork employed in its construction; cf. AAA 38, 70 and Baradez 1949, 287-288, 350 & 343 pl. C. The use of fired bricks is unusual in the military installations of Roman Africa. The shorter sides of 4th century African forts are rarely less than three-quarters of the length of the longer sides. In contrast the dimensions of Timgad are 111 x 67 m and those of Thabudeos (according to Baradez) 100/118 x 65 m.
occupied the lush palm groves of this region, perhaps even reaching the complex site near Ouled Djellal. However, the use of ashlar masonry, though typical of sixth-seventh century construction, scarcely constitutes conclusive proof of such a date. Nor is there anything chronologically determinant about the fortlet’s location, close to an important crossroads where a major north-south route through the western Ziban is intersected by an east-west route. This would be as appropriate to the Byzantine site as to a fourth century one. 

Similarly indecisive comments apply to the sites in the Jérid discussed by Pringle and Trousset. On the other hand I would consider that the small forts in north-western Tripolitania, such as Benia bel Recheb and Benia Guedah Ceder, are more likely to be late third-early fifth century in date. The fact that ashlar masonry is used in their construction, as was common in demonstrably sixth century fortifications, is not decisive. It is used for the lower portions of the circuit wall, a technique that is paralleled in the gateways of third century forts such as Bu Ngem and Gheriat el-Garbia and also in the group of finely built Tripolitanian gsur (eg. Gasr Isawi) whose purpose, military or civilian, is uncertain. Use of such material was obviously not chronologically specific and probably owed more to local traditions and the availability of good, easily workable building stone. These small quadriburgia can readily be integrated into the site hierarchy prevailing within the frontier commands of this period, as outlined in section VI.4.1. The headquarters of each local limes sector, usually an old fort built during the Principate, supported an elaborate network of short linear barriers, watchtowers and outposts. The small forts represented additions to this last category, impressive in appearance, with numerous projecting towers, but essentially nothing more than police stations. 

Certainly, Eastern armies operated in north-western Tripolitania, for example under the leadership of the general John Troglita in 547, and reoccupation of some sites cannot be ruled out. The literary sources do not give the impression that such military campaigns had any lasting effect. Further east, in the pre-desert of central Tripolitania, recent excavations at Souk el-Oti in the Wadi Buzra, have revealed

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The main sources for the other Ziban fortifications are respectively, for Lichana: AAA 48,25, Baradez 1949, 329 & 338 pl.A; Sidi Fellaouche: AAA 48,23, Baradez 1949, 326 & 328 pl.A; the 'Turkish Fort' at Old Biskra: AAA 48,10, Baradez 1949, 343 pl.B & 350, Trousset 1985, 376, and Salama 1991, 95. Cf. also the 2 fortlets at Bigou identified by Baradez 1949, 328 pl.C, 329 & 337 pl.A-B. At the far south-west limits of the Ziban the 20 m square fortlet at Sidi Khaled was also built of fine ashlar blocks (Trousset 1977, 567 n.49 and Salama 1991, 94-95), whilst Ouled Djellal is a very complex multi-phase site (see above VII.4.4 - Lines Gemellensis). Baradez attributes all such sites to the Roman period. He is followed by Pringle (1981) to the extent that the latter excludes all mention of these sites in his survey of Byzantine fortifications in North Africa, except for Tolga and even that one is not included in his gazetteers (not even gazetteer B - 'sites whose structural evidence suggests only the possibility of official sixth century fortification').

that the apse of the church there was switched from the western to eastern ends to accommodate Byzantine liturgical practice. Large quantities of African red slip ware, originating from Carthage, were also found in the church, representing a different assemblage from that found in the nearby gsur. This implies that Byzantine influence and ecclesiastical authority did reach into the pre-desert. It is conceivable that further work will show that direct Byzantine administration was extended over these regions in the aftermath of John Trogliita's final victory over the Laguatan in 548, but as yet there is no concrete evidence that troops were permanently stationed in the interior. 10

10. For the settlement at Suk el-Oti see Barker et al. 1991, 50-57; for the church see Welsby 1991. For the pottery from the site see Dore 1990, 10-11. I am grateful to Mr J.M. Dore and Dr D. Welsby for discussing this site with me. See Appendices E.3.1, E.4 and 0 for discussion of another site for which a Byzantine phase has been proposed, the burgus speculatorius built during the reign of Caracalla at Loth Bordj and later refurbished in 2 stages. I argue that the evidence accords at least as well with a late 3rd-5th century reconstruction.
APPENDIX B

CITY MILITIAS

It is noteworthy that gentiles did not provide the only emergency levy in Roman Africa. A celebrated inscription from Saldae (mod. Bejaia) commemorates the heroic defence of its walls by the iuvenes, presumably a militia composed of the young men of the colonia. Leschi (1927 = 1957, 357-359) suggested a third century date. The governor, Aurelius Litua, proclaimed a victory at Saldae in the early 290's, which may mark the relief of the city from Moorish siege. The campaigns of the emperor Maximian later in the same decade and the warfare during the 250's are also candidates.\(^1\)

This is not an isolated example. A duovir of Cartennae, C. Fulcinius Optatus, 'qui inrup[t[i]one Baguatium co[i]oniam tuitus est' was honoured by the 'testimonio decreti ordinis et populi Cartennitani et incolae' recorded on another equally famous inscription, of probable second or perhaps late first century date. Again, it is possible that Optatus' achievement was accomplished by inspiring leadership of a municipal militia.\(^2\)

Such urban levies may have a long history, like their tribal counterparts. It is noteworthy that both examples cited above were ancient colonies, founded by Augustus prior to the annexation of the Mauretanian kingdom. As Mackie (1983, 355-356) has pointed out, the nearest Roman troops were those of the African proconsul or the Spanish garrison. All those colonies must have possessed some means of defending themselves in case of attack by neighbouring tribes or disloyalty on the part of the client king. The initial veteran colonists would be able to provide stout resistance, whilst their descendants presumably received rudimentary military training and organisation through institutions like the iuvenes of Saldae, adequate at any rate to defend their circuit walls.\(^3\)

Such institutions may have had a special historical importance for the early colonia, but it is unlikely they were


2. Perhaps the most effective and renowned local militia of all was that of Palmyra, their skills honed by escorting desert caravans and guarding stations along trade routes, cf Isaac 1990, 140-152 & 220-228.

3. CIL VIII 9663 = ILS 8882. Like the text from Saldae this inscription is undated. Carcopino (1940, = 1943, 263-266) argued with such persuasive eloquence that his proposal of an early Hadrianic date, has virtually been accepted as proven, but Roxan (1973, 840 n.18) notes that 'a Domitianic or Trajanic date would fit Carcopino's comments concerning the paleography of the stone' - the only tangible piece of evidence - whilst Salama (1974, 85) considers the statue base to be post-Hadrianic on paleographic and administrative grounds.

4. The other Augustan colonia were Igilgili, Tubusuctu, Rusanzu, Rusguniae, Aquae Calidae, Zucchabar and Gunugu in Caesariensis, and Banasa, Zulil and Babba Campestris in Tingitana; cf. Daniels 1983, 8-10 for discussion of the archaeological remains of defences at these sites.
restricted to those centres. Every walled town of the African frontier provinces probably had some means of manning its enceinte in a crisis. Oea and Leptis Magna were able to muster sufficiently strong forces to wage war against one another in AD 69. Indeed local militias were a widespread phenomenon throughout the Empire.¹

Towns with military origins might be expected to have had particularly effective arrangements of this sort. Thus, at Auzia, 'the strong identification between the military and municipal aristocracy' and large number of veterans noted by Fentress (1981, 203) may well have conferred a greater than average degree of cohesion and discipline on any civic force from that settlement.⁴

Like the tribal 'auxiliares' recorded by Ammianus, the civic iuvenes appear to have been principally activated during a crisis, for the purpose of local defence. However, another Augustan colonia, Rusazu, is recorded restoring a 'turrem eruina lapsam' on its territory in 201. There is no indication on the dedicatory inscription of how the tower was to be manned, there being no mention of the army's involvement. It is possible that instead of small detachments of soldiers, this tower was manned by corvees of Rusazitani, like the burgarii referred to by Thracian inscriptions and Talmudic sources, or the scopelarioi who had to perform guard duty on the roads through Egypt's eastern desert.⁶

The combat effectiveness of such urban militias, away from their own walls, is arguable. The Leptitani were certainly powerless in the face of the Garamantes, whom Oea called on for assistance. Conversely, the extensive privileges granted by Claudius to Volubilis strongly imply that its citizens furnished the auxiliaries, commanded by the prefect M. Valerius Severus, a prominent notable of the city, during the war against Aedemon. These auxiliaries presumably took the field alongside Roman forces, against the former royal army. Moreover energetic para-military operations, by ordinary citizens in Cyrenaica, are chronicled by Synesius, during the Austurian raids which broke across the province in the early fifth century. In general, however, it is likely that a civic militia would be outmatched if it came face to face with a band of Moorish tribesmen in open countryside. Nevertheless, the above references show that Synesius' 'derring-do' was perhaps not so isolated a case as has sometimes been imagined, providing a number of possible institutional contexts for 'home-guard' actions.'

5. Fentress observes that 18 veterans are mentioned at Auzia, more than in any other African town except Lambaesis and Carthage.
6. CIL VIII 8991 = AE 1911, 119 = Carcopino 1919, 172; and see above VII.5.2. For burgarii and scopelarioi see Isaac 1990, 113, 132, 178-179 & 201; Johnson 1979, 69-70, 73; Labrousse 1939; Jones LRE, 661. A tribunus burgariorum is mentioned in an inscription from Ain Oulme, 24 km east of Thamalula (Albertini & Massiera 1937, 228, cf. Labrousse 1939, 154-155). Note also the watchtower built at Bitburg in Belgica by the collegia iuventutis in 245: CIL XIII 4131.
7. The Volubilitani: IAW II 448.
For discussion of Synesius’ description of the Austurian raids see Rocques 1987, 279-295; Liebeschuetz 1990, 229-232. By Synesius’ era the Church was increasingly inheriting the civic authorities’ former role as the institutional focus of such communal action.
C.1 THE DATE OF THE NOTITIA

The Notitia is divided into two halves, one relating to the Eastern Empire and the second dealing with the Western parts. The former is a relatively homogenous document. The Western half is a more complex. The Notitia as a whole is generally considered to have been drawn up during the last decade of the fourth century, c. 394/395. The Eastern Notitia remained essentially in this state. On the other hand there are clear signs that the Western Notitia was updated later than the Eastern, though perhaps not comprehensively. Thus the original overall structure of the Western document - displayed in the index (Occ. I) and the opening part of Occ. V - reflects the supremacy of Stilicho, the magister peditum praesentalis from 395-408. So too do individual details within many of the chapters.

The various references to the comes Africae, notably his chapter (Occ. XXV), can certainly be no earlier than 398. Prior to that date the African command had temporarily been upgraded from comes rei militar is to magister militum. Its elevation was doubtless secured by the powerful general Gildo, who is entitled comes et magister utriusque militiae per Africam in a law of 393. After Gildo’s rebellion and defeat, in 397-398, the command was downgraded to a comitiva once again, and appears throughout the Notitia in this form. It is not clear how long and how methodically this and the other frontier chapters continued to be updated. It may have been

1. The task of analysing the Notitia is made simpler by the burgeoning output, in the last 30 years, of what might be termed 'Notitia studies'. In addition to Hoffmann’s massive work, and the appendix which Jones incorporated in his Later Roman Empire (1973, 1417-1450), a book (Clemente 1968), two long articles (Ward 1974 and Demeogeot 1975) and a conference volume (Goodburn & Bartholomew, eds. 1976) have analysed the document as a whole, to say nothing of the many articles which have been devoted to specific aspects of the Notitia, for example Hodgson 1991 and Hassall 1977.
revised into the first decade of the fifth century but, as Mann (1976, 8) notes, it is difficult to believe it was valid any later. Not all frontier commands need be revised to the same date of course. Where major dislocation had occurred, such as the Danubian ducates, the relevant sections of the document may simply have been 'abandoned' at a relatively early date as not worth the effort of recopying. On the other hand those, like the African comitava and ducates, where no major frontier problems were experienced, may have been maintained till perhaps 408, and may still have been substantially accurate for a number of years thereafter.\footnote{2. The comes Africæ is mentioned at ND Occ. I 32, V 128, VII 140 & 179.}

The Western field army sections (Occ. V-VII) show the most extensive traces of revision. It is evident that these three chapters were kept up to date much later than the rest of the document. There is evidence for transfers from one region to another, the formation of new regional commands, the raising of many new units and the promotion of units, not only from grade to grade within the field army but also widespread trawling of limitanei into the field army, particularly in Gaul.

The extent of revision in Occ. V, VI and VII implies that during the latter period of its use the primary role of the Notitia was to register the changes in the Western Imperial field army.\footnote{3. I follow Mann (1976, 4-5 & 8) in considering that the copy of the Notitia that we possess is one acquired by the officium of the magister peditum praesentalis and preserved by being used as a catalogue of field army numeri.}

It is not absolutely certain when the document was finally discarded but such evidence as there is - for example the large number of Honorian formations - points to the end of that emperor's reign or perhaps the very beginning of his successor's, though how systematically it was being revised towards the end of its life is anybody's guess.\footnote{4. There is one regiment which is definitely named in honour of Valentinian III, the Placidæ Valentinianici felices (VII 36), which can have been formed no earlier than 419.}

C.2 THE CREATION OF THE DISTRIBUTIO NUMERORUM

One of the shortest works devoted to the Notitia in the last thirty years is Mann's article of 1976. It is also one of the most perceptive. Mann argued convincingly that the distributio numerorum was a later modification to the Notitia. Examination of the index, at the beginning of the document, reveals that the seventh chapter was originally that of the magister equitum per Gallias. This is confirmed by the

\footnote{2. The comes Africæ is mentioned at ND Occ. I 32, V 128, VII 140 & 179. Gildo is entitled comes et magister utrisque militiae per African in CTh IX, vii, 9. Contemporary with the downgrading of the African command, personnel from the offices of the praesental magistri were despatched to fill the senior positions in the officia of the comes and the two North African ducæ (ND Occ. XXV 38 & 41-42, XXX 21-23 and XXXI 33-35), as stipulated in CTh I, vii, 3, (398). This last feature is characteristic of most of the military commands in the Western Empire and was probably the work of Stilicho, a measure presumably designed to strengthen his grip on the army and prevent plots against him by other senior officers. 3. I follow Mann (1976, 4-5 & 8) in considering that the copy of the Notitia that we possess is one acquired by the officium of the magister peditum praesentalis and preserved by being used as a catalogue of field army numeri. 4. There is one regiment which is definitely named in honour of Valentinian III, the Placidæ Valentinianici felices (VII 36), which can have been formed no earlier than 419.}
survival of the magister's officium (VII, 111-117) at the end of the Gallic infantry section, a relic of Occ. VII's former role. As Mann concludes (1976, 4):

In other words, chapter VII is the entry for the magister in Gaul, distorted out of all recognition to become a geographical list of all field army units.

A number of conclusions logically follow on from this observation.

Prior to the reorganisation of Occ. VII, the numeri of the regional field armies were recorded in the chapters of their respective commanders. The Gallic army, obviously, was outlined in Occ. VII itself, but equally there are clear indications that the African units were listed under the comes Africae, the Tingitanian regiments under the comes Tingitaniae and so on. In all probability Occ. XXIX, once similarly detailed the troops (all of them comitatenses) at the disposal of the comes Britanniarum. The extant version preserves only the heading, insignia and officium of the officer, the forces allocated to him having been shifted to the distributio. These regimental lists were simply removed from their respective chapters and the pages physically inserted into Occ. VII.

The Alpine comes Italiae (Occ. XXIV) and the comes tractus Argentoratensis (Occ. XXVII) also doubtless had charge of field army units but the distributio does not feature discrete listings of troops intra tractus Argentoratensis nor intra tractus Italiae circa Alpes. The title pages for those two generals can still be found in the Notitia but no officia (unlike the chapter of the comes Britanniarum). The two posts must therefore have been suppressed, either before the distributio was created or at any rate before the final version that has survived was composed. On the other hand the distributio does list two field commanders, the comes Hispaniarum and the comes Illyrici, who are not represented in the index nor in Occ. V and do not have separate chapters of their own.

The logical conclusion to be drawn from the above is that two chronologically separate command structures are contained

5. It is significant that the officium comes immediately after the Gallic infantry list; this would imply that as in the chapters of the comites, duces and the eastern magistri militum the cavalry preceded the infantry, in turn followed by the general's officium. When the distributio was formed the order of the two branches of the Gallic army was reversed, probably to accord with the scheme whereby the magister peditum praesentalis (men such as Stilicho or Constantius - de facto rulers of the Western Empire) and, by association, his units took precedence over the two magistri equitum and their units.
6. For the specific evidence indicating the initial incorporation of the African and Tingitanian comitatenses in the chapters of their respective comites see section II.4 and below Appendix D.2.
7. There is thus no need to follow Mann's ingenious hypothesis (1976, 7) that the comes Italiae and comes Argentoratensis have no troops and no officia listed in their chapters because they were merely the operational assistants - vicarii - of the praesental magistri militum in Italy and the Gallic magister. All senior officials probably nominated either permanent or occasional vicarii, but these were not formal imperial appointments (apart from the regional vicarii of the praetorian prefects). These vicars were officers or officials holding the command of a regiment or department, who occasionally also took the place of the minister when the latter was absent, or represented him at court or in conference.
within the Western Notitia. That displayed in the index and Occ. V is valid for AD 398-406/7. The distributio represents a much later picture, after the barbarian invasions of the early fifth century. It probably marks the gradual re-establishment of central government control during the years 413-418, under the aegis of the new generalissimo, Constantius. Thus it incorporates a Spanish command to cope with the break through of the Vandals, Alans and Suevi into the peninsula, and an Illyrian command - actually mentioned in 408-409 - a last ditch to pull together the defences of that shattered region. The distributio omits the comites Italiae and Argentoratensis, whose commands had doubtless been swept out of existence by the turbulent events at the end of Stilicho's hegemony. Indeed, it was presumably the hiatus represented by the years 406-413 which motivated the conversion of Occ. VII into a geographical inventory of the entire Western field army. Rather than update all the military chapters still valid, and create new ones, it was simpler to concentrate the record of the regional forces into one chapter, where the praesental forces stationed in Italy could also be itemised.8

8. The Illyrian command is mentioned by Zosimus V 46 and cf. also V 45. References to the Spanish command c. 420 and later are noted by Jones LRE, 192, 1106 & 1424. Continued inclusion of the British comitiva is curious. It is difficult to believe the imperial government had any authority in the diocese by this date. It may however signify Constantius intended to recover that region as well, eventually.
APPENDIX D

THE AFRICAN FIELD ARMY REGISTERS IN THE NOTITIA DIGNITATUM

This appendix contains detailed analysis of the African field army lists in the three relevant sections of the Notitia Occ. V, VI and VII. Frequent reference is made to this analysis in Chapter V but to have included it there would have been too disruptive to the discussion of the chronological development of the field army. For the sake of convenience Tables V.1 and V.2, setting out the units in the order they occur in the distributio, are repeated here as Tables D.1 and D.2.

### Table D.1

**Occ VII 140 - intra Africam cum viro spectibili comite Africae**

| 141 | Celtae iuniores = V 205 aux. pal. |
| 142 | Armigeri propugnatores seniores = V 151 leg. pal. |
| 143 | Armigeri propugnatores iuniores = V 156 leg. pal. |
| 144 | Secundani Italici = V 235 leg. com. |
| 145 | Cimbriani = V 155 leg. pal. |
| 146 | Primani = V 249 leg. com. (prima Flavia Pacis) |
| 147 | Secundani = V 250 leg. com. (secunda Flavia Virtutis) |
| 148 | Tertiani = V 251 leg. com. (tertia Flavia Salutis) |
| 149 | Constantiniani = V 253 leg. com. (secunda Flavia Constantiniana) |
| 150 | Constantiaci = V 252 leg. com. (Flavia victrix Constantina <id est Constantici>, cf. V 103 - Constantici) |
| 151 | Tertio Augustani = V 254 leg. com. |
| 152 | Fortenses = V 255 leg. com. |

### Table D.2

**Occ VII 179 - intra Africam cum viro spectibili comite Africae**

| 180 | equites stablesiani Italici = VI 82 vex. com. |
| 181 | equites scutarii seniores = VI 63 vex. com. (equites scutarii) |
| 182 | equites stablesiani seniores = VI 64 vex. com. (equites stablesiani Africani) |
| 183 | equites Marcomanni = VI 65 vex. com. |
| 184 | equites armigeri seniores = VI 66 vex. com. |
| 185 | equites sagittarii clibanarii = VI 67 vex. com. (equites sagittarii clibanarii) |
| 186 | equites Parthi sagittarii seniores = VI 68 vex. com. (equites sagittarii Parthi seniores) |
| 187 | equites cetrati seniores = VI 74 vex. com. |
| 188 | equites primo sagittarii = VI 69 vex. com. |
| 189 | equites secundo sagittarii = VI 70 vex. com. |
| 190 | equites tertio sagittarii = VI 71 vex. com. |
| 191 | equites quarto sagittarii = VI 72 vex. com. |
| 192 | equites Parthi sagittarii iuniores = VI 73 vex. com. (equites sagittarii Parthi iuniores) |
| 193 | equites cetrati iuniores = VI 78 vex. com. |
--- | [Comites iuniores] - VI 75 vex. com.
194 | equites promoti iuniores = VI 76 vex. com.
195 | equites scutarii iuniores <comitatenses> - VI omitted.
--- | [[ equites] sagittarii iuniores] - VI vex. com.?
196 | equites Honoriani iuniores
   = VI 79 vex. com. (Honoriani iuniores)
197 | equites scutarii iuniores, scolae secundae
   = VI 81 vex. com. (equites secundi scutarii iuniores)
198 | equites armigeri iuniores
   = VI 80 vex. com. (armigeri iuniores)

D.1 LAYOUT, GRADES AND ORDER OF SENIORITY

D.1.1 General Observations

The three chapters, Occ. V-VII, were clearly intended to serve different purposes. The distributio was assembled to form a geographical tabulation showing what forces each commander had at his disposal. In contrast the chapters of the two praesental magistri classify the regiments by type (legio, auxilia or vexillatio) and grade (palatinae, comitatenses and pseudocomitatenses). The distributio only divides the numeri into infantry and cavalry.

However, there were some aspects of geographical organisation present in the praesental chapters and equally some elements of unit grading featured in the distributio though neither is made explicit in the text. For example, a very large proportion of the African and Tingitanian forces are clearly assembled in their respective armies in ND Occ. V and VI. Conversely, in VII, there is a strong tendency for the numeri to be listed in blocks which are homogenous in terms of unit type and grade. Thus in the Italian infantry list the legiones palatinae are encountered first, then the auxilia palatina, the legiones comitatenses and finally the pseudocomitatenses, in almost completely discrete sections. When the chapters were initially constructed it is likely that the correspondence, between V and VI on the one hand and VII on the other, was that much greater. Even as it stands, many of the discrepancies in the order of units in the distributio, such as palatine legions in the comitatensian legionary section, can be readily explained as resulting from a failure to register a late promotion from one grade to another. It is less easy to distinguish regional groupings in V and VI, apart from the obvious African and Tingitanian blocks. This is perhaps not so surprising, such was the turmoil in the Western Empire in the first quarter of the fifth century.

This duplication of the field army lists in two different forms has a particularly useful side-effect. Chapters V and VI may fossilise earlier regional groupings of units - whilst the distributio preserves earlier orders of seniority and thus regiment grades. If a unit was promoted from palatine to comitatensian status that change would be registered in the Occ. V or VI but it was less likely to be promoted into the unofficial palatine block in the distributio. Similarly, a unit transferred from Gaul to Italy would be so registered in
the *distributio* but might well remain in its former regional grouping in the chapters of the praesental *magistri*.

D.1.2 *The Infantry*

A number of observations can be made, regarding the general layout of the two schedules. It is noticeable that the cavalry units are all graded as *vexillationes comitatenses*, whereas there is more variety amongst the infantry with one regiment of *auxilia palatina* and three *legiones palatinae* as well as eight *legiones comitatenses*. Partly as a consequence, the infantry units are spread throughout Occ. V in several blocks, as displayed below in Table D.3. Secondly, a very different order of seniority is preserved in Occ. V when contrasted with the *distributio*, as may be observed by comparing Table D.3 with Table D.1 above.

<table>
<thead>
<tr>
<th>144</th>
<th><em>Legiones palatinae XII</em></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(6 legions - all seniores)</td>
</tr>
<tr>
<td>151</td>
<td><em>armigeri propugnatores seniores</em></td>
</tr>
<tr>
<td></td>
<td>(3 legions)</td>
</tr>
<tr>
<td>155</td>
<td><em>Cimbriani</em></td>
</tr>
<tr>
<td>156</td>
<td><em>armigeri propugnatores iuniores</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>157</th>
<th><em>Auxilia palatina LXV</em></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(47 auxilia - the last 8 = Honorian formations)</td>
</tr>
<tr>
<td>205</td>
<td><em>Celtae iuniores</em></td>
</tr>
<tr>
<td></td>
<td>(17 auxilia - mostly Honorian formations)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>223</th>
<th><em>Legiones comitatenses XXXII</em></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(11 legions)</td>
</tr>
<tr>
<td>235</td>
<td><em>secundani Italiciani</em></td>
</tr>
<tr>
<td></td>
<td>(13 legions)</td>
</tr>
</tbody>
</table>

| 249 | *prima Flavia Pacis* |
| 250 | *secunda Flavia Virtutis* |
| 251 | *tertia Flavia Salutis* |
| 252 | *Flavia victrix Constantina {id est Constantici}* |
| 253 | *secunda Flavia Constantiniana* |
| 254 | *tertioaugustani* |
| 255 | *Fortenses* |

<table>
<thead>
<tr>
<th>256</th>
<th><em>Pseudocomitatenses XVIII</em></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(No African <em>pseudocomitatenses</em>)</td>
</tr>
</tbody>
</table>
As regards the different order of seniority in the two chapters, the principal feature to note is that the three African legions accorded palatine status in Occ. V are recorded in the distributio below the sole palatine auxilium in Africa, the Celtae iuniores, rather than above it as their rank would merit. Similarly one of the comitatensian legions, the secundani Italiciani precedes the last named palatine legion, the Cimbriani. A plausible explanation can be provided. It is likely that the distributio preserves an earlier order of seniority whereby the Celtae iuniores was the only palatine corps in Africa and was therefore the highest ranking unit, the remaining infantry all being classified as legiones comitatenses. Both Jones (LRE, 1422) and Hoffmann (1969, 183 & 397) have argued that the last six palatine legions of the Western field army, including the three African examples, attained this rank at a relatively late date. The reason for this promotion is unclear. The desire to acquire the same number of palatine legions - twelve - as possessed by the Eastern Empire, is one possible explanation. If so the candidates may have been chosen fairly arbitrarily from amongst the more senior legiones comitatenses of the Italian, Gallic and African armies, perhaps on the recommendation of their respective commanders.

It is apparent that the existence of three different regimental grades cannot entirely account for the extent to which the African infantry is broken into separate groups in Occ. V. One might expect to encounter three blocks, one each for the palatine legions, the auxilia palatina and the ordinary comitatensian legions. Instead there are five batches, the armigeri propugnatores seniores being separated from their two palatine legionary counterparts whilst the secundani Italiciani occupy a position much higher up the list than all the other legiones comitatenses of the African army. Again solutions can be supplied.

It is likely that the African palatine legionary trio were initially simply tacked on to the end of the list of palatine legions, probably in the same order found in Occ. VII - arm.propug.sen., arm.propug.iun., Cimbriani - but this layout was thereafter subject to a number of scribal 'corrections'. The armigeri propugnatores seniores were doubtless moved up the order to follow on immediately after the six units of seniores in the first half of the section. Similarly, the order of the Cimbriani and the armigeri propugnatores iuniores may have been switched round so that the Cimbriani preceded the armigeri propugnatores iuniores. Such alterations would have resulted in all the palatine legions entitled seniores being grouped at the head of their respective section and the sole unit of iuniores being positioned at its very end, creating a kind of balanced aspect to that part of Occ. V. Aesthetic considerations of this sort may have seemed important in the eyes of the clerks responsible for the Notitia.

1. See below for an even larger possible example of this sort of aesthetically motivated juggling of seniores and iuniores, embracing most of the African cavalry.
Of the remaining eight African legions all but one, the secundani Italiciani, were grouped together at the very end of the list of legiones comitatenses in Occ. V, in virtually the same order that they are encountered in the distributio. It is characteristic of African and Tingitanian units to be located at the end of their respective sections in Occ. V and VI. Compare the position of the African and Tingitanian cavalry vexillationes listed under the magister equitum praesentalis, the African legiones palatinae or the two Tingitanian auxilia palatina, the Mauri Tonantes seniores and iuniores. Even the sole African auxilium palatinum, the Celtae iuniores is placed towards the end of the schedule of that class of regiment, amidst a series of Honorian creations. It may once have been the very last auxilium in Occ. V before further Honorian examples (including the 'thundering Moors' of Tingitana?) were raised and added to the end of the list.

The secundani Italiciani occupy a position much higher up the list than the other comitatensian legions of Africa. Its isolation cannot be explained in terms of minor considerations of stylistic layout, as was the case with the palatine armigeri propugnatores seniores. The logical interpretation is that the position of the secundani Italiciani in Occ. V indicates the regiment was serving in a different region when the chapter was first drawn up. This point can be taken further. As we have seen the promotion of three African legions to palatine status was a late feature. In the distributio the secundani Italiciani are sandwiched between the armigeri propugnatores iuniores and the Cimbriani. One may infer from this, cautiously, that prior to their upgrading the armigeri pair and the Cimbriani were listed in the same part the comitatensian legionary section of Occ. V as the secundani Italiciani.

The sequence of events involving these four legions may be reconstructed thus. When chapter V was drawn up the regiments were serving somewhere on the European continent, perhaps Illyricum. Subsequently the four legions were transferred to Africa and so registered either in the chapter of the comes Africae himself or in the distributio numerorum which was assembled using the Gallic magister miltium’s chapter (VII) as a foundation. Three of the newcomers were then promoted to palatine status, deleted from the comitatensian legionary portion of Occ. V and inserted at the end of the palatine legionary section. Only the secundani Italiciani were left in their original position in Occ. V, a fossilised relic of their previous garrison role.

In contrast, the other seven legiones comitatenses include two members apparently raised under the Constantinian dynasty, three units mentioned by Ammianus in his account of Firmus' revolt as well as the tertioaugustani, none other than the old legio III Augusta itself. It therefore seems reasonable to accept Jones' suggestion (LRE, 1426) that this whole group represents a collection of regiments which had been stationed in Africa for a long period, probably since at least the 370's.
This evidence for the division of the African legions into two blocks, is far more significant than the other textual inconsistencies noted above. It is difficult to affirm conclusively which of the two the single auxilium should be associated with but its position towards the end of the schedule of auxilia might imply that it too had been stationed in Africa for a considerable period.1

D.1.3 The Cavalry

No such complications effect the cavalry roster. The African regiments in the magister equitum’s chapter - all of them vexillationes comitatenses - are laid out in a single uninterrupted sequence. Moreover the cavalry in Occ. VI are listed in almost identical order to that encountered in the distributio.2

It is tempting to suppose that the near-consistent order of regimental seniority displayed in chapters VI and VII of the Notitia reflects the actual sequence in which cavalry units joined the African field army (whether newly raised, promoted or transferred into the region). A number of pieces of evidence appear to substantiate that interpretation. For example, the equites scutarii (seniores) (VI 63 = VII 181) and the equites stablesiani Africani/seniores (VI 64 = VII 182) lie at the head of the registers. They bring to mind the numeros iscutariorum and the equites stablesianorum which are mentioned on several epitaphs of probable Tetrarchic date, from Timgad, Sitifis and Thamallula. Similarly the equites Honoriani iuniores are to be found towards the end of the register as one might expect of such an obviously late creation - it must postdate 384 and is probably no earlier than 395.

In fact the situation is undoubtedly more complex. Neither the numeros scutariorum nor the equites stablesianorum are termed seniores on any of the inscriptions. It is possible that many of the longstanding vexillationes of the African army were divided into seniores and iuniores at some stage between the dedication of the cavalrymen’s epitaphs and the composition of the Notitia. In the two lists those units labelled seniores are grouped towards the head and those termed iuniores towards the bottom of the roll, yet strictly speaking both types originated at the same time. This discrepancy may be explained if the seniores were considered to represent the original undivided units whilst the iuniores signify the hiving off of a second regiment. But it may equally result from the desire of Notitia’s clerks to present the troop lists in a neat and apparently logical manner. It

2. Hoffmann 1969, 432-433 argues that the Celtae iuniores arrived with Theodosius the Elder in 373.
3. Only 3 units occupy different positions in the two chapters: - the equites stablesiani Italici (VI 82 = VII 180), last placed in VI but very first in VII, for which a plausible explanation can be offered below; the two regiments of equites cetrati - seniores (VI 74 = VII 187) and iuniores (VI 76 = VII 193) - which were respectively located 6 places and 4 places lower in Occ. VI than in the distributio.
would be no surprise if they 'tidied up' the tables, placing the seniores at the top and iuniores at the bottom, something we have already witnessed in the list of Western Imperial legiones palatinae. This tidying process would also explain the presence of the equites Honoriani iuniores in the latter part of the schedule since it too is a iuniores vexillation.

On balance it is probable that a mixture of the two principles is at work here.

Another small clue, which helps to reveal the manner in which the Notitia's field army lists were composed and emended, is supplied by the case of the stablesiani Italiciani (VI 82 = VII 180). This regiment was the first of the African cavalry regiments set out in the distributio, but occupies the very last position in VI. It is possible to argue that this paradox resulted from the vexillatio having been degraded in seniority because of some misdemeanour, as Jones (LRE, 1423) suggested, but a more prosaic explanation may be advanced. The stablesiani Italiciani were probably a late addition to the diocesan army. The unit's name would imply it had spent a considerable period in Italy, from where it may have been transferred during Honorius' reign, as Hoffmann (1969, 434) argues. In the African section of Occ. VII it is likely there was simply a convenient space at the head of the register where the regiment could be neatly inserted without disrupting the remainder of the list. In contrast it was slotted in at the end of the relevant units in Occ. VI. It was surely the availability of space to insert the new unit(s) which determined that they were placed in one position in one chapter and a different location in another.4

D.2 CAVALRY VEXILLATIONS FROM TINGITANA

One detail in the African cavalry section of the distributio is very significant, the addition of the epithet 'comitatenses' after the first listed unit of equites scutarii iuniores (VII 195). This is unique within the African section but is common to every cavalry regiment listed 'intra Tingitaniam cum viro spectabili comite Tingitaniae'. It may therefore be worthwhile listing the Tingitanian cavalry:

206 | Intra Tingitaniam cum viro spectabili comite Tingitaniae

207 | equites scutarii seniores <comitatenses>
208 | equites sagittarii seniores <comitatenses>
   | = VI 84 vex.com.
209 | equites Cardueni <comitatenses>
   | = VI 83 vex.com. (equites sagittarii Cordueni)

The reason for the presence of such superfluous descriptions in the Tingitanian section was noted in Chapter II.4 and Appendix C.2. The chapters of both the comes Africae and the comes Tingitaniae contain the rubric 'limitanei' at the head of their respective lists of praepositi limitum and frontier

4. For the equites stablesiani Italiciani see also Hoffmann 1969, 198 & 201.
regiments. No other frontier command contains this feature. It is likely that this heading is a relic of the original form of the chapters, an indication that the two commanders' field army troops were initially listed above their *limitanei* under a separate heading 'comitatenses'. Doubtless they were removed and lumped in the *distributio* when the latter was composed using the shell of the *magister equitum per Gallias* chapter. The scribe responsible for shifting the Tingitanian cavalry appears to have attached the rubric to every unit, failing to perceive that this was superfluous. The fact that the epithet 'comitatenses' is attached to every cavalry unit of the Tingitanian field army, but to only one of the units of the African command, the *equites scutarii iuniores*, strongly suggests that the latter too originally derived from Tingitana. It was presumably transferred, complete with its fossilised label, after the first draft of the *distributio* was compiled.

The other unit of *equites scutarii iuniores* in the African command is variously entitled *equites secundi scutarii iuniores* (VI 81) and the *equites scutarii iuniores, scholae secundae* (VII 197). It is unlikely that the term 'scholae secundae' was being used technically to indicate the vexillatio was derived from one of the imperial guard regiments, such as the *schola scutariorum secunda*. In this context *schola* is merely the equivalent of *vexillatio* or *numerus*. Thus the term may well represent a scribal gloss inserted into the African field army list to differentiate this second regiment of *equites scutarii iuniores* from the namesake transferred from Tingitana. The other title, *equites secundi scutarii iuniores*, is probably simply a subsequent tidied up version of the *equites scutarii iuniores, scholae secundae*. It is logical to assume that this elaborately titled unit was the *iuniores* partner of the *African equites scutarii seniores* (VI 63 = VII 181), the couple being formed by the division of the *equites scutarii* which had been stationed in the region since the Diocletianic era. The Tingitanian *scutarii iuniores* may have been transferred to Africa before the above division occurred. Alternatively, the African *scutarii iuniores* may simply have been listed below the Tingitanian *scutarii iuniores* by chance. Either argument would explain why it was the African *iuniores* rather than the Tingitanian which were labelled 'scholae secundae'.

Two further points arise from this. Firstly, it is noticeable that there is no entry for the Tingitanian *equites scutarii seniores* in the appropriate place in the list of the *magister equitum praesentalis* (Occ. VI). This is usually explained by arguing that they are identical with VI 63 = VII 181 the *equites scutarii seniores* recorded at the head of the African units, a view adopted by Hoffmann (1969, 193 & 199, cf. 1970, 75, n.726) and Jones (LRE, 1431) for example. A late transference of the African *scutarii seniores* to Tingitania is therefore usually assumed. However, the existence of a separate Tingitanian *equites scutarii iuniores* would imply there should be a corresponding unit of Tingitanian *seniores*. It is therefore likely that the *equites scutarii seniores* listed at VII 207, at the head of the
Tingitanian cavalry, were indeed entirely distinct from their African homonym. The corresponding entry in Occ. VI has doubtless been accidently omitted. Units with the same name within the same section of a chapter, like the two vexillationes of equites scutarii seniores, would have been especially vulnerable to such deletion as a result of well-intentioned attempts by the Notitia's copyists to 'tidy up' or correct the document.

A further associated point may be valid here. The equites scutarii iuniores (VII 195) are not directly featured in Occ. VI. Instead, the entry at the appropriate spot in the list (VI 77) is given as 'sagittarii iuniores', as noted in table D.3. This is usually assumed to be a simple error, miscopying 'scutarii iuniores'. Such may well be the case, but an alternative possibility should not be ignored, namely that the entry represents an entirely distinct unit of equites sagittarii iuniores transferred from Tingitana in conjunction with the equites scutarii iuniores. This is an attractive option because there is in the Tingitanian chapter another seniores unit missing its iuniores partner, the equites sagittarii seniores. In the distributio this regiment is listed at VII 208, directly below the Tingitanian equites scutarii seniores. The Tingitanian field army would thus contain a scutarii-sagittarii pairing, split in turn into seniores and iuniores couples. At some date, probably in the early fifth century, the iuniores pair was transferred to the African command. The similarity of the two units' names may subsequently have caused the omission of the scutarii iuniores in VI and the deletion of the sagittarii iuniores from the distributio. In addition, it is noteworthy that another vexillatio in this part of the list, the Comites iuniores (VI 75) is omitted from the distributio so damage to this portion of the text at some stage is also a possibility.

Thus the lower part of the comes Africae's field cavalry schedule should perhaps read:

VI = VII | vexillationes comitatenses:

| 73 = 192 | equites Parthi sagittarii iuniores |
| 78 = 193 | equites cetrati iuniores |
| 75 = --- | Comites iuniores |
| 76 = 194 | equites promoti iuniores |
| -- = 195 | equites scutarii iuniores (comitatenses) |
| 77 = --- | equites sagittarii iuniores (comitatenses) |
| 79 = 196 | equites Honoriani iuniores |
| 81 = 197 | equites scutarii iuniores, (scholae secundae) |
| 80 = 198 | equites armigeri iuniores |
| 82 = 180 | equites stablesiani Italiciani |

Similarly, the chapter of the comes Tingitaniae probably originally began in the following fashion (the relevant entry numbers for Occ. VI and VII are included for reference):

| 5. A copyists error is argued by Seeck 1876 and Hoffmann 1970, 75, n.726. | comitatenses |
VI = VII
-- = 207 | equites scutarii seniores
84 = 208 | equites sagittarii seniores
83 = 209 | equites sagittarii Cordueni
-- = 195 | equites scutarii iuniores
77 = --- | equites sagittarii iuniores
85 --- | cuneus equitum promotorum (?)

The infantry units of the comes' small field army would then have followed.

D.3 CONCLUSION

In sum, it is important when studying both the infantry or cavalry lists, to recognise that the Notitia evolved as a manuscript document. The physical processes involved in the composition of such a document must be understood in order to avoid misinterpreting what may be simple conventions in the textual organisation. Examination of the African field army lists provides a useful case study for students of the Notitia. The coherence of the schedules does render them comprehensible, but they are sufficiently large to give some idea of the way the document was used and emended.

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6. The cuneus equitum promotorum cannot certainly be assigned to Tingitanian army, for it is not mentioned in the distributio. It is the last recorded vexillation in Occ. VI. Since the regiments immediately above are those attested sub dispositione comite Tingitaniae it has, logically enough, been assumed to be Tingitanian itself - see Hoffmann 1969, 199 - perhaps a late elevation to replace the two units despatched to Africa. It may however be a very late addition to one of the other armies, consequently tacked on at the very end of the ND Occ. VI, or even a corrupt entry. Cunei equitum are usually frontier regiments, one of the most characteristic types of ripenses (cf. CTh VII iv 14 of 375 and CTh VII xiii 1 of 326/354), and, apart from a couple of examples known in the Thebaid, are restricted to the Danubian ducates. Only one other field army example is known, the cuneus equitum secundorum clibanariorum Palmyrenorum in the Eastern front army group (ND Or. 34).
APPENDIX E

TWO SUPPOSED EARLY QUADRIBURGI: AIN SCHKOUR AND SIDI MOUSSA

In Chapters VI and VII much use is made of architectural elements such as single gateways, barracks placed against the enceinte and especially the adoption of projecting towers, as indications that a military site was newly built or refurbished during the Late Roman period. Recently however the chronological value of such architectural features has been questioned by Euzennat's interpretation (1989A, 185-195 & 255-274) of two forts in Tingitana, Ain Schkour and Sidi Moussa bou Fri.

E.1 EUZENNAT'S INTERPRETATION

These two forts both lie within the southern part of the province, close to Volubilis, which was abandoned probably at the beginning of Diocletian's reign. As reconstructed by Euzennat (1989A, 189-190, 263 & 273) both forts are roughly square in plan and occupy just under a hectare in area. He interprets Ain Schkour as having at least one gateway, midway along the east face, and perhaps one on each face, flanked by rectangular towers straddling the walls; at each corner there is a rectangular projecting tower, similarly there are projecting towers midway between the gateway and the angles. Sidi Moussa is also furnished with rectangular corner and gate towers but no interval towers are indicated. It has a gateway midway along each face. These forts apparently form a relatively homogenous pair, which Euzennat dates to the early third century on the basis of their historical context and a comparison with other supposedly early examples of this type of fortification on the eastern frontier and in North Africa. In particular he seizes upon the coincidence that two Severan governors of Tingitana had previously been procurators in Osroene, round-about the time when the fortlet of Eski Hissar was constructed. Eski Hissar, which is dated by a building inscription to 197, does indeed feature rectangular gate towers and corner towers, as well as little projecting buttresses on the curtain wall.

Euzennat's hypothesis, however, cannot be accepted without strong reservations. Neither plan was recovered by recent excavations which took into account of the defences' stratigraphic context. Sidi Moussa bou Fri (also called the Kalaa of Sidi Moussa) is known principally from Baradez' air photos, backed up by site visits by a number of scholars, from Baradez (1955, 294-295) onwards. No excavation has been carried out at the site, but some ceramic evidence has been recovered by surface sherdg or identified by M. Lenoir in small trenches and in treasure hunter disturbance. At Ain Schkour part of one side of the curtain wall was cleared during a ten day excavation. Trenches were also dug in the vicus, which revealed a stretch of circuit wall similar to

that of the fort, and other 'sondages' were executed within the fort. As Euzennat himself admits, the circumstances of the excavation were far from ideal and it was eventually terminated prematurely.

E.2 SIDI MOUSSA AND AIN SCHKOUR

One interesting possibility is that the two sites might represent Late Roman (late third-fourth century) 'outposts' maintained or re-established on Volubilitanian territory. There is nothing inherently improbable in this. Even after the area had been turned over to the authority of federate tribes there is no a priori reason why the imperial authorities should not have sought to maintain a few bases in the region in order to exert some military and diplomatic leverage over their chieftains. Indeed Boube (1960, 379) followed by Marion (1967, 115), tentatively suggested the possibility of intermittent military control over southern Tingitana during the fourth century on the basis of slightly more abundant coin finds from the era of the Constantinian dynasty onwards.2

Although attractive, this hypothesis is refuted by the finds recovered from both sites. The coinage, pottery and inscriptions are all consistent with Euzennat's theory that neither fort is of Late Roman date. They fit into the general pattern of Roman material from southern Tingitana (Sala excepted) which shows a very dramatic decline in the quantity of pottery and especially the coinage (which has been particularly well studied by Marion and others). The quantity recovered from both Sidi Moussa and Ain Schkour is obviously much smaller than that from Volubilis, Banasa, or Thamusida. Nevertheless, there is nothing amongst either the numismatic or the ceramic evidence to contradict the generally accepted notion that the imperial authorities withdrew entirely - both their garrisons and their officials - from southern inland Tingitana at the beginning of Diocletian's reign. The recent discovery by the Moroccan-French Sebou Mission of a few sherds of Late Roman fine ware (Hayes form 91) at Ain Schkour has not appreciably changed this picture.3

2. Such a late outpost might explain the entry Castrabariensi, in the Notitia Dignitatum, if the equation with either Banasa or Bābah Campestria is valid: cf. Rebuffat 1967, 51-55, following Cagnat 1913, 764, but see also Euzennat 1977B, 432, Rebuffat 1986, 236 and Euzennat 1989B, 106.
3. The coin evidence from southern Tingitana is surveyed by Marion 1967 (esp. 112-115 for a discussion of the dearth of 4th century material). The fort and vicus at Souk el-Arba du Rabh may now be added to the list of sites which have produced this pattern of coin finds with significant numbers of 1st-3rd century issues, but no 4th century examples at all; see Euzennat 1989A, 54-55.

For a general survey of the pottery distribution in southern Tingitana see Lenoir (E.) 1986, 239-245. Apart from Sala, which in this as in other respects remains a special case with abundant late Roman fine wares, only at Volubilis, Tocolosida and Ain Schkour did the Franco-Moroccan Sebou Mission recover Late Roman fine wares, and even there only in small amounts. It is clear, unless one believes that human habitation was restricted to only three sites in the interior of southern Tingitana, that the absence of fine wares can no more be considered an indication of the abandonment of a site after the Roman withdrawal than can the lack of coinage. On the other hand the presence of either of these classes of artefact on a site, however small the quantities, would tend to indicate that the site remained relatively very important. Only further work on dating the coarse wares can resolve the problems of establishing a
Kalaa of Sidi Moussa bou Fri

(after Euzennat 1989A)

The Fort as restored by Euzennat
The structural evidence from the two sites, as revealed by the excavation at Ain Schkour and Baradez' air photograph of the Kalaa of Sidi Moussa, is far less supportive of Euzennat's theory. Firstly, it should be noted that the form of the gateway identified at both sites is not out of place in pre-fourth century context. A single portal gateway flanked by two rectangular towers, which straddle the curtain wall, is a very common type in North Africa occurring at Rapidum, Souk el-Arba du Rharb, Bu Ngem and Gheriat el-Garbia, for example. The presence of Rapidum in this list suggests the style was adopted on some sites as early as Hadrian's reign. Certainly that fort's gateways cannot be later than the latter part of the second century since the base at Rapidum was abandoned at the beginning of the third century.

E.2.1 Sidi Moussa

At Sidi Moussa, then it is only the presence of projecting rectangular (?) towers at each corner of the fort which require explanation. Indeed, the existence of four gateways would be inappropriate on a newly built Late Imperial fort in North Africa, where one gateway is the norm.

Lenoir (1991, 363-364 esp. n.25) has visited the site and has rejected Euzennat's interpretation of that fort as a quadriburgium. Furthermore, examination of Baradez' aerial view of Sidi Moussa, as published by Euzennat, suggests that the sequence at the site may be rather more complex than Euzennat's quadriburgium fort and vicus. The south-east angle is quite clearly rounded in the standard manner of the forts of the Principate. Indeed, it is even possible to discern an internal angle tower. The apparent external swelling can readily be accounted for by the collapse of the internal angle tower outward and down the hillside. That impression is accentuated by the fact that the light was shining from the south-east and therefore highlighted the outer face of the banking covering the south-east length of curtain wall to the detriment of the interior. In addition, there are faint, but nevertheless quite distinguishable, traces of a wall to the south-west of the 'quadriburgium' running not quite parallel with the south-west face of the latter. This wall curves under the south angle tower of the 'quadriburgium' to join the southern wall of the latter. The southern projecting angle tower may like the western one be more apparent than real.
All this leads to the conclusion that the south-eastern wall of Euzennat's *quadriburgium* and the newly identified south-western length form part of a traditional fort, with rounded corners, underlying the defences Euzennat suggests represent south-west wall of a *quadriburgium*. The western corner of the fort is not so clear, but there also the fort circuit probably curves round under the supposed south-western wall of the *quadriburgium*. I would suggest that this last wall actually represents part of the defensive circuit of the *vicus*. The *vicus* enceinte can be discerned taking a south-east to north-westly course, running up to the south angle of the fort, slicing across the fort (*quadriburgium* wall), then continuing on north of the fort for 40-50 m, before turning and heading north-west (running vaguely parallel with the north east face of the fort circuit). In sum, the *quadriburgium* probably represents a conflation of two separate features, a second-third century fort of traditional type (south-east, north-east and north-west faces) and a stretch of the *vicus* defences (south-west face).

The probable sequence is therefore: early-mid second century fort - fort and *vicus* - enclosure of the *vicus* within a circuit wall, perhaps at some point after the abandonment of the fort. The last phase would have included the replacement of the crumbling south-west face of the fort by a new wall, which lay within the fort area and ran roughly parallel with the former circuit. The fort area could not simply be abandoned (as happened for example at Rapidum when its garrison was transferred to Altava) because it occupied the highest ground, on top of the Kalaa.

The site is thus one of the utmost interest, but not for the study of Roman military architecture. Rather, it promises to shed some light on the 'les siecles obscur' of Morocco's past. The construction of the second phase of the *vicus* defences cannot be precisely dated but must have occurred at some point after military use of the fort had ceased. It is tempting to associate military abandonment of the site with the general withdrawal from southern Tingitana, in which case the later *vicus* circuit would imply the continued existence of a communal organisation capable of implementing such work in sub-Roman Tingitana. Whatever the precise chronology, the site is clearly worthy of further study and one hopes will receive the most effective protection.

E.2.2 *Ain Schkour*

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5. The photograph is perhaps easiest to interpret when aligned so that north is at the top.
6. It is, of course, conceivable that the sequence was more complex. The *vicus* may have been enclosed before the fort was abandoned, and the replacement of the south-west face of the fort might have occurred later, after military occupation had ceased. However, the *vicus* enceinte does seem to have formed part of the contraction phase since it visibly slices across earlier features, south of the fort, and perhaps reflects the abandonment of the western half of the original, undefended settlement.
7. The pottery recovered from the site covers the period from the beginning of the 2nd century to the end of the 3rd century. The bulk of it (four-fifths) lies between c. 150-250.
The Fort Circuit as Excavated
The evidence from Ain Schkour is less clear, in the absence of any published air photographs and bearing in mind the limited extent of the excavations. Nevertheless, there are indications that a similar sequence to that encountered at Sidi Moussa bou Fri may be in operation at Ain Schkour also.

The fort is square, measuring 88 x 88 m, and covers an area of about 0.78 hectares, but the site as a whole spreads over four hectares, suggesting a sizeable civil settlement developed around the fort. Euzennat’s plans, photographs and description leave no doubt that the east wall of the fort does indeed incorporate a rectangular projecting angle tower and one, perhaps two, projecting interval towers. It is built of mortared rubble faced externally by large ashlar blocks. This is similar to the length of wall lying directly south of the fort, which Euzennat interprets as part of the defences of the vicus. It is noteworthy that this seems to form a continuation of the eastern wall of the fort, running on virtually the same alignment. Euzennat (1989A, 267) notes that reused ashlar blocks, architectural fragments, and funerary monuments from the nearby cemetery, were used to face the vicus enceinte, and suggests this represents part of a post-Roman rebuilding and ‘renforcement’ of that circuit. It is not clear why he does not consider that it represented the primary facing of the vicus enceinte. The wall clearly overlies earlier buildings belonging to the vicus. He argues the construction of the vicus defences postdated that of the fort circuit, but went out of use at the same time (284-285 at the latest, taking the official withdrawal from Volubilis as a terminus ante quem). The first phase of the vicus enceinte would thus fall entirely within the third century.

The vicus circuit apparently abuts the south-east angle tower of the fort (Euzennat 1989A, 256 fig.188), but there is no trace of this butt joint in Euzennat’s plans or his photograph of the fort angle tower which is shown standing proud. It does not seem that the northern end of the vicus wall, immediately next to the fort was excavated.

Neither of these circuits is dated. The walls were simply cleared and all the finds from those excavation trenches represent residual material or material disturbed by the excavation, none of it is stratigraphically sealed. Nor was the possible existence of earlier underlying fort defences investigated.

9. There are stratigraphic sequences in the interior of the fort. Although the trenches were too small to yield any significant structural information they did suggest the existence of two main phases, the lower of which Euzennat ascribes to the primary fort and the upper to the 3rd century base. However, given their small size and isolated nature it is impossible to place too great a reliance on them. They do not provide much in the way of significant dating evidence; Euzennat’s section tables show similar pottery in all levels. A coin of the divus Antoninus was discovered in the lower of the two burnt layers indicating this must postdate 161. A pelts-form scabbard chape found in the same layer is consistent with this terminus post quem since such chapes occur in late Antonine-mid/later 3rd century contexts (this information was
At the eastern gate a pair of rectangular towers straddle the enceinte. This represents nothing out of the ordinary, as noted above. One detail is worthy of note concerning the east gate. An altar, recording the repair of the bathhouse, was discovered in the passageway, resting on the paving. It is dedicated in honour of Severus Alexander. It is reasonable to ask why the stone was placed in the gateway. The site one would have logically anticipated would be beside the bathhouse itself. Might it have formed part of a late blocking or narrowing of the gateway? Smith's earlier description of the surface remains of the site (1956, 116) may hint at a more complex architectural sequence, for he notes that a small gateway lay between two D shaped towers on the western side of the fort. It may be that this represents a narrowing of the main west gate of the fort, to leave only a postern. There is nothing improbable in one gateway of the fort being flanked by towers with rounded faces. This form is quite common in North Africa, especially in the third century.10

Bearing in mind the sequence observed on the air photograph of Sidi Moussa it is possible to suggest an alternative interpretation. The discovery of a few sherds of Hayes form 91 ('sigillée claire D') by the Moroccan-French Sebou Mission implies continued existence of the settlement after 285. Euzennat himself makes it clear there is considerable Late Antique and Islamic period occupation on the site. A wall, 1.8 m wide, was uncovered in the vicus, supported on massive ashlar piers belonging to an earlier Roman building. Euzennat (267-268) assigns a seventh century date to this wall ('contemporaine des derniers temps de la Volubilis preislamique'). The structure to which the wall belonged was partitioned and seemed to be associated with industrial activities. It is clear that there was a lime kiln and a bronze foundery very close by with much attendant stone and metal robbing going on, which would of course throw up a great deal of residual coins and pottery. However a much later date is given to the repair of the vicus defences. Euzennat associates this with a modest dwelling of relatively recent date sited above the pier building and the Late Antique Berber workshop. The refurbishment (or perhaps even the construction?) of the enceinte was a substantial work and might fit better with the 'workshop building'. It is tempting to suggest that the eastern wall of the fort in its current form, complete with projecting towers, may also reflect refortification of the surviving defences during the era of the Romano-Moorish kingdoms. This would place Ain Schkour in company with other Mauretanian sites, most notably Volubilis, where the western district next to the Oued Fertnassia was kindly supplied by Dr Jon Coulston). Coins of Severus Alexander and Faustina the Younger were found directly on the surface of the gate passageway.

10. Cf. Euzennat & Trouset 1978, 187 and Welsby 1990, 118 fig.2. Ras el-Ain built in 263: Trouset 1974, 99 fig.12 & 102 fig.14; Remada, where two gateways adopt this type after rebuilding: Euzennat & Trouset 1978, 186; Castellum Dimmidi: Picard 1947, Fig.1 (pull-out plan at end of text); Ausum: Daniels 1987, 247 fig.10-11. Welsby 1990, 118 & 120; and Sheriat el-Garbia: where one gateway was rebuilt in this form and must must therefore be of post-Severan date: Welsby 1983, 59-62, and Welsby 1988, 69, and 1990, 118 & 120. Lenoir (1991, 363) adds the gates at Sidi Moussa to this group.
Ain Schkour - The Vicus Defences (after Euzennat 1989A)

Kherbet el-Bordj - The Burgus Speculations
divided off from the remainder of the old city, but also Altava, where the officials of Masuna rex gentium Maurorum et Romanorum erected a castrum in 508, and perhaps even Sidi Moussa.\(^{11}\)

This last hypothesis is very tentative, but, at the very least, it appears somewhat courageous of Euzennat to propose such a major revision of the currently accepted typological chronology for military construction in the western provinces, on the basis of such evidence.

**E.3 SUPPOSED PARALLEL CASES**

Many of the parallel examples of pre-Diocletianic quadriburgia, which Euzennat (1989A, 270-274) cites in support of his theory, are themselves, chronologically, highly dubious. This applies, for example, to Qasr el-Hallabat, in Arabia, and, most notably, to the other North African cases specified. Two of the latter, Doucen and Kherbet el-Bordj, may serve to illustrate the point.\(^{11}\)

**E.3.1 Kherbet el-Bordj**

At Kherbet el-Bordj, south-west of El-Kantara, in Numidia, the building inscription of the burgus speculatorius, itself displays two phases. Above the main Caracallan dedication, the phrase ‘+ bis posuit Caletamera in te(m)pore suo’ was added. The lettering was regarded by Wilmanns as much later in style than the dedication of 215. It is not clear whether the cross at the beginning of the subsidiary text is a Latin cross as Wilmanns assumed or a ligature of tit(tulum) as Le Bohec (1989A, 179 n.237) has recently argued. This two period inscription echoes the plan of the site, which comprises a watchtower surrounded by a quadriburgium aligned slightly differently. Although the fortlet has not been excavated and there is, therefore, no definite link between the two phases of the inscription and two possible building periods, it is very tempting to connect them. Caletamera's first

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11. For Late Antique pottery at Ain Schour see Lenoir (E.) 1986, 240-241 and above n.3. The sherds may be rare, but Ain Schkour is one of of three sites in the abandoned zone - the others are Tocolosida and Volubilis - where pottery of this date has been found, which signifies the settlement remained relatively important.

For the Late Antique Volubilis and its defences see Lenoir 1983 (1985), 425-426 and Akerraz 1983 (1985), 424-436 (with joint discussion pp.437-438). There, too, the Late Antique defensive wall, excluding the eastern two thirds of the Roman city, incorporates much reused material as facing material and uses rubble bonded with earth as the core. Part of the Roman circuit wall was reinforced by a new external cladding of reused blocks. For Altava cf. CIL VIII 9835.

Euzennat (1989A, 267 n.258) argues the second phase of the settlement enceinte is not defensive in purpose since some structures rested against its east face. Such structures may be further projecting towers, not bonded in to the circuit. One such wall was cleared without illuminating its function; it may itself have been partially robbed out.

12. Kennedy (1983, 19-29) proposes a long sequence of gradual enlargement and refortification at Qasr el-Hallabat, based on the chronological evidence which includes both Severan and Justinianic building inscriptions, as well as a copy of a military edict of Anastasius, regulating the life of the frontier garrison.
repositioning may reflect the initial refurbishment of a
dilapidated watchtower surveying the El Kantara route. The
construction of the quadrriburgium may have been accomplished
later by the same individual and the dedicatory inscription
relocated from the watchtower to a more visible position above
the gateway of the new enceinte and re-engraved to commemorate
Caletamera's contribution. It is argued below that Caletamera
may have been a gentile chieftain during the fourth or early
fifth centuries carrying work he was legally obliged to
undertake. Pringle (1981, 78-79, 280-281) argues for a sixteenth-
seventh century date on the basis of the Latin cross at the
beginning of the inscription. It is also possible that
Caletamera was a military officer. Whatever his date or
precise role, his commemoration on the dedicatory stone at the
very least places in doubt Euzennat's simple attribution of
the entire installation to the reign of Caracalla. 11

E.3.2 Doucen

Similarly damming comments may be made concerning the
Gordianic date Euzennat assigns (following Fentress 1979, 106)
to the Castellum Schneider at Doucen, one of at least four
such fortifications apparent at that site. Neither Carcopino
nor Baradez assumed that the three building dedications of
242, discovered on the site of the French bordj came from the
'Castellum Schneider' (at Koudiat el-Djarouf). Given their
considerable size it is likely that they derived from the main
gateways of the fort (as Fentress herself admits - 1979, 85).
Since the Castellum Schneider has only one gateway this would
tend to rule it out as a candidate for the Gordianic fort.
Instead, a fort should be sought which resembles Ras el-Ain in
Tripolitania, where two of the original Gallienic gateway
dedications have been found. In fact the most likely site is
that favoured by Carcopino (1925, 31) and Gsell (AAA 48,73),
namely that of the bordj itself, where the inscriptions were
found reused. The remains of the fort were probably
dismantled to provide building material for the French
installation. The Castellum Schneider itself should probably
be assigned a date in the early fourth century, alongside
Centenarium Aqua Viva and other similar sites, whose purpose
it doubtless shared (see VI.3.1 & VII.4.4 - Limes
Gemellensis).14

E.4 CONCLUSION

One final questionmark may be raised, the proposed means by
which the quadrriburgium architectural type was transmitted to
Tingitana. Euzennat suggests that two early third century
procurators might have brought the idea with them. In fact,
it is very debatable whether governors, who were primarily
administrators and military commanders not engineering or

13. For Eherbet el-Bordj and Caletamera see Appendices K.4 and 0.
31-33. Baradez 1949, 116 & 119 describes four sites at Doucen and others in the surrounding area; cf.
Daniels 1982, 120 and 1987, 244, 248, 256 & 260.
architectural technicians, could have been responsible for such innovations. Even in equestrian provinces, where there was no large body of legionary specialists to draw upon, it seems more likely that the design of forts lay in the hands of military nco's with specialist skills, whether on loan from neighbouring legionary provinces or drawn from the auxiliary garrison, men like the legionary librarian, Nonius Datus, who laid out the aqueduct at Saldae. Thus, to support Euzennat's argument it would probably be necessary to argue that one of the praesides who had previously served in Osrhoene had been so impressed by the new style of fortifications that he brought some eastern architects - military or civilian - with him to Tingitana as members of his retinue. There is no evidence to support this idea.\footnote{Nonius Datus: CIL VIII 2728 = ILS 5795 (Lambaesis).}

None of the above is intended to deny that the adoption of the new principles of fortification, in particular the provision of projecting towers along the curtain walls, occurred earlier in the eastern provinces than in the west. It probably did. Certainly the army in the east was far more exposed to Hellenistic fortification methods through such media as the use of cities as legionary bases, the conduct of operations against the Parthians, or the reuse of earlier outposts. The question is rather how widespread these techniques were on strictly military sites and whether they had spread to the West before the later third century.\footnote{Some of the hydreuma that were equipped with projecting towers, in the Egyptian Eastern Desert, may be early, eg. Der al-Atrash, cf. Zitterkopf & Sidebotham 1989, 165, 188-189, and Isaac 1990, 199-202, but note also the more cautious comments by Redde & Golvin 1987, 53-55. Conversely, it is very difficult to accept Carrie's arguments (1974, 840-848) that Qasr Warun (Dionysias), in the Fayum, originated as a Palmyrene fort. It is surely Diocletianic.}

The extension of the proposed, pre-Diocletianicquadriburgia group to include sites in northern Tingitana, in the Numidian frontier zone and along the Nova Praetentura of Caesariensis, demonstrates the obvious problem associated with this theory. In all those areas there is ample evidence of continued Later Roman occupation. Euzennat's hypothesis, if too readily accepted, would undoubtedly mask the historical complexity of the region's Roman military installations.\footnote{In contrast, note the salutary caution expressed by Salama 1984, 135 n.2, concerning the circular towers at Ain Orimidi and Aras.}
Fort Parallelogramme, Seba Mgata

ALTA RIPA—Rhineland
THABUDEOS

M'DILA

(after Baradez 1949)
APPENDIX F

THE SO-CALLED VALENTINIANIC TRAPEZOIDAL FORTS

In Chapter VI (VI.3.1) attention was drawn to the homogeneity of fourth century castramentation, for example the marked use of forts with square or nearly square ground plans. One element which might appear to disrupt this apparent uniformity is the trapezoidal group of forts identified by Fentress (1979, 106-108) and tentatively assigned a Valentinianic date by her. The core of the group comprises Thabudeos and Mdila, both lying in the pre-desert plain south of the Aures-Nemenchas. Pringle (1981, 302) cautiously added Thuburnica (Sidi Ali Belkacem) in northern Tunisia, whilst Fentress included 'Fort Parallélogramme' on the basis that its angles vary greatly from 90 degrees like the trapezoidal forts.1

A trapezoidal fort plan makes little sense in a North African frontier environment. The rationale of the form is surely that its long side was attached to an invulnerable feature - such as the bank of the river Rhine in the case of Alta Riga (Altrip) the classic site of this type - thereby minimising the extent of curtain wall exposed to attack. Those conditions do not apply to the sites in the Numidian pre-desert! Nor can either site be shown to have been attached to a pre-existing urban circuit wall.

Moreover, the homogeneity of the group is very suspect. Daniels (1982, 120) has noted that it is in fact very doubtful whether Thabudeos was trapezoidal at all. Baradez' vertical air photograph (1949, 126A) demonstrates that Mdila was indeed trapezoidal but so marginally so as to have no tactical significance. Fort Parallélogramme as argued above (VI.3.1) is best considered alongside the square/nearly square forts such as Aqua Viva and Bourada. Only Thuburnica has a truly trapezoidal form which can perhaps be explained by its topographical situation, but its location in northern Proconsularis, the peaceful heartland of Roman Africa, is scarcely appropriate for a late third-fourth century post. In contrast Thabudeos and Mdila should probably be regarded as oblong rectangles, perhaps slightly deformed by surveying errors when first laid out.2

The best parallels for Thabudeos and Mdila, within North Africa, are oblong forts of sixth century date, such as the splendid example which survives at Timgad. Troussset (1985, 371-373) puts forward a very convincing case for regarding Thabudeos as having been newly built during the same programme

For the addition of Thuburnica: Pringle 1981, 302.
2. The form of Thabudeos on the ground appears to be that of a straightforward oblong rectangle (C.M. Daniels pers.com).
El Habel – the Watchtower

Thabudeos – Byzantine Inscription

Thabudeos – Brickwork (all after Baradez 1949)
as Timgad, undertaken by the general Solomon in 539-544, instead of being a refurbished fourth century fort as Pringle argued (1981, 286-288). Trousset's argument is based on the virtually identical dimensions of Thabudeos and Timgad, on the similarity of architectural details such as the arrangement of the angle towers with diagonal passageways, the presence of probable sixth century building inscriptions at Thabudeos and the latter site's possible equivalence with the fort of Dabousis, mentioned by Procopius. In turn, the use of fired bricks as the main building material at Mdila, just as at Thabudeos, instead of the mud brick typical of fourth century forts in the area, suggests it too may be included in the class of 539. In addition, the citadel at Thuburnica is most likely to have been of sixth-seventh century construction, as many neighbouring settlements were fortified during that period.¹

That Valentinian and his immediate successors did carry out some work on the North African frontier should not be denied. The inscription from El Bahira, now Salah Bey (ex Pascal), immediately north of the Hodna mountains, attests the construction of one such fort (castram) between 375-378, although the remains have unfortunately not survived. However, the assumption that there was a group of Valentinianic fortifications with a characteristic trapezoidal (or rhomboidal) form should be firmly rejected.²

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Approx. location of the Kef Irhoud clausura

(after Salama 1973)
APPENDIX G

KEF IRHOUD: A MAURETANIAN CLAUSURA

A possible clausura in central Caesariensis can be identified from a description by Joly, subsequently incorporated in Gsell's Atlas archéologique. The wall closes off a valley on the southern slopes of the Kef Irhoud, c. 5 km north of Ain Toukria, one of the probable fort sites on the Severan praetentura.¹

The barrier's general location and topography are thus convincing but the identification cannot be claimed as absolutely certain, pending investigation on the ground. The possibility of confusion with hydraulic works of agricultural function cannot be excluded. The first observer, Bourguignat (1868, 20-21), even assigned a ritual function to the linear structures in this area, though this seems to be the least likely of the three hypotheses, and in any case it is not clear that he was describing the precise structure mentioned by Joly (1910, 394). Bourguignat describes many lines and circles of drystone walling, the former probably agricultural, the latter perhaps funerary in function, in the area around Ain Toukria and the Kef Irhoud. Joly, on the other hand, refers to only one structure, which he clearly describes as descending from the summit of the kef, heading southward, crossing the valley and then climbing the slopes beyond.

Supporting evidence may be provided by CIL VIII 21522 from the nearby settlement of Feradja. If Gsell's cautious interpretation of this difficult, badly damaged inscription as referring to fines enacted against smuggling ('peut-être s'agit-il d' amendes edictees contre des contrebandiers') is correct, it might indicate official concern regarding the regulation of and imposition of fiscal tolls upon transhumant movement of people and their livestock in this very region. Small groups perhaps attempted to evade the regular control points by taking to minor routes. The construction of a series of clausurae would certainly have assisted the authorities in dealing with this. Thus, if the Kef Irhoud is a Roman barrier, it is unlikely to have been an isolated example. Further fieldwork in the hills north of the praetentura road would probably uncover many other similar structures.²

¹. The basic sources for the Kef Irhoud clausura are Joly 1910, 394, and AAA 23,27 esp. add. Unfortunately the wall's exact location is not pinpointed on Gsell's map 23, or indeed any other map such as Salama 1973.
². CIL VIII 21522: [....?....] si quis [....] / Rom[....] / vern[....]vis / paiu[....]gui[....] / temn emp[....] / veri pr(a)eo[....] / [....]dat fisco[....] / semilibra[....] / quiri[....]. Feradja: AAA 23, 28, also Salama 1973, 347 nr.30 & map.
A large proportion of the inscriptions from the Tripolitanian pre-desert and the Eastern Jebel are carved in Latino-Punic script, a debased form of the Punic language using Latin letters. These texts include many gasr dedicatory inscriptions, often found in situ above the gateway, and the Bir ed-Dreder funerary stele, discussed in Chapter VIII (VIII.1.1). Their interpretation is therefore highly significant for the study of the Tripolitanian frontier society. Much progress has been made in recent years, but translation is still a hazardous procedure.

H.1 IRT 889 AND THE CENTENARIUM OF GASR WADI EL-BIR

A good example of the potential problems is provided by IRT 889, found above the doorway of the Gasr Wadi el-Bir near Schemech. The most recent translation, that provided by Elmayer (1985A, 82-83), is as follows: 'Flavi(us) Dasama and his son Macrinus, landowners, have made (this) centenarium to guard and protect the whole zone'. It thus records the construction of a gasr, here described as a centenarium, by two private individuals, Flavius Dasama and his son Macrinus. Elmayer's version is important because of the phrase sumar nar sabare saun - 'to guard and protect the whole zone'. This implies the centenarium was intended to benefit more than just a single family, that indeed it had some official military or at least communal defensive role, bringing to mind the gentiles' duties of curam munitionemque limitis atque fossati referred to by CTh VII xv 1.1

As regards the interpretation of Latino-Punic, Elmayer's repeated emendation of his translation of the label balars (or bal ars), attached to Dasama and Macrinus, is very illuminating. The former is successively described as the chief artisan (or contractor/architect), chief (or commander) of the district and finally a landowner. In each case the change was occasioned by a justifiable shift in the editor's thinking regarding the perceived social context of the inscription and the gasr it decorated, but it is clear that such a process must carry a strong risk of circularity. In the present context it would be useful to know which of the second two readings was the better on linguistic grounds since both of these could be inserted into the Tripolitanian frontier zone with some plausibility. The debased form of such inscriptions and difficulty of accurate reading tends to provide a number of optional translations, derived from more standard Punic, Neo-Punic or general Semitic sources. In this case the two elements of the title are bal - 'chief'.


The label centenarium alone is not conclusive proof of a military function, cf. also Appendices K.1 and J.3.
'governor', 'owner' or 'lord' - and ars, interpreted as 'rs' to give 'land', 'district', 'region' or the like. Thus the basic translation would be something like 'lord of the land'. Whether that should be interpreted as a tribal chieftain's title, the Punic translation of a Roman rank (either honorary or active) or simply an assertion of Dasama and Macrinus' ownership of the land which Gasr el-Bir was erected 'to guard and protect' would, however, be a courageous choice to make.  

Clearly, it would be unwise to base complex arguments solely on this or indeed any other internal detail of such an inscription. Thus the significance of the phrase 'to guard and protect the whole zone' and in particular the translation of saun as the latin zona - 'zone', should not be pressed. Saun may be a placename, a possibility Elmayer himself concedes, or the 'zone' referred to may simply have been a large estate or praedium, the property of Dasama and Macrinus. Nevertheless, the inscription retains some interest, bearing in mind the comparison with the Mauretanian dedications discussed in Appendix K and also the occurrence of the name Flavius, which might indicate that Dasama had held an official post during the fourth century.

2. The various interpretations of bal ars: chief artisan (Elmayer 1983, 90, following Levi Della Vida 1987, 263, who in turn seems to have relied upon a reading by Fervier); chief, or commander, of the district (Elmayer 1984B, 149-150); landowners (Elmayer 1985A, 82-83). For a Moorish noble displaying his Roman honorary rank on a private building inscription cf CIL VIII 21531 = ILS 6021, M Aurelius Vasefin, v(ir) p(erfectissimus), at Ammi Moussa.  

3. For the official significance of the nomen Flavius in the Late Empire see Keenan 1973/1974 & 1983, but cf. also VIII.1.1 for discussion of the gentilicia found in the Tripolitanian pre-desert.
ISAWI GROUP - MASONARY

GASR ISAWI
(after Di Vita 1964)

GASR ISAWI
(after Di Vita 1964)

GASR GHERIAT ESH-SHERGIA
(after Goodchild 1954B)
APPENDIX J

TRIPOLITANIAN GSUR AND FRONTIER LIMITES

In Chapter VIII the relationship of gsur to the military districts of the frontier zone was discussed. It was suggested that certain gsur may have originated as the centres of chieftains who had been nominated as praepositi limitum in their locality. In this appendix a number of possible specific cases are examined.

J.1 THE GASR ISAWI GROUP

The first example is provided by a small group of extremely well-constructed gsur, of which the best known is Gasr Isawi in the Wadi N'f'd (ULVS nr. Nf 37). First identified by Goodchild and Ward Perkins, the type is defined by its fine ashlar masonry and very distinctive incised, rounded angles. Other members include el-Faschia in the Wadi Zemzem and Gasr Gheriat esh-Shergia in the eastern Gheriat oasis. The three sites are currently viewed as straightforward military outposts, the most persuasive case being made by the UNESCO Libyan Valleys Survey team in its analysis of Gasr Isawi.¹

The interpretation of these sites as official military structures rests on several pieces of evidence.

1. The quality of the masonry and, at Gasr Isawi, the regularity and quality of construction of the outbuildings (Nf 75) - well-built rectangular ranges rather than the usual huts and enclosures.
2. The location of esh-Shergia strongly suggests it was a military site.
3. The Valleys Survey has argued that Isawi also occupies an important strategic site appropriate to a military post on the following grounds:
   a. It lies on a north-south route leading to a fairly easy crossing of the Wadi Sofeggin flood plain.
   b. It possesses good views up the wadis N’f'd and N’fed.
   c. The gasr is only 400 m from a large defended hilltop village (Nf 39), discovered by the Survey - a possible tribal centre which might have required military supervision.

These arguments seem to add up to a weighty case. Mattingly (1984, 232 & 281-284, and 1985, 70 & 73 fig.3) has concluded

Cf. Goodchild & Ward Perkins 1949, 93 = Goodchild 1976, 30, for initial interpretation of the Isawi-Faschia-Sher gia group: 'an early, official stage of "gasr" construction......These earliest fortified farmhouses were clearly designed and constructed by Roman military architects'.
Gasr Isawi is often labelled Gasr Banat though this name more properly applies to the nearby mausoleum (Nf 38). I have retained Banat as a general label for the surrounding area and neighbouring sites.
Mattingly 1984, 424 n.20 names Gasr el-Aswad, in the Wadi Scetaf, as another Isawi-type gasr but gives no further details.
BANAT SETTLEMENT

GASR BANAT
wadi N'f'd

(after Gilbertson et al 1984)

BANAT VILLAGE
(NF 39) c. 400 m

GASR ISAWI (Banat)

(after Burns and Mattingly)
the sites were military posts established in the third or perhaps late second century.

A very different impression is gained by examining all the sites in the Banat area together (conveniently displayed in Gilbertson et al., 1984, 58 fig.7). 400 m to the west of Gasr Isawi lies the hilltop village. 200 m to the north-east of the gasr, on the opposite bank of a side gulley, sits the mausoleum, Gasr Banat (Nf 38), complete with a Latin funerary dedication (IRT 891 = CIL VIII 22665) commemorating one Aurellius Nazmur. To the south a series of impressive barrage-type walls cross the bed of the wadi. More normal cross-wadi or wadi-edge walls occupy the terraces between the main wadi floodplain proper and the scarp.

Ordinarily there would be no hesitation in pronouncing such an assemblage as civilian. Isawi could plausibly represent the seat of a noble lineage, which formed the dominant segment of the tribal community ensconced on Banat's eperon barre. Aurellius Nazmur - obviously a Libyan - would naturally be regarded as one of Isawi's proprietors, perhaps even its founder. Nazmur's gentilicium might hint at enfranchisement by Constitutio Antoniniana. The inscription's lettering was certainly considered to be third century in date. The wadi walls must have been designed either to control floodwater for agricultural purposes, or to help stock management, not exactly the normal duties of a military garrison.

This contradictory combination of strategic location and civilian, agricultural associations may be explained if Isawi were seen as one of the very first reflections of the process described above, of reliance on tribal nobility for administration and security. The edifice was perhaps the fortified domain of a local chieftain, whom the Romans had nominated to police the N'f'd. Rather than being an outsider imposed on the area, the chieftain may have been a prominent member of the Banat sub-tribe, who exploited the latter's strategic location, making himself useful to the imperial authorities and thereby winning official favour.

The same could be true of Gasr Isawi's counterparts. Even the military status of esh-Shergia may be challenged, despite its universal acceptance to date. The fortification dominates the smaller of the two main Gheriat oases, the larger, Garbia, being occupied by the impressive Severan fort. It is true that Shergia's situation parallels that of Gasr Zerzi, which controlled a waterpoint on a subsidiary route bypassing Bu Ngem oasis fort. Zerzi was definitely a military post, having produced an imperial building inscription. It was much smaller than Shergia, but controlled a less important waterhole. This is habitually considered justification enough for a attributing a military role to Shergia, but is it? There was an indigenous population cultivating the Gheriat oases. A pre-Roman promontory settlement has been identified at Garbia. Moreover the oasis communities were not devoid of social stratification; a point made abundantly clear by the asnam funerary monuments of Ghadames. Gasr esh-Shergia may likewise be associated with this indigenous elite. It was
PRE-DESERT MASONARY

Gastr Nagazza—Civilian

Msellten Tomb—Civilian

Lyon's Drawing at the N. Gate Bu Ngem

(all after Hayes 1966)
perhaps the seat of a local noble, designated by the Romans to govern the eastern oasis in their name, as part of a policy of indirect rule. 2

The precise way in which Isawi and its counterparts fit into the known events of the Tripolitanian pre-desert remains unclear, not least because there is no firm date for these structures. Thus it is impossible to say whether they foreshadowed or followed on from the withdrawal of troops from the southern oases c. 260.

J.1.1 Masonry

But what, finally, of the splendid masonry which defines the Isawi group? Fine masonry was neither a prerequisite nor the preserve of military construction in the pre-desert. The Late Roman quadraburgi of Benia Guedah Ceder and Benia bel Recheb do use ashlars for their enceintes and towers - for the lower storey at any rate - in a similar manner to Isawi, Faschia and Shergia. The large third century forts of Bu Ngem and Gheriat el-Garbia, however, only incorporate such ashlars blockwork at their gateways and as facing material for the lower storey of the gateway towers. Gsur of certain military function - Duib, Zerzi and Tarcine - were built of much smaller, rougher stonework throughout. For such modest posts better construction might even have been regarded as a wasteful extravagance. Conversely, the first-second century obelisk tombs, the much later mausolea at Gherza, or the ornate gateways at gsur such as Gasr Nagazza near Bir en-Nesma in the Wadi Sofeggin, show that fine masonry was every bit as firmly represented in the civil sphere. Clearly the imperial authorities were aware of the role impressive architecture could play in demonstrating the power of the government. Some of the quadraburgi seem designed to produce just such an effect, but one cannot categorically assume that in any group of gsur the official military structure would be the largest or most finely built. 3

Similarly, the regularity of the outbuildings around Gasr Isawi surely does demonstrate they were part of a single overall plan conceived and executed in conjunction with the


The promontory fort at Garbia: Goodchild 1954b, 66 = 1976, 56; Jones 1983, 65; Mattingly 1984, 232. Large settlements later grew up around the forts at Garbia and Bu Ngem.


3. For Benia Guedah Ceder and Benia bel-Recheb see Trouset 1974, 67-68, 96-96 and figs.25 a-b & 28 a-b; cf. also Mattingly 1984, 269 & 271.


The sample of ashlars-built civilian structures was drawn from Haynes 1965, pl.26 & 28-31. For the Gherza mausolea see now Brogan & Smith 1984, 119-126.

For the impact of quadraburgium architecture see also VIII.1 (Gasr Bularkan).
Maamura and Chafagi Aamer
(after Ward Perkins and Goodchild 1953)
gasr, rather than the organic growth of an agricultural settlement. However, such a plan could just as readily be civilian as military. Villas throughout the Empire often display planned axial layouts which incorporates subsidiary buildings.

Nevertheless, the quality of masonry would suggest this type of gasr was not the product of a local workforce but required the involvement of some external agent. That agent may have been a highly skilled building team, commissioned from one of the coastal cities by individual grandees, as had probably been the practice when erecting the obelisk tombs which still grace the Libyan landscape. Alternatively, the fortified domains may have been erected by the army as part of a diplomatic programme to bolster the authority of loyal 'caids'. That would certainly explain the homogeneity of the structures, although one might argue that an entrepreneurial tour through the pre-desert by one urban building team, working to a standard design, could also account for it.

J. 2 BIR SCEDUA

The argument that there need be no correlation between fine construction and official status is underlined by the nine gsur in the Scedua basin. The likely association between the Dreder tribunes and these gsur has been noted. Whether the Dreder tribuni were army officers or merely honorati, their titles betoken a desire to participate in the hierarchy of imperial service and some degree of official favour. However, none of their gsur obviously stand out from the crowd. They are solid, well-built structures but not extravagantly so. Indeed, the Scedua gsur are marked by their homogeneity. Six of them, located fairly centrally in the basin, form a distinct typological group (along with two watchtowers) characterised by small neatly trimmed masonry, rounded corners, wall niches and an arched doorway. This homogeneity need not matter. After being designated tribunus, a trusted member of the Scedua sub-tribe might have built himself a gasr, using local craftsmen and labourers. Over time that structure may have spurred the other Scedua lineages to construct gsur, following the same pattern. One candidate might be BS 3, which does lack most of the usual traces of a dependent settlement - typically comprising ranges of rooms for accommodation or storage, livestock enclosures, faschia (cisterns) and traces of wadi walling. It is located in the centre of the basin, on a ridge with good views over the Wadi Sofeggin and its tributaries, and lies a kilometre from the nearest wadi agricultural system. Thereafter, any of the gsur might have served temporarily as the base for the tribunus of

5. If indeed these gsur were built by the army a further possibility is raised, namely that some - Shergia, Faschia? - were indeed official fortlets whilst Isawi was a trusted chieftain's domain built to the same pattern.
Modern Roads and Tracks

Ancient Castles

Churches

GASR HAMED
GASR MAAMURA
GASR ED DAUUN
GASR HAUNA

Human Hagja

(after Oates 1954)

GASR MAAMURA

Souk el-Oti Church

(after Welsby 1991)
the day, according to whichever lineage had captured the office at that moment.  

J.3 GASR-CHURCH COMPLEXES: CENTRES OF GOVERNMENT?

A more reliable indication of a limes centre may be the presence of a church. The value of Christianity as a sign of continued provincial government was discussed in section VII.6.3. The ecclesiastical framework tended to copy the pattern set by the imperial administration. Thus episcopal seats were usually established in cities whilst ecclesiastical provinces were based on their civil counterparts. In the Tripolitanian pre-desert the likely focus of ecclesiastical activity would have been the tribal centres and regional marketplaces, precisely where one would also expect praepositi to be esconced. Although churches in the Tripolitanian hinterland are unlikely to pre-date AD 400, well after the limits were established, they do mark locally important sites, some of which might have accommodated praepositi from an earlier date.

Most promising is the settlement at Suk el-Oti, in the Wadi Buzra, which incorporates four gsur including two adjacent to the church itself. It is quite conceivable that one of these gsur performed an official role. The other church identified in the wadi region, Chafagi Aamer in the upper Sofeggin, is also directly associated with a gasr, as are a couple further north, in the Eastern Jebel. Occupying a strikingly similar topographical location to Chafagi Aamer, on a dramatic spur site, is Gasr Maamura overlooking the Wadi Gsea, 17 km east of Gasr ed-Dauun. There, a gasr is attached by a row of rooms to a triconchal chapel. Henscir el-Hagja, on the Tarhuna plateau, eight kilometres east of El Khadra (ex Breviglieri), forms another church and gasr complex comparable in many respects to Chafagi Aamer and Gasr Maamura. The gasr, labelled a centenarium, was built by one Thiana Marcius Cecilius according to the Latino-Punic dedicatory inscription.

The similarities of these structures have been commented on by several scholars. The similar topography of Maamura and Chafagi Aamer has been noted. At Maamura, Chafagi Aamer and Cecilius’ site in each case church and gasr were built of

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6. For the location of BS 3 see Buck, Burns and Mattingly 1983, 42 fig. 3. See Barker & Jones 1982, 5 fig. 2 for a view of the interior.

The 3 more peripheral gsur which do not fully conform to the main Scedua type may simply reflect greater exposure to external stylistic influences.

7. Suk el-Oti: Ward Perkins 1950, Ward Perkins & Goodchild 1953, Haynes 1965, 166-167, Barker & Jones 1982, 32 fig. 22, Bore 1990, and esp. Barker et al., 1991, 50-57, Weleby 1991 (excavation of church). This site probably holds the record for the maximum number of variant transliterations, for example Gasr es-Suq el-Oti, Suk (or Souk) el-Lhoti or Suq El Awti and finally Souk el Awti. Lhoti is incorrect. Otherwise I have adopted the version which appears the simplest.


HENSCIR EL-HAGJA

The Centenarium Dedication (after Goodchild 1976)

The Centenarium Interior (after D'Angelis D'Ossat and Farioli 1975)
identical masonry and surrounded by the remains of a considerable community, the whole apparently forming a single social unit. Moreover, all three sites dominated or at any rate lay close to communication nodes. The centenarium of Cecilius is set close to the junction of routes from the wadis Tareglat and Turgut with the old Roman highway along the Jebel range, while Gasr Maamura commands the crossing of the southern track from Gasr ed-Dauun (Subututtu) to the coast and the caravan route from Cussabat, the capital of Msellata, to the Orfella by way of Wadi Tareglat. Chafagi Aamer lies not far from the point where the modern track from Mizda forks, one branch carrying on down the Sofe, the other heading south-east to Gheriat and the Fezzan. Maamura actually means the place 'of many goods' or 'of many people', whilst the Arabic name Suk el-Oti - 'the Upper Market' - hints at a regional importance as a marketplace for the latter site which may have continued into the Medieval period. Oates has drawn attention to the size of the cisterns at Maamura - whose combined capacity must have exceeded a million litres - and postulated that this too must be related to a role as a regional centre, able to cope with the needs of more than the local population. 8

Clearly, each gasr with its church and adjacent buildings represents a centre of secular and religious authority, probably the focus for a widely dispersed population in the surrounding countryside. The historical context for these church-gasr complexes remains uncertain. Could they be related to the limites listed in the Notitia Dignitatum? One of the gasr is labelled a centenarium but the military significance of that term should not be pressed too far. It could simply be an alternative for turbis or munitio adopted by the civil population. The churches have been dated to the fifth century (mainly on typological grounds), perhaps the first half. At Suk el-Oti the church is of a later build than the immediately adjacent gasr. There, the ecclesiastical centre might form an addition to a pre-existing limes headquarters of the fourth century. Suk el-Oti itself was a relatively new settlement, surface pottery collected during recent survey being restricted to the Late Roman and Byzantine periods (third-seventh centuries). The homogenous masonry of gasr and church at the other three sites suggests they were new settlements of the fifth century. They may represent the kind of 'recruitment' of tribal elites argued for by Mattingly (1987, 84-88), with loyal groups establishing themselves at crossroads, with official blessing, to bolster the province's defences during that turbulent period. Alternatively, these sites may reflect the emergence of new powers in the period following the Vandal occupation of the coast, as alliances were negotiated with the new makhzen'. At any rate the importance of these sites to our understanding of Late or sub-Roman Tripolitania is difficult to over-estimate and further research is clearly merited.

INDIVIDUALS BUILDING PUBLIC FORTIFICATIONS

Several building inscriptions from the African frontier provinces apparently record the erection of official fortifications by private individuals. The significance of these dedications will be tackled here.¹

K.1 THE CENTENARIUM OF MAS AISILEN

The first example is offered by CIL VIII 9010 from Ourthi n’ Taroumman in the Grande Kabylie. There, M. Aurelius Masaisilen, perhaps a former prefect of a tribal confederation, the Quinquegentiani, built a centenarium in 328:²

M(arcus) Aureliujs / Masaisilen / ex pr(a)ef(ectis) V (= Quinquegentianorum?) cen/terrarium a fu/ndamenta su/is sum(p)tibus fe/cit et dedicavit ; (anno) p(roviniae) ccclxxviii.

The use of the phrase 'suis sum(p)tibus' suggests there was some public function and benefit to be derived from this building. If it had been a private fortification erected for the protection of Masaisilen’s person or property such a statement would have been superfluous. Certainly it is not encountered on any inscription which unambiguously refers to the construction of a private fortification such as those possessing the diagnostic opening phrase in his praedii....³

Designation of the building as a centenarium also suggests an official military structure - one nominally intended to hold a garrison of 100 men - although caution is required here in the light of other epigraphic evidence.⁴

Omission of an opening imperial dedication, though unusual, is not without parallel in other small military installations.

¹. Pringle 1981, 89-94, a succinct survey of the building of fortifications in 6th century Africa (but drawing on examples throughout the Eastern Empire) forms a useful comparison for this study.
². CIL VIII 9010, reported by Hanoteau 1861, 176-177; discussed by Gsell 1903A, 30 n.2 and AAA 6,97, Salama 1954, 210 A 222, Courtois 1955, 120 n.2, Martin 1969, 16, Leveau 1973, 184 nr.57, and Matthews 1976, 171. Courtois (1955, 120 n.2) plausibly interpreted ex pr(a)ef(ectis) V as signifying ex pr(a)ef(ectis) (Quinquegentianorum). The confederation is also labelled Quinquegentanei in many sources.
³. The nearest parallel on an inscription commemorating a private Mauretanian fortification is the castra of N. Aurelius Vasefin built laboribus suis - 'by his own labour for his sons and grandsons to live in'. This contrasts with many of these private estate building inscriptions, where the work was clearly organised and supervised by the dominus’ land-agent, usually a slave or freedman.
⁴. For centenaria of indeterminate, possibly private or semi-official, status, in Tripolitania, see Appendices H and J. 3. Jouffroy 1991, 374 has also come to the conclusion that the centenarium at Ourthi n’ Taroumann was an official fortification built at private expense.
AGUEMMOUN OUBEKKAR

The Church

PORTAS AC VALVAS SUAS FACTAS

(after Gsell 1901A)

(after Vigneral 1868)

(after Salama 1954)
The dedicatory inscription of the Centenarium Tibubuci (Ksar Tarcine) also lacks any mention of the emperors. The latter site was clearly an official post, its construction was initiated by one governor and completed by his successor. If Masaisilen's centenarium was a private fortified estate then it must fall into the same category as Souma and Petra, whose noble proprietors sought to make a contribute to provincial security in order to win imperial favour. On balance, however, it is more likely that the inscription commemorates the construction of an official, military post. As a member of the local Romano-Moorish tribal aristocracy, Masaisilen would thus be performing his obligatory duties as a gentilis, similar to those outlined by CTh VII xv 1, providing a new roadside fortlet for the limes Bidensis. 

K.2 SUBSTANTIA MAXIMIANI PP AT KHERBA DES AOUISET

A second example is provided by a certain Maximianus pp, who funded the construction of gates for an unspecified structure in 346 - 'portas ac val[venas] sua[s fa[ctas] substantia Maximiani pp'. The inscription was discovered at Kherba des Aouisset, on the southern edge of the Ouarsenis. 

5. Centenarium Tibubuci: CIL VIII 22773 = ILS 9352 (c. 303), Centenarium Tibubuci, / quod Valerius Vibianus, / v(ir) p(erfectissimus), initiari, Aurelius Quintianus, v(irj p(erfectissimus), / praeses provinciae Tri/politanae, perfici curavit; and see above VII. 2.2. The dedicatory inscription from the turris et castrum at Ravenscar on the Yorkshire coast similarly mentions only the praepositus Justinianus and the magister (?) Vindicianus: RIB 721.

6. The inscription was found reused in one of four tombs lying at Ourthi n'Taroummant (AAA 6,97). The original location of the centenarium is difficult to identify. The spread of dressed stone in the gardens of El Hara Ouchoulla, 300 m west of the four tombs, is perhaps the most likely candidate. Vigneral (1968, 89-90) on the other hand suggested that the inscription, along with other masonry, had been transported from the hilltop church of Aguemmoun Oubeckkar (AAA 6,97), which he suggested was converted from a fortified post. However, despite this site's hilltop location, Vigneral's argument is not convincing. What he perceived as the rectangular enceinte of a fortification is more likely to be the outer wall of a basilical church, of normal dimensions. It incorporated a trefoil apse which, if it is not an original feature, may represent a conversion to hold a martyr's relics. It certainly seems to have held a single burial only, pointing towards a function as a religious shrine rather than the family vault suggested by Vigneral (cf Osell 1901A, II 158-159). A more likely alternative to El Hara Ouchoulla would be Bou Atelli (AAA 6,99), as proposed by Martin (1969, 16, 20, 26 & 59) and Matthews (1976, 171). The extensive ruins (4-5 hectares) at this latter site probably represent a village or township of the Roman period. The centenarium may have been built to protect this settlement in 328, but the early descriptions are too imprécise and the remains too badly damaged to confirm this. 

7. See Pringle 1981, 92, for a Syrian example of an imperial building project masquerading as private munificence.
The text is dedicated to the reigning emperors and has a consular as well as provincial date; furthermore Maximianus was clearly holding office during the course of the work. The inscription thus has a marked official character. It reads as follows:


The exact nature of Maximianus' office is somewhat elusive. Salama, in an exhaustive discussion, supplies many alternative restorations of pp but argues convincingly for the straightforward solution p(rae)p(ositus). In turn he proposes two variant interpretations of this title. Maximianus may either have been the local frontier commander p(rae)p(ositus) [l(imitis)], or alternatively a local noble upon whom the Romans had bestowed the honorary title p(rae)p(ositus).

The first case has much to recommend it. The formula p(rae)p(ositus) is well-attested for military officers, having the general meaning 'commander'. Here it seems a reasonable extension to understand it to mean praepositus limitis, since one of the latter was based nearby, at Columnata. The inscription may have lost one or even two letters after pp, in the damaged area at the end of the fifth line. Thus one might add [l(imitis)] and perhaps, but not necessarily, a further initial indicating the location of the command, such as Columnatensis. In any case the term praepositus alone may have been sufficient to designate the praepositus limitis in the Mauretanian frontier zone, there being few other types of praepositi in those remote regions.

The second option favoured by Salama (1954, 216-217, 219 & 223) has been further developed by Matthews (1976, 172 & 185 nn.80-81), who suggests Maximianus may have arrogated to himself the title of praepositus. According to this hypothesis Maximianus would have been a Romano-Moorish grande of the type that fill the pages of Ammianus (XXIX v). At Kherba des Aouisset Maximianus would have been building or restoring the defences of this small frontier community, doubtless with motives that were a mixture of paternalism, self-interest and local patriotism. The defence of his region, the settlement perhaps housing many of his own tenants and thus his own power-base would clearly have been very important to such a noble. Moreover, his generosity would help to establish new bonds of friendship and attract dependent clients.

The terse comment 'substantia Maximiani pp' and the matter of fact description 'portas ac valvas factas' are scarcely adequate to sustain the above theory. Here was a splendid
opportunity for Maximianus, if he was paymaster and initiator of the project, to leave a permanent memorial setting out his qualities and achievements. The subdued phrases and the omission of any mention of those who were to benefit from the work, and would hence be obligated towards Maximianus, apparently contradict the major reason for sponsoring the project. Moreover, the opening imperial dedication and the consular date point towards a very formal, official context. On the other hand, it must be admitted that military officials, such as praepositi limitum, did not usually pay for the construction of fortifications themselves. A more convincing explanation must be provided for this mixture of private action and public benefit.

It would obviously be very helpful if the type of structure being refortified could be identified more precisely. Salama argued it was a small city, linking it with the broadly contemporary work at Altava and Mouzaia (Elephantaria?) and a law of 358 which confirms and strengthens an earlier remission of a quarter of the civic taxes (vectigalia), for the express purpose of enabling the North African cities to repair their public buildings (moenia publica). \(^\text{11}\)

This is not certain. The text does not contain any explicit references to municipal institutions or magistrates, as do the two contemporary examples cited above. It is possible the site was a subordinate village on the territory of another city, such as Columnata or Tiaret, or was perhaps an autonomous castellum, the centre for a small sedentary tribe. Moreover, the work may conceivably relate to a military site. Salama, himself (1954, 205-206), actually concedes that the stone, which was found in the bottom of a minor irrigation channel, may have been scavenged from the nearby ruins of Columnata. If so the inscription might mark the restoration of the military base there, the headquarters of the limes Columnatensis. \(^\text{12}\)

The archaeological remains at Kherba des Aouisset are very uninformative as to the nature of the fortification recorded by AE 1955, 139. They indicate a large village or small town covering an area of roughly 6 hectares. Occupation well into the fifth century is indicated by dated funerary inscriptions and the widespread evidence of Christianity, and there is much carved stonework in the typical regional style. However, there is no mention, in the antiquarian reports, of a surrounding circuit wall, with gateways from which the

\(^{11}\) Salama 1954, 210-213 & 217 for the identification of the site as a city. For the fortification work at El Hadjeb-Mouzaia and Altava cf. CIL VIII 9282 and AE 1935, 86 = Marcillet-Jaubert 1968, nr.67 respectively; also CTh IV xiii 5.

In the Mauretanian context moenia seems to imply primarily the circuit walls, to judge from the inscription recording the fortification of the small city at El Hadjeb near Mouzaia: cuncta comitum [executus, iussa nova moenia ... reficit.

\(^{12}\) The ordo cum populo loco reip(ublicae) cuncto implement the project at El Hadjeb whilst Statuler, ius Felix disp(uncetor), una cum primores, dedicavit at Altava.

On the other hand in the dedicatory inscriptions of two Tetrarchic urban circuits, at Rapidum and Tipasa, the provincial governor alone is mentioned: CIL VIII 20836 = ILS 638 (rebuilding of Rapidum); AE 1966, 600 (the no\[vas - or d\]u\[as - por[/as tur]resque at Tipasa).
inscription might have derived, nor of anything that might represent a military structure. This would not rule out the presence of either, the records concerning the site being of the most summary kind.13

On balance, Salama’s interpretation of the inscription as deriving from the defences of a settlement at Kherba des Aouisset remains the most plausible. It is unlikely that the Aouisset would have needed to look as far as Sidi Hosni-Ain Zerla for building material, when they established their village on the Roman site. The ruins at Kherba were still extensive at the beginning of this century, covering an area roughly 400 m by 150 m; other groups of ruins lay close by, to the north. Together these should have provided more than enough stone for their small village. The colonial village of Waldeck-Rousseau built at Sidi Hosni, 1-2 km north of the ruins of Columnata, at the beginning of the century would have tended to monopolise the usage of stone from the latter site thereafter. Furthermore, the reference to multiple gates (portas ac valuas suas factas) points towards the fortification of a settlement, rather than the construction of a new military site. The characteristic form of Late Roman fort, encountered in the North Africa, incorporated only a single gateway (see VI.3.1).14

AE 1955, 139 might be best understood as the sole survivor from an entire group of dedications designed to acknowledge the separate contributions of many individuals to a large project. This would be particularly appropriate if the relevant structure was a circuit wall to protect Kherba des Aouisset. Similar slabs would thus have been set at appropriate points in the curtain or on towers, proclaiming muru facta substantia Innocentis, turres factas substantia Vasefin, or the like. It would help account for the indifferent quality of the lettering and the terseness of the reference to Maximianus, if he were only one of many benefactors.15


It is noteworthy that there is as yet no archaeological trace of a fort in the nearby settlement of Columnata, where is good reason to suppose the existence of a Severan fort and later limes centre (see below). Nor was there any mention of a fort in comparable descriptions of Kherba des Ouled Hellal, before the discovery of its dedicatory inscription, and examination of air photos on which the fort stands out plainly in the middle of the walled town: AAA 23,35; Salama 1953, 255-256 (cf AE 1954, 1438, recording the foundation of the Hibernae aia Sebastenae in 201), 1972, 347 nr.1, 1977, 585 nr.13. Salama does not publish the air photograph he consulted (1953, 255), but the fort was clearly of standard Principate type, squarish in plan with rounded corners (Salama pers. comm.).

14. For Columnata (located around the spring Ain Zerla 1-2 km south of Sidi Hosni = ex Waldeck Rousseau): AAA 22,127 add & 33,15, Lawless 1970 II, 125-131 nr.47, and see above section VI.2.1 n.28. There was clearly a significant civil settlement here, possibly even a civitas. The remains have similar characteristics to those at Kherba des Aouisset. For the limes Columnatensis see above VI.1.2, VI.2 & VII.2.3.

15. The above texts are of course hypothetical but the names are those of Moorish nobles who are recorded building their own private fortifications at this very time: M Aurelius Vasefin v(ir) p(erfectissimus)
Maximianus and his counterparts were thus wealthy local landowners belonging to a settlement in the frontier zone. Whether they were acted within a municipal or tribal framework it is unlikely that their obligations would have been very different, particularly if the inscription does mark the enclosure of Kherba des Aouisset, within a defensive enceinte. The construction of such defences was the responsibility of the community concerned, lubricated only by occasional acts of imperial beneficence. The contribution of the settlement's ordinary citizens was probably fulfilled by corvees of labour on the actual building work.

K. 3 SUBSTANTIA AT RAS EL-AIN?

A further piece of evidence relating to the building official military fortifications derives from a fort of the limes Tripolitanus, Ras el-Ain. Built in 263, this fort was the scene of considerable rebuilding work a hundred years later, during the tenure of the comes et praeses, Fl. Archontius Nilus. The work is revealed by two inscriptions dated to 355-360, one of which is particularly interesting in this context: CIL VIII 22766 & 22767 = ILAf 11. Although many of the details of the inscription are unclear it is clear that the inscription refers to major repairs to the fort during the joint reign of Constantius II and Julian under the supervision of Archontius Nilus. Many elements of the restoration in ILAf are insecure but one in particular is of concern here. After the imperial titulature lines 4 onward read:

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[......]um funditus evers[.]m [...]tim ex su[......] / 
[......]um [...]reconii [i]n[.]laesis n[......] / 
[......]cialibus [......]rchon[......] / 
[......]etc[......].
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This has been interpreted by Merlin as:

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[castell]um funditus evers[u]m [par]tim ex su[o sumptu] / [partia ex ....]um [.reconii 
[praes]es] et comes provinciae Tripolitanae restituit].
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The inscription thus appears to suggest that Archontius Nilus made a personal contribution to the project. Such munificence by important officials or aristocratic patrons is quite common on urban public building projects, where the associated kudos was high and such generosity would serve to increase the donor's circle of patronage, but is very unusual, if not unparalleled, in military construction, as has been noted above. A more plausible restoration might be achieved if the dedication of the gates at Kherba des Aouisset is used as a model, with su[o sumptu] revised to su[stantia]. The castran.... perfecit in 339 'for his sons and grandsons to live in' (CIL VIII 9725 = 21531 = ILS 6021); Aurelius Innocens, [castra or praeda]...[dedi]cavit cum fili(i)s suis in 341 (AE 1955, 140).

The inscription can be broken down into several discrete sections: the imperial titulature (lines 1-3), the work done (line 3), at whose expense (line 4), and finally the date (lines 5-6). Different passages could easily be slotted in, in place of the second and third sections.
fifth line contains what appears to be name of an individual [C]resconius whose resources were allocated to fund the project. Although a complete restoration is impossible since neither the right nor left edges of the inscription have been preserved, making it impossible to know exactly how long the text was, the overall sense is clear enough. A badly damaged (funditus evers[u]m) military structure was restored at the expense of one or more individuals, including a certain Cresconius, on the instructions of the governor Nilus. The revised reading would thus be roughly as follows:

[? murum funditus evers[U]m [pars]tia ex substantia ..? / ? partim ex ....]um [C]resconii,
[i]nlaesis n[..... / provin]cialibus [..... Fl[(avius) A]rchon[tius Nilus .... etc. / ......
restituit].

K.4 CALETAMERA AND THE BURGUS SPECULATORIUS

The final document takes the form of a secondary passage added to the dedicatory inscription of the burgus speculatorius, built by Caracalla, at Kherbet el-Bordj. The burgus was one of the fortlets lining the route leading from the Tubunae-Mesarfelta fossatum towards the El-Kantara gorge. This additional line was inserted in the upper and right-hand margins of the early third century building inscription and reads:

(Latin cross) bis posuit Caletamera in te(m)pore suo.

The text has recently been discussed by Pringle (1981, 78-79) who retained the traditional Byzantine dating but provided an otherwise convincing, if speculative, interpretation. He suggests that it marks the restoration of the small fortification by a philo-Byzantine, Moorish chieftain.17

Attribution of this undated text to the sixth century is fragile, since it rests on stylistic considerations alone. No photograph or facsimile of the inscription has been produced, as Pringle admits. The dating is dependent upon the subjective judgement of Wilmanns, who described the lettering as 'Byzantine', and the presence of the Latin cross, which 'would also suggest a date from the late fifth century onwards'. In part the latter argument is based on the assumption that the Moorish chieftains of the Hodna were not converted to Christianity before 484.18

16. The restoration [castell]um is very doubtful, it was only rarely used to describe a fort in Africa, being generally reserved as the term for a village or town lacking full self government. Castra is the usual term for a fort or fortress in North Africa. Here however praesidium, centenarium or just murus would be preferable.
18. For a useful discussion of Christian architectural symbols is to be found in Ward Perkins & Goodchild 1953, 72-78 esp. 75 & 77 for the Latin cross. Their comments, though strictly speaking only applicable to Tripolitania, indicate that a early 5th century date would not be inconceivable for such motifs even in the
However, Le Bohec (1989A, 179 n. 237) has recently argued that the inscription's supposed Latin cross is in fact a ligature of T and I, signifying 'titulum'. At a stroke that would remove much of the chronological basis of Pringle's argument (Caletamera's Christian faith and the type of cross), reducing the dating evidence to the style of the lettering. Even if Le Bohec's emendation is rejected, it is perfectly conceivable that a Romano-Moorish chieftain from the Hodna-Aures area could have been Christian at a much earlier date than Pringle postulates. The letter of St Augustine to Hesychius of Salona demonstrates that some pacified tribal communities, very possibly settled in the Hodna region itself, were already Christian by the first quarter of the fifth century. We have already encountered a number of Christian Moors further west, such as Flavius Nuvel, builder of a church at Rusguniae to hold a fragment of the sancto ligno crucis Christi salvatoris, or Ferinus, lord of the Ouarsenis stronghold, Ksar el Kaoua, who demonstrably places his trust in God. These Mauretanian grandees had probably adopted the new faith by the mid fourth century at the latest. Certainly a sixth century date for the secondary inscription cannot be ruled out, but an earlier, fifth or even fourth century, attribution would also seem feasible despite the stylistic comment of Wilmanns.19

Pringle's argument that the site still fulfilled an official role, after its restoration, is more convincing. He perceptively notes (1981, 78) that Caletamera's reuse of the original, Caracallan, building inscription 'would seem to suggest that if Caletamera were not an imperial client or official, he did at least see himself as a continuator of the tradition of Roman government in the region'. The slab was perhaps still in situ above the entrance to the burgus, a perfect candidate for reuse indeed, but the fact that Caletamera chose to squeeze his inscription into the surrounding margin, respecting the existing text rather than erasing and recutting, eloquently demonstrates the validity of Pringle's statement. This might imply the building not only retained its original function but also its 'one careful owner', for it is difficult to imagine that Caletamera's stonemason would have been so restrained if the Moor had simply been appropriating a long abandoned fortification, for conversion into his own personal stronghold.

The attested remains also point towards a continuing official role. The early descriptions and Baradez' aerial photograph (1949, 183) indicate an enceinte 12 x 15 m, with walls 1 m thick, surrounded by a quadriburgium, a small fort measuring roughly 40 m square with a tower at each corner, with 2 m thick walls. The inner enceinte is neither precisely aligned with the outer one nor centrally placed within it,
indicating two distinct buildings (perhaps chronologically as well as structurally). Baradez (1949, 235-236) argues that the outer enceinte represents Caracalla's *burgus speculatorius* whilst the internal structure is a late 'reduit' presumably built by Caletamera. He also admits that the four angle turrets on the outer circuit cannot have formed part of a Caracallan *burgus* (perhaps therefore representing the other phase of work mentioned in Caletamera's inscription). It is more likely that the central structure represents the *burgus speculatorius* erected during the reign of Caracalla. Like the majority of its numerous North African counterparts it was probably originally an unenclosed tower. At 12 x 15 m - 0.018 hectares - it is roughly similar in size to Gasr Duib and Ksar Tarcine (both 15 m square - 0.0225 hect) or Gasr Wames, (13.20 m square - 0.017 hect) and somewhat larger than Gasr Zerzi (12 x 9 m - 0.01 hect.). Like the first three it may have incorporated a courtyard or light-well though no trace of an internal courtyard wall is visible on Baradez' air-photograph.

By contrast, it is very unlikely that the *quadriburgium* formed part of the original Caracallan *burgus*, despite Euzennat's argument (1989A, 273-274) that an earlier date should be assigned to this and other similar North African sites. It was doubtless a later addition, perhaps the work of Caletamera himself. Caletamera's supplement to the inscription hints at a two phase programme. The phrase *'bis posuit'* probably refers to the dedicatory stone itself, rather than the structure as a whole. Caletamera doubtless found the fortlet in a state of decay and had to replace the dedication above the lintel of the original *burgus* before surrounding the tower with a turreted circuit. He then moved the stone to a more prominent position above the gateway of the new *quadriburgium*.

Little rectangular fortlets with a tower at each angle are so characteristic of the Late Empire that the form is of no help in narrowing down the date of this particular structure. The enclosure of an earlier military post within a *quadriburgium* is a feature more appropriate to a site with a continuing official role than to a private fortification.

Caletamera was obviously a Moor but could quite conceivably have been a local army commander or nco, rather than a tribal chieftain, despite the absence of any reference to his rank. The phrase *'in suo te(m)pore'* is reminiscent of that used on dedications by nco's posted to *stationes*, such as Vazaivi, in the third century, to signify their tour of duty had been accomplished: *exple(to) tempore*. Tempore may therefore have a

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21. For the common tendency of French scholars to interpret as 'reduits', the central buildings of Roman forts/fortlets in Africa see above VI.3.1 n.34.
22. Massive towers with no lightwells are known on the European frontiers but the North African climate may have necessitated the provision of a courtyard to improve air circulation. For a useful summary of the known watchtowers on the Rhine-Danube frontiers see Johnson 1983, 270-279 (Appendix 2).
technical meaning, 'tour of duty' or term of office'. Caletamera was possibly despatched with explicit instructions to refurbish the old third century post.\footnote{13}{23. See CIL VIII 2929 + p.1740, from Lammaesis, for the epitaph of a near homonym, Kalemerus Maurus, lib(rator, lib(rarius or lib(ertus) leg(ionis) III Aug(ustae); the date is probably 3rd century, cf. Le Bohec 1989A, 220. For the static dedications at Vazaivi see Le Bohec 1989A, 419, 424 and cf. CIL VIII 10724 = 17635, and 2226 = 17619.\footnote{24}{24. Examples of urban munificence still occur in the 4th century, particularly in Africa, where the institutions of local government were stronger and healthier than elsewhere in the empire; see Lepelley 1979, 298-318, esp. 304-314 for a table listing the urban examples.}

If on the other hand he was actually a local chieftain, as Pringle suggested, Caletamera may have been obliged by the military authorities to restore the Caracallan burgus and then enclose it within a quadrriburgium, entirely from his own resources. In doing so Caletamera carefully incorporated the original building inscription, taking the opportunity to record his role in the margin. The prestige and gratitude his work might earn him amongst the local inhabitants and travellers was the sole benefit he could extract from the onerous duty, and so was worth proclaiming.

K.5 CONCLUSION

Three of the above inscriptions show men funding the construction of public fortifications from their own private means. The fourth, that of Caletamera, is more ambiguous but might also refer to the same phenomenon. It might be argued that the motivation for their actions was a desire to benefit their neighbours and fellow citizens - and be seen to do so. Yet the dedications from Ras el-Ain and Kherba des Aouisset in particular are unconvincing as examples of such munificence. They are formal imperial dedications, with no apparent focus on the meritorious qualities of private benefactors. They can be fixed within an official context by contemporary inscriptions recording similar work at Ras el-Ain or other Mauretanian communities. Moreover, repairing a fort of the limes Tripolitanus would be an unusual example of communal munificence.

Some or all of these individuals may be gentiles (surely in the case of Masaaisilen) implying that the work recorded by the inscriptions fell into a category similar to the cura fossati discussed in chapter three, an obligatory duty exacted from neighbouring tribesmen. However, the burdens imposed upon citizens of municipal communities may not have been so very dissimilar. They too would have been liable to build and maintain military infrastructure, as well as their own urban circuits, through the medium of the fourth century system of taxation in kind. The latter obliged landowners and peasant villages to provide building materials, to burn lime and furnish corvees of labourers and craftsmen, in proportion to their fiscal assessment. Maximianus or Cresconius, for example, might fall under the heading of prominent municipal taxpayers.\footnote{24}{24. Examples of urban munificence still occur in the 4th century, particularly in Africa, where the institutions of local government were stronger and healthier than elsewhere in the empire; see Lepelley 1979, 298-318, esp. 304-314 for a table listing the urban examples.}
Whatever their personal origin, Maximianus, Masaisilen, Cresconius (?) and perhaps Caletamera were clearly men of considerable wealth, each capable of major contributions to the building of communal defences or military installations in their locality. Yet far from suggesting that defence of the frontier zone had been 'privatised', being entrusted to landed magnates or tribal chieftains, it can be argued that these four inscriptions reveal a high level of official control in those regions. Even the most powerful inhabitants of the African límites can be witnessed discharging their public responsibilities on the instructions of the provincial administration, in the prescribed manner. One would have expected these individuals to have been the first to evade their share of such onerous duties if imperial authority had been as weak as has sometimes been alleged.
APPENDIX L

DAHMOUNI: FUNDUS LIMITOTROPHAS OR COMMUNAL GRANARY?

L. 1 THE INSCRIPTION

At the beginning of this century an inscription was discovered 7.5 km south of Columnata, at the village of Dahmouni (ex Trumelet). The text, which begins with a Christian invocation, records that the incolae built a fundus at this spot under the supervision of Saturninus, dec(urio) and a certain Maximus, son of M[aximius] (or perhaps Maximianus).

The tenor of the inscription is rather curious. There is no phrase such as in his praediis, denoting a private estate building inscription. Saturninus completes the project but he acknowledges the labour of incolae, who presumably actually carried out the work, an unusual element to occur in an estate inscription. Both the grandiloquence typical of inscriptions set up by the owner and the obsequious expressions common when the person responsible was the owner's land-agent (actor or procurator) are absent. Indeed, there is no indication of ownership or a dependent relationship in the text, other than the vague opening phrase de donis Dei. These observations indicate a degree of caution is warranted regarding Salama's suggestion that the fundus was the private estate of Saturninus, a local magnate and army officer.

L. 2 INTERPRETATION

It appears unlikely, therefore, that the fundus was part of a great private domain. Instead, a public or communal interpretation should be sought. The prominent involvement of a decurion might suggest that a nearby civitas (Columnata, Tiaret or Kherba des Aouisset?) was in the process of reorganising its public lands. This explanation was favoured by Lawless (1970, II, 118). However, an alternative identification is perhaps more attractive. It is very tempting to see in Saturninus a decurio, praepositor limitis,

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1. BCTH 1900, p.CXXXIII; 1903, p.CLXVI; and especially 1910, p.CLXXIX: De donis dei, haec fundus ab incolis constructum, Saturninus? dec(urio) perfecit cum Maximus, M[aximus] fili, feliciter. For further discussion see Gsell 1928,19, Salama 1954,217-219,222-224; Courtois 1955, 90 n.5, Cadenat 1957, 99 and 1988,46-47 (esp fig 4 at p.46), Lawless 1970 II, 143, and Matthews 1976,172 d 185. The inscription, which remains built into the entrance of one of the houses of the village, may have been moved to Dahmouni from the ruins recorded by the Atlas a few hundred metres east of the village: AAM,19 & add., Cadenat 1957, dates the text to the end of the 4th century or the 5th, but favours the earlier date in 1988,47 (following Courtois).

2. CIL VII, 9725 = 21531 = TLS 6021, the castra of M. Aurelius Vasefin established by the man himself in his praediis at Ammi Moussa, sene cuiusque commodus (= sine cuiusquam incommodum?), laboribus suis filiis nepotibusque suis (h)abituris for a grandiose commemoration of the landowners personal involvement. Compare CIL VII 22774, the turris (gaer) built by Arelli Vitalis actoris earum, instruentibus a solo Rufi (no?) ri[...].Le Senecione quad(rataro) et sig(...?) amatores dominus eorum at Henchir el-Gueciret.
like the decurioni, qui limiti praest recorded in the Tripolitanian frontier zone by St Augustine. 1

L. 2.1 Fundi limitotrophi

A number of fourth-fifth century laws refer to the existence on the Eastern frontier of fundi limitotrophi, public lands which appear to have been dedicated to the provisioning of the frontier garrisons. Their precise organisation is obscure but they clearly belonged to the state and provided the eastern military commands with supplies in kind and transport services, such as beasts of burden and baggage wagons. They were apparently administered by res privata and the provincial governors in the same manner as conventional imperial estates. 2

In essence the fundi limitotrophi represent a logical arrangement whereby the revenue from imperial estates in the Eastern frontier provinces was directed towards the needs of the local army rather than to the central treasury of the res privata. Taxation from private estates located in the same districts must likewise have been allocated to military expenses, but the imperial fundi were especially valuable because their rent was also available for such purposes. By making permanent arrangements to provision and service troops directly from the nearest imperial estates, a greater proportion of the Eastern garrison's needs could be satisfied locally. This reduced the requirement for long distance transport of supplies from the provinces of the interior, a process that inevitably involved a high level of expense and wastage. The government's concern that their fundi limitotrophi should not be alienated to importunates petitioners, is therefore understandable. 3

There is no evidence to suggest that the army had any input in the organisation of the fundi, but the links between the frontier garrisons and their permanent sources of supplies must have been strong, particularly where fort and fundus lay close together. An informal military role in the estates could be envisaged, with troops perhaps being stationed there and fortifications built for the administrative and storage buildings and dependent agricultural settlements. 4

3. Gsell (1928, 19) and Salama (1954, 223) argued that Saturninus was a regular military officer. Matthews viewed the individual as a Moorish chieftain who had obtained an honorary Roman title. Matthews, as cited in Salama (1954, 223). 4. For fundi limitrophi see Jones LRE, 651, citing CJ XI lxii 8 (386), CTh V xii 2 (416), Th II, Nov. V 2 (438), 3 (441); cf. also Isaac 1988, 145. These fundi are classed alongside the fundi patrimoniales and the fundi saltuenses of the res privata in the laws cited above. Uniform arrangements are made for lease to perpetual emphyteutic conductores and the frontier estates' alienation into private hands is always prohibited, cf. Jones LRE, 416-420. 5. One law (Th II, Nov. V 3 of 441) refers to customary compulsory purchases from fundi limitotrophi, suggesting that their entire surplus might be absorbed by the military on occasion. For arrangements whereby private estates delivered supplies directly to the units and then offset those provisions against the amount they would otherwise have paid to the official collectors, see Jones LRE, 672-673, Maspero 1912, 109-112. For possible evidence of this method of tax payment in 6th century Africa see Pringle 1981, 77. 6. An instance of this in the West may be represented by the Langmauer (or Landmauer), a circuit wall enclosing a huge, presumably imperial, estate north of Trier, built by the primani (perhaps a detachment of the imperial garrison there).
GASR Kh 22—Storage Gasr?

Figure 6. Gasr Kh22, view over the north-western range.

(after Barker et al 1991)
L.2.2 Communal Granaries

The Dahmouni inscription may record something rather similar in the Mauretanian frontier zone, not necessarily an actual imperial fundus limitotrophus but sufficiently closely associated with the supply to the local garrison to explain the involvement of the praepositus limitis. The dedication probably represents the establishment of a fortified communal storehouse, where the inhabitants could safely stash their surplus prior to its delivery to the troops of the limes Columnatensis. Maximus, son of Maximianus or Maximinus, may have been a chieftain or a village headman or even an emphyteutic lessee, according to whether the incolae belonged to a tribal group or fell within the territory of a city (Columnata?, Kherba of the Aouisset?) or were imperial tenants. Whatever his position Maximus was doubtless responsible for accomplishing the construction of the storehouse, functioning as an intermediary between the labouring incolae and the praepositus, Saturninus.

Collective granaries are a traditional feature of later Berber society, well exemplified by the ighirmen and agadir of Morocco, the guelaa of the Aures and the ghorfa of Tunisia.

The Storage Gasr: Kh22

A possible archaeological parallel, of Late Antique date like the Dahmouni dedication, is the 'storage' gasr (Kh22) in the Wadi Umm el-Kharab of the Tripolitanian pre-desert. This gasr featured a number of massive cross-walls forming long narrow rooms without doorways in the northern half of its interior. The excavators suggested that either the thick-walled ground floor rooms were designed for storage, the walls ensuring a fairly constant temperature and the rooms being entered from above, or that the walls supported a very heavy stone first floor and were primarily substructures designed to elevate the first floor and bear the weight of large amounts of stored grain or other produce. The surrounding settlement is very sparse with little pottery and no identifiable midden.

from legio prima Minervia); cf. CIL XIII 4139 & 4140; Wightman 1967, 170-171, 176-179 (map 7), and 1985, 259, 265; Petrikovits 1971, 191 & 216 (nr.7,49) and Hoffmann 1970, 152-153 n.132.
7. Salama (1954, 218) noted the possible association of fundi limitrophi with the Dahmouni inscription, without elaborating on the precise administrative structure that this might imply.

The state did acquire vast tracts of land throughout Caesariensis after the defeat of Gildo, as evinced by the comes Gildoniaci patrimonii, a senior official of the res privata recorded in the Notitia Dignitatum (MD Occ. XII 5). However, there is nothing specific in the dedication to suggest that Dahmouni was an imperial estate.

A further possibility is that the land belonged to the army. Regiments were certainly allowed to hold land, CTh V vi 1 (of 347) entitles them to the estate of any unit member who died without heirs, cf Jones LRE, 420. The allotments of the limitanei recorded in Eastern imperial legal sources during the 5th century may also have belonged to their particular regiments: see CTh VII xv 2 (423), Th II, Nov. XXIV 4 (442) and Jones LRE, 653-654.
8. See Osell 1927, 52-62 (HAAN V); Montagne 1930b; Jacques Meunié 1949, 97-137; and 1951; Faublée-Urbain 1951; Despois 1953; Bourdieu 1963, 63-85; Louis 1975. For a useful bibliography see Louis 1975, 346-347.
in contrast to the other gsur along the Kharab. It seems reasonable to suggest this played some sort of communal role holding the surplus of the Kharab clans; not a fundus limitotrophus as such, but the secure storage of produce awaiting the tax-collector or the army may have been among its roles.‡

9. For Kh22 see Barker et al., 1991, 37-40 & 42 including plan (p.39 fig.5).
A-Drah Soud East
B-Bourada
C-Drah Soud East
D-Bourada

(after Baradez 1949)
APPENDIX M

THE LIMES GEMELLENSIS — THE FORT INTERNAL BUILDINGS

In Chapter VI it was suggested that the new-style forts erected in Numidia during the fourth century were intended to house far more substantial detachments than their counterparts in Tripolitania. The role of these Numidian forts may be illustrated in more detail by examining arrangements in the limes Gemellensis.

Most revealing is the cluster of forts at Bourada and Drah Souid, on the Seguia bent el Krass, where the internal buildings are relatively well-known through the work of Guey (1939). Bourada is furnished with a courtyard building complete with bath suite which in all probability housed the officer in charge of the detachment and any administrative functions that might be required. The latter may have been carried out in the three rooms which lay within the actual courtyard of the building itself. These were aligned on the main gateway and arranged in a manner which parallels the principia at Dionysias (Qasr Qarun), in Egypt. Courtyard buildings can be recognised at other contemporary forts and may perhaps have been a standard form in the region’s late military architecture, combining the roles of principia and praetorium.¹

In contrast Guey excavated a basilica in the interior of Drah Souid East. Rebuffat (1977-1979) has reinterpreted this as a basilica principia rather than the Christian church proposed by Guey. Such basilicas, axially aligned to establish a sort of processional route from the main gateway to the apse of the hall, are found at a number of Late Roman forts.² However, the structure is as yet unique in North Africa within a fort as small as Drah Souid East.

Rather than being a different variation of a principia for the use of the troops in that fort alone, it may have been intended to serve the entire sector, housing ceremonial events involving the troops stationed in all the neighbouring forts along the barrier. This would accord well with the territorial structure of military command on the fourth century North African frontier. It could be visualised as the devolution of one aspect of a principia from the headquarters of Gemellae to the fossatum itself, perhaps only for a relatively short period every year. On the other hand, the

¹ The arrangement at Dionysias is more elaborate, standing at the end of an axial street and possessing an apsidal shrine. The area enclosed by the three ranges forms a raised platform, screened by a colonnade. It is almost basilical in plan, save that the enclosed area is a courtyard, open to the sky, rather than a hall, roofed over. The basic u-shaped plan is the same as that at Bourada, however, suggesting that building at Bourada was, like its Egyptian counterpart, used for administration, storing pay and standards etc.

² Rebuffat cites Iatrus and Drobeta on the Danube, Palmyra in Syria, and Dionysias. Lenoir (1987) has now added Alai Miliaria. For axial arrangements and colonnaded streets cf. also the late 3rd century phase legionary fortress at Aquincum (Pächt et al. 1986, 299 fig.1), the Diocletianic fortress incorporating the Temple of Ammon at Luxor (Dolvin & Reddè 1986, 595 fig.1), and of course, Diocletian’s palace at Split.
Fig. 5. — LA BASILIQUE DE DRAH-SOUD

En haut : Plan d’ensemble au niveau du « chœur ».

The Basilica-Drah Soud
lack of a substantial courtyard dwelling with bath suite, suggests the fort could not have been intended to house an officer of any rank for more than a very short period.

In addition, one very special function suggests itself which is not directly related to the garrison troops. A basilica would have formed an appropriate venue for the oath swearing which was such an important part of frontier control and diplomacy. Such a hypothesis is supported by the location of Drah Souid, on what is still a major north-south route. The fort was perhaps only occupied when such ceremonies were imminent, the surrounding ranges providing accommodation for the praepositus limitis and his escort, after they had made the journey from Gemellae. The more typical roles of patrol and surveillance may have been performed by troops based in the fort of Drah Souid West no more than 900 m from the eastern fort.

If this interpretation is correct it would imply that the detachment stationed at Bourada, and doubtless other less well-known sites, possessed a degree of autonomy. Its commander was perhaps sufficiently important to merit a bath-suite (if the example incorporated into the courtyard building was for his personal use rather than that of the whole garrison). The soldiers seem to have been stationed there long enough to have necessitated a certain amount of administrative provision, to judge from the arrangement of the rooms in the centre of the courtyard building. On the other hand the presence of the basilica at Drah Souid East would emphasise that the autonomy of garrisons such as Bourada's was limited by the framework of a single frontier command. This suggests the troops stationed along the 'Seguia' operated as an integrated force with some of their sites performing specialised functions for the whole group. A scheme may be envisaged whereby detachments were rotated out from Gemellae to serve at a fort for several months, perhaps a year, before being replaced. If this hypothesis is valid such detachments would not only remain dependent on Gemellae for the bulk of their administration and logistics but would also continue to use it as their permanent base, the home of their wives and families and the focus of their military life.

3. For the importance of oaths as the essential lubricant of Romano-African frontier society see section VII.1.5.

For the significance of the position of Drah Souid in relation to ancient transhumance routes see section VII.4.4 - Limes Gemellensis.
APPENDIX N

FORT AREAS, GARRISON STRENGTHS AND CENTENARIA

When discussing the size of the Late Roman frontier army, in section VI.5, the seductive practice, of using the area enclosed by a fort to gauge the strength of its garrison, was deliberately eschewed. Given the popularity of this method, however, some justification for neglecting it must be offered.¹

M.1 FORT AREA AS A GUIDE TO GARRISON SIZE

The African frontier army was subdivided into territorial commands, which may be related in part to earlier regiments. It is clear that such limites contained many forts which would all have to be assessed to calculate the size of the district’s garrison. Many forts are not known in any detail and some cannot even be assigned to either the Principate or the Late Empire. For example five of the nine forts along the Seguia bent el Krass can be allocated to the Late Empire with varying degrees of certainty, but the other four sites cannot be assigned to any period, even tentatively. They too might be Late Imperial posts in which case their combined area would greatly affect the total putative garrison strength of the limes Gemellensis. No details have been recorded concerning their dimensions so the only means of estimating area would be to take the average area of the better known sites along the barrier. It is questionable how much reliance could be placed on the figures obtained from such an uncertain process.

Secondly, the different spatial organisation and architectural form of Late Roman forts compared with those of the Principate means the areas of the two types are not directly comparable as a guide to garrison size. Late Roman forts use space considerably more efficiently than their earlier counterparts. Setting ranges of rooms against the enceinte dispensed with the need for an intervallum road and freed a large internal space for other uses. The use of externally projecting towers rather than internal ones again freed internal space. Towers could also be used for storage. The massive tower in the centre of the west wall at Bourada could have served such a function.²

Furthermore, it is not impossible that the ranges in at least some of the forts were two-storey. This was probably the case with an Egyptian counterpart, the Diocletianic fort of Dionysias. It was also a feature of sixth century forts in North Africa itself, notably the fine example at Timгад. At

¹. The most systematic attempt to use this method is Duncan-Jones 1978, 554-556, repeated by the same author in 1990, 214-217. See Macaulen 1984, 574-575 for criticism of Duncan-Jones' arithmetic but not the basic principle or conclusions.
². See Crow 1981, 225 for a useful collection of the evidence for the use of towers for storage on the lower Danubian and Eastern frontiers. For example a tower at Pagnik Oreni on the upper Euphrates was full of sides of pork or bacon. Danubian sites have produced thick layers of carbonized grain or a mass of amphora fragments. The thick walls of Late Roman towers would have kept the interior cool even in summer.
both of these examples staircases to upper floors of the barracks survived as did troughs in the ground floor rooms, which might suggest each of the lower storey was used to stable horses with the soldiers being housed above their mounts. Admittedly neither detail survives at any fourth century fort in North Africa, but only Bourada has been extensively excavated and even the latter was built of mud brick, a material in which it is notoriously easy to miss features during excavation. There was a continuing tradition of building multi-storey military buildings in Africa represented by *gisor* such as Gasr Duib and Ksar Tarcine. In arid regions barracks, whether one or two storey, might also have had flat roofs which could have been used for sleeping and storage.¹

The cumulative effect of such measures was such that a Late Roman fort could potentially house a larger number of men than an early-mid imperial fort of the same size.²

To what extent this potential was realised is far more difficult to evaluate. Although Bourada, Drah Souid East and Zeboret et Tir all have courtyard buildings or a basilica in their centre the interior of many other Late Roman forts seems at first glance empty. Seba Mgata for example appears to have just the usual ranges of rooms set against the circuit wall. Some of the Tripolitanian examples do not even have this. This impression may be illusory. Internal barrack rows can be discerned at Sdada in Tripolitania whilst early plans of Benia Bel Recheb again show enceinte ranges. It is, therefore, likely that all the late Tripolitanian forts had at least ranges of rooms set against the circuit wall, whatever the condition of the extant remains. As Mattingly (1984, 271) notes, whilst the outer wall was often built of large ashlar blocks the internal buildings and upper levels of the circuit wall itself were generally built of much smaller blockwork which was much easier to rob out totally and transport elsewhere in later centuries. Baradez (1949, 11 & 244) thought he could discern a building in the centre of Seba Mgata and other ranges as well as the obvious chambers set against the curtain wall.

3. Cf. Crow 1981, 223 & 229 for a succinct discussion of two storey barracks in Later Roman forts. He suggests the stairs in the central buildings at Castra Dionysiados led up to a flat roof, used for storage or sleeping, whilst those in the ranges set against the curtain wall simply gave access to towers and the wall-walk. There seems no reason why the latter should not also have been used for sleeping etc. Such flat roofed, single storey structures would be more space efficient than sites with sloping roofs, and would be equally feasible in the North African pre-desert.

4. Gichon 1990, 212, fig.3, is a very neat demonstration of the efficiency of the late type of courtyard arrangement in relation to its earlier predecessor. Not all these changes were entirely innovatory in North Africa. For example small fortlets such as Tisavar have their internal chambers set against the circuit wall, creating a courtyard in which there was a further building, perhaps administrative in function. It could in fact be argued that the gisor type of fortlet, represented by Gasr Duib or Gasr Wanes for example, represents this principle reduced to its absolute minimum area. See Smith 1971 for a comparison of Gasr Duib and Gasr Wanes with the milecastles of Hadrian's Wall, and other 1st-2nd century AD fortlets in Britain. A much greater proportion of the internal area of the two gisor was built up.
The obvious conclusion from the above is that the size of a Late Roman fort's garrison cannot simply be calculated by comparing it with a regimental fort of the second century, for example. The former might house a larger or smaller number of men in a given area. Added to this are the obvious problems caused by the fact that infantry, cavalry and mixed formations each required different sized bases. In any case, during the Principate the fort areas allocated to each type of unit varied on different imperial frontiers and even at different points in time on the same frontier!

M. 2 CENTENARIA

There are few direct pieces of evidence for the garrison strength of particular fortifications in Africa. Several sites are referred to as centenaria, three of which are sufficiently well-recorded to be discussed here. These comprise two gasr type fortlets, Gasr Duib and Ksar Tarcine, and a 0.74 hectare fort, Aqua Viva. Duncan-Jones seized upon this as another piece of evidence for a reduction in the size of military units during the Late Empire. His argument is flawed since there is no reason to suppose that any of these posts housed complete regiments. This is self-evident in the cases of Duib and Tarcine which were obviously small outposts within the district frontier commands of Tentheos and Bezereos respectively. Even in the case of Aqua Viva the analysis in the previous section suggested it may have been manned by a detachment outstationed from Tubunae.

As far as the validity of the term centenarium, as an indication of garrison strength is concerned it is not difficult to imagine Aqua Viva holding a hundred soldiers, perhaps even a hundred cavalrymen. The sizeable group of forts in Numidia with dimensions similar to those of Aqua Viva - the Bourada/Drah Souid group, Doucen, Seba Mgata - would also quite likely have been designated centenaria, and were probably designed to hold forces equivalent to those in Aqua Viva. However, there is no guarantee that Aqua Viva was intended for exactly a hundred men, as opposed to 60, 80 or 150 for instance. Equally, there is no way of determining whether they were built for infantry, cavalry or a mixed force, though the latter is perhaps most likely in a majority of cases, by analogy with earlier arrangements.

In the case of Gasr Duib and Ksar Tarcine it is worth noting that these two storey structures would each have had a combined floor area (each 0.045 hectares when both storeys combined) not dissimilar to that of a centurial barrack block. That need not necessarily imply that the either Duib or Tarcine ever held a full century. Tarcine had an unpartitioned ground floor with a total of 22 troughs set along two of the inner face of the outer wall, suggesting that it may have been intended to house no more than 22 cavalrymen, though a larger part-mounted force, or provision for stabling.

5. Duncan-Jones 1978, 553 and 1990, 215, mistakenly assumes that Gasr Duib was the site of Tentheos itself instead of being one of its subordinate police stations. See now Mattingly 1991.
pack animals are alternative possibilities. Nevertheless, the floor space could explain why the term originated and was applied to the gasr type of fortlet, particularly if it was initially attached to somewhat larger sites of similar form.

The fact that very compact fortlets such as Gasr Duib or Ksar Tarcine, and a more extensive fort such as Aqua Viva, could all be termed centenaria indicates that there was no rigidity in the use of such site terminology in Antiquity. Indeed their role in accommodating outposted detachments of whatever size, rather than complete regiments or limes garrisons, is perhaps the only common link.

In conclusion, the discovery of a source of detailed documentary information revealing the strength and composition of a fort garrison (preferably more than one garrison) is probably required before this process can even be attempted. Survey and excavation of the sites mentioned would also be necessary to establish their area and internal layout. Together these would make it possible to extrapolate with regard to less well-known sites. At present it is not practicable to do more than record general impressions based on the archaeological evidence.

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6. The floor space of Duib and Tarcine was roughly half the area of a barrack block in the legionary fortress at Lambaesis (Cagnat 1913, plan facing p.457, Janon 1977, 2 abb.1), but was more generous than one at Bu Njem (Rebuffat 1989, 157 fig.1) and only marginally less than a block at Rapidum (Laporte 1989, 94-97, esp. fig.17). The flat roofs of the gsur also represent useable space. Smith 1971, 307-309, argues that Duib, if not Wames, was designed to house a centuria, though probably rarely did so.
El Kantara Pass (after Morizot 1991B)

Kikouina (after Baradez 1949)

AQUAE HERCULIS (after Baradez 1949)
APPENDIX O

FORTIFICATIONS AROUND THE AURES

In Chapter VII.5 the role of the Roman army in mountainous terrain was analysed. It was argued that the army did not establish limites to contain unsubdued mountain tribes within their massifs. Rather, imperial commanders sought to dominate and police mountainous districts, in particular protecting communications through the ranges to prevent the destabilising growth of brigandage. By way of comparison the lack of unrest in the main ranges in southern Numidia - the Aurès and Nementchas - was cited (VII.5.4). There were a number of Late Roman military posts on the edge of the Aurès-Nementchas. The purpose of those sites is outlined below.

The burgus specularius, Kherbet el-Bordj, built during the reign of Caracalla overlooking the western approach road to El Kantara, appears to have been refurbished at some point during Late Antiquity. The central, doubtless original, rectangular structure - presumably a watchtower - was surrounded by a quadraburgium on a slightly different alignment. This two period plan is echoed by the dedicatory inscription, where an individual named Caletamera claims the credit for unspecified later work. Some scholars have assigned Caletamera and the quadraburgium to the Byzantine era, but on inconclusive grounds. A fourth-fifth century date is at least as feasible, as argued in Appendix K.4.1

Three other fortlets of Late Roman type occupy analogous positions right on the edge of the Aurès-Nementcha massifs, controlling important communications and transhumance routes as they enter the mountains. The largest, Hammam Sidi el-Hadj, like Kherbet el-Bordj, lay only a few kilometres behind the Mesarfelta sector of running barrier. This fortlet was positioned on a rise overlooking the village identified by Baradez as Ad Aquas Herculis, an important crossroads where north-south and east-west routes intersected. It was thus an excellent centre for policing operations in the area immediately to the rear of the fossatum, being well positioned to watch over the transhumance flows funnelling through the Oued el Kantara/el Hai gap. It also surveyed the route eastward through the rugged terrain leading to Menaa and the valley of the Oued Abdi. The second site, Kikouina, was located beside the road which follows the gorge of the Oued el Abiod (the route carved through the Tighanimine pass in AD 146). It lies roughly at the point where the road emerges from the mountains on to the plain. The third fortification, Djendel, occupies a corresponding location beside the Oued Bou-Doukrane. The three fortlets are similar; were all small structures with projecting angle towers, a single gateway flanked by towers and barracks set against the circuit wall.

Again, it is possible that these were Byzantine forts since they lie within the area recovered by the Eastern Roman forces. If they were indeed Late Roman posts (i.e., late third-fifth century in date) they will have fallen within the sphere of the frontier sector commands such as the *limes Bazensis* or the *limes Tubuniensis*.

It is tempting to envisage these sites as blockading the Aurès, and bottling up the montagnards in their rocky fastnesses to prevent them issuing forth to ravage the fertile dir. Even if this was a feasible strategy, such posts were manifestly far too small to accomplish it. The largest, Hammam Sidi el-Hadj, occupied only 0.27 hectares, which would have provided sufficient accommodation for no more than a small detachment. Instead, the purpose of these garrisons was surely to police the routes through the mountain ranges. This function is specifically referred to the dedicatory inscription from a close counterpart of Kherbet el-Bordj, the nearby Commodan *burgus specularitorius* at Ksar Sidi el-Hadj, which was described as 'a new protection for the safety of travellers'. Furthermore, the fortlets lay at choke points where 'barbarians' transhuming northwards could be checked for valid travel permits, so backing up the work of larger bases like Badias in the plains south and west of the Aurès-Nementchas. This presumably was the purpose of the *clausura* identified by Baradez (1949, 129) midway between Badias and Djendal, barring the valley of the Oued Ouezzern at the point where it forces a gap through the Guerguit Rmila escarpment, on the southern edge of the Nementchas. The two roles were perhaps complementary. It is conceivable that once they had been checked over, transhumant groups would then have been assigned an escort through the mountains if bandits and rustlers were currently active there.


BI"LIOGRAPHY

ANCIENT SOURCES, WITH ABBREVIATIONS

Epigraphic Collections

AE  L'Année épigraphique.
CIL  Corpus Inscriptionum Latinarum.
SEG  Supplementum Epigraphicum Graecum.

Papyri

P. Abinn.  - The Abinnaeus Archive (below, Bell et al. 1962).
P. Beatty Panop.  - Papyri from Panopolis (below, Skeat 1964).
P. Lips.  - Griechische Urkunden der Papyrussammlung zu Leipzig (below, Mitteis 1906).
P. Oxy.  - The Oxyrhynchus Papyri. B.P. Grenfell, A.S. Hunt et al., London, 1898-.

Literary Collections

CSEL  - Corpus Scriptorum Ecclesiasticorum Latinorum. Vienna.
MGH(AA)  - Monumenta Germaniae Historica (Auctores Antiquissimi). Hannover.
MGH(SRM)  - Monumenta Germaniae Historica (Scriptorium Rerum Merovingicarum). Hannover.
Literary Sources

AM - Ammianus Marcellinus. J.C. Rolfe, Loeb.
Aug. Ep. - Augustine, Epistulae. CSEL XXXIV, XLIV, LVII.
Caesar B.Hisp - Caesar, De Bello Hispaniensi. Loeb.
Claudian Bell.Gild. - Claudian, Bellum Gildonicum. MGH(AA) X.
Dio - Cassius Dio, Historia Romana. Loeb.
Festus Brev. - Festus, Breviarium.
George of Cyprus, Descriptio Orbis Romani. H. Gelzer, Teubner, 1890; E. Monouman, Brussels, 1939.
Herodian - Herodian, ab excessu divi Marci libri VIII. Loeb.
Julius Honorius - Julius Honorius, Cosmographia. A. Riese.
Liber Pontificalis - MGH (Gest. Pont. Rom.).
ND Occ. - Notitia Dignitatum omnium in partibus Occidentis.
ND Or. - Notitia Dignitatum omnium in partibus Orientis.
Not. prov. - Notitia Provinciarum et Civitatum Africae. CSEL VII 118-134.
Olympiodorus frg. - Olympiodorus of Thebes, fragments. FHG IV 58-68.
Orosius - Orosius, Historiarum adversus paganos. C. Zangenheimer, (Teubner) 1889.
Pan Lat - Panegyrici Latinii. W. Baehrens (Teubner 1911.
Procopius - Procopius of Caesarea, de Bellis. Loeb.
Sallust - Bellum Jugurthinum. Loeb.
SHA - Scriptores Historiae Augustae. Loeb.
Tacitus Agricola - Tacitus, Agricola. Loeb.


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MODERN WORKS

Journal Abbreviations

AAntHung Acta Antiqua Academiae Scientarum Hungaricae (Budapest).

AJP American Journal of Philology.

AntAfr Antiquités Africaines.

BAA Bulletin d'Archéologie Algérienne (Algiers).

BAM Bulletin d'Archéologie marocaine.

BASP Bulletin of the American Society of Papyrologists.

BCTH Bulletin Archéologique du Comité des Travaux Historiques et Scientifiques.

BSGAO Bulletin de la Société de Géographie et d'Archéologie d'Oran.

BSAF Bulletin de la Société nationale des Antiquaires de France.

BSHGS Bulletin de la Société historique et géographique de la Région de Setif.

BZ Byzantinische Zeitschrift.

CCARB Corsi di Cultura sull'Arte ravennate e bizantina.

CGRAR Cahiers des Groupe des recherches sur l'Armée romaine et les provinces.

CPh Classical Philology.

CRAI Comptes-Rendus de l'Académie des Inscriptions et Belles-Lettres.

CT Les Cahiers de Tunisie.

DOP Dumbarton Oaks Papers.

JE A Journal of Egyptian Archaeology.

JRA Journal of Roman Archaeology.

JRS Journal of Roman Studies.

MAI Mémoires présentés par divers savants à l'Académie des Inscriptions et Belles-Lettres.


PBSR Proceedings of the British School at Rome.

PSAS Proceedings of the Society of Antiquaries of Scotland.

QAL Quaderni di Archeologia della Libia.

RAF Revue Africaine.

REA Revue des Études Anciennes.

RevArch Revue Archéologique.

RSAC Recueil des Notices et Mémoires de la Société archéologique du Département de Constantine.
Abbreviated Works

AAA - Atlas Archéologique de l'Algérie = GSELL AAA (1911).

AATun - Atlas archéologique de Tunisie, 1:100,000 (2nd) Series = CAONAT & MERLIN AATun (1914-1932).


TIR - Tabula Imperii Romani cf. GOODCHILD 1954C & 1954D.

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