SIXTH-CENTURY FORTIFICATIONS IN BYZANTINE AFRICA
An Archaeological and Historical Study

by

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SITES AT WHICH OFFICIAL SIXTH-CENTURY FORTIFICATIONS ARE ATTESTED BY DOCUMENTARY AND/OR EPIGRAPHIC EVIDENCE.
CARTHAGO IVSTINIANA

Carthage (10°19'E 36°51'N)

The Gallic Chronicle records that in the year 425, Carthage, which since the destruction of its Punic defences in the second century B.C. had been left unfortified (cf. Orosius, V, 1, 5), for fear of possible rebellion, was surrounded by a wall. An iconographic representation of the city of Carthage, painted at about the same time to illustrate Book IV of Vergil's *Aeneid*, shows a stylised city, surrounded by a circular or oval wall built of large ashlar blocks and flanked by rectangular towers; the picture also shows masons still at work on the walls (Bibliotheca Vaticana 1945, pictus 23; cf. Ehrensperger Katz 1969, 4; fig. 7).

Written sources say little of the form or extent of the Theodosian defences of Carthage (cf. Victor Vitensis, I, 15-16; III, 15-16; Salvian, de Gub. Dei, VI, 69; Anth. lat., 376, 19; cf. 34). Victor Vitensis mentions that, at the time of the persecution of catholics under Gaiseric, two churches dedicated to St. Cyprian stood foris muro, one on the spot where the saint had met his martyrdom in 258, and the other where his earthly remains were laid to rest, qui locus Mappalia uocitatur (I, 16). Neither of these basilicas can be identified with any certainty, though it seems quite possible that the second was the church, excavated by the R. P. Delattre between 1915 and 1920, that overlooks the sea near to the former convent of St. Monica (Ennabli (L) 1975, 12-16; and refs.). Thrasamund's residence at Alianae also lay beside the sea near to the city, but outside its walls (Florentinus, in Anth. lat., 376, 19 seq.; cf. Monceaux 1906a, 262). Both of these topographical indications suggest that the town wall did not enclose La Marsa or Sidi Bou Said and was not therefore on the line of the outer Punic defences (cf. 5; 6; Duval (R) 1950; Harden 1971, 31; 119).

The Porta Fornitana that is also mentioned by Victor Vitensis (I, 10) may be identified as the gate from which issued the main road to Membressa, passing through Furnos Minus.

During the century of Vandal rule, the walls of Carthage were not destroyed, as were those of most other cities in Africa, but were merely allowed to fall into decay (Procopius, III, 5, 8; 15, 9; de Aed., VI, 5, 3-5). When Belisarius took hold of the place in 533, much of the wall had fallen down and, in places, the town stood quite defenceless;
some of the gates, however, were apparently still intact (Procopius, III, 18, 10; 20, 1; 21, 11-13). The harbour (Mandracium), situated inside the walls, was defended by a chain drawn across its mouth (Procopius, III, 20, 2-3; 14-15; de Aed., 5, 11). Belisarius's programme of restoration comprised three operations: a ditch was dug around the circuit walls, where formerly there had been none (see below, however); a stockade of closely packed stakes was built along it; and, finally, repairs were made to the wall itself. It is uncertain precisely what purpose the stakes served. Possibly they were only a temporary measure, designed to close up the breaches in the wall; alternatively, they may have served as a προτειχισμα defending the inner edge of the ditch, or as a chevaux de frise within it (cf. Ch. IV, 2: 253). Belisarius paid large sums of money to the masons and general workmen of Carthage and was thus able to have the work completed by the end of December 533 (Procopius, III, 23, 19-20; IV, 1, 7; 1, 12; de Aed., 5, 8).

According to Theophanes, when the Byzantine relief expedition reached Carthage in 697, the port was still defended by a chain. The following year, when the Arabs appeared for the second time before the city, its defences consisted of some weak ramparts of earth. The Theodosian walls had probably been slighted by Hassan ibn Nu'man in 697, as the sources seem to suggest (see Ch. II, 8:107-108); these earthen defences may therefore have been an emergency measure, hastily implemented by the Byzantine army during the winter of 697-698 (Theophanes, a. 6190).

Another fortified work at Carthage dating from the Byzantine period was the monastery built close to the harbour of Mandracium inside the city walls by the prefect Solomon. In 545, Areobindus, together with his wife and sister, took refuge within its walls; and the bishop and chronicler Victor Tonnennensis was later imprisoned there (Procopius, IV, 26, 17; de Aed., 5, 11; Victor Tonnennensis, a. 555, 2).

Apart from accounts of the fall of Carthage to the Arabs in 698, the site receives little attention from Arab topographers before the eleventh century. Ninth- and tenth-century geographers tended either to pass over the site altogether or to equate it with Tunis (eg. Ibn
Gaz. AA. Carthago Iustiniana (cont.)

Khurradadbih, 7; Ibn al-Faqih al-Hamadani, 31). More precise topographical information, however, is given by al-Bakrî: the town was situated so close to the sea that the water lapped against its walls; the wall surrounding the town had a length of 14,000 cubits (i.e. 6.16 km, if a cubit = 0.44 m: cf. Lézine 1956, 21); the port, now reduced to a brackish swamp, lay within the town; overlooking the port, on a piece of high ground, stood a castle and ribat called Bordj Abi Sulaiman.

In the following century, al-Idrîsî remarked that only a small part of the town was still occupied. This area, known as Mu'allaca, was surrounded by an earthen rampart and occupied by the leaders of the Banu Ziyad. According to Ibn Khaldûn, the walls of the ancient city were still standing in 1270, when the crusade led by Louis IX of France against Tunis landed near-by: the crusaders camped inside the walls, closing up the breaches with wooden planking, rebuilding the crenellations and surrounding the whole with a deep ditch (2), 364-366). Besides being curiously similar to Procopius's description of Belisarius's work at Carthage, however, this account fails to tally with the Frankish sources. These only refer to a tower, somewhere in the vicinity of el-Kram and to the castrum Carthaginis, which can most plausibly be identified with the Mu'allaca of al-Idrîsî (refs. quoted in Audollent 1901, 800-801; cf. Ferron and Pinard 1955, 32). The Franks stormed the castrum but did not occupy it. Shortly afterwards, however, the defences of Carthage were rased by the emir of Tunis, al-Mustansir (Ibn Khaldûn (2), 369).

Looking at the map of the Punic defences of Carthage that accompanies Tissot's description of them (36, 577-586), one could be forgiven for supposing that their nature and extent were already beyond doubt. Even if this were so, however, the same confident assertions are not to be found in the same author's treatment of the late Roman and Byzantine defences: 'Nous ignorons complètement quels étaient son étendue et son tracé' (36, 662). More recent accounts have echoed this feeling. In 1951, for example, Mme. Picard wrote with reference to the inner Punic defences, 'Des autres murailles ... on n'a encore retrouvé aucun vestige certain. Il est de même des fortifications exécutées sous Théodose II
... et remises en état par Belisaire (31, 19). In fact, traces of walls possibly belonging to the Theodosian defences had been found before 1951, but their dates and even their precise positions are not always clear from the published accounts of them.

An observed or presumed trace of walling has been known for more than a century. It leaves the coast just north of the Bordj el-Djedid fort, runs westward along the northern edge of the high ground, turns south to enclose the La Malga cistern complex, the amphitheatre and circus and reaches the sea again somewhere east of el-Kram, near to the southern entrance to the 'merchant' port. This line of fortification is shown, with minor variations, as 'Theodosian' on maps of late Roman Carthage (17, fig. 1; 26; 37, pl. 1; cf. 8), and either with no date at all or as 'Punic' on others (1, 2, pl. 2; 16, pl. 3; 19, pl. 1). Excavations carried out during the past five years have confirmed that the Theodosian wall did indeed follow a general course of this kind, though the information at present available is still insufficient to allow its course to be plotted with detailed accuracy or for the layout of its gates and towers to be known. The land wall would probably have been related to a system of fortification along the sea front, exploration of which is hampered by the effects of coastal erosion (cf. 6; 7). Here, however, we are only concerned with the landward defences.

According to Carton, the northern end of the wall, where it met the sea, was defended by a tower and maritime postern gate (6, 306-319; 7, 55; fig. 1); these are marked 'Tour et poterne' on the archaeological map of 1897 (4). The northern sector of the wall, which is the most distinct part of it to be seen above ground, is defined by a flat ridge, scarped on the north and known as Teurf el-Sour (3, 80-81; 7, 501-502; 19, pl. 1, nos. 110-111). A stretch of this ridge, 150 m. long, near to the Damous el-Karita, was cleared in 1923. Poinsot and Lantier state in their report that the excavations revealed a wall, 5 m. thick, built of hard-packed earth divided into layers, 0.40 m. thick, by thick courses of ash and clay. A rubble-built 'bastion' (18 m. wide, 3.25 m. high and 2.0 m. thick) flanked the western end of
the excavated sector; and another was found (dimensions unstated) some 30 m. south of the Ste-Monique station of the T.G.M. A cemented walkway ran along the top of the supposed rampart, which the excavators proposed to identify as the earthen ramparts of Mu'allaqah, erected by Muhriz ibn al-Ziyad in the eleventh century and recorded by al-Idrisi (27; 32, 309-311).

This identification has now been shown to be untenable. Examination of this area in 1974 led to the discovery, at the foot of the scarp, of traces of walling, 2.10 m. wide, built in grey charcoal-flecked masonry and lacking a facing on the north. The similarity of the masonry with sections of the Theodosian wall identified elsewhere (see below) prompted Hurst to suggest that the supposed earthen ramparts had been no more than a series of deposits that had accumulated up against the inner face of the wall and had become exposed when it had subsequently been robbed out (21, 37). Confirmation of this theory was provided by excavations undertaken by a Canadian team in 1976 on the line of the scarp where it forms a re-entrant between the Odeon and the Damous el-Karita. Here the wall was represented by a robber trench, about 2.5 m. wide, filled with loose material including charcoal-flecked mortar and some Islamic pottery. The wall had been built against the outer wall of a fourth-century house, which fronted Decumanus VI. The house was occupied in some form or other until the seventh century, when it was finally abandoned (38).

Some 100 m. to the west of this, the line of the wall crossed the Cardo Maximus, represented today more or less by the avenue St.-Augustine. On the east side of the road at this point there stands a large amorphous lump of masonry, its facing robbed. It seems likely that this once formed part of a gate, though excavations carried out around it by an Italian team (director prof. A. Carandini) in 1975 revealed that the related stratification had been disturbed too much by stone robbers for any sense to be made of its plan. Further excavations by the Italians on the scarp to the south-west of the supposed gate succeeded in locating the wall and also demonstrated that in this area it was not preceded by a ditch. Presumably no ditch was necessary on account of the sloping terrain. Another lump of charcoal-flecked masonry protrudes from the
base of the scarp where it is crossed by the La Malga - Amilcar road (boulevard de F. Roosevelt) (21, 36).

Around La Malga, a number of masonry structures, now mostly destroyed, have on the past been suggested as having once formed part of the city wall (19, pl. 1, nos. 77-78; 35, 152). Delattre asserts that the city wall formed the north-eastern and north-western boundaries of a property called Damous-Damous (11, 258; cf. 4). If true, however, it would have enclosed the second-century 'Cemetery of the Officials'. Another structure, possible a gateway or triumphal arch, whose remains consisted of three massive pillars, built 12-13 m. square and faced with ashlar, once stood just north of the amphitheatre (11, 259); and on a piece of land called Ard-Souiria, next to the aqueduct as it approaches La Malga (cf. 4), Delattre observed a circular or semi-circular tower, 'dont le mur [était] construit avec des matériaux de toute sorte noyés dans un mortier composé de cendres, de charbon et de coquillages brûlés mesurant 1 mètre 80 d'épaisseur' (11, 259; Delattre adds that this was not the tower observed by Beulé above the La Malga cisterns, cf. 3, 47-48; 1, no. LXXVII). On the analogy of Lepcis Magna, where the Justinianic reconstruction is differentiated from earlier masonry above all on account of its 'powerful lime mortar consisting mainly of crushed sea shells' (Goodchild and Ward-Perkins 1953, 55; cf. Ch. IV. 2:258-259), it would be tempting to identify this with part of the reconstruction carried out by Belisarius.

It would seem likely that, for strategic and tactical reasons, the La Malga cistern complex was enclosed by the Theodosian walls (cf. Procopius, IV, 1, 2). It also seems probable that the Porta Fornitana, or Furnitana, referred to by Victor Vitensis, stood where the Lecumanus Maximus crossed the line of the walls. Fragments of a marble inscription, apparently referring to Theodosius II, have been found in the region of La Malga (CIL, 24564):

(a) Honorio et Theod... pp. aug[ ...]

(b) cesaci [...]

(c) uu. cc. i[...]

...]uo...
In view of the monumental nature of the inscription, with letters 12 cm. high, it does not seem impossible that it was once associated with a gate; and if this were to have been the case, it would suggest that construction of the walls of Carthage was begun before the death of Honorius in August 423. However, the restoration of Honorius's name in the text, though quite plausible (cf. CIL, 1358; 24104; 25837), remains hypothetical.

The circus (which was still in use in 538 (Procopius IV, 18, 11; cf. 14, 31)) and the amphitheatre would probably have been enclosed by the walls for the same tactical reasons as the cisterns. A geophysical survey, undertaken by a Polish team in 1972, detected a wall, some 5 m. wide, running parallel to the south wall of the circus at a distance of some 26 m. from it. In the region of the carceres, at the circus's west end, it turned north-west towards the amphitheatre. The fact that the wall was not traced along the eastern part of the circus also suggests that it may have turned south-east towards Douar ech-Chott half way along it (24; 25).

Near to Douar ech-Chott (cf. 19, pl. 1, nos. 75-76), Beulé records a wall, which the local inhabitants had excavated for building-stone, leaving an open robber-trench, 4 m. wide (3, 80; cf. 2, 155-156). Poinssot and Lantier, misreading Beulé's description, mistakenly identified this as a continuation of their own supposed earthen rampart (32, 308-309). Delattre also refers to a mass of ruins at el-Ksar, just south of the Byrsa, from which the locals extracted large blocks of stone by the thousand; but the wall that he says ran south-west from the Byrsa is more likely to have been a terrace wall, forming part of the Roman street grid (10, 84-85).

Carton describes the trace of the wall in the area south-west of Douar ech-Chott as defined by a low ridge, formed for the most part, he suggests somewhat unconvincingly, by rubbish that had been tipped from the parapet; it was flanked to the north-west by a strong-point, situated on the knoll known as Koudiat el-Heurma, and in the south-east by a similar fortification at Koudiat el-Hobsia (7, 38). No trace of any wall was found when the cutting for the electric railway was made in 1907 (23). On the east side of the railway line, however, on a piece
of open land just north of the Salammbo railway station and flanked to the east by the avenue Habib Bourguiba, excavations by a British team from 1974 have uncovered a 32.5 m. length of the Theodosian wall.

As in the Canadian sector, the wall was found to be built against the outer walls of domestic buildings, dating in this case from the third to fifth centuries. It was 3.60 m. thick and built with a core of grey charcoal-flecked mortared rubble and a facing of large ashlar blocks. As in the roughly contemporary walls of Sitifis, the core was consolidated with cross-walls compartmenting the fill (see Ch. IV. 2: 265). The area just inside the walls was occupied as late as the seventh century and possibly later. The only direct dating evidence recovered from the wall itself was a marble head used in its rubble core, which provides a terminus post quern of the late fourth century.

In 1975-76, an attempt was made to investigate the wall's outer defences, by opening up a trench 5 m. wide extending 31 m. south from its face. Evidence for two successive ditches was recovered, though the dating remains tentative. The first, which the excavators regard as contemporaneous with the wall itself, was at least 10 m. wide and was excavated to a depth of 2.0 m.; it was separated from the wall by a berm, 2.50 m. wide. The width of the later ditch is uncertain, but would seem to have been at least 16.50 m. with a berm of 12.50 m.; it, too, has only been excavated to a depth of 2.0 m., and its inner profile makes an angle of 45° with the horizontal (see Ch. IV. 4: 284) (21; 22).

It has been suggested that Koudiat el-Hobsia, in part at least an artificial mound, was the site of the fortified monastery founded by Solomon in the sixth century and described as a castle and ribat by al-Bakri in the eleventh (1, no. XV; 6, 37-38; 12, pl. 1, no. 74; 33, 221 n.2). Carton records that when a well was sunk from the edge of the plateau, a wall of ashlar, 1.50 m. thick and standing to a height of 5 m., was encountered at a depth of 9 m. (6, 39-40). From the workmen Carton learned that the wall's foundation consisted of thick rubble masonry, which was extremely hard (6, 39 n.1). Although Carton himself identified this as a Punic tower forming part of the enceinte, his description would seem more appropriate for a Roman or Byzantine structure. Where the enceinte rejoins the sea remains a mystery. Carton found
some ashlar walling in front of a modern villa (Villa Azerm, marked Ras el-Bey on 4) near the entrance to the 'merchant' port; but this appears to have been Punic (7, 36-37).

Other walls, some of which have been ascribed to the late Roman or Byzantine periods, have been found on the Byrsa. In 1893, Delattre claimed to have found the wall of Theodosius II on the south-west slope of the hill. Indeed, from his description it appears likely that this was a late Roman, Vandal (?), Byzantine or even Muslim defensive wall. An 80 m. length was uncovered. It was 4.25 m. thick, attaining 4.50 m. in places, and was built with two faces of ashlar blocks enclosing a fill of rubble masonry or simply earth. Bundled into the masonry were cornice fragments, columns and bases, fragments of statuary and Latin inscriptions (12, 100-101; 13, 57-59). This wall apparently had nothing to do with another which Delattre had earlier attributed to Theodosius (10, 83-86), or to the double, or possible treble, line of Roman terrace walls which surround the top of the Byrsa, forming an artificial rectangular plateau (31, 34; cf. 28; 29). Traces of late antique or medieval walling have also been found on various parts of the Byrsa (3, 13-15; 20, 31-33; 34, 179-180).

An inscription found on the shore of the Lake of Tunis in 1905 has also been taken to attest the existence of a late Roman or Byzantine work of fortification in this region (14; 2, 10). Delattre and Monceaux write of it, 'Ce bloc de marbre paraît avoir été encastré dans le mur d'une forteresse, probablement dans une tour' (14). The crudeness of the lettering, the shape of the stone (0.64 x 0.25 x 0.10 m.) and the text itself, however, oppose this interpretation. It reads:

\[
\begin{align*}
+ & \text{Cum D(e)o factum est} \\
omnia et sine D(e)o nic(h)il & \text{factum est; ista in tur(r)i} \\
D(o)m(i)n(i) quet (= quiebit) & \text{cui Bonifatius in-} \\
+ & \text{bidet.}
\end{align*}
\]

The first part of the text is taken from John's Gospel (I, 3): 'All things were made by Him; and without Him was not anything made (that was made)'. The second part seems to mean, 'She whom Boniface regards with ill will (or envy) rests in the house of the Lord'. The word turris is used in a similar sense (AV: 'palace') in a late fourth- to
Gaz. AA. Carthago Justiniana (cont.)

early fifth-century inscription based on Psalm CXXII, 7, which formed the lintel to a church at Alioun Bedjen, west-south-west of Theueste:

fiat pa[x i]n uirtute tua / et abun[dantia i]n turribus tuis (Monceaux 1908b, 204-205). It seems more probable, therefore, that the La Goulette text came from a grave or perhaps from a mausoleum than from any military structure.

Bibliography:

Walls: Anth. lat., 376, 19; cf. 376, 34; Chron. Gallica a. CCCCLII, 98 [a. 425]; Corippus, IoH., I, 426-427; VI, 58-60; 169-173; 184-187; 225; Procopius, III, 5, 8; 15, 9; 18, 10; 20, 3; 21, 11-13; 23, 19-20; IV, 1, 7; 1, 12; 18, 18; 25, 11; 26, 1 seq.; de Aed., VI, 5, 3-5; 5, 8; Salvian, de Gub. Dei, VI, 69; Victor Vitensis, I, 10, 15-16; III, 15-16.

Fortified monastery: Procopius, IV, 26, 17; de Aed., VI, 5, 11; Victor Vitensis, a. 555, 2 (monasterium de Mandracio).

al-Bakri, 90; 94; al-Idrisi, 131; Istibsär, 21.

(1) Atlas Tun. 50, La Marea (1/15,000), I; (2) Audollent 1901, 154-159; (3) Beulé 1861, 13-16; 80-91; (4) Boréy 1907; (5) Cagnat 1909, 2; (6) Carton 1911; (7) Carton 1912; (8) Carton 1935, 24-26; (9) Darmon 1969, 10; (10) Delattre 1885, 83-86; (11) Delattre 1892, 255-260; (12) Delattre 1893, 100-101; (13) Delattre 1896, 19; 57-59; (14) Delattre and Monceaux 1905; (15) Diehl 1896, 271; (16) Dureau de la Malle 1835, pl. 3; (17) Duval (N) 1972a, 1075-1077; fig. 1; (18) Eadie and Humphrey 1977, 14-16; (19) Falbe 1833, 31-39; pl. 1; (20) Ferron and Pinard 1955, 31-33; (21) Hurst 1975, 36-38; fig. 12-13; pl. IX; (22) Hurst 1976, 193-194; fig. 6-8; pl. XIXa; (23) Icard 1907; (24) Icik et al. 1974a, 45; fig. 11; (25) Icik et al. 1974b, 69; fig. 40; (26) Lantier 1922; (27) Lantier 1931, 514; (28) Lapeyre 1933; (29) Lapeyre 1934; (30) Merlin 1922; (31) Picard (G) 1951, 19; (32) Poinssot (L) and Lantier 1923; (33) Poinssot (L) and Lantier 1930, 221 n. 2; (34) Saumagne 1924, 179-180; 185; plan I-II; (35) Shaw 1738, 152; (36) Tissot 1888(1), 661-662; (37) Vaultrin 1933, pl. 1; (38) Wells 1977.

See Map 3, no. 1.

Figure 1.
Plate Ia.

AD CENTMARIVM

Fedj Dériassa (Hr.) (7°08'E 36°02'N) Fort

Procopius states that, in 535, the fort of KevtoupCai was garrisoned by
Gaz. AA. Ad Centenarium (cont.)

A detachment of about seventy huns (mounted foederati), under the command of Althias. Κεντούρλατι is identified by Tissot with ad Centenarium, which Toussaint in turn locates at Hr. Fedj Dériasse (see Gaz. CA, Κεντούρλατι (q.v.)).

The site of Hr. Fedj Dériasse covers a plateau, cut by deep ravines, and surrounds the source of the Oued Dériasse. Toussaint noted the remains of an 'enceinte' and of a 'citadelle', but gives no further elucidation of either. Since this is the only fort in Africa for which the size of the garrison is attested by independent means, field-work is doubly necessary to confirm the identification of the site and to determine the layout of the fort.

Bibliography:

Procopius, IV, 13, 2-5 (Κεντούρλατι).

(1) Atlas Alg., 18, 180; (2) Diehl 1893, 349; (3) Diehl 1896, 74; 287; (4) Toussaint 1897, 264-265; 271.

See Gaz. CA, Κεντούρλατι (q.v.).
Map 2, no. 3.

Ain Bou Driès (Hr.) (6°29'E 35°14'N) Fort

An inscription in its west wall places the construction of this fort in the reign of Justinian; and, if one accepts, as seems most plausible, the restoration of the word Solomonis after prouidentia, it would have been completed between the years 534 and 544.

The fort was situated in the Bou Chebka forest, in the Tunisia-Algeria frontier region, between Thelepte and Theueste. It stood just north of the spring and near to another defensive structure. It measured 33 x 33 m. and had corner towers.

Bibliography:

(1) Atlas Alg., 40, 62; (2) Boisnard 1935, 36; (3) Diehl 1893, 327, 336; (4) Diehl 1896, 234; 238; (5) Guénin 1909, 84; (6) ILAlg, 3809;
Ain el-Ksar

An inscription, built into the foundations of a fortlet at Ain el-Ksar, records the construction of a k(a)st(rum) under Tiberius II Constantine (578-582). It may be assumed that the inscription referred to the fortlet itself; but, since this was destroyed in 1861 to provide material for road-building, it remains uncertain whether or not it replaced an earlier structure, in which the inscription might have been displayed in a more prominent position.

Ain el-Ksar lies roughly two kilometres south of the Roman town of Tadutti (Fontaine Chaude), which itself lay just over half-way between Thamugadi and Diana Veteranorum, at the point where the road linking the two was crossed by the one from Lambaesis to Constantina.

The fortlet was seen by Cherbonneau before its destruction and described by him thus: 'Cette ruine ... avait 18 mètres carrées, et ses murailles, où le mélange des moellons avec des matériaux de grand appareil accusait une époque de décadence, s'élevaient encore à trois mètres au-dessus du sol'.

Bibliography:

(1) Atlas Alg., 27, 138; (2) Cherbonneau 1862, 127-131; (3) Diehl 1893, 297; (4) Diehl 1896, 295; (5) Gsell and Graillot 1894, 82 (no. 170); (6) Piese 1885, 387; (7) Ragot 1874, 232; (8) Tissot 1888(2), 508.

See Ch. III. 3: 149-155.
Gaz. CB, Inscr. 31.
Map 4, no. 73.
AMMAEDRA
Haidra (8°27′E 35°34′N) Town wall

Procopius records that the town of Ἀμμέδερα was fortified by Justinian; and both he and George of Cyprus, who refers to it as Κάστρα Ἀμμέδερα, record it as being in Numidia. A military tombstone of the Byzantine period, referring to an optio, Maurianus, was found in Basilica I; and a bishop of the town, Melleus, who is recorded in 568/569, was buried in the same church in Indiction XII (for the sixth-century Christian archaeology, see references in 2, 74-75; 12).

The Byzantine citadel is situated at the centre of the Roman town, and occupies a position of some strategic importance at the junction between the main road from Carthage to Theueste and another from G illium and Thelepte, which crosses the Oued Sarrath (or O. Haidra) at this point.

The wall encloses an area which slopes southward from the Carthage-Theueste road to the Oued Sarrath, this constituting its only natural line of defence. Its shape is that of a quadrilateral; but while its north and south walls are straight, the east and west ones are built erratically to make best use of the sloping terrain. Overall its measurements are about 125 x 195 m., enclosing an area of some 2.55 ha. The wall is among the best preserved in Africa, surviving in places to 7 or 8 m. in height. The north wall and its towers, however, represent a refortification of the Turkish period, though the curtain and the square interval tower possibly rest on Byzantine foundations. The south wall was consolidated in about 1930, and Tower d more recently.

The masonry includes a great quantity of reused material: inscriptions, tomb stones and architectural fragments. It consists of a rubble core, faced inside and out with large ashlar blocks. On the south side, the vertical divisions between the sections of wall built by different working parties are clearly visible.

The road from Carthage enters the walled area through a gateway in the north-east corner, between Towers a and b (Pl. IIb). The gate itself had collapsed, except for three voussoirs on the north side, before being blocked, probably by the Turks. The towers flanking it
measure about 11.5 m. across, and project some 10 m. Tower a is built on the footings of an earlier structure. A pair of corbels, about 35 x 35 cm. in section and 60 cm. apart, project from the side of it which faces the roadway. One of them has foliate decoration, while the other is mutilated. The absence of any opening in the tower associated with these suggests that they had no military function, but served possibly to carry a monumental frieze or inscription. It seems very likely that the road from Carthage continued through the walled enclosure and left for Theueste through another gateway situated between Tower b and a now demolished tower to the north of it. The southern entrance to the citadel was defended instead by a gate-tower (d), which has recently been restored. This is open-gorge with the upper part carried on a barrel-vault. The gate, about 2.5 m. wide, is covered by a lintel and relieving arch. A small postern gate, about 1.70 m. wide, situated just north of Tower c represents the fourth entrance; it too has a lintel with relieving arch (Pl. IIIa-b).

Five other towers complete the defences. They are all rectangular except for Tower c, which is circular and placed almost tangentially to the wall. The spacing between them varies from 53, 57 and 60 m. on the west, to 70 and 70 m. on the east; while the south wall which is protected by the oued has no interval tower for the whole of its 100 m. length. A parapet-walk most likely encompassed the whole circuit. Along the east wall and at the south end of the west wall this was carried on arcades (Pl. IIIb). The only surviving stair up to it is in the south-west corner.

The most conspicuous of the internal structures at Ammaedara is the Byzantine church (11; 12). However, there is nothing to support Diehl's assertion that, apart from the church, the buildings inside the walls were exclusively military in character, since, again excepting the church which may well be a garrison church, they have never been investigated systematically. Until large-scale excavations are undertaken, it will not be possible to say whether the citadel was intended exclusively for military occupation or whether it was divided into a civilian and a military zone.

At a date which has yet to be precisely determined archaeologically, the Arch of Septimius Severus, which stands astride the Carthage road
Gaz. AA. *Ammaedara* (cont.)

some 450 m. east of the citadel, was converted into a fortified tower and surrounded by a rampart. The good quality of its masonry suggests that this work may have been contemporary with the construction of the citadel itself, and that it was intended to provide an advanced look-out post covering the area to the east (2).

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See Gaz. CB, Inscr. 42.

Map 3, no. 5.

Figures 18.

Plates Ib-IVa.

ANASTASIANA

Sguidan (Hr.) (10°09'E 36°09'N)

Fort

An inscription almost *in situ* over the main gate of the fort dates its construction to the reign of Tiberius II Constantine (578-582) and the prefecture of Thomas. The antique name of the site is unknown. At the time that the fort was built, however, the settlement was renamed *Anastasiana* after the empress Anastasia.

The site lies in the plain of Djebibina, roughly 20 km. west of Enfida. The Byzantine fort stands on the east bank of the Oued lebroum, in the centre of an area covered by Roman ruins. Just outside the west
gate (b) a modern fountain is fed from a natural spring which in Byzantine times most probably had its source within the fort. The site was visited by R. de la Blanchère in 1886 and, although it is also mentioned by Cagnat and Diehl, his published description of it still remains the most detailed account available.

The fort is rectangular and measures internally about 53 x 45 m. (0.24 ha). Its masonry exemplifies the typically Byzantine military practice of reusing material taken from abandoned Roman buildings. Most of the facing blocks are of reddish-brown sandstone; some have rustication. The core of the walls and towers is of coursed rubble masonry, consisting of local sandstone lumps set in a hard yellow mortar. In places this contains quantities of broken coarse pottery used as aggregate. The walls are 1.40 m. thick, and are flanked by eight rectangular towers, one at each corner and one midway along each side. The corner towers are each entered by a diagonal passage, 0.95 m. wide at its outer end, which narrows towards the inside of the tower. De la Blanchère's plan represents the interval towers as open-gorge. It seems likely, however, that this is an illusion resulting from the faster rate of deposition inside the fort compared with the surrounding area (the result mainly of post-Byzantine occupation). Part of one of the towers (f) still stands to a height of about 6 m., suggesting that the towers were of at least two, possibly three, storeys. Traces of a barrel-vault survive in Tower e.

Although it seems likely that the fort had more than one entrance, the position of only one is known with certainty. This stood on the west, and de la Blanchère describes it thus: "La porte a dû être bouchée; elle est contre un des bastions au milieu du flanc occidental, et on avait fait un bout de mur en saillie pour la protéger". His plan (5, fig. 65) shows that he considered the gateway to be just north of the bastion (b), and the protecting wall to be parallel with the tower's north side. My own examination of the above-ground remains suggests a different arrangement, however, though it should be stressed that the full details can only be determined by excavation. In the first place, what de la Blanchère took to be a blocked gateway would seem to be the original west wall of the tower. The only position in
which a gateway is likely to have been set is in the south wall of the tower, which no longer survives above ground. The position of the inner gate is known with certainty, because the dedicatory inscription was found carved on the marble column which served as lintel to it; this is also south of the cross wall of the bastion (6). It thus appears that there existed at Henchir Sguidan a bent entrance firmly dated to between 578 and 582.

### Bibliography:


See Gaz. CB, Inscr. 32. Map 4, no. 74; Figure 19. Plate IVb-Vb.

### BADIAS

BADIAS

Badès  

(6°40'E 34°45'N)  

Badèes was one of the towns located around the Aurès which, according to Procopius, Justinian fortified in an attempt to prevent the movement of indigenous peoples into the massif. Byzantine occupation may not have lasted long, however; Corippus's reference to Moors from the territory of Badias (Vadis tepidae) taking part in the rebellion of 546 could be an indication of the failure of Justinian's policy of encirclement and the withdrawal of the garrison (see, however, Ch. III. 7: 212). On the other hand, George of Cyprus includes the town in his topography, and the site was still occupied when it was blockaded by Uqba ibn Nafi in 683 (al-Nuwairî, 334). Al-Bakrî mentions the existence of two fortresses at Badès in the eleventh century.

Badès lies on the east bank of the Oued el-Arab, some 10 km. south of the point at which it debouches from a gorge separating the Djebel Berga from the Djebel Chechar. The valley of the Oued el-Arab and of its tributary the Oued el-Abiod forms an important line of communication
linking *Mascula* and *Numidia* north of the Aurès with the road of the Roman desert *limes* (Baradez 1949, 137; 147-148).

The archaeology of the site still awaits detailed study. Traces of a town wall built of ashlar and strengthened by projecting circular towers are recorded by Tissot and Gsell, although from their descriptions of it it is not possible to tell whether this was Roman, Byzantine or medieval in date. General de Torcy describes the wall of what he terms the Roman fort built 1 m. thick of red bricks (40 x 40 x 6 cm.), laid in single courses separated by 20 cm. courses of rubble masonry.

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**BAGAI**

Baghai  

\((7°07'\ E\ 35°32'\ N)\)  

Town wall and fort

From Procopius we learn that Bagai was a deserted city at the time of Solomon’s expedition against the Moorish leader Iudas in AD 539-540, but that it was subsequently fortified when the area north of the Aurès had been brought under Byzantine control. An inscription, discovered in 1967, confirms Solomon’s responsibility for the fortification. At the close of the sixth century, Bagai was referred to as a *Ḳaṣṭra* by George of Cyprus, and it was still in a state of defence when its inhabitants warded off the expedition of Sidi Ṭūqba in 683. In around 700, the town was rased by the Kahina; but although it is now deserted, a small settlement is known to have existed on the site until c.1803 (11; 14).
The site lies 12.5 km. north of Khouchela, at the eastern extremity of the large fertile plain which extends north of the Aurès to the east of Batna. The site occupies a slight knoll overlooking the plain on the east bank of a oued which flows, at certain times of the year, north from the Aurès into the salt lake of Garat el-Tarf. Like Mascula, it occupied a strategic position roughly midway between Theueste and Lambaesis.

The wall, following the contours of the ground, inscribes an irregular quadrilateral whose sides are 374 (SW), 280 (NW), 283 (NE) and 235 (SE) m. in length. Its 1172 m. perimeter encloses an area of 8.2 ha. Part of the interior is occupied by a smaller redoubt (see below).

The site has suffered badly since Héron de Villefosse's companion, Jules de Laurière, first surveyed it in the 1870s. Diehl saw walls standing up to 2.0 m. high in 1893; but today only the north-east rampart has escaped the stone looting which has turned the other walls into a continuous robber trench (see Pl. VI).

The town wall was 2.20 m. thick, and was constructed with two faces of large ashlar blocks bonded into a rubble core by means of headers. Diehl mentions that the inner facing was of smaller stones than the outer. The wall contained reused material, and, in places (eg. at s), Roman structures were incorporated in its foundations.

Few towers now survive and one is therefore forced to rely upon the observations and measurements made by Héron de Villefosse and Diehl. The north, south and east corners were flanked by circular towers, while in the west corner a Roman building was adapted as a rectangular bastion. Elsewhere the towers were all rectangular. Twenty-six towers are recorded in all, and apart from the gaps between towers d and e (94 m.) and between f and g (90 m.), where it is possible that towers which formerly existed had disappeared when the plan was made, the longest stretch of curtain wall between towers would have been 60 m. Some tower measurements are given by Diehl, as follows: b projects 1.90 m.; c, 5.40 x 7.80 m.; i projects 5.10 m.; j projects 3.70 m.; l, m and n project 1.95 m.; o, 6.24 x 7.80 m. (walls, 1.65 thick); t projects 0.80 m.; v, 6.0 x 8.60 m. (walls, 1.95 thick).
Two major gateways gave access on the south-east and south-west sides. On the south-west, a gate 2.70 m. wide was flanked by towers z and g, which were flanked by curious buttresses or additional chambers either side. The second gate was between towers k and g, which measure 7.5 x 11.0 m. There was also possibly a postern, about 1.60 m. wide, between k and j.

A smaller redoubt (70 x 63 m. internally) was built against the inside of the north-west wall, enclosing 0.44 ha. Its walls were 1.40 m. thick, and it was flanked by square towers at the corners (3.50 x 4.00 m.) and midway along its sides. It enclosed a smaller work (26 x 26 m.: ie. 0.07 ha.), with walls 1.15 m. thick, which was also flanked by square towers. The north-west wall of the redoubt (that is to say, the town wall) was itself defended by a wall built 11 m. in advance of it, which left from tower z and returned opposite the point at which the outer wall of the redoubt met the town wall on the inside. This may have performed the function of a προτεθύσμα. Diehl sees this whole complex as the last refuge of the Byzantine garrison if the town had fallen. It is permissible to ask, however, whether it all belongs to one phase. That the inner wall was contemporary with the town-wall there seems little doubt, since the siting of Towers x and y, which departs from the usual spacing of the towers, was evidently designed to give it extra protection on the outside. However, the outer wall which abutted tower z appears from the plan to have been later than the town wall; and as no special provision of towers was made at the points where the outer redoubt's wall met the town wall, it seems possible that the inner redoubt was the only part of the complex built at the same time as the town wall.

The town wall would have been completed at the time of Solomon's second term as magister militum, between 540 and 544; the outer parts of the redoubt, if not contemporary with it, could have been added later in the Byzantine period or perhaps in a post-Byzantine period of occupation.
Gaz. AA. Bagai (cont.)

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Map 3, no. 7.
Figures 21.
Plates VIa-b.

Bordj Hallal  

(8°39'E 36°28'N)  

Town wall

The ancient name of this site is unknown, although to judge from
the extent of the ruins both inside and outside the walled area, it repre-
sents a town of some importance and not, as Diehl argues, an empty
refuge intended for the inhabitants of the Medjerda valley. Quite
possibly it had no status of its own, having developed as a satellite
of Simittu (Chemtou); indeed in the sixth century the exposed nature
of the site at Chemtou and the decline of the marble trade may have
favoured a shift of settlement to a more easily defended site. Two
inscriptions record the building of the walls at Bordj Hallal by Solomon
and Count Paul.

The walled town occupies a low plateau on the northern edge of the
Medjerda flood plain, 6.5 km. due east of Chemtou. Published descrip-
tions agree on only one thing concerning its shape: that it is roughly
pentagonal. The lengths of the sides quoted by different writers are
given below (in metres):
These figures are quoted in full because, in the absence of any more recent survey and the unavailability of aerial photographs, they provide at present the only means for ascertaining the shape of the monument. Minor variations apart, some of the wider disagreements may be due to individuals measuring from different points on the wall: e.g., inside or outside the wall and, if the latter, including or excluding the corner towers. In the case of Dr. Carton's figures, however, the numbers are consistently smaller than those given by Tissot and Saladin, though, the ratio of the sides to one another is virtually the same for all but the SE; an explanation for this might be that the surveyor failed to convert paces to metres, since the error is usually of the magnitude x 1.40-1.48, and this in metres would be roughly the length of a double pace.

Saladin is the only writer to provide a plan. Yet this also reveals certain errors when it is compared with the remains in the field, especially with regard to the line of the south-west wall. Diehl re-published Saladin's plan with no comment on the fact that on it the angle of the west corner is given as 150°, whereas on the plan made by M. Sadoux, which appeared in the same volume, it is shown as a right-angle (4, plans XXX-XXXI). Figure 22 represents an attempt to reconcile the internal wall measurements used by Saladin with what a cursory inspection of the site suggested the shape of the south-west wall and west angle to be (it being impossible to undertake any accurate measuring). In this revised plan the wall appears to enclose an area of some 7.25 ha.

The wall itself is 1.35-1.50 m. thick, and built of a rubble core faced with ashlar blocks, which include reused architectural fragments, columns and tomb-stones. At the western end of the north-west wall, there survive the pier bases for internal arcading, though how far this
Gaz. AA. Bordj Hallal (cont.)

extended it is not possible to say.

The position of the gateways is uncertain. Carton refers to one (h) on the south-east side, flanked by rectangular towers. Allowing for the conversion factor of 1.45 needed to put Carton's paced measurements into metres, this would have been 36 m. across; the measurement evidently included the towers, which projected about 8 m. Carton also mentions a postern gate within Tower o; although Sadoux's detailed plan of the tower shows no gate in this position and none is visible above ground level today, some credence is given to this assertion by the fact that one of the building inscriptions was found in the outer wall of the tower.

Apart from feature h, fifteen towers flank the enceinte. A detailed survey has only been made of those on the NW wall (4, 5): Tower o measures 9.5 m. across and projects 6.8 m., its walls are 2 m. thick and its internal floor was carried on arches supported by a central column; Tower n measures 8.4 x 7.8 m., has walls 2 m. thick, and is entered by a diagonal passage 0.95 m. wide and covered with slabs; the other towers, p and a, measure 6.6 x 6.7 m. Tower j appears to be cutwater-shaped.

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See Gaz. CB, Inscr. 15-16.

Map 3, no. 8.

Figure 4, 22.

Plates VIIa-VIIIa.
CAESAREA

Cherchell (2°12'E 36°37'N) Town wall

In a rescript of Justinian, addressed to Belisarius in April 534, provision was made for Caesarea to become the headquarters of the dux Mauritaniae provinciae. Procopius records that an infantry company (λόχος) under the command of John was sent there by Belisarius during the winter of 533-534. At the time of Solomon's campaigns in Mauritania Sitifensis, however, in the early 540s, the whole of Mauritania II with the sole exception of Caesarea itself was, according to Procopius, in the hands of the Moors ruled by Mastinas, with the result that it was only possible to reach the city by sea.

The Roman land and sea defences of Caesarea extended for at least 7,000 m. and enclosed an area of some 370 ha. P.M. Duval distinguishes five main types of construction in them, one of which, he suggests, may represent the Byzantine refortification, carried out after the town had suffered at the hands of the Vandals. This work, which he describes as 'grand appareil sans bossages', is found on the stretch of wall which guards the western coastal plain and on the east, where (south of Duval's tower 36 bis) the wall ascends the heights behind the town.

If Duval's deductions are correct, they imply that the whole of the Roman circuit of walls was reoccupied militarily in the sixth century. It may be wondered, however, how many troops would have been required to defend such an extended front and for how long such a state of affairs could have continued. The λόχος sent by Belisarius can scarcely have numbered more than about 2,000, and may have been considerably smaller than that (see Ch. III. 4:166). It could well be that other, perhaps later, Byzantine defences also existed, built on a more modest scale to enclose only the nucleus of the town. These could perhaps have followed a course similar to that taken by the Turkish town walls that were built in 1516 and destroyed in 1660 (5).

Excavations in the forum area of Caesarea, in 1977, provided a terminus post quem of A.D. 530-550 for the abandonment of the forum square (4).
Gaz. AA. Caesarea (cont.)

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See Map 3, no. 9.

CALAMA

Guelma (7°26'E 36°28'N) Fort/Town wall

Procopius records the construction of impregnable defences at Calama under Justinian. Three inscriptions from the site associate at least part of the construction with the patrician Solomon and count Paul.

The site is situated on north-sloping ground on the south side of the Oued Seybouse valley. The Byzantine fortress was built at the highest point of the Roman town, and what remains of it today is surrounded by the modern town of Guelma.

When French troops first reached Guelma on 7 September 1836, the settlement consisted of no more than 200 inhabitants. Much of the Byzantine wall was still standing, and during the first decade of French occupation it was surveyed and studied by Duvivier, de la Mare, Ravoisie and Grellois. Today all that remains of the original walls are their north side, including Towers c and e, and part of the east side including Tower h. Refortification of the site between 1842 and 1844 entailed the reconstruction of the wall on its original lines and the provision of a wall-walk and rifle-loops. By the end of the 19th century, however, the changing needs of the garrison had led to the destruction of the greater part of the monument.

The shape of the enceinte was that of an irregular thirteen-sided polygon, measuring overall 278 x 219 m. Two phases of construction can be identified both from its plan and from its masonry (see Fig. 24):

Phase I: The western part of the enceinte and the five rectangular towers from p to the re-entrant t, appear to have belonged to an earlier phase of fortification from the rest. The masonry is described by
Ravoisié as, 'un appareil régulier, des pierres de grande dimension, des moulures ornant la base des tours ...' Grellois, whose survey work was carried out in 1844, writes, 'les pierres sont parfaitement unies et cimentées; au niveau du sol, elles reposent sur une sorte d'entablement orné de moulures d'une certaine délicatesse. Aucune des pierres ... n'est garnie d'inscriptions'. The corner towers (a and q) had diagonal entrance-passages. The plan also shows a postern (s) next to Tower r. Ravoisié and Grellois were followed by Diehl and Gsell in assigning a pre-Vandalic date to this wall.

Phase II: Grellois states that the rest of the wall was of a generally inferior style of masonry, and included reused architectural fragments and inscriptions. The wall was 2.40-2.60 m. thick. Eight towers belonged to this phase, and in the south-east a salient enclosed the great Roman bath building, which was evidently in a ruinous state by the time the wall was built (cf. 15, pl. XXV). Grellois also states that the rubble core of the wall was unmortared; however, this may have been due to the weathering of the exposed sections.

Ravoisié's plan shows the towers of the second phase to have been of the same design as those of the first. De la Mare's perspective drawing of Tower c from within the enceinte (4, pl. 176) shows its diagonal passage to have been covered by a lintel and relieving arch; Gsell (11, 158) notes that it was octagonal inside, but this may have been due to a later modification. The south wall of the baths salient was flanked by a bastion (m) which measured 4.60 m. across and projected 3.5 m.

Ravoisié's plan also shows four gates. One (s) belongs to the earlier stretch of wall. Gate a, however, is a recent construction and bears the date '1844'. Gate l no longer survives, but is the best documented (15, pl. XXXV); externally it was 1.60 m. wide and 2.50 m. high; the passage was rebated 1.00 m. from the outside, and continued with a width of 2.00 m. and a height of 4.50 m. On the outside the door was covered by a lintel over which was set an inscription (Gaz. CB, Inscr. 17); on the inside it had a rounded arch. Nothing is known of Gate n. De la Mare's plate 176 shows a possible fifth gate,
Gaz. AA. Calama (cont.)

which Gsell (11, 158), says was blocked, situated in the north wall adjacent to Tower c; Gsell's notes, however, also refer to this as part of the vault for a stair leading to the rampart walk. Another gate (f), which does not figure on Ravoisié's plan, is the postern which still survives today (though blocked) next to Tower e; this is about 1.20 m. wide and is surmounted by a relieving arch and lintel.

Doubtless a parapet walk existed along part, at least, of the enceinte, but nowhere has convincing proof been found for one. The thickness of the walls would probably have made internal arcading unnecessary.

It has generally been assumed that the wall of Phase I, if not entirely pre-Vandalic, was at least built on the foundations of a Roman wall, and that Phase II alone represents the refortification carried out by Solomon. The association of the latter with Solomon is given convincing proof by Inscription 17, referring to Solomon, which was not only found over a gate belonging to part of this wall but also refers to thirteen towers, the exact number for the whole circuit if one excludes m. It is questionable, however, whether the gap in time between the two phases was as long as some have supposed. A number of factors suggest that it was not:

(1) In the first place, it is not altogether clear whether the difference in masonry technique was so very marked between the two areas. Although Grellois (2, 271) says that the first-phase work contained no inscriptions, Ravoisié (15, 27) refers to architectural fragments and cornices built into the wall between a and i. Ravoisié's elevation drawings of postern l (pl. XXXV) do not suggest a hasty or imperfect standard of workmanship in Phase II. Differences of construction may have depended as much on what near-by Roman structures were available for quarrying as on chronological considerations; and one should also consider the possibility of post-Byzantine rebuilds which archaeologists may have taken to be original.

(2) Whatever the differences in execution may have been, it is clear from the plan that the design of the towers was the same in both phases.
(3) To the north-west of the enceinte the plans of Ravoisié, de la Mare and of the Atlas show the line of another wall, flanked by circular bastions. Grellois writes of it: 'Ces murs offraient la même épaisseur que ceux du camp; les pierres, en général des moellons, sont unies au moyen d'une forte maçonnerie, et marquent, de distance en distance, l'emplacement de tourelles circulaires' (9, 273). This description and the plans suggest this to have been a Roman town wall, predating Phase I and enclosing a much larger area than the Byzantine citadel.

(4) Although from the plan it seems possible that the south-east and south-west parts of the Phase I wall could have been built on the line of this Roman wall, neither Ravoisié's nor Grellois's description suggest this to have been the case; and even if they were, the north-west wall certainly was not.

(5) The plan itself suggests Phase I to have been part of a rectangular fort, measuring internally 114 x 136 m. and built enclosing the spring (2, pl. II). It could be restored with eight towers, one at each corner and one midway along each side. Had this fort ever been completed, one would have expected the south wall of Phase II to have departed from its east angle rather than from tower p. That this is not the case suggests that the fort was never completed in the manner originally intended.

These considerations strongly suggest that both Phase I and Phase II belong to the Byzantine period. The fort, which enclosed 1.55 ha., may have been begun during Solomon's first period of command, when Althias was in command of the forts of the region. The abandonment of the original design may indicate the temporary withdrawal of the garrison, or may simply be due to a change in plan occasioned by a change in the needs of the garrison. The final enceinte of 4.33 ha., with its thirteen towers, was completed between 539 and 544, when Solomon was again magister militum in Africa.

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See Gaz. CB, Inscr. 17-19.
Map 3, no. 10.
Figure 24.
Plate VIIIb.

CAPSA IVSTINIANA

Gafsa (6°47'E 34°25'N) Fort and ?town wall

A rescript of 534 made provision for both Capsa and Thelepte to become
headquarters of the dux Byzacenae provinciae. Fragments of two virtu­
ally identical inscriptions, reused as building material in the qasba
and near-by buildings, record the construction of walls by the patrician
Solomon at a date which should be placed between 536 (or 539) and 544.
Both inscriptions refer to the town as ciuitas Iustiniana Capsa. The
town is not mentioned at all by Procopius, but its existence is attested
by George of Cyprus at the end of the century.

Capsa occupied a focal point in the road system of southern Byza­
cium. Here the main road which, passing through Tacapes, Thelepte and
Theueste, linked Tripolitania with southern and central Numidia met the
Roman military road which ran south of the Aurès, and was crossed by a
number of routes leading from the exists from the Great Chotts northwards
to the steppe and Tell of southern Tunisia. The town itself is built
on a raised piece of ground in the centre of a gap between the Djebel
Orbata on the east and the Djebels Assalah and Ben Younès on the north
and north-west; these form part of a range of mountains extending from
east to west in a great band north of the Chotts, behind which they form
a second natural barrier against invaders coming from the desert.
Through this gap flows the Oued Baiech. The town is supplied with
salt water springs, one of which lies within the qasba.
According to Leo Africanus, the Byzantine walls were destroyed by Sidi Uqba (c.670), who spared, however, those of the citadel. They were subsequently rebuilt, but were again destroyed, together with one wall of the qasba, by Abū Yaqūb in January 1188. The fortifications described by al-Bakrī and the author of the Istibsār probably related to the qasba rather than to the town walls. Leo describes the former as having walls 25 cubits (16.75 m.) high and 5 cubits (3.35 m.) thick, built in ashlar blocks which he compared with those of the Colosseum in Rome. In the 1860s, no trace of any town wall remained (6); the qasba, however, was mostly intact when the French army took it over in 1881 (8). Although it is certain that it included Byzantine and possibly Aghlabid elements in its construction, it is equally clear that rebuildings in 1434/35 and 1663 had altered its character considerably, even before the alterations necessitated by the installation of the French troops were carried out (Mercier 1882; 1893a, 1-18). In 1943, the fort was severely damaged by the explosion of an ammunition depot, and today only two walls and some of the towers survive (7).

In summary, it appears that the medieval qasba incorporated a Byzantine fort, which to judge from the size of the qasba in 1881 (8) is unlikely to have exceeded 0.8 ha. in area. Evidence for a Byzantine town wall, however, is less certain, and rests solely on the testimony of Leo Africanus.

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al-Bakrī, 100; Ibn Hawqal, 92; al-Idrīsī, 122; Istibsār, 68-69;
al-Wazānī, 443-444 (795); al-Yaqqūbi, 212.

(1) Atlas Tun., 50, Gafsa, 23; (2) Boisnard 1935, 36; (3) Desfontaines 1786, 65; (4) Diehl 1996, 232-233; (5) Ennabli (A) 1976, 195; (6) Guérin 1862(1), 285; (7) Guide Bleu 1971, 351; (8) Mercier 1893b; (9) Pelliérier 1853, 141; 300; (10) Pise 1895, 553; (11) Poinssot (L) 1936a, 31; (12) Poinssot (L) 1940, 417; (13) Saugnag and Poinssot (L) 1933, 244-248; (14) Shaw 1738, 209-211; (15) Temple 1835(2), 186-187; (16) Tissot 1805(2), 665; 668.
Gaz. AA. *Capsa Justiniana* (cont.)

See Gaz. CB, Inscr. 20-21.

*Map 3, no. 11.*

CAFWT VADA

Ras Kaboudia  

(11°09'E 35°14'N)  

Town wall

It was at *Caput Vada* that Belisarius's expedition first set foot on African soil in 533. Belisarius immediately set about fortifying the bridgehead with a trench and a stockade of pointed stakes. In *de Aedificiis*, Procopius relates how the site was subsequently transformed into a flourishing city and provided with a town wall. There is no evidence, however, to support the contention of Diehl and earlier writers that the new city was named *Justinianopolis*; this title seems to have been reserved for *Hadrumentum* alone of African cities.

Ras Kaboudia is a low rocky promontory ending in a narrow peninsula surrounded by reefs. According to Fellissier and Guérin, the Byzantine defences consisted of a ditch cutting off the peninsula from the mainland, flanked at either end by advanced works. A Turkish lighthouse, Bordj Khadidja, formed part of the westernmost of these. However, it is clear from the examination made of this by Commandant Duvivier, just before all but the lighthouse itself was demolished in 1906 (2), that this was a ninth-century *ribat* (measuring 67 x 67 m., and flanked by rounded towers), which owed nothing to the Byzantines; the lighthouse incorporates the minaret of this building. Of Justinian's city, ruins seen by Hannezo extending over some 10 ha. and including a number of vaulted cisterns may have formed a part. The site has now largely been destroyed by modern industrial development.

The city's prosperity, if real and not imagined, can have owed little to its immediate *territorium*, which even today consists largely of sand-dunes, whatever the benefits of the water discovered during the construction of the defences. A more plausible explanation for its growth is suggested by its position on the coast, which would have enabled it to serve as an outlet for the agricultural produce, in particular olive oil, of the Tunisian *sahel* and *steppe*. The geographic
factors which had favoured the rapid development of Thysdrus in the second and early third century (cf. Slim 1960) may have had the same effect on Caput Vada in the sixth.

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Corippus, Ioh. I, 369 seq. (Caput Vadorum); Procopius, III, 14, 17; 15, 32-34; de Aed., VI, 6, 5-16 (Καποταδα).

al-Bakri, 171; al-Idrīsī, 149.

(1) Atlas Tun. 50, La Chebba, 46; (2) Carton 1906; (3) Diehl 1896, 269; (4) Guérin 1862(1), 150-151; (5) Guide Bleu 1971, 335-336; (6) Hannezo 1906; (7) Pellissier 1847, 274; (8) Pellissier 1853, 99-100; 268; (9) Peyssonnel 1725, 110; (10) Poinssot (L) 1936a, 33; (11) Shaw 1738, 193; (12) Tissot 1889(2), 101-102.

See Map 3, no. 12.

CHVSIRA

La Kesra (9°23'E 35°48'N) Fort

The attribution of this fort to the reign of Justinian rests on the slender basis of a fragmentary inscription which was restored by Wilmans so as to indicate its construction by the magister militum Solomon. Although this has been challenged by Saumagne and Poinssot, there seems to be no compelling reason for dismissing it out of hand.

The site stands in the Tunisian Dorsal region at an altitude of just over 1000 m., on the south-western edge of a limestone plateau, the Hammouda el-Kessera, which overlooks the Oued Merguellil. From this position it would have been possible to survey the rest of the plateau to the north and east, as well as to gain a wide panorama to the south and west, taking in the routes linking the Waktar region of the High Tell with the Steppes to the south-east. The fort occupies the rim of the escarpment. A rock-cut inscription and a liberal scattering of antique debris amongst the buildings of the modern village on the slopes below suggest that this was also the nucleus of the Roman
Gaz. AA. Chusira (cont.)

town, watered like its modern successor by the streams which spring from the foot of the cliff below the fort (Pl. IXa).

The aspect of the fort has not greatly changed since Diehl planned it in 1893 (Fig. 15). It is roughly rectangular in shape, measuring internally 65 x 46 m. (0.28 ha.). Walls evidently once stood on the south and west sides, for traces of their rubble-and-mortar core can still be seen in places adhering to the rock; for the most part, however, these have completely disappeared. Nothing remains of the Byzantine north wall, which has been entirely rebuilt using smaller stones. Most of the lower part of the Byzantine east wall, however, and of its three flanking towers is intact, though it is masked by modern buildings. It is built in the usual sixth-century technique with large ashlar facing including much reused material. Tower b has vanished since Diehl recorded it; Tower a has partially collapsed and is in urgent need of restoration. The position of the gateways is unknown; the main entrance should possibly be sought between Towers e and d, which stand only 10 m. apart.

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See Gaz. CB, Inscr. 8.
Map 3, no. 14.
Figure 15.
Plates IXa–b.

CONSTANTINA

Constantine, Ksantina (6°37'E 36°22'N) Fort? and Town Wall

In a rescript dated 534, Justinian made provision for Constantina to become the seat of the dux Numidiae. The city is only once referred to in the narrative of Procopius, when the author states that it was two days' journey from Gadiaufala. No sixth-century bishops are recorded,
but the city is included in the Descriptio of George of Cyprus.

The ancient city of Constantina (Cirta) lies today beneath the third city of modern Algeria, and virtually nothing remains to be seen of it above ground. The Roman city occupied a rocky plateau, shaped like an indented pentagon and measuring about 1 km. across at its widest point (north-west to south-east); the surface area of the plateau is 38.4 ha. The plateau forms part of a ridge running south-west to north-east, joining the Djebel Chettabah with the Djebel Ouasch, and slopes from 644 m. above sea level at its highest point to 580 m. in the south-east (Sidi-Rached). On three sides it is protected by the vertical sides of the Oued Rummel gorge, 100 m. high, while to the north-west the descent is almost as precipitous. On the south-west, however, an easier approach is possible along a narrow isthmus with steep slopes on either side.

From the first century B.C. until the French occupation in 1837 the site's natural defences have been enhanced by a succession of man-made ones. The descriptions of the town by archaeologists working in the nineteenth century indicate that parts of the town wall that was stormed and subsequently destroyed by the invading French army contained masonry of types common in the late Roman and Byzantine periods.

(a) On the south-west, Ravoisié records that the wall linking the three gates, Bab el-Djedid, Bab el-Oued and Bab el-Djebia, was composed of 'une muraille formée de matériaux antiques, parmi lesquelles on voit des fragments de corniches, de sculptures et d'inscriptions romaines'.

(b) Near the western angle of this wall, on the site of the present Hôtel de Ville, a tower about six or seven metres square and seven or eight high, built of well-dressed ashlar, was destroyed in 1861.

(c) Further north, the lower 1.0 to 1.5 m. of the west wall of the qasba (destroyed by 1846) consisted of well-dressed rusticated masonry, flanked by a semi-circular tower (diameter, 10 m.). The wall was 1.50 m. thick, and extended for some 50 m.

(d) The east wall of the qasba (destroyed by 1846) was also built on foundations suggestive of late Roman or Byzantine work. Ravoisié's detailed survey of 1840 shows the lower 3 m. to have been built of massive blocs (11, pl. VI-VII). Above this, the wall appeared to have
been rebuilt using, amongst other material, a number of large columns which Ravoisie plausibly suggests may have come from the destroyed capitoline temples that once adorned the qasba site. Above this the masonry deteriorates and is probably of medieval or relatively modern date. Where it changed direction slightly, this wall was flanked by a rectangular tower, about 4.50 m. across and projecting about 2.50 m.

The date of these constructions cannot now be determined archaeologically, since they have all been destroyed. The city takes its present name from the time of its restoration by the emperor Constantine I in 313, following its sack by Maxentius. It seems likely that the restoration would have entailed some provision for the city's defence and indeed its walls are mentioned at the time of the Vandal invasion (Salvian, de Qub. Dei, VI, 69). Constantina appears to have escaped plundering by the Vandals; it seems possible therefore that its fourth-century walls were still largely intact at the time of the Byzantine reconquest. The Byzantine refurbishment would probably have entailed putting the south-west wall (the exposed side of the city) into a state of repair and constructing (or reconstructing) a fort on the site of the capitol in the northern corner of the plateau. This fort, which was in a ruinous state by the middle of the twelfth century (al-Idrīsī); it was enlarged in 1284 (Ibn Qunfūd) and further strengthened in the mid-fifteenth century (al-Wazānī).

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(1) Atlas Alg., 17, 126; plan; (2) de la Mare 1850, pl. 116, 120, 132; (3) Desfontaines 1786, 349-351; (4) Liehl 1893, 362; (5) Liehl 1896, 289; 290; (6) Gsell 1901(2), 365; (7) Gsell 1912, 114-128; (8) Peysonnel 1725, 305-307; (9) Piese 1885, 298-299; (10) Poiret 1769(1), 166; (11) Ravoisie 1846(1), 15-18; 29-30; pl. II, VI-VII; (12) Vars 1896, 93-94; (13) Vars 1898, 343.

See Map 3, no. 15.
Gaz. AA.

CVLVLIS THEODORIANA  
Ain Djelloula (9°48'E 35°48'N) Town wall

Procopius records the construction of a city wall at Cululis under Justinian, and a recently discovered inscription confirms that it was the work of Solomon and the tribune Nonnus, and records that the town was renamed after the empress Theodora. Cululis is mentioned by George of Cyprus at the close of the sixth century. The Byzantine town walls are next referred to by medieval Arab historians writing of the fall of the town to Muʿawiya ibn Hudaj in 666/667. According to one tradition, it was Muʿawiya himself who conducted the siege; in another, it was his captain Abd al-Malik ibn Marwān. In both accounts, however, it was only the collapse of part of the town wall, apparently of its own accord, that enabled the Arabs to gain possession of the town (Ibn Ṭāmān; al-Bakrl; Ibn al-Athīr; Ibn Ṭidharī; al-Mālikī; al-Nuwairī).

Cululis is situated 32 km. north-west of Kairouan in the valley of the Oued el-Hamra, an important line of communication which cuts between the Djebel Ousselat and the Djebel bou Dabouss, linking the High Tell region of Tunisia with the plain around Kairouan. The site extends over a low promontory which projects from the north wall of the valley; it is protected on the south by the stream bed of the Oued el-Hamra, and on the north by the Ain Djelloula itself. A spring rises inside the western part of the enceinte.

The antiquity of the site has long been recognized; it was visited by Peysonnel in 1724. In the nineteenth century, Pellissier noted the remains of a large castle which he took to be Saracen, constructed on Roman foundations. Guérin distinguished two enclosures, a large one, mostly destroyed and formerly flanked by square towers, and a smaller rectangular one, measuring about 32 x 75 m. and flanked by square towers at the corners. He assigned both to the Byzantine period. Diehl (4) adds that the larger enceinte was flanked by eight or nine towers in all,
of which those at the north-west and south-east corners were circular, while those at the north-east and south-west corners were square; and that the smaller enclosure also had towers midway along its sides.

A contour plan of the site and surrounding area was made around the turn of the century by Lieut. Roisin (1). His plan of the rampart itself, however, is somewhat sketchy and in places inaccurate. Fig. 20 represents an attempt to correct some of the grosser inaccuracies. (The revision is not, however, based on accurate measurements). The revised plan reveals the overall measurements of the enceinte to be about 150 x 300 m., and the wall to enclose an area of some 3.24 ha. The wall is 1.20-1.40 m. thick, and consists of a mortared rubble core encased by two facings of large stone blocks, mostly reused material, which are bonded into the core by means of headers. Six rectangular bastions or towers (b, d, e, g, i, j) and one rounded one (a) are visible on the ground. Point c represents a group of Roman cisterns incorporated into the rampart.

The positions of three gateways are known. A gap in the line of the wall at f, and a mass of construction projecting beyond the rampart on either side of it suggest the presence of a gate in this position, linking the fortified enclosure with an extra-mural settlement on the site of the Roman town to the east. However, although the projections have all the appearance of bastions designed to flank a gateway, such an entrance, if it existed, could not have acted as a major artery leading into the city, since it would have been blocked by a smaller redoubt, measuring about 20 x 26 m., built inside the walls at this point. As in the case of Bagai, where a similar arrangement is found, it is not clear whether the redoubt represents a contemporary Byzantine fortlet, of which the bastions formed an integral part, or whether it is a later, possibly medieval, feature built around the Byzantine gateway after it had gone out of use. These questions could easily be resolved by excavation. On the south side of the town wall, a gap (h) about 1.60 m. wide probably represents the site of a postern gate, flanked on the west by Tower i. At point k, a large mound of stone blocks and rubble marks the position of the west gate. This was partially cleared in May 1944 by a group of German prisoners of war under
M. Valentini. His report, summarized by R. Lantier, is brief and is not accompanied by any plan: 'La porte, double, ouvre sur la façade occidentale. A l'intérieur, un escalier, en partie dégagé, débouche de la partie orientale de la courtine septentrionale'. The mention of a double gate, however, and the extent of the collapsed masonry, would suggest a plan similar to the so-called Porte de Solomon at Theueste, viz. an inner and an outer gateway flanked externally by a pair of rectangular bastions. No doubt the stairs led up to a rampart walk, as at Theueste. It was in the ruins of this gateway that the inscription which dates the work was found.

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See Gaz. CA, Κοθλουλίς (q.v.).
Gaz. CB, Inscr. 4.
Map 3, no. 16.
Figure 20.
Plates Xa-XIa.

GADIAUFALA
Ksar Sbahi (7°16'E 36°06'N) Fort

An inscription (not in situ) dates the fort to Solomon's second term as magister militum (539-544). In 536 Gadiaufala was the meeting point of the rebel army of Stotzas with that of the dux numidiae, Marcellus, an event which resulted in the troops of Numidia going over to the mutineers and in the murdering of Marcellus and his officers who had
taken sanctuary in a near-by church.

Ksar Sbahi lies in a rich agricultural region on the southern edge of a plateau which rises to an altitude of 900 m., overlooking the plains of the Haracta. The Roman settlement occupied an important crossroads on the southern loop of the Carthage to Constantina road, which passed through Tigisi. The Byzantine fort itself stands on the east side of a pass through which a road to the north led, via the Cued Cherf, to Thibilis and Calama. A spring rises just below its southwest corner-tower.

The fort is rectangular and measures internally 41.8 x 38.8 m. (enclosing 0.16 ha.). It is defended by rectangular towers at the four corners (c. 6.0 x 10.0 m.; walls, 2.0 m. thick), and by one midway along the east wall (11.5 m. across, projects 7.0 m.; walls, 2.6 m. thick). The corner towers have lateral entrance-passages, those on the south being right-hand, those on the north left-hand, so that the overall plan of the fort is symmetrical about an east-west axis. Gsell was only able to locate one entrance, a postern on the south side, 1.45 m. wide; no doubt the main entrance was elsewhere, possibly in the fifth tower.

At the end of the nineteenth century, the walls still stood several metres high. Gsell noted that although the towers were more solidly built than the rest, the general standard of construction fell far below that of other Byzantine fortifications. The walls were 2.60 m. thick.

The fort was surrounded by an oval outer rampart, between 20 and 30 m. in advance of its walls. This had an open-gorge bastion on the north-west. Gsell describes its construction as mediocre. Unless it represents a post-Byzantine construction, intended to defend a settlement that had grown up around the fort, it could perhaps be identified as a protetikhisma.

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Gaz. AA. Cadiaufala (cont.)

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160; (7) Fiese 1885, 419; (8) Romanelli 1970, 405.

See Map 3, no. 18.
Figure 5, 23.

HADRUMENTVM IVSTINIANVM,
IVSTINIANOPOLIS
Sousse (10°38'E 35°49'N) Town wall

The history of Hadrumentum's Byzantine defences is given by Procopius in de Aedificiis: the Vandals had torn down the town wall so as to prevent the Romans using the city as a base from which to operate against them; the local population, however, improvised their own system of defences to protect themselves against Moorish raids by joining together the outer walls of their houses with barricades; after the Byzantine reconquest, Justinian built a massive wall around the city and stationed a garrison of troops there. In describing the city's capture by the Moors and recapture by the imperial forces in 544, Procopius refers to the gates of the city and to the existence of a postern gate. Corippus's version of the same events also makes it clear that the wall was flanked by lofty towers (IV, 9): moenia clausa tuens et celsas milite turres.

The city was renamed after the emperor Justinian. The bishop Primasius, who failed to attend the Council of Constantinople in 553, is listed amongst the absentees as episcopus ciuitatis Aedruneniae quae etiam Justinianopolis dicitur. By the end of Justinian's reign, it seems that the city had become one of the residences of the dux Byzacii, since Corippus refers to Himerius as dux urbis at Hadrumentum in 544. The Byzantine city probably fell to the Arabs soon after the foundation of Kairouan in c.670.

Sousse is today the third largest city in the modern state of Tunisia. The walled medina occupies an eastward sloping site; its east wall was washed by the sea before the construction of new harbour works in the nineteenth century. According to Tissot, the Punic defences
consisted of a wall 6,410 m. long, flanked by towers and forts, which was extended to 7,360 m. by the Romans at the end of the civil war. However, Tissot's account was based on plans and notes prepared by Daux between 1862 and 1863. The hypothetical nature of Daux's plan was well demonstrated when Lieut. Hannezo went over the ground again on behalf of the editors of the Atlas some 30 years later. No evidence for a Punic wall was found, and Daux's forts turned out to be Roman houses. The line of the supposed Roman wall was more clearly visible:

"On le suit presque partout, mais sans trouver de traces de murs; ce n'est plus qu'unelevée de terrain, bien accusée surtout à l'ouest, avec quelques plates-formes qui éveillent (dit M. Hannezo) l'idée de bastions' (1). It seems in any case a priori unlikely that Justinian's wall would have enclosed so vast an area as the supposed Roman wall did; and since archaeological evidence of refurbishment is also lacking, it is safer to assume that the Byzantine wall was built de novo, as Procopius suggests, most probably enclosing a smaller area than any of its predecessors.

The most likely course of the Byzantine wall is the one taken by the surviving medieval one. Lézine has suggested that Abu Ibrahim Ahmad's wall of 859 may have been built on Byzantine foundations. This ninth-century wall was 2.10 m. thick, and extended for 2,250 m., enclosing an area of 32 ha. Without a stratigraphical examination of the wall's foundations, however, proof of Lézine's theory would be hard to supply, since, like the other Aghlabid buildings in Sousse but unlike most other early medieval town walls elsewhere in North Africa, the Aghlabid wall was built of large ashlar blocks, not dissimilar from normal Byzantine work (see Ch. V: 324-325).

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Gaz. AA. *Hadrumentum* (cont.)

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See Ch. V: 324-325.
Map 3, no. 19.
Plates LXXVIIa-b.

**HIPPO REGIVS**

Annaba, Bona. (7°46'E 36°54'N) Town wall and ?fort

The fact that Procopius describes Hippo Regius as 'a strong city in Numidia' (*κάλις τε, Νομιδαίων εχυρά*) when Belisarius occupied it in the winter of 533/534 has usually been taken to indicate that the walls, which had withstood and finally succumbed to the Vandal siege of 430/431, were still in a state of good repair a century later. The only thing that can be said in support of this theory is that there is no evidence to contradict it; but neither is there any specific documentary evidence for a Byzantine refortification, although it seems very likely that one took place. The only tangible documentary evidence for Byzantine military activity in Hippo are the tombstones of Buraido, a soldier of the numerus Hipponis Regii and of Maxentius, a senator of the numerus bis electorum. As for the town's ecclesiastical history, although Eraclius was designated Augustine's successor, no bishop is recorded after 430. The town is mentioned, however, in George of Cyprus's *Descriptio*, written in around c.600. In the middle ages the town shifted to a new site some 2 km. to the north; the walls of this settlement, Bona el-Hadida or Annaba, were built soon after 1058/59 (al-Bakrî).

The Roman town stood on a tongue of land surrounded by water on all but the south side: on the west the Oued Bou Ljemâa; on the east the Oued Seybouse; on the north the sea. The forum was situated midway between two natural defensive positions: on the west the Colline de Saint-Augustin (55 m. high, and 10 m. higher in antiquity) where the present cathedral stands, and on the east the Gharf el-Artan (20 m. high), much disfigured by post-medieval fortification and now the site of the museum. The shape of the latter is roughly rectangular, and a stretch
of revetment wall on its north-west side, about 18 m. long, suggests that this may be the result of human activity. The wall stands about 4 m. high, and is composed of large blocks of stone laid in regular courses which vary in height between 50 and 100 cm. Of its thickness or construction nothing can be said, since its rear face is obscured by the earth piled up behind it. The general aspect of the masonry, however, and in particular a clear vertical division that is visible between two sections that had evidently been built by different working parties, strongly suggest a military work of the late Roman or Byzantine period. Such a date is also supported by stratigraphy, as far as it is possible to reconstruct it, given that the area in front of the wall has been cleared of its archaeological layers by well-meaning excavators. The wall is built just behind and, towards the south, partially cuts through the rear wall of a row of three shops which border a street on the other side of which is the entrance to the Great Basilica. It thus effectively blocks up the three back entrances of these buildings, and must therefore be later than them. Just how much later it would probably be quite easy to determine by excavating the terracing behind the wall, and thus providing a terminus post quem for its construction. It appears, however, that the buildings had already been destroyed when the wall was built. Their walls had been razed 1.10 m. above the level of the thresholds of their rear doors, and traces of smooth mortar on top of them suggested that a floor may then have been laid at this level. The base of the terrace wall, which would doubtless have been set in a foundation trench, was roughly level with the same thresholds; and a ledge, 1.40 m. above this level, probably marks the level of the ancient ground surface from which the foundation trench would have been dug.

Fortification of Charf el-Artan in the early fifth or sixth century would have made excellent tactical sense, for at that time the sea still lapped against its north and east sides. A fort in this position would have been able to command both the port and the town wall at a vulnerable point where it met the coast. The extent of the town wall, however, and indeed of the Roman town itself is still unknown, although there is no reason as yet to suppose that it may not one day be located by excavation.
Gaz. AA. Hippo Regius (cont.)

Bibliography:

George of Cyprus, 657 ("Ἰππων Νουμίδιας (Gel.); Ῥππων Νουμίδιας (Hon.)); Maier, 152; Procopius, IV, 4, 26 (Ἅππονερέγιον).


(1) Atlas Alg., 9, 59; (2) Dahmani 1973, 19; (3) *Dennis 1924; (4) Diehl 1896, 296; (5) Marec 1954, 38-41; (6) Tissot tōôd(2), 96.

See Gaz. CB, Inscr. 43-44.

Kap 3, no. 20.
Plate X Ib.

IVNCI SOFIANA

Bordj Younga (10°26'E 34°28'N) Town wall

Procopius states that the coastline between Carthage and Iunci offered no harbour for the approaching Byzantine fleet in 533, indicating that Iunci not only had a harbour at this period, but one capable of accommodating Belisarius's expedition. The town later receives frequent mention in Corippus's account of the campaigns of John Troglitas. Reference is made to its walls (moenibus urbis: VII, 345) and gates (VII, 400). When Caecilides carried out a reconnaissance of the Moors' encampments around the town in 548, however, he reported that its defences were in a sorry state (VII, 481-483):

namque iacent nullis circumdata moenia muris, praesidio munita dei. non turribus illam ardua pinnati defendunt culmina tecti.

Walls and towers, in effect, were completely lacking. An inscription, found some 8-12 km. west of Bordj Younga at Sidi Gherib, records construction work carried out under Justin II and the empress Sophia, when Tiberius was Caesar (574-578); almost certainly this related to some work of fortification. Diehl assumed that the stone had come from the site of Macomades Minores, which he identified with Sidi Gherib (2). Louis Foinssot has since shown, however, that Macomades was no more than the earlier name for the town which from the fifth century onwards came to be known as Iunci; the absence of any other likely site in the vicinity prompted him to suggest that it was therefore probable that the
inscription had come from Bordj Younga (Iunci) (8; 12). This argument is supported by the appearance at the Council of Byzacium, in 646, of a bishop, Numidius, whose title, episc. eccl. Sofianae Iuncis, suggests that at the time that the public works were carried out at Iunci under Justin II, the town was renamed after the empress Sophia. A sixth-century bishop, Verecundus (d. 552), is also known from literary sources, and the town is mentioned by George of Cyprus.

Bordj Younga, with which the late Roman and Byzantine town of Iunci should now be associated (12), lies in the Tunisian sahel, on the coast 9 km south-west of Mahars. It takes its present name from a trapezoidal fort, with sides 40 to 47 m. long flanked by eight towers, which dominates the site of the town. The south and west corner-towers of the fort are seven-sided, while those on the north and east are circular. The earth, however, surrounding the base of the east tower has been sufficiently eroded away to show that it too was built on a polygonal foundation (1; 12; 14). Of the town wall nothing has yet been observed at ground level, though the trace of an enceinte has apparently been detected on air photographs, the publication of which is still awaited (16).

Diehl concluded, on the basis of the references made by Corippus, that Iunci was fortified under Justinian and later reinforced by a fortress built at "Macomades" by Justin II (2). Saumagne, examining the fort of Bordj Younga, put forward the view that the polygonal base of the east tower was Byzantine, and that the Muslim superstructure of the fort had been built on the foundations of a Byzantine construction (14, 763). In this he was followed by Poinsot, who argued that a Justinianic town wall, built he suggested by Solomon, was augmented under Justin II by the addition of the trapezoidal fort which later underwent restoration at the hands of the Aghlabids (8-13). There is nothing, however, either in its masonry or design that need lead one to believe that any part of the fort dates to before the ninth century. The name, waer al-Rum, by which al-Bakrī appears to designate it, is as likely to indicate those against as those by whom it was built. Evidently the work was carried out in stages; but the two circular towers are better explained as the result of a change in plan that occurred during the course of construction (See Pl. LXXV).
Gaz. AA. Iunci Sofiana (cont.)

The date of the town wall is less clear. The disparaging comments about the state of the defences that Corippus puts into the mouth of Caecilides do not suggest an official Justinianic fortification, even when allowances are made for poetic licence; had the walls been built by Solomon, they would have been virtually brand new in 548. It seems more likely, therefore, that the defences seen by Caecilides would have been of the ad hoc type such as the inhabitants of Sullectum and Hadrumentum had erected during the Vandal period to protect themselves against Moorish incursions; it is even possible that they followed the course of earlier ramparts, like those excavated at Thaenae (Barrier and Benson 1908, 22-24; pl. IV; Thirion 1957, 208-209). This leaves the inscription from Sidi Gherib as the most convincing piece of evidence for official Byzantine fortification at Iunci. There can be little doubt that it recorded the construction or repair of fortifications, as opposed to any other kind of building; and on present evidence it seems more likely to have come from Iunci than from anywhere else. Thus, until the site is investigated more thoroughly, the most that can be said is that the defences that existed at Iunci in the 540s were probably repaired, rebuilt or replaced between 574 and 578.

Bibliography:

Corippus, Ioh., VII, 111; 136; 391 seq.; 478-483; VIII, 20 (Iunci); George of Cyprus, 644 ('Iofxycc (Gel.); 'Iofxya (Hon.)); Maier, 156 (Iuncensis (+552); Sofianae Iuncis (gen.)(646)); Procopius, III, 15, 5 ('Iofxya).

al-Bakri, 172; al-Idrisi, 151.

(1) Barry 1885, 321-323; (2) Diehl 1896, 266-269; (3) Ennabli (A) 1976, 539-540; (4) Guide Bleu 1971, 356; (5) Marqais (G) 1954, 15; (6) Pellissier 1847, 394-395; (7) Pellissier 1853, 301; (8) Poinssot (L) 1935, 327 n.3; (9) Poinssot (L) 1936a, 32-33; (10) Poinssot (L) 1936b, 49; (11) Poinssot (L) 1938; (12) Poinssot (L) 1944, 151-164; pl. XII-XV; (13) Poinssot (L) and Merlin 1937; (14) Saumagne 1935, 759-763; fig. 3-5; (15) Shaw 1738, 195-196; (16) Temple 1835(2), 120; (17) Tissot 1886(2), 191-192; (18) Zbiss 1956, 66.

See Gaz. CB, Inscr. 30.
Map 4, no. 72.
Plates LXXIVa-LXXV.
An inscription shows that the fort was built by Solomon after he had become a patrician (i.e. 536-544). The name of the site in antiquity is unknown, though it has been plausibly suggested by Albertini that it took the name of the Roman Lamasba (Merouana), which is 5 km. to the south.

The fort is situated in the middle of the plain of Belezma, a rich fertile area lying to the north of the Monts de Belezma, and delimited on the east by the Djebel Mestaoua, and on the north by the Djebel Messaouda and Djebel Foushal. To the south-west, the valley of the Oued Barika leads towards Tubunae and the Chott el-Hodna; other routes also led north through Zarai to Sitifis, and north-east to Diana Veteranorum.

The fort was rectangular and measured internally about 125 x 112 m. (1.4 ha.) (Fig. 14). It was flanked by rectangular towers set at the corners and midway along each side. Today much of the walling planned by Diehl (5, plan IV) and excavated in the 1920s and 1930s (1; 2; 2), has been robbed out, leaving a rectangular-shaped plateau which still dominates the surrounding settlement. This plateau is largely the result of post-Byzantine occupation of the fort, which by 1154 had already produced a tell-like mound within it (al-Idrisi). In the late tenth century the fort had a military garrison, and stood at the centre of a prosperous town defended by a wall of pisé construction (Ibn Hawqal).

The curtain walls of the fort were 2.50 m. thick, and built following the normal Byzantine practice with large ashlar blocks laid in regular courses and bonded with headers into a rubble core. A certain number of reused architectural fragments and tombstones built into it may have come from near-by Lamasba. According to Diehl (5), the four corner-towers measured 10.70 x 9.30 m.; Tower f was 15.0 m. wide and projected 8.60 m. (allowing for the curtain wall's thickness of 2.50 m.); and Towers d and h were 10.0 m. wide, and projected 6.60 m. Diehl's plan suggests that the corner towers had lateral entrance passages, though these are not drawn. The wall thickness of the towers was usually greater than that of the curtain wall, varying from 2.50 to 2.70 m.
The northern gatetower (b) was excavated by MM. Carayol and Moulin in the 1920s, when the inscription was also found in a piece of rebuilding (j). From Ballu's notes of the excavation (j), it has been possible to prepare a plan of the gate (Fig. 6). The tower measured 7.10 m. across. Ballu unfortunately omits to mention how far it projected from the curtain wall, but Diehl's figure of 10.0 m. overall would give a projection of 7.50 m. (His figure of 15 m. for the width, however, is certainly erroneous). To gain access to the fort one had to pass through two gateways, separated by a court, 6.35 x 6.10, flanked by stone benches (width unstated) lining either side. The outer gate was 2.80 m. wide, and was closed by means of a portcullis operating in a slot (20 x 20 cm.), cut 40 cm. from the outer face of the tower. Fallen voussoirs showed the gate to have been arched (it could also have had a lintel). The inner gate was set 8.50 m. behind the portcullis. Its outer end narrowed to 2.62 m. in width suggesting that it had been provided with wooden doors which opened inwards. Behind the outer jamb there extended a vaulted passage, 3.40 m. wide and 3.42 m. long. When excavated, the jamb were surmounted by a lintel; but this was evidently not an original feature, because the packing above it contained the two fragments of the inscription, which had most probably originally been set over the outer gateway of the tower.

On the west of the fort, Diehl noted a postern gate set in the south side of the interval tower h thereby producing a bent entrance. Both the gate and the doorway communicating with the inside of the fort were 1.25 m. wide.

The internal buttresses to be seen on the plans of Towers b and h (Fig. 14) were probably intended to carry the rampart walk which had to make a detour when its path along the top of the curtain wall was blocked by a tower. There is no other evidence for internal arcading.

Bibliography:
al-Bakri, 107-108; ibn Hawqal, 91; al-Idrisi, 116;
LARIBUS, LARES

Lorbeus (Hr.) (8°51'E 36°04'N) Town wall

Both Procopius and Corippus attribute the town wall of Laribus to Justinian, and an incident related by Procopius shows that it had already been completed by 544; this makes it almost certain that Solomon was responsible for its construction. After the death of Solomon near Cillium in 544, his nephew, also named Solomon, was captured by the Moors, who, ignorant of his true identity, readily agreed to ransom him to a doctor named Pegasius, living in Laribus. On his release, however, the young Solomon was foolish enough to taunt the Moors from the walls of the town, and they promptly laid siege to the place. They were unable to take the town, however, and were finally paid to go away. Three years later, John Troglitas made Laribus the base camp for his third campaign against the Moors in Byzacium (547–548).

Corippus describes the town as occupying a well-fortified position, enclosed by walls recently built by Justinian and surrounded by forests. The fortifications would also have probably contained granaries and armouries (cf. Ioh., VII, 236–239). The town is mentioned by George of Cyprus in c. 600. Tenth-century Arabic sources refer to stone ramparts (Ibn Hawqal; al-Muqaddasi); but al-Idrisī's mention of walls of earth could suggest that these had been repaired in toub by the mid-twelfth century. Al-Wazānī writes in the sixteenth century that there were Latin inscriptions over the gates of the town.

Laribus lay in Numidia Proconsularis, on the main Carthage to Theueste road. Other routes linked it to the north-west with Sicca.
Veneria and the road to Constantina and to the south-east with Nactaris, Chusira and the steppe region of Byzacium. The forests that surrounded the town in the sixth century have now been cleared, and today the site lies in a plain given over to cereal cultivation.

The town wall describes the shape of a trapezium, measuring internally about 180 m. on the north-east, 200 m. on the south-west and 215 m. from north-east to south-west (Fig. 25). It encloses some 4.09 ha. and contains fresh-water springs. Midway along the south-west wall stood a fortlet, enclosing 0.10 ha. Diehl, whose knowledge of the site was derived mostly from Guérin and Espérandieu, provides the most detailed description of it. Today, however, very little masonry remains visible above ground (Towers a, j, k and z). The line of the wall is represented by a well defined scarp, which in places serves as a modern field boundary; on the north-west, however, it is in the process of being ploughed away.

The walls were of standard Byzantine type, 2.50 m. thick and containing reused architectural fragments and inscriptions. They were flanked by circular towers (internal diameter, 6.0 m.) at the corners and rectangular towers along the sides. Of these, only the northern Tower a now stands to any height (Pl.XIII). Diehl records that the first floors of both it and Tower b were carried on cross-vaults of brick and small stones, resting on corner piers. Entry to the upper floors was presumably from outside the towers. Tower m measured 5.0 m. across and projected 5.50 m.

The spacing of the towers suggests that there were gateways between a and b, c and d, and e and f. Of these, only the gate between c and d has been confirmed; Diehl states that it had a rounded arch.

The redoubt, built against the inside of the south-west wall, was evidently not quite as Diehl's plan shows it. Tower j is hollow; the spring of a collapsed vault runs along the whole length of its south-west side just above the present ground level. Tower k is solid and no more than 2 m. thick (NW to SE); indeed it is doubtful whether the standing masonry represents part of a tower at all. Diehl noted an arrow-slit at h. While the existence of the fortlet is beyond doubt,
excavation is clearly needed to establish its plan (cf. Pl. XVa).

In the eastern part of the enclosure stood an isolated tower (z), the south-east wall of which still survives to a height of several metres above ground. (Plate XIVa-b). Its base measures 5.00 x 4.90 m., and Diehl (4) gives its height as 13 m.; its walls are 1.50 m. thick. The stonework is more irregular than, for example, that of Tower a, which is the only comparable part of the town wall still standing. On the outside it is faced with large blocks, whose interstices are packed with smaller material; on the inside with small irregular pieces of stone. Two rectangular apertures pierce the south-east wall, one above the other. The lower has a lintel and semi-circular relieving arch, the upper merely a lintel. Inside, there is a corbelled stairway. Mud-brick (toub) work on the top of the tower evidently belongs to a later phase. Diehl suggests that the building was a watch-tower, built in the 7th century and associated with a basilica. Of its Byzantine date there seems little doubt; but excavation would be needed to investigate further its precise date and its relationship to other buildings in the vicinity.

Bibliography:
Corippus, Ioh., VII, 143-146 (Laribus); George of Cyprus, 660 (Ἀνδράδος (Ge1)); Διψαβος (Hon.)); Procopius, IV, 22, 12-20; de Aed., VI, 7, 10 (Δάριβος).


(1) Atlas Tun. 100, Ksour, 70; (2) Boisnard 1935, 37; (3) Bruce 1765, 211; (4) Diehl 1893, 378; 379-384; pl. XIV; plan. XXI; (5) Diehl 1896, 272-273; fig. 58; (6) Ennabli (A) 1976, 484; (7) Esperandieu 0000, 5; plan; (8) Guérin 1862(2), 73-74; (9) Piese 1865, 528; (10) Poinssot (L) 1936a, 33; (11) Romanelli 1970, 405; pl. 354a; (12) Tissot 1888(2), 455.

See Map 3, no. 23.
Figure 25.
Plates XIIIa-XVa.
La Skhira, which lies on the lesser Sirtic Gulf, midway between Luni and Tacapes, is identified by Fendri with Lariscus, a port used by John Troglitas as the base camp for his campaign against Carcasan and Antalas in 548. From Corippus's account of a mutiny, which threatened to disrupt the campaign, it appears that at this time the Byzantine troops were holding the town and the port while the allied Moorish forces under Cusina were encamped in the surrounding area (VIII, 41-48). When the mutiny came to a head, John left the defended camp, where his life was in danger (VIII, 11-112; fossasque furens et castra reliquit / egrediens uirtute sua ...). He then threatened to replace the Romans who remained in the camp by the Moors who still supported him; the Romans meanwhile prepared to defend the camp (VIII, 130-131: fossasque per omnes / ferrati micuere uiri ...).

Air photographs show a ditch surrounding the town on its three landward sides, enclosing an area of about 3.6 ha. It is tempting to identify this with the fossae and castra of Corippus; however, excavation is obviously needed to provide dating evidence and determine the character of the defences. The trace of a rectangular fort, about 24 m. square and flanked by rounded towers, can also be seen on the photographs; it is possible, however, that this is a medieval ribat.

Bibliography:

Corippus, Ioh., VIII, 41-131 (Lariscus portus).
(1) Fendri 1961, 14-16; pl. II; plan.

See Map 3, no. 24.
The works of Justinian at Lepcis Magna are described in some detail by Procopius. During the Vandal interregnum, the city, once large and populous, had been virtually deserted, and sand had encroached upon it. Justinian therefore built a new city wall from the foundations upwards, not, however, on as large a scale as it had been before, but much smaller, so that the city should not again be made weak by its very size and also be exposed to the shifting sands. Within the city, the emperor dedicated a church to the Mother of God and built four others. He also rebuilt the 'palace' of the emperor Severus (see Ch. III. 1:129). Procopius's account of the events of 543, in which the leaders of the Leuathae were slain at a banquet held by the dux Tripolitaniae, Sergius, indicates that the city was already fortified by that date.

Lepcis Magna had been made the seat of the dux limitis Tripolitanae provinciae by Justinian in 534 (Cod. Iust.). Under the provincial reorganization carried out by the emperor Maurice in the closing years of the sixth century, Tripolitania, including Lepcis, became part of the diocese of Egypt (George of Cyprus). The fact that Lepcis is not mentioned by the Arab sources which record the raid of Amr ibn al-Asi, in 643, might suggest that it had been replaced as military headquarters by Qen by that date (13).

Lepcis had developed in Phoenician and Roman times as a port at the mouth of the Wadi Lebda. By the end of the fourth century AD, it was surrounded by a stone-built defensive circuit which enclosed 130 ha. In or before the reign of Hadrian, a dam, constructed 1.7 km. upstream from the port, diverted the course of the wadi into the bed of the Wadi Rasaf to the north; but already in the fifth century there are signs that the wadi was returning to the course that it occupies today. Both the Byzantine and late Roman defences have been studied in detail by Goodchild and Ward-Perkins (12), and since more recent researches in Lepcis (eg. 3, 4 and 8) have added comparatively little to our knowledge of them, the account that follows is based very largely on the description and conclusions of these two authors.
Gaz. AA. *Lepcis Magna* (cont.)

As Procopius states, depopulation and the advance of sand over the site in the fifth century (through the agency not only of wind, but also of water, as excavation has shown) had reduced the city to a mere shadow of its former self. Archaeological investigation has in fact revealed the existence of two Byzantine walls, both of which enclosed a shrunken, and apparently shrinking, nucleus around the port; the outer wall enclosed an area of 44 ha., which was subsequently reduced to 28 ha. by the construction of the inner one. Both enceintes make use of the Severan forum as a fortified redoubt; Goodchild and Ward-Perkins suggest that this became a military zone, enclosing the palace of the *dux*, while it is quite certain that the adjacent Severan basilica became the church of the Mother of God, to which Procopius also refers (Ward-Perkins and Goodchild 1953, 22-24; fig. 8; pl. XIA-c).

At Lepcis, the constructional technique of the walls differs from the usual Byzantine practice seen in *Africa*, in that they are solidly built from selected reused blocks of sandstone or limestone, and have no rubble core. They were a uniform 1.90 m. thick and set on a solid concrete foundation, 2.20 m. broad. The mortar had a high lime content, derived from crushed sea shells, a feature which distinguishes the Byzantine mortar at Lepcis from that of other periods. A. C. Blanc identifies the shells as *Murex trunculus* L, and suggests that they were derived from the waste heaps of a purple dye manufactory somewhere in the vicinity (8) (see Pl. XVIIa).

The layout of the walls is shown in Fig. 26. Three sectors of the surviving primary Byzantine wall were not incorporated into the final enceinte, and had been systematically dismantled when the latter was built. The stretch of wall associated with tower B1 was intended to continue the line of wall B3-B17 to meet the sea wall C2 north-west of the Forum Vetus. Tower B1 was found to have been dismantled; only one masonry course survived above its foundation. The second sector, B5-B6, lies on the north-west side of the Severan piazza. Wall B5 was built along the north-east edge of the so-called 'Via Trionfale', and butted against a late Roman or Vandal-period defensive wall, which continued on the same alignment to the north-east. (This relationship has now been
Gaz. AA. Lepcis Magna (cont.)

destroyed in order to provide better access to the site for visitors: cf. 14, pl. XXb). In the piazza itself, such evidence as survives suggests that a wall (B6) was at first projected to block the entrance to the Colonnaded Street, but that this plan was quickly abandoned in favour of a more elaborate, but imperfectly understood, gateway (14, fig. 7). South and east of the piazza (Sector B7-B12), the course of the wall has been traced but not extensively excavated. Tower B6 (excavated 1945) measured 5.65 m. across and projected 4.50 m. At a point 6 m. to the east of it, the wall is carried on an arch over the specus of a Roman aqueduct, which was evidently still in use at the time. Trial trenching in 1949 failed to produce any trace of the wall between Point B11 and Tower B12, though it is certain that part at least of this sector was begun before the plans were changed, as a portion of it which survives at its junction with the inner wall just west of B12 demonstrates (see below).

In the final phase of the Byzantine defences, the triangular area between Sector B1 and the sea was abandoned and the town's northern line of defence was made to run along the north side of the Forum Vetus, from Tower B17 to the Sea Wall C1. The occurrence of the diagnostic shelly mortar in C1 shows that at least part of the sea wall was rebuilt in the sixth century. The wall cut diagonally across the temple of Rome and Augustus, and ran along the rear of the temple of Liber Pater. Tower B16 situated between the two temples, flanked a postern gate situated on its north-east side; this was 1.50 m. wide and 3.0 m. high, and was covered by a rounded arch. The tower was roofed with a barrel-vault; its doorway has a lintel and relieving arch, and the interior was lit by two arrow-slits. A stair leads up to the parapet walk on the inside of the wall north-east of the postern (Plate XVI).

Tower B17 must belong essentially to the second phase, since its diagonal entrance passage shows that it was designed as a corner-tower. From B17 to B3, however, the wall follows the same line as the primary wall. Midway along this section it crosses the Cardo, and the entrance to the town is defended by a massive gateway (B2). This consists of a portal, 2.5 m. wide and 6.5 m. high, flanked by two rectangular towers,
Gaz. AA. Lepcis Magna (cont.)

each measuring 6 m. across. The threshold was about 50 cm. above the level of the paved Cardo, suggesting that the road level had risen. When excavated, in 1925 (?), the gate was found to have been completely blocked up. The good quality of the blocking suggested that this had been done in the Byzantine period. The gateway was covered by a flat arch, with joggled voussoirs, backed by a barrel-vault; it had formerly been closed by means of a pair of pivotted wing-doors of wood. The towers were both covered by barrel-vaults, and entered through arched doorways from within the enceinte; inwardly splayed apertures served both for lighting and as loopholes. Inside the wall, to the south, a stair carried on arches led up to the parapet walk.

The re-entrant between the north wall and the Severan basilica was defended by a tower (B3). This is now filled with sand; but it is possible to see that it too was barrel-vaulted, and had two arrow-slits on the north, and one on the west. The entrances to the Severan forum itself were blocked up, and it seems more than likely that it was converted into the military headquarters of the city. Late walls within the area were unfortunately removed by the Italian excavations without proper records being made, and the plan of the internal Byzantine structures is therefore unknown. Caputo's identification of the sixth-century ducal palace with a complex of buildings, including a rotunda, excavated between 1955 and 1965 and situated some 250 m. beyond the city walls to the north-east, is not supported by any stratigraphical evidence, and in view of the position of the buildings seems highly improbable (cf. 6, 107-110; Goodchild 1965). The south-western side of the Severan forum was defended by a tower (B4), which has now been demolished (4). This measured 7.0 m. across, projected 5.0 m., had walls 1.75 m. thick, and was built around the outside of an existing doorway into the forum. The doorway had subsequently been blocked, as had a pair of posterns (1.70 m. wide) in the north-west and south-east walls of the tower. Ground level at the time of the construction of the tower was 1.60 m. above the level of the Roman street. This tower must have belonged to the second phase, since it is evident that the primary wall was intended to enclose Church 3 (see Fig. 6).
It is most likely that the secondary wall continued in a south-easterly direction from the east corner of the Severan basilica, although no trace of it has yet been found on the north-west side of the Colonnaded Street. Tower B18, on the south-east side of the same street, is a massive polygon, over 9.0 m. broad, which quite probably formed one of the flanking towers of a gateway in the centre of the street. Only one interval tower (B20) has been recorded between B18 and the angle near to B12. The junction of the outer and inner walls occurs 9 m. west of B12. This point was examined by excavation in 1950, when it was proved conclusively that the inner wall was later in date than the outer (14, fig. 10). Tower B12 itself measured about 7 m. across and projected 4.5 m.; Goodchild and Ward-Perkins suggest that in view of its size it may have been associated with a postern, although there is no other evidence for one. North-eastwards from B12, the two walls followed the same course along the south-east mole of the harbour. B13 represents the position of an internal stair, supported in all probability by an arch, which led up to the parapet-walk. Some 22.5 m. north of B13, another tower (here called B21) was located by the Italian Archaeological Mission in 1952; this measured about 5 m. square, and was built over the ruins of late Roman structures. Goodchild and Ward-Perkins suggested that a depression in the ground surface in the vicinity of B14 might represent the position of a gateway; but excavations in the 1950s revealed a continuous wall, following the same course as the late Roman wall along the top of the Severan harbour mole and enclosing the watch-tower at its tip (2, pl. LIII).

No evidence for a ditch or προτεστισσα has been found at Lepcis, though the former has been suspected on the north bank of the present course of the wadi, in front of the wall between B10 and B11.

The similarity of the masonry between the two phases of the defences suggests that no great period of time elapsed between their construction; it also seems likely that the outer wall was never completed. The evidence for the defensive state of the city in 543 argues strongly for the inner wall having been completed by then. The blocking of Gate B2 and of the two posterns in Tower B4 may have been the result, as Goodchild
and Ward-Perkins suggest for the former, of sand encroaching on the north-eastern part of the town; but, short of some cataclysmic event, the gate would probably have only become sanded up if no-one was bothering to keep the roadway clear. Another possible explanation is that a reduction of the garrison, and possibly even of the urban population (about whom very little is known at this period), meant that there were insufficient troops to guard all the entrances at once, and the number of gateways was accordingly reduced to one main gate on the line of the Colonnaded Street, and posterns on the north and possibly on the south.

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al-Wazānī, 402 (737).

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See Map 3, no. 25.
Figures 7, 9, 26.
Plates XVb-XVIIa; LXXIIIa.

LIMISA

Ksar Lemsa

(9°42'E 36°02'N)

Fort

An inscription found in 1888, about 1 km. east of Aln Lemsa, records the construction of a tower by three brothers, Maximin, Stephen and Mellosus, during the reign of the Emperor Maurice, sub patricio Gennadio et Ioanni
If one accepts that the inscription dates to the period when Gennadius was exarch, it can be dated to between 585 and c. 600. The see of the episcopus Limicensis, who attended the African council of 646, is probably to be identified with Limisa.

Limisa is situated in the valley of the Oued Maarouf, on the south-east side of the watershed of the Tunisian Dorsal. The fort itself stands on the slopes of the Djebel Serdj, at around the 500 m. contour, overlooking the site of the Roman town and the river valley beyond it. One of the prime factors influencing the choice of site must have been the existence of an open cistern, measuring internally 28.40 x 11.25 m. and 1.35 - 1.45 m. deep, lined with opus signinum, which was fed from a near-by spring by means of stone pipes (3, 314-315). The south-east wall of the Byzantine fort stood on top of the north-west side of this cistern, and a later system of canalization showed that the cistern had continued in use throughout the period of occupation of the fort and perhaps even into the Muslim period.

The fort is rectangular in plan, and measures internally 31.15 x 28.85 m. (0.09 ha.). It is defended by four corner towers, and its entrance was near the centre of the north-east wall. Ksar Lemsa is one of the best preserved Byzantine monuments in North Africa. Apart from the south-east wall, which has almost completely collapsed, much of the fort, both walls and towers, stands to its original height; restoration work in 1961 entailed the reconstruction of part of the west tower (e) and of the south-west wall. In recent years the interior has been completely excavated down to Byzantine levels by M. Khaled Belkhodja of the I.N.A.A., and the final report, when published, promises to throw much new light on the internal arrangement of such forts and the later occupation of this one in particular (cf. interim report: 2).

With the exception of the south-east wall, which was only about 1.30 m. across, the walls are 2.20 - 2.25 m. thick, and built according to the usual Byzantine technique with two ashlar facings enclosing a mortared rubble core. It is quite certain that the stone was derived from the buildings of Roman Limisa (cf. 16). The walls carried a rampart-walk, about 10 m. above the ground, which was reached by means of
Gaz. AA. Limisa (cont.)

a stone staircase, part of which is carried on an arch, just south of the gateway. Crenellation and a parapet added a further 1.50 m. to the height of the walls; the crenellation, some of which appears to be original, is built with an infill of small material, including brick, held between a pair of larger stone orthostats. The rampart-walk was paved with flag-stones and bordered on the inside by a parapet, 0.50 m. high.

The gateway (b) was 1.84 m. wide and was set between a pair of solid buttresses, 2.15 m. wide, which projected 1.0 m. from the face of the wall. These may have formed the base of a gate-tower of some kind. Inside the gateway, two columns flanked the entrance. The lengthy duration of the fort's occupation is illustrated by the discovery, during excavation (3, 317), of two thresholds, one 1.05 m. above the other. There also appears to be evidence for the conversion of the normal 'straight-through' entrance into a bent entrance in a later phase of occupation, possibly, as M. Belkhodja suggests, after the Arab conquest. The two columns may also perhaps belong to this phase.

In plan no two of the four corner towers are quite alike. Tower a, which is the largest (7.10 x 6.00 m.; walls 1.20-1.40 m. thick), and Tower c (5.25 x 5.05 m.) sit astride the walls. Towers d (5.10 x 4.95 m.; walls 1.25 m. thick) and g (5.25 x 4.95 m.) are more conventionally designed and have Z-shaped entrance-passages. Had it not been for the existence of the cistern, which the builders were obliged to take into account when constructing Towers c and d, the fort would be roughly symmetrical about an axis running from north-east to south-west. All four towers were four storeys high and had wooden floors throughout, the presence of which is attested by beam-slots. The first floors probably communicated with the first floors of the buildings, now destroyed, which covered the interior of the fort. Their second floors, however, communicated directly with the rampart-walk at a height of some 10 m. above ground and their third floors represented the fighting platforms, at about 16 m. above ground level. These were probably reached by means of wooden stairs or ladders inside the towers and were protected by crenellations similar to those of the rampart walk, adding a further
Gaz. AA. Limisa (cont.)

2.0 m. to the height of the towers. The tower chambers were lit by internally splayed arrow-slits.

M. Belkhodja's plan shows that the part of the fort's interior that had been excavated by 1968 (the north-western part of the fort) was filled with masonry structures. For a full analysis of these, however, we must await the excavator's final report.

Dating the fort is not easy. There appear to be three possibilities: (i) the fort is Justinianic and the inscription relates to an entirely different structure situated elsewhere; (ii) the fort belongs essentially to the reign of Justinian, Justin II or Tiberius II Constantine, but one of its towers was rebuilt under Maurice; (iii) the whole work is Maurician, in which case "turris" refers either to a single tower or to the whole fort. Diehl favoured a Justinianic date, though he did not rule out the possibility of later repairs under Maurice.

The architectural evidence provides no clues as to date, and there are no obvious signs of repair in antiquity on a scale sufficient to justify a building inscription. The Z-entrance to the corner towers can be paralleled at Tubunae, but this is undated. Since no other structure with which the inscription might have been associated has been found, and since there are no a priori reasons, despite Diehl's special pleading, why the fort should be Justinianic, the simplest and most logical explanation at present seems to be that inscription and fort go together, and that the fort dates to between the years 585 and c. 600 in the reign of Maurice.

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MADAVROS
M'daourouch (7°55'E 36°05'N)  Fort

A bilingual inscription, still in position over the main gateway, shows the fort to be the work of the magister militum and prefect Solomon. A 6th- or 7th-century bishop, Maurentius, is also attested for the town.

Madauros lies about 25 km. south of Thagaste (Souk-Ahras) on the Roman road leading from Carthage to Theveste, and was linked by road with Thagura to the east and with Tipasa (Tifech) and Gadiaufala to the west. The town occupies a sloping site at an altitude of about 800 m. on the north flank of the Djebel bou Sessou, which marks the watershed between the basin of the Oued Medjerda and the Oued Mellègue. The Byzantine fort was built at the centre of the town, overlying part of the forum.

The excavations by M. Joly in the 1910s finally resolved the controversy apparent in earlier accounts concerning the odd shape of the fort (cf. 6; 8; 2; 12; 13). His researches (2; 7; 14) showed beyond all reasonable doubt that the fort had originally been laid out, and work begun, on a rectangular plan, but that this had been abandoned during the course of construction in favour of a smaller enceinte, which made use of the hemi-cycle of the ruined Roman theatre as the foundation for its north-west wall (Fig. 11). Had the original plan been carried through there is little doubt that the theatre would have been demolished to provide the necessary building material for it.

The fort as originally planned would have enclosed 0.24 ha. and would have measured internally 38.4 x 63.3 m. The only surviving part of it that was not incorporated in the smaller fort is the foundation of the west tower (e) and the adjacent parts of the north-west and south-west walls. The base of Tower e measures about 7.0 x 0.5 m., and has
walls between 2.00 and 2.20 m. thick, though its superstructure may have been smaller. It had a left-hand lateral entrance-passage. The foundations of the south-west and north-west curtain walls are 2.10 and 2.20 m. thick respectively; the former contains a drainage culvert, some 20 cm. square, which runs through the full width of the wall. The north-west wall was backed by two internal buttresses, 2.40 m. apart and 4.0 m. wide, which thickened the wall in places to 4.50 m. The purpose of these is unknown, though it is quite possible that they were intended to support a stairway to the wall walk. What remains of the abandoned part of the fort survives today to a maximum of two courses above the excavated ground level. It is not possible to say with certainty whether this represented the state of building when it was abandoned, or whether this part of the fort was systematically dismantled, as at Lepcis Magna, to provide material for the smaller fort and give a clear field of vision to its defenders.

Gsell and Joly suggest that the whole of the south-east wall of the smaller fort, including Gate c, Towers b and d, and parts of the north-east and south-west walls, belonged to the earlier phase of construction. Although they state that the later construction work is inferior in quality, however, the stretch of wall between the north-east wall and the theatre, which includes Postern a and must belong to the second phase, is not noticeably different in character from the north-east wall itself. The constructional technique is of the usual Byzantine type, ashlar facing with a rubble core, both of which make use of material taken from the forum area. Advantage is often taken of existing Roman buildings to serve as a foundation, as for example occurs at the north corner, where a temple podium is incorporated into the wall. The north-east, south-east and north-west return wall have internal arcading, which supported a parapet walk 11.50 m. above ground level; it is quite likely that this continued on the south-west, where the upper part of the wall has unfortunately collapsed. The walls and arcade piers are built on a foundation of uniform thickness: north-west return, 2.15 m.; north-east, 1.75-1.90 m.; south-east, 1.60 m.; south-west, 1.80 m. In the north-west the entrances to the theatre
were simply blocked up, and a wall, 2.60 m. thick, was built around the top. The smaller fort enclosed an area of 0.17 ha., compared with 0.24 ha. for the larger one.

The south and east corners of the smaller fort were flanked by rectangular towers, inherited from the earlier phase. Tower b measures 7.0 x 6.5 m., and its walls are 1.45 - 1.60 m. thick. The ground floor is entered through a left-hand lateral passage, 1.72 m. high and 0.80 m. wide, the door-frame of which is covered by a lintel and relieving arch. The passage runs somewhat obliquely, because the north-west wall of the tower is out of line; the door opens inwards. The first floor was probably reached by means of an external wooden stair; the outer door-frame of the entrance was covered by a reused sculptured arched lintel, and a wooden door opened outwards at the inner end of the passage. The second floor, which like the others was of wood, was originally supported by reused cornice fragments, projecting from the walls at a height of 7.80 m. above ground level. The third floor would have communicated with the wall-walk. Tower c was broadly similar in design, measuring about 7.0 m. square. It was entered by a right-hand lateral passage, closed at the inner end by an outward swinging door. The second-floor door does not survive.

The main gateway was of the gate-tower type and situated midway along the south-east wall. The tower (c) measures 8.0 m. across and projects 7.10 m. The inner and outer gates were separated by distance of 5.0 m. The outer gate is set back from the outer face of the tower and is about 1.90 m. wide and 3.30 m. high. It is covered by a flat arch, consisting of three joggled voussoirs, on the keystone of which is carved in relief a monogram cross, flanked by α and ω, set in a circle. This is backed by a barrel-vault, which also serves as a relieving arch for it. It is above this that the inscription is set. The inner gateway is similar to the outer, except that the flat arch has fallen. There is a postern gate (a) in the north-west return wall, 1.15 m. wide and 1.60 m. high; it is covered by a lintel and relieving arch.

It is difficult to make sense of the internal structures of the fort (cf. 14, 131-132), since excavation was not, so it seems, conducted
following a strictly stratigraphical methodology, and most of the Byzantine layers have been removed to expose the Roman footings beneath. A subterranean passageway passes from inside the fort under the north-east wall to a well-head situated some 30 m. away. It seems likely that this was in use in the Byzantine period, but stratigraphical proof is lacking. An outer wall to the north-west of the fort, 0.90 m. wide and of interior construction, which made use of the footings of Tower e of the original north-west wall, is also noted by some writers (cf. 12, plan p.281), but no longer exists today. The conversion of the adjacent forum basilica into a maison à auges or stables need not necessarily have taken place in the sixth century (cf.2).

The inscription does not make it clear whether the fort was completed during Solomon's first or second period in office in Africa. If, as seems likely, the fort was begun during the first of them (534-536), however, a possible reason for the abandonment of work and its subsequent resumption and completion to a different plan could have been the mutinies of 536-537, in which the forces of the dux Numidiæ played a prominent part. The final completion of the work could therefore be ascribed to Solomon during the years 539-544. It may be noted that a change of plan during construction has also been noted at Calame, which lies not far distant from Madauros.

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In 534, Solomon's troops constructed a marching camp at *Mamma before defeating the Moors who were encamped there; Procopius also states, in *de Aedificiis*, that Justinian surrounded the town with a wall and stationed a garrison of troops there. In 547-548, the Moors again made their encampment in the campi Mammenses, after the retreat of John Troglitas to Laribus (Corippus). At the end of the sixth century, the town is mentioned by George of Cyprus; and in c. 686 it was the scene of a major battle in which the Moors of Kusaila were defeated and their leader killed by the Arabs of Zuhair ibn Qais (see Ch. II. 8: 107).

The site of the town of *Mamma* is located by Solignac at Henchir Douimis, in the valley of the Oued Cherichera (see Gaz. CA). The site is, as Procopius describes it, situated in a plain flanked by mountains, the Djebel Ousselat to the north and the Djebel ech-Cherichera to the south. Towards the north, it would have been in communication with Cululis, to the east with Hadrumentum, to the south-west with Sufes and to the north-west with Chusira, Mactaris and Laribus.

No trace of fortifications has yet been found at Henchir Douimis to confirm its identification with *Mamma*. The structures that have been investigated, however, include an elaborate system of Roman cisterns and aqueducts, which in the ninth century were harnessed to the *Saquiat Mams* which supplied Kairouan with water, and a Christian basilica, whose mosaics and associated finds suggest that it may have been in use in the sixth century (4, 67-72; fig. 9).

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See Gaz. CA, Μάμμας (q.v.).

Map 3, no. 27.
Gaz. AA.

MASCULIA TIBERIA

Khenchela (7°09'E 35°26'N) Town wall

Fragments of an inscription, found at Khenchela in 1875 and 1894, record the construction of moenia at Mascula by the prefect Thomas during the reign of Tiberius II Constantine and the renaming of the town Tiberia after the emperor. The inscription also mentions the names of the magister militum Gennadius, the dux Arpagius and the tribune Vigor. Since the dates of Thomas's and Gennadius's appointments are not known, the text can be dated no more precisely than to between the years 578 and 582.

Mascula occupied a position of strategic importance at the northeastern edge of the Aurès massif, on the road leading from Theueste west to Thamugadi and Lambaesis. It also lay only 12 km. south of Bagai, which was used by Solomon as a base on his two Aurès campaigns and was walled by him, and was connected with Badias to the south of the Aurès by means of a road passing through the Oued el-Abiod valley.

No trace of fortifications has yet been found at the site of Mascula itself, though it seems virtually certain that the inscription related to the construction of town walls.

Bibliography:


See Gaz. CB, Inscr. 33.
Map 4, no. 75.

MASTICARA

Bou Sebaâ (Hr.) (8°12'E 35°09'N) Fortlet

An inscription found built into a ksar at Henchir Bou Sebaâ records the construction of a munitio by a bishop named Faustinus at his own expense. Of the ten to thirteen bishops of that name known from Roman and Byzantine Africa, the most likely candidate is Faustinus of Theueste (Tebeustinus), who is mentioned in connection with the deposition of the relics
Gaz. AA. Masticana (cont.)

of Sts. Maxima, Donatilla and Secunda on 9 April Indiction XIII (535) and died on 9 January 550 (Maier 1973, 307). The munitio at Henchir Bou Sebaâ would therefore date to the first half of the sixth century. Masticana, the name of the locality given in the same text, suggests by its form the name of an estate or of a settlement that had grown up on one. Henchir Bou Sebaâ lies some 30 km. south of Theueste, beside the Roman road which leads, via Bordj Oum Ali, to Thelepte and Capsa. The road follows the valley of one of the head-waters of the Oued el-Kbir, which at this point passes between the Djebel bou Djellal and Djebel Tamesmida.

The fortlet in which the inscription was found was 14.50 m. square and built of reused material. Indeed, de Bosredon interpreted the text itself as a piece of spolium (2). Even if the text was not in its original position when found, however, there seems to be little doubt that the munitio to which it refers was a work of fortification and every likelihood that it was the ksar itself.

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See Ch. III. 5: 182 seg.
Gaz. CB, Inscr. 39.
Map 3, no. 28.

MILEV

Mila (6°17'E 36°27'N) Town wall

Procopius includes Mileu in the list of cities in Numidia situated around the Aurès, which Justinian fortified against the Moors. A bishop of the town, Restitutus episc. eccl. ciuit. Mileon, attended the Council of Constantinople in 553, and the town appears in the Descriptio of George of Cyprus.

Mileu is situated in mountainous country 57 km. (by modern road)
north-west of Constantina, at an altitude of 460 m. To the west it was also connected by road with Cuicul and Sitifis. The new bourg that was laid out by the French in the nineteenth century was sited a short distance to the north-west of the ancient town, which has been occupied more or less continuously since the middle ages; thus, in contrast to Calama and Sitifis, the town wall, which apart from some medieval patching is essentially the work of Justinian's army, has survived to the present day virtually intact. The only major transformations that have taken place are in the south-west corner, where a French army post was established, and on the west, where a small section of the wall, including the west gate, has been demolished.

The town was surveyed by Capt. Scheffler in the early years of the French occupation, and his plan, published by de la Mare (3, pl. 108), has formed the basis for all subsequent topographical work. The wall extends in an irregular fashion for some 1,200 m., and encloses about 5.14 ha. It is 2.20 m. thick, and constructed in the normal Byzantine fashion with a mortared rubble core and ashlar facing, incorporating reused material. Seventeen towers flank the enceinte (10, 233). Of these the Corner Tower _c measures 7.60 x 7.20 m., and is entered by means of a diagonal passage. Tower _h, which defends an obtuse angle on the south-east side of the qasba, is 9.20 x 6.80 m., and is entered by a lateral passage. The base of Tower _m was excavated by M. Pergola (11) in 1927, and again by M. E. Stawski (10) in 1957. Its structure is that of a quadrifrons 10.90 m. square, with the archways blocked (Fig. 8; Pl. XXIIIb); there is no question, however, of it having been adapted from a pre-existing building, as happened in the case of the Arch of Caracalla at Theveste. The tower flanks a position where the wall's alignment changes by 27°; thus the north wall projects 8.80 m. and the south only 8.10 m. At their weakest points the tower's walls were 1.40 m. thick, while above the arches their thickness was 2.80-3.00 m. The arches themselves are still standing, although the east one appears to have been rebuilt using smaller material. The central vaulting has collapsed, however, and its nature can only be conjectured. The tower was entered from inside the town through a small doorway on
the west side, 0.90 m. wide and 1.55 m. high, covered by a lintel (Pl. XIVa). The door-passage is some 2.50 m. higher than this and covered by a barrel-vault made up of reused voussoirs. One curious feature is a circular cubicle inside the south-east pier of the tower, entered from the western alcove. Owing to a change of plan, or a rebuild, this has been partly blocked up by mortared rubble; it is associated with what appears to be an arrow-slit on the east of the pier. Although the explanation of this feature is an open question, it is possible that it was a guard chamber associated with a postern gate set in the east side of the tower, where the masonry has now fallen away; whether this scheme was left incomplete or whether it was subsequently remodelled at the time when the eastern arch was reconstructed it is not possible to say.

The north gate of the town, Bab el-Bled (restored 1963 (2)), consists of an arched gateway, 3.90 m. wide and 2.50 m. long, flanked by two towers measuring 7.50 m. across and projecting 5.60 m. (Pl. XXIIb). From the position of the arch it is evident that the Byzantine ground level is from 2 to 3 m. below the present street level. The west gate of the town has been destroyed, as has already been noted. A postern (b), however, still survives on the east; it is 1.55 wide and covered by a lintel and relieving arch.

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al-Abdari, 159; al-Bakri, 132-133; Istibsär, 97; al-Watwät, 50; al-Wazânî, 369 (708); al-Ya qubî, 214.

(1) Atlas Alg., 17, 59; (2) Baghli 1971, 14; (3) de la Mare 1850, pl. 108-112; (4) Diehl 1896, 258; 290; 603-604; fig. 72; (5) Graham 1885, 15; (6) Gsell 1898, 295-297; plans; (7) Gsell 1901, 365-366; fig. 158; (8) Gsell 1912, 109-111; (9) Guide Bleu 1974, 404-405; (10) Lassus 1956b, 232-239; fig. 3-4, 17-21; pl. IV; (11) Pergola 1927, 66-68; (12) Ravaisié 1846(1), 43-44; pl. XXV-XXVI; (13) Romanelli 1970, 402; 404.

See Map 3, no. 30.

Figures 8, 27.

Plates XXIIb-XXIVa.
Procopius makes no specific reference to Qea, although it has been plausibly suggested that one passage in de Aedificiis, which refers to the construction of a town wall and public baths, relates to Qea rather than to Lepcis which the author has already described in some detail (4; 6). The city was evidently fortified by the time of its capture by Amr ibn al-Asi in 643; but the defences extended only on the landward side, for the Arabs were finally able to penetrate the town by following the shore line from the west a low water (Ibn Abd al-Hakam; al-Yaqubi; Ibn al-Athir; al-Bakri). Since no reference is made to Lepcis Magna in the accounts of the Arab conquest, it seems possible that Qea had become the military headquarters of Tripolitania by the seventh century. Al-Tijani, who also describes the siege, states that the walls were then destroyed. However, they must have still been standing when the inhabitants of the town closed its gates to Ibn Sa'd in 647 (See Ch. II. 8: 103). The town was refortified in the eight century, during the course of which a new land wall was built in 748/749 and a sea wall in 795/796 (al-Tijani; al-Bakri); these were further strengthened in 955/956 and supplemented by an outer enceinte in 1215/1216 (al-Tijani).

Ancient Qea lies today beneath the capital city of the Libyan Arab Republic. It occupied a triangular promontory, bounded by reefs and the open sea on the north-west and by a sheltered harbour, protected by a part-natural part-man-made mole, on the north-east.

When the Italians took Tripoli in 1911, the city was surrounded by a circuit of earth-filled ramparts designed for artillery (cf. 3). Between 1913 and 1916, these were mostly destroyed, and all that remains of them today is part of Bab al-Zanata in the west, a stretch of wall to the north of it and another stretch between Bab al-Hurria and the qasba (described as ruinous by al-Tijani in 1306/09, but apparently still habitable) in the south-east. A detailed study by Aurigemma, carried out while the destruction was in progress, revealed that the inner revetment of the Turkish ramparts south of Bab al-Zanata consisted of an earlier
medieval wall, flanked by cutwater-shaped bastions, which had become buried inside the rampart. A stretch of this wall immediately south of the gate was faced on the inside with irregular 45 cm. courses of ashlar masonry (I, 229; fig. 1; §). To the north of the gate, the early wall did not follow the course of the Turkish wall, but instead continued in a north-easterly direction to the sea (I, pl. VIIIa; 2, fig. 2).

In the absence of any record of stratified material found associated with this wall, attempts to date it can be no more than hypothetical. The masonry technique of the wall south of Bab al-Zanata led Aurigemma to suggest the possibility of a Byzantine date for it (I, 229); but as Lézine points out, it could as easily be Muslim (7, 57). The cutwater-shaped bastions appear from their construction to be later medieval in date, despite the fact that similarly shaped towers of the sixth and seventh centuries are known elsewhere (Ch. IV. 5: 300-301); and the discovery of antique spolia built into the base of Bab al-Zanata (2, 376-377) provides in itself no proof that the wall rested on Byzantine foundations. None of these considerations, however, has prevented Aurigemma suggesting that the Byzantine wall may have been built on the same line as the Roman wall (I, 225), and Lézine that the eighth-century walls were built on top of the Byzantine walls, which he suggests may or may not have been completely razed by Amr (7, 57). Some idea of the plausibility of these theories may be obtained by considering the size of the town that such a wall would have enclosed. After compensation is made for the effects of marine erosion, the figure of 50/55 ha. that is obtained (7, 57; 62) is far in excess of the area covered by any other Byzantine walled town in Africa apart from Carthage itself. For this reason it would seem unwise to attempt to push the date of the wall back any further in time than the eighth century; indeed, it is even possible that the wall enclosed within the Turkish rampart represented the wall of 1215/16, and that the eighth-century wall, like its Byzantine predecessor, enclosed a much smaller area around the harbour. If this were to have been the case, then all trace of it would subsequently have been lost beneath the closely packed buildings of the medina, and it is hardly surprising that no part of it has survived.
A group of inscriptions provides convincing evidence for the existence of Byzantine garrison at Rusguniae in the sixth or seventh century. The tombstone of Flavius Ziper (found in Algiers) states that as tribune of the n(umerus) p(rimum) f(elicium) Iust(inianorum) he had held the tribunate of Rusguniae for twelve years. The epitaphs of Maurice and of his two daughters, Patricia and Constantina, demonstrate that for over 5½ years (1 Nov. Indic. IX-30 March Indic. XIV) he had served as magister militum (uacans), and that his works included the building of the church at Rusguniae in which he and his offspring lay buried; it is possible that Maurice was the dux Mauritaniae. A sixth- or seventh-century bishop, Lucius, is also attested in an inscription.

Rusguniae occupied what by the sixth century would have been an isolated coastal position between Rusuccurru (Dellys) and Caesarea. The site lies 26 km. by road from the modern city of Algiers (Icosium), which it faces across the bay to the west (Plate XXVIIb).

The supposed course of a rampart enclosing an elongated coastal strip, 200-300 m. broad and 800-900 m. long (north-south), bounded on the west by the sea, was planned by Lt. Chardon in 1900 (3; cf. 1; 5). Apart from the northern edge of it, however, which Chardon showed flanked by three rectangular towers and which today is represented only by an
escarpment, the trace of the enceinte is somewhat hypothetical. Al-Idrīsī's description of Tamentfoust suggests that the wall was already badly ruined by the twelfth century, when the inhabitants of Algiers used the site as a quarry for ready-dressed building stone. The date of the wall is also unknown. Excavations in 1964 revealed evidence for post-Roman and early Muslim, or Berber, occupation of the south-eastern bath complex (Guéry 1965).

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al-Idrīsī, 103-104; al-Wazānī, 352 (686).


See Gaz. CB, Inscr. 45-48.
Map 3, no. 59.
Figure 36.
Plate XXVIIb.

SABRATHA

Marsa Zuaga (12°30'E 32°48'N) Town wall

Procopius writes in de Aedificiis that Justinian walled the city of Sabratha, in which he built a very noteworthy church. The walls were still standing over a century later when, in c. 643, immediately after the fall of Tripoli (Oea), the town was taken by the troops of ḌAmr Ibn al-Asi. The inhabitants of the town were taken so much by surprise that they did not even have time to close the gate of the city which they had left open to allow their flocks out to graze (Ibn Ḍabd al-Hakam; Ibn al-Athīr; al-Tijānī).

Sabratha lies on the coast of Tripolitania, about 65 km. west of Tripoli. Both the church and the wall mentioned by Procopius have been identified archaeologically, though the latter is still largely covered by the sand that has invaded the site. The Byzantine wall has been
traced for some 740 m, and encloses the landward side of an area of 8.5-9.0 ha., representing the nucleus of the Roman city and including Justinian's church (cf. Fig. 28). Evidence for coastal erosion (18), however, suggests that the original area was somewhat larger, though it is not certain whether the defences extended along the sea front at any period. There seems little reason to accept the view that Justinian merely "restored and strengthened the Roman walls ... to a relatively limited extent" (14; cf. 2; 12). Bartoccini's plan of 1927 shows an earlier wall some 460-470 m. in advance of the Byzantine east wall, and it seems likely to have been this wall, if any at all, that was demolished by the Vandals in the mid-5th century. It is perfectly possible, however, as Bartoccini suggests (1, 19), that on the west side, where the wall is still covered by sand, the Justinianic wall followed the course of an existing Roman one. It may be noted that the wall in this sector appears to have a zig-zag trace. Elsewhere, the wall is clearly of one build, and a sixth-century date for it seems more than likely (4). Excavations in 1948 on the south-east part of the wall, where it borders the north side of a Roman street running east-west (ie. between e and b), demonstrated that the houses in this area had already fallen into ruins and that the street had become blocked with rubble before the wall was built. 'All that Justinian's engineers had to do was to build upon them [ie. the house walls bordering the street], and to level off the debris to make a clear space against the inner face' (16). As at Lepcis, the walls are built of reused blocks of stone, in this case a soft sandstone, with no rubble core. They are about 2.20 m. thick, with foundations 2.60 m. thick (Pl. XXIVb).

The south gate (cf. 5; 6) is represented by a pair of solid foundation piers, constructed of sandstone blocks and surviving in the east one to four and in the west one to two courses above sixth-century ground level. They flank an entrance passage 3.00 m. wide. The piers measure 4.15 x 6.05 m., and project 2.30 m. from the curtain wall. The gate itself was apparently set 49 cm. back from the outer face of the piers. At this point, the sides of the passage are rebated by 11 cm., and a limestone threshold slab survives in situ. The position of the gate implies that the two piers represent the foundations for a
single gatehouse, rather than a pair of towers flanking a recessed
gateway such as can be seen, for example, at Lepcis. A second thres­
hold slab, of cipollino, worn away in the middle, set 2.05 m. behind
the first, could perhaps be interpreted as representing the position
of an inner gate; it seems more likely, however, that, if it is indeed
in situ, it was intended to act as a step to prevent the erosion of the
roadway which slopes down towards the north. Both thresholds are some
75 cm. above the level of the paved Roman street. In a secondary phase,
after the street level had risen another few centimetres, an outer gate
was added. This was set between two piers, 1.30 m. thick and projecting
2.80-2.90 m., which butted against the outer face of the earlier gate­
house. The new gate was set 47 cm. back from the outer face of this
forebuilding, and had a threshold formed from a split cipollino column,
which survives in situ. The addition of a forebuilding to the original
gatehouse, which is of a type unique in sixth -century Africa, suggests
that it had been found to be unsatisfactory, possibly because its single
gate made it too vulnerable to attack (Fig. 7; Pl. XXVIa-XXVIIa).

The east gate (=) appears to be of roughly the same shape as the
south gate, though it has yet to be excavated. On the south-east, a
4.35 m. gap (b) in the wall may represent the position of another gate­
way. (In recent times, two breaches, e and f, have been effected to
allow for easier access by archaeologists and visitors). Traces of a
tower measuring 4.35 m. across (east-west), and having a lateral entrance
passage, can be seen at the south-west corner of the enceinte (d). No
doubt others will come to light in the course of further excavation.
Procopius records that Belisarius sent John, one of his ἀρχιμαχῶν, to take possession of the fort at Septem in the winter of 533-534. In de Aedificiis, we learn that a fort had been built at Septem by the Romans, but had been neglected and allowed to fall into disrepair by the Vandals. Justinian therefore built a strong wall and provided the place with a garrison; he also consecrated a church to the Mother of God, thereby dedicating to her the threshold of the empire and rendering the fort impregnable. In a rescript of April 534, Justinian instructed Belisarius to dispatch as many troops as he thought necessary to Septem under the command of a tribune. This officer was to have command of the dronones which patrolled the straits of Gibraltar and was to keep watch on the affairs of Spain, Gaul and Francia and to report any intelligence received back to the dux Mauritaniae, who was in turn to relay it to the magister militum in Carthage.

Diehl argues from a phrase of Isidore of Seville (milites qui Septem oppidum pulsis gothis inuaderunt) that Septem had been occupied by the Visigoths prior to its occupation by the Byzantine troops under John (1, 36). There is no other evidence for the Visigoths having taken Septem, however, and, as Goubert points out, since Isidore was himself a Visigothic patriot, his reference to the expulsion of the Goths may simply have been intended as a reminder that Tingitania was still technically the sixth province of Hispaniae (2, 337-338). Isidore of Seville also records a Visigothic expedition that was mounted against Septem, probably in 546 or 547 (see Ch. II. 6: 79 n. 34), by Theudis. The Visigoths took hold of the castrum, but, while they were at Sunday
prayer, they were surprised by a Byzantine attack from land and sea and were annihilated.

At the end of the sixth century, George of Cyprus places Septem in **Mauritania II**. It was still Byzantine when, in 641, the empress Martina exiled Philagrius, a former advisor of Constantine III, to it (Nicephorus (ed. de Boor, 29); cf. John of Nikiu, CXIX, 23-24); and Julianus Urbanus, the governor of the town, who surrendered it to the Arabs in 710/711, also seems to have been the representative of the imperial government (Ch. II. 8: 110).

The site of Byzantine Septem is occupied today by the town of Ceuta in Spanish Morocco. The Roman and Byzantine town appears to have taken up the old quarter of the town, which cuts off the narrow isthmus of the Almina peninsula, on which Ceuta is built, from the mainland to the west. The ramparts of the Candelero, which delimit the landward side of the old town today, are the work of the Portuguese. Al-BakrI, however, records that a canal had already been cut across the isthmus before the Arab conquest. He adds that the walls of the town were built by the khalif C Abd al-Rahman III; the west wall had nine towers and a gate in the centre, and was preceded by a smaller one, which was in turn preceded by a ditch, crossed by a wooden bridge. No trace of the Byzantine fortifications has yet been recorded archaeologically and it is not known whether the castrum or γραβιαγν that is mentioned in the sixth-century sources was complemented by a wall enclosing the town itself. Finds from the site include late Roman pottery, lamps and coins and a Byzantine exagium (4).

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al-BakrI, 202-204; Ibn Khaldún (2), 11; Istibsär, 46-47.

(1) Diehl 1896, 36; 267; 171; 420; (2) Goubert 1947; (3) Naval Intelligence Division 1942(2), fig. 26; (4) Fosac Mon 1968; (5) Tissot 1977, 31-32.

See Map 3, no. 34 (not marked).
Gaz. AA.

SICCA VENERIA

El-Kef  (8°43'E 36°11'N) Town wall and ?fort.

According to Procopius, Sicca Veneria was one of the cities in Numidia that was fortified by Justinian. The see of the episcopus Sisicensis, mentioned in 646, is probably to be identified with the town.

The site of ancient and modern el-Kef is shaped like a vast amphitheatre formed by the south-western end of the Dir el-Kef, which is one of the mountain ranges lying between the valleys of the Oued Mellegue and the Oued Tessa in the northern part of the Tunisian Tell. Set at an altitude of 700-850 m., the town surveys the plateau of Araguib Kamra to the south. In Roman times, it occupied an important position on the Carthage to Constantina road, and was linked to Bulla Regia and Thabraca in the north, and with Laribus in the south-east.

A continuous history of fortification, from Numidian times down to the French occupation in 1881, makes the interpretation of el-Kef's defences somewhat complex. The situation is made no easier by the fact that the qasba, which dominates the town, is still a military zone and therefore a prohibited area, while much of what remains of the town wall is inaccessible on account of the modern buildings which surround it. It is apparent even from a distance, however, that the Turkish qasba of 1679 (12), which stands on the south-western edge of the plateau overlooking the town, incorporates an earlier rectangular fort, which is flanked by square bastions and faced with large ashlar blocks. A Byzantine origin for this part of the fortress seems quite possible, although by no means certain.

Other possible Byzantine elements can be detected in the town walls. In 1882, Cagnat described the remains of two stretches of wall, built of large ashlar blocks, one of which was flanked by a bastion. The photograph which accompanies his description illustrates a rectangular bastion, associated with a wall enclosing the western side of the town below the qasba; its construction, like that of the wall, is typically Byzantine. Although Diehl wrote in 1896 that nothing then remained of the Byzantine wall, part of Cagnat's wall does in fact still survive; it runs downhill from the south-east corner of the qasba, before losing itself amongst
the houses below (Pl.XXVIIIa). Contrary to the opinion of Tissot, on this side of the town the Byzantine wall lay well inside the Turkish enceinte. Its extent on the other quarters is, however, less certain.

In contrast to the uncertainty surrounding the interpretation of el-Kef's Byzantine defences, the small church, Dar el-Kous, which stands inside the Turkish (and presumably Byzantine) walls, can be attributed with certainty to the sixth century. Its similarity in certain architectural details with the citadel church at Ammaedara, leads Duval to suggest that the same architect may have been responsible for both buildings (Duval (N) 1971a).

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See Map 3, no. 35. Plate XXVIIIa.

SITIFIS

Sétif (5°25'E 36°11'N) Fort

In Solomon's second period of command in Africa (539-544), the hostile Moors were driven out of Numidia and the land of Ζάβη or Mauritania I, which lay beyond Aurasium and whose capital was Sitifis, was added to the empire (Procopius). Whether or not the Diocletianic province of Mauritania Sitifensis was ever properly reconstituted in the sixth century, there can be little doubt that if so it would have been short-lived (cf. Ch. III.1: 130 ). In de Aedificiis (553/555) and in the Descriptio by George of Cyprus (c. 600), Sitifis is placed in Numidia.
Gaz. AA. Sitifis (cont.)

Procopius mentions the construction of town defences at Sitifis and an inscription suggests that Solomon was responsible for them. The town walls of Sétif were dismantled by the Katama followers of Abû Fahm in 988 (al-Bakrî; Istibsâr); however, these defences were probably not the Byzantine ones, which were still intact at the time of the French occupation. The construction of barracks on the site by the French, in the second half of the nineteenth century, entailed the destruction of two-fifths of the Byzantine fort and the modification of the rest by the addition of a chemin de ronde provided with rifle-loops.

Sitifis lies at an altitude of 1,096 m. in the High Plains north of the mountains of the Hodna, and is separated from the sea by the range of the Petite Kabylie. Its Byzantine defences consisted of a rectangular fort, measuring internally 107 x 158 m. (1.69 ha.) and flanked by eleven rectangular towers. The fort, which apparently enclosed the forum area of the Roman town (10, 9), is sited on gently sloping ground, with the result that the lower (south) wall acts as a terrace wall for part of the interior. Although it has been partly rebuilt, it is possible to distinguish the sectors of this wall that were built by different working parties by the different arrangement of the weep-holes in the masonry (Pl.XXIXb). Plans made by Ravoisie and de la Mare before the French refurbishment show that the towers were deployed as follows: one at each corner, one on each of the shorter sides (east and west), three on the north and two on the south.

Of the surviving towers, three (a, c and d) are 10 m. square, while Tower b measures 13 m. across and projects 8 m. In Towers a and b, the upper floors were carried on stone corbels (d). The position of the main gate of the fort is uncertain. Possibly it was on the north, where the towers are more closely spaced. A blocked postern (1) survives just south of Tower b on the west; it is covered by a lintel and relieving arch. Diehl records two other posterns on the south wall (m and n); no trace of these remains today, however, and the widths that Diehl accords them (2.60 and 3.80 m. respectively) seem somewhat large for posterns. Diehl's plan also shows a stairway leading to the rampart walk in the south-west corner of the fort. Gsell noted that the
walk itself was doubled in width by the addition of a wooden balcony, supported on horizontal beams, the slots for which still survived at a height of 7 m. above ground level (11).

Excavations in the 1960s carried out in the area just west of the fort (cf. 7; 10) showed that, although the standard of domestic architecture had declined in the fifth century, occupation of a meaner sort had continued in the area well into the Muslim period. Some 20 m. in front of and parallel to the west wall of the fort, the excavation revealed a dry moat, 5-10 m. wide and 2-3 m. deep, revetted on the inside by a dry-stone wall comprising large reused blocks. This ditch cut through the ruins of the Roman insulae and appeared to continue some distance beyond the north-west corner of the fort in a northerly direction. Such dating evidence as it was possible to recover from the excavation suggests that the date of the ditch is more likely to be medieval than Byzantine. In 1977, however, a second ditch was identified, skirting the north-west corner and continuing along the north side of the fort; the date of this, however, has not yet been positively confirmed (2).

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See Gaz. CB, Inscr. 6.
Map 3, no. 36.
Figure 29.
Plates XXVIIIb-XXXa.
Part of an inscription bearing the name of the empress Theodora suggests that the fortification of Sufes dates to the reign of Justinian, in all probability to one of the two periods when Solomon was prefect and magister militum and certainly to before 546. The town is also mentioned by George of Cyprus. Sufes lies on the south-eastern edge of the Tunisian Dorsal in the valley of the Oued Rohia, better known as the Oued el-Hathob, which serves as a line of communication running north-south linking the steppe region around Sufetula with the Tell region to the north. The Byzantine town occupied a knoll on the west side of the valley, overlooking the plain of Rohia. Sufes was linked by road with Sufetula to the south, with Ammaedara to the west, with Thugga Terebentina and Mactaris to the north and with Mamma and Hadrumentum to the east.

Little of the Roman town remains to be seen above ground today, and even in the last century the site was considered one of the least spectacular in North Africa. Guérin noted the remains of an enceinte, which he estimated to be some 6 km. in length. Graham and Ashbee, however, saw nothing recognisable above ground apart from part of a public baths complex, which still exists a short distance to the south-west of the main site. The most detailed investigation of the Byzantine structures remains that of Diehl, carried out at the end of the nineteenth century.

A depression, running along the northern scarp of the site and representing the robber-trench of the north wall, shows how much the area has suffered from stone-looting during this century. Diehl, however, was able to recover the plan of a rectangular fort, which measured 30 x 41 m. internally (0.12 ha.) and was flanked by four corner towers. Its walls were 2.40 m. thick and constructed of a core of rubble, faced with large ashlar blocks. The size of the towers is not stated, though it appears from Diehl's plan that they were about 4 x 6 m. and probably had lateral entrance passages. The position of the gate is unknown.

The fort occupied the north-western corner of a larger enceinte, which extended about 190 m. (east-west) x 110 m. (north-south), enclosing
Gaz. AA. Sufes (cont.)

some 2.09 ha., and appears to have been secondary to it. This enceinte was flanked by rectangular towers or bastions (six are shown on Diehl's plan) and incorporated a number of other buildings, some of which (eg. b and c) appear to have pre-dated and some (eg. h) to have post-dated the construction of the wall.

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al-Bakrī, 279; Ibn Hawqal, 80; al-Idrisī, 139.

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See Gaz. CB, Inscr. 9.  
Map 3, no. 37.  
Figure 30.

THABRACA

Tabarka  
(8°46'E 36°56'N)  
Armamentarium

The evidence for a Byzantine military base at Thabraca is contained in a Greek inscription, written on a small bronze plaque, found in 1924. This reads: 'Animal belonging to the sacred armamentarium, attributed by imperial ruling to the courier Michael' (Gaz. CB). The plaque measures 4.7 x 8.5 cm. and is provided with a hole at either end for attaching it to a flat surface; the centre is decorated with an imperial bust. Merlin interprets the plaque as a notice that was fixed to the door of a stable or other building to signify that the horse within was reserved for use by the courier of the cursus publicus. Apart from the mention of a bishop, Clarissimus Tauracinus (646), Thabraca is not referred to in any sixth- or seventh-century sources. In the late tenth century, al-Muqaddasī refers to the existence of a ruined citadel.

Thabraca is situated on the north Tunisian coast, on the left bank
Gaz. AA. Thabraca (cont.)

of the Oued el-Kebir where it meets the sea. Behind the town rise the high mountains of the Kroumirie. The commercial importance of Thabraca as a port in the first three centuries A.D. is amply demonstrated by the network of roads which radiates from it; eastward and westward to Hippo Diarrhytus and Hippo Regius respectively, southward to Simitthu, Bulla Regia and the towns of the upper Medjerda valley and Numidia, and south-eastward to Vaga and the towns of the middle Medjerda.

Apart from some traces of a possible town wall seen in 1883, north-west of the Bordj-Djerid fort near the sea, no archaeological evidence for Byzantine fortifications has yet come to light (4). The existence of an imperial arms depot and a staging post for the cursus publicus, however, makes good sense in view of the town's important strategic position. It would also imply the existence of fortifications of some kind in the Byzantine period.

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See Gaz. CB, Inscr. 56.
Map 3, no. 61.

THAGVRA
Taoura, formerly Gambetta. (8°02'E 36°11'N)

Fort

Two inscriptions found in the vicinity of the Byzantine fort suggest that it was built under Justinian and Theodora, in all likelihood on the authority of the prefect and magister militum Solomon. A bronze stamp, intended for marking leather, textiles or other such products, and bearing the letters Πεμέλλου (of Gemellus), was found in the fort in the 1930s (6).
Thagura lies 26 km. (by modern road) south-east of Souk-Ahras. The fort is set on the summit of an isolated hill, with steep slopes on all but the south-east side (Pl. XXXIa). To the south-west it communicated with the cereal-producing area around Tipasa (Tifech) and Madauros, while to the north-west a road led through the mountains to Thagaste (Souk-Ahras), and two others joined the main Carthage-Constantine road to the north and north-east. A cistern lying near to the fort was supplied with water by means of a conduit from the Ain Guettar, 1.5 km. to the south-east (2).

The fort is shaped like an irregular hexagon, measuring internally about 100 m. (north-south) x 65 m. (east-west). The area enclosed is about 0.53 ha. The best preserved stretch of wall is on the east and south-east, corresponding to the weakest part of the site. In the mid-nineteenth century, the walls stood 8 to 11 m. high (2), and at the end of the century about 6 m. (5). Today, if one disregards the towers, they barely attain 4 m. at the most. Although much of the facing has now fallen away, the walls were originally 2.20 m. thick, and built with a core of rubble and a good creamy-white mortar, faced with ashlar blocks bonded into the core by means of headers (Pl. XXXIb). A great quantity of architectural fragments are still to be seen built into the walls. Owing to the slope of the hill, the inner face of the wall is now earth-fast on the east and south-east. On the south-west, however, it has been cleared quite recently, but on the north and north-west sides the wall is harder to follow. It was even suggested by Gsell that no wall was necessary here on account of the natural defences provided by the vertical drop. However, traces of the same creamy mortar and a shallow foundation trench cut into the rock are still visible in places, suggesting that the wall was continuous on all sides.

Lewal recorded three towers in a good state of repair on the north side and two less well preserved ones on the south. Today only the southern two survive, although the foundation of a structure at α, measuring 5.40 m. across, probably relates to another. Tower b measured about 10.60 m. x 8.20 m. It was open-gorge, though the presence of two wall abutments suggests that the back was covered by an arch to support
Gaz. AA. Thagura (cont.)

the parapet walk and the upper part of the tower (Pl.XXXIIb). Corner pilasters, corbelled out from the inside of the tower at about 3.50 m. above the present ground level, probably supported a cross-vault.

Tower a is 7.60 m. x 8.85 m., and is sited at the southern point of the enceinte. It was cleared in the 1930s by the Société archeologique de Thagaste, during the course of which the bronze stamp was found (7).

The entrance to the tower is covered by a lintel and relieving arch. At a later date, a barrel-vaulted concrete cistern was inserted, partially blocking the entrance (Pl.XXXb). Gsell suggested that there may have been a donjon at d, but this is hard to substantiate; in any case, whatever structure there was must have been fairly small. The discovery of two inscriptions at Thagura suggests that there may have been more than one gate. Their positions, however, are not known, though it is possible that one of them was at c.

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Map 3, no. 40.
Figure 31.
Plates XXXb-XXXIIb.

THAMVGADI

Timgad  (6°28'E 35°29'N)  Fort

According to Procopius, during the Vandal interregnum the city of Thamvgadi was emptied of its population by the Moors of the Aurès and razed to the ground to prevent the Vandals using it as a base, or even as an excuse for approaching the Aurès. In de Aedificiis, Procopius records the building of fortifications at the city under Justinian. More precise dating for the surviving fort is made possible by the discovery,
this century, of three identically worded inscriptions, which appear to have come from three of the four gates of the fort. These record the reconstruction of the cibitas Tamogadiensis by the patrician Solomon in the thirteenth year of Justinian's reign (1 April 539–1 April 540). The area around Thamugadi had been reoccupied by the Byzantine forces of Solomon during the summer of 539 when he undertook his second campaign against the Moors of the Aurès. Thamugadi would thus seem to have been one of the forts built and garrisoned in the region by the Byzantines after the successful conclusion of the campaign (see Ch. II. 4: 59–62). The last reference to a Byzantine military presence in Thamugadi is made in an inscription, found in the large late Roman and Byzantine necropolis which extends over a hillside south of the fort; the inscription records the dedication of a chapel by the dux de Tigisi, John the Armenian, during the reign of Constans II and the exarchate of Gregory (642–647).

Thamugadi lies at an altitude of 1,070 m. on the edge of a fertile plain extending north of the Aurès (for discussion of Procopius's geographical description of the region, see Desanges 1963). The town was therefore well placed to draw on the economic resources of both the plain and the mountains to the south. It strategic importance had also been recognized since its foundation as a colonia by Trajan. In the sixth century, roads linked it to the east with Masa, Baga, and Theueste, to the west with Lambassa and Tubunae and to the north with Constantina. The fort itself lies about 600 m. due south of the town forum. Although the ground rises south of the town, it was not this consideration which led to the choice of the site, but the existence of a spring, the Aqua Septimiana Felix, the third-century piscina of which (measuring 27 x 7 x 1.70 m. deep) formed an integral part of the fort's internal layout (Fig. 2).

The history of the fort's investigation in modern times began a century ago with the visit to the site of Lt.-Col. Playfair. An account of the structures visible in 1893 was published by Diehl and was followed by other descriptions written by Ballu (2) and Gsell. The most recent discussion, which also takes account of the excavations carried
The Byzantine fort at Thamugadi is almost unique amongst the Byzantine fortifications of Africa in that excavation has enabled the major part of its interior layout to be planned and studied (see Ch. III. 4: 171-177). Excavation of the fort began in 1910 when A. Ballu dug three trial trenches across its interior and claimed, curiously, to have found 'absolutely nothing' (4). A more extensive programme of excavations was initiated in 1939 by E. Albertini and L. Leschi. This was continued after Albertini's death, in 1941, by C. Godet, and by the time of Godet's own death in 1945 the chapel, baths and part of the barracks had been brought to light (38). Two years later, Leschi published an account of the Aqua Septimiana Felix (37). Under the direction of R. Godet, the son of the previous director, excavation continued through the late 1940s and early 1950s, until R. Godet's untimely death in 1954 brought them to a halt. During this period, work had included the excavation of the north gate (39) and continued study of the baths (33; 34); the work of restoration and consolidation that accompanied the excavation had included the diversion of the wadi that threatened the southern part of the fort (42) and the complete dismantling and rebuilding of the north-west corner tower (1950-53) in the cause of epigraphic study (33). From 1956 to 1962, the excavations were directed by S. Tourrenc. A small Berber settlement still occupied the centre of the fort in the early 1950s (10; 33); but by 1958 the whole of the interior was finally cleared for photography (24; 25). The task of preparing the definitive publication of the Byzantine structures now rests in the capable hands of prof. Jean Lassus (Aix-en-Provence).

The fort is rectangular, measuring internally 111.25 x 67.50 m. and enclosing 0.75 ha (11, 310). Its sides and corners are flanked by a total of eight rectangular towers, of which the one occupying the centre of the north wall contains the main gateway (b). The walls, between 2.40 and 2.70 m. thick (average 2.50 m.), rest on a foundation offset by 0.30-0.40 m. and stand in places to over 15 m. They are built with two faces of ashlar, comprising reused material, enclosing a rubble core. No trace of lime mortar has been found on the exposed
sections of the core; it is difficult to believe, however, that it was bonded simply by earth (see Ch. IV. 2:259–260).

The corner towers measure 6.25 x 7.35 m. (a, i), 7.25 x 7.30 m. (c) and 7.10 x 5.85 m. (f). They are entered by diagonal passages, 0.95 m. wide, which narrow to 0.65 m. towards the inside of the tower (11, 312). The interval towers measure between 7.20 (k, d) and 4.75 m. (g); their entrance-passages are 0.65 m. wide. All the towers have walls between 1.70 and 2.00 m. thick, and had at least two storeys. Entry to the upper floors was probably only possible by means of the rampart-walk or an external stair, since the surviving floors in Towers d and k suggest that there was no internal communication between the ground and first floors. In Tower d, the first floor now consists of a crudely built stone cupola, resting on the beginnings of a low brick cupola carried on stone squinches bonded into the wall (11, 313; 44) (Plate XLIa); the remains of a similar brick cupola can also be seen in Tower k. It seems quite likely, however, that the stone corbelling in Tower d represents a later insertion of post-Byzantine date and that the towers were all originally provided with brick floors carried on stone squinches. In some towers, the ground floors were lit by internally-splayed slits; in profile, these plunged downward on the inside, suggesting that they were intended for no other purpose than lighting. It may also be noted that not all the towers are properly bonded into their adjacent curtain walls; this would imply not only that the fort was built by different working parties, but also that the work proceeded at different rates in different parts of the fort (29, 465).

The main gateway, which is of the gate-tower type, stands on the north facing the Roman town (b). It measures 9.40 m. across and projects 6.55 m. from the wall of the fort (Fig. 6). The entrance-passage was closed by an inner and an outer gate, 3.40 and 3.20 m. wide respectively and set 7.50 m. apart. The outer one was closed by means of a portcullis, which slotted into a groove, about 15 cm. wide, which is clearly visible on the lower four courses of the gateway (Pl. XXXVIIIb). The rebated inner gate was evidently closed by means of two wing-doors,
which opened inwards and were secured when shut by a wooden draw-bar, which fitted into a slot (20 x 20 cm.) in the sides of the entrance-way (Pl. XXXVIIIa). One of the three inscriptions from the fort (Gaz. CB, Inscr. 27) was probably set over one of these gates. Voids in the side-walls of the gate-tower were at one time interpreted as entrances for pedestrians (11, 313). The excavations by R. Godet, however, showed that the eastern one was in effect a gallery, about 2.0 m. above ground level, and was reached by a stone stair set inside the wall; in reporting this discovery, Leschi suggested that it might have been used as a command post from which orders could have been given for operating the portcullis (39).

Each of the remaining sides of the fort was provided with its own postern gate. The southern gate (h), flanked by Tower g, was 1.00 m. wide, opening to 1.25 towards the inside (11, 313). Postern e, on the east, had subsequently been blocked and was faced by a third on the west (j). The fact that the internal structures of the fort respect two of these suggests that they were not blocked up before the internal buildings had been completed.

In view of the thickness of its walls (average 2.50 m.), internal arcading to carry the rampart-walk was not necessary at Thamugadi. Arcading was used, however, to carry the staircase to the rampart-walk just inside and to the east of the main gate. There is a second stair to the rampart walk facing this one on the south. One curious feature of the walls is a pair of recesses in the east and west walls, in each case just north of the postern gates in the same walls. The one on the west, which is intact, runs almost the complete height of the wall and is covered by a shouldered arch; both are 2.40 m. wide and 1.00 m. deep. Lassus suggests that these may have been used as shafts up which the blocks of stone may have been hoisted during building (27, 85; 29, 466); for this, however, there is no independent evidence. Another feature on the inner face of the surviving walls is the occurrence on them at regular intervals of vertical lines of protruding blocks of stone. The most obvious explanation for these is that they were intended for bonding the internal structures of the fort onto after the curtain wall had been built. The internal structures that survive, however, make no use of
them and are on somewhat different alignments (Pl. XXXVb). It would appear, therefore, that a change of plan occurred before the internal structures were ever built.

The interior of the fort was divided into two parts by a street which ran from the main north gate (b) to the south postern (b). To the west of it lay the headquarters and service area. This included a small brick-built chapel (18 x 10.8 m. overall), built to a basilican plan, with a narthex, three asiles and a semi-circular apse with flanking annexes, one of them a baptistery; the altar, which stood in front of the apse, was covered by a ciborium and concealed a reliquary deposit (17; 22, 469-471; 36). The other structures in the western part of the fort included a bath-building (overall 15.50 x 11.50 m.), also built of brick (29, 468-469), a cistern converted from the earlier piscina, and a group of structures inside the north-western corner of the fort interpreted as store-houses, latrines and kitchens (29, 467-468). The commander's house and headquarters building probably occupied the area between the chapel and the bath-house, while some of the barrack-like buildings west of it may have been intended for his personal body-guard of élite troops. Much of the Byzantine masonry in the western part of the fort was unfortunately removed during the investigation of the Roman sanctuary buildings associated with the spring without adequate records being made of them.

In the eastern part of the fort, a more regular arrangement of barrack-buildings betrays the quarters of the troops themselves. Although these buildings now stand no more than about 3.0 m. high, it is clear that they once had at least two and, in the case of those built against the walls of the fort, possibly even three storeys. Most had first-floor balconies, supported on stone pillars and reached by means of stone and probably wooden stairs. The barracks were arranged in eight rows comprising eleven contubernia in each. All except perhaps one of the rows were preceded by a verandah, 1.80-2.00 m. wide, running its entire length, from which the individual rooms opened. The chambers themselves measured 3.8/5.0 x 2.5/3.5 m. at ground-floor level. The ground floors were in most cases lower than the level of the street.
outside and each was provided with a pair of stone troughs, set in rectangular niches in one of the walls. The interpretation of these barrack-buildings is discussed in Ch. III.4: 171-177.

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See Ch. III. 4: 171-177.

Gaz. CB, Inscr. 25-27, 57.

Map 3, no. 41.

Figures 2, 5, 6.

Plates XXXIIIa-XLIIa.
A constitution of 534 made provision for Thelepte, together with Capsa, to become one of the headquarters of the dux Byzacenae provinciae. Procopius records the construction of a city wall and the stationing of a garrison of troops there under Justinian. The town is later mentioned by George of Cyprus, and the bishop Stephanus Talaptensis attended the council of Byzacium in 646.

Thelepte lies almost midway between Theueste and Capsa, and was linked by road with Cillium and Sufetula in the north-east, and with Négrine (Niciuibus) and ad Maiores in the south-west. The prosperity of the late Roman town had been based, like that of Sufetula, on the oil of the region; its ruins cover an area some kilometres square. The Byzantine wall occupies a raised position on the left bank of the Oued bou Haya and encloses an elongated rectangle, 350 x 150 m. (5.25 ha.). The line of the walls appears to have been determined partly by the lie of the land and partly by the layout of the pre-existing street grid; there is also reason to suppose, from the architectural remains that survive, that the area enclosed was the forum area of the late Roman town. Although the line of the walls is still clearly visible, they were already in a very ruinous state by the middle of the last century (6; 11); the recent laying of a water-pipe down the whole length of the eastern part of the walled area has done nothing to assist its preservation for future research.

The walls were built of large reused blocks of stone, following the usual sixth-century practice, with two facings of ashlar bonded into a concrete core by means of headers (Pédoya's idea that metal cramps were used is certainly erroneous and was probably inspired by the large number of reused blocks derived from earlier buildings such as temples). The thickness of the wall varies from 1.50 m. on the north to 2.20 m. on the east. Diehl's plan shows twelve projecting towers and a redoubt (g), built into the south-west corner. The walls of the redoubt are still visible; it measures 43 x 16 m. (7) and occupies the highest point of the defended area; Diehl identifies it as a church, but excavation would be needed to ascertain its true character.
Of the towers, one stands at each of the four corners, three flank each of the long sides (east and west) and two flank the south side; the absence of towers from the plan of the north wall may be due simply to their failure to survive above ground level. The corner towers were all apparently circular in plan and built on square foundations. One of the better preserved of these, Tower \( b \) (Fig. 6), had an internal diameter of 4.80 m. and rested on a foundation measuring 7.50 x 7.50 m. Its walls were 1.35 m. thick and it was entered by a diagonal passage; only about one eighth of its circumference was engaged in the enceinte (cf. Ammaedara, Tower \( c \)). Towers \( a \) and \( i \) were similar, the internal diameter of \( i \) being 6.40 m. (7). The plan of Tower \( f \), however, differed from the others. Diehl describes it as rectangular, measuring externally 10.35 x 9.40 m., with walls 1.95 m. thick. Such dimensions are supported by Pédoya's somewhat schematic plan; but Pédoya also shows a circular tower in the same position without, however, explaining the relationship of the two. The foundations of a circular tower indeed survive today, but in too excentric a position to have been of much value in providing flanking cover for the east wall. One possible explanation is therefore that the rectangular tower replaced an earlier circular tower which had been incorrectly sited (cf. Discoduratera in northern Bulgaria; Hoddinott 1975, fig. 61); however, the matter can only be resolved by excavation.

Diehl gives the dimensions of the remaining towers as follows (7): \( c \), \( d \) and \( e \), 6.60 x 5.00 m. with walls 1.50 m. thick; \( g \), about 10 m. across, projecting 8.0 m.; \( h \) and \( j \), 6.60 x 5.00 m.; \( k \), 11.50 x 11.50 m.; \( l \), 6.50 x 5.00 m., with walls 1.25 m. thick.

Pédoya claimed that six gateways and a postern near Tower \( b \) gave access to the town. Eight gates are marked on his plan, but one of these appears to have been the entrance to a tower (\( d \)); furthermore, the fact that a number of Pédoya's other gateways also occupy the most exposed parts of the wall suggests that they too may simply represent the position of towers that have disappeared. Diehl failed to locate any of the gates seen by Pédoya. Instead he recorded a bent entrance, which Pédoya did not see, in Tower \( k \); this, he suggested, was the main
entrance to the walled town. The existence of this gate has been challenged by Creswell, who preferred Pédoya's six gates to Diehl's one. The size and position of the tower, however, together with the knowledge that bent entrances were not, as Creswell thought, unknown in Byzantine Africa, tip the balance in Diehl's favour, though whether the bent entrance was the main gate or merely a postern is more problematical. This question, and the question of where the other gates of the town were positioned, can only be solved by new survey and excavation.

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See Map 3, no. 42.
Figures 6, 33.
Plates XL Ib-XLIIb.

THEVESTE
Tébessa

(8°08'E 35°24'N) Town wall

An inscription recording the reconstruction of the city by Solomon a fundamentis once occupied a position over the gateway set in the Byzantine blocking of the Arch of Caracalla (n) (Gaz. CB, Inscr. 23). A touch of unintended irony is contained in the inscription's claim that the Moors had been eliminated, since it was near Theuesta that Solomon himself met his death at their hands in 544 (Procopius, IV, 21, 19-28). Since Solomon is referred to as patrician, a date between 536 (or 539) and 544 seems most likely for the construction of the town walls. Other finds from Theuesta include a second inscription referring
Gaz. AA. Theueste (cont.)

to Solomon and two military epitaphs. Evidence for a Christian com-

munity at Theueste in the sixth century is provided by epigraphic

references to two bishops, Palladius and Faustinus Tebestinus (d. 550),

besides the archaeological evidence of a small chapel inserted in the

fifth-century monastic complex north of the town (Christern 1976, 221;

fig. 34) and of at least one church within the defended enceinte itself

(Gsell 1902a, 49). At the close of the sixth century, George of Cyprus

mentions the town in his Descriptive.

Theueste lies at an altitude of around 850 m. on the northern flank

of the Djebel Ozmer, an outlier of the Djebel Doukkane. Before it, to

the north, spreads the plain of Merdja, which is drained by the Oued el-

Kebir flowing north-west into the Oued Chabro. In years of adequate

rainfall the plain is still relatively fertile, and the fairly dense

scatter of late Roman fortified farms, many showing signs of continuity

into the sixth century and beyond, in the area south and east of the

town (Guénin 1909) suggests that the economic importance of Theueste as

a market centre for produce weighed no less than its purely military

value in the minds of the Byzantine administrators. The town's strate-
gic importance is explained by the position that it occupied at the

meeting point of four major lines of communication. To the north-east

was the road to Carthage (four days distant: Procopius, IV, 21, 19)

via Ammaedara and Musti; to the south-east the roads to Capsa via

Thelepte; to the west the road to Mascula, Thamugadi and Tubunae and

to the north-west the road to Hippo Regius or Constantina, passing

through Tipasa (Tifech).

The walls of Theueste enclose a vast rectangle, measuring 290 x

260 m. (7.5 ha.) and bulging slightly on the north to incorporate the

Arch of Caracalla. The enceinte with its fifteen towers was largely

intact when the French army occupied the town in 1851. A plan of it

prepared in 1853 (22), together with the drawings and notes made during

the two reconnaissance expeditions of 1842 and 1846 (20; 17), provide

some useful information about the state of the defences before they were

remodelled to suit the needs of a nineteenth-century European garrison
town (cf. 21; 23). Before the arrival of the French, a small Turkish
garrison had occupied the north-west corner of the enceinte; this explains the existence of casemates and a ramp for artillery associated with Tower 1. Some other repairs and alterations are probably medieval in date; al-Bakri states for instance that part of the wall was destroyed by Abu Yazid (934). The French military zone was established in the south-west quarter of the enceinte and was subsequently extended southward beyond the walls. Around the rest of the enceinte the height of the walls was reduced, and in places rebuilt, and a continuous rampart-walk was provided by demolishing the inner facing and core of the Byzantine wall while leaving the outer facing standing to serve as a parapet through which gun loops were opened. The towers were also modified, but were not reduced in height; thus, steps up to the level of the Byzantine rampart-walk had to be provided at the junction between each tower and the curtain wall. In the 1950s, part of the west wall was demolished; but plans to deal in like manner with the north wall on either side of the Arch of Caracalla fortunately never materialized (18).

The wall was between 2.00 and 2.10 m. thick and stood to a height of between 9 and 10 m. It was built with two ashlar faces bonded into a rubble concrete core by means of headers. Although built de novo, in places the walls made use of existing structures, as for example between Towers e and f where the piers behind the scena of the Roman theatre were probably used to carry internal arcading (this was modified in 1886: 2, 328; 21, 121-122). Elsewhere, however, the wall-walk, which ran round the whole enceinte at a height of between 7 and 8 m. above ground level, was carried partly on corbels. It was 1.25 m. wide and corbelled out on the inside by 0.75 m., leaving enough room for a parapet 1.50 m. thick (21, 136). Stone steps leading up to it are found next to each of the gates and between Towers a and b. Whether or not there existed crenellation, and of what type, is uncertain. Maitrot, who had access to the plans of the French army engineers, records the existence in his time of merlons rising 2.00 m. above the rampart-walk, with a parapet of 50 cm. between each pair. However, as he explains, 'il est bien hazardeux de les considérer comme byzantine, car dans la partie qui a été refaite incontestablement par le Génie et d’après les plans mêmes de ce service, on retrouve les mêmes créneaux.}'
The matter is therefore unresolved, though it seems possible at least that the rampart walk was intended for no other purpose than that of moving troops from one tower to another and not as a fighting platform. Evidence of a negative kind which might support this theory is the absence of anything resembling a merlon from the perspective drawings made by Sgt. Lardy in 1846 before the rebuilding (20, pl. 70, fig. 5).

The enceinte was flanked by fifteen towers, spaced no more than 95 m. apart. Their dimensions vary, but whereas the corner towers are all rectangular in shape, with lateral entrance passages (right-hand, Towers a, d and h; left-hand, l), the others are squarer. One of these, Tower k, was surveyed by Maitrot (21, 136-139), but although the tower is still standing some of the details observed when the survey was made have now disappeared (Fig. 3). The tower measured 8.50 m. across and projected 6.50 m. Like the town wall at this point, its walls were 2.0 m. thick. The lower storey was entered through a door which Maitrot gives as 4.0 m. high. A general rise of 1.80 m. in ground level in this area since the sixth century, however, implies that the door may have been subsequently rebuilt at a higher level; a more reasonable height for the original door would therefore be 2.0 m., which seems to be the module in use on the other towers. This led into a room 4.55 x 4.55 m. and about 7.50 m. high, enclosed by a groin-vault supported on corner pilasters 50 cm. square. Lighting was provided by a window in the inner wall, 50 cm. high (70 cm. on other towers), set 5.70 m. above ground level. The first floor, at 7.55 m. above ground level, was accessible only from the rampart-walk, there being no internal communication with the lower storey. At this level the inner-facing wall of the tower narrowed to 1.50 m. to allow room for the corbelled rampart-walk to pass. The door to the first storey was 1.60 m. high and 0.80 m. wide, and led into a room similar in virtually all respects to the ground floor room, save that its height was 1.0 m. less and that the window in its inner wall was 1.20 m. high. The topmost floor of the tower represented the fighting platform. It was set some 14 m. above ground level, and the parapet, though standing to a maximum of only 1.10 m. when Maitrot surveyed it, would probably have taken the
Gaz. AA. Theueste (cont.)

Total height of the tower up to 16 m. Access to the upper floor was only possible by means of an external stone staircase, corbelled out from the inner-facing wall of the tower and the adjacent curtain wall parapet, which was probably heightened at this point; however, French modifications seem to have removed all trace of such stairs in Theueste. Traces do survive, however, of the corbelled chambers which Maitrot describes set in the angles between the sides of each tower and the curtain wall (viz. Towers d, e, f and k). These were 1.10-1.20 m. square and were entered from the rampart-walk through a doorway, 80 cm. wide and 2.0 m. high. Their purpose may have been to act as observation posts, covering the wall of the tower and the adjacent curtain; more plausibly, however, they may be interpreted as latrines, similar to those added to the walls of Rome in the reign of Maxentius (see Ch. IV. 7: 316-317).

Three original gateways are recorded. The south gate, Bab A'in Cheta, is now inside the military zone just west of Tower f; it was 2.20 m. wide, 3.30 m. high and arched. The gate-tower built around the Arch of Caracalla (n) was dismantled in 1863 to make the town more easily accessible to traffic and to reveal the Roman architecture of the arch. Drawings by Sgt. Lardy (20), however, and the plans of de la Mare (20) and Moll (22) show very clearly how the quadrifrons was transformed into a gate-tower with a recessed outer entrance, 2.30 m. wide and 4.50 m. high, covered by a lintel (Fig. 6). The whole arch was encased in masonry and the rampart walk had to be raised two metres at this point in order to pass over the top of it. Two flights of steps either side of the gate on the inside of the town wall led from ground level up to the rampart walk and thence to the fighting platform over the gateway. At an unknown date perhaps after the Byzantine period, the original Roman stone beam roof of the quadrifrons collapsed, or was destroyed, and was replaced with a dome carried on squinches, only one of which survives (7).

The main gate to the town, the so-called Porte de Solomon (c), was on the west. The entrance consisted of a vaulted passage, 5.65 m. long preceded by an arched gateway 2.80 m. wide and 3.40 m. high, set
between two projecting towers (21, 139). The towers were 7.35 m. broad and 4.80 m. deep. Before the French modifications to them, they had stood about 16 m. high and had the same general features as Tower k, except that the floors (at 7.30 m. and 13.80 m.) were barrel-vaulted and the ground-floor chambers appeared to have had no door or window in the inner-facing wall; instead, they seem to have been accessible only from the entrance passage, and may therefore be interpreted as guard chambers. It seems that a double system for barring the entrance was employed. The outer barrier was probably of wood, and the restricted space within the entrance-passage suggests that it would probably have consisted of a pair of wing-doors. The inner barrier, however, consisted of a portcullis, the slot for which, though now blocked by stone and brick, survives at the inner end of the passage in the arch supporting the line of the town wall. The portcullis would have been operated from a mezzanine chamber set between the towers over the entrance-passage. Although a chamber still exists in this position, however, its character has been greatly altered by the French engineers; the modifications even include a series of machicolations corbelled out from the face of the gateway, above the entrance; that they date from the end of the nineteenth or early in the twentieth century is proven by the fact that they are plainly absent from the photograph of the gate published by Diehl (1896), but are to be seen in the one published by Gsell (1901) (cf. Fig. 7; Pl. XLIIIa-b).

Traces of an outer enceinte, extending north, east and south-east of the Byzantine enceinte and enclosing between 45 and 50 hectares, were planned in 1853 (22, pl. II). It appears to have been flanked by rectangular towers; its length alone, however, makes it seem unlikely that this was an official Byzantine work, and rather than see it, as Moll suggested (23, 215-216), as a late sixth-century addition to the enceinte already described, it could perhaps more plausibly be interpreted as a third- or fourth-century work such as has been found at Sitifis. Possibly it was kept in some sort of repair by the local population through the succeeding centuries. However, in the absence of a more recent archaeological survey of the wall and of the numerous fortified buildings that it seems to have enclosed, such a view can only be
regarded as a hypothesis. Some recent work, which has a bearing on the problem of late Roman and Byzantine settlement at Theueste, has been concerned with the excavation of the amphitheatre. Here occupation dating possibly from the Byzantine period is attested in the arena at the same time as the gate facing the oued was blocked and defended by a tower; after a period of abandonment or destruction, there follow two successive phases of occupation both of which appear to be medieval or later in date (Février (PA) 1967, 100-104; fig. 9-11; Lequément 1967, 115-122; fig. 1-2, 4, 11).

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THUBURSICU BURE

Teboursouk (9°16'E 36°28'N) Citadel

The defences of Thubursicu Bure may be dated by an inscription set over their north gate to the reign of Justin II and Sophia and the prefecture of Thomas (Gaz. CB, Inscr. 29). Since the text makes no reference to Tiberius as Caesar, it would seem likely to date from Thomas's first prefecture, allowing its date to be fixed between 565 and 568/569.

Thubursicu Bure lay in the province of Carthago Proconsularis, a short distance north of the main Carthage to Theueste road and within fifteen kilometres of Tignica, Thugga and Agbia. The town is situated at an altitude of around 500 m. on the eastern-facing slope of the Djebel Goraa, overlooking the valley of the Oued Kralled, and on the east side of the Oued Souani, a tributary to it. The Byzantine wall describes a roughly shaped pentagon and encloses 1.76 ha. It is now mostly obscured by buildings of more recent date and is difficult to follow except on the north and east, where it has also recently been restored. The south wall had already been mostly destroyed when Diehl described the site in 1893. The east wall incorporates part of a Roman bath complex. Roman fountains may still be seen within the enceinte, fed from a natural spring.

The wall is 2.40 m. thick and built of reused material. It stands in places to between 7 and 8 m. in height. The towers and the lower parts of the curtain walls are built in the usual sixth-century manner, with an external facing of large ashlar blocks. Diehl noted, however, that the inner facing was usually built in smaller material. In places, the upper parts of the curtain walls are built in a type of cellular construction resembling opus africanum. Diehl argued (6) that this work was Byzantine and was used as a means of economizing on good ashlar blocks. Between Towers c and d on the north wall, however, masonry of this type has clearly been used to repair a breach in the wall (PLXLVIIb; cf. 21, fig. 60). It would seem more probable, therefore, that Saladin was correct in regarding such masonry as belonging to later repairs (see Ch. IV. 2: 260-261). Diehl also noted traces of a rampart-walk paved with large slabs of stone and with a parapet 0.50 m. wide.
Six towers are shown on the plan drawn by Saladin (21), though Diehl counted seven (6). They stand at the corners of the pentagon with an extra tower flanking the north wall, which is not as straight as the others. It seems likely that there is a tower missing from the east wall, where a distance of about 130 m. separates the two corner towers (d and f). Otherwise no more than about 90 m. separates any pair of towers. The towers are rectangular, except for Towers g and h, which have more irregular shapes. Tower d, at the north-east corner, projects only on the east side. The front wall of Tower a is pierced by an internally splayed arrow-slit, covered on the inside by a lintel and relieving arch; its first floor was of wood, carried on reused cornice fragments projecting from the side walls (Fig. 3).

Two gates are known. The first, on the north, was fashioned from a third-century triumphal arch incorporated into the rampart. The gateway of the arch, 4.14 m. wide, was partially blocked and a smaller arch, about 2.50 m. wide, was inserted and surmounted by the inscription already referred to. The Byzantine gateway was in its turn later blocked. The inscription and the arch were partly destroyed when a doorway to a house inside the rampart was inserted sometime during the eighteenth or nineteenth century. The gate was excavated by Gauckler in 1896 and the original paved Roman street was encountered at a depth of some 5.0 m. below the then existing ground surface (2, 169-170). The second gate was on the east, facing the Oued Kralled valley; from it led a road down to the Carthage-Theueste road in the valley below. The gate had also been adapted from an existing Roman triumphal arch, 2.80 m. wide, but was less well preserved than the north gate. It too had been subsequently blocked; indeed, Gauckler argues that the blocking may have been Byzantine (2, 170-171).

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THUGGA

Dougga  

(9°13'E 36°26'N)  

The construction of a fort at Thugga is dated by Procopius to the reign of Justinian. Apart from this one reference, however, sixth-century sources make no mention of the town, although it may possibly be identified with the see of bishop Victor, episcopus ecclesiae Togiae, who attended the Council of Proconsularis in 646.

The Roman town of Thugga lies at an altitude of 570 m. on the southern slope of an outlier of the Djebel Goraa, just below a rocky plateau which formed the acropolis of the early Numidian town. To the south-east it overlooked the valley of the Oued Kralled. The surrounding area between the Oueds Medjerda and Siliana was one of dense Roman settlement on a fully developed urban scale and based economically on the agricultural exploitation of the region. In the sixth century it was defended by a concentration of fortified sites, including Agbia, Thubursicu Bure and Tignica.

The Byzantine fort at Thugga is roughly rectangular in shape and enclosed the Roman capitol and forum, an area of some 0.28 ha. Excavations have revealed traces of a conduit which seems to have supplied it with water. The walls of the fort incorporate in places the walls of pre-existing Roman buildings, and this explains its irregular shape. It is clear, however, that when the fort was built, the forum had already been abandoned and covered by a deep deposit of rubble. Excavations in the early part of this century, which were directed towards uncovering the Roman structures beneath, have removed all trace of the Byzantine
and medieval buildings and occupation layers within the fort (except within the temple podium: cf. 19; 20), so that, seen from the inside, the north gate (b) is now some 3 m. above (second-century) ground level. The Byzantine ground level within the fort, however, seems to have sloped down towards the west, following roughly the contours of the hill. The walls are between 2.00 and 2.50 m. thick, and built of reused blocks of stone. Where they do not make use of pre-existing Roman buildings, they are constructed according to the normal sixth-century practice, with two faces of ashlar enclosing a mortar and rubble core. A row of three engaged piers survives on the south, between Tower d and gate c; this probably supported a flight of stairs to the rampart-walk.

Two rectangular towers flank the two longer sides of the fort, the north and south. The north tower (a) measures 7.0 m. across and projects 4.5 m. Its lower floor was barrel-vaulted, and was entered through a door covered by a stone lintel; this floor is now well below the ground level outside the tower. The tower flanking the south wall is trapezoidal in shape, measuring 10 m. across and projecting 6 m. on the east and 7 m. on the west. It too was entered through a simple doorway covered by a lintel. The existence of corner pilasters suggests that the lower storey was covered by a groin vault; however, the difference in masonry technique between these and the rest of the tower may betray a later, possibly Aghlabid date of construction (cf. 18, 41).

The fort had two entrances, one on the north between Tower a and the capitol, which occupied the north-east corner, and one facing it on the south, just east of Tower d. The south gate was about 2.30 m. wide; its upper part does not survive, but enough remains to show that the entrance had a single door which opened inwards. The north gate was narrower, about 1.50 m. wide, and was covered by two lintels, one of which a Roman cornice fragment, and a relieving arch.

It is possible that the capitoline temple was transformed into a chapel in the Byzantine period, though the evidence for this is somewhat tenuous (cf. 19; 20). The line of an outer wall enclosing part of the Roman town and the plateau above it is also traceable. The part of this which encloses the plateau seems to have belonged originally to
the pre-Roman town wall, which was built of dry-stone, 2-5 m. thick, with well-dressed facing blocks (16; 18, 68). The appearance of reused Roman architectural fragments in part of the wall, however, and the excavation further down the hill to the south, in 1925, of a stretch of wall cutting through the layers of abandonment of the "House of the Birds", provide evidence of a late Roman refortification. This latter wall was 2.50 m. thick, was built without mortar and, in the part excavated, was composed mainly of stone derived from a ruined bath building (24). However, the date of this late or post-Roman wall is still uncertain, though its building style does not suggest an official sixth-century work.

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See Map 3, no. 44.
Figure 13.
Plates XLIXa-LIa.

TIGISI
Ain el-Bordj (6°57'E 36°07'N) Town wall

Procopius, recording the legendary settlement of North Africa by the Moors at the time of Joshua, cites Tigisi as the site of a primitive 'Moorish' fortress. However, the town was without defences at the time.
of Solomon's first Numidian campaign, although the area around the spring was walled in sufficiently for Althias to be able to prevent the Moors under Iaudas from being able to water at it (535). An inscription found in 1955 suggests a Justinianic origin for the town walls (Gaz. CB, Inscr. 3); this is also supported by Procopius in *de Aedificiis*. At the end of the sixth century, George of Cyprus includes Tigisi in the *Descriptio Orbis Romani*, and a letter of Gregory the Great (602) mentions a bishop Paulinus, who was episcopus ciuitatis Tegesis. In the closing years of Byzantine rule in Africa, Tigisi seems to have been a seat of the dux Numidiae; such at least is the implication of an inscription from Thamugadi recording the dedication of a chapel by Ioannes dux de Tigisi between 642 and 647 (Gaz. CB, Inscr. 56).

Tigisi is situated about 40 km. south-east of Constantina and almost midway between Gadiaufala in the east and Sila in the west. The fortified site occupies the south-eastern facing slope and summit of a rocky eminence (altitude c. 950 m.) which is detached from the southern side of the Djebel Hamra. Towards the south-west it surveys the plain of Bahira et-Touila, while below its north-western walls winds the Oued Zenati whose valley forms one of the lines of communication linking the plain with the mountainous region around Constantina to the north.

The enceinte is irregular in shape, measuring 190 m. across from north-west to south-east, and 217 m. from north-east to south-west; it encloses 3.96 ha. The wall was laid out so as to make best use of the natural defences of the site; the ground falls away sharply to the north-east and north-west, while on the south-east and south-west the slope is gentler, though scarped directly below the walls. Very little now remains to be seen above ground of the Byzantine walls; even the gateway, excavated in 1955, seems to have disappeared. Fortunately, nineteenth-century accounts allow much of the detail of the defences to be reconstructed. The site was first planned, very crudely, by Capt. Moll in 1860 (12). In 1882, however, Chabassière published a survey based on excavations carried out by himself and MM. Goyt and Luciani which remains the most accurate plan available, although modifications of certain details have been made necessary by subsequent work of Diehl
The wall is between 2.30 and 2.50 m. thick and constructed of reused material with two facings of ashlar blocks enclosing a rubble and mortar core. In 1882 it still stood 3 to 4 m. high in places. Excavations in 1955 showed that part of the north wall contained rusticated masonry. Chabassière's researches revealed traces of fifteen towers, including two flanking the gate, to which Diehl added a further two in the southern re-entrant (a, t). Of these, eleven were rectangular: Tower e, which still survives in part, measured 10 x 11 m., and had walls 2.60 m. thick on the front and 1.80 m. thick at the sides (4). Tower i measured internally 3.68 x 5.20 m.; externally it was 10 m. wide and projected 8.60 m.; it was entered through a passage, 1.28 m. wide, which led down a short flight of steps to the ground floor of the tower (j). Tower h was elliptical in plan, though this may possibly have been the result of subsidence; it survived in 1893 to a height of between 5 and 6 m., had a diameter of 10.60 m. and walls 2.30 m. thick (4). Tower q was hexagonal, with walls 1.60 m. thick; while Tower r, although hexagonal externally, had circular walls with a diameter of 5.70 m. on the inside; its walls were 1.42 m. thick (4).

The main gateway (a), which was on the south-west, was cleared and planned in 1955 (8). It consisted of an entrance, 3.20 m. wide, flanked by two towers set 9 m. apart (Fig. 10). The towers were shaped like engaged octagons with six of their faces exposed. Internally they were circular, with a diameter of 4.70 m., the external diameter being around 7.30 m. The west tower, which was lower down the hill slope than the other and therefore better preserved because more deeply buried, survived to 6 m. in height. It was entered from within the enclosure by a doorway about 1.35 m. wide and 4 m. high, covered by a semi-circular arch. The arch of the other tower had disappeared, though the excavators suggest that it had been of brick. From their published plans it seems that the excavators never reached the level of the Byzantine road surface, and about the disposition of the door(s) they say nothing. In the eastern side-wall of the entrance passage, however, which was over 4 m. long, they uncovered in situ the lintel and relieving arch.
of a doorway, which seems to have communicated with a guard-post; in all probability another faced it at a slightly lower level on the other side of the entrance. There is no evidence for rectangular guard chambers, however, such as Gsell (6, fig. 157) interpolated onto Chabassière's plan (3, pl. XVI). What Gsell took to be the truncated side walls of these can best be interpreted as engaged piers intended to support the arch of the gateway and the fighting platform above it.

One of the most significant results of the excavation was the discovery of evidence for a later refurbishment of the gateway, at a time when the Byzantine road had been buried beneath 3 m. or more of rubble, which also completely covered the entrances to the guard-posts. In this phase the entrance was narrowed to about 2.0 m. and a paved roadway constructed. Of the possible dating evidence found beneath this road, however, nothing has been published, with the single exception of an inscription fragment; this the excavators dated to the 4th century, but it could equally well belong to the fifth or sixth (8, 250).

There is no unequivocal evidence for any other gateways to the enceinte. Chabassière noted one at b, but Diehl later identified this as a tower (t). It seems possible that the two smaller rectangular towers (m and n) set 9 m. apart may have flanked a secondary gate on the south-east, but no evidence for this survives.

The highest point of the enclosure was crowned by a rectangular building (v), remains of which may still be seen, though it has been mostly quarried out. Diehl described this as a 'donjon', measuring 17 x 27 m., with walls 1.20 m. thick (4, 358). However, excavations in 1955 uncovered instead a building measuring 16 x 17 m., associated with silos, and built in rubble masonry of a type which suggested a post-Byzantine structure rather than a defensive work.

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See Gaz. CB, Inscr. 3; 56.

Map 3, no. 45.

Figures 4, 10, 25.

TVBERNVC

Aīn Tēbournok (10°28'E 36°32'N) Fort

An inscription, apparently recording the restoration of the town by the emperor Tiberius II Constantine, suggests the date of the fort’s construction to have been between 578 and 582. Tubernusc is not mentioned in any other sixth-century source.

The site lies 9 km. south of Grombalia, on the southern slope of the Djebel el-Hadj-Djemaa, close to the headquarters of the Oued el-Masseri, to which the Aīn Tēbournok is tributary. It was thus some distance west of the main Carthage to Hadrumetum road which passed through Maxula and Pupput. The economy of the region is today based on olive and fruit cultivation; traces of ancient terracing survive on the hill slopes just north of the town, but cereal cultivation is unlikely to have been practiced on any large scale on account of the unsuitability of the soil.

The ruins of the Roman town covered an area of some 50 ha. Both these and the remains of the fort are covered beneath several metres' deposit of clayey hill-wash, through which the stream has gauged out a channel, exposing some of the buildings beneath. Traces of the Byzantine defensive work (probably Tower g) were identified by Guérin in 1862. It was not until the 1920s, however, when a civil engineer, M. Gresse, carried out clearance work during the course of constructing a pumping station at the head of the stream, that the size and nature of the fort became apparent (5; 7).
The fort is roughly trapezoidal (sides: north-east, 42 m.; south-east, 30 m.; south-west, 40 m.; north-west, 34 m.) and, though the east corner has yet to be excavated, seems to have been flanked by a rectangular tower at each corner. It was built around the forum precinct and enclosed an area of 0.12 ha. However, a factor of paramount importance in its siting must have been the spring which fed a series of three stone-built basins just 7 m. south of where the south gate of the fort was built; doubtless it was also possible to tap the supply from within the fort itself. The fort's walls are between 2 and 3 m. thick; they are built of coursed rubble masonry, set in a lime mortar containing flecks of charcoal and faced with stone blocks. Both the facing and the core contain reused material; in Tower d the core is built in a herring-bone pattern. In places, however, the wall was simply adapted from the pre-existing precinct wall of the forum.

The north tower (a) measured 9 x 8 m. and had a diagonal entrance passage about 90 cm. wide; much of the tower is still buried, and over the top of its remains traces of buildings in opus africanum which survive can best be explained as belonging to a phase of medieval or Andalucian settlement (Pl. LIIIb). Tower d, on the south, measures 7.35 x 7.80 m. and has walls 1.90 m. thick. It now stands to a height of about 2 m. above ground, and an internally-splayed arrow-slit is visible in its south wall. The walls of a mosque (now destroyed), built in the southern corner of the fort, unfortunately obscure its entrance passage. The west tower (e) barely survives above ground level, and in plan seems to have been a mirror image of Tower a (Pl. LIIb).

The main gateway was in the south-east wall, 8 m. east of Tower d. It was 2.65 m. wide and covered by a semi-circular arch, only the spring of which survives. About 5 m. behind it one of the arches of the Roman forum was incorporated into the gateway, apparently in situ (Pl. LIIIb). Traces of a postern gate can perhaps be identified at f on the north-west wall adjacent to Tower e.

Little is known of the internal arrangement of the fort since the excavations only affected between a quarter and a third of the total area. They were undertaken in any case with little thought for under-
standing stratigraphical relationships. The most imposing building still standing consists of the three cellae of the capitoline temple, which was apparently adapted for military use (Pl. LIIa). Although its Byzantine accretions have now been removed, however, Poinssot and Lantier's suggestion that it was transformed into a 'reduit principal' is less than convincing; a more plausible explanation is that it became part of the principia (cf. 7, 221).

Bibliography:

(1) Atlas Tun. 50, Grombalia, 205; (2) Diehl 1896, 270-271; (3) Guérin 1862(2), 204; (4) Guide Bleu 1971, 288; (5) Lantier 1931, 551; fig. 28; (6) Poinssot (L) 1936a, 37; (7) Poinssot (L) and Lantier 1926.

See Gaz. CB, Inscr. 34.

Figure 17.

Plates LIIIa-LIIIb.

VAGA THEODORIANA

Béja

(9°12'E 36°43'N) Town wall

At the time of the Byzantine reconquest Vaga was unwalled. Procopius records the construction of strong defences at the city, in return for which the inhabitants renamed it after the empress Theodora. This would imply a date before 548. An inscription, found in a later refurbishment of the wall, but probably relating to its original construction, records that the work was executed by the count Paul and subsidized from the revenues of the domus divina (see Ch. III. 5: 181). The town is later mentioned by George of Cyprus. After the fall of Carthage to Hassan Ibn al-Nu'man in 697/698, it was to Vaga that the defeated Byzantine army withdrew (see Ch. II. 8: 108).

Vaga lies at the centre of an area of open undulating countryside, which represents a transitional zone between the northern Tell of Tunisia (Kroumirie) and to the south the Medjerda valley. The plains of Béja were proverbial in the Middle Ages for the fertility of their soil. The town itself stands at an altitude of around 250 m., close to the point at which the Oueds Sersar and Béja break through the monts
Gaz. AA. Vaga Theodoriana (cont.)

de Medjerda, to form one of the principal lines of communication be­
tween Thabraca, 68 km. to the north-west, and the towns of the Medjerda
valley.

All that now remains of the Byzantine defences are a large rec­
tangular tower, forming part of the Turkish qasba, and the trace of a
line of walling running north-eastwards away from it down the hill
slope. Al-Bakri records in the mid-eleventh century that the town
wall had already been destroyed on the east; and Lt.-Col. Playfair
writes in the 1887 edition of Murray's Handbook, 'The old Byzantine
citadel has been almost entirely pulled down and replaced by comfor­
table, if not picturesque French barracks. Only the central keep
remains, formerly the prison, now a depot for military stores' (12).
Diehl, however, was able to follow the entire course of the wall and his
description of 1893 is the best source that we have, now that most of
what he saw has also been destroyed; it is particularly unfortunate,
however, that no plan of the town walls was made before they ceased to
exist.

According to Diehl, the defences of Vaga extended in the shape of
an irregular hexagon, elongated from south-west to north-east, and
spreading eastward down the hillside from the Turkish qasba. They
were flanked by twenty-three towers. The walls were well constructed,
following the usual Byzantine technique, with large reused blocks of
stone facing a mortared rubble core; traces of later rebuilding in
opus incertum were also apparent and probably of medieval date.

Diehl's itinerary begins at the qasba tower and proceeds first
along the north-west wall, which, he says, was relatively well pre­
served and flanked by seven rectangular towers. The north wall was
flanked by three rectangular towers, measuring 6 m. across and pro­
jecting 4 m., spaced between 20 and 25 m. apart. On the north-east,
the wall became more difficult to follow. In the centre of this
stretch, however, near to the Ain Béja stood a gateway (Bab el-Aîn),
which consisted of a bent entrance set in a rectangular tower. Diehl
identified this as Byzantine; the outer gate, arched and surmounted
by a relieving arch, he paralleled with that at Ammaedara (q.v.):
Gast. AA. Vaga Theodoriana (cont.)

Tower d); the entrance then turned a right-angle to the left, and led through an archway set in the curtain wall. After the Bab el-Ain, the course of the wall became less distinct, although traces of towers were discernible amongst the buildings of the Jewish quarter. As the wall began to climb once more towards the gasha, however, its trace became clearer once again. Three towers near the southern end of the south-east wall, a large tower flanking the corner and a further three on the south were visible, although they had been modified in later times. The south-west wall was better preserved, and flanked by three towers, the last of which had an arrow-slit in it.

The large tower that occupied the western corner of the enclosure still stands dominating the modern town, despite modifications to it carried out by the Turks (Pl. LIVa-b). Externally it measures 18 x 16 m. The ground floor is entered through an arched doorway, with a relieving arch resting on two engaged pillars just inside it. The chamber measures about 14 x 12 m., and is 10 m. high. The vaulting is probably Turkish; but the central pillar and engaged piers set against the two shorter sides of the chamber are original features, suggesting that the Byzantine vaulting consisted of four groin-vaults. Light originally came from two blocked up windows on the south-west wall.

Diehl also mentions the existence of a cistern next to the tower, fed from a near-by spring.

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George of Cyprus, 665 (Bôyn (Gel.); Bôya (Hon.)); Procopius, de Aed., VI, 5, 12-14 (Bôya).

al-Abdari, 162; al-Bakri, 119; Ibn Khalidân (2), 98; Istibsâr, 87; al-Watwât, 50; al-Wazânî, 374 (712-713); al-Yâ cübi, 211.

(1) Atlas Tun. 50, Béja, 128; (2) Boismard 1935, 35; (3) Diehl 1893, 414-420; pl. XX-XXI; plan XXIX; fig. 1; (4) Diehl 1896, 192; 284; pl. 10; fig. 10; (5) Diehl 1901, fig. 93; (6) Guérin 1862(2), 38-39; (7) Guide Bleu 1971, 222-243; (8) Pellissier 1853, 31; (9) Peyssonnel 1725, 268; (10) Piese 1885, 520; (11) Playfair 1977, 234-245; (12) Playfair 1895, 314; (13) Poinssot (L) 1936a, 38; (14) Romanelli 1970, 404; (15) Shaw 1738, 166; (16) Tissot 1833(2), 304.
An inscription found built into a barn at M'sila, 3 km. west of Bechilga, records the construction of a fundamentis of a civitas nova Justiniana Zabi. It seems more than likely that the construction work would have included the provision of defences, although no trace of any has been found at the site itself.

Zabi lay in the centre of the plain of the Hodna. As the name of a region, however, 'Zab' seems to have had different connotations at different periods. Thus, in his History of the Wars, Procopius identifies the 'land of Zabe' (Zasην τε την χώραν) with Mauritanian, situated beyond Aurasium, the capital of which was Sitifis (IV, 20, 30). This area was conquered by Solomon during his second period of command in Africa (539-544). By the time that de Aedificiis came to be written (553/555), however, an administrative change seems to have taken place: the land beyond Aurasium is described as being in Numidia, and only two cities, Sitifis and Phoeni, are mentioned. This could perhaps imply that the garrisons of the other fortifications in the region, including Zabi, had by then been withdrawn (see Ch. III. 1: 130).

Bibliography:


See Gaz. CB, Inscr. 2.

Map 3, no. 47.
GAZETTEER AB.

SITES WHOSE STRUCTURAL REMAINS ARE STRONGLY SUGGESTIVE OF OFFICIAL SIXTH-CENTURY FORTIFICATION, WHEN COMPARED WITH EXAMPLES IN GAZETTEER AA.
The fort of Bordj Ibrahim lies on the west side of the Oued Kralled valley about 5 km. south-south-east of the Justinianic fort at Thugga, and in direct visual contact with it. It was built on ground which slopes from west to east, and was surrounded by the remains of a sizeable Roman settlement. One prime consideration influencing the choice of site was the existence of a spring, the Ain Hedja, which now rises just below the south-east tower (b). Traces of an enceinte surrounding the Roman town have also been noted (1; 3). Although it is not mentioned in any sixth-century sources, it is possible though by no means certain that the see of the bishop Fortis Agensis should be identified with the site (646).

The fort is rectangular in shape, except for a dog-leg in the west wall, and is flanked by a rectangular tower at each corner. It measures internally 36.10 (north-south) x 30.60 m. (east-west), and encloses an area of 0.10 ha. The styles of masonry visible in the standing walls can be broadly divided into three categories. The lower part of all the towers and curtain walls is built in the technique usually associated with Byzantine military works, with large reused blocks of stone (including inscriptions) facing a rubble masonry core, the walls being 1.95 m. thick. Above this the work is in places (eg. on the east wall) continued in opus africanum, and above this in opus incertum. This latter masonry, when not of very recent date, is associated with the conversion of the fort into a caravanserail. Diehl identified the opus africanum as original sixth-century work (2); this need not be the case, however, and a medieval date is equally possible and perhaps more likely.

The north-west tower (a) measures 16.00 x 7.70 m. (2) and seems to have been built over the remains of an earlier building, which probably accounts for its odd shape (12); it now barely survives above ground. Tower b measures 7.90 x 7.40 m. (2), and still stands about 10.50 m. above ground level. In the east wall just south of it is a postern gate (e), covered by a lintel and relieving arch. Tower c is now
partly obscured by a house built against its south face; it measures 7.80 x 6.60 m. (5). The present entrance, in the centre of the south wall (6), belongs to the caravanserail phase; it may well correspond with the position of the original gateway, however, which must by now be buried beneath several meters of accumulated occupation debris and hill-wash. Tower d measures 7.80 x 5.60 m. externally and 3.80 x 2.60 m. internally, the outward-facing walls being appreciably thicker than the interior-facing ones (5). It stands now to a height of about 10 m., but when surveyed by M. E. Sadoux in the 1890s it was nearer 13 m. (5, fig. 3). Sadoux's elevation drawing shows two floors supported by barrel-vaults at heights of 4.90 m. and 9.00 m. above the then ground level. Although, as Diehl justly observed, these are probably later insertions, they appear to correspond to the positions occupied by the original floors, which may have been of wood. The first floor of the tower was lit by an arrow-slit in its south wall and entered from within the fort through a rectangular door, which must have communicated with either a wooden stair or a two-storey building which butted onto it. The second floor, on the other hand, communicated directly with the rampart walk, 9.00 m. above ground level. This was reached from below by means of a stone staircase carried on arcades, which was built against the inner face of the west wall. Although most of this had been rebuilt at a later date in opus incertum, the arch nearest the tower still survives; it is 1.85 m. wide, and its semi-circular head is carried on two sculpted corbels. Presumably the rampart walk continued around the whole enceinte, but, in view of the sloping terrain, it is uncertain whether or not it was always at the same level.

Diehl has argued, on the basis of the use of opus africanum in the upper parts of the surviving walls of the fort, that its date of construction was the same as that of Thubursicu Bure, where the same technique is found on the upper parts of the curtain walls of the town wall (but not on the towers). As has been argued above, however, it is by no means certain that this style of building construction was used in the sixth century for military works; indeed, it seems more likely that wherever it occurs it represents refortification of a later, possibly
post-Byzantine, date (see Ch. IV. 2: 260-261). It is possible to see closer correlations of both masonry and design, however, between Agbia and the Maurician fort at Limisa. The two forts are similar in general layout, and are almost exactly the same size; inconsistency in the design of towers and the use of wooden floors inside them seem to be features common to both; the use of the occasional block of rusticated stone in the facing of towers is another point of resemblance, although not in itself conclusive. A date for the fort in the reign of Maurice may thus be tentatively suggested.

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Maier, 99.

(1) Atlas Tun. 50, Teboursouk, 190; (2) Boisnard 1935, 35; (3) Carton 1893, 15-16; (4) Carton 1895, 45-50; (2) Diehl 1893, 429-433; pl. XXIII-XXIV; plan XXXIII; fig. 3-4; (6) Diehl 1896, 275; 277; fig. 3, 59; (7) Graham and Ashbee 1887, 170; (8) Guérin 1862(2), 143; (2) Guide Bleu 1971, 264; (10) Pellissier 1853, 251; (11) Fiese 1885, 527; (12) Poinssot (J) 1885, 98; pl. XI; (13) Poinssot (L) 1936a, 29; (14) Playfair 1877, 214; (15) Temple 1835(2), 77; (16) Tissot 1888(2), 342.

See Map 4, no. 77.
Figures 5, 16.
Plates LVa-LVIIa.

Ain Metouia (9°46'E 36°56'N) Fort

The ruins of Ain Metouia lie 20 km. south-east of Mateur (Matera) in northern Tunisia.

The compilers of the Atlas mention 'traces d'enceinte en grand appareil'. It was only in 1942, however, that the site was studied in detail by G. Feuille, whose report was published in a summarized form by Charles-Picard. Feuille noted the remains of a rectangular enclosure overlooking the ruins of the former settlement. It measured 60 x 80 m. (0.48 ha.) and Charles-Picard states that it was comparable in layout to the defences of Sufes, with the single difference that the north-west wall was further strengthened by a 'bastion' measuring
Gaz. AB. Ain Metouia (cont.)

7 x 11 m. The walls, built of reused material and 2.10 m. thick, were flanked by square towers spaced 10 m. (?) apart. The only identifiable structures inside the enceinte were a chapel, a well and a cistern. Below the walls there was a spring.

The description would seem consistent with the conclusion of Feuille and Charles-Picard that the structure was Byzantine, most probably of the sixth century. However, it should be noted that the two enceintes at Sufes measured internally 30 x 41 m. and 110 x 190 m. and that neither of them had towers spaced only 10 m. apart. This consideration throws some doubt on the reliability of the report as presented by Charles-Picard and also illustrates the need for field-work to be undertaken both to confirm the identification and to elucidate the details.

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(1) Atlas Tun. 50, Mateur, 172; (2) Charles-Picard 1942, 326-327.

See Map 3, no. 48.

CHOBA
Ziama

CHoBa lies on the Algerian coast between Saldae (Déjaia) and Igilgili (Jijel), almost due north of Sitifis, from which it is separated by the mountains of the Petite Kabylie.

The Roman town wall, described by Pelletier in 1857 and erroneously attributed by Diehl to the Byzantines (2, 259 n. 3), enclosed an area of some 14 ha. on the east bank of the Oued Ziama where this meets the sea. Gsell's survey of the site (2) revealed the existence of another wall, evidently secondary to the main fortification, which ran from east to west cutting the defended area roughly in half. This wall was built in the manner normally associated with sixth-century fortifications, with two outer facings of reused blocks enclosing an inner core of rubble. It was 1.80 m. thick and flanked by rectangular towers, the
two that survived measuring 4 m. across and projecting 1.50 m. from
the wall. However, excavations carried out by Capt. Pousset in the
decade following Gsell's work failed to locate any trace of wailing
where Gsell had predicted its eastern course should have been (i.e.
between Towers g and a). From this Pousset concluded that the wall
was never completed; equally plausible, however, is the explanation
that it had been robbed out and that the robber trench was missed by
the excavators.

From its construction technique and the documentary and epigraphic
evidence for the occupation of other coastal sites such as Rusguniae
and Caesarea in the sixth century, a similar date for the inner wall
at Choba seems very possible, although a fourth- or even fifth-century
date should not perhaps be excluded.

Bibliography:

(1) Atlas Alg., 7, 68; (2) Diehl 1896, 259 n. 3; 602; 605;
(3) Gsell 1899, 447-448; plan; (4) Gsell 1901(2), 392 n. 3;
(5) Guide Bleu 1974, 362; (6) Pelletier 1857; (7) Pousset 1908, 303;
(8) Pousset 1909, 184-185.

See Map 3, no. 50.
Figure 44.

DIANA VETERANORVM

Ain Zana (6°05′ E 35°47′ N) Fort

Diana lies on the southern edge of the plain extending north-east of
the Monts de Belezma, near the point at which the road from Tadutti,
25 km. to the east, passes through a defile between the Djebel Kastaoua
and the Djebel Zana on its way south-eastward to Ksar Belezma (20 km.)
and Tubunae. Other routes led north-west to Sitifis and north-east to
Constantina, while the fort at Tamugadi lay about 50 km. to the south-
east.

The Byzantine fort lies just east of the forum of the Roman colonia,
whose remains cover an area of some 15 ha. It is rectangular in plan
Gaz. AB. Diana Veteranorum (cont.)

and flanked by four rectangular angle towers. Excavations by M. Bernard in 1881 proved abortive (4), but between 1950 and 1953 M. Godet was able to expose the north-west gate, dig a sondage in the northern corner of the fort and empty the northern tower of its contents. The results of this work are still unpublished (cf. 11), but examination of the collapsed section of Godet's sondage in 1975 suggested that a long sequence of occupation within the fort was represented in it, post-dating the Byzantine withdrawal. This medieval occupation no doubt accounts for the difference in ground level of about 3 m. between the interior and exterior of the fort and for the excellent preservation of the Byzantine walls where they survive below ground level.

The walls of the fort are between 1.60 and 1.70 m. thick, standing in places to around 4 m. above the ground and enclosing an area of 49.5 x 57.5 m., or 0.29 ha (8; 2). They are solidly built with large blocks of stone, including reused second-century inscriptions and cornice fragments, enclosing a rubble masonry core. The walls of the towers are in contrast between 2.10 and 2.30 m. thick, the towers themselves measuring 9.40/9.60 x 8.30/8.50 m. (2; 2). Their entrance-passages are 0.80 m. wide and of the lateral type; those on the north and south are left-hand, and those on the east and west right-hand, thereby making the fort symmetrical about a north-east to south-west axis.

The fort has opposing gateways in the centre of the south-east and north-west walls. The south-east entrance is not well preserved. The north-west gate, however, was about 1.60 m. wide, and flanked internally on the left by a buttress which may relate to a stairway to the rampart walk. In its present state the entrance-passage is covered by three irregularly dressed lintels. These are almost certainly post-Byzantine, and belong to the period at which the gate was narrowed by about 50 cm. by the addition of a pair of roughly dressed stone jambs at its outer end. The threshold associated with this phase is probably as much as a metre above the original threshold. In its final phase the gate was completely blocked with rough stone walling.

The walls of the fort do not survive high enough for one to tell
whether there was a rampart-walk, although this seems most likely. Traces of such a walk can be seen, however, on the north-east and north-west walls; but these evidently belong to a later phase of fortification when the walls had been somewhat reduced in height.

To the west of the fort stands the Arch of Macrinus, marking one of the entrances to the forum. At a date probably in the fifth or sixth century, but possibly later, this came to form the north wall of a *kaer*, measuring 20.5 x 16.24 m. It contained several rooms opening from a central corridor, had at least two storeys and was provided with a well and silo. Excavations in the 1930s revealed a number of occupation layers, the latest of which was associated with pottery of 'Berber' type (4; 2). In the absence of more accurate dating for the construction of the building, it is uncertain whether it could at any time have had any specific military function related to the fort, for example as a watchtower (cf. Ammaedara, Mactaris).

The dating of the fort can be no more than tentative. Diehl argued for a seventh-century date on account of the unusual thickness of the walls of the towers compared with the curtain (6). Since only one African fortification can be dated with any certainty to the seventh century, however, and since it has no towers, Diehl's argument has no foundation. Apart from the general Byzantine character of its masonry and layout, two considerations may be taken to suggest, very tentatively, that the fort at Diana was Byzantine and Justinianic. In the first place, the fort appears to have been laid out in Byzantine cubits and feet. The distance between the towers is in all cases just over 47 m., the equivalent of 100 Byzantine cubits; the towers themselves are the equivalent of 20 cubits (30 feet) x 18 cubits (27 feet). The second piece of evidence is the reference by Procopius to the construction by Justinian of a fort at a place called *Tαιανό*, lying in Numidia; the fact that Procopius also describes this place as lying near to the Aurès may not be particularly significant, since he says the same of *Fileu*. It does not seem inconceivable, however, that *Tαιανό* is a corruption of *Διανό*, since no other place of that name is known (see Gaz. CA).
Gaz. AB. Diana Veteranorum (cont.)

Bibliography:

Procopius, de Aed., VI, 7, 8 (Taouad?).

(1) Atlas Alg. t 27, 62; (2) Boisnard 1935, 38; (3) Christofle 1976 (ksar: pl. 8f); (4) Christofle 1935, 179 (ksar: 183-184); (5) Christofle 1938 (ksar: 238-241); (6) Diehl 1893, 299-302; plan II (ksar: plan III; pl. I); (7) Diehl 1896, 253; fig. 54 (ksar: 182; fig. 24); (8) Gsell 1901(2), 367; fig. 159 (ksar: 388); (9) Gsell and Graillot 1894b, 544-546; fig. 17 (ksar: fig. 16); (10) Guide Bleu 1974, 452; (11) Leglay 1954, 174; (12) Leglay 1976, 272; (13) Peyssonnel 1725, 335; (14) Piese 1885, 374; (15) Regot 1874, 225; (16) Romanelli 1970, 405; (17) Tissot 1888(2), 484-485.

See Gaz. CA, Taouad (q.v.).

Map 3, no. 17.

Figure 38.

Plates LVIIb-LXa.

Gastal, Goussa (Er. el-). (8°13'E 30°06'N) Fort

Gastal lies about 22 km. north-north-east of Theveste, midway between Ammaedara and Vasonpse (Worsott) and on the north flank of the Djebel el-Dir. The fort occupies a knoll a short distance from a Roman bridge.

The fort is rectangular, measuring internally 43.0 x 49.5 m. (0.215 ha.). It is flanked at the corners by four cylindrical towers with diameters of 8.0 m. and wall-thicknesses of 2.0 m. A rectangular tower, 8.0 m. broad and projecting 4.0 m., set at the centre of the north-east wall, possibly represents the position of the main gate. The walls of the fort are between 2.25 and 2.40 m. thick and are built with a double facing of reused blocks, enclosing a rubble and mortar core. Gsell describes them as 'assez médiocrement construits' (5). The walls probably supported a rampart-walk; and the bevelling off of the angles of the fort's interior suggests that it would have run behind rather than through the corner towers. De Borsedon records the existence of lines of column bases running parallel to the walls of the fort on the inside, as though forming part of a peristyle. Gsell, however, suggests that the interior structures are of post-Byzantine date.
Gaz. AB. Gastal, Goussa (cont.)

The plan of the fort at Gastal finds no direct parallel in the fortifications of Byzantine Africa. Indeed, in some respects it resembles more closely the plans of the ninth-century ribats at Hergla, Lamta and Monastir II, or even the first phase of the great mosque at Sousse. Quadriburgia with cylindrical corner towers, however, are known elsewhere in the Byzantine empire, as for example in the late third-century fort at Castra Martis, which was refurbished under Justinian (Atanassova-Georgieva 1974; Hodáinott 1975, 114-115); and cylindrical corner towers exist on the larger Justinianic enceintes in Africa at Cululis, Laribus, Bagai and Thelepte. A Justinianic quadriburgium with a fifth tower also possibly containing the main gate also exists at Gediaufala, though its corner towers are rectangular. The fort at Gastal would therefore not be out of place in a sixth-century context. Furthermore, although place-names can sometimes be deceptive (eg. Qasr al-Rûm at lunci (q.v.)), the name Gastal, no doubt derived from the Latin castellum, might also suggest a pre-Muslim origin for the fort.

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See Map 3, no. 52.

Figure 38.

Guelâa Sidi Yahia (7°31'E 36°13'N) Fort
The fort lay about 8 km. north-north-east of Sédrate at an altitude of around 1,200 m., on the watershed between the Oued el-Aar (flowing westward into the Oued Cherf) and the Oued Ain Sfa (flowing south into the plain of Sédrate). Over this pass ran the road from Thubursicu Numidiarum to Ciuitas Nettalutum (Oum Krekech), while to the north-west a major road led to Thibilis and a lesser route led north to Zattara and Calama.
The fort was built on a rocky plateau defended on the north and south by cliffs, 60-70 m. high, which form the sides of the ravines through which flow the Oueds Aar and Chair respectively. The ascent on the west is steep, but on the east is slightly more practicable. The two published plans of the fort are unfortunately somewhat crude (2; 4, pl. VI). However, they both show that its shape is roughly trapezoidal and that it was flanked by rectangular towers or bastions. Gsell, who provides no plan, gives the overall measurements as 145 m. from east to west, and narrowing from 100 m. at the east end to 50 m. at the west. Robert quotes the area as 1.83 ha. (2), a figure which seems unlikely to be far wrong, although it may be noted that the dimensions given by Gsell produce a figure nearer 1.10 ha., and de Vignera}s plan one of around 2.10 ha.

The walls were built in the usual Byzantine military fashion, 1.70-1.80 m. thick with a double facing of ashlar blocks, laid in 35-50 cm. courses and enclosing a mortared rubble core. The relative scarcity of obvious examples of spolia at first led Robert to suggest a Roman date for it, an idea that he later abandoned (2; 10); Gsell noted a fluted column built into the wall (8).

The west side of the fort, the shortest, was flanked by two rectangular bastions, 9 m. broad. The north wall had no bastions, but flanking cover was provided by the same system of dog-legging that can be seen at Tigisi (q.v.). The north-east angle was flanked by a large bastion, measuring about 10 m. (N) x 30 m. (E). The east wall had three other bastions, including the south-east corner bastion; these measured 10 m. across and projected 8.80 m. On the south, Robert's plan shows a further three rectangular bastions, of which the two nearest to the east end flanked the main entrance to the fort; this was 3.0 m. wide and approached by a track leading up to it from the east.

In the centre of the fort stands a solidly built rectangular structure (19 x 22 m.), identified as a donjon but perhaps more likely to have been the principia; it was constructed on top of a complex comprising nine vaulted cisterns (8).

Gsell is probably correct in seeing this fortress as an official
Byzantine work, rather than an unofficial refuge (7). There is a real need for a more accurate survey, however, before the problem can be resolved with certainty.

Bibliography:

(1) Atlas Alg., 18, 247; (2) Bernelle 1892a, 63-64; (3) Bernelle 1892b, 506; (4) De Vigneral 1867, 35-36; pl. VI; (5) Diehl 1893, 362-363; (6) Diehl 1896, 287; 606-607; (7) Gsell 1898, 262-265; (8) Gsell 1901(2), 377-378; (9) Robert 1896; (10) Robert 1899, 248-249;

See Map 3, no. 53.

Kef el-Kherraz

The fortress is situated at an altitude of around 1000 m., 9 km. west-north-west of Sédara, overlooking the valley of the Oued Nil, a tributary of the Oued Cherf. Its relationship to the Roman road system is uncertain, but it seems likely that it stood a short distance north of a road leading from Thubursicu Numidiarum to Gadiaufala.

The site is on a promontory, surrounded by cliffs of at least 60 m. on the south, south-east and west. The artificial defences which protected the more exposed north-west side, enclose an area of some 0.20 ha. The plan of the fort is like that of an hour-glass, with an inner (higher) and outer enclosure linked together by a gate-tower (d: c. 4.5 x 6.0 m.). The walls are 1.30 m. thick and built with a double facing of blocks enclosing a rubble core; they survived to only a few courses in height when Gsell surveyed them in the 1890s. The outer enceinte, built against the south-west side of the promontory, is flanked by a rectangular open-gorge bastion (a: c. 4.5 m. broad) and a rectangular tower (c: c. 4.5 x 4.5 m.). Between these lay the outer gateway to the fort (b).

The irregular plan was evidently imposed by topographical considerations and does not necessarily betoken, as Diehl argues, an unofficial work. A Byzantine date is suggested by its general similarity to the Justinianic fort at Thagra.
Bibliography:

(1) Atlas Alg., 18, 255; (2) Bernelle 1892a, 100; (3) Bernelle 1892b, 519; (4) Diehl 1896, 602; 613; fig. 78; (2) Gsell 1898, 260-261; plan; (6) Gsell 1901(2), 394-395.

See Map 3, no. 54. Figure 31.

Ksar Graouch (9°27'E 34°27'N)

Ksar Graouch lies 68 km. east of Gafsa (Gafsa), to the north of and almost midway along the modern secondary road (C 124) which reaches the coast between Tunici and Lariscus (La Skhira). The site lies on the northern edge of a plain, the Bled et-Thala, roughly 15-20 km. wide, which is encircled by mountains on all but the east side. At a distance of about 4 km. to the north-west, the Kesch pass affords access through the mountain ranges to people approaching from the region around the Chotts.

The fort stands on the lower slopes of the Djebel bou Hedma in the centre of a zone of ancient cultivation which extends over about 4 ha. It is rectangular in plan, enclosing 55.50 x 37.70 m. (0.21 ha.), and is flanked by five rectangular towers, one at each of the corners and a smaller one placed centrally on the south (long) side. The fort is therefore symmetrical in plan about a north-south axis.

The walls are 1.75 m. thick and constructed in a singular manner. The lower 2-3 m. which survive above ground are built with large ashlar blocks (1.20/1.80 x 0.40/0.60 m.), apparently enclosing a rubble and mortar core. Above these the construction is continued in bricks, bonded with a strong mortar. The bricks are unfired and made from a type of Triassic marl containing gypsum which occurs naturally in the locality. Cintas gives the height and length of the bricks in the first six courses of brickwork as 20 x 60 cm., and above these as 10 x 50 cm.; Friviš gives a single set of figures, 15 x 30 x 43 cm. On one in ten of the bricks which lay on the ground Cintas observed a graffito mark, usually a cross but on some examples an emblem which he
Gaz. AB. Ksar Graouch (cont.)

interpreted as an anchor.

The corner towers of the fort measure 9.60 x 8.15 m. and have lateral entrance passages (l.-h. in the north-west and south-east towers; rt.-h. in the north-east and south-west towers). Privé gave the height of the towers in 1895 as 8-9 m., and that of the curtain wall as 6 m. Part of the north-east tower was still standing in 1951 to almost 8.0 m. and there appears to have been a round-arched aperture in the surviving curtain adjacent to it (l, pl. II, fig. 1). Inside the tower, Cintas observed a stuccoed niche decorated with a vine branch painted in blue, with leaves painted green and a red bunch of grapes. Of the south-west corner tower nothing survived above ground (1951). The smaller interval tower on the south is about 7.0 m. broad and projects about 4.0 m.; the plan made by Cintas shows it to be open-gorge. Privé locates the entrance to the fort on the north, but Cintas suggests that it may have been on the east; its character is therefore uncertain. Inside the fort Privé noted the remains of buildings constructed in ashlar and a cistern against the centre of the east wall. Cintas saw fragments of columns and capitals, which he described as of no interest.

The only datable objects recovered from the site are two identical sculptured stone blocks. The more intact one measures 28 x 48 x 28 cm. and on one face of it is carved in low relief an elongated Greek cross of a type evidently inspired by metalwork, set in a lozenge of twisted cord decoration. The lower part of the cross is flanked by α and ω and the four triangular areas outside the lozenge are decorated with palm branches (l, pl. II). Of this stone Cintas writes, 'il permet de conclure sur la destination de l'édifice où, apparemment, dût vivre une communauté chrétienne ... Mais les indices recueillis sont insuffisants pour conclure qu'il s'agit d'un monastère' (l, 205). However, in his subsequent discussion, Cintas leaves the reader in little doubt as to his own opinion that it was a monastery, and even goes as far as to suggest that it may have been that founded by Faustus, bishop of Praesidium Diolele, after his expulsion from his see by Huneric in 484.

Although the date of the building and its purpose will only become clear after more detailed survey and excavation, there are already good reasons for believing that Cintas's hypothesis is unlikely to prove
Whatever the status of its occupants may have been, it is clear that the outer wall of the building was built for a purely defensive purpose and that it constituted in essence a fort. Cintas explains the defensive character of the building by arguing that the holy men of the fifth century built their monastery in the ruins of a second-century stone-built fort. If the lower part of the structure originally formed part of a Roman fort, however, its date could not, on account of its masonry and projecting towers, have been earlier than the mid-third century and would more probably have been fourth-century or later (Trousset 1974, 133-135). But a fort of this date would have been too far north to have formed an effective part of the late Roman *limes* system (Trousset 1974, fig. 37-38). In addition, despite its general similarity to the late Roman forts of Trousset's "castellum" class, Ksar Graouch finds no close parallels amongst them, whereas its similarity both in size and layout to forts of the sixth century, such as Gadiaufala (0.16 ha.) and Diana (0.29 ha.), is much more striking.

Other factors besides suggest a Byzantine rather than a Vandal interpretation. The building technique of brick on a stone socle, although unattested elsewhere in Africa in either Byzantine or Roman contexts, is similar in general principle, if not in the detail of its execution, to the technique associated with Byzantine imperial work later than the fourth century (Mango 1974, 14f.). At Thessalonica, for example, the mid-fifth-century walls were built in different styles of brick and stone masonry on a substructure of large stone blocks (Vickers 1974); and at the Justinianic fort of Ksar ibn Wardan and the contemporary barrack building at Androna, in northern Syria, the masonry technique consisted of a base of basalt blocks facing a rubble and mortar core, upon which the structure rose in alternating bands of brickwork and basalt (Butler 1920, 22-45; 50-52). The incised crosses on the bricks at Ksar Graouch also suggest that they may have been produced under imperial control, as at Dyrrachium (Durazzo) in Albania (Zheku 1972, fig. 9) and Ravna on the Danube (V. Kondić, in Trifunović (ed.) 1969, 117), fortifications built under Anastasius I and Justinian I respectively; while the "anchor" emblem may represent
Gaz. AB. Ksar Graouch (cont.)

some kind of monogram (because no facsimile is published it is impossible to be certain). The choice of brick as a building material instead of stone throughout may be explained by the relative ease with which sun-baked bricks could be produced and transported in the desert regions (see Ch. IV.2: 261-263), or perhaps, as has been argued by Butler in the case of Ksar ibn Warden, by the level of direct imperial involvement in the fort's construction.

If the masonry and layout of the fort both suggest Byzantine work, what do the Christian motifs, the crosses and the vine-scroll, tell us about the function of the building? Cintas argues that the sculptured stone crosses provide evidence that its function was religious (1, 203 n. 2). However, crosses and Christian monograms are common features of Byzantine fortifications of the sixth century and after and do not imply a specifically religious function. As for the date of the crosses, a close parallel for their form and the style of the carving is to be found, as Cintas himself points out, in a sculptured slab from al-Asabaa in Tripolitanus, which is dated to the early sixth century, either just before or after the Byzantine reconquest (Ward-Perkins and Goodchild 1953, pl. XIIc). Neither are wall paintings displaying a Christian iconography out of place in Byzantine forts, although it is true that they rarely survive.

If a religious interpretation still seems justified, however, one possible parallel is to be found at Pirdop, in Bulgaria, where a church of the Justinianic period is surrounded by a rectangular enclosure, measuring 33 x 40 m. internally (0.13 ha.), flanked by bastions with lateral entrances similar to those at Ksar Graouch (Hoddinott 1975, 280-285; pl. 169-171; fig. 77). Although some writers have claimed that this too was a monastery, Hoddinott interprets the church as secular and the defences as a refuge for the local community. A similar interpretation may well apply also to the buildings at Ksar Graouch, but until the site is excavated it will not be possible to be certain.

Whether there was a church or not, however, a fort and garrison situated almost midway between Capsa and the coastal towns of Lunci
and Lériscus and controlling one of the passes to the north would have been of obvious strategic importance in the sixth century, a consideration which argues strongly for its inclusion in the list of official fortifications of that period. It may be recalled by way of analogy that Justinian also fortified the monastery of St. Catherine at Mount Sinai both in order to protect the monks and to serve the strategic needs of defending southern Palestine (Procopius, de Aed., V, 8, 4-9; Forsyth 1968, 4-5). It seems very unlikely that such a building as Ksar Graouch could date from the Vandal period, unless perhaps it were to have been built under imperial patronage during the reign of Hilderic (523-530). More probably, however, the fort (and church if such there was) was built under Justinian, either by Solomon, who was responsible for fortifying Capsa, or by John Troglitas during the campaigns of 546-548 against the Moors in southern Byzacium.

Bibliography:

(1) Cintas 1954; (2) Goetschy 1893, 94; 2 photos; (2) Privé 1895, 130-131;
See Map 3, no. 22.
Figure 23.

Ksar Otsman

Ksar Otsman is a defended hill-top site lying about 20 km. south-southwest of Calama on the north side of the Oued Sebt (Oued el-Perédà), a tributary flowing west into the Oued Cherf. It stands on the road linking Thubursicu Numidiarum and Tipasa (Tifech) with Thibilis.

The defences, measuring overall about 150 x 60 m. and enclosing some 0.55 ha., cover the summit of a sandstone ridge, oriented east-west parallel to the river; on the south and west, this presents a vertical face between 100 and 50/80 m. high; on the north, the ascent is steep, but an easier approach is possible from the north-east and east. It is on these sides, therefore, that the man-made defences are the strongest. These consist of three successive enceintes.
enclosing an increasingly more restricted area towards the western part of the site, which is narrower and higher than the rest. The east wall, 1.50 m. thick and flanked by three rectangular bastions, presents a straight line of defence 60 m. long. It is built like the rest of the enceinte with two faces of large ashlar blocks enclosing a rubble masonry core. The north-east corner tower (a) is 5.0 x 5.0 m. The central tower (b) stands astride the wall; it measures 4.20 x 4.20 m. with walls 1.0 m. thick, and flanks the main entrance to the enceinte on its south side; its base was used as a cistern (cf. Thagura). The southern end of the wall was flanked by a large open-gorge bastion (c). The second line of defences consisted of a wall running obliquely to the first, defended by a tower (e: 7 x 7 m.; walls 1.10 m. thick) placed at its leading edge. The third enceinte (f) was parallel to the first; no signs of towers or gates associated with it have been found.

A Byzantine date for this enceinte seems very likely if one allows for the fact that the irregularities of the plan are largely dictated by the topography of the site. Similarities with Thagura are particularly marked.

Bibliography:
(1) Atlas Alg., 18, 193; (2) Bernelle 1892a, 61; (3) Bernelle 1892b, 504; (4) De Vigneral 1897, 29-30; pl. IV; (5) Diehl 1896, 611-612; fig. 77; (6) Gsell 1898, 252-255; plan; (7) Gsell 1901(2), 393-394.

See Map 3, no. 55.
Figure 34.

MACTARIS

Maktar (9°13'E 35°51'N) Fort

The Roman town of Mactaris (Ciuitas Mactaritanum) occupies a plateau set at an altitude of around 950 m. in the Tunisian Dorsal, bounded on the north and south by tributaries of the Oued Siliana. To the west, the Maktar massif rises to nearly 1,300 m. Of the network of roads which fan out from the town in all directions the most significant
strategic route was probably the one linking Laribus, to the north-west, with Chusira and the plain south of Kairouan to the south-east.

The Byzantine fort of Mactaris was established in the partly ruined shell of the Severan baths, on the south-eastern edge of the town. The fortification consisted of adding an outer cladding of large ashlar blocks, including reused inscription and architectural fragments, bonded with mortar, to the outer wall of the complex, thereby increasing its thickness to just over 2 m. In places, as in the northern part of the west wall, a more conventional 'Byzantine' wall was built de novo. Much of the south and west part of the site has yet to be excavated; on the north and east, however, the exposed wall shows clearly the vertical divisions marking the limits between the sections built by different working parties.

Overall the fort measures 85 x 52 m.; since much of the interior is taken up with standing masonry forming part of the baths, however, the internal area can hardly have been more than about 0.35 ha. The excavated portion of the wall is devoid of any bastions except at the north-west corner, where a bastion 3.60 m. square flanks the west wall only, and was evidently intended to protect a doorway 6.50 m. to the south of it. This gate (b) is 1.45 m. wide, about 2.0 m. high and covered by a lintel and relieving arch; it is also rebated to take a wooden door opening inwards. A second door of similar design, but now lacking its lintel, was built into the centre of the east wall (c); here no flanking bastion was necessary, however, since this part of the wall is recessed, following the wall of the baths. The threshold of this door lies about a metre above the edge of the Roman plunge bath, just inside it, indicating not only the abandonment of bathing facilities but also the rise in ground level prior to the construction of the fort.

Since most of the excavated part of the fort has been stripped, since 1955, of all later accretions down to its pristine third-century state, we must await the publication of the final excavation report for an account of the internal arrangement of the fort (cf. 4: 5). Internal dividing walls, their foundations resting on the surface of an earlier floor paved in black and white mosaic, still survive (1975),
however, in the north-west corner. The association of stone mangers, fenestrellae, and a stair leading to a vanished upper storey suggest that, as at Thamugadi, equipment and animals were possibly accommodated below, and men above; this would explain the apparent lack of barrack buildings mentioned by Charles-Picard (2, 23). Since the aqueduct was defunct by the end of the fourth century, a well, dug through the floor of the frigidarium would have supplied the garrison with water (2).

There is also a suggestion that the northern palaestra and exhaedra were converted into a chapel. The ground level in the exhaedra, 1.40 m. above that of the paved court, was revetted by a wall running between the first and second pilasters from the north and contained an inhumation grave in a cist (4).

About 175 m. north of the baths, an arch standing at the entrance to the Trajanic forum was incorporated in a later period into a ksar built against its southern face (3). Since the arch occupies a higher position than the baths, it may have served as an advanced look-out post, surveying the area to the north.

The masonry technique and the evidence for the existence of barrack buildings suggest that the fortification of the baths represents an official Byzantine fort rather than a work undertaken through local initiative. The closest parallel from amongst the dated group of forts is the part of the enceinte at Calama that encloses the Roman baths; and here again we find that the single bastion on this part of the defences was designed to flank only one side of the building. This might suggest a Justinianic date for the Maktar fort, rather than the 'late Byzantine' date put forward by Diehl. Apart from some civilian epitaphs in the basilica of Hildeguns, the only documentary reference to Maktar in the Byzantine period is to its bishop Victor around the middle of the sixth century.

Bibliography:

Maier, 163-164 (Martaritanus (c. 550)).

(1) Atlas Tun. 100, Maktar, 186; (2) Bourgeois 1974, 191; (3) Charles-Picard 1954, 17; fig. 5; (4) Charles-Picard 1972, 153; (5) Charles-
Gaz. AB. Mactaris (cont.)

Picard 1974, 23-24; fig. 1-2, 4; (6) Claude 1969, 26; (7) Diehl 1893, 397-398; pl. XIX; (8) Diehl 1896, 294; (9) Foussard 1923, 52; (10) Guérin 1862(1), 408-409; (11) Guide Bleu 1971, 272; (12) Poinssot (L) 1936a, 33; (13) Saladin, in Poinssot (J) 1884a, 364-365; pl. XXVI.

See Map 3, no. 57.
Figures 5, 35.
Plates LXb-LXIIb.

MUSTI

West (Hr.), Le Krib (9°09'E 36°20'N) Fort

Musti lies in the plain of le Krib, between the mountains of Teboursouk and the chains of the Tunisian Dorsal and at the watershed between the Oued Khaled and Oued Tessa. Some 9 km. south-west of Musti, at Thacia, the main road from Carthage divided into two, one route heading due west to Thagaste, the other south-west to Theveste via Laribus, Obba and Ammendara. A minor route also connected the town with Ychi Maius to the north, and thence to the Béja region and Thabraca.

The Byzantine fort is shaped like an irregular parallelogram, measuring overall about 50 x 50 m. and enclosing 0.20 ha. It is sited in the upper part of the Roman town and incorporates earlier buildings, including a complex of three massive vaulted cisterns. Since 1959, it has been the subject of excavations carried out by M. Bouloudenine of I.N.A.A.; apart from some epigraphic discoveries, however, the results remain unpublished (cf. 2; 2). The fort is built entirely of reused blocks of stone, employed as facing to a rubble masonry core. The walls are on average 2 m. thick, and do not stand above about 3 m. in height. The character of the masonry changes in accordance with whatever stone was available for each part; in places it includes rusticated blocks, elsewhere elongated stones laid in courses.

The main entrance was on the south. It was about 2 m. wide and flanked by a pair of rectangular towers set 27 m. apart. Inside the wall, to the right of the gate, a flight of stone steps carried on arches led up to the fighting platform over it, and possibly to a rampart walk although there is no other evidence for one (Pl. LXIIb).
A secondary gate, 1.10 m. wide and 2.0 m. high, with the lintels covering the passage still in place, stands at the southern end of the east wall. It is partly shielded by an eastward prolongation of the south wall; however, this feature can hardly be described as a bastion. No other towers or bastions existed; indeed, it is not entirely certain whether the south-west corner tower (e) was ever completed. The stepped trace of the north wall and part of the east wall, however, ensured that only two short stretches of the enceinte were without flanking cover.

Inside the fort, some of the walls of pre-existing Roman buildings were retained and incorporated into a new planned layout. However, more than half of the fort's interior has now been excavated to below the Byzantine levels; for a full account of the fort's interior we must therefore await the publication of the final excavation report. A number of stone mangers and fenestellae (one representing a cross inside a circle) littering the site, however, suggest the former presence of barracks, similar to those at Nactaris.

The only documentary reference to Musti in the Byzantine period is to its bishop Ianuarius in 646. However, the characteristic positioning of the fort to control the water supply, together with architectural features such as the stairs inside the south gate, the rectangular bastions, the stepped layout of the north wall and the evidence for barracks, argue strongly for this being regarded as an official fort, despite its irregular plan.

Bibliography:

Maier, 177 (Mustitanus (646)).

(1) Atlas Tun. 100, Jama, 3; (2) Deschaouch 1967, pl. I;
(3) Deschaouch 1968, photos, pp. 122, 164; plan p. 168;

See Map 3, no. 58.
Figure 37.
Plates LXIIa-LXIIIa.
Gaz. AB.

THAMALLULU

Aïn Toumella

\((5^002'E \ 35^056'N)\)

Fort

Thamallula lies at an altitude of 1,100 m. on the northern edge of the mountains of the Hodna where they meet the plain of Medjana. The site of the town is 1 km. south of Ras el-Oued (formerly Tocqueville), and about 45 km. south-west of Sitifis almost midway between it and Zabi.

The fort was built on a low flat promontory, commanding a spring, the Aïn Toumella, to the south (6; 10). Nothing now remains of it above ground. Survey work in the nineteenth century, however, by de la Mare, Pelletier and Gsell, recorded it as having a square plan, measuring internally 105 x 105 m. (1.10 ha.) and flanked by eight rectangular bastions (2; 10). The walls were of large ashlar masonry, including reused material, and were 2.50 m. thick (1). No precise measurements for the towers are given; but from the published plans they appear to have been over 10 m. square (3; 4, fig. 55; 5, fig. 95). The corner towers had diagonal entrance-passages (6). Gsell locates the main gate inside the tower that was centrally placed on the south wall, and his plan shows it to have been of the straight-through gate-tower type (5).

Although the fort is without doubt an official Byzantine work, its precise date is unknown. Diehl suggests that it is Justinianic (4); but there is no evidence either to confirm or reject this hypothesis.

Bibliography:

(1) Atlas Alg., 26, 19; (2) Boisnard 1935, 35; (3) De la Mare 1850, pl. LXVII, fig. 1-2; (4) Diehl 1896, 255-256; fig. 55; (5) Gsell 1893, 270-271 (no. 145); fig. 95; (6) Gsell 1895, 56 n. 3; (7) Gsell 1901(2), 375; (8) Gsell 1912, 68; (9) Guide Bleu 1974, 385; (10) Pelletier 1861, 453; (11) Romanelli 1970, 405-406.

See Map 3, no. 62.

Figure 39.
The Roman town of Thubursicu Numidiarum lies on the north-western slopes of the Djebel Tifech, near to the headwaters of the Oued Medjerda at an altitude of around 900 m. The town of Tipasa, 5 km. to the south-east on the other side of the Djebel, represented an important cross-roads where the north-south route from Hippo Regius to Thueuste cut the east-west road between Carthage and Constantina. It was probably this consideration which caused Thubursicu to be regarded militarily as of secondary importance in the sixth century, a fact reflected in the small size of the only one of its many late Roman or Byzantine defensive structures that may be regarded as an official fort.

The fort was built, like that at Mactaris, around the ruins of a Roman bath building, on the north-west side of the forum novum. The building had already gone out of use by the time that the fort was constructed, and 2.50 m. of rubble had accumulated over its mosaic floors (4). The south and east walls of the fort correspond with the south and east walls of the frigidarium and palaestra of the baths. Where it suited the purpose of the Byzantine engineers the standing portions of the building were retained and an ashlar facing of large re-used blocks of stone bonded with strong rubbly mortar was added to the exterior. The thickness of the wall thus formed varied, but was never less than 1.60 m. The parts of the structure which did not comply with the general scheme were simply demolished. It is difficult to ascertain from the standing remains where the north and west walls of the fort lay, since the whole of the interior of the fort, and, it may be suspected, other parts as well, were destroyed during excavation (4). The dimensions of the fort taken before excavation began, however, were 31 x 17 m. (2; 7; 8). This would seem to imply that it comprised only two rooms of the bath building, the frigidarium and the palaestra, whose overall dimensions after excavation are about 30 x 20 m. (4, fig. 1). The area of the fort was therefore about 0.045 ha. (Traces of walling to the north, however, could imply the inclusion of the corridor adjoining the two rooms as well).
The entrance to the fort was through a gate-tower set on the south. This was roughly 6 m. broad and projected about 2 m. The entrance passage was 4.60 m. long, and just under 2 m. wide, narrowing to 1 m. at its inner end (4). Evidence for the now-demolished internal structures is scanty. Excavation of the frigidarium in 1907 revealed two rows of stone mangers, as though the room had been used as a stable for horses (2; 12); whether this should be interpreted as contemporary with the fort is uncertain, however, because of the excavators' disregard for stratigraphy. Ballu refers to a cross-wall, which ran north-south across the palaestra, dividing it into two parts, and to a well in the same room, which was cut from the Byzantine level down through the mosaic floor below (4).

An outer enceinte which enclosed the forum novum and butted onto the Byzantine fort seems to have been a later addition and is unlikely to have had any specific military function (6). Other non-military fortified works include a fortified chapel, apparently of sixth- or seventh-century date, lying 300 m. east-north-east of the fort; and 150 m. beyond it a ksar, surrounded by a rectangular outer enclosure (Ksar el-Kebir). Finally, reference may be made to a fourth-century inscription which records the dedication of an arx by the proconsul Hermogenianus and his legate Theodotus (Cagnat and Pallu de Lessert 1901).

Bibliography:


See Ch. IV. 3: 270 n.13 (for Ksar el-Kebir).
Map 3, no. 63.
Figure 37.
Plates LXIVa-LXVb.
The Roman town of Thugga TereBentina lies in the fertile valley of Ksour, on the east bank of the Oued el-Hathob, only a few hundred metres from its source. The river's course marks an important north-south line of communication, providing access to most of the natural routes leading north-east through the Tunisian Tell and Dorsal regions, including the Medjerda valley, to people coming from the steppe regions of the south. Roman roads linked the town to Sufes and Sufetula in the south, and from Zanfour, a short distance north of it, roads led to Laribus in the north-west, Musti in the north, and the Oued Siliana valley in the east.

The fort is represented today by a low rectangular platform, which rises just above the surrounding corn (PI. LXIIIa). Little masonry survives above ground level. Guérin described the fort in 1862 as rectangular, measuring 70 x 80 paces, and formerly flanked by a square tower at each corner. His description seems to be correct. The internal measurements of the fort are about 48 x 55 m. (0.26 ha.). At the western angle, where the walls are best preserved, it is possible to trace the outline of a rectangular tower with a left-hand lateral entrance passage. The fort's walls at this point are about 1.30 m. thick, and built of two facings of reused ashlar blocks with a rubble fill. Elsewhere the walls are less well preserved, and show signs of later rebuilding using smaller stones. Traces of a tower survive at the eastern angle; the north and south towers, however, are missing, though in the case of the northern one the trace of a right-hand entrance passage in the corner of the fort suggests that the fort was symmetrical about a north-west to south-east axis. In its post-Byzantine phase, the entrance to the fort was in the centre of the south wall; here part of a massive monolithic circular door (diameter unknown) protrudes from the rubble. In all probability the Byzantine door was in the same position.

The fort can be most closely paralleled by Diana and Medauros I, which are of comparable size and show the same axial planning involving towers with lateral entrances. The smaller fort at Godiaufala has
the same arrangement. This might suggest a Justinianic date for the fort at Thugga Terebentina, though it could of course be later.

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See Map 3, no. 64.
Plate LXIIIa.

TIGNICA

Ain Tounga (9°23'E 36°32'N) Fort

Tignica is situated at an altitude of around 200 m. in the Tell region of Tunisia, on the south side of the Oued Krarled, 5 km. from its confluence with the Medjerda. The town covers the west-facing slope of a hill overlooking the Carthage to Theueste or Constantina road, which passes just below the west wall of the fort. A fountain beside the road is fed from a spring, the Ain Tounga, which rises within the fort and in the seventeenth century could be reached down a flight of twelve stone steps (11).

From an early date the site has attracted the attention of European travellers (11; 30). A rough plan of the town was produced by M. Barbacon in 1884 (21), and a more accurate plan of the fort by M. Saladin in 1885 (25, fig. 151). The shape of the fort is that of an irregular quadrilateral, enclosing 0.38 ha. and flanked by five rectangular towers, set one at each angle and one in the centre of the south side. The dog-legged shape of the north and east walls may be due to the north-eastern part of the fort being built over the remains of an earlier rectangular structure (19 x 27 m.). The walls are between 1.70 and 2.50 m. thick, and are built with two facings of reused stone blocks, which include inscriptions and architectural fragments, enclosing a rubble core bonded by a rather weak mortar (25). Part of the interior of Tower c, however, is carried out in opus africanum.
When Thomas d'Arcos visited the site in 1631, the fort was occupied by 'Alarbes sauvages' (sic). By the early eighteenth century, however, it was deserted (30). A combination of human occupation and the accumulation of deposits of alluvium from down the hillside has caused the fort to become submerged, both inside and out, beneath at least 4 m. of soil. In a somewhat abortive campaign of excavation in 1907, Carcopino dug three slit trenches between the cactus plants that choked the fort's interior, and encountered a mass of dry-stone valling which, because of the small size of his trenches, he was unable to interpret. The fact that Islamic glazed pottery was still being found in one of the trenches at a depth of 3 m. illustrates the potential importance of the site for providing a cultural sequence from the Byzantine to the Muslim period (5).

The north-west tower (a), now partly fallen, measured 7.00 x 5.40 m. and was entered by a right-hand lateral passage. Tower b still stands over 10 m. high. It is 7.75 x 8.40 m. The entrance to the ground floor is covered by a segmental arch, which is roughly level with the ground level inside the fort. The first floor was of wood, carried on reused cornice blocks set in the side walls of the tower; it was lit by a rectangular window facing into the fort, and internally-splayed arrow-slits on the north and east. The upper floor was barrel-vaulted; thus, access to the fighting platform above can only have been possible from the rampart walk. Tower c is the largest tower, measuring 10.60 x 9.15 m., and has a slightly irregular shape. The door to its ground floor (or possibly first floor) is covered by a segmental arch made of reused voussoirs; the ground floor was lit by four arrow-slits (north, 1; east, 1; south, 2), placed just below the dividing floor and thus unlikely to have been used as firing loops. The first floor was lit by a rectangular window facing into the fort, and by six arrow-slits (north, 1; east, 2; south, 3). Tower d, measuring 10.05 x 6.90 m., is not well preserved; apparently it had a diagonal entrance.

The positions of two gates are known. One of these is a bent entrance set within Tower e in the centre of the south wall. The tower is 9.70 m. broad, and projects 7.10 m.; the first floor is a cross-vault
carried on corner pilasters. The inner arch of the gate has a span of 3.20 m. The outer one, set in the west wall of the tower and of comparable size was formerly provided with a flat lintel, covering an entrance 2.95 m. wide. Both arches are composed of reused voussoirs taken from Roman buildings. As Saladin has pointed out, in both cases the packing around the extrados of the arch appears to be inexpertly executed. For this reason, Creswell has suggested that they were both inserted after the tower had been built. A second entrance to the fort, 3 m. wide, the arch of which only just projects above ground level, was first noted by Diehl (12), and later by Creswell. Its position in the centre of the west wall, 35 m. from the nearest flanking tower, might seem an unlikely one for a gateway. It may have been this consideration that led Diehl to suggest that it was merely a 'postern', intended to allow the waters of the Ain Tounga to flow out of the fort; however, this could have been accomplished by a much narrower conduit. Creswell, on the other hand, identifies this as the main entrance of the fort, arguing that the bent entrance in Tower d replaced it only after the Byzantine period. Creswell's argument will be discussed below.

Internal arcading survives on the upper part of the north wall, and the absence of internal communication between the first and second floor of Tower b suggests the existence of a rampart walk. The trace of an outer enceinte, extending up the hill to the north of the Roman town, has also been noted, though its date is uncertain (1, plan; 21, plan).

Diehl's argument that the fort at Tignica was contemporary with the town wall at Thubursicu Bure, built by the prefect Thomas under Justin II, was based on a superficial comparison of the masonry techniques, in particular the use of opus africanum. In both cases, however, the opus africanum appears to belong to later phases of repair, a point already made by Saladin though overlooked by Diehl. A second point of discussion centres on the bent entrance in Tower d. Creswell's argument that this was a post-Byzantine insertion was based, first, on the apparently shoddy execution of the masonry around the voussoirs of the arches and, secondly, on his firm conviction that the Byzantines
Gaz. AB. *Tignica* (cont.)

Built bent entrances neither in Syria nor in North Africa. The second of the objections to seeing this as a Byzantine, if not an original, feature of the fort is removed by the existence of other examples of bent entrances in North Africa, in particular one recently identified at *Anastasiana* (Henchir Sguidan). The other objection can also be overruled by comparing the arches at *Tignica* with the arch of the north gate at *Thubursicu Bure*, where the same type of clumsy workmanship can be seen, but where the arch is none the less firmly dated by an inscription of Justin II placed over it. Thus it seems likely that the bent entrance is an original Byzantine feature and that the fort itself is post-Justinianic in date. These are hypotheses, however, which may be put to the test in the forthcoming project of excavations planned by I.N.A.A.

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[(1) Atlas Tun. 50, Oued Zerga, 109; (2) Berbrugger 1857, 383; (3) Boissard 1935, 35; (4) Cagnat 1909, pl. p. 127; (5) Carcopino 1907, 24-26; plan; (6) Carton 1893, 10; fig. 2-3; (7) Carton 1895, 93-95; fig. 33-35; (8) Creswell 1940, 28; fig. 21-22; (9) Creswell 1952, 102-103; fig. 8-9; (10) Creswell 1958, 177-178; (11) d’Arcos 1862 (=Poinssot (J) 1903), 165-166; 178-179; (12) Diehl 1893, 424-426; plan XXXII; (13) Diehl 1896, 276-277; pl. III; fig. 12-13, 19, 61; (14) Diehl 1901, fig. 92; (15) Guérin 1862(2), 150-151; (16) Guide Bleu 1971, 253; (17) Pellissier 1847, 404; (18) Pellissier 1853, 247; (19) Peyssonnel 1725, 135; (20) Playfair 1877, 227; (21) Poinssot (J) 1884b, 136-137; plan; (22) Poinssot (J) 1885, 21; (23) Poinssot (L) 1936a, 36; (24) Romanelli 1970, 405; pl. 353a; 358b; (25) Saladin 1892, 542-547; fig. 139, 151-153; pl. XIII-XV; (26) Temple 1835(2), 63-64; (27) Tissot 1888(2), 338; (28) Toy 1955, 59-60; plan; (29) von Petrikovits 1976, 72; (30) Ximénez 1724 (=Thouvenot 1938), 316; 320.

See Map 4, no. 71.

Figure 40.

Plates LIIb, LXXVIa-LXVIIa.
The plain of Tiféch is a rich agricultural area set at an altitude of 850–950 m. between the Djebel Tiféch and the Djebel Zellez. It is drained towards the south-west by a tributary of the Oued Seybouse; to the north-east, however, the land falls away steeply to the Medjerda basin. The Byzantine site occupies the south-eastern slope of an isolated hillock on the north-west side of the plain, 31 km. south-west of Thagaste (Souk-Ahras). The town stood at the point where the main east-west artery from Carthage to Constantina, passing through Thagaste and Thibilis, crossed the road from Hippo Regius to Theueste, which runs through a narrow gorge just north of the town on its way north-west to Thubursicu Numidiarum.

The Byzantine enceinte is roughly oval in shape, measuring overall about 250 x 130 m. and enclosing 2.25 ha. It is flanked by nine rectangular towers; since the sides of the hill become increasingly precipitous towards the northern part of the site, the towers tend to be congregated on the lower slopes; part of the north wall, however, has an indented trace (en crémaillère). The walls vary in thickness from 2.40–2.80 m. and are constructed with a double facing of large ashlar blocks, bonded by headers into a core composed of yellow mortar and sizeable lumps of stone. Diehl noted and recorded (fig. 21) the use of opus africanum masonry in the upper part of the walls between Towers c and e. The earliest published plan of the site is that of Chabassière (1866); this was subsequently modified by Diehl (1893) and Gsell (1898). Of the nine bastions shown on Chabassière's plan, only four are more than barely recognizable today; stone-robbing in recent years has caused the complete destruction of the north-west wall between f and g, leaving an open robber trench, as well as serious damage to much of the south-western part of the wall.

Tower a measured 11 x 10 m. and had walls 1.60 m. thick (4); in Chabassière's drawing (3, pl. X, fig. 8) it stands about 5.5 m. high, but today little remains of it. Tower c measured 13 m. across and projected 6 m. from the face of the wall; a plan by Chabassière (3, pl. VIII; cf. 4, plan XIX) shows that its walls were 1.20 m. thick.
and that it stood 16 m. high; internally it was divided into two parts, and had two intact barrel-vaulted floors at 9.0 and 15.5 m. above ground level; internally-splayed arrow-slits pierced the two side walls at ground-floor level, and a window, 1.0 m. wide and 2.40 m. high, was set in the west wall of the northern compartment (see Fig. 3). Tower g, though not mentioned by Diehl, still stands in part to 7 m. in height; it was 7.60 m. broad and projected 5.50 m. Tower 1, which stands only 4 or 5 m. above ground, has an internally-splayed arrow-slit in its east wall. The other towers have either disappeared completely or are now represented only by mounds of rubble.

Chabassière's plan shows gateways at 4 and 5, in the centre of the west and east walls; Gsell added a further one at h, in the upper part of the site. The main gate (n) was set in the centre of the south wall, however, and was flanked by the two towers (e and m), which stand about 55 m. apart (Fig. 41). The arch was still intact when Dr. Shaw visited the site in the 1730s; in Chabassière's drawing (2, pl. X, fig. 8), however, only the western spring of the arch survives; and by 1893 the whole of it had fallen (4). According to Gsell, the entrance was flanked by a pair of buttresses, 1.60 m. broad, which projected 2.0 m. from the wall; presumably these carried some kind of superstructure (7; 8).

In the upper corner of the enceinte stand the remains of a structure (f) measuring 14 x 6 m., which Diehl interpreted as a Byzantine (4). However, the smaller more irregular masonry of the building is quite different from that of the rest of the enceinte, and it would therefore seem more likely that it is of later date. Three internal walls running from east to west across the enclosure have at times been interpreted as Muslim defences protecting the upper part of the site. Of Chabassière's wall with its two flanking bastions running between Towers e and j, however, there is no convincing evidence; and the smaller of the enceintes shown on Gsell's plan (7) appears to be no more than a stock enclosure of relatively recent date. More convincing, however, is the cross-wall shown on all three plans (3; 4; 7), which encloses the upper 0.22 ha. of the site. This is represented today by a scarp with a mass of rubble lying just below it; in places,
however, facing blocks survive in situ and enough remains to suggest that the wall was about 1.60 m. thick. Near its centre, where the wall changes direction, but on the eastern side of the apex, lie the foundations of a bastion of rounded or, possibly, cut-water shape; this was about 7 m. broad and projected about 8 m.

The date of the town wall and of the later inner enclosure are both uncertain. In 553, Tipasa had a bishop, Firmus, who was also primate of Numidia (cf. Chrysos 1966, 138-144); and a lead seal of the patrician Gregory found at the site could be taken as evidence for official, possibly military, activity continuing into the seventh century (CIL, 10965).

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Ibn Hawqal, 84; al-Idrisi, 140; al-Wazānī, 371 (710).

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See Map 3, no. 65.
Figures 3, 4, 41.
Plates LXVIIIa-b.

TVBNAE
Tobna (5°21'E 35°20'N) Fort

The deserted site of Tobuna lies 4 km. south-south-west of Barika at the centre of a plain crossed by numerous seasonal water courses flowing south-west from the mountains of Belezma into the Chott el-Hodna. The site lies between two such river beds, the Oued Barika (north) and the Oued Bitam (south). Strategically, it was well positioned to close the gap between the Chott and the Djebel Netlili, through which
nomads moving northward from the Saharan Atlas and the Ziban have to pass. Roman roads linked the town with Niciuibus (N’gaous) and Lamasba (Ksar Belezma) in the north-east via the Oued Barika valley, Ain Touta and Thamugadi in the east by a route passing south of the mountains of Belezma, Thabudeos in the south-east and Zabi in the north-west.

The fort is represented today by a rectangularly shaped platform, which dominates the plain. The walls that once enclosed it have now been mostly quarried away, though the tell which had formed within them has been preserved against excavators and stone looters on account of a Muslim cemetery which covers the summit. Excavations by Lt. Grange in 1900-1901 (8 - 11) enabled a more accurate plan of the fort to be produced than those previously available (cf. 3; 6, plan VI; 7, fig. 48). The fort was rectangular in shape, measuring internally 62.0 x 80.5 m. (0.50 ha.), and was flanked by eight rectangular towers. The walls were between 1.90 and 2.05 m. thick, and stood in places to over 6.50 m. in height. They were built with a double facing of ashlar blocks enclosing a core composed of river boulders bonded with lime mortar; the masonry included fragments of Roman columns, capitals, cornices, sarcophagi and inscriptions. Al-Bakri states that inside the fort was a large cistern, fed from the Oued Tobna (cf. Soulé, in Gsell 1902b, 86).

The corner towers (a, b, c, d) measured on average 7.10 x 7.00 m. and, like the other towers, had walls 2.00 m. thick (Fig. 5). They were entered through Z-shaped passages, 1.0 m. wide and 2.15 m. high, which opened from the east and west walls of the fort. In the case of Tower c, which Grange fully excavated, the end of the passage facing into the fort was covered by a lintel and relieving arch, while the end facing into the tower had a flat arch composed of three voussoirs. The ground floor of the tower was lit by two arrow-slits set in the outward-facing walls of the towers; these were 60 cm. wide and sloped down on the inside. Grange makes no reference to any evidence for a dividing floor. Of the interval towers, that on the south (f) was 6.70 m. across and projected 4.70 m.; those on the east and west (h, d) were 6.75 m. across and projected 5.30 m. Tower d, which was
excavated, was entered through a door 1.00 m. wide and 2.25 m. high, covered by a flat arch (Fig. 3).

The (apparently only) entrance to the fort was through a gate-tower (b) on the north (Fig. 6). This measured 8.30 m. across and projected 6.10 m. from the face of the wall. Two archways set 4.10 m. apart marked the positions of the two gates; the method for closing them, however, was not investigated by the excavators. Although the western part of the gate-tower had been destroyed, the arch of the inner gate was still intact and spanned 3.00 m.

This gateway later afforded direct communication between the fort and the medieval walled town, whose enceinte of toub on a foundation of stone, measuring 760 x 640 m., was built touching the northern faces of Towers a, b and c. Al-Bakrī credits the Abbasid Khalif al-Mansūr (754-775) with its construction. Little credence, however, can be given to Grange's view that it represented the line of an earlier Roman wall (8, 49-64); this is precluded not only by its size (enclosing 48.64 ha.) but also by the fact that the wall appears to have cut through the remains of a Christian basilica, containing rich graves of late Roman or Byzantine date (11). Although there can be little doubt of the sixth-century date of the fort, its precise date cannot be determined.

Bibliography:


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See Map 3, no. 66.

Figures 3, 5, 6, 42.
Plate LXVIIb.
Gaz. AB.

VPPENNA

Chigarnia (Hr.), Fragha (Hr.). (10°25' E 36°10' N) Port

The site of Vppenna lies 6 km. north-east of Enfidaville and within 5 km. of the sea. The fort occupies the summit of a slight eminence, overlooking the plain through which ran the coast road from Hadrumentum to Carthage.

The fort is rectangular, measuring internally about 20 x 41.5 m. (0.08 ha.), and is flanked by a square tower at each angle. The walls are 1.95 m. thick and stand in places to 4.5 m. in height. They were built of masonry laid in 50 cm. courses, consisting of two facings of large stone blocks (many of which have now fallen away) bonded into a rubble and mortar core by means of headers. The mortar is sandy, friable, yellow in colour, and contains specks of charcoal. The facing blocks are mostly reused material and include tombstones and a statue base dedicated to the emperor Constantine (4).

The corner towers are roughly 5.60 m. square with walls between 1.40 and 1.75 m. thick. They were entered through diagonal passages (a, c), covered by lintels (d), and the ground floors were barrel-vaulted (b, c, d). The entrance to the fort was on the south, about 6.50 m. west of tower a. It was 2.80 m. wide and was strengthened by two small buttresses on the inside. Evidence for a third buttress a little further to the west suggests the existence of a stair or the supports for a fighting platform associated with the gate; however, the inner face of the wall is badly damaged at this point. Belenet also refers to the existence of an outer enceinte.

Precise dating of the fort by documentary means is not possible. The only references to Vppenna in the Byzantine period are represented by the epitaphs of two of its bishops, Honorius and Baleriolus, found during the excavation of a basilica some 200 m. west of the fort (Duval (N) 1973, 87-106). The plan of the fort, in particular the design of the towers, and the character of the masonry are both typical of Byzantine military work. Its small size, comparable to Limisa and Tubernuc, might suggest a post-Justinianic date, although there is no proof of this.
Gaz. AB. Vppenna (cont.)

Bibliography:

Maier, 232 (Oppennensis (c. 484; †525/540)).


See Map 3, no. 67.

Figure 13.

Plates LXIXa-LXXb.

ZARAI

Zraïa

Fort

Zraïa lies on the border between the Diocletianic provinces of Mauritania Sitifensis and Numidia, on the northern slopes of the Djebel Fourhal at the point where the Oued Taourlalent, flowing westward, debouches into the plain around the Chott el-Fraïn. It stood therefore on an important line of communication linking Diana and the area north of Batna with Thamallula and Zabi in the west. Roman roads also led to Niciuibus (N'gaous) and Tubunae in the south-west, and to Sitifis in the north-west.

The site on which the Roman town was built slopes northward and is characterised by rises and gulleys resulting from stream action. The Byzantine fort occupied one such rise. Today it is scarcely recognizable from ground level; only a few traces of masonry have escaped the stone-looting which still continues. From the descriptions of Ragot and Gsell, however, it is possible to reconstruct some of the details of the fort.

It was square in shape, measuring 41.5 x 41.5 internally (0.17 ha.), and flanked by four corner towers, 9 m. square (6). The walls were 2.10 m. thick and built of reused blocks of stone, which included inscriptions and tombstones, encasing a rubble and mortar core. The positioning of the corner towers as shown on Gsell's plan (5, fig. 12) suggests that the north and south towers had right-hand lateral entrance-passages, the east and west towers left-hand ones. The gateway was in the middle of the south-west curtain wall. GSELL describes it as
3.70 m. wide and vaulted. Ragot states that the gate projected forward from the face of the wall, making the entrance-passage 6 to 7 m. long (7, 245); but this is not how it is represented on Gsell's plan, which shows a projection only on the inside of the wall.

Ragot refers to the existence of an outer enceinte, 60-65 cm. thick, surrounding the fort and enclosing the Ain Zraïa; this wall was only 1.80 m. high when he saw it, and no longer survives. A tradition that the fort was linked by a subterranean passage to a late Roman structure situated on another eminence next to a marabout, 300 m. to the north-east, still persists in the locality.

The date of the fort would seem likely to be the same as that at Diana.

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See Map 3, no. 68.
Figure 43.
Plate LXXIa.

ZATTARA
Kef Benzioune

Zattara lies some 18 km. south-south-east of Calama, on the left bank of the Oued Hammam Roumia (Oued Bou Mia), a tributary of the Oued Seybouse flowing north. Roman roads connected it to Calama in the north-west, Guelba Sidi Yahia in the south-south-west and Thubursicu Numidianum and Tipasa (Tifech) in the south-south-east.

The site occupies a naturally defended position, atop a rocky escarpment on the east flank of the Kef Rih. On its east side there is an almost vertical drop of over 100 m. to the river below. On the north and south the approach is steep, but easier on the west. It was on this quarter, therefore, that Gsell was able to observe and plan a defensive wall, extending for some 360 m. in length and enclosing an
oblong area the overall dimensions of which were around 250 m. (N-S) x 150 m. (E-W); the area thus enclosed was 2.74 ha.

The wall was built 1.80-2.00 m. thick of reused material including some tombstones (3); it was formed by a double facing of large blocks, laid in irregular courses, enclosing a rubble core. Gsell observed eight rectangular bastions (or towers), 5 m. broad with walls 1.0 m. thick, spaced between 22 and 42 m. (and in one case 75 m.) apart; of these, only three (a, d and e) were at all well preserved. The masonry of the bastions was slightly more regular than that of the intervening walls. Although Gsell represents all the bastions as open-gorge, it is quite possible that excavation would show some of them to have been ordinary rectangular towers. The position of the gate is unknown.

The date of the enceinte cannot be known with any certainty on present evidence, although it appears likely that it was an official Byzantine work. Two sixth-century bishops of Zattara are documented, Felix, mentioned in 525 and 535, and Cresconius, who attended the Council of Constantinople in 553.

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See Map 3, no. 69.
Figure 36.
GAZETTEER AC.

SITES PROBABLY PROVIDED WITH OFFICIAL FORTIFICATIONS IN THE SIXTH CENTURY, BUT FOR WHICH THE EVIDENCE, WHETHER DOCUMENTARY, EPIGRAPHIC OR ARCHAEOLOGICAL, IS NOT CONCLUSIVE.
AD TVRRES
Tamerza  
\[7^\circ 57' E \ 34^\circ 23' N\]  ?

Ad Turres is identified as Tamerza, an oasis lying beside the Oued el-Horchane at the point at which it cuts between the Djebel el-Manndra and the Djebel en-Negueb to drain south towards the Chott el-Rharsa. Ad Turres lay between Capsa and ad Maiores, whence a road also probably led north-west to Henchir Mdila (Midili ?).

The site has been little explored archaeologically, since it lies in a sensitive and remote area, within 4 km. of the Algerian border with Tunisia. Ad Turres, however, has been tentatively identified with Παρατούρων, a city in Numidia that, according to Procopius, was fortified by Justinian (Gaz. CA).

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Procopius, de Aed., VI, 7, 10 (Παρατούρων).


See Gaz. CA, Παρατούρων (q.v.).

Map 3, no. 3.

Bordj el-Ksour  
\[5^\circ 59' E \ 35^\circ 27' N\]  Fort

Four fragments of an inscription which apparently mentions the name of the emperor Maurice were found in the ruins of a fort, described as Byzantine, lying 2 km. north of Bordj el-Ksour (2). The fort lay in the valley that separates the Monts de Belezma from the Aurès, along which ran the road leading from Thamugadi and Lambaesis to Tubunae and the el-Kantara gorge. Nothing further is known of the fort, and even the restoration of the inscription is questionable. Despite these reservations, however, it would seem reasonable to accept Diehl's identification of a Maurician fort in this position as a hypothesis which may be tested by future work in the field.
BVRGVS SPECULATORIVS
Kherbet el-Bordj
Loth Bordj (5°39'E 35°10'N)
Fort

A fort, measuring about 40 x 40 m. with (?rectangular) corner towers, lies on the east bank of the Oued el-Kantara in the centre of a zone of ancient settlement and between the river and the Djebel Selloum. A military road was built from Batna to Vescera (Biskra) under Commodus (CIL, 22540), passing through the el-Kantara gorge. The position of Kherbet el-Bordj, like that of el-Kantara (Calceus Herculius) itself 8 km. upstream, was therefore of great strategic importance in blocking one of the major lines of communication between the areas south and north of the Aurès mountains.

The walls of the fort were about 2.0 m. thick, but were extensively robbed for their stone blocks in the nineteenth century by the public works department. The fort encloses a smaller enceinte, measuring about 12 x 15 m. and with walls about 1.0 m. thick, whose sides are not quite parallel to those of the fort. The area of the fort is about 0.16 ha.

An inscription found in the ruins records the construction of a burgus by Legio III Augusta at the time of Caracalla. However, the present fort could not be of so early a date. Its form, that of a quadriburgium, suggests a date after the late third century. A second inscription, written around the margin of the first, reads as follows: "bis posuit Caletamera in tempore suo. Wilmans describes the lettering as of the Byzantine period, though one may also suspect a late fifth-century date as being equally possible (no adequate facsimile is published). The reuse of the earlier dedication suggests that the fort continued to play an official rôle in the defence of the region when it was restored or rebuilt by Caletamera, but whether this personage
Gaz. AC. Burgus Speculatorius (cont.)

was a Roman official, a local leader or a commander either of limitanei or of Christian Moorish gentiles in the Roman service is less certain. The name Caletamera would appear to suggest one of the latter two explanations as being the more likely (see Ch. III. 3: 157-158).

In the absence of excavation, relating the inscriptions to the phases of the fort can only be tentative. Baradez puts forward the hypothesis that the second inscription related to the inner enceinte. However, there exist at present no grounds for discarding the alternative hypothesis that it was associated with the construction or refurbishment of the quadriburgium itself. If this were the case, the period after the Byzantine reconquest and the establishment of the fort at Tubumae would seem the likeliest context, and the architectural parallels between the fort and those at Diana and Zarai may also be cited in its support.

Bibliography:

(1) Atlas Alg., 37, 53; (2) Baradez 1949, 235-236; photo p. 183; (3) Ragot 1874, 265; (4) Renier 1851, 443.

See Ch. III. 3: 157-158.

Gaz. CB, Inscr. 40.

Map 3, no. 49.

CLUPEA

Ras Mostefa (nr. Kelibia) (11°07'E 36°50'N) Fort?

The castle at Ras Mostefa occupies the summit of a promontory rising to 150 m. which, with Ras el-Melah, 5 km. to the north of it, represents one of the north-eastern-most tips of Cap Bon. It is rectangular in shape, built with a facing of large stone blocks and flanked by eight rectangular towers. In its present state the castle is essentially a work of the seventeenth century. Shaw, in 1738, described it as 'modern'. However, if there is some truth in al-Bakri's statement that Clupea was the last town in Africa to be held by the Byzantines against the Arabs, it does not seem unlikely that, as has been suggested in the case of el-Kef (Sicca Veneria), the Turkish fortress was adapted
Gaz. AC. Clupea (cont.)

from an existing structure, which may well have been Byzantine in origin. Certainly a fortress existed on the site in 1108 when it was stormed by the Zirid governor Yahya. Excavation of the castle's interior would be necessary, however, to prove or disprove this hypothesis.

The only contemporary reference to Clupea in the Byzantine period is to its bishop, Stephanus in 646.

Bibliography:

Maier, 134 (Clipiensis).
al-Bakri, 97; Ibn Khaldun (2), 24.

(1) Atlas Tun. 50, Kelibia, 67; (2) Diehl 1896, 297; (3) Guérin 1862 (2), 229-231; (4) Guide Bleu 1971, 185-186; (5) Pellissier 1853, 73; (6) Peyssonnel 1725, 30; (7) Piese 1885, 532; (8) Playfair 1895, 325; (9) Poinsot (L) 1936a, 32; (10) Shaw 1738, 159; (11) Tissot 1888 (2), 136.

See Map 3, no. 51.
Plate LXXIb.

Ksour (Hr. el-)

Henchir el-Ksour lies 2-3 km. west of Theueste, in the direction of Youks les Bains (Aquae Caesaris).

A rectangular enceinte, measuring 22.50 x 14.00 m. and built of reused material, surrounded an earlier church (overall measurements, 20.40 x 7.25 m.). The enceinte had two entrances, one on the west facing the vestibule of the church, and the other on the south. From the latter came an inscription which dates the enceinte to the reign of Heraclius with Heraclius Constantine (612-641).

The mention of the emperor's name and the fact that the enceinte was built to defend a church suggests an official building operation. Whether the enceinte could have held a permanent garrison or was intended simply as a refuge for the local population, however, is less certain.

Bibliography:

(1) Atlas Alg., 29, 100; (2) *Farges 1881; (3) Gsell 1901 (2), 217-219.

See Gaz. CB, Inscr. 37.
Map 5, no. 80.
LAMBAESIS

Tazoult (6°16'E 35°29'N) Fort

Lambaesis, the former legionary fortress of the Legio III Augusta, occupied an important strategic position on the northern edge of the Djebel Aurès. To the south it communicated with Vesecera and Thubucedos via the valleys of the Oueds al-Ha'i and el-Abdi. Roads also led east to Thamugadi and Theueste, north to Tadutti and Constantina, north-west to Diana Veteranorum and Sitifis and west to Tubunae.

A fort described as Byzantine lies 900 m. east of the south-eastern corner of the legionary fortress, on the west bank of the Oued bou Khabousène. A small-scale plan published by Janon shows the fort to be about 55 m. square and flanked by five rectangular towers (5, fig. 5).

In 683, Lambaesis was the scene of a battle between the expeditionary force under Uqba ibn Nafi and the local population. The latter were defeated and were pursued by the Arabs up to the gates of their fortress, which Uqba did not attempt to capture (see Ch. II. 8: 106-107). Unfortunately, none of the sources recalling the event was written earlier than the fourteenth century (cf. Caudel 1900, 125; Fournel 1875(1), 167); it would therefore seem unwise to take such evidence as proof of the existence of fortifications or a garrison at Lambaesis in the sixth or seventh century (see Ch. III. 7: 212-213). Evidently, more field work is required.

Bibliography:

Ibn Khaldūn (1), 211; al-Nuwairī, 332.

(1) Atlas Alg., 27, 222-224; (2) Diehl 1893, 297; (3) Diehl 1896, 224-245; (4) Janon 1973, 220-221; fig. 25 no. 26; (5) Janon 1977, 5; fig. 5; (6) Marcillet-Jaubert 1976, 478-479; (7) Nash-Williams 1956, 162; (8) Ragot 1874, 191-192; (9) Tissot 1888(2), 500.

See Map 3, no. 56.
Gaz. AC.

MIDILI ?

Reoccupation of Mdila (Hr.)

(7°24'E 34°38'N) 4th.-c. fort ?

Henchir Mdila lies on the west bank of the Oued Hallaïl, 12 km. south of the point at which it debouches from the valley separating the mountains of the Nemetcha from the Djebel el-Abiod. This valley served as a secondary line of communication linking the Roman limes road at Ad Maiores (Besseriani) with Theueste and Numidia north of the Aurès, by way of Chéria. On the modern map it lies 9 km. north of Ferkane. The settlement covered an area roughly 4.0 x 0.5 km. (4), consisting of a network of field and irrigation systems, interspersed with houses built of toub; the mainstay of the economy was no doubt olives.

The fort, lying near the centre of this scattered settlement, 1.5 km. north of the marabout of Sidi Yakoub, was noted by Vaissière (6; 7), Guénéau (2) and Guénin (4), and has been more recently photographed from the air by Col. Baradez (2). It is represented by a trapezoidally shaped platform rising 3 m. above the surrounding area, the edges of which, overlying the ruined walls, are slightly scarped; a faint ridge running a short distance in front of the walls may perhaps be the counterscarp of a surrounding ditch. The fort was flanked at each corner by a projecting bastion of uncertain shape; a sondage made by Ct. Guénin into the mass of masonry lying at the centre of the south (and longest) wall revealed a gateway flanked by projecting bastions built of ashlar. The rest of the fort, however, was built of fired brick, bonded with mortar; Masqueray also refers to river boulders used in the matrix (2); the walls are estimated to be at least a metre thick (4).

Estimates of the fort's size show little consistency. Guénéau's 40 x 40 m. is certainly erroneous, while of Guénin's 100 x 115 m. and Vaissière's 60 x 100 m., Vaissière's alone corresponds to the proportions shown in Baradez's air photograph. Even this does not allow for the trapezoidal shape of the fort. Until it is possible to verify the measurements on the ground, it is therefore proposed to accept the provisional figures 60 x 100/115 m., which allow for an enclosed area of 0.645 ha., a size comparable to that of the fort at Thabudeos.
Documentary evidence for Byzantine defences at Hr. Mdila is based on the identification of the site with one of the cities in Numidia that, according to Procopius, was fortified by Justinian (cf. Appx. CA). Archaeological confirmation of this is less certain, however, since the fort described above would seem on a priori grounds more likely to be of Roman than of Byzantine date (cf. the fort at Thabudeos). Byzantine fortification of the site may perhaps have consisted of no more than a refurbishment of the existing fort; but although Guénin claimed to have detected evidence of this in his sondage excavation of the south gate, properly conducted stratigraphical excavations would be necessary to test this very plausible hypothesis.

Bibliography:

Procopius, de Aed., VI, 7, 10 (Μηδελα).

(1) Atlas Alg., 50, 23; (2) Baradez 1949, 128; 287 n.l; pl. p. 126a-b; 132a; (3) Guéneau 1907, 329-331; (4) Guénin 1909, 205-206; (5) Masqueray 1879, 69-70; (6) *Vaissière 1889; (7) Vaissière 1893, 141.

See Gaz. CA, Μηδελα (q.v.).

Map 3, no. 29.

OBBA

Ebba Ksour (8°49'E 35°57'N) ?

Obba was a town in Numidia Proconsularis lying seven miles south-southwest of Lepcis, on the Carthage to Théveste road. To the south-east it also probably communicated with Thugga Terebentina.

A reinterpretation of part of the text of Procopius's de Aedificiis (see Gaz. CA) makes it possible to identify Obba with one of the towns in Numidia that were fortified by Justinian. However, this has yet to be confirmed by archaeological means. In the tenth century, the town was surrounded by medieval walls of toub; but by the mid-twelfth century these were in a ruinous state. In the 1880s, Cagnat and Saladin noted the remains of two fortlets or towers, built of reused material, which at that time only barely survived above ground level.
Gaz. AC. Obba (cont.)

These represent the only tangible evidence for late Roman or Byzantine fortification of the site.

In 553, the ciuitas Obbae is listed as a metropolitan see (cf. Chrysos 1966, 138-144).

Bibliography:

Maier, 182; Procopius, de Aed., VI, 7, 10 (Qubba).

Ibn Hawqal, 84; al-Idrisi, 137.

(1) Atlas Tun. 100, Ksour, 87-88; (2) Cagnat 1885b, 240; (3) Diehl 1893, 413; (4) Poinsot (L) 1936a, 34; (5) Saladin 1887, 199.

See Gaz. CA, Qubba (q.v.). Map 3, no. 31.

SVFETVLA

Sbeitla (9°08'E 35°14'N) Military base?

Sufetula occupied a position of great strategic importance in Byzacium, on the north-western edge of the steppe, where it meets the foothills of the Dorsal. The town lay on the south bank of the Oued Sbeitla, a tributary of the Oued el-Hadjel. To the north, the town was in direct communication with Sufes and Thugga Terebentina, to the north-east with Hadrumetum (probably via *Mamma), to the south-east with Madarsuma and Iunci, to the south-west with Thelepte and to the west with Theueste.

A number of fortified structures probably dating from the fifth or sixth centuries have been identified at Sufetula; none of them, however, has the character of a military fort or fortress. They include a group of three domestic towers lying in the southern part of the town (see Ch. IV.3: 271-272); formerly there may have been more. The temple to an unknown deity which stands north of the forum was fortified at a late date by a wall of large blocks of stone, built across its pronaos; and the entrances to the amphitheatre were blocked with reused material, including inscriptions apparently from the forum. Lastly,
the entrances to the forum itself were walled up. To describe the forum as being thereby transformed into 'une puissante citadelle' (2, 182), however, is overstating the case. The walls were only about 0.50 m. thick, and were not strengthened by the addition of towers or bastions. The operation does not have the stamp of Byzantine military work.

Despite the lack of evidence for any official fortification, however, military activity is attested at Sufetula in the sixth and seventh centuries by the discovery of five epitaphs from the site, including those of a primicerius, a tribune, two magistri militum and possibly an exarch. In or before 646, the exarch Gregory is known to have made Sufetula his military headquarters (see Ch. II. 8: 102-103). It does not seem at all unlikely therefore that Sufetula was already a military base of some kind before the end of the sixth century. It may also be noted that George of Cyprus denotes Sufetula as a castrum.

Three sixth- or seventh-century bishops are also attested by inscriptions.

Bibliography:

George of Cyprus, 653a (Κάστρον Σουφητυλα (Gel.)); Κάστρον Σουφητυλα (Hon.)); Maier, 204.

(1) Addyman and Simpson 1966, 159-162; fig. 3-4; pl. 3-12;
(2) Atlas Tun. 100, Sbeitla, 18; plan; (3) Boisnard 1935, 37;
(4) Cagnat 1888a, 67; (5) Cagnat 1909, 134; pl. p. 132; (6) Charles-Picard 1949, 518-522; (7) Claude 1969, 256-257; pl. XVI;
(8) Diehl 1893, 407-410; plan XXVIII; (9) Diehl 1896, 182; 278-279;
293-294; fig. 62, 66; (10) Duval (N) 1964 (esp. 102-103); (11) Duval (N) 1971d, 88; (12) Duval (N) 1972a, 1132; fig. 17; (13) Duval (N)
and Baratte 1973, 92-98; fig. 55-58; (14) Ennabli (A) 1976, 865-866;
(15) Gauckler 1904, clviii; (16) Guide Bleu 1971, 276; (17) Poinssot
L) 1936a, 34; (18) Saladin 1887a, 64-95; fig. 121; (19) von
Petrikovits 1976, 72; fig. 5.1.

Gaz. CB, Inser. 50-54.
Map 3, no. 60.
Figure 48.
Plates LXXIIa-b.
The town of Tacapes lay on the Lesser Syrtes (known today as the Gulf of Gabès), at the western extremity of Tripolitania (cf. Procopius). The site of the Roman town occupied three small hillocks at the inner (western) end of a lagoon, just south of the Oued Gabès and the oasis, and some 2.5 km. west of the present town of Gabès. The archaeology of Tacapes, however, has been little explored (cf. 1; 3).

In de Aedificiis, Procopius refers to Tacapes as a city, but makes no mention of fortifications; since the section of de Aedificiis dealing with Africa is far from being a complete record of the building works undertaken by Justinian in Africa, however, this may not be very significant. In 547, however, John Troglitas, retreating after the defeat of his army at Marta (Mareth), took refuge with what remained of his forces in a small walled town on the coast (Corippus, Joh., VII, 3):

successit paruae defessus moenibus urbis.

Following the strategy of the campaign as it is reconstructed in Chapter II.6, the most likely candidate for identification with the town would be Tacapes.

In the eleventh century, al-Bakrī refers to walls built in antiquity with large blocks of stone existing at Gabès, together with a citadel and a ditch that could be filled with water (cf. Istibsār; al-Tijānī; al-Wazānī). This might have been late Roman or Byzantine, though it should also be noted that in the late ninth century Gabès had been the residence of a prefect of the Aghlabids (al-Yaqūbī).

Bibliography:

Corippus, Joh., VII, 1-3; Procopius, de Aed., VI, 4, 14 (Tāxāna).

al-Bakrī, 41; Ibn Hawqal, 66; al-Idrīsī, 124; Istibsār, 7; al-Tijānī, 1852, 140-145; al-Watwāt, 44; al-Wazānī, 398 (733); al-Yaqūbī, 208.

(1) Atlas Tun. 50, Gabès, 61; (2) Diehl 1896, 229; (3) Monlezun 1885.

See Ch. II.6: 82 n.51.

Map 3, no. 38.
Tehouda is the modern name given to a tell settlement which lies about 16 km. east-south-east of Biskra, on the west side of the Oued el-Abiod, 10 km. south of the point at which it debouches from the Aurès. The tell itself is faintly rectangular in shape. Baradez noted the remains of an enceinte of reused antique blocks surrounding it, which he suggested might be part of the Roman castrum. This perhaps is the stone rampart referred to by the author of the Istibsār. On the south-west side of the tell lies the raised outline of a trapezoidal fort, the interior of which now stands a few metres above the surrounding plain. The fort's sides measure 118 m. (south) 100 m. (north) x 65 m. (east and west), and its internal area is some 0.71 ha. The walls are 1.90 m. thick, and were flanked by rectangular towers at the corners. The north-east tower has been partially cleared; it is 5.50 m. square, with walls 1.10 m. thick, and was entered by a diagonal passage. The sides of the fort may have been reinforced with additional towers, but their outlines are not very clear except on the south, where the main gateway stood. This was flanked by two towers, standing 3.50 m. apart and projecting 4.0 m. from the face of the curtain wall.

One feature of particular interest is that the fort was built of fired brick and not of stone. Baradez gives the size of the bricks as 28 x 38 cm. on average, though some attained 40 x 40 cm. They were between 8 and 10 cm. thick, and laid in horizontal courses bonded with yellow mortar; in places, the core of the wall contains large rounded river pebbles.

The interior of the fort is filled with a mass of broken brick and other debris, but was evidently extensively built up. In the north-west corner stand the partially excavated remains of a building, measuring about 14 x 26 m., with walls 1.20 m. thick, which Baradez suggests may have formed part of the principia.

The dating of the archaeological features investigated by Baradez has still not been resolved, although it would probably now be a relatively simple matter to do so by stratigraphical excavation or even
perhaps by thermo-luminescent dating of the bricks. For the present, however, comparison of the design and construction will have to suffice. The use of brick as opposed to stone seems to have been the result of a lack of suitable building stone, and thus no inference regarding date can be made on the basis of constructional technique. Similarly, the lack of sufficient published comparative data precludes, for the time being at least, the use of brick-size as a chronological indicator.

When we turn to the layout of the fort, however, it appears that Thabudeos fits into a group of forts, including Henchir Mdila (Midili ?) and Thuburnica, which may be closely compared with the Valentinianic fort at Alta Ripa (Altrip) on the Rhine (von Petrikovits 1971, fig. 19). While this would suggest that the fort at Thabudeos is fourth-century in origin, it does not preclude the possibility that it was reoccupied in the sixth.

Two pieces of evidence may tentatively put forward in support of a sixth-century reoccupation. First, Procopius refers to a town named Δέουσις amongst the five towns situated around the Aurès that he says were fortified by Justinian; however, the identification of this town with Thabudeos is not beyond dispute (cf. Appx. CA). Secondly, two inscription fragments referring to an exco[n]sul found near the south-west corner of the fort have been taken by Albertini to relate to the magister militum Africae Solomon; but Desanges draws attention to the fact that the title of exconsul can be found, exceptionally it is true, as early as the fourth century (1963, 59 n. 3; cf. Courtois 1949, 41-43). Thus although on balance the evidence would tend to support the view expressed by Ragot over a century ago that Thabudeos was included in the Byzantine defensive system south of the Aurès (cf. contrary view of Diehl: 5), at least during the period of Solomon's command in Africa, conclusive proof is still lacking (see Ch. III. 7: 207-215).

It was near Tehouda in 683/684 that Sidi Uqba met his death at the hands of the Moors and Rûm commanded by Kusaila (see Ch. II. 8: 107).
Gaz. AC. Thabudeos (cont.)

Bibliography:

Procopius, de Aed., VI, 7, 8 (Δάδουςις ?).

Istibsär, 111.

(1) Albertini 1932, 7; (2) Atlas Alg., 49, 7; (3) Baradez 1949, 282; 287; photos p. 279a, 283-286; plan p. 282; (4) Birebent 1964, 295-297; (5) Diehl 1896, 246-248; (6) Ragot 1874, 293.

See Gaz. CA, Δάδουςις (q.v.).

Map 3, no. 39.
GAZETTEER B.

SITES WHOSE STRUCTURAL EVIDENCE SUGGESTS THE POSSIBILITY OF OFFICIAL SIXTH-CENTURY FORTIFICATION.
AD MAIORES

Besserianì (Hr.) (7°30'E 34°27'N) Town wall?

An elliptical enceinte (500 x 700 m.) encircling the Trajanic fort of AD 104/105; 1800 m. in length and flanked by up to 20 rounded bastions. The wall is 1.50-1.75 m. thick and constructed with a double facing of dressed stone blocks, including tomb-stones, enclosing a rubble and mortar core. To the east, it incorporates a triumphal arch, whose date (of restoration) of AD 267 provides a terminus post quem for the enceinte. Guenin notes a 'Byzantine' defensive work (unspecified) north of the fort. There is no conclusive evidence for sixth-century refortification of the fort itself.

Bibliography:

(1) Albertini 1932, 7; (2) Atlas Alg., 50, 152; (3) Baradez 1949, photo p. 118a; (4) Baudot 1875, 122-124; pl. XV; (5) Boisnard 1935, 36; (6) Cagnat 1913, 572 n. 3; (7) De Torcy 1910, 5-9; 23-24; (8) De Vivie de Régie 1938; (9) Diehl 1896, 245; 247; (10) Guéneau 1907, 322-324; plan; (11) Guénin 1909, 208; (12) Guide Bleu 1974, 448; (13) Marcillet-Jaubert 1976, 9; (14) Ragot 1874, 298; (15) Tissot 1888(2), 530-531; plan.

See Map 5, no. 81.

AGGAR

Sidi Amara (Hr.), Khima (Hr.) (9°31'E 35°52'N) Fort?

A Roman peristyled building, perhaps a temple precinct, converted into a square fort (30 x 30 m.), flanked by four rectangular bastions (5.5 x 5.5 m.), which project only 0.35-0.40m. The outer walls are 2.40 m. thick and built of mortared rubble with a double facing of reused ashlar blocks; the tower walls are 1.00-1.20 m. thick and pierced by arrow-slits. The entrance, about 2.0 m. wide, is set in a 'bastion' (5.50 m. broad, projecting 0.35 m.) in the centre of the north-west curtain wall. Area of fort, 0.05 ha.

Bibliography:

al-Bakri, 115.
Gaz. B. Aggar (cont.)

(1) Anon 1931, fig. 22; (2) Atlas Tun. 100, Maktar, 262; (3) Belenet 1886, 207; (4) Cagnat 1888a, 31; (5) Diehl 1893, 378; 387-389; plan XXIII; (6) Diehl 1896, 182; 281; fig. 23; (7) Ennabli (A) 1976, 17; (8) Guérin 1862(1), 424; (9) Poinssot (J) 1894, 92-94; pl. III; (10) Poinssot (L) 1936a, 29; (11) Toussaint 1899, 195.

See Map 5, no. 82.

A‘in Mchira

Fort ?

(6°14'E 36°00'N)

Fort 'de basse époque', measuring 50 x 50 m. and possibly flanked by square bastions, standing near to a spring.

Bibliography:

(1) Atlas Alg., 17, 386; (2) Diehl 1896, 288; (3) Gsell and Graillot 1894b, 589-590 (no. 63).

See Map 5, no. 83.

AQVAE THIBILITANAE

Hammam Meskhoutine

Fort ?

(7°17'E 36°28'N)

A pair of rectangular towers standing at least 5 m. high on a rocky eminence, joined together by two parallel walls; constructed of large ashlar blocks, with walls 0.40 m. thick. The fort measured overall 3 x 33 m., and enclosed a vaulted cistern (capacity 80 hectolitres). Destroyed for road construction in 1852.

Bibliography:

(1) Atlas Alg., 9, 144; (2) De la Mare 1850, pl. 169; (3) Fiorini 1935, 91-97; plates; (4) Grellois 1852b; (5) Gsell 1901(2), 386 n. 2; (6) Gsell 1912, 151-152; (7) Marty and Rouyer 1891, 209-210; plans; (8) Poiret 1789(1), 156; (9) Ravoisie 1846(2), pl. 18-21.

See Map 5, no. 84.
Four distinct elements supposedly relating to the Byzantine defences of Bulla Regia have been identified during the past 100 years. Neither the published descriptions of these, however, nor the surviving remains can be taken as sufficient evidence for Bulla Regia's official fortification in the Byzantine period:

(i) Lt. Winkler planned a 'town wall' in the 1880s which extended for about 2400 m. and was flanked by rectangular towers placed astride the rampart. The wall varied from 0.90–2.20 m. in thickness and was built of rubble masonry reinforced by (?vertical) divisions made up of large blocks placed every 2.60 m. ("blocage encadré de cordons en grosses pierres de taille, distancees de 2m60"). Gateways were located on the N, NW, W and S, and were supplemented by a further seven posterns, 1.25 m. wide (4; 17).

(ii) Tissot records a 'forteresse' lying SW of the Jendouba–Bou Salem road. It measured 70 x 90 m. and had polygonal corner towers (Tissot's text states hexagonal, but the plan shows engaged octagons). The structure was quite recognizable in 1853 but only the foundation of one of the towers and part of the SE wall remained in 1881, the rest having been used in the construction of the Tunis–Chardimaou railway (5; 10; 14; 16). The style of masonry is not described; this enceinte enclosed a massive structure, however, probably a bath-building, which still awaits detailed study (6).

(iii) The plan made for the Atlas archéologique in 1911 shows a 'forteresse byzantine' a short distance NE of the cistern complex on the NW side of the town. This building, of large ashlar masonry, still survives in part as a private house (1; 11).

(iv) Excavation of the theatre in 1958 provided evidence of its occupation and fortification in either the Byzantine or Muslim period (3).

Bulla Regia was still the seat of a bishop in 646. It may perhaps be significant that despite the numerous references made by Procopius to the plains of Bulla (Βούλλας πεδίον), never once does he refer to the existence of fortifications at the city.
Bibliography:

Maier 118 (Bullensis/Bullamensis; Bullerensis); Procopius, III, 19, 32; 25, 1; 25, 16; 25, 22; IV, 15, 1.

(1) Atlas Tun. 50, Fernana, 137; plan; (2) Beschaouch, Hannoune and Thébert 1977, 12; 100; fig. 3 no. 6; (3) Boulouednine 1958; (4) Canal 1911, 365-369; plan; (5) Carton 1891, 207; 212; (6) Carton 1917, 150-152; (7) Diehl 1893, 420; (8) Diehl 1896, 284; (9) Ennabli (A) 1976, 171-172; (10) Gsell 1892, 121; (11) Guide Bleu 1971, 248; (12) Piese 1885, 521; (13) Poinssot (L) 1936, 31; (14) Saladin 1892, 430; (15) Tissot 1881, 36-37; pl. V; (16) Tissot 1888(2), 261-264; (17) Winkler 1885, 114-116; pl. XIV.

See Map 5, no. 85.

CASAE (i)

El-Madher (6°23'E 35°37'N)

Ksar measuring 11.00 x 9.40 m., with walls 1.40 m. thick, built with a double facing of reused stone blocks enclosing a rubble core. It lay 800 m. south-east of El-Madher. The door, placed centrally in the east (longer) side, was about 0.80 m. wide and closed by means of a stone disc (2 m. diameter, 0.23 m. thick) operating within the thickness of the wall. An inscription, datable from its cross of 'Byzantine' type to the late fifth or sixth century, records the construction of the ksar by the deacon Argentius and acted as lintel to the door. A bishop Argentius of Lamiggiga, mentioned in the letters of Gregory the Great in 591, may perhaps be the same person (Maier 1973, 257).

Bibliography:

(1) Atlas Alg., 27, 141; (2) Audollent 1890, 562-563 (no. 130); (3) Blanchet 1898, 332-333; fig. 3; (4) Diehl 1893, 297-298; (5) Diehl 1896, 295; (6) Gsell 1901(2), 388; (7) Gsell and Graillot 1894, 75.

See Gaz. CB, Inscr. 38.

Map 5, no. 86.
Gaz. B.
CASAE (ii)
El-Madher

(6°23'E 35°38'N) Fort ?

A rectangular fort, measuring 40 x 50 m. (2), or 41 x 41 m. (4), enclosing the marabout of Sidi Ali. Walls 50 cm. thick, standing 2-3 m. in height were seen by Blanchet. However, Gsell and Graillot state that the walls were built with a double facing of ashlar blocks and contained reused architectural fragments and tombstones. Rectangular bastions (3.60 x 3.60 m.) stood at the centre of three of the sides; in the middle of the SE side the main gate stood forward from the wall, its arch representing the only part of the fort still standing above ground (1975). Blanchet marks a postern between the NW tower and the W corner of the fort. Area 0.14 - 0.17 ha.

Bibliography:

(1) Atlas Alg., 27, 141; (2) Blanchet 1898, 332-334; fig. 3; (3) Gsell 1901(2), 386 n. 2; (4) Gsell and Graillot 1894, 74-75 (no. 167).

See Map 5, no. 87.

CASTELLVM TIDDITANORVM

Tiddis, Ksantina el-Kdima

(6°30'E 36°28'N) Town wall ??

The rampart surrounding the summit of the plateau which dominates the western part of the site appears to be pre-Roman in date. However, Berthier has suggested that the eastern side of it, facing the Roman town, is Byzantine in its present state (2); this is constructed of reused stone blocks and flanked by an earth-filled masonry tower, measuring 9.0 m. across and projecting 4.5 m. (4, fig. 29). Evidence for sixth- or seventh-century occupation on any large scale, however, is entirely lacking; of the 15,000 coins from the site, for example, only 7 can be dated to between AD 535 and 645 (Laily 1971, 108-110). It would seem more likely, therefore, that these walls are either 'Moorish' or belong to the Hafsid period of occupation of the site.
Gaz. B. Castellum Tidditanorum (cont.)

Bibliography:

(1) Atlas Alg., 17, 89; (2) Berthier 1951b, 16; 54-55; plan;
(3) Berthier 1971, 14; (4) Berthier 1972, 52; fig. 29; plans;
(5) Berthier and Leglay 1958, pl. 2; (6) Brunon 1877, 326-327;
pl. XIII; (7) Diehl 1896, 297; (8) Guide Bleu 1974, 405-408;
plan; (9) Lassus 1959, 294-300; fig. 68; (10) Nash-Williams
1956, 158; fig. 16.

See Map 5, no. 88.

CILIBIA
Kelbia (Hr.) (10°28'E 36°34'N) Fort ?

Rectangular 'fort', built apparently of reused material including
inscription fragments, flanked by four corner towers, only one of
which was still standing when Guérin visited the site in the 1860s.

Bibliography:

(1) Atlas Tun. 50, Grombalia, 131; (2) Diehl 1896, 270; (3) Guérin
1862(2), 203-204; (4) Poinssot (L) 1936a, 31.

See Map 5, no. 89.

CIVITAS A...
Ksar Medoudja (9°13'E 35°56'N) Fort ?

Rectangular ?fort measuring 50 x 51 paces and flanked by a rectangular
bastion on the E and S; overlooking a spring. The walls are built
with a double facing of ashlar blocks enclosing a rubble core. Area,
0.14-0.18 ha.

Bibliography:

(1) Atlas Tun. 100, Maktar, 133; (2) Carton 1895, 391; (3) Diehl
1893, 398; plan XXVI; (4) Diehl 1896, 294; (5) Guérin 1862(1),
419-420.

See Ch. III. 8: 234-235 n.97.
Map 5, no. 90.
Gaz. B.
CIVITAS POPITHENSIS
Ksiba, Okseiba (Hr. el-) (8°19'E 36°18'N) Enceinte

Roughly rectangular enceinte, measuring about 170 x 170 m. (1.82 ha.),
built of unmortared stone blocks on the high ground overlooking the
Roman town to the west; defended by steep slopes on the N, E, and S;
the W side is flanked by rectangular towers, of which three survive;
two of these, measuring 4 x 4 m. and surviving to 2.5 m. in height,
stand 30.5 m. apart near the NW angle of the enceinte; the other,
also 4 x 4 m., survives to only 1.0 m. A smaller irregular enclosure
built of smaller reused material occupies the highest point of the
enceinte. Both of these appear to be works of the late Roman or
Byzantine period.

Bibliography:
(1) Atlas Alg., 19, 37; (2) Berbrugger 1857, 267-268; (3) Christofle
1938, 267; (4) Pelgerolles 1936, 431-432; (5) Guey 1937, 71-72;
104-106; plan; (6) Mercier 1887, 471-473; pl. VIII.
See Map 5, 91.

COREVA
Dermoulia (Hr.) (9°29'E 36°29'N) Fort ?

Rectangular enceinte measuring about 30 x 60 m. and built of reused
architectural fragments, lying wedged between the Carthage-Theueste
road and the Oued Siliana. Carton's plan shows a rectangular bastion
placed midway on the S wall, whereas that of Hilaire and Vellard shows
only a rectangular corner bastion in the SE. Area of fort: 0.146 ha.

Bibliography:
(1) Atlas Tun. 50, Teboursouk, 95; (2) Carton 1895, 8-10; fig. 1-2;
(3) Diehl 1896, 277; (4) Hilaire and Vellard 1897, 838; fig. 8;
(5) Tissot 1888(2), 452.
See Map 5, no. 92.
Gaz. E.

CVICVL

Djemila

\((5°14'\text{E} 36°19'\text{N})\)

Fort ?

A rectangular fort (?), measuring internally \(20 \times 16\) m. \((0.03\text{ ha.})\), which formerly stood about \(10\) m. N of the smaller of the two Christian basilicas. Its entrance was on the S, in the centre of one of the smaller sides, and was flanked by two projecting corner bastions, measuring \(3 \times 3\) m. Gsell \((1)\) identifies this with a redoubt hastily erected by French troops in 1838, when for 12 days they were pinned down in Djemila by 3,000 Kabyles (cf. 2, 204); he adds, however, that it may have been built over the remains of an earlier Byzantine fort. Ballu maintains, however, that the French fort was south of the museum, where it remains could still be seen in the 1920s; but his own argument that the placing of the blocks with their Lewis-holes showing is typical of Byzantine work is not conclusive; it implies merely that the blocks were spolia from an earlier building. A bishop of Cuicul, Cresconius, attended the Council of Constantinople in 553.

Bibliography:

\((1)\) Atlas Alg., 16, 233; \((2)\) Ballu 1921, 209-210; pl. facing p. 264; \((3)\) Boismard 1935, 36; \((4)\) Diehl 1896, 258; 290; 297; \((5)\) Février 1971b, 23-24; \((6)\) Ravoisie 1846(1), 45; pl. 29; \((7)\) Romanelli 1970, pl. 3.

See Map 5, no. 93.

FVRNOS MAIVS

Ain Fonna

\((9°35'\text{E} 36°08'\text{N})\)

Enceinte

An enceinte built of reused blocks, including an inscription fragment referring to the emperor Marcus Aurelius, was seen by Guérin, who described it as more or less square in shape, with a perimeter of about 800 m., flanked by bastions. Cagnat and Merlin \((1)\) give its overall dimensions as \(200 \times 250\) m., and note towers flanking only the south face. An unpublished plan \((2)\) at \(1/1,000\), however, shows the enceinte to have been rather more oval than rectangular and to have been flanked by at least five rectangular towers. There were also traces of an
inner enceinte. The area enclosed seems, from this plan, to have been somewhat under 2.50 ha. Nothing remains of the enceinte today (1975).

Bibliography:

(1) Atlas Tun. 100, Jama, 187; (2) Duplantier 1911, plan; (3) Guérin 1862(I), 421-422; (4) Poinssot (L) 1936a, 32.

See Ch. III. 8: n. 20.
Map 5, no. 94.

GIGTHIS
Sidi Salem Bou Ghara (ttr.) (10°41'E 33°32'N) Fort or ribat?
Rectangular fort, measuring 60 x 60 m., partly uncovered by Lt.-Col. Donau in 1913-14. The walls are built of reused material including inscription fragments in Latin and Greek. The N and W walls are flanked by centrally placed towers, 3.80 m. broad and projecting 2.60 m. At the NE corner stood a cylindrical tower (tourelle). The entrance was on the east side, and seems to have been of the bent or oblique type. This layout and the structure's coastal situation might suggest its identification as a Muslim ribat rather than as a Byzantine fort.

Bibliography:


See Map 5, no. 95.

Guelia Bou Atfan (7°25'E 36°15'N) Fort ?
Roughly rectangular fort measuring about 28 x 42 m. overall (0.115 ha.), flanked by a rectangular bastion placed centrally on its E (and longest) side. Walls 1.30-1.50 m. thick, built with two facings of large reused blocks, including fragments of olive-presses, door jambs, inscriptions
and rusticated blocks, bonded by means of headers into a rubble core.

Bibliography:

(I) Atlas Alg., 18, 200; (2) Bernelle 1892a, 94; (3) Bernelle 1892b, 517-518; (4) De Vigneral 1867, 33-34; (5) Diehl 1896, 611; (6) Gsell 1898, 257; plan.

See Map 5, no. 96.

Guessès (Hr.) (6°43'E 35°38'N) Town wall

A town wall shaped like an irregular polygon, measuring roughly 350 x 450 m. overall and enclosing 11.5 ha.; flanked by at least 15 rounded bastions, which are broader at the back than at the front. The two gateways are each flanked by a pair of bastions. The walls are built 2.10 m. thick with two facings of roughly shaped blocks enclosing a mortared rubble core. One of the towers contains a (?) reused inscribed lintel bearing a fourth-century type of Christian monogram (CIL, 2334, add p. 951). Gsell explains the absence of the usual Byzantine type of masonry by the lack of suitable Roman public buildings to pillage. However, the size of the enceinte and the design of the bastions suggest a fourth- or early fifth-century date, rather than a Byzantine one; and the site's importance in the late Roman period is illustrated by the discovery there of four Christian basilicas (Février (PA) 1972a, 314-315; pl. CXXVII-CXXX). The town still existed in the eleventh century.

Bibliography:

al-Bakri, 107.

(1) Atlas Alg., 27, 293; (2) Boisnard 1935, 36; (3) Diehl 1893, 316-317; (4) Diehl 1896, 243-244; fig. 51; (5) Gsell 1901(1), 359-360; (6) Gsell and Graillot 1894, 51-56 (no. 126); (7) Lambert 1923; (8) Leschi 1940, 147; (9) Payen 1892, 203-204; (10) Ragot 1874, 206-207; (11) Romanelli 1970, 405; 407; (12) Tissot 1888(2), 483.

See Map 5, no. 97.
Tigzirt-sur-Mer (4°08'E 36°54'N) Town Wall & fort

A town wall running in an irregular fashion across the neck of the promontory, enclosing (after coastal erosion) some 3-4 ha., compared with the 10-12 ha. of the Roman enceinte. In the E it consists of a double facing of large stone blocks, enclosing a rubble core, which Pallu de Lessert maintains was not cemented, though this appears doubtful (4); it was 2.10 m. thick. On the W it appears to be represented by a concrete foundation, 3.50 m. thick, which runs about 30 m. into the sea. Between these two points the wall is no longer traceable, though from the plan by Pallu de Lessert, Bourlier and Gavault it seems likely that it was adapted from existing structures; indeed, Pallu de Lessert writes that the building technique was not consistent and in places there was no internal facing. The main gate was placed in a recessed position at the centre of the enceinte; it was 1.56 m. wide and 2.25 m. high. Three other possible gateways were noted, one of which was apparently associated with a lintel carved with a Chi-Rho monogram of the type normally attributed to the late fifth or early sixth century (4, fig. 19).

Excavations in the 1950s confirmed the existence of a small rectangular fortified structure built over part of the forum (2 - 6; 8 - 2); it had a central courtyard and was flanked by what appeared to be square bastions on the N and S sides. In the absence of published plans or photographs it is uncertain whether this was an official fort.

The dating of the fortifications at Tigzirt is equivocal and the general character of the wall could suggest a local response to the needs of defence rather than imperial initiative. (For identification of town name, see Février (PA) 1976, 777; Laporte 1973; cf. contra Frézouls and Hus 1954).

Bibliography:

(1) Atlas Alg., 6, 34; (2) Euzennat 1955, 147-148; (3) Diehl 1896, 261-262; 262 n. 1; (4) Gavault 1897, 106-110; fig. 16, 19; (5) Gaël 1901(2), 386 n. 2; 392; (6) Grenier 1950, 347-349; (7) Guide Bleu 1974, 335; (8) Leglay 1954a, 151-152; (9) Leglay 1955, 191.

See Map 5, no. 98.
Ksar (Hr. el-) (6°39' E 35°25' N) Fort
A rectangular fort situated on the E side of the plain of Iabous.
The fort measures internally 20 x 40 m. (0.08 ha), with walls 2.30 m.
thick, and is flanked by rectangular towers, measuring about 5 x 5 m.
(walls 0.09 m. thick), which project diagonally from its corners; the
NW tower was destroyed for road construction in the 1900s. The ent­
trance was on the S, in the centre of one of the shorter sides. Masonry
not described.

Bibliography:
(1) Atlas Alg., 27, 7364; (2) Vel 1909, 264-265; plan.
See Map 5, no. 99.

Ksar Ghazelli (Hr.) (8°37' E 36°22' N) Fort?
Rectangular fort, measuring 32 x 38 m. and standing in places to 5 m.
in height. Masonry not specified. Two towers flanked the south side.

Bibliography:
(1) Atlas Tun. 100, Ouargha, 14; (2) Toussaint 1898, 201.
See Map 5, no. 100.

Ksar Lebna (10°57' E 36°42' N) Fort
A fort of which only one tower was standing, which Guérin took to be
Byzantine. Possibly a ribat.

Bibliography:
(1) Atlas Tun. 50, Menzel Heurr, 8; (2) Diehl 1896, 297; (3) Guérin
1862(2), 239; (4) Piese 1885, 532.
See Map 5, no. 101.
Gaz. B.

MOPTH..., MOPTI

Mons (5°34'E 36°16'N) Fort ?

Temple precinct fortified by the addition of corner bastions and the reinforcement of the perimeter wall by the addition of a secondary facing enclosing a rubble core (walls 1.50-1.90 m. thick). Internal measurements 39.50 x 42.00 m. (6): 0.166 ha. Ravoisie illustrates four corner bastions, de la Mare only three; by the 1940s the NE tower alone was visible, measuring about 5 m. across and projecting 2.40 m. from the E wall. The original Roman gateway, 2.90 m. wide, was retained in the centre of the E wall. Excavation of the cella and the NW part of the enclosure provided evidence of late Roman and possible early Muslim occupation (6; 7). Traces of an outer enceinte noted.

Bibliography:

(1) Atlas Alg., 16, 196; (2) de la Mare 1849, 3; (3) de la Mare 1850, pl. 92; (4) Diehl 1896, 602; 604-605; (5) Pevrier (PA) 1976, 777; (6) Galand 1949, 38-40; 65-71; fig. 2; (7) Ginther 1941, 81-82; (8) Gsell 1901(2), 368 n. 1; (2) Gsell 1912, 93-94; (10) Ravoisie 1846(1), 67; pl. 57; (11) Romanelli 1970, 405; (12) Tissot 1888(2), 410-411.

See Map 5, no. 102.

Nagachia (Hr.) (9°16'E 35°50'N) Fort ??

The existence of a Byzantine fort at Henchir Nagachia has been argued on the basis of an inscription found at the site, restored by CIL as follows (stone, 0.60 x 0.28 m.; ht. letters, 0.04 m.):

indicat] hec titulus
Justini]an(o imperatore) inmine
nte in] nostros in[p
etu h]ostis d(omi)n[o iuba
nte ...] castru(m) perfec(tum).

The restoration of the name of Justinian, however, seems hard to justify, especially since there are no other reasons for believing the inscription to be Byzantine in date. Neither has any trace of fortifications been found at the site.
Gaz. B. Nagachia (cont.)

Bibliography:

(1) Atlas Tun. 50, Béja, 18; (2) Diehl 1893, 413; (3) Diehl 1896, 296-297.

See Map 5, no. 103.

Ras el-Hammam  

Rectangular structure, measuring 17.40 x 18.00 m. (over the walls); flanked by four rectangular corner towers of unequal size and disposition, three of which cover only one wall. Built with facing of reused ashlar blocks, enclosing a rubble and mortar core. Interior filled with fallen masonry. The structure may be identified either as a Byzantine fort or as a late Roman or Byzantine fortified farm. In the middle ages, a gate-tower was added to the NW wall, dated by an inscription to A.H. 473/A.D. 1080-81 (cf. al-Bakrī).

Bibliography:

(1) Goodchild and Ward-Perkins 1953, 73 n. 61; (2) Hutt 1977, 40 pl. 81; (3) Levi della Vida 1949; (4) Libyan General Committee 1976, 70; (5) Romanelli 1925, 167; 169-170; plan; fig. 98-99; (6) Romanelli 1970, 399; (7) Whitehouse 1972, 19.

See Map 5, no. 104.

RVSICADE

Skigda (formerly Philippeville)  

What remained of the Roman city was almost completely destroyed by the implantation of its French successor in the nineteenth century. Traces of ancient fortifications, flanked by (rounded) bastions, were observed at the time of Marshal Valée's expedition in 1838, but these are perhaps more likely to have been Roman in origin. As the coastal outlet for Constantina, Rusicade seems likely to have been occupied and fortified in the sixth century; the only tangible pieces of evidence of Byzantine activity, however, are a fragment from a Greek inscription (Gsell
Gaz. B. Rusicade (cont.)

1898, 22 n. 5; ILAlg (2), 27 and the lead seal of a στρατηγάτης (CIG, 8990; Monceaux 1903, 253-254, no. 111).

Bibliography:

(1) Atlas Alg., 8, 196; plan; (2) Chabassière and Bertrand 1913, 121-122; pl. 1; (3) de Marcilly 1853, 26-27; (4) Diehl 1896, 296; (5) Grenier 1953, 89-90; (6) Tissot 1888(2), 104.

See Map 5, no. 105.

SATAFI

Périgotville, Ain el-Keibira (5°30'E 36°22'N) Town wall ?

Enceinte extending some 800 m. and encircling the hill which dominates the western part of the site as well as its principal spring; built 1.60-2.00 m. thick of undressed stone and flanked by the remains of square bastions, 5.0 m. broad, spaced about 40 m. apart. At the hill's summit stood a ksar (8.60 x 5.60 m.; walls 0.80 m. thick).

Bibliography:

(1) Atlas Alg., 16, 117; (2) Gsell 1895, 42-43.

See Map 5, no. 106.

Seba Biar, Djama. (9°09'E 36°00'N) Fort ?

A 'fort' constructed of different-sized blocks of stone; the NE side, which in the 1880s was the best preserved, was flanked by a bastion. (Note, this site was at one time thought to be Zama Regia; cf. Saumagne 1941).

Bibliography:

(1) Atlas Tun. 100, Maktar, 29; (2) Cagnat 1888a, 79; (3) Diehl 1893, 377; (4) Diehl 1896, 294; (5) Hilaire and Vellard 1897, 831; (6) Tissot 1888(2), 573 n. 3; (7) Toussaint 1899, 191-192.

See Map 5, no. 107.
Gaz. B.
Sidi Bellaoui (8°58'E 36°25'N) Fort ?
'Fort' built of large stone blocks and defended by bastions.

Bibliography:
(1) Atlas Tun. 50, Souk el-Arba, 52; (2) Carton 1895, 278; (3) Diehl 1896, 285.

See Map 5, no. 108.

Sidi Bou Goussa (Hr.) (8°35'E 36°27'N) Town wall ?
Enceinte built of large stone blocks and flanked by square towers.

Bibliography:

See Map 5, no. 109.

SILA
Bordj el-Ksar (6°42'E 36°07'N) Fort
A square fort measuring 50 x 50 m. (0.20 ha.) and defended by a bastion placed at the centre of each side, standing in the E part of the site; the walls were 1.40–2.10 m. thick and built with a double facing of large blocks; the masonry included reused columns, mouldings and fragments of olive presses. Poulle refers to an outer enceinte at the S end of the site, extending for about 400 m. and flanked by a tower at its SW angle. Deposits of relics, dated to 585 and Indiction XIII, referring to bishops Bonifatius and Emeritus respectively, have been found in a basilica at the site.

Bibliography:
Maier, 200.

See Map 5, no. 110.
Gaz. B.

SVA
Chaouach  
(9°33'E 36°43'N)  Town wall

Town wall built in an irregular arc on the edge of a cliff, which delimits its southern side; constructed of reused Roman material, including sculptured fragments, columns, inscriptions, pilasters, etc. The entrance is in the side of one of the square towers which flank the enceinte, its lintel taken from a Roman gateway. Possibly post-Byzantine. **Sua** had a bishop, Maximus Suensis, in 646.

Bibliography:

Maier, 203.

(1) Atlas Tun. 50, Tebourba, 183; (2) Gouyac 1894, 324; (3) Guide Bleu 1971, 241; (4) Poinssot (L) 1936a, 34; (5) Tissot 1888(2), 294.

See Map 5, no. 111.

SVLLECTHVM
Ras Salakta  
(11°03'E 35°24'N)  Town wall ?

When Boriades liberated the city from the Vandals in 533, it was defended by an improvised town wall, constructed by the inhabitants themselves by joining together the outer walls of their houses. Evidently there was some kind of gate, because the keys of the city were handed over by the priest and notables. In the eighteenth century, Shaw noted 'the Ruins of a very large Castle, little inferior in Extent to the Tower of London', commanding a small harbour to the SW; the same structure had been noted by al-Bakri in the eleventh century. Guérin gives the size of this rectangular enceinte as 208 x 208 paces (= 7150 x 150 m. or 2.25 ha.); he describes the wall as built with a double facing of large stone blocks enclosing a rubble core.

Bibliography:

Procopius, III, 16, 9-11; 17, 6 (Στελακτος).

al-Bakri, 171.

(1) Atlas Tun. 50, Mahdia, 136; (2) Boisnard 1935, 37; (3) Diehl 1896,
Gaz. B. Sullecthum (cont.)

269; (4) Guérin 1862(1), 147; (5) Hannezo 1890, 445; (6) Peyssonnel 1725, 109; (7) Poinssot (L) 1936a, 35; (8) Shaw 1738, 192; (2) Tissot 1888(2), 179.

See Map 5, no. 112.

THIBILIS

Announa (7°16'E 36°23'N) Town wall & citadel ?

The exposed southern side of the plateau on which the town stands was latterly defended by a wall built of large blocks of reused stone, including pagan tombstones, and flanked in places by rectangular bastions. The triumphal arch marking the south gate of the city became a fortified gateway with one of its two bays walled up (since unblocked) and a pair of bastions (3.60 m. broad, projecting 2.80 m.) flanking it. A complex of massive structures in large ashlar masonry covering the highest point of the site, which some have taken for a Byzantine citadel, has yet to be properly investigated and excavated for its identity to be known with any certainty. The date of the enceinte could be fourth- or fifth-century rather than Byzantine.

Bibliography:

(1) Atlas Alg., 18, 107; plan; (2) Bernelle 1892b, 500; (3) Boisnard 1935, 35; (4) de la Mare 1849, 14; pl. 110-111; (5) de la Mare 1850, pl. 164; (6) Diehl 1893, 366-370; (7) Diehl 1896, 289; (8) Graham 1885, 21; (9) Geisel 1901(2), 391; 392 n. 3; (10) Geisel 1912, 144; (11) Geisel and Joly 1914(3), 44-45; pl. XII; (12) Guide Bleu 1974, 420; (13) Joly, in Hinglais 1905, 243-244; (14) Mercier 1888, 111; (15) Poulle 1891, 339-344; (16) Ravaisson 1846(2), pl. 3-4; (17) Romanelli 1970, pl. 42; (18) Souville 1976, 914.

See Map 5, no. 113.

THIZICA

A'in Tachegga (9°41'E 36°58'N) ?

Wall flanked by two towers, spaced 25 m. apart; one of them rounded and faced in ashlar.
Gaz. B. Thizica (cont.)

Bibliography:

(1) Atlas Tun. 50. Mateur, 79; (2) Barry 1886, 485-486; (3) Peyras and Maurin 1974, 18 n. 26; (4) Foinssot (L) 1936a, 36.

See Map 5, no. 114.

THVBVRNICA

Sidi Ali Belkacem (Hr.) (8°28'E 36°32'N) Fort

Trapezoidal fort with sides measuring 120 m. (S), 65 m. (W), 60 m. (N) and 63 m. (E), enclosing an area of 0.50 ha. Dominates the town to W. Masonry includes a first-century dedication. Rectangular bastion at SW corner flanking only W side; irregularly shaped bastion on W wall; angled bastion at NW corner; rectangular bastion placed diagonally at NE corner; SE corner without bastion. Gate in S wall, 6 m. wide (?double bay), flanked by two small bastions. Terraced interior. Outer enceinte on S and W, parallel to sides of fort. The very close similarities in the layout of the fort with the Valentinianic fort at Alta Ripa (Altrip) on the Rhine (von Petrikovits 1971, fig. 19) suggests a fourth-century date.

Bibliography:

(1) Atlas Tun. 50, Chardimaou, 7; (2) Boisnard 1935, 38; (3) Carton and Chenel 1891, 164-166; fig. 1; (4) Diehl 1896, 284; (5) Guide Bleu 1971, 249; (6) Foinssot (L) 1936a, 36; (7) Tissot 1881, 27; (8) Tissot 1888(2), 283.

See Map 5, no. 115.

THVNIGABA

Aabed (Hr. el-) (9°13'E 36°53'N)

Hill-top site defended by thick walls built of 'matériaux disparates' and flanked by square towers; gates on S and E. No sign of any defences and no sixth-century pottery were found at the site in 1975.
Gaz. B. Thunigaba (cont.)

Bibliography:

(1) Atlas Tun. 50, Béja, 12; (2) Merlin 1913, clxii-clxvi.

See Map 5, no. 116.

VAZI SARRA

Bez (Hr.) (9°33'E 36°01'N) Fort ?

Square fort measuring 25 x 25 m. internally (0.06 ha.), flanked by a square tower (3 x 3 m.) at its SE corner. Walls 1.30 m. thick, built with a double facing of large blocks enclosing a rubble core; pierced in places by arrow-slits and a vaulted entrance on the N. Two other fortlets are also noted.

Bibliography:

(1) Atlas Tun. 100, Maktar, 107; (2) Cagnat 1888, 35-36; (3) Diehl 1893, 377; 400; plan XXVI; (4) Diehl 1896, 294; (5) Jounard 1925, 276-277; (6) Poinssot (J) 1884, 241-246; (7) Poinssot (L) 1936a, 38; (8) Reinach, in Tissot 1888(2), 601.

See Map 5, no. 117.

VCHI MAIVS

Douemis (Hr.) (9°05'E 36°24'N) Town wall

Hill top defended by an enceinte built of reused stone blocks and flanked by rectangular bastions; best preserved on SW. Two fourth-century inscriptions amongst those formerly built into the wall, one of them dating from the reign of Valentinian II, Theodosius I and Arcadius, provide a terminus post quem for the wall's construction, or perhaps restoration, of AD 388/392.

Bibliography:

(1) Atlas Tun. 50, Souk-el-Arba, 62; (2) Boisnard 1935, 36; (3) Carton 1895, 256; (4) Diehl 1896, 285; (5) Merlin and Poinssot (L) 1908, 12; 22; 53-55 (no. 37); 61 (no. 43); (6) Poinssot (L) 1936a, 37-38; (7) Reinach, in Tissot 1888(2), 363 no. 1.

See Map 5, no. 118.
Gaz. B.
VREV

**Bordj Ouraou**

(9°34'E 36°53'N) Fort

Rectangular fort measuring externally 37 x 50 m. and enclosing 0.16 ha.,
built in large ashlar masonry, little of which appears to be reused;
possibly built around an existing temple precinct. The N side, which
is the best preserved, is flanked by a centrally placed rectangular bastion. A *ksar* stands about 200 m. SW of the fort.

**Bibliography:**

(1) Atlas Tun. 50, Mateur, 303; (2) Peyras and Maurin 1974, 9; 18; fig. 2-3.

See Map 5, no. 119.

**VZAPPA**

**Ksour Abd el-Melek**

**Ksour Sidi Abdellah**

(9°21'E 35°55'N) Fort

Rectangular fort flanked by a rectangular bastion on the N side,
built of reused blocks of stone. Traces of a town wall have been noted
on the east overlooking the river.

**Bibliography:**

(1) Atlas Tun. 100, Maktar, 153; (2) Foussard 1923, 52; (3) Guide Bleu 1971, 269; (4) Poinssot (J) 1884, 229.

See Map 5, no. 120.

**Zaga (Hr.)**

(9°00'E 36°54'N)

A group of buildings constructed of ashlar, including drafted blocks
and reused inscriptions, one of which (*CIL*, 14451) allows a *terminus post quern* of A.D. c. 195 for its construction. Despite the existence
of slit-windows, none of the buildings, as described by Cagnat and
Hovart, has the character of a work of fortification. They may perhaps
relate to some official establishment of the *saltus Burunitanus*.
Gaz. E. Zaga (cont.)

Bibliography:
(1) Cagnat 1885a, 141-143; pl. XVIII; (2) Diehl 1896, 211; 297; fig. 45; (3) Hovart 1908.

See Map 5, no. 121.

ZAMA MINOR
Jama, Sidi el-Djedidi (9°18'E 36°07'N) ?Town wall

A town wall built of large stone blocks; traces of bastions on the N and E.

Bibliography:
(1) Atlas Tun. 100, Jama, 72; (2) Ennabli (A) 1976, 997-998; 
(3) Poinssot (L) 1936a, 38; (4) Tissot 1888(2), 578 no. 2.

See Map 5, no. 122.
Only official Byzantine fortifications are included in this gazetteer; an asterisk following a Greek name indicates that although the fortification of the site in question is not mentioned by Procopius, it is known from other sources to have been fortified in the reign of Justinian. Spellings are based on the Teubner edition of Procopius (ed. J. Haury; revised G. Wirth), with account taken of the corrections made to the text of de Aed., VI, 7, 1-11 by J. Desanges (1963). When the identification of a site appears to be straightforward no discussion is given; for further details, however, reference should be made to the entries in Gazetteers AA, AB and AC.
(III, 17; 8; IV, 23, 14; 18-25; 27, 6; 26; 31-33; *de Aed.* VI, 6, 1; 7)
See Gaz. AA.

'Αμέτρα = ?
(*de Aed.* VI, 6, 18). A fort built and garrisoned by Justinian in Byzacium, and referred to by the natives as Αμετρα. Tissot (1888(2), 460-461) is followed by Desanges (1963) in identifying this with Ammaedara; however, a few lines later Procopius states that Ammaedara ('Αμέδαρα) is in Numidia; although some have suggested that this was a mistake and that both references are to Ammaedara (Chastagnol and Duval (N) 1974, 100-102), the archaeological remains at Haidra clearly represent something larger than a fort. A site like Ain bou Diēs, whose Roman name is unknown, would seem a much more plausible candidate.

'Αμέδαρα = Ammaedara.
See Gaz. AA.

Βόγα (Βογά) = Vaga Theodoriana.
(*de Aed.* VI, 5, 12).
See Gaz. AA.

Βόγαρα, Βογά = Bagai.
(IV, 19, 7; *de Aed.* VI, 7, 8). Text corrected by Desanges (1963, 44-45).
See Gaz. AA.

Βόδη = Badias.
(*de Aed.* VI, 7, 8). One of the five deserted and unwalled cities situated around the Aurès which Justinian fortified to prevent the movement of indigenous peoples into the massif. Doubts have been raised in some writers' minds, however, by the mention by Ptolemy of another site with a similar name, Βόδεα, lying south of Τουξα (?Henchir el-Abiod) on the Oued el-Kebir (Desanges 1963, 57; Diehl 1896, 248); moreover, the Notitia provinčiarum of c. 484 lists two episcopi Vadenses, Rufianensis and Proficius (nn. 7 and 117). However, Proficius was listed as
deceased and it therefore seems quite likely that Rufianensis was his successor in the same see (Maier 1973, 235; 291; 407). The Badias of the Peutinger Table and the limes Bazensis (= Badiensis) of the Notitia Dignitatum can only be identified with Badès, south of the Aurès (Baradez 1949, 137; 147-148; Gsell 1911, 49, 51; Tissot 1888(2), 529); and Vadi tepidae, noted by Corippus for its double corn harvests, should also, it seems, be Badès (Diehl 1896, 248; 350; Fartsch 1879, xv). The argument of Desanges (1963, 57) that Bdɔŋç, mentioned by George of Cyprus, should be identified with Ptolemy's Bādea, rather than the known sixth-century Badias, because of its juxtaposition with Μίλεον (Milev) in the text is unconvincing in view of the lack of any particular order in George of Cyprus's list, which was not intended as an itinerary.

See Gaz. AA.

Γαζόεφλα * = GADIAVFALA.
(IV, 15, 52; 15, 59).
See Gaz. AA.

Γαιανύ = ? DIANA VETERANORVM.
(de Aed. VI, 8, 8). One of the forts built by Justinian around the Aurès. Possibly a corruption of Διανύ.
See Gaz. AB.

Δάθωνις = ? THABUDEOS
(de Aed. VI, 7, 8). One of the forts built by Justinian around the Aurès. Desanges suggests (1963, 58) that this is the same as Bάθωνις, a site at the foot of the Aurès to which the Moors retreated in 539 after diverting the river Abigas and flooding the Roman camp at Bagai; Bάθωνις would thus seem to have been on the north-east side of the Aurès, in the region of Khenchela (see, however, Rinn 1893, 306-307; Atlas Alg. 27, 363-365; 38, 91). It seems equally possible, however, that Δάθωνις is a corruption of Thabudeos, a site lying south of the Aurès.
See Gaz. AC.
Gaz. CA.

θεωρίδς = Βάγα (q.v.).

'Ισίθην (acc.) = IVNCI (SOFIANA).

(III, 15, 8).
See Gaz. AA.

'Ισιστινιανή = 'Αδραμπητός (q.v.) and Καρχηνών (q.v.).

'Ιππονερέγιον = HIPPO REGIVS.

(III, 3, 31; 3, 34; IV, 4, 26; 4, 32; 4, 34; 4, 36; 4, 39).
See Gaz. AA.

Καισάρεια = CAESAREA.

(IV, 5, 5; 10, 29; 20, 31-32).
See Gaz. AA.

Καλαμά = CALAMA.

(de Aed. VI, 7, 10). Text corrected by Desanges (1963, 45).
See Gaz. AA.

Κασοθβάδα, Καπουθβάδα, Κασοθβάδα = CAPVT VADA.

(III, 14, 17; de Aed., 6, 8).
See Gaz. AA.

Καρχηνών = CARTHAGO IVSTINIANA.

(passim).
See Gaz. AA.

Κεντούραι = AD CENTENARIUM.

(IV, 13, 2). A fort in Numidia situated near to Tigisi. This is identified by Tissot (1888(2), 424) with Ad Centenarium, which the Peutinger Table places midway between Tigisi and Gadiaufala and twelve miles from each (Tissot 1888(2), 424; Gauckler 1903, 126). Toussaint identifies the site with Hr. Fedj Dériasse (1897, 264-265; Atlas Alg., 18, 159; 18, 180).
See Gaz. AA.
Gaz. CA.

Κιλανά = ?
(de Aed. VI, 7, 8). A city in Numidia fortified by Justinian. As Desanges states, it is unlikely that this relates to the spurious episcopal see, Cillani (256), which Mesange (1912, 91) equated with Cillium (Kasserine); the correct reading for this seems to be Chullabis (Desanges 1963, 66; Maier 1973, 132). Similar in name is Caput Cilani, mentioned in the Antonine Itinerary, and occurring as limes Caputcellensis in the Notitia Dignitatum and as Caputcellensis in the Notitia provinciarum of c. 484; however, this site lay in Mauritania Caesariensis, and not, therefore, in sixth-century Numidia (Atlas Alg., 14, 60; Maier 1973, 122). Κιλανά could perhaps be a corruption of Σιλανά, or Sila.

Κοθλούλις = CVLVLIS THEODORIANA.
(de Aed. VI, 6, 18). A city in Byzacium fortified and garrisoned by Justinian. This is identified by Diehl with Άίν Djelloula (1893, 378; 401-403). It also seems likely that this was the see of the bishop Concordius Cululitanus mentioned in the Notitia provinciarum of c. 484. (Maier 1973, 136).

See Gaz. AA.

Κωνσταντίνη = CONSTANTINA.
(IV, 15, 52).
See Gaz. AA.

Δαμφούδα = (ECCLESIA) LAMFUENSIS.
(de Aed., VI, 7, 10). City in Numidia fortified by Justinian. Text corrected by Desanges (1963, 45). This appears to be the same locality as the ecclesia Lamfuensis, mentioned in 411, 484 and 525 and lying in the ecclesiastical province of Numidia (Maier 1973, 158). Although the location of this see is uncertain, Mesnage identifies it with Castellum Phuensium (Άίν Foua), which lies about 20 km. west-south-west of Constantina (1912, 352; 418; cf. Atlas Alg., 17, 102; Duval (Y) and Février (PA) 1969, 315-316).

Δαμφούδα, see Δαμφούδα and 'Oμάδα.
Gaz. CA.

Λάρισας, Λαρίσας, λαρίσας = LARIVS.
(IV, 22, 14; 22, 18; 28, 48; de Aed., VI, 7, 10).
See Gaz. AA.

Δαριβουκονθονδων see Δαρισας and 'Ονδονων.

Δεκτιμαγνα = LEPCIS MAGNA.
(IV, 21, 2; 21, 13; de Aed., VI, 4, 1-10).
See Gaz. AA.

Μάμμας = *MAMMA.
(IV, 11, 15; de Aed., VI, 6, 18). A city in Byzacium which Justinian fortified with a town wall. The town is mentioned by George of Cyprus as Μάμμα (ed. Gelzer) or Μάμμα (ed. Honigman), but until relatively recently its location was uncertain. Procopius describes Μάμμα as occupying a plain at the foot of some high mountains (IV, 11, 15-16) and lists the town, together with Cululis and Thelepte, as one situated on the edge of the Byzantine dominion in Byzacium (de Aed., VI, 6, 18). Corippus also refers to the campi Mammenses (Ioh., VII, 283). In 548, when John Trogilias marched from Laribus against the Moors who were camped in the plains of *Mamma, the Moors retreated towards Iunci, which they reached after ten days (Ioh., VII, 370-374; 391-392). It would therefore appear that *Mamma lay north-west of Iunci in the direction of Laribus (cf. Diehl 1893, 376; 1896, 67 n.5; 235-236). Further indications as to its location are given by medieval Arabic sources. It was at Mams that Kusaila was defeated and killed by Zuhair ibn Qais in c. 688 (see Ch. II. 8:107). Al-Bakri locates the town of Mams, which in the eleventh century was well populated and prosperous, one day's journey from Kairouan on the way to Sbiba (Sufes); and other sources state that it was well watered and confirm that it lay between Laribus and Kairouan (al-Bakri, 280; other refs. in Solignac 1952, 155-157). Diehl suggested that *Mamma should be located in the valley of the Oued el-Hathob, on the south-eastern side of the Tunisian Dorsal; on his map he locates it near Hr. Kouki (1896, 291; map opp. p. 272). Such a location, however, would place it some 70 km. from Kairouan,
besides not fulfilling the other topographical indications. A much more likely candidate is Henchir Douimis, which is suggested by Solignac. This lies in the valley of the Oued Cherichera at the source of the aqueduct known as the Saquiat Banu al-Aghlab or Saquiat Mams, which supplied Kairouan with water from the Roman cisterns at Henchir Douimis in the ninth century (Solignac 1952, 154-169; fig. 2; Courtois 1955, 349 n. 11).

See Gaz. AA.

Μέδαρα, see 'Αμέδαρα.

Μέδελα = MIDILI.
(de Aed., VI, 7, 10). A city in Numidia which was fortified by Justinian. This may perhaps be the same place as Mideili (Midilensis, Midlensis), a see lying in the ecclesiastical province of Numidia, which is referred to in 256, 257/258, 411 and c. 484 (Desanges 1963, 66-67; Maier 1973, 173). Mesnage identifies the see with Mdila, north-west of Négrine, an identification accepted in part by Gsell, though Courtois remains sceptical (Mesnage 1912, 327; Gsell 1911, 50, 23; Courtois 1954, 59 n. 290).

See Gaz. AC.

Μήλεον (acc.) = MILEV.
(de Aed., VI, 7, 8).
See Gaz. AA.

'Ωμβα = OBBA.
(de Aed., VI, 7, 10). A city in Numidia fortified by Justinian. Text corrected by Desanges, who suggests its identification with Obba, which is mentioned as the seat of a bishop in 256, 411 and 553 (Desanges 1963, 45; 65; 67; Maier 1973, 182). Tissot, following Guérin, equates the Obba of the episcopal lists with the Orba of the Feutinger Table and the Obba of al-IdrisI, both of which lay seven miles (south) from Laribus; for this reason he places Obba at Ebba Ksour (1888(2), 459; Guérin 1862(2), 86-87).

See Gaz. AC.
Gaz. CA.

'Οροσφόν = ?
(dé Aed., VI, 7, 10). A city in Numidia fortified by Justinian. Text corrected by Desanges (1963, 44). No site of this name is known and the name appears to be corrupt (Desanges 1963, 66).

Παρά τουρών = ? AD TVRRES.
(dé Aed., VI, 7, 10). A city in Numidia fortified by Justinian. The most likely explanation of this name is that it represents an attempt to Hellenize ad Turres, which is identified with Tamerza (Desanges 1963, 66-67).
See Gaz. AC.

Πεντεκαγάθ = see Βάγαίς.

Σαβράθων, Σαβαθράθων = SABRATHA.
(dé Aed., VI, 4, 13).
See Gaz. AA.

Σέπτον = SEPTEM.
(III, 1, 6; IV, 5, 7; dé Aed., VI, 7, 16).
See Gaz. AA.

Σικσαβενερα, Σικσαβενερα = SICCA VENERIA.
(IV, 24, 6; dé Aed., VI, 7, 10).
See Gaz. AA.

Σιτιφις = SITIFIS.
(IV, 20, 30; dé Aed., VI, 7, 9).
See Gaz. AA.

Σκιλή = SCILLIVM.
(dé Aed., VI, 7, 11). A fort built by Justinian in Numidia. The site, again in Numidia, is mentioned by George of Cyprus as either Σκιλή (ed. Gelzer) or Σκιλίλη (ed. Honigman), but appears as the see of a bishop in 411 and 646, situated in the ecclesiastical province of Proconsularis (Maier 1973, 195). The martyrs who were put to death
in A.D. 180, however, came, according to the Greek text, ἀπὸ Ἰοκλῆ ῳς Νομιδάς (Passio SS. Scillitanorum (ed. Robinson, 117); cf. Victor Vitensis, I, 8). These indications would suggest a location in Numidia Proconsularis; indeed, the discovery at Simitthu (Chentou) of the epitaph of Rustica / Polionis f[i]l[iae] / Iscilitana (unless Rustica[..] / polionis f[idel] / is Cilitana ?) might seem to indicate that the place was in this region (CIL, 25677; cf. Desanges 1963, 65-66; Dessau 1923; Gsell 1900c, 126). It would be tempting to identify it with Bordj Hallal, though the defences there are somewhat large for a fort.

Τάξαν * = TACAPES.
(de Aed., VI, 4, 14).
See Gaz. AC.

Ταμουγάδη, Ταμουγάδη, Ταμουγάδη (acc.), Δαμαγαδίν (acc.) = THAMVGADI.
(IV, 13, 26; 19, 20; de Aed., VI, 7, 8).
See Gaz. AA.

Τεκέτη * = THEVESTE.
(IV, 21, 19).
See Gaz. AA.

Τελεπτή = THELEPTE.
(de Aed., VI, 6, 18).
See Gaz. AA.

Τιγιςις = TIGISI.
(IV, 10, 21; 13, 5; de Aed., VI, 7, 10).
See Gaz. AA.

Τοῦξα = THVGGA.
See Gaz. AA.

Θωρεντιανή = ?
(de Aed., VI, 7, 8). One of the five cities situated around the Aurès that were fortified by Justinian. As yet unlocated (Desanges 1963, 57).
Gaz. CA.

Πελεη = ?
(de Aed., VI, 7, 9). A city situated, like Sitifis, 'beyond' the Aurès, that was fortified by Justinian. It is still unidentified. Desanges, however, suggests three possibilities (1963, 63 n. 5):
(i) Centenarium Aqua Frigida (K'frida) (cf. Gsell 1911, 7, 61);
(ii) the unlocated town of Baricis (Barica ?), mentioned by Gregory the Great in connection with a bishop, Peter episc. Baricis, in 592/593; the possibility of identifying this with Barika, near Tubunae, is presented by the mention in 596 of a Numidian bishop of the same name (cf. Meunage 1912, 405; Gsell 1911, 37, 6); however, as Maier points out, Baricis may after all be merely a reference to Barca in Cyrenaica (1973, 112; 381); (iii) Tucca fines Africae (?Henchir el-Aboid), north of Mileu (cf. Gsell 1911, 8, 71-72; v. 8, 5).

Fussala = FVSSALA.
(de Aed., VI, 7, 11). A fort in Numidia built by Justinian. In the writings of St. Augustine, Fussala is mentioned lying on the edge of the territory of Hippo Regius, 40 miles (c. 60 km.) from the city; from what is known of the extent of Hippo's territorium, a location towards the east or south-east seems the most probable (Atlas Alg., 9, 59; Meunage 1912, 395). In the Notitia provinciarum of c. 484, the bishop Melior Fossalensis is listed under the ecclesiastical province of Numidia (Maier 1973, 144). The precise location of the town, however, is uncertain (cf. Desanges 1963, 65; Diehl 1896, 171).

? = CEBAR.
(IV, 23, 8). A fort on a hill overlooking the plain of Melvēsōs, in which Severianus of Emesa and the remainder of his detachment of cavalry took refuge after the defeat of Himerius by the Moors in 545. Corippus mentions the same incident and gives the name of the site as Cebar: ergo per extensos fugiens compellitur agros / currere fortis equus ... / ardua castra gerit campis Cebar addita apertis (Ioh., IV, 38-41). Since it was the intention of Himerius to rendez-vous at Melvēsōs with John, son of Sisiniolus, who was approaching from Carthage, the site should lie north-west of Hadrumentum, which was
Himerius's point of departure. Tissot, using the topographical indications given by Corippus (IV, 38, open plains; IV, 29-30, well-watered pastures; IV, 19-25, the fact that Himerius reached Μενεψάτη from Hadrumentum after one night's march), places the site of Μενεψάτη at Henchir Djemmich, 18 km. north-west of Sousse (1883(2), 160-162); in fact, in the plain between the Sebkra Kelbia and the Sebkrat el-Djeriba there is an area called Bahirt el-Menfedh (marked 'el-Menfes' on the 1/200,000 series map; the 1/50,000 sheet marks 'Oued el-Menfesse', which flows into the north-eastern corner of the Sebkra Kelbia). Tissot places Cebar at the northern point of the Drâa Bellouan, which, rising to over 100 m., delimits the southern edge of the Bahirt el-Menfedh (1883(2), 162; (3), pl. VIII). This seems to correspond roughly to Atlas Tun. 50, Sebkret Kelbia, 101 (10°27' E 35°53' N); however, the evidence on which this particular identification is based is less certain. Μενεψάτη appears in no other ancient source (cf. Partsch 1879, xx). Cebar, however, may well be the same as Cebarsussi, a town in Byzacium at which an ecclesiastical council took place on 24 June 393. Four bishops have been associated with this see (Maier 1973, 120): Donatus Cebresutanus (393), Marcianus Cebarsussensis (411), Theodorus Cebarsuscitanus/Cebarsusitanus (555; died 565), Mustulus Cebaradensis (646). The letter of these, Cebar a defensis, seems to be an allusion to the defensive character of the site; it should be borne in mind, however, that the date of construction of the castra/castella (Ioh., IV, 40; 43) is not entirely certain, and could possibly predate 533.
GAZETTEER CB.

CORPUS OF SIXTH- AND SEVENTH-CENTURY INSCRIPTIONS RELATING TO
(a) THE CONSTRUCTION OF FORTIFICATIONS, AND
(b) MILITARY MATTERS IN GENERAL.

The inscriptions contained in the first section of this Gazetteer are
arranged in roughly chronological order according to the scheme set
out immediately below. The dates given are in each case the ones
suggested by the information contained in the inscription itself and
take no account of other documentary or architectural evidence. For
further discussion of the dating of the fortifications themselves
reference should be made to the relevant entries in Gazetteers AA,
AB and AC.

Notes: 1. The stone measurements relate in each case to width x
height x thickness, in that order.

2. In the list which follows immediately below, an asterisk
indicates that the date attributed to an inscription is based on a
partial restoration of the text.
List of dated building inscriptions in section (a):

Reign of Justinian I (527-565)

533-565

- Vaga Theodoriana (Béja)
- Zabi Justiniana (Bechilga)
- Tigisi (Ain-el-Bordj)

Solomon, 534-536, 539-544

- Cululis Theodoriana (Ain Djelloula)
- Madauros (M'daourouch)
- Sitifis (Sétif)
- *(Ain Bou Driès, Hr.)
- *Chusira (la Kesra)
- *Sufes (Sbiba, Hr.)
- *Thabudeos (Tehouda)
- *Thagura (Taoura)

Solomon patricius, 536, 539-544

- Bagai (Baghai)
- *(Bordj Hallal)
- *Calama (Guelma)
- *Calama (Guelma)
- *Calama (Guelma)
- *Capsa Justiniana (Gafsa)
- *Capsa Justiniana (Gafsa)
- *(Ksar Belezma)
- Theueste (Tébessa)
- *Theueste (Tébessa)

Anno XIII, 1 April 539 - 1 April 540

- Thamugadi (Timгад)
- Thamugadi (Timгад)
- *Thamugadi (Timгад)

Solomon bis praefectus, 539-544.

- Gadiaufala (Ksar Sbahi)
Gaz. GB.

Reign of Justin II (565-578)

565-568/569 with Tiberius as Caesar, 574-578

Thubursicu Bure (Teboursouk) 29
Junici Sofiana (Bordj Younga) 30

Reign of Tiberius II Constantine (578-582)

578-582

(Ain el-Ksar) 31
Anastasiana (Sguidan, Hr.) 32
Mascula Tiberia (Khenchela) 33
Tubernuc (Ain Tebournok) 34

Reign of Maurice Tiberius (582-602)

582-602 *(Bordj el-Ksour) 35

Gennadius patricius (ie. exarch), 585/591-598 or later

Limisa (Ksar Lemsa) 36

Reign of Heraclius (610-641)

with Heraclius Constantine (el Ksour, Hr.) and Eudoxia, 612-641. 37

Reign not stated

Byzantine period

Casae (el-Madher) 38
Faustinus episcopus, (535)-550

Masticana (Bou Sebaâ, Hr.) 39
Caletamera

Burgus Speculatorius 40
Byzantine period

(Zaâba, Hr.) 41
List of references to Byzantine officials or military personnel in (a) and (b):

<table>
<thead>
<tr>
<th>Name</th>
<th>Rank (stated or implied)</th>
<th>Inscription number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arpagius</td>
<td>dux</td>
<td>33</td>
</tr>
<tr>
<td>Bigor</td>
<td>tribunus</td>
<td>33</td>
</tr>
<tr>
<td>Buraido</td>
<td>miles</td>
<td>44</td>
</tr>
<tr>
<td>Cosmas</td>
<td>primicerius</td>
<td>50</td>
</tr>
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<td>Crescens</td>
<td>magister militum</td>
<td>51</td>
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<tr>
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<td>campiductor</td>
<td>31</td>
</tr>
<tr>
<td>Donatus</td>
<td>primicerius</td>
<td>59</td>
</tr>
<tr>
<td>Flavius T(...)</td>
<td>?</td>
<td>31</td>
</tr>
<tr>
<td>Flavius Ziper</td>
<td>tribunus (numer et ciuitatis)</td>
<td>45</td>
</tr>
<tr>
<td>Focas</td>
<td>magister (fundum ?)</td>
<td>31</td>
</tr>
<tr>
<td>Gennadius</td>
<td>magister militum</td>
<td>31, 33, 49</td>
</tr>
<tr>
<td></td>
<td>patricius (= exarch)</td>
<td>36</td>
</tr>
<tr>
<td>Ioannes</td>
<td>praefectus</td>
<td>36</td>
</tr>
<tr>
<td>Ioannes Armenus</td>
<td>dux</td>
<td>57</td>
</tr>
<tr>
<td>Ioannes</td>
<td>primicerius</td>
<td>58</td>
</tr>
<tr>
<td>Maurianus</td>
<td>optio</td>
<td>42</td>
</tr>
<tr>
<td>Mauricius</td>
<td>magister militum</td>
<td>46-48</td>
</tr>
<tr>
<td>Maxentius</td>
<td>senator</td>
<td>43</td>
</tr>
<tr>
<td>Michael</td>
<td>ἄγγαρος</td>
<td>56</td>
</tr>
<tr>
<td>Nonnus</td>
<td>tribunus</td>
<td>4</td>
</tr>
<tr>
<td>Paulus</td>
<td>comes</td>
<td>1, 15, 19</td>
</tr>
<tr>
<td>Petrus</td>
<td>eminentissimus (= exarch ?)</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>patricius (= exarch)</td>
<td>55</td>
</tr>
<tr>
<td>Pompeianus</td>
<td>magister militum</td>
<td>53</td>
</tr>
<tr>
<td>Solomon</td>
<td>magister militum et praefectus</td>
<td>4-6, 7-13, 24</td>
</tr>
<tr>
<td></td>
<td>patricius</td>
<td>14, 15, 16-20, 21, 22-23, 25-27</td>
</tr>
<tr>
<td></td>
<td>patricius bis praefectus</td>
<td>28</td>
</tr>
<tr>
<td>Thomas</td>
<td>praefectus</td>
<td>29, 32-33</td>
</tr>
<tr>
<td>Traianus</td>
<td>tribunus</td>
<td>52</td>
</tr>
<tr>
<td>?</td>
<td>praefectus</td>
<td>30</td>
</tr>
</tbody>
</table>
Gaz. CB.

Corpus:

(a) Inscriptions relating to the construction of fortifications.

Vaga Theodoriana (Béja)

1. ............ aduena semp] ER GAVDE QVI TALEM • MVROVM Ș[aepe ... prospe xisti et lauda iustinianum g]lor]IOSISSIMVM PRINCIPEM[ ... qui ab omni parte oppidum] CIRCVMDABIT EX OPERE ET INBIOL[ ile .. reddidit item in eius mu] NIMEN IMMINENTEM PAVLVM COM[(item) ... ............ recit rationJARIVM DOMVS. DIBINE (scroll)

Stone: ?
Ht. letters: 8 cm.
Provenance: found built into the later reconstruction of a bastion on the W wall.
Date: 533-565, on the basis of the reference to count Paul (cf. Inscriptions 15 and 19.
Bibliography: CIL, 14399.
See Gazetteer AA.

Zabi Justiniana (Bechilga)

2. + EDIFICATA EST A FVNDAMENTIS HVIC CI VI[tas n]OVA IVSTINIANA ZABI SVB TEM F0[ribus] DOMINI NOSTRI PIISSIMI ET INVICTISS(imi)

Stone: 1.97 x 0.42 m.
Ht. letters: 8 cm.
Provenance: found supporting the roof of a barn at M'sila (1861).
Date: 533-565.
Bibliography: CIL, 8805; ILCV, 807.
See Gazetteer AA.

Tigisi (Ain-el-Bordj)

3. ..] IMP • IVSTI[niano ...
..] FACTVS EST [...

Stone: 0.60 x 0.47 m.
Ht. letters: ?
Provenance: the wall of a ruined gourbi to the E of the site.
Date: 533-565, assuming that it does not refer to Justin II.
See Gazetteer AA.
Gaz. CB.

Cululis Theodoriana (Ain Djelloula)

4. HOC OPVS IMPERIVM FELIX HAS PRESTITIT ARCES
MAGNANIMIQUE ETIAM SOLOMONIS IVSSA DEPERE
CVI PARVIT NONNVIS QVI CONDIDIT ISTA TRIVNVS
VRBS DOMINO LAETARE PIO IAMQVE ASPICE QVANTIS
ES SVBDVCTA MALIS QVANTQVE OR[n]ATA DECORE
MAVRORVM TANDEM RECIPIS SVBDVCTA TIMORE
CENSVRAM STATVM CIVES IVS NOENIA FASTVS
ATQVE SVVM NOENQ POSVIT <t>IBI REGIA CONIVNXX
IV <<TINIANI MANG MIAVRORVM GENTE FVGATA
OMNIA TEMPVS< t>ABENT FLEVANT E(s) TEM[POR] A GENTES
Stone: 2.20 x 0.58 x 0.40 m.; inscribed panel, 1.01 x 0.42 m.
Ht. letters: 3.5 cm.
Provenience: found lying amongst the ruins of the W gate (1975);
presumably it originally surmounted the entrance.
Date: 534-536, 539-544.
Bibliography: Pringle, forthcoming.
See Gazetteer AA.
Plate XIA.

Madauros (M'daourouch)

5. Τ'χοδομήθην ή πόλις αὐτήν ἐκ τῶν
χα[λί] ἐπάρχου τῆς Απρι[ξής] Σολάμ [ονος]
+ CVM [......] EDIFICATA EST TEMPO
RIBV[s piissimorum] domimor(um) n° STRORVM IVSTINIANI
ET TH[o][dorae prouidentia s]OLOMONIS GLORIQ[sissimi] EX
CONSV[le magistri militui]M ET PRABFEKTI AF[r]I[c]AE +
Stone: 3.10 x 1.02 x 0.20 m.
Ht. letters: Greek 10 cm., Latin 7 cm.
Provenience: still set over the main gate of the fort, though
much deterioration has taken place since the earliest copy
was made.
Date: 534-536, 539-544.
Bibliography: CIL 4677, 16869; ILAlg (1), 2114; ILCV, 804;
IRA, 2923; Marcillet-Jaubert 1969, fig. 9, 2; Monceaux
1903, 247, no. 91.
See Gazetteer AA.
Sitifis (Sétif)

6. + ANTIQVAM ε[...]
   SOLOMON FORT[...]

   Stone: 0.64 x 0.77 m.
   Ht. letters: 26 cm.
   Provenance: preserved in a public garden in Sétif.
   Date: 534-536, 539-544.
   Bibliography: CIL, 8483, add. p. 1920; ILGV, 807 add.; IRA, 3292; Marcillet-Jaubert 1969, fig. 9, 5; Massiera 1929, 44, no. 84.

   See Gazetteer AA.

(A'in Bou Driès, Hr.)

7. + PROFITIO DEI E[t]SPIR[rut s(anc)to tempori
    b)VS PIISSIMORVM DO[minorum nos
    TRORVM IVSTI[ni]AN[i et theodorae
    A[ug(ustorum)] PROBIDEN[tia patrici solomonis

   Stone: 1.30 x 0.60 m.
   Ht. letters: ?
   Provenance: built into W face of Byzantine fort.
   Date: 534-536, 539-544, if the attribution to Solomon is correct.
   Bibliography: CIL, 2095; ILAlg (l), 3809; ILGV, 797 add.

   See Gazetteer AA.

Chusira (La Kesra)

8. ... σολὰμ]ω[νος ...

   ... temporibus iust]INI[ani et theodrae ...
   ... prouidentia glor]IO[sissimi solomonis ...

   Stone: height, 0.65 m.
   Ht. letters: 6 cm.
   Provenance: from Byzantine wall.
   Date: 534-536, 539-544, if the restoration of the names of
   Solomon and Justinian is accepted.
   Bibliography: CIL, 700.

   See Gazetteer AA.
Gaz. CB.

Sufes (Shiba, Hr.)

9.  Ἐκ τῶν ἐθεβεστάτων δεύς (οὐκ εἰς)
    Ἰουσιαναδό καὶ θεοὶ δόμας
    προνοεῖ ὡσιμόνος το[ς] κανεῖ
    δόξαν ἡματίκοι καὶ ἀρ[οτο]ν μα
    γόοτρου καὶ ἐπάρχου ἡμοὶ ὑμεῖν

    Stone: 0.75 x 0.90 m.; fragment of architrave.
    Ht. letters: 15 cm.
    Provenance: (Hr. Shiba).
    Date: 534-536, 539-544, accepting the restoration of Solomon's name; otherwise 533-548.
    Bibliography: GIL, 259, 11423, add. p. 926; Monceaux 1903, 245, no. 85.
    See Gazetteer AA.

Thabudeos (Tehouda)

10. ... prouidentia solomonis gloriosissim]I EX CO[nsule ...  
    or  
    ... prouidentia solomonis patric]II EX CO[nsule ...

    Stone: 1.07 x 0.42 x 0.42 m.
    Ht. letters: 14 cm.
    Provenance: found in 1925 at the foot of the mosque of Sidi Bou Baker, near the SW corner of the fort.
    Date: 534-536, 539-544; however, this date has been questioned by Desanges (1963, 59 n. 3).
    Bibliography: Albertini 1932, 59; Baradez 1949, photo 280b (cf. CIL, 2484 ?).
    See Gazetteer AC.

11. ... solomon]IS EX CO[nsule ...

    Stone: height, 0.42 m.
    Ht. letters: 14 cm.
    Provenance: found in 1925 at the foot of the mosque of Sidi Bou Baker, near the SW corner of the fort.
    Date: 534-536, 539-544; see, however, the comments of Desanges (1963, 59 n. 3).
    Bibliography: Albertini 1932, 59; Baradez 1949, photo 280 c.
    See Gazetteer AC.

Stone: two fragments of a marble architrave.
Ht. letters: 15 cms.
Provenance: (a) seen at Bordj d'Ain Guettar in 1917; (b) lost by 1917. Gsell suggests that it came from over one of the gates of the fort.
Date: 534-536, 539-544, if the restoration of Solomon's name is correct; otherwise 533-548.
Bibliography: CIL, 4648, 16851, add. pp. 956 & 2748; ILAlg (1), 1037; Monceaux 1903, 247, no. 90.

See Gazetteer AA.

13. ...ἐν[σ]ε[θ]ε[στάτων]...?

Stone: ?
Ht. letters: 11 cm.
Provenance: (Taoura) seen in 1843 and since lost. Gsell suggests that it is another copy of Inscription 12, and came from a second gate of the fort.
Date: as Inscription 12.
Bibliography: CIL, 16856; ILAlg (1), 1038.
See Gazetteer AA.

Bagai (Bagha'i)

14. +] AEDIFICATVS EST SVB PIIS[i
MIS DOMINIS NOSTRIS IVSTINI[ano
ET THEODORA * PERP(etuis) * AVGVSTIS
PROVIDENTIA SO[1]ONONIS MAGIS
TRO MILITVM EX CONS(ule) * PRAEFECT(o)
AFRICAЕ ET FA[tr]ICIIS +

Stone: limestone, 1.44 x 0.84 x 0.34 m. (3 fragments)
Ht. letters: 6 cm.
Provenance: found by M. Ghazali Iken in 1964, during the excavation of part of the W wall of the Byzantine enceinte.
Date: 536, 539-544.
See Gazetteer AA.
15. aedificata felicissimis tempois PISS(íorum) aug(ústorum) nostrorum iustini ANIET THEVDORAE prouidentia solomonis .... gLORIOSISS(ími)

Stone: 4.53 m. in length; inscribed surface, on which the two inscriptions are arranged side by side, 3.15 x 0.47 m.
Ht. letters: 8 cm.
Provenance: found in the ruins of a tower on the NW side of the Byzantine enceinte.
Date: 536, 539-544 (see Inscription 16).
Bibliography: CIL, 1259, 14545; ILCV, 794 add.; Monceaux 1903, 246, no. 87.
See Gazetteer AA.

16. aedificata felicissimIS TEMPORIBVS PISS(íorum) AVG(ústorum) nostrorum iustINIANI ET THEVDORAE prouidentia solomonis GLORIO(sí)SSINI EXconsule praEFECT(i) AFRICA:['...

Stone: ?
Ht. letters: 4.5-5.0 cm.
Provenance: built into the wall of the koubba which stands inside the Byzantine enceinte.
Date: as Inscription 15.
Bibliography: Cagnat 1888b, 196, no. 7; 1889, 361; CIL, 14547; ILCV, 794 add.; Monceaux 1903, 246, no. 87.
See Gazetteer AA.

Galama (Guelma)

Gaz. CB.

DEFENSIO MARTIR(um) TVET[u]R POSTICIVS IPSE
CLEMENS ET VINCENTIVS MARTIR(es) CVSTOD(iunt) INTROITVM IPSV(m)

Stone: 1.60 m. in length.
Ht. letters: 6 cm.
Provenance: formerly surmounted a postern gate (l) inside the
SE corner of the Byzantine enceinte; now destroyed.
Date: 536, 539-544.
Bibliography: CIL, 5352; ILAlg (1), 276; ILCV, 791; IRA,
2746; Monceaux 1906a, 474-475, no. 193.
See Gazetteer AA.

18. in hoc sig -(cross?)-VM VINCIMVS INIMIC[os ... pat]RICIV(m)
SOLOM[onem ...]
Stone: four fragments forming a frieze.
Ht. letters: ?
Provenance: one of the towers (unspecified) of the Byzantine wall.
Date: 536, 539-544.
Bibliography: CIL, 5346, 5359, 17529, 17579; ILAlg (l), 278;
ILCV, 1622; IRA, 2748, 2749.
See Gazetteer AA.

19. + ABBENA (= aduena) VENIENS [qui
VRBEM MELIORATA(m) IN[tueris
DISCE SOLOMONIS PATRICI ESSE LA[bor(em) quem ip
SIVS IVSSO PAVLVS COM(es) PERPECIT CALA[mensibus
Stone: (0.49) x 1.17 m; pink marble.
Ht. letters: 8-10 cm., with much variation.
Provenance: found during road works, c. 1873; preserved in a
public garden in Guelma.
Date: 536, 539-544.
Bibliography: CIL, 5353, 17491; ILAlg (1), 277; ILCV, 803:
Marcillet-Jaubert 1969, fig. 9, 3.
See Gazetteer AA.
Plate VIIIb.

Capsa Justiniana (Gafsa)

20. + feliciss(imis)] TEMPORIBVS PIISSIMO[rum domin]ORVM NOSTRORVM
IV[stinia]NI [et theodorae perpetuorum au]CVSTORVM [per
pretoriorum africe ex]CONSULE AC
patricio] MVRI FELICISSI[me ius]TINIANE CAPSE C[iuitatis] H[dificati
sunt a fundamentis et felici]TER PERFE[cti
Gaz. CB.

Stone: four fragments; (a) 1.22 x 0.49 m.; (b) 1.11 x 0.64 m.; (c) 0.55 x 0.48 m.; (d) 0.75 x 0.45 m.
Ht. letters: 11-13 cm., with some variation (some only 6-8 cm.).
Provenance: (a) wall of the qasba; (b) wall of a private house; (c) wall of the mens' baths; (d) ?
Date: 536, 539-544.
Bibliography: CIL, 101, 1172, 2349, 23169; LCV, 794; ILT, 290; Saumagne and Poinssot (L) 1933.
See Gazetteer AA.

21. + feliciss(imis) temporibus piissimorum d]OMIN[orum nostro]RVM
           [iustiniani et theodo]RAE PERP(eturum) AV[gust][orum per
          solomonem exc]ELLE[ntissimum magistrum m]ILITVM [prefectum
          pretor][]RVM AFRICE [ex con]SVL[c patrici]O MV[er feliciissime iustinian]E CA[pse ciuitatis edificati
          sunt a fu]NDAMENT]s et felici]TER PER[fecti

Stone: three fragments; (a) 0.30 x 0.55 m.; (b) 0.45 x 0.65 m.; (c) ?
Ht. letters: 15-17 cm.
Provenance: from the wall of the qasba.
Date: as Inscription 20.
Bibliography: CIL, 102, 116, 11234 a-b, 11229; ILT, 291; Saumagne and Poinssot (L) 1933.
See Gazetteer AA.

(Ksar Belezma)

22. prouidentia patri]CII SOLOMONI[s ... ex] CONSVL[ ...]

Stone: two fragments.
Ht. letters: 13 cm.
Provenance: found built into a later reconstruction of the N gate of the fort; presumably it had formerly surmounted the same gateway.
Date: 536, 539-544.
See Gazetteer AA.

(Theueste (Tébessa))

23. +] NVTI·DIVINO·FELICISS(imis)·TEMPORIB(us)·PIISSIMOR(um)·DOM
       MINOR(um)·NOSTROR(um)·IVSTINIANI·ET·THEODORAE
       AVGG(ustomorum)·POST·APSCISOS·EX·AFRICA·VANDALOS
EXINCTAMQUE PER SOLOMONEM GLORIOSISS(imo) ET EXCELL(entissimo) MAGISTRO MILITVM EX CONSUL(e) PRAEFECT(o) LIBIAE AC PATRICIO UNIVERSAM MAVRSIAM GENTEM PROVID[entis eius] DEM AEMINENTISSIMI VIRI THE VESTE [ciuitas] A [f]UNDAMENT(is) AEDIFICATA EST

Stone: 2.55 x 1.20 m.
Ht. letters: 9 cm.
Provenance: originally set over the gateway into which the quadrifrons Arch of Caracalla was transformed; when the Byzantine blocking was removed in 1863, the inscription was moved to a position in the frieze of the entablature of the arch, where it now remains.
Date: 536, 539-544.
Bibliography: GIL, 1863, 1650?; ILAlg (l), 3059; ILCV, 806; IRA, 3089; Marcillet-Jaubert 1969, fig. 9, 1.
See Gazetteer AA.

24. ...s] OLOMONIS [... PRAEFECTI [...

Stone: 1.22 x 0.51 m.
Ht. letters: 20 cm.
Provenance: found during demolition of part of the town wall in 1855, not in situ.
Date: as Inscription 23.
Bibliography: CIL, 1864, add. p. 1576; ILAlg (l), 3042; IRA, 3092.
See Gazetteer AA.

Thamugadi (Timgad)

25. + DEO FARENTE IN AN(n)O XIII FILICISSIMIS TEMPO RIB(us) D ominoru)m NOSTRORVM IVSTINIANO ET THEO DORA PERP(etuis) AVG(ustis) EDIFICATA EST A FUNDAMENTIS CIBITAS TAMOGADIENSIS PRIDIDENTIA BIRI EXCELLEN TISSIMI SOLOMONIS MAGISTRI MILITVM EX CON SVLE AC PATRICII CVN(c)TACVE PR(a)ECELSI ET PER AFRICA(m) PÆREICTI +

Stone: limestone; 1.31 x 0.72 m.
Ht. letters: 8 cm.
Provenance: found near the S postern of the Byzantine fort.
Gaz. CB.

Date: 1 April 539 - 1 April 540.
Bibliography: Ballu and Diehl 1911; ILCV, 805; Leschi 1942; 1952, 124 (photo).

See Gazetteer AA.
Plate XLa.

26. deo fabente in anno XIII feliciissim[is]
EMPORIB(us) DOMINORVM IVST[ini]
NO N SHORA PERP(etuis) AVG(ustis) EDIFICATA EST A FUND
MENTIS CIBITAS TAMOGADIENSIS PROBIDENTIA [Biri ex]
ELLENTISSIMI SOLOMONIS MAGISTRI MILITVM EX CONSULE ac pa
tricii VN(c)TACVE PR(a)ECELSI ET PER AFRICA(m) PREFE

Stone: limestone; 1.34 x 0.60 x 0.60 m.
Ht. letters: 6.5-7.0 cm.
Provenance: found built into the wall of the Byzantine fort, not far from one of the postern gates, which it probably once surmounted.
Date: 1 April 539 - 1 April 540.
Bibliography: Leschi 1942; Marcillet-Jaubert 1969, fig. 9, 4.

See Gazetteer AA.

27. deo fabente] in anno XI[ii feliciissim is teMPORIBVS DOMINORVM
NO N SHORA
JUSTINIANO ET THE[odora perp( etuis) aug(ustis) edIFICATA EST
A FUNDAMENTIS CIBITAS TAMOGA
DIENSAI [PB]ROBIDENTIA [Biri excellentiss] MI SOLOMONIS MAGISTRI
MILITVM EX CON
SULE] AC PATRICII CV(n)cTACVE PR(a)ECELSI ET PER] AFRICA(m)
PREFECTI + (scroll)

Stone: six fragments; (a-e) ?; (f) 1.45 x 0.38 x 0.30 m.
Ht. letters: 8 cm.
Provenance: from excavations inside the Byzantine fort; its original position was probably over the main gate.
Date: as Inscriptions 25 and 26.
Bibliography: (a-e) Leschi 1942; (f) unpublished.

See Gazetteer AA.
Plate XLb.

Gadiaufala (Ksar Sbahi)

28. (+ monogram) deo IVBANTE TEMPORIBVS
IVSTINIANI ET THEODORAE PIIS(si)
Gaz. CB.

M(oru)M DOMINORVM NOSTRORVM
PROVIDENTIA SOLOMONIS EXCELLENS
TISSIMI MAGISTRI MILITVM EX CONSVLE
BIS PREFECTO [pra]ETTORVM AFRICAE HAC (= ac)
PATRIFICIO FA[bric]ATVM EST (+ monogram)

Stone: two fragments; (a) ?; (b) 2.00 x 0.45 m. (1.4-7). Ht. letters: 7-5 cm.
Provenance: (a) built into the wall of a gourbi; (b) built into the doorway to a mosque.
Date: 539-544.
Bibliography: CIL, 4799; Gsell 1898, 269 n. 1; ILCV, 797; IRA, 3259.

See Gazetteer AA.

Thubursicu Bure (Teboursouk)

29. (+ monogram) SALVIS DOMINIS NOSTRIS XRISTIANISSIMIS
ET INVICTISSIMIS IMPERATORIBVS
IVSTINO ET SOFIA AVGSTIS HANC MVNITIONEM
TOMAS EXCELLENTISSIMVS PREFECTVS FELICITER AEDIFICAVIT

Stone: 3.05 x 0.68 m.; now partly destroyed. Ht. letters: 8 cm.
Provenance: set over the N gate of the Byzantine enceinte.
Date: 565-568/569.
Bibliography: CIL, 1434, add. pp. 1473 & 2577; ILCV, 27.

See Gazetteer AA.
Plate XLVIIb.

Iunci Sofiana (Bordj Younga)

30. + Χριστὸς Ἰουστίνῳ Σο[φί] τῷ ὑ[πὸ] βασιλεύσῃ
Τιμῆσ[τε] τ’έπι τοῖς η[ώ] θ[ῶ]ν δι’ἀρετὴν κράταρα χάδος
νεκρον ἀναστῆσαι τάτω [τεύχεα] καλλος ἔμετρον
ΟΒΤΝ[1]ΙΤ IMPERIO PRAEFECT[us] ...

Stone: marble; 1.15 x 0.50 m. Ht. letters: ?
Provenance: serving as the side of a well at Sidi Gherib, 8-12 km. W of Maharès.
Date: 574-578.
Bibliography: CIL, 10498, add. p. 1153; ILS, 834; Monceaux 1903, 241, no. 76.

See Gazetteer AA.
Gaz. CB.

(Ain el-Ksar)

31 (+ monogram) INP(erantibus) D(o)M(i)N(is) N(o)ST(ris) FL(au)I0 CO(n)STANTINO ET ANAS

TASIE P(iissimis) A(u)G(ustis) VITA(libus) ET D(o)M(IN)I(NO) GENN-
(a)D(io) M(agistro) M(i)L(itum)

AFR(i)CA(e) AVXILIANTE D(e)M PER FL(aium)T(?)(?)E(?)(?)T(?)

HIC K(a)ST(rum) CONSENT[i]JENT[es] SIBI CIVES ISTIVS LOCI

p)ROVID(entia) [eius d]E SVIS PR(o)P(riis) LABORIB(us) FECERVNT

+ (palm)

verso:

GVVDVLO DONAT(us) CO GVNTARI
IANVAR(iu)S MARIFER FELIX FR
FELIX IVL(ius) LVCIAN(us) CRESCON(ius)
SENIOR DON(a)TIVS VICTOR SC
VICTOR M SECVND(us)
FAVST(i)N(us) SATVRN(i)N(us) L
DOM(i)N(i)C(us) VICTORIA(nus)
CAMPIDVCT(or)

FOCAS MAGISTER FECIT +

Stone: length at least 2.0 m.
Ht. letters: col. 1., 6 cm.; col. 2-4, 3 cm.
Provenance: in foundations of a ksar, destroyed in 1861.
Date: 578-582.
Bibliography: CIL, 4354, 18540; ILCV, 28.
See Gazetteer AA.

Anastasiana (Sguidan, Hr.)

32. + ALTIS[i]mo domino iesu christo adiuuante et +

IMPERANTIB[u]S PIUS DOMINIS NOSTRIS IM[pe]RATO[ribus tiberio

CONSTANTINO [et] ANASTASIA AVG(u)S(tibus) THOMAS P[ree]CTUS

ciuitati ...

ET FELIX NOMEN IMPOSVIT: ANASTASIANAM E[t] moenia dedit quae
NON ADEXE[NT] AD TEM[pestatem] ...

Stone: two fragments of a reused fluted marble column, diam.
0.70-0.80 m.; length, c. 4.50 m.; height of inscribed
face, 0.56 m.
Gaz. CB.

Ht. letters: 4.5-5.0 cm.
Provenance: set over main W gate of fort.
Date: 578-582.
Bibliography: Pringle, forthcoming.
See Gazetteer AA.

Plate IVb.

Mascula Tiberia (Khenchela)

33. + HAEQ QVOQV[e pr]AEFECTVS CONS
TRVXIT MOEN[is]THOMAS SED DECVS HIS
ALIVD MELIORIS ROBORIS ADDENS
TIBERIAM [d]IXIT DE NOMINE
CAESARIS VREEM + DOMINO XR(ist)O A(d)
IVBANTE S(uos) POS uit) CO(n)FIRMANTE I(m)P(e)R(atore) D(omino)
I(nuitissimo) TIBERIO A(u)

Stone: 1.10 x 0.60 x 0.60 m.; two fragments.
Ht. letters: 6 cm.
Provenance: (a) found in the wall of the cercle militaire
(c. 1875); (b) uncovered in road works (c. 1894).
Date: 578-582.
Bibliography: GIL, 2245, 17671; Héron de Villefosse 1875, 483,
no. 128; Héron de Villefosse and Gsell 1895; ILCV, 795;
Monceaux 1906b, 129-131, no. 197; Vars 1894.

See Gazetteer AA.

Tubernuc (Ain Tebournok)

34. ... N[en]. TV BINCAS TIBERIO - CO[nstantino ...
... om]NIBVS - IVDICIBVS [e ...]
.....] CIBITATES EDIFICAREN[t ...]

Stone: 0.81 x 0.27 m.
Ht. letters: 7 cm.
Provenance: (Ain Tebournok)
Date: 578-582.
Bibliography: GIL, 949.

See Gazetteer AA.
Gaz. CB.

(Bordj el-Ksour)


b. ...]TAS [...

c. ...]LIVIDEN[...

d. ...] QVID DVQ[...]

Stone: four fragments.
Ht. letters: ?
Provenance: (a-b) built into W wall of fort; (c-d) found elsewhere in the fort.
Date: 583-602, if the restoration of the name of the emperor Maurice is correct.
See Gazetteer AC.

Limisa (Ksar Lemsa)

36 in] NOMINE DO(mi)N(i) EDIFIK(a)BIMVS TVRR(im) [te]MPORIB(us) D(omi)NI M
a]VRICI IMP(e)R(atori)S SVB PATR(i)c(i)O GEMMAZIO ET IOANNI
PREFECTO
EDIFIK(a)BERVNT III FF (= fratres ?) MAXIMIANVS IST(e)FANVS ET
MELLOSVS

Stone: 1.45 x 0.30 m.
Ht. letters: 5 cm
Provenance: Henchir Ain Lemsa, about 1 km. E of the fort.
Date: 585/591-598 or later.
Bibliography: CIL, 12035; ILCV, 793; Letaille 1888.
See Gazetteer AA.

(Ksour, Hr. el-)

37. ... o]PERIBVS MAGNIS EX IMMINE
nti periculou quiescento] S FORTIS QVA DE RE INTROITVS
factus est ...............] DIMVS LAVIDES FELICISSIMIS
temporibus dominorum nos]TRORVM ERACLIO ET ERACLIO
[constan] TINO ET EVDOVIA
AVGVST[orum ...] SAEIE[....
TISSIMVS[.....
CVM EIVS CO
M PERDVXIT
Stone: two fragments forming part of the archway for a door.
Ht. letters: ?
Provenance: (Hr. el-Ksour) from one of the two entrances in the small enceinte encircling the church.
Date: 612-641.
Bibliography: CIL, 10681, 10682, 16727; ILAlg (1), 3597; ILCV, 32.

See Gazetteer AC.

Casae (el-Madher)

38. ARGENTIVS
    + + +
DIACON(us)
SECECIS
VIVAS

Stone: 1.10 x 0.43 m. The centre of the stone is occupied by a large Latin cross, which is flanked by two small roundels, each containing equal-arm crosses; these are in turn flanked by two palm branches.
Ht. Letters: ?
Provenance: the lintel of the doorway to a ksar, 800 m. SE of el-Madher.
Date: probably Byzantine on the evidence of the cross type (cf. Duval (N) and Prévot 1975, 341; fig. 281, J).
Bibliography: CIL, 4353, 18539; ILCV 1228 add.

See Gazetteer B (Casae (i), q.v.).

Masticana (Bou Sebaa, Hr.)

39. IN NOMINE D(omi)NI D(e)I N(ostr)I ATQVE
    SALBATORIS THV XPI (= iesu christi) (leaf)
    TEMPORIB(us) BIRI BEATISSIMI (leaf)
    FAVSTINI EP(i)SC(op)I [h]AEQ MVNITIO FVM[data
    MASTICANA EXVNTO (= ex sumptu) PROPRIO FECIT

Stone: tabula ansata, with a dove contained in each of the ansae.
Ht. letters: ?
Provenance: found in the wall of a ksar.
Date: (535)-550.
Bibliography: CIL, 2079, 16684, add. pp. 942, 1591, 2742; de Bosredon 1874, pl. III, fig. 6; ILAlg (1), 3764; ILCV 802.

See Gazetteer AA.
Burgus Speculatorius (Kherbet el-Bordj, Loth Bordj)

40. **†BIS POSVIT CALETAMERA IN TEMPORE SVO**

Stone: written around the margin of an inscription of the reign of Caracalla, 1.09 x 0.69 m.
Ht. letters: ?
Provenance: found in ruins of fort.
Date: late fifth to seventh century, on the basis of lettering.
Bibliography: CIL 2494.

See Gazetteer AC.

(Zaâba, Hr.)

41. **EMINVS EDIF[i]** SAMVS ET VICTOR QVI(s) FVNTV(m) FVE CABIMVS CAS(trum) + R(at) PATRI SVO RENOVA

Stone: 2.00 x 0.60 m.
Ht. letters: 6 cm.
Provenance: in the ruins of a church. The site of Hr. Zaâba is described thus: 'grande ruine, église chrétienne, fortin, conduite d'eau, citernes, inscription ...' (Toussaint 1901, cxliii; cf. Guérin 1862(l), 87).
Date: probably Byzantine, on the evidence of the Chi-Rho monogram in a circle (cf. Duval (N) and Prévot 1975, 335; fig. 280, c).
Bibliography: CIL, 28000; ILCV, 800; Monceaux 1908b, 229-230, no. 41.

See Ch. III. 5: 186.

(b) Inscriptions relating to military matters in general.

Ammaedara (Haidra)

42. **MAVRIANVS IN P(a)c(e)**

OBTIO

Stone: 0.91 x 1.00 m.
Ht. letters: 6-11 cm.; the word obtio possibly added later.
Provenance: Basilica I (of Melleus or St. Cyprian), in central nave.
Date: early Byzantine period suggested by script.
Bibliography: Duval (N) and Prévot 1975, 64; 378; 449-450; fig. 49; no. 37; Poinssot (L) and Feuille 1942, no. 35.
Hippo Regius (Annaba)

43. DM

\[+\]

MAXEI\(n\) TIVS SENATOR DE NV
MERV BIS ELECT(OR) VM FIDE
LIS VIXIT IN PACI ANN(is) LXX
CVIEBIT SVE D-ie NON(as) AV
GVS(tas) INDIC(tione) XV

Stone: 0.65 x 0.65 x 0.23 m.
Ht. letters: 3.5-4.0 cm.
Provenance: found 1874 near Gela.
Date: 537, 552, 567, 582, 597, 612, 627, 642, etc.
Bibliography: CIL, 17414; ILAG\(1\), 82; ILC, 495; ILS, 2805 n.2.

44.

\[+\]

BVRAIDO MILEX
DE NVM(ero) HIPP(onis) REG(ii)
VIXIT IN PACE
ANN(os) XL MILITA
BIT (annis) XGII (=xvii) CVIEBI(t)
S(u)B D-ie III N(onas) IVL(ias) INDI(c)
T(i)NON(e) NONA

Stone: 0.75 x 0.63 m.
Ht. letters: irregular.
Provenance: as Inscription 43.
Date: 546, 561, 576, 591, 606, 621, 636, etc.
Bibliography: CIL, 5229, 17401, add. p. 962; ILAG\(1\), 81;
ILCV, 549; ILS, 2811.

Rusguniae (Tamentfoust)

45. + MEM(oriae)-FL(auii)-ZIPERIS
TRIB(u)N(i)-N(umeri)-PR(i)M(orum)-FEL(icium).
IVST(inianorum)-DEPOSITVS EST
IN-P(a)C(e)-AGENS TRIBV
NATV(m)-RVSC(uniarum)-ANN(os)-XII.
Gaz. CB.

Stone: marble, 0.146 x 0.30 m.
Ht. letters: 4 cm.
Provenance: found 1856, in former rue Genseric, Algiers.
Bibliography: CIL, 9248; ILCV, 442; ILS, 2812.

46. + MEM(oria) CONSTANTINAE FILIAE DOM(ini)
   GL(oriōsissimi) MAVRICI MAG(istri)-M(i)L(itum) QVI EDIFICIA
   CIRCVMCLAPSA-DIV-N-HANC-S(an)C(t)a-BASI
   LICA RESTAVRavit DEPOSITA EST IN
   FACE-ANN(o)-III-DIE-K(a)L(endas)-NO(uem)BR(es)-IND(ictions)-VIII
   (palm)
Stone: face, 1.25 x 0.60 m.
Provenance: in Byzantine church at Rusguniae.
Date: 545, 560, 575, 590, 605, 620, 635, etc.
Bibliography: Chardon 1900, 146; ILCV, 234b; ILS, 9217b.

47. MEM(oria)-PATRICIAE
   FILIAE DOM(i)NI G-L-( oriōsissimi)
   MAVRICI M(a)G(istri)-MIL(itum).
Mosaic: face, 1.40 x 0.60 m.
Provenance: in Byzantine church at Rusguniae.
Bibliography: Chardon 1900, 146; ILCV, 234b; ILS, 9217a.

48. MEMORIA
   MAVRICIVS
   MAG(ister)-M(i)L(itum)-VI
   -X-IT ANNIS
   LV-R-EQUIE
   BIT IN PA
   CE TERTIV(m)
   KALENDAS
   APRILES
   INDICTI
   ONE XIII
Mosaic: face, 0.95 x 2.30 m.
Provenance: in Byzantine church at Rusguniae.
Date: 536, 551, 566, 581, 596, 611, 626, 631, etc.
Bibliography: Chardon 1900, 146; ILCV, 234a; ILS, 9217.
   cf. Gsell 1900a, 49.
Sila (Bordj el-Ksar)

49. IN NOMINE PATRIS ET FILI ET SPIRITUS SANTIS DEPOSITAE SVNT RELIGIÆ SANCTORUM M A R T I O R U M MARCI OPTATI ET CVIII
die PRIDIE NOVIS MAIIAS
IND(icatione) III A V(i)RO BE(a)T(iss)MO
BONIFATI[O] EP(iscopo) [...]

verso:
I(m)P(eratoribus) DOMINO NOSTRO MAVRITIO TIBERIO ET C O N S T A N T I N[A]
AVG(ustis) TE(M)P(O)R(I)B(U)S GL(oc)S(I)E
GENNADIO M(ani)SO M(ili)CANT(a)M
AFRIC(a)E ET EXC(OxFFFF)S(I)M(I) PR(oster) MART(y)R(is)
...[REZCS[...]]

Lead tablet: two fragments, 0.165 x 0.125 x 0.001 m. and 0.070 x 0.085 x 0.001 m.
Ht. letters: c. 2 cm.
Provenance: under nave of Basilica I at Sila.
Date: 6 May 585.

Sufetula (Sbeitla)

50. COSMAS
PRIMICERIUS
VIXIT IN PACEM
ANN(i)S LX
DEPO
SIT(u)S DIE XI K(alen)D(as) OR KA(lendas)
MAIAS INDIC
TIONE QUARTA
Gaz. CB.

Stone: grey limestone, 0.38 x 0.68 x max. 0.18 m.
Provenance: found 1966, in Basilica III (of Servus).
Date: 541, 556, 571, 586, 601, 616, 631, 646, etc.

51. +
CRESCENS FIDE
LIS MAGISTER
MILITVM FILIVS
GRATIANI PERE
GRINVS VIXIT IN
PACE ANNOS XLV
DEPOSITVS EST
SEXTV IDVS OCTO(b)R(es)
INDICTIO(ne) Q(u)INTA

Stone: limestone, 0.53 x 1.16 x 0.045 m.
Ht. letters: 8–9 cm.
Provenance: found in Basilica VI (of St. Sylvanus and St. Fortunatus).
Date: 541, 556, 571, 586.

52. A + 2
TRAIANVS FI
DELIS TRIBV
NVS PEREGRI
NVS VIXIT IN
PACE ANNIS XL
DEPOSITVS EST VIII
K(a)L(enda)s MAIAS IND(ictione) VII

Stone: limestone, 0.50 x 0.77 x 0.04 m.
Ht. letters: 7–8 cm.
Provenance: found in Basilica VI (of St. Sylvanus and St. Fortunatus).
Date: 544, 559, 574, 589.
Bibliography: AE, 1971, 495; Duval (N) 1971c, 431–433; no. VI, 12.
Gaz. CB.

53. + + +

POMPEIA

NVS M(a)G(ister) M(i)L(itum)

FIDELIS IN XP(ist)0

PIXIT IN PAC(e)

ANNIS LXVIII

D(e)P(ositus) EST II K(a)L(endas)

MARTIAS

IND(i)c(tione XIII (+monogram)

Stone: two fragments, local limestone, 0.50 x 1.50 x 0.10 m.
Ht. letters: 6-8 cm.
Provenance: enclosure next to forum (1903).
Date: 535, 550, 565, 580, 595, 610, 625, 640, etc.
Bibliography: GIL, 23230; Gauckler 1904, clviii-clix; ILCV, 233.

54. +

PETRVS

EM(i)N(en)EM(i)N(en)S V[1]

XIT IN P(a)c(e)

AN(ni)S LXV

D(e)P(o)S(itus) S(u)B D(i)E

XV K(a)L(endas) S IV

LIAS

IND(ictione) X

Stone: local sandstone, 0.52 x 1.20 m.
Ht. letters: 9-10 cm.
Provenance: found in Basilica VI (of St. Sylvanus and St. Fortunatus).
Date: 17 June 637 (?)
Bibliography: Duval (N) 1956, 284-286; no. 9; pl. V, 3;
Duval (Y) 1971, 212-214; fig. 1.

(Telergma, region of )

55. verso 11.4-5:

... REGENTE DOMNO NOSTR[O] P[.]E(t?) D(e)O CONSERBANDO PE[t]RO

PATRICIHO AC AFRICANA PROBINCIA ...
Lead tablet: 0.2007 x > 0.055 x c. 0.001 m.
Provenance: found 1924, in two pottery bowls sealed together with plaster, near Dj. Teioualt, south of Telergma.
Date: 8 Sept. (?) 636.
Bibliography: Duval (Y) and Février (PA) 1969; cf. AE, 1928, 81; Berthier 1943, 121-122; Bosco and Alcuier 1927a; 1927b.

Thabraca (Tabarka)

56. Τ θιον (bust) διαφ(κρυ) 56 θιον (κρυ)

Bronze plaque: 0.085 x 0.047 m., in the form of a tabula ansata with holes in each ansa for attaching it to a flat surface; length of inscribed area, 0.061 m.; bust of diademed figure in centre of first line.
Ht. letters: line 1, 0.9 cm.; rest, 0.7 cm.
Provenance: (Tabarka).
Bibliography: Merlin 1924.
See Gazetteer AA.

Thamugadi (Timgad)

57. IN TEMPORIBVS CONSTANTINI IMPERATORI BELL GREGORIO PATRICIO

IOANNES DVX DE TIGISI OFFERET DOMVX DEI + ARMENVS

Stone: white marble lintel, 3.21 x 0.42 m.
Ht. letters: 7 cm.
Date: 642/647.
Bibliography: GIL, 2389; ILCV, 1832; ILS, 839.

Theueste (Tebessa)

58. (+monogram) HIC DEPOSITI

O IOHANNIS PRI

MIGERI(i) P(ositi) [in pa

CE SVB DIE

V IDVS IVNI(as)

..........
59. .................

BON(a)E MEMORI(a)E

DONATVS PRIMI

CERIVS IN PA

CE VIXIT ANNIS LX

DEPOSITVS IIII ID(us)

OCTOBRES IND(ictione)

XV

Stone: ?

Ht. letters: 9 cm.

Provenance: in paving of school, near Temple of Minerva.

Date: 536, 551, 566, 581, 596, 611, 626, 641, etc.

Bibliography: CIL, 10637, add. p. 1576, 2731; ILAlg (1), 3433; ILCV, 488a.
GAZETTEER D.

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ZARAI | Zraïa | AB
ZATTARA | Kef Benzioune | AB
Ziama | CHOBA | AB
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NOTES TO CHAPTERS I – V.
I. Notes.

(*1) Stein 1949, 837. The date of c. 560 put forward by Downey can no longer be accepted (1947, 181-183).

(*2) For example, IV, 4; IV, 11.

(*3) VI, 7, 1-11.

(*4) See the discussion by Downey (1947, 171-181). The Bonn edition (ed. W. Dindorf, 1838) makes no use of the more complete Vaticanus text. This was consulted by J. Haury for the Teubner edition (Leipzig 1913), and Diehl also had access to it through Haury himself (cf. Diehl 1896, 170 n.2). The reading of some of the place-names in question, however, has been greatly improved by Desanges (1963).

(*5) See Ch. III.4: 162-164.

(*6) On Procopius, see Rubin 1957; Stein 1949, 707-723.

(*7) IV, 28, 45-52.

(*8) On Corippus, see Cameron 1976, 1-2; Pertsch 1879, xliii-xlvi; Skutsch 1900; Stein 1949, 692-693.


(*10) XXXIII,1; cf. Dain 1967, 343.


(*12) Brunschvig 1947, 152.

(*13) On the historical value of the Arabic sources, see Julien 1970, 1-3. The best synthesis of the Arabic accounts of the conquest of Ifriqiya is still that of Fournel (1875), which was also largely followed by Diehl (1986, 563-592). A new synthesis, taking account of newly discovered sources and more recent editions of others, is obviously needed.


(*16) These include an anonymous account of Leptis Magna, published in 1694 (cf. Anon. 1694).

(*17) James Bruce of Kinnaird, who travelled through Algeria, Tunisia and Tripolitania with the Italian artist Luigi Balugani in 1765-67, has left some of the finest drawings of Roman architecture
I. Notes.

in North Africa ever produced (cf. Oppé 1950, 30; pl. 35-38). Byzantine fortifications are scrupulously omitted from them, however, even where, as in the drawing of the Arch of Caracalla at Theueste, they should in reality have existed; they also receive scant mention in his writings. The letters of the abbé Poiret (1789), relating to excursions made in the vicinity of La Calle in 1785-86, are also of little value to the Byzantine archaeologist.

(*18) See, for example, the experiences recounted by Temple (1835), Davis (1862) and Guérin (1862).

(*19) Quoted by Heuron (1956, 7), from whom much of the following information on French archaeological work in North Africa up to 1956 is derived.

(*20) Tunisia had become a French protectorate in 1881.


(*22) Separate corpora have since appeared for Algeria (ILAlg), Tunisia (ILT) and Tripolitania (IRT).

(*23) Nor was the fact that Africa had been the birthplace of Tertullian of Carthage and Augustine of Hippo forgotten by French catholics. When entering his diocese of Algiers, in May 1867, Cardinal Lavigerie expressed his purpose as being, 'to make the land of Algeria the cradle of a great, generous Christian nation, of another France in a word' (quoted in translation by Knapp 1970, 100).

(*24) Surveying of Roman and medieval hydraulic engineering works was undertaken by the French administrations of Algeria and Tunisia; the results are published in Gauckler (ed.) 1897; 1902; Gsell (ed.) 1902; cf. de la Blanchère 1895.

(*25) On the life and work of Ch. Diehl (1859-1944), see Dussaud 1945; Quillard 1945.

(*26) 1897a, 236.

(*27) It was not only French writers who adopted such extreme views. J. S. Reid, for example, allows his evident distaste for the Byzantines to cause him to rearrange the chronology of certain events recounted by Procopius. Writing of Thamugadi, he says,
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'Even when the Byzantines landed in Africa to crush the Vandals in the sixth century, the city was prosperous and populous. But the arrival of the Byzantines was fatal to it. The mountaineers came down and destroyed it, and the Greek army found it damaged and destroyed' (1913, 284; cf. 271).

(*28) On this ill-fated congress, see Millet 1940.

(*29) See Gaz. CA and CB.
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(*1) Courtois 1955, 67. This figure excludes Tripolitania.

(*2) Gautier 1952, 7; Courtois 1955, 66.

(*3) For a guide to the geography of North Africa see Barbour 1962; Despois 1961; Naval Intelligence Division 1943; 1945.


(*5) Bury 1923(1), 244-249; Courtois 1955, 155-170; Jones 1964(1), 190; Stein 1949(1), 319-322.

(*6) Bury 1923(1), 254-260; Courtois 1955, 171-185; Jones 1964(1), 190; Stein (1949(1), 324-325.

(*7) Courtois 1955, 185-205.


(*9) The Vandals had a theoretical claim on Lilybaeum (Marsala), however, which had been given by Theodoric to his sister Amalfrida on her marriage to Thrasamund in 500 (Procopius, III, 8, 13; Theophanes, a. 6026; CIL (10), 7232); but in 534 it was held by the Ostrogoths, who it may be assumed had reasserted their control over it following the murder of Amalfrida by Hilderic in c. 526 (Procopius, IV, 5, 11-25; V, 3, 15-27).


(*11) I, 13; Courtois 1955, 174; 218; 279. Gaetulia corresponds to the part of southern Numidia lying north of the Djebel Aurès in the region of the plains of the Sud-Constantinois (Desanges 1963, 50-51). Abaritana may be identified with the Αυράτων of Procopius, which corresponds to the Djebel Aurès itself (Desanges 1963, 51-56). Note, however, that Courtois places Gaetulia in southern Numidia and Byzacium (1954, 36 n. 101; 1955, 174), and Abaritana in the western part of the Diocletianic province of Tripolitania (1954, 35; 1955, 174 n. 3)


(*13) Victor Vitensis, I, 2. The figure is based on a census that Gaiseric made, no doubt in order to determine how many ships would be needed for the crossing; it can be assumed, therefore, that it includes both men and women (Courtois 1955, 215-216).

(*14) An increase in population through intermarriage with the local population is suggested by Procopius (III, 5, 20).
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(*15) This figure is based on an estimated population density of 20 per km$^2$ (Courtois 1955, 215).


(*17) Procopius, III, 5, 16. Courtois has shown, however, that Procopius's estimations of the size of the Vandal army under Gaiseric as 50,000 (III, 5, 10) and under Gelimer as 80,000 (Hist. Arc., XVIII, 6) are gross exaggerations, probably based on a misunderstanding of the rôle of the millenarius in Vandal society (1955, 216-217).


(*19) This figure is achieved by assuming that the male population aged between 20 and 60 years would have represented about 25% of the total population (Courtois 1955, 216 n. 5). Jones, however, arguing that old men, women and children would have sustained abnormal losses during the course of the migration across Europe, suggests that the fighting force was about 25,000 (1964(1), 194-195). But one can as easily argue the converse, namely that the highest casualties would have fallen on the armati; and non-cambattant slaves have also to be accounted for. At all events, the figure seems likely to fall somewhere in the region of 15,000-25,000.

(*20) Procopius, IV, 6, 1-3; Courtois 1955, 232.


(*23) III, 8, 27; cf. III, 19, 15; 23, 7.


(*26) Id. V, 402-407; Corippus, Ioh., III, 236-238.

(*27) Procopius, III, 3, 30-35.

(*28) Procopius associates this expedition with that of Basiliscus in 468 (III, 6, 9; 11; cf. Bury 1923(1), 336-337; Stein 1949(1), 390-391). Courtois, however, follows Theophanes in putting it two years later (Theophanes, a. 5963; Courtois 1955, 202-204).
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(*29) Hydatius, Chron., 227; Courtois 1955, 187; 191-192; 200. Procopius conflates the campaigns of Basiliscus, Heraclius and Marcellinus, making them appear as parts of a single strategy (III, 6, 8; 6, 11).

(*30) Procopius, III, 14, 1.

(*31) On these raids see Courtois 1955, 196-197.

(*32) Bury 1923(1), 331-332; Courtois 1955, 198-200; Stein 1949(1), 379. Hydatius writes that the fleet fell into Vandal hands through treachery (Chron., 200), but this may be simply a reiteration of a standard late Roman excuse for failure.

(*33) Most eastern sources exaggerate the numbers of men and ships that took part in the expedition with the apparent purpose of magnifying the scale of the disaster and thereby casting Justinian's expedition of 533 in a more favourable light. The only easterner writing of the event before 533 was Priscus of Panium, who gives the total number of ships as 1,100, besides a western squadron (Frag. 42; cf. Theophanes, a. 5961); but even this may be an exaggeration. Only one western source, Hydatius, himself drawing on eastern sources, makes any allusion to the expedition at all (Chron., 247). For a discussion of the evidence, with references, see Courtois 1955, 200-203.


(*35) Procopius, III, 14, 2; 15, 18-30.

(*36) Procopius, III, 16, 19; 16, 14; 20, 18-20; Cod. Just., I, 27, 1, 1; cf. Justinian, Nou., XXXVII, 1; cf. Courtois 1955, 311.


(*38) Procopius, III, 16, 11; 20, 1-4; Zachariah of Mitylene, IX, 17.

(*39) Procopius IV, 1, 8; cf. Courtois 1955, 311-312.


(*41) Procopius, III, 3, 25-27; IV, 8, 25.

(*42) Saumagne 1936; cf. Stein 1949(2), 558-559; 559 n.l.


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(*46) Valentinian III, Nou., XXXIV, 3; Courtois 1955, 277.


(*48) III, 27; Courtois 1955, 277. Roman Africans who are known to have held office under the Vandals are listed by Courtois (1955, 255 n. 12).

(*49) Vita Fulgentii, I, 4; Courtois 1955, 278.

(*50) Courtois, in Courtois et al. 1952, 208-211; 1955, 278.

(*51) Zachariah of Mitylene, IX, 17.


(*53) Courtois suggests that the Historia persecutionis Africanae provinciae of Victor Vitensis was written expressly for reading in Byzantine court circles (1954, 18; 76-77; 1955, 288); and the poet Dracontius was confined to prison under Gunthamund for writing an invocation to an unknown prince, evidently the emperor (Courtois 1955, 265 n. 10; 288; 301).

(*54) Chron., a. 534, 1; Isidore of Seville, Hist., 83; cf. Procopius, III, 10, 18-21; Courtois 1955, 288; Kaegi 1965, 26 n. 12. Laetus was burnt alive after a long imprisonment on 24 September 484 (Victor Vitensis, II, 52; Victor Tonnennensis, a. 479, 1; Isidore of Seville, Hist., 79).


(*59) Courtois 1955, 65-91; 105; Carcopino 1940, 351-367. The theory of abandonments under the tetrarchy, however, is reconsidered by Salama (1966), who provides evidence of the continuance of Roman administration and institutions in western Mauritania Caesariensis until as late as the Vandal conquest.

(*60) Courtois 1955, 126-130.

(*61) Pacified tribes were administered from the Roman side by a
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praefectus gentis, an officer somewhat analogous to those of the bureaux arabes of the colonial period (Naval Intelligence Division 1943(1), 200; Abun-Nasr 1971, 247 seq.); the post could sometimes be held by a Moorish leader in his own right (Lepelley 1974; Leveau 1973, 175-186; Matthews (JF) 1976, 160-162).


(*63) Not. Dig., Occ. XX (comes Africae); XXVI (comes Tingitaniae); XXX (dux et praeses provinciae Mauretaniae); XXXI (dux provinciae Tripolitaniae); Baradez 1953, 16-20; Courtois 1955, 70-91; Goodchild and Ward-Perkins 1949, 82-84; Matthews (JF) 1976, 167-172; Trouset 1974, 150-155.

(*64) Ammianus, XXIX, 5, 1-56; Cagnat 1913(1), 78-90; Matthews (JF) 1976.

(*65) Ammianus, XXVI, 4, 5; XXVII, 9, 1; XXVIII, 6, 1.30; Goodchild and Ward-Perkins 1949, 95. On the Austuriani, see Desanges 1962, 82.

(*66) 1955, 325.


(*68) CIL, 9835; add. p. 975, 2059; ILCV, 42; Courtois 1955, 378, no. 95; pl. VI; Marcillette-Jaubert 1968, 126-127, no. 194; fig. 57. The survival of Latin culture in the area is attested by two series of epitaphs, dated according to the provincial era, from Altaua (Marcillette-Jaubert 1968) and Volubilis (Carcopino 1940, 430-448), which continue respectively to 599 and 655 (cf. Février (PA) 1968, 206-207). A princely burial monument (Bazina) at el-Gour, near Meknès, is dated by C14 to 640±90 a.d. (Camps 1974).

(*69) Courtois 1955, 335-336. The djadhar are situated roughly 35 km. south-west of Tiaret (Atlas Alg., 33, 66-67; Cadenet 1957, 79-86, fig.1; de la Blanchère 1883, 77-99; pl. X-XII; Gsell 1901(2), 418-427; pl. CIV-CVI; Guide Bleu 1974, 283). Courtois (l.c.) follows Gsell (l.c.) in seeing them as the work of Byzantine masons in the employment of Christian Moorish clients; the supposed Byzantine influences are called in question, however, by P.A. Février (1968, 203; 1970, 177-178).
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(*70) Procopius, IV, 13, 19; 20, 31.
(*72) IV, 13, 27-29.
(*73) Procopius, IV, 17, 8. See Ch. II.3.
(*74) Carcopino 1944; Courtois 1955, 337-338; 382 no. 132; AE 1945, 97. In lines 1-2, however, P.A. Février reads instead: ego Masties dux(i) / ann(i)s lxiii et imp(e)r(aui) annis xl ...
(1968, 203).
(*75) See Gaz. AA-AB, Thamallula, Tubunae, Zabi Justiniana, Zarai (q.v.) Note also that the fort at Burgus Speculatorius that was refurbished by the Christian Moor Caletamera also falls within this area: see Gaz. AC, Burgus Speculatorius (q.v.).
(*76) Procopius, IV, 12, 29; 13, 1; Courtois 1955, 341-342.
(*77) Victor Vitensis, I, 13; Courtois 1955, 174. Desanges (1963, 51-53) has demonstrated that the Abaritana of Victor Vitensis is the same as the Ἀβαρίτανα of Procopius (cf. Haury edn., index) and the Aurasitana manus of Corippus (Ioh., II, 149).
(*78) Procopius, III, 8, 5; IV, 13, 26.
(*79) Id., IV, 13, 26; 19, 7; 19, 20.
(*80) Id., IV, 13, 5-17; 13, 19.
(*81) Corippus, Ioh., III, 66-261; Courtois 1955, 343-349. Courtois's argument that the chiefdom of Guenfan had its centre in the region of Thala has been questioned by Châtillon, however, who asks why, if such were the case, did St. Fulgentius and his companions move north through this very region to escape the raids of the Moors (1955, 383-388).
(*82) Vita Fulgentii, IX, 17. Note that Courtois (1955, 343) places this monastery near Thélepte (cf. Châtillon 1955, 384 n. 18).
(*84) Id., de Aed., VI, 6, 3-5.
(*85) Vita Fulgentii, XXVIII, 65. On the date of the saint's death see Courtois 1955, 300 n. 3.
(*86) Corippus, Ioh., III, 262-276; Procopius, III, 9, 3.
(*87) Procopius, IV, 21, 17.
(*88) Id., IV, 25, 2.
(*89) Courtois 1955, 349-351; Desanges 1962, 82; 102.
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(*90) Procopius, III, 8, 15-29.

(*91) Id., de Aed., VI, 4, 1-10; Malalas, Chron., XVIII (ed. Dindorf, 459). See also Gaz. AA, Lepcis Magna, Sabratha (q.v.). Serious raiding by the Austuriani in Tripolitania in the early fifth century is also suggested by a recent re-reading of IRT, 480 (Reynolds 1977).

(*92) I, 35; Courtois 1955, 343.

(*93) Procopius, IV, 13, 19; Courtois 1955, 343.

(*94) Detailed discussions of the tribal names encountered in sixth-century sources, in particular Corippus, may be found in Courtois 1955, 348 n.7; Desanges 1962, 73-142; Diehl 1896, 41-44; 299-319; Partsch 1879, viii-ix; 1896.

(*95) Procopius, IV, 4, 26-27. Courtois identifies Pappua (or Papua) with the Edough massif, just to the west of Hippo Regius (Annaba) (1955, 184, n. 1), but a careful analysis of the topographical evidence by Desanges (1959) suggests its identification with one of the heights of the Kroumirie to be more likely.


(*97) The evidence is imaginatively synthesized by Diehl (1896, 58-63).

(*98) Procopius, III, 8, 26; 8, 28; IV, 11, 19; 11, 26-27; Corippus, Ioh., II, 114-115; 126-137; 150-155; Agathias, III, 20,9.

(*99) Procopius, III, 19, 7; IV, 11, 26; Corippus, Ioh., II, 126-137; VIII, 189-192. A funerary relief from Chirza, in Tripolitania, shows two Moors fighting with spears; one holds a small round shield and wears a head-band. Both men appear to be naked, or virtually so (Goodchild and Ward-Perkins 1949, fig. 18).

(*100) See below Ch. II.3:50-51 (Mamma), and Ch. II.6:76-77 (John Troglitas).

(*101) Procopius, III, 8, 15-28. The same tactics are described by Ibn Khaldūn, who states that they had gone out of general use by his day: 'The Arabs and most other Bedouin nations that move about and employ the technique of attack and withdrawal, dispose their camels and the pack animals carrying their litters in lines to steady the fighting men. (Such lines) become for them a place to fall back upon. They call it al-majbūdah.
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Every nation that follows this technique can be observed to be more steady in battle and to be better protected against being surprised and routed' (Mugaddima (2), 78 (transl. Rosenthal)). The words used by Procopius and Corippus are κέλας and corona respectively (Gautier 1952, 182-185; Courtois 1955, 100 n.7).

(*102) ἔστι δὲ τὰ ἔμβολα ταῦτα βάσις τε ἄργυρθ καταχειρισμένη καὶ κέλας ἄργυρος ὑπὸ ὅλην τὴν κεφαλῆν σχέσιν, ἀλλ' ἦσσαν στεφάνη τελαμώσιν ἄργυρος καὶ ταχθέον ἀνεχόμενος, καὶ τριβώνιν τι λευκὴν ἐς χρυσὴν περίπειν κατὰ τὸν δεξιὸν ὅμοιον εἰς χλαμάδος σχῆματι θεταλῆς ἐννιῶν, χιτῶν τε λευκὸς ποικίλματα ἑχον, καὶ ἄρβθην ἐξίχρυσος (Procopius, III, 25, 7 (transl. Dewing)).

(*103) Procopius, III, 25, 2-8. Similarly, when John Troglitas entered the territory of the Astrices in 547, they sent envoys to pledge their submission to the emperor (Corippus, Ioh., III, 391-436).


(*105) The evidence is surveyed by Diehl (1896, 319-330).
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(1) Corippus, Ioh., III, 184-264; Lat. Reg. Vand., 16-17; Procopius, III, 9, 6-9; Benjamin 1912; Courtois 1955, 269-271; 402; Schmidt(L) 1942, 119-122; Stein 1949(2), 311.

(2) Courtois 1955, 267-269; 304-310; Stein 1949(2), 251-253.

(3) He came to the throne in his mid-sixties. Procopius states that he had been a personal guest-friend (ελεφός) of Justinian before the latter became emperor (III, 9, 5; cf. Courtois 1955, 397-398; Benjamin 1913).

(4) Because of Hilderic's lack of interest in military affairs, the Vandal army had been led by his nephew Hoamer on its disastrous campaign against the Moors (Procopius, III, 9, 1-3).

(5) On the Roman aristocracy, see above Chapter II.1. On the eastern merchants, See Procopius, III, 14, 7-8; 20, 4-6. The Vandal presence in the western Mediterranean was evidently not good for trade, but neither was it so bad as to make the risks not worth taking (cf. Courtois 1955, 208).

(6) Cassiodorus, Variae, IX, 1; Procopius, III, 9, 4; Victor Tonnennensis, a. 523, 1; Courtois 1955, 401.

(7) The political consequences of this rupture both for the Vandals and for the Ostrogoths is stressed by Vasiliev (1950, 337-341; cf. Stein 1949(2), 253; 259; 264).

(8) A tacit acknowledgement of Byzantine suzerainty over the Vandal kingdom may be discerned in Hilderic's policy of minting coins bearing the head of the emperor (Stein 1949(2), 253). Gelimer also accused Hilderic of planning to hand over the kingdom to Justin I; although shrugged off by Procopius, the accusation may have had some factual basis (III, 9, 8-9; 9, 21). There is no evidence, however, to support Saumagne's speculative suggestion that Justinian and Hilderic concluded 'une alliance active conçue pour faire front au danger commun[. . .] qui menaçait de jeter hors d'Afrique l'âme même de la civilisation antique' (1959, 291).

(9) See, for example, the assessments of Justinian's ambitions made by Diehl (1896, 4-5; 1901, 22-25; 128-135), Bury (1923(2), 26), Stein (1949(2), 278; 280) and Jones (1964(1), 269-271).
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(*10) The argument was set out by John the Cappadocian in his address to the council in which he urged the emperor not to undertake the expedition (Procopius, III, 10, 15).

(*11) Courtois 1955, 211-214. The importance of the island bases in Justinian's western strategy is stressed by Saumagne, though his suggestion that Justinian contemplated moving his capital to Rome is not supported by any contemporary source (1959, 285-286).

(*12) Procopius, IV, 14, 1; V, 5, 12-19.


(*15) Hilderic's supporters also looked to the emperor for assistance. One of them, an Italian by the name of Apollinarius, went in person to Constantinople (Procopius, IV, 5, 7-9: cf. Malalas, Chron. XVIII (ed. Dindorf, 459-460)).

(*16) Procopius, III, 9, 10-19. The line of succession, as established by Gaiseric, passed through all the male representatives of each generation before passing on to the next (Courtois 1955, 238-242)


(*18) Modern accounts of the Byzantine reconquest and campaigns in Africa up to 548 are numerous and of varying usefulness. The following is a selection: Abun-Nasr 1971, 53-62; Albertini 1937; Audollent 1901, 105-133; Barker 1966, 140-145; Belkhodja 0000, 355-373; Bury 1923(2), 124-148; Diehl 1896, 3-93; 1913, 12-14; Kaddache 1972, 211-266; Kulakovskiy 1912(2), 149-161; Julien 151, 256-268; Lapèyre and Pellegrin 1950, 147-169; Lot, in Lot, Pfister and Ganshof 1928, 131-142; Mahon 1848, 75-137; 149-158; Renault 1914; Romanelli 1935; Rubin 1960(2), forthcoming; Schubart 1943, 97-102; Schmidt (L) 1942, 121-147; Stein 1949(2), 311-328; 547-560; von Petrikovits 1976, 51-61; von Pfluck-Harttung 1889.

(*19) The full order of battle of the expeditionary force is set out in Appendix 1 of this chapter (p. 111). Biographical studies of Belisarius have been made by Chassin (*1957), Guillard (1967
II.2. Notes.

(2), 138-139), Hartmann (1897) and Lord Mahon (1848). Belisarius is also the subject of a historical novel, Count Belisarius, by Robert Graves (London 1938).

(20) Stein 1949(2), 245; 313; 783.

(21) Procopius, I, 1, 3; 12, 24; III, 12, 3.

(22) On the office of *domesticus*, see Jones 1964(2), 598; 602-603. On Solomon, see Ch. II.3-II.4.

(23) The details, at times scurrilous, of Antonina's part in the expedition are given by Procopius (III, 12, 2; 13, 23-24; 19, II; 20, I; *Hist. Arc.*, I, 14-20).

(24) On the character of these troops see Appendix 1 of this chapter (p. 111).

(25) When Procopius writes that the Vandal kingdom was destroyed by a mere 5,000 cavalry (IV, 7, 20-21), he is leaving out of consideration not only the infantry but also Belisarius's *bucellarii* and the Herul and Hun allies.

(26) Procopius, III, 13, 11-20 (Methone); III, 11, 1; 24, 19 (Cyril); III, 25, 36; 20, I (ships).

(27) See above, Ch. II.1: 21.


(29) *Id.*, III, 10, 25-34.

(30) *Id.*, III, 11, 22-24. Procopius says earlier (III, 14, 9) that these 5,000 men represented all the able fighting men of the Vandals (ἀλλὰ καὶ στρατεύσωσθαι διήγο ἐμπροσθὲν ἐπὶ Μόδαν ἔι τι ἐν Βανδηλίων δραστήριον ἤν ). This seems unlikely to have been true, but does suggest that most of the Vandal forces remaining in Africa were of mediocre quality. The imperial forces under Cyril sent to aid Godas arrived too late, and returned straightway to Carthage; they too therefore missed the ad Decimum campaign.

(31) Ἐπιδίωτη (Procopius, III, 14, 10; 17, 4; 17, 11), which Procopius locates in Byzacium, four days' journey from the coast, is probably to be equated with Hermiana, an unlocated episcopal see in the ecclesiastical province of Byzacium, referred to in 411, c. 484, 547/548, 567 and 646 (Maier 1973, 151; Mesnage
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1912, 202-203; Dessau 1912). Courtois (1955, 250 n. 5) suggests that Hermiana lay in the mountainous region around Mactaris, and that Gelimer was spending the summer months there in a private residence to escape the heat of Carthage. Belisarius's order of march, however, shows that he was expecting Gelimer to attack him from the rear (see below, p.), whereas if Gelimer had been approaching from Mactaris he would have fallen on the Byzantine left flank. A location further south, perhaps in the vicinity of Sufetula (Sbeitla) might therefore be more likely. What Gelimer was doing at Hermiana is another question. Procopius says that he had no thought of an enemy (III, 14, 10), but seen in its context this passage seems to mean simply that Gelimer was not expecting a Byzantine sea-borne invasion; it cannot be taken to imply that he was putting his feet up. Indeed, Zachariah of Mitylene states that he was engaged in a war with the Moors in the desert (IX, 17; Malalas also refers to a Moorish campaign led by Gelimer, but he appears to have confused Gelimer with Hoamer (Chron. XVIII, (ed. Dindorf, 459))); if so, it cannot have been one of major consequence or Gelimer would not have detached 5,000 of his best troops to Sardinia. Possibly he was supervising the collection of taxes after the harvests on his estates in the region.

(*52) Procopius gives the date as around the time of the summer solstice in Justinian's seventh year (III, 12, 1). The seventh year of Justinian began on 1 April 533, and the date of the solstice was 20±1June 533 (Stahlman and Girgerich 1963).

(*53) Procopius, III, 12, 6; cf. Oberhummer 1937.
(*54) Procopius, III, 12, 7; cf. Hirschfeld 1894.
(*60) Procopius lays the blame for this mishap on the sharp practice of the praetorian prefect, John the Cappadocian (III, 13, 12-20).
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(*41) Procopius, III, 13, 21.

(*42) Id., III, 13, 22.

(*43) Id., III, 14, 3-4; 14, 7-13. On the location of Hermiana see note 29.

(*44) Procopius, III, 14, 5-6; V, 3, 22-24. After Theodoric's death in 526, the Ostrogothic kingdom had passed to his grandson Athalaric, but since he was still a child the government was carried on by Theodoric's sister Amalsuntha. Her political outlook was more than sympathetic both towards the Roman population and towards the Byzantine court. An embassy from Gelimer had been refused an audience at Ravenna (Malalas, Chron., XVIII (ed. Dindorf, 459); Stein 1949(2), 262-264; 314).

(*45) Procopius, III, 14, 14. Caucana lies 60 km. west of Pachino near Punta Secca, on the southern tip of Sicily (Ziegler 1921; Pelagatti 1976; cf. Corippus, Ioh., I, 229).

(*46) Procopius, III, 14, 14-17.

(*47) This date is only hypothetical, since no precise date is given in any source. Procopius, however, gives two rough indications of the date, namely that the fleet reached Caput Vada about three months after leaving Byzantium on around 21 June 533, and that Carthage was taken on the day following the feast of Saint Cyprian, which falls on 14 September (III, 15, 31; 21, 23-25; cf. Evagrius, IV, 16). The Laterculus Regum Vandalorum et Alanorum, Hispani text (19), gives the date of the fall of Carthage as XVIII Kal. Oct. (14 September), but this may be simply due to scribal error. There is another piece of evidence, however, which has a possible bearing on the date of the landing. This is the Augiensis text of the Laterculus, which gives 30 August (i.e. 93 years, 10 months, 11 days after the fall of Carthage to Gaiseric) as the date of the end of Gelimer's reign. This date (calculated by some as 31 August), which does not appear to relate to any other known event, has been taken to be the date of the Byzantine landing (Courtois 1955, 353; 406; Schmidt 1942, 129; Stein 1949(2), 315). My own analysis of the campaign (see below), however, suggests a slightly expanded chronology, with the landing made perhaps on 26 August.
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The Augiensis text appears to be a Byzantine compilation, made from official Vandal chancery records which have not otherwise survived (Courtois 1955, 405). It is perhaps possible, therefore, that the date of 30 August relates not to the landing itself, but to the day on which the Vandal king or court heard of it; Hermiana was four days from the coast (see note 29) and Carthage lay five days' journey from Caput Vada (Procopius, III, 14, 17).

(*49) Cf. Gaz. AA, Caput Vada (q.v.)
(*50) Procopius, III, 15, 32-36.
(*51) Id., III, 17, 7. Procopius's choice of stadia as a unit of measurement was probably influenced, like much else in his writing, by his interest in earlier Greek historians, in particular Herodotus and Thucydides (Bury 1923(2), 428-429; Stein 1949(2), 714). The measurements that he gives in stadia should therefore be treated with care, since the unit does not necessarily correspond with one that was in use at the time at which he was writing. There are good grounds, however, for thinking that, although such measurements in stadia were generally approximations, they were based none the less on known distances measured in more orthodox units. It may be noted, for example, that most of the distances quoted are multiples, or near multiples, of 7 stadia: eg. 7 (III, 19, 23); 35 (III, 19, 1); 70 (IV, 17, 17); 150 (III, 20, 11; IV, 2, 4); 200 (IV, 17, 16); 280 (III, 6, 10); 350 (III, 17, 8; IV, 15, 12); 7 days' march at 50 stadia per day = 350 (IV, 13, 32-33). In each of these examples it seems likely that the computation in stadia is based on a known or estimated distance in Roman miles, at the rate of 7 stadia per mile, hence 211 m. per stadium (cf. Bureau de la Malle 1835, 167 n.3; Tissot 1888(2), 115; Courtois 1955, 250 n.6). Ad Decimum, for example, which presumably lay 10 miles from Carthage, is put by Procopius at 70 stadia from the city (see note 65). In two other examples which can be checked, because the locations are known, Carthage to Membressa at 350 stadia (= 50 Roman miles = 74 km.) compares
favourably with the modern road distance of 77 km. and almost exactly with that of 51 miles given in the Antonine Itinerary (Itin. Ant., 45, 3); while Carthage to ad Mercurium by sea, at 280 stadia (= 40 Roman miles = 59 km.), also compares reasonably well with the distance of 63 km. taken from a modern map (IV, 15, 12; III, 6, 10; see also note 59). Almost all of the remaining distances are multiples of 20 stadia: eg. 20 (III, 17, 2-3); 40 (III, 15, 15; 20; 15); 60 (IV, 19, 9); 80 (III, 17, 7). Some of these may simply be rounded up or down from approximations based on the 7-stadia scale. Since they all relate to short distances, however, it is possible that they were computed directly in stadia, without the help of any intermediate unit of measurement. If such were the case, however, it remains uncertain whether the stadia employed were those of 211 m. or the normal Roman stadium of 185 m., of which there were eight to a mile (cf. Pryce and Lang 1970). All metric equivalents given in this chapter are calculated on the basis of 211 m. to a stadium.  

(*52) Procopius, III, 19, 12.  
(*55) Id., III, 17, 1-5.  
(*54) One further reason for spending the nights in towns was that they provided markets where food could be bought. Belisarius was careful not to offend landowners and did not allow his army to live off the land (Procopius, 16, 1-8; 17, 6).  
(*55) When he does not give measurements in stadia, Procopius gives them in days of journeying for the unencumbered traveller. Comparison of the African examples with the distances calculated from modern maps suggests that a day's journey by Procopius's traveller could vary from 32 to 62 km., averaging 43 km. Sullectum, laying 25 km. from Caput Vada, was therefore less than a day's journey, but more than a day's march away.  

(*58) Procopius, III, 17, 6.  
(*59) Id., III, 17, 8. The distance from Sullectum to Leptis Minus is 34 km., and from Leptis Minus to Hadrumentum a further 29 km.
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(50) Procopius, III, 17, 8-10; 17, 15.

(51) Courtois 1955, 250 n. 6. The distance from Carthage (Byrsa) to Hammamet is about 62 km., taking the route which crosses over the ferry at Maxula-Rades, or 82.5 km., taking the more circuitous route around the lake of Tunis and passing either north or south of the Djebel bou Kournine. Though Courtois (l.c.) takes the figure of 350 statia (74 km.) as relating to the former route, there seems to be no reason why it could not equally well refer to the latter (cf. note 51). Tissot's identification of Grassa with Sidi Khalifa (1888(2), 116; cf. Diehl 1896, 401; Bury 1923(2), 131) would place the site too far south. The distance of Hammamet from Hadrumetum is about 86 km.

(62) See notes 31 (on Hermiana) and 47 (on the dates).

(63) Procopius, III, 17, 11-14.

(64) Id., III, 17, 16; 21, 17-25.

(65) Id., III, 17, 11; 17, 17; Dureau de la Malle 1835, 167 n.3; Tissot 1888(2), 114-124. The name of the site should therefore be ad Decimum.

(66) Procopius, III, 18, 12. Tissot's location of ad Decimum at Sidi Fathalla, in the southern outskirts of Tunis, is difficult to accept for the two reasons that it did not lie on any major road, nor was it ten miles from the city (1888(2), 114-124; followed by Atlas Tun. 50; Tunis, 73; Bury 1923(2), 132-133). Although many of the finer details of Tissot's topographical analysis of the battle should therefore be abandoned, he is almost certainly correct in his general observation that the defile in which Gelimer intended to trap the Byzantine army lay between the Lake of Tunis and the Sebkrat es-Sedjoumi, and not, where Dureau de la Malle had earlier positioned it, between the former and the Sebkrat er-Riada (1835, 167 n.3).

(67) Procopius, III, 18, 1; 18, 12.

(68) Cf. Id., III, 18, 2-4.

(69) Id., III, 18, 5-11.

(70) Id., III, 18, 12-19.
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(72) Id., III, 19, 18-19. Although the precise routes taken by the opposing armies cannot be known, an idea of the topography of the region through which they were marching can be gained from the Atlas des Centuriations, fe. XX-XXI.

(73) Id., III 19, 14-33. The road to Bulla Regia departs from the northern loop of the Carthage-Theveste road at Membressa.

(74) Procopius, III, 15, 15; 20, 15; Eadie and Humphrey 1977, 17-18. The identification of Stagnum with the Lake of Tunis (cf. Salama 1951, map; Tissot 1888(1), 567-568) would seem improbable in view of the likely difficulty that the fleet would have had in gaining access to it and of the slender draught that would have been required of the ships (cf. Sebag 1970); it is also difficult to see how the Lake of Tunis could be said to lie 40 stadia from Carthage (Procopius, l.c.). Whether or not the Sebkaret er-Rida was still open to the sea in the sixth century remains uncertain (cf. Orosius, IV, 22); however, unlike the Lake of Tunis it lay about 8.5 km. from late Roman Carthage and would also have made a plausible landing place from which the disembarking army could have rendez-vous'd with Belisarius's army (see below).


(76) Cf. Desanges 1959, 430.

(77) Procopius, III, 25, 1-2; 25, 10-26. Tata landed on the border between the Numidians and the Mauritanians and reached the plains of Bulla on foot (Procopius, III, 25, 21-22). The reason for this circuitous route is obscure. Desanges suggests that Tata avoided Hippo Regius, the obvious port to have made for, because of the existence of pro-Byzantine elements in the city (1959, 433); but Gelimer evidently thought Hippo safe enough to send Boniface there with all his treasure, and no attempt was made to lay hands upon him (Procopius, IV, 4, 33-41). Five thousand Vandal troops should have had no cause for alarm. More possibly Tata made for a landing place further west for fear that he might be intercepted by the Byzantine dromones operating from Carthage; since he was also in a hurry, he would have had no...
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opportunity to wait for an ideally suitable wind, and may therefore have been blown further west than he had intended.

(*78) Procopius, IV, 1, 1-11.


(*80) Id., III, 21, 11-13; 23, 19-21; IV, 1, 7; 1, 12; de Aed., VI, 5, 8; cf. Gaz. AA, Carthago Justiniana (q.v.).

(*81) Procopius, IV, 2, 1-2.

(*82) This is suggested by his description of the Byzantine lines at the battle of Tricamarum, where he makes it clear that all the cavalry commanders, both regulars and foederati, were present (IV, 3, 4).


(*84) Procopius, IV, 2, 4-7; 3, 1-2; 3, 6.

(*85) Id., IV, 2, 3; 3, 3-7. On the question of the number of bucellarii present see the appendix to this chapter.


(*87) Id., IV, 3, 9.

(*88) Id., IV, 2, 8; 3, 10-28.


(*90) Id., IV, 4, 14-22. Desanges considers that only 24 hours would have been lost, but although this is perfectly feasible, it seems a little over-optimistic (1959, 432). If one assumes that Belisarius followed John with a mixed force of cavalry and infantry, just as he had done before the battle, then his rate of march would have been much slower. He had also set out from Tricamarum later than John, perhaps by as much as a day, and then spent an unspecified length of time at John's grave.

(*91) This is the theory put forward by Desanges (1959), who also draws attention to the town of Μηδενός, or Μηδενύος, which Procopius places near the mountain and which bears some resemblance to the name of the tribe of the Mithnol, Μηδονιος or Μιδονιος, which Ptolemy locates near to Thabraca (1959, 434). The only plausible alternative is that Pappua lay in the Edough to the west of Hippo Regius (Courtois 1955, 184 n.1). There is no suggestion in Procopius's narrative, however, that Gelimer
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passed through Hippo on his way to Papua. For earlier discussions of the problem, see Atlas Alg., 9, 12; Berbrugger 1862; Papier 1880; Tissot 1888(1), 36-39.

(*92) Procopius, IV, 4, 26-32.

(*95) *Id.*, IV, 6, 1-34; 7, 1-17.
II.3. Notes.

(*1) Procopius, IV, 8, 1-8. Victor Tonnennensis, a. 534, 2. On the Vandali Justiniani, see Procopius, II, 21, 4; IV, 14, 7; cf. Jones 1964(2), 659. Not all the Vandals reached the east, however; a group of 400 mutinied at Lesbos and returned to Africa (see Ch. II 3); some others became bucellarii of Belisarius (Procopius, VII, 1, 6). On Gelimer, see Procopius, IV, 9, 13-14. In Constantinople, Belisarius was accorded a triumph, the first to be granted to anyone but an emperor since that of L. Cornelius Balbus, who had defeated the Garamantes under Augustus; he was then made consul for the year 535 (Corippus, Iust., I, 275-287; III, 123-235; Evagrius, IV, 17; John Lydus, de Mag., III, 55; Jordanes, Getica, 171-172; Rom., 366; Malalas, Chron. XVIII (ed. Dindorf, 478); Procopius, IV, 9, 1-12; Zachariah of Mitylene, IX, 17; cf. Stein 1949(2), 320). The Vandal war was also represented in an epic mosaic, which unfortunately has not survived, in the imperial palace at Chalce (Procopius, de Aed., I, 10, 16-18; Grabar 1936, 81-82; Mango 1959, 32-34), and Justinian's triumph over Gelimer on a gold medallion, struck in Constantinople probably in 534 (Kent and Painter 1977, 179 no. 674; pl. p. 75; Toynbee (JMC) 1944, 183; Wroth 1908(1), 25; frontispiece; cf. Cameron 1976, 140-141).

(*2) Procopius, III, 24, 19; IV, 8, 4; 8, 23; Bury 1923(2), 141; Jones 1964(1), 277; Stein 1949(2), 320-321. The first unequivocal reference to Solomon holding the office of praetorian prefect dates from 1 January 535 (Justinian, Nou., XXXVI). It seems unnecessary, however, to argue that there was an interval between the departure of Belisarius and the time at which Solomon succeeded Archelaus as prefect (cf. contra, Diehl 1896, 49).


(*4) Procopius, IV, 5, 2-4. Solomon was preparing to send more troops in the spring of 536, but it is uncertain whether they ever got under way (Procopius, IV, 13, 41-45).
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(*5) Procopius, IV, 5, 5. The identity of this John is not certain. John of Dyrrachium is the only commander of infantry known by that name; but he would seem to have remained in Carthage with the field army until his death in 536 (see Ch. II.3: ). More likely, the John sent to Caesarea was a tribune commanding a group of numeri; in the later sixth century, such an officer would have been styled a dux or μοιραρχός (see Ch. II.6: ).

(*6) Procopius, IV, 5, 6.

(*7) Id., IV, 5, 7-9.

(*8) Id., IV, 5, 10.

(*9) Id., IV, 5, 11-25; V, 3, 15; 4, 19; 5, 11-19.

(*10) Id., IV, 8, 21; 10, 2.


(*12) Id., I, 27, 2, 4-4b; 7; 10; 13. In effect the area represented the diocese of Africa as it had existed under Diocletian (Courtois 1955, 65-91).

(*15) Cod. Iust., I, 27, 1, 10-11. The first praetorian prefect of Africa after the reconquest was Archelaus, to whom the rescript was addressed. The civil administration set out in the document is discussed by Diehl (1896, 97-118).

(*14) Cod. Iust., I, 27, 1, 12: Et ab ea auxiliante deo septem provinciae cum suis iudicibus disponantur, quarum Zeugi, quae proconsularis antea uocabatur, Carthago et Byzacium ac Tripolis rectores habeant consulares: reliquae uero, id est Numidia et Mauritaniae et Sardinia, a praesidibus cum dei auxilio gubernentur. This text gives rise to a number of problems of interpretation, which are discussed fully below in Ch. III.1: 122-132. Here it may simply be stated first that, despite apparent similarities with the pre-Vandal provincial organization of Africa, the extent of the provinces named in 534 did not always correspond exactly with the extent of the provinces of the same name listed in either the Notitia Dignitatum or the Verona List; this fact needs to be borne in mind when considering how far Justinian restored Africa to its former state (cf. Diehl 1896, 110-111; Jones 1964(2), 273-274; (3), 383).
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Secondly, the Mauritaniae would seem to have been Mauritania Caesariensis and Gaditana, rather than Sitifensis which was not occupied by Byzantine forces until after 539 (See Ch. III. 1: 130).

(*)15 The magister militum to whom the rescript is addressed, Belisarius, was at the time magister militum per Orientem (Cod. Iust., I, 27, 2, praef.). His successor, Solomon, is referred to as magister militum Africae (Gaz. CB, Inscr. 5, 14, 16, 20-21, 28), m.m. per Africam (Gaz. CB, Inscr. 25-27) and m.m. Libyae (Gaz. CB, Inscr. 23). A partial translation of the text of the rescript into French is given by Chastagnol (1976).

(*)16 Cod. Iust., I, 27, 2, 1-3. The alternative reading of Lepte for Thelepte has been ressurrected by Chastagnol; there is little, however, to commend his identification of it with Leptis Minus (1967, 133; cf. contra Diehl 1896, 126), and no grounds at all for thinking that it betrays a division of Byzacium into a coastal and an inland duchy at this date (1967, 134; cf. contra Partsch 1879, vii). Leptis Minus boasts the remains of an Aghlabid ribat, which has often been mistaken for Byzantine, but as yet no trace of sixth-century military activity has come to light (see Ch. V: note 7, for references). One other possible identification of Lepte might be made with the castra Leptitana mentioned in the Notitia Dignitatum (Occ. XXV, 22); however, this is generally interpreted as Neptitana, or Nepete (Nefta) (Baradez 1949, 142-144), which although in Byzacium would seem an even less likely location for a sixth-century ducal head-quarters than Leptis Minus. On the strategic significance of Thelepte, see Ch. III.7: . The headquarters of the dux Sardiniæ, on the other hand, are not named; the rescript states, however, that they should be placed iuxta montes, ubi Barbaricini uidentur (Cod. Iust., I, 27, 2, 3).

Procopius states that these barbarians, who were Moorish in origin, lived in the mountains near to Caralis (Cagliari)(IV, 13, 44; cf. de Aed., VI, 7, 12-13; George of Cyprus, 676).

(*)17 Cod. Iust., I, 27, 2, 2.
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(*19) Procopius, IV, 8, 9-22; 10, 4-11. The size of the cavalry force might perhaps be put at around 800 comitatenses, assuming that Rufinus and Aigan were commanding the same units that they had commanded for the Vandal campaign.

(*20) Procopius, IV, 8, 23-24. Ildiger was the son-in-law of Antonia, Belisarius's wife.


(*24) In dating the second campaign in Byzacium to 535, I follow Diehl (1896, 69-71). Procopius merely states that no sooner had Solomon reached Carthage than news reached him of the renewed incursion (IV, 12, 2).

(*25) Tissot's identification of Bourgaou with the Djebel bou Ghanen rests on no secure foundation (1886(1), 34-36). Courtois puts forward the plausible suggestion that the battle is the same as the otherwise unrecorded battle of Autenti, to which Corippus makes a passing allusion; the context suggests that the battle of Autenti was earlier than that of Cellas Vatari (537) and that John Troglitas was present at both: te Cellas Vatari miro spectabat amore // te Autenti saeuos mactantem uiderat hostes (Ioh., III, 318-319). Autenti, though unidentified, is placed by the Antonine Itinerary 75 miles (111 km.) from Thaenae and 30 miles (45 km.) from Sufetula (Itin. Ant., 46, 5). This suggests a location in the mountainous region on the east side of the Oued el-Hadjel valley (Courtois 1955, 349 n. 13; cf. Tissot 1886(2), 644; Maier 1973, 108); in the seventh century Autenti seems to have had a bishop (Maier 1973, 108).

(*26) Theodore's military skill is noted by Procopius at another point (IV, 14, 35). The excubitores were a corps of crack troops, 300-strong, originally enrolled by the emperor Leo I for the purpose of guarding the imperial palace (Jones 1964(2), 658-659). The seconding of the comes excubitorum to Africa seems to belie the accusation made by Diehl that Justinian
underestimated the military problems facing Solomon (1986, 49-50).

(27) Procopius, IV, 12, 2-30. The figure of Moorish dead is doubtless an exaggeration. Diehl suggests that it was at this juncture that Solomon was made patrician (1896, 74 n.5; Stein 1949(2), 321); though highly plausible, however, his argument is not in itself conclusive. The first dated reference to Solomon as patrician is from 539/540 (Gaz. CB, Inscriptions 25-27).

(28) Procopius, IV, 8, 9; 13, 1.

(29) On the identification of ad Centenarium, see Gaz. AA, (q.v.).

(30) Procopius, IV, 13, 1-17.

(31) Procopius, IV, 13, 18-34. Solomon's base camp on the river 'Αβίγας (IV, 13, 20) was very probably situated near Mascula or Bagai. This same area was later used as a base for operations in 539, and Procopius states that the 'Αβίγας flowed from the Aurès across the plain of Bagai and was diverted to irrigate the fields thereabout (IV, 19, 7-13). The same river (Abiga) is mentioned in the Ravenna Cosmography and may be identified with the Oued bou Roughal, or Oued Barai, which has its source in the Djebel Djalf, south of Khenchela (Rau. Cosmog., III, 6; Birebent 1964, 245-283; Diehl 1896, 89; Rinn 1893, 302-303; Tissot 1888(1), 52. Some confusion has been caused in the past by the fact that the Bonn edition of Procopius refers to the river mentioned in the campaign of 535 as 'Αμήγας (cf. Geiss and Graillot 1893, 464; Atlas Alg., 38, 91). The mountain is less easily identified: Procopius states that there was an ancient fortress and a spring which never ran dry; 'the place is called Shield Mountain by the Romans in their own tongue' ("Ορος 'Ασκίδος τη σφατέρα γλάστη καλοτας Δαπτυοι του χώρον (IV, 13, 33)). The most plausible candidate, suggested by Rinn (1893, 305; cf. Courtois 1955, 341 n. 8, 3), is the Djebel Chelia, at which the Oued Mellaguou rises; this would conform reasonably well to a line of march of 74 km. (50 miles) from the plain of Bagai. Medina, which lies in this area,
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was used as a base of operations by the French army in 1845 and 1879 (Rinn 1893, 305).


(*53) Expeditions were planned against the Moors of the Aurès and Sardinia (Procopius, IV, 13, 40-45).

(*54) On the character of the *Massegatæ*, see Procopius, III, 12, 8; VII, 14, 28; on their doubtful loyalty at *Tricamarum*, IV, 1, 5-6; 1, 9-11; 2, 3; 3, 7; 3, 16; and in the east, I, 21, 13. In 534, ten of their number deserted to Italy (V, 3, 15). On the Heruls, see Procopius, IV, 4, 28-31; VI, 14, 33-36; 14, 41. Although Procopius makes particular mention of Heruls forming part of the 1,000 Arians in the Byzantine army (IV, 14, 12), it is unlikely that all of the remaining 290 allied Heruls had mutinied. This is suggested both by Procopius's description of the exemplary character and conduct of Pharas (IV, 4, 28-31) and by his designation of the Heruls at *Cellas Vatari* as 'as many of the Herul party as were arrayed about him (Stotzas)' ('*Ερουλοι δὲ δοσι στασίωτας ἄμεν' ἄντιν τεταμένοι ἐκτραχανον (IV, 27, 14)), which implies that not all of them had taken the side of the rebels. Pharas himself was put to death by Stotzas during the mutiny (see Note 54).


(*56) The text of the law of April 534 has not survived. Its main enactments, however, have been reconstructed by Saumagne (1913, 81-82; cf. Kaegi 1965, 38-39).

(*57) On the date of the council, see Saumagne 1913, 83-85; cf. Champetier 1951, 104-105; 112; Devréesse 1940, 145-146.


(*59) *Cod. Iust.*, I, 5, 12, 17. This applied specifically to Gothic *foederati*.


(*41) Procopius, IV, 14, 12-14.
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(*42) These are stressed in the Marxist interpretation of the revolt presented by Shtepa (1940). It may also be noted that Arians constituted less than one-quarter of the mutineers' army (Kaegi 1965, 46).

(*44) Justinian, Nou., XXXVI; Procopius, IV, 8, 25; 14, 8-10; Hist. Arc., XVIII, 10.

(*45) Procopius, IV, 15, 33; 15, 55-56. On the causes of the revolt, see also Diehl 1896, 75-77; Stein 1949(2), 319-323.

(*46) Procopius, IV, 14, 13-16.

(*47) Id., IV, 14, 22-42.

(*48) Id., III, 11, 30; IV, 15, 1; Jordanes, Rom., 369. On Sotzas, see Nagl 1932.

(*49) Procopius, IV, 14, 18-19; 15, 2-4.

(*50) Procopius, IV, 15, 1-10.

(*51) Medjez el-Bab (Atlas Tun. 50, Medjez el-Bab, 19).

(*52) Possibly this was the sirocco, chehili or muebli, a hot wind which blows from between south-east and south-west particularly during the summer months. The existence of a strong wind suggests that the battle began at around mid-day (Naval Intelligence Division 1945, 71-75).

(*55) Corippus, Ioh., III, 305-313; Procopius, IV, 15, 11-4; Jordanes, Rom., 370; Diehl 1896, 80-81.

(*54) Procopius, IV, 15, 50-59. The force included Marcellus and Cyril commanding foederati, Barbatus commanding regular cavalry and Terentius and Sarapis commanding regular infantry; if the number of troops under each officer was the same as during the Vandal war, the total force would have amounted to 1,200 cavalry and 4,000 infantry. No mention is made of Valerian, nor of Martin who had gone from Missua to join him in Numidia (Procopius IV, 14, 40). Procopius records that, at an unspecified point in time, they were summoned to Constantinople (IV, 19, 2), and in December 536 they were sent with an army to join Belisarius in Italy (V, 24, 18-20; Marcellinus Comes, cont., a. 537, 2). It seems quite likely therefore, that they had already gone to Constantinople.
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If so, it is not possible to accept Diehl's view that they were removed by Germanus on account of their friendliness with Solomon (1896, 83 n. 7; cf. contra, Stein 1949(2), 324 n. 2); neither does Valerian seem to have been dux Numidia (cf. contra, Diehl 1896, 133), since Procopius states that his command was shared with others (IV, 14, 40). Jordanes includes Pharas, the commander of the allied Heruls, amongst those slain (Rom., 369).

(*)55 Marcellinus Comes cont., a. 536, 2; 9; Procopius, IV, 16, 1; Benjamin 1910; Diehl 1896, 83; Guilland 1967(2), 140; Stein 1949(2), 324-325. The movements of Solomon at this period are uncertain. The continuator of Marcellinus Comes states that he remained in Carthage after the departure of Belisarius and was sent to Constantinople by Germanus (l.c.); this is disputed by Diehl, who argues on no evidence that Solomon was sent to Constantinople by Belisarius (1896, 81 n. 4).

(*)56 Procopius, IV, 16, 2.

(*)57 Procopius, IV, 16, 3. The mutineers' army at this time would have numbered about 13,200 Byzantine troops (including foederati and former allies), less than 1,000 Vandals (the Vandals had sustained the highest casualties at Membressa, even though the total number was light (IV, 15, 45)) and some slaves. Germanus's army might therefore have been around 6,600, the extra numbers, compared with Belisarius's 2,000, being made up by the garrisons stationed in Byzacium and the few troops that Germanus had brought with him from Byzantium (IV, 16, 1). If there had been any desertion from the mutineers' ranks before the arrival of Germanus, the numbers in both armies should be reduced.

(*)58 Procopius, IV, 16, 4-7.

(*)59 Id., IV, 16, 8-25; 17, 1-2.

(*)60 Εκδίκας Βέτερες (acc.), Καλαβατάρες, Καλαβατάρας, Καλαβατάρας (Procopius, IV, 17, 3); Cellas Vatari (Corippus, Ioh., 318); inter Maurorum deserta (Marcellinus Comes cont., a. 537, 3).

On the location of the site at Fedj el-Siouda, see Atlas Alg.,
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18, 478; Courtois 1955b; Tissot 1888(2), 416-417.

(*61) No mention is made of the rebels' infantry by Procopius (cf. note 57). Presumably it faced the imperial infantry. Had the rebels had no infantry, it is doubtful whether Germanus could have overtaken them without leaving his own infantry behind.

(*62) Procopius, IV, 17, 3-35; VII, 39, 11-12; Bury 1923(2), 144-145; Diehl 1896, 84-86; Stein 1949(2), 326-327. Stein identifies these Vandal fugitives with those placed by the Ravenna Cosmography in Mauritia Gaditana: Mauritia que dicitur Gaditana ... in qua Gaditana patria gens Wandalorum a Belisario devicta in Africam fugit et nusquam comparuit (Rau. Cosmog., I, 3; Stein 1949(2), 326 n. 1).

(*65) Procopius, IV, 18, 1-18. Diehl suggests that the battle of Autenti took place in 538 (1896, 86 n. 8); but see note 25.
II.4. Notes.

(1) Procopius, IV, 19, 1; Marcellinus Comes cont., a. 539, 5. The date is given by Procopius (i.e.) as 13 Justinian I (i.e. 1 April 539 - 31 March 540). The foundation inscriptions from the fort at Thamugadi, which mention Solomon as prefect, magister militum, patrician and ex-consul, are dated to the same regnal year (Gaz. CB, Inscr. 25-27). If, as appears likely, the fort was completed soon after the Aurès campaign, it follows that Solomon would have arrived in Carthage soon after 1 April 539 and have defeated Iaudas during the summer months of the same year, just before the harvest time in the plains around Thamugadi (vide infra). It may also have been in 539, rather than 535 or 536, that Solomon was raised to patrician rank (cf. Ch. II. 3: n. 28). On Solomon's second governorship, see Diehl 1896, 87-93; 333-343; Bury 1923(2), 145; Stein 1949(2), 327-328; 547-548.

(2) See Ch. II. 3: n. 54.

(3) Procopius, VI, 7, 15; cf. Diehl 1896, 87; Stein 1949(2), 352.

(4) Stein 1949(2), 359-368.

(5) Procopius, IV, 19, 1.

(6) Id., IV, 19, 3. Such recruits would have been enrolled as comitatenses or foederati, depending on whether they were Roman citizens or Moors. Besides these recruits, 300 Moorish allies (ξένοι) are found forming part of Belisarius's army which invaded Italy in 535 (Procopius, V, 5, 4; cf. Agathias, III, 20, 9).

(7) Procopius, IV, 19, 3-4; Diehl 1896, 87; Stein 1949(2), 327.

(8) Guntarit was one of Solomon's δορυφόροι (Procopius, IV, 19, 6). In 545 he was dux Numidiae (id., IV, 25, 1); it seems possible, therefore, that he already held this position in 539.

(9) See Ch. II. 3: n. 31.

(10) This site has yet to be convincingly identified. Since Solomon continued his march into the plain around Thamugadi, it may be assumed that Βάδβωσις lay somewhere west of Mascula, on the southern edge of the plain. Different arguments, however, have been advanced by Rinn (1893, 305-308) and Gsell (1911, 27, 363-365; 38, 91). See also Gaz. CA,Δάβωσις (q.v.).
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(11) Procopius, IV, 19, 5-19; Diehl 1896, 88-89.

(12) Procopius, IV, 13, 26 (Thamugadi); IV, 19, 7 (Bagai); de Aed., VI, 7, 8 (Badias, Φωτευτιανή, Mileu, Thamugadi).

(13) Procopius, III, 8, 5; IV, 13, 26-27.

(14) Id., IV, 19, 19-22.

(15) See in particular, Renn 1893; Ragot 1874, 220-221; Gsell 1911, 27, 363-365; 38, 91. Ζερβούη may be identified with Corippus's Zerquilis (Ioh., II, 145).

(16) Procopius, IV, 19, 23-32.

(17) πέτρα ... Τεμυνιανοῦ (Procopius, IV, 20, 23); Gemini petra (Corippus, Ioh., II, 145).

(18) Procopius, IV, 20, 1-29; Diehl 1896, 89-90.


(20) IV, 20, 22; cf. de Aed., VI, 7, 6-8.

(21) Procopius, IV, 8, 21; 10, 2; 13, 39.

(22) See Ch. III. 7. and Map 3.

(23) Procopius, IV, 21, 2 (Leuathae); de Aed., 3, 9-11 (Garamantes).

(24) Procopius, IV, 20, 29. On the financing of the construction of fortifications, see Ch. III. 5.


(26) Procopius, IV, 19, 3-4; 20, 33; Corippus, Ioh., III, 320-336; cf. Diehl 1896, 91-93.

(27) Ioh., III, 289-290: ... florens haec gaudia sensit nostra decem tellus plenos laxata per annos, ...

(28) See Ch. II.1. The relations between the Byzantine administration and the Moors are treated at length by Diehl (1896, 317-330).

(29) Corippus, Ioh., III, 345-396; Victor Tonnennensis, a. 542; Diehl 1896, 339; Partsch 1879, xvi-xvii; Stein 1949(2), 758-761; 841.

(30) In the absence of statistics of any kind it is obviously impossible to compare the death rates of the Roman and Moorish populations. One may question, however, the assertion by Corippus (III, 388-389) that the Moorish population was totally
II.4. Notes.

unaffected. The story sounds somewhat analagous to an episode in Anglo-Scottish relations which occurred in the plague year of 1349. Seeing the plight of their southern neighbours, the Scots massed on the border ready to invade England, only to be struck down by the plague before they could do so. The subsequent death rate in Scotland was roughly the same as that in England, about one-third of the population (Knighton, *Chronicon* (ed, Lumby (2), 62-63); Ziegler (P) 1970, 205).


(*52) On the identification of this building, see Gaz. AA, *Lepcis Magna* (q.v.).

(*53) It is possible that this had been carried out as part of a policy of territorial settlement similar to that pursued by Solomon north of the Aurês (cf. Ch. II. 4: 60).

(*54) Corippus, *Ioh.*, III, 397-400; Procopius, IV, 21, 1-16; Diehl 1896, 339-341; Stein 1949(2), 547-548.


(*56) Corippus, *Ioh.*, III, 401-412. The ductor Tripolitania, Pelagius, from whom Solomon received support (*id.*, III, 409-410), is likely to be none other than Sergius himself; the alternative explanation, that Sergius relinquished his command in Tripolitania in order to join Solomon and was replaced by Pelagius who then also set out to go to Solomon's aid (Partsch 1879, xviii), seems unnecessarily complicated. Reasons of metre may perhaps have caused the change of name.

(*57) Corippus, *Ioh.*, III, 413-443; Marcellinus Comes cont., a. 541, 3 [544]: Procopius, IV, 21, 19-28; Victor Tonnennensis, a. 543; Diehl 1896, 342-343; Partsch 1879, xix-xx; Stein 1949(2), 548. The location of the battlefield is given only by Victor Tonnennensis. Corippus gives Guntarith a leading role in precipitating the flight from the field; although this may be no more than a device for preparing the reader (or listener) for Guntarith's later treachery, it could suggest that troops from the Numidian garrison took part in the campaign (cf. Procopius, IV, 25, 1; and above n.8).
II.5. Notes.

(*1) Procopius, IV, 22, 1. The evidence that Sergius inherited both offices from Solomon is given by the continuator of Marcellinus Comes, who describes him as *dux ... belli moderatorque provinciae* (a. 541, 3 [544]). Although it is usually assumed that Sergius was already a patrician in *Africa* in 544 (Diehl 1896, 117; Guilland 1967(2), 145), this is disputed by Stein (1949(2), 548 n. 2), who draws attention to the fact that the first dated reference to Sergius being a patrician is in 559, when he is also described as the former *dux militiae Africanae* (Victor Tonnennensis, a. 560 [559]). However, there exists a lead seal from Carthage bearing the legend, Ξεργίου πα[τ]ρικίου (Icard 1934, 154, no. 32) and although one cannot be certain that it relates to the same man, it does not seem unlikely that it does. Other seals from Carthage, also possibly referring to the same Sergius, style him as ἀθό̣ διάρχων (Delattre and Monceaux 1914, 108-109, no. 1) and as στρατηλάτης (Delattre and Monceaux 1913, 180-181, no. 1; *cf.* Zacos and Veglery 1972, no. 2823 (*?*)).

(*2) See Ch. II. 4 n. 31.


(*4) The chronology of this section follows that established by Stein (1949(2), 548-554; see especially 553 n. 1), which differs from the scheme put forward by Fartsch (1879, xxi-xxv) and followed by Diehl (1896, 343-362) and Bury (1923(2), 146).


(*6) Corippus, *Ioh.*, III, 458-460; Marcellinus Comes cont., a. 543, 3; Procopius, IV, 22, 5-6; 23, 1.


(*8) Corippus (*Ioh.*, IV, 14-16; 106; 150; 201-235) and Victor Tonnennensis (a. 545) refer to John as *dux*, which suggests that he held the rank of an ordinary *magister militum vacans* (*cf.*
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Stein 1949(2), 549 n. 1).

(•9) On the location of Μενερέσσων, see Gaz. CB, ? = Cebar (q.v.)

(•10) In the version of these events given by Corippus, Antalas sends Himerius a forged letter, purporting to be from John (Ioh., IV, 11-17).

(•11) On the location of this fort, see Gaz. CB, ? = Cebar (q.v.).

(•12) Corippus, Ioh., IV, 1-34; 38-63; Procopius, IV, 23, 2-10; 23, 17.

(•15) Corippus, Ioh., IV, 64-81; Procopius, IV, 23, 18-26. In Corippus's version Marturius and Liberatus (Caecilides) take part in this expedition, but no mention is made of Paul. The version recounted by Procopius was perhaps the one current in Constantinople, whither Paul fled later in the same year (Procopius, IV, 23, 29).

(•14) Procopius, IV, 23, 26-32.

(•15) Procopius, IV, 24, 2; VI, 22, 24; 29, 30; cf. Hartmann 1896c.


(•18) Procopius, IV, 24, 1-5.

(•19) Corippus, Ioh., IV, 86-102. For Italy, see Stein 1949(2), 355; 358-360.

(•20) On the date, see Stein 1949(2), 550.

(•21) Corippus, Ioh., IV, 103-106. Procopius makes no mention of this initial reverse.

(•22) The location of the battle is given by Victor Tonnennensis (a. 545; Thaciae, Taceae, Taccae (dat.), who adds that it was on a Sunday. Cf. Tissot 1888(2), 354-355; Treidler 1934a.

(•25) Corippus, Ioh., IV, 106-200; 35-37; 201-218; 382; Jordanes, Rom., 384; Marcellinus Comes cont., a. 545, 2; Procopius, IV, 24, 6-15; Diehl 1896, 350; Partsch 1879, xxi-xxii.

(•24) Marcellinus Comes cont., a. 546, 3; Procopius, IV, 24, 16. Note that pace Diehl (1896, 350) there is no suggestion that Sergius took troops with him from Africa to Italy (Stein 1949(2), 553, n. 1).
Notes.

(•25) Jordanes (Rom., 384) and Victor Tonnennsis (a. 546, 2) refer to Guntarith as magister militum.

(•26) Procopius, IV, 25, 1-5; 25, 11; 27, 8.

(•27) Procopius, IV, 25, 6-22.

(•28) Procopius, IV, 25, 23-28; 26, 1-20. On the fortified monastery, which had been built by Solomon, see Gaz. AA, Carthago Iustiniana (q.v.).

(•29) Procopius, IV, 26, 21-33; 27, 7-8; 27, 37-38.

(•30) Id., IV, 26, 19; 27, 9-19.

(•31) Id., IV, 27, 20-22.

(•32) Id., IV, 27, 1.

(•33) Id., IV, 27, 2-6.

(•34) Id., IV, 27, 23-35.

(•35) Corippus, Ioh., IV, 219-242; 367-375; 425-428; Jordanes, Rom., 384-385; Marcellinus Comes cont., a. 547, 6; Procopius, IV, 27, 36-38; 28, 1-41; Victor Tonnennensis, a. 546, 2.


(*1) Corippus, Ioh., I, 415-416; Jordanes, Rom., 385; Marcellinus Comes cont., a. 547, 6; Procopius, IV, 28, 45. On the time of year, see Partsch 1879, xxvi n. 132. On John's governorship in general, see Diehl 1896, 363-381; Guillard 1967(2), 146; Stein 1949(2), 554-558.


(*3) John's surname is mentioned only by Jordanes: Iohannem dehinc patricium cognomine Troglitam Africae procuratione commissa ...

(Rom., 385; cf. Partsch 1879, xxv).

(*4) Corippus, Ioh., I, 375-391; 469-479; III, 13-34; 281-301; 314-319; Procopius, III, 11, 5; IV, 3, 4; 17, 6; 17, 16.

(*5) quern nouit Massyla manus Solomonis iniqui tempore, dux nostris fueras qui proximus oris uicinaeque maris quondam seruator harenae, ...

(Corippus, Ioh., I, 470-472; cf. Partsch 1879, xxv n. 126).

(*6) Corippus, Ioh., III, 29-34.

(*7) Id., I, 58-109; Procopius, II, 14, 12; 18, 16; Diehl 1896, 363-365; Partsch 1879, xxv-xxvi; Stein 1949(2), 494-495; 501-502. The route followed by John from Constantinople to Carthage is almost exactly the same as that taken by Belisarius in 533 (Ioh., I, 159-416). This is hardly surprising, since he was voyaging at roughly the same time of year and the coastal sailing routes of the day did not allow for much variation of course. The storm in the straits between Sicily and Carthage, which blew his ships as far south as Caput Vada, however, may be suspected of having been introduced by the poet so as to enable him to mention John's part in the earlier expedition, which landed at this point; it is nevertheless true that the prevailing winds in the strait are northwesterlies (Naval Intelligence Division 1945, 75; appx. B, table I).

(*8) This is indicated by the fact that John reestablished the inland garrisons later in the same year.

(*9) Cf., Diehl 1896, 366 n. 2; 367.

(*10) Corippus, Ioh., II, 28-161. For the references to commentaries on this passage, see Ch. II. 1: n. 94.

(*11) Procopius, IV, 28, 46.

(*12) Corippus, IoH., I, 426; IV, 472-563; cf. Partsch 1879, xxvi-xxvii. Gregory is probably the Armenian and nephew of Artabanes, mentioned earlier by Procopius (IV, 27, 10-19; 28, 7-16; Partsch, l.c.); Marcentius was dux Byzacii in 545/546, and presumably was still so at this time (Procopius, IV, 27, 5-6; 27, 31; Partsch, l.c.).

(*13) Maurice, I, 3, 5-6; 4, 2-5; cf. Procopius, IV, 5, 5; 17, 5; VIII, 27, 2; 35, 18; de Aed., III, 4, 15-16; Aussaresses 1909, 32-34; table 2; Stein 1949(2), 561 n. 1; 814-815. The term agmen is also used by Jordanes, speaking of the invasion of Sicily by Belisarius in 535: agmini diversarum praeponens nationum ad partes Hesperias destinauit (Rom., 368).


(*15) Corippus, IoH., IV, 509-514; 544-552; cf. Partsch 1879, xxvii-xxviii. On Cusina, see Diehl 1896, 315-316. In 548, Cusina's forces numbered 30,000 and those of Ifisdaia 100,000 (see below); the latter figure is doubtless an exaggeration.


(*19) Id., II, 1-3.

(*20) Id., II, 188-234.

(*21) Id., IV, 595-618.

(*22) Id., IV, 619-644; V, 224-227.

(*23) Id., II, 265-287.


(*26) Id., IV, 472-563. The agmen commanded by the magister militum Gentius on the right seems to have been a special formation, though its exact nature is uncertain: dextro regit agmina cornu // Gentius, electis circumdans signa maniplis (IoH., IV, 472-473).

(*27) Corippus, IoH., V, 1-527; VI, 1-20; Diehl 1896, 62-63; 365-371; Partsch 1879, xxviii-xxix; Stein 1949(2), 555. On the

date of the battle, see Partsch 1879, xxvi n. 132.

(*28) Cf., Partsch 1879, vii-viii. See also Ch. II. 3: n. 16.


Cf. Procopius, IV, 28, 47. The army then dispersed to its various garrison towns, forts and stations (Corippus, Ioh., VI, 54-55):

digressus proprias florens exercitus arces inde petit: subeunt urbes castella locosque.

(*50) Corippus, Ioh., V, 510-511; VI, 58-103; Procopius, IV, 28, 46.

(*51) On the time of year, see Partsch 1879, xxix.

(*52) Corippus, Ioh., VI, 104-220.

(*53) Id., VI, 221-227.

(*54) Isidore of Seville, Hist., 42-43; Pseudo-Isidore, 13; Stein (1949(2), 561 n. 1) rejects the date of 544, which is favoured by Diehl (1896, 343) and Bury (1923(2), 146; cf. also Goubert 1947, 339-340), and proposes to link the event with the reduction of the Byzantine forces in Africa that took place early in 547 (cf. Partsch 1879, xxix-xxx; Diehl 1896, 371-372).

Though both Partsch and Diehl seek to explain the latter as a result of the detachment of troops to Italy, Stein observes that Procopius makes no mention of any reinforcements arriving from Africa at such a date in the Gothic War. Stein (l.c.) also disputes Partsch's conclusion that the field army was reduced by four cavalry agmina, pointing out that the tribune Marturius can only have been an interim commander (IV, 502-508)

and that he appears to have been replaced in the later campaigns by Sinduit (VI, 522; VIII, 374). Another possible reason for the reduction of John's army, however, was the need to restore the garrisons of Numidia, Tripolitania and Mauritaniae to full strength; this could easily have absorbed a large number of numeri. The likelihood of the Visigothic attack on Septem having taken place in 547 is suggested independently by the fact that Theudis died soon afterwards (nec more: Isidore of Seville, Hist., 43).

(*55) Cf. Corippus, Ioh., VII, 244-248
(*56) Id., VI, 267-268.
(*57) Corippus, Ioh., VI, 265-266:
conueniunt cunctae propriis a sedibus alae et pedites iussi, comitesque ducesque Latini, ...

(*59) Id., VI, 279-280.
(*40) siccae ... Gadaiae (Corippus, Ioh., VI, 285). Because of the references to sand and the possible association of the name Gadaia with a Berber word meaning 'dunes', Partsch proposes to identify this region with the Great Erg (1879, xxxi-xxxii). For the reasons given in note 46, however, it would seem more likely that the retreat followed the east rather than the west side of the Monts des Ksour.

(*41) Corippus, Ioh., VI, 280-384. The same position was held by Rommel's Axis forces from 29 June to 26 March 1943, in a last-ditch attempt to prevent the Eighth Army gaining access to Tunisia (Naval Intelligence Division 1945, 442-445).

(*44) Id., VI, 437-465.
(*45) Id., VI, 465-486.
(*46) The regio Gallica is mentioned earlier by Corippus (Ioh., II, 76-81) in association with the names of Marta (Mareth), Tilli-baris (Remada) and Talanteis, which Partsch seems quite justified in identifying with Talalateis/Talalati (Ras el-Ain Tlalett)

(1879, xxxiii). In the Cambridge edition of the Iohannidos, Diggle and Goodyear argue that the distance from Talalati to Tillibaris is too great for Talalati to have been the locality intended by Corippus; it may be noted, however, that it lies almost mid-way between Marta and Tillibaris. The regio Gallica therefore seems likely to have encompassed the Matmata plateau and the Monts des Ksour, along the eastern edge of which ran the iter quod limitem Tripolitanum per Turrem Tamaleni a Tacapas Lepti Magna ducit (Itin. Ant., 73, 4-6; Trousset 1974, fig. 38; 1975, 43; map); and the settlements originally fortified by Hadrian at Tillibaris and by Postumus at Talalati would have supplied, in the sixth century, the Moors who were raiding Byzacium at that time (cf. Goodchild and Ward-Perkins 1949, 95; Trousset 1974, 98-102; 114-118). It may be noted, for example, that the Garamantes of the Fezzan were amongst those who formed part of Carcasan's army (Corippus, Ioh., VI, 198-199). The facts that John marched south until the mountains and plains of Gallica came into view (id., VI, 485-486), that he took up position behind a river in order to deny the Moors access to Byzacium (id., VI, 473-477; 512-515) and that, at a later stage in the battle, John senior found his death in quick-sands by the sea (id., VI, 697-773) all suggest the location of the battle in the area between the Matmata plateau and the sea. Furthermore, Corippus's description of Marta as mali
genetrix (Ioh., II, 81) makes it clear that the battle, alluded to four lines earlier, took place close to Mareth itself (Diehl 1896, 374; Tissot 1888(2), 692-693).

(*48) Id., VI, 515-527.
(*49) Id., VI, 528-550.
(*50) Id., VI, 551-773. On the campaign as a whole, see Diehl 1896, 230-232; 371-376; Partsch 1879, xxix-xxxv; Stein 1949(2), 555-556.
(*51) Corippus, Ioh., VII, 1-3. It seems quite likely that the town was Tacapes (Gabès), though this is unproven (See Gaz. AC, Tacapes (q.v.).


(*55) Id., VII, 142-149; Procopius, IV, 28, 48; cf. Appx. AA, Laribus (q.v.).

(*54) IV, 28, 47-49.


(*56) Id., VII, 272-273: uenit Ifisdaias centum cum milibus ardens, / Arsuris et latos impleuit tarua campos. Diggle and Goodyear, in the Cambridge edition, equate Arsuris with the horrida tellus Arzugas infandae (Id., II, 147-148); but Arzugitana, the land of the Arzuges, lay around Tozer and el-Hamma, in the region around the Chott el-Djerid (Courtois 1955, 94-96). Evidently the equation of Arsuris with this region is out of the question. It therefore would seem more logical to accept Partsch's identification of the site with the see of the bishop Servius Arsurtanus, who is listed in the Notitia Provinciarum of c. 484 under the ecclesiastical province of Byzacium (1879, xxxvi; Maier 1973, 106). Arsuris probably lay a short distance south-east of Laribus, on the Byzacene side of the provincial boundary (cf. Map 3); there are no grounds, however, for equating it with Assuras (Zanfour)(cf. contra Tauxier 1876, 298).


(*58) Compare Solomon's campaign of 534 (Ch. II. 3: 50-51). See also Gaz. AA, *Mamma (q.v.).

(*59) Cf. Gaz. AA, Iunci (q.v.). The line of march was therefore south-south-west across the steppe and not via Sufetula, Madarsuma and Tabalta as Diehl supposes (1896, 377).


(*61) Cf. Gaz. AA, Lariscus (q.v.).


(*65) Id., VIII, 49-163.

(*64) The location of these is unknown. Cf. Partsch 1879, xxxvii n. 214.

(*65) Corippus, Ioh., VIII, 164-233; cf. 228-229:

... committere pugnam uicinis liceat feruenti caede Lataris.

The *Latara are unidentified (cf. Partsch 1879, xxxvii), but seem to be a natural feature. The name may perhaps be associated in some way with the town of *Lacene (Tarf el-Ma), which lay 22 km. north-north-west of Gabès (Salama 1951, 128). John may therefore have hoped to bring Carcasan to battle on the north side of the Djebel Haidoudi and Djebel Tebaga Fatnassa, which form the eastern end of the high ridge delimiting the northern side of the Great Chotts.


(*67) Id., VIII, 370-380. Only four Byzantine agmina are mentioned and, although some lines of verse are missing between lines 369 and 370, they do not appear to have related to the order of battle. The explanation seems to be that the losses at Marta had been very high.

(*68) Corippus, Ioh., VIII, 381-656; Jordanes, Rom., 385; Procopius, IV, 28, 50-51; VIII, 17, 20-22; Diehl 1896, 377-380; Partsch 1879, xxxvi-xxxviii; Stein 1949(2), 557-558. Procopius states that the outcome of the battle was contrary to expectation (IV, 28, 50). The head of Carcasan was sent to Carthage (Corippus, Ioh., VI, 184-187).

(*69) Stein (1949(2), 558 n. 4; cf. Jordanes, Rom., 385.

(*70) Corippus, Ioh., praef., 2; I, 9-22; Jordanes, Rom., 385; Getica, 172; Procopius, IV, 28, 53; VIII, 17, 22.

(*71) Procopius, VIII, 24, 31-37; Diehl 1896, 380-381; Stein 1949(2), 558.

(*72) Justinian, Appx., VI; Diehl 1896, 596-597; Partsch 1879, xliiv n. 194.
II.7. Notes.

(*1) Secondary works dealing with late sixth-century Byzantine Africa include the following: Belkhodja 0000, 381-384; *1970; Diehl 1896, 453-502; Goubert 1965, 179-220; Julien 1951, 269-274; Kulakovskiy 1912(2), 352-353; 403-404; 472-474; Lapierre and Pellegrin 1950, 169-173.

(*2) Justinian, Appx., VI; IX.

(*5) Epist., frag. (ed. Migne, 417). Boethius may have been the consul of 522 and son of the philosopher of the same name (Stein 1939, 317 n. 1).

(*4) V, 13, 7-8; cf. 14, 1-5; Justin II, Nou., I, praef. (n. 566).

(*5) Jones 1964(2), 680; 683.

(*6) 1964(2), 684. Jones points out that Justinian was said to have deprived the limitanei of the name of soldier (Procopius, Hist. Arc., XXIV, 12-14).

(*7) Diehl, for example, seems to paint too gloomy a picture (1896, 454).

(*8) Jones 1964(2), 684.

(*9) Absolute figures are not available for this period. The figures for comitatensis troops stationed in Africa, including Mauritania Tingitania, derived from the Notitia Dignitatum come to about 25,000 (Jones 1964(2), 684); but Byzantine Africa was considerably smaller in area than Roman Africa had been in the period just before the Vandal invasion.


(*11) John Rogathinus may have been magister militum Africae or prefect. The prefect Areobindus, mentioned in a novel of May 563, however, whom Diehl suggests may have been prefect of Africa at that time, could equally well have been prefect of Italy or Illyricum (Justinian, Nou., CXLIII; Diehl 1896, 597-598; Stein 1949(2), 561 n. 1).


(*13) Gaz. CB, Inscr. 29; Cameron 1976, 127; Diehl 1896, 458; 462 n.5; 597-598.
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(*14) Iust., I, 18-21 (transl. Cameron):

et Thomas, Libyae mutantis destina terrae,
qui lapsam statuit, uitae spem reddidit Afris,
pacem composuit, bellum sine milite pressit,
uicit consiliis quos nullus uicerat armis.


(*17) Cf. Justin II, Nou., I (a. 566); V (a. 569). Diehl writes
of these reforms as though they affected Africa directly (1896,
457-458), but the fact that they are in Greek shows that they
were intended for the east.

(*18) CIL, 1020. Diehl argues that Lucius was praetorian prefect
(1896, 597-598), but this would have been inconsistent with the
title of uir clarissimus that is given him on the inscription
(Stein 1939, 317 n. 1). The date of the dedication is unknown,
save that it would have been set up within the emperor's life-
time.


generaliter orbi
quamquam prouideas, miseri specialiter Afri
in te oculos atque ora ferunt: agit Africa grates
et uestram iam sentit opem, gaudetque quod ampla
semper Anastasii referunt solacia ciues.

(*21) Iust., praef., 43-44:

nudatus propriis et plurima uulnera passus
ad medicum ueni, ...

(*22) Gaz. AA, Thubursicu Bure (q.v.); Gaz. AB, Tignica (q.v.).
The use of money raised by taxation for the construction of
town walls in the east is recommended in a novel of 569 (Justin
II, Nou., V, 2).

(*25) John of Biclar, a. 569, 1. The Garamantes of Ghadamès, known
as pacati because of their treaty with the Byzantines, were al-
ready by 554 Christians and at peace with Byzantium (Procopius,
de Aed., VI, 3, 9-12); their new acceptance of peace terms and
missionaries in 569 would therefore seem to suggest that, as in
547-548 (Corippus, Ioh., VI, 198-199), they had taken part in
the Moorish revolt of 563. On the earlier references to the
tribe, see Desanges 1962, 93-96; Daniels 1970.
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(*24) John of Biclar, a. 569, 3; a. 573, 6; cf. Isidore of Seville, Chron., 401b. Diehl identifies this tribe with the Μακοριτæ whom Ptolemy (IV, 2, 5) seems to place around the Ouarensis (Diehl 1896, 328; cf. Desanges 1962, 60). The fact that giraffes were rare in North Africa in this period (cf. Joleaud 1937) need not affect the argument, since only a single animal was involved. There remains the possibility, however, that it was the Μακοριτæ or Μυκουρα of Nubia who sent these gifts. However, John of Ephesus states that this tribe, which he refers to as the Μακοριτæ, was still pagan in around 580 (John of Ephesus, IV, 51; 53; Audollent 1942, 211-212; Desanges 1962, 256-257).

(*25) John of Biclar, a. 569, 2; cf. a. 578, 1. Diehl suggests that Theodore, who was presumably killed in battle, held the office of magister militum Africae as well as that of prefect (1896, 597-599); the idea is plausible, but not proven. It is uncertain whether this Theodore was the same who as prefect was the recipient of a novel dated March 570 (Justin II, Nou., VI; cf. Diehl 1896, 597-598).

(*26) John of Biclar, a. 570, 1; a. 571, 2. Two identical seals have been found in Carthage bearing the inscription: Theocistus præposu(s) magist[er] mil(itum) per Num[diam] (Merlin 1925). If they relate to the same person who is mentioned in the chronicle, it is possible that Theoctistus was merely a magister militum uacans (cf. note 51); alternatively, he may have been promoted to become magister militum per Africam before his death.

(*27) 1896, 460 n. 1. Diehl's argument that Garmul's kingdom was based in Mauritania Caesariensis and that the Maccuritæ, who concluded their peace treaty with the emperor in 573, did so after having been involved in the fighting on Garmul's side against the Byzantines rests on no secure foundation. The tribe's acceptance of Christianity and supposed revolt against the Byzantines within the same year is, to say the least, implausible; and the visit of their ambassadors to Constantinople
in 573 can best be explained as a natural extension of the diplomatic exchanges that had brought about their conversion four years before. Furthermore, as argued in note 24, it is not certain whether the Maccuritae lived in Mauritanie at all. As for Diehl's statement that 'vers 569, il est incontestable que l'influence grecque s'étendait dans cette région', it may be said that the only reason why this should be so is that there is no evidence either for or against it. The balance of probability, however, is firmly against it. See also note 34.

(28) John of Biclar, a. 571, 4; Hilderonsus, de Vir. ill., IV: Donatus, et professione et opere monachus, cuiusdam eremita fertur in Africa exstitisse discipulus. Hic uiolentias barbararum gentium imminere conspiciens, atque ouilis dissipat-ionem et gregis monachorum pericula pertimescens, ferme cum septuaginta monachis copiosisque librornr Codicibus nauali uehiculo in Hispaniam commeauit. During the reign of Liuvigild, king of the Visigoths (568-586), another African cleric, Nuctus, also moved to Spain (Paul of Merida, Vit. Patrum Emer., III).

(29) Chron., a. 574, 2.

(30) Cod. Iust., I, 27, 2, 3; Gregory I, Reg., IV; 25; 27; Procopius, IV, 3, 41-45; de Aed., VI, 7, 13.

(31) Brébier 1969, 43; Jones 1964(1), 306.

(32) Gaz. CB, Inscr. 32-33; cf. Diehl 1896, 462 n. 5; 597-599; Goubert 1965, 183. Two lead seals from Carthage bear the inscription: + οωμά πατρικίου (Delattre and Monceaux 1912, 294, no. 1; Icard 1936, 324 no. 18); and another: + S(an)co(tu)s A [ ... ] // + οωμά υπάτου πατρικίου (Delattre and Monceaux 1914, 287-288, no. 3). It is not certain, however, whether any of these relates to the prefect Thomas. Indeed, it is possible that the obverse of the latter is identical to that of a seal of the dux Numidiae Peter, which bears an effigy of Saint Augustine; if so, a seventh-century date would be suggested (cf. Duval (Y) 1971, 210-211; Laurent 1952; 1962, 85-87, no. 92).

(33) Gaz. CB, Inscr. 31, 33, 49; John of Biclar, a. 578; Diehl
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1896, 597-599; Goubert 1965, 186-190; Guillard 1967(2), 150; Logeart and Berthier 1936, 254-269.

(*54) The evidence of a single coin hoard of about 50 gold solidi found at Caesarea (Cherchel), which Gsell suggests may have been interred during the Garmul revolt, would be too slender a basis from which to argue that the campaign affected Mauritania Caesariensis in any way, even if the hoard could be dated to that period; the evidence of the only published account of the hoard to give any indication of its contents, however, suggests a terminus post quem of 475/491 (Anon. 1856, 54-55; Atlas Alg., 4, 16 (site 16); Gauckler 1895, 8 n. 1; Gsell 1926, 22; 1952, 29).

(*35) Theophanes, a. 6074; Stein 1919, 85 n. 15; Goubert 1965, 183 n. 11. Some texts give the figure as 12,000 or 5,000.

(*36) Menander, Frag., 49. The same policy was followed in 580 (id., Frag., 62).

(*37) John of Biclar, a. 578, 1.

(*58) Gaz. AA, Ain el-Ksar, Anastasiana, Iunci Sofiana, Mascula Tiberia, Tuburnuc (q.v.); Gaz. CB, Inscr. 30-34. See Map 4.

(*39) Tiberius II, Nou., XIII; Diehl 1896, 597-598.

(*40) B rénier 1969, 43; Jones 1964(1), 309.

(*41) III, 4, 8-9; cf. Diehl 1896, 463 n. 4.


(*43) On the creation of the exarchate of Ravenna, see Diehl 1888, 6-23; Goubert 1965, 29-124. The earliest reference to an exarch at Ravenna is 4 Oct. 584.

(*44) Cf. Ch. II. 3: 49.

(*45) This would have been the case whenever the magister militum was of patrician rank and the praetorian prefect was not: eg. Belisarius (533-534), Germanus (536-539), Areobindus (545-546), John Troglitas (548-552), Marcian (563-564/565).


(*47) The last reference to Gennadius as magister militum is on an
inscribed tablet of lead, recording the deposition of the relics of the martyrs Marcus, Optatus and 108 others, at Sila, 32 km. south of Constantina. The inscription is dated to the day before the Nones of May, in the third indication and in the reign of Maurice and Constantina (6 May 585): ... te(m)p(o)r-i(b(u)s) gl(o)r(io)siy/Gennadi(i) m(a)g(istri) m(i)l(itum)// Affric(a)e et exc(onsu)l(is) (see Gaz. CB, Inscr. 49).

(*48) Gregory I, Reg., I, 73 (Aug. 591): Gregorius Gennadio patricio et exarcho per Africam. Cf. **id., I, 59; 72; VI, 59; VII, 2; 3; IX, 9; 11. Other forms of address include excellentissimus filius noster, etc. (id., IV, 7; VII, 2; IX, 11), gloria, etc. (id., I, 59; 73; VI, 61), eminentia (id., I, 59; 72-73), excellentia (id., I, 59; 72-73; IV, 7; VI, 59; VII, 3; IX, 9), dignitas (id., VI, 59) and patricius (Gaz. CB, Inscr. 36; Delattre and Monceaux 1911, 237-238, no. 1). On the creation of the exarchate of Carthage, see especially Diehl 1896, 466-482; 597-599; Goubert 1965, 185-190; Hartmann 1913, 227.


(*50) The existence of a letter addressed in August 591 by Gregory the Great to Gaudiosus, magister militum Africae (Reg., I, 74), raises the possibility that the office of magister militum Africae continued as an intermediate rank between the exarch and the military governors of the provinces. The idea is rejected by Diehl, first because the character of Gaudiosus's position, as shown in the letter, does not appear to be that of the exarch's military second-in-command and secondly because he is only referred to as gloria, suggesting that his rank was equivalent to that of a dux or magister militum uacans (Diehl 1896, 495-497; Goubert 1965, 200-201).

(*51) Gregory I, Reg., I, 59 (July 591); 72-73 (Aug. 591).

(*52) **id., I, 73 (Aug. 591).

(*53) **id., I, 59 (July 591).

(*54) **id., I, 72 (Aug. 591); IV, 7 (Sept. 593); VI, 59 (Aug. 596); 61 (Aug. 596).

(*55) **id., I, 72 (Aug. 591); VI, 59 (Aug. 596); 61 (Aug. 596).
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(*56) *Id.*, VII, 2 (Oct. 596. In 633, the officium of the patrician and στρατηγός Peter included a sacellarius named John (Relatio motionis inter Maximum, I); but, following the interpretation of Y. Duval, Peter would have been dux Numidiae in 633 and not, as Diehl thought, exarch of Africa (Duval Y 1971, 209-211; 214; Laurent 1952; cf. Diehl 1896, 488; 597-599).


(*58) *Id.*, X, 16 (July 600).

(*59) Gaz. CB, Inscr. 36.

(*60) In 546, however, as has been mentioned above (Ch. II. 6: 77-78), there were two duces for Byzacium; the subdivision of the military command of certain provinces may therefore have occurred at other times. The word ducatus is applied to Sardinia in June 591 (Gregory I, *Reg.*, I, 47). On the provincial organization of Africa in this period, see Diehl 1896, 492-499; Goubert 1965, 201-203; and also Ch. III. 1: 122-132.

(*61) Gregory I, *Reg.*, I, 46-47 (June 591); 59 (July 591); IV, 25 (May 594); IX, 195 (July 599). Other forms of address include magnitudo uestra (*id.*, IX, 70 (Nov-Dec. 598)) and excellentia uestra (*id.*, I, 46 (June 591)). In 633-634, the dux Numidiae, Peter, was of patrician rank (Duval Y 1971, 209-211; Laurent 1952). On the patrician standing of duces in Byzantine Egypt, see Maspero 1912, 80 n. 5.

(*62) Gregory I, *Reg.*, IX, 195 (July 599). The same person, Spesindeo, praeses of Sardinia, is addressed as magnitudo uestra in October 600 (*id.*, XI, 12).

(*63) The dux Sardiniae, for example, may be seen taking a hand in the execution of imperial legislation (Gregory I, *Reg.*, IX, 195 (July 599)), the judgement of civil cases (*id.*, I, 46 (June 591)), taxation (*id.*, I, 47 (June 591); 59 (July 591)) and religious affairs (*id.*, IV, 25 (May 594); IX, 195 (July 599)). Unfortunately, there is no comparable evidence for Africa proper.

(*64) Honigman 1939, 49-50; Laurent 1935, 460; cf. Gelzer 1890, vi-xvi; Diehl 1896, 466-467.

(*65) The section on Africa is headed: 'Υπὸ τὴν ἐνδοξόστατον ἐπαρχὸν Ἀφρικῆς (George of Cyprus, 638).
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(*66) The ἐπαρχία Τρικόλεως contained the three towns of Τόσιβα (Gelzer, Τοσιβάων), Lepcis and Oea (George of Cyprus, 795-798). Cf. Gaz. AA, Lepcis Magna, Oea (q.v.). The first of these sites is unidentified (cf. Gelzer 1890, 145; Honigman 1939, 61); it might perhaps be Tacapes.

(*67) See Ch. II. 3: 49.

(*68) The first entry under the province of Byzacium is Καρθαγέννα προκονσούλαριάς (Gelzer, Καρθαγέννα Προκονσούλαριά ) (George of Cyprus, 640-641). Honigman takes this to indicate that Carthage was included in Byzacium at this date (1939, 54); but Proconsularis is referred to in a novel of 582 (Tiberius II, Nou., XIII). It seems likely therefore that the list of towns for Proconsularis has been lost and that the title of the section, Carthago Proconsularis (cf. Cod. Iust., I, 27, 1, 12), has been preserved in the list for Byzacium (Diehl 1896, 469; Gelzer 1890, xxix, 101-102; Goubert 1965, 192-193).


(*70) George of Cyprus, 655-657; 660-662; 665; cf. Goubert 1965, 193-194; Gaz. AA, Ammaedara, Calama, Hippo Regius, Laribus, Theueste, Vaga (q.v.); Gaz. CA, Σκίλλια = Scillium (q.v.). Although Vaga was Numidian in the sense that it lay, like Thugga, outside Africa Vetus, it is doubtful whether it formed an administrative part of Numidia in the sixth century especially as Procopius places it in Proconsularis (de Aed., VI, 5, 12; cf. Desanges 1959, 431 n. 17; Honigman 1939, 56). It could be that Bāyā refers to another town in Numidia, or that Vaga, like the provincial name Carthago Proconsularis, has somehow changed its position in the text that has come down to us. If the inclusion of Vaga in Numidia was intentional, however, it might imply that the ἐπαρχία Νομιδίας of George of Cyprus had no meaning in practical administrative reality.

(*71) George of Cyprus, 658-659a; 663-664; 666; cf. Gaz. AA, Bad-ias, Bagai, Constantina, Mileu, Sitifis, Tigisi (q.v.).

(*72) George of Cyprus, 663 (Gelzer, Ηπρινθιόν). This town may be identified with the unlocated see of the bishops Felix Izirian-
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ensis (411) and, perhaps, Vigilius Hizirzadensis (N) (484) (Gelzer 1890, 107; Honigman 1939, 56; Maier 1973, 152-156).

Duval (Y) 1970; cf. Ch. II. 3: n. 14. There is therefore no reason to accept Gelzer's reversal of lines 667 and 668 in order to place Sitifis in Mauritania I (Gelzer 1890, xxxi; followed by Diehl 1896, 467 n. 4; Honigman 1939, 56; Goubert 1965, 194-195).

George of Cyprus, 642-645; 649-653a; cf. Goubert 1965, 193; Gaz. AA, Capsa Iustiniana, Cululis Theodoriana, Hadrumentum (Iustinianopolis), Iunici Sofiana, *Mamma, Sufes, Thelepte (q.v.).

Cillium (Gelzer, Κλεως; Honigman, Κλαλιον) is identified with Kasserine (Atlas Tun. 100, Kasserine, 92; Dessau 1899b; 1923; Tissot 1888(2), 636-643).

Madarsuma (Gelzer, Μαδαρσβα; Honigman, Μαδαρσβμα) is placed by the Antonine Itinerary 40 (or 47) miles south-east of Sufetula (Itin. Ant., 48, 4; 49, 9; Dessau 1930; Maier 1973, 164; Tissot 1888(2), 646-647).

Thapsus (Gelzer, Καφης; Honigman, Θάφος (?) is sited at Ras Dimas (Tissot 1888(2), 172-176; 810; Treidler 1934b).

George of Cyprus, 646 (Gelzer, Κασικλα). This was probably the see of the bishops Fortunatus Casensis Calanensis (411) and Optantius Casensi Calanensi (c. 484), the latter of whom is listed under the ecclesiastical province of Numidia (Dessau 1899a; Gelzer 1890, 103-104; Honigman 1939, 56; Maier 1973, 124).

George of Cyprus, 647 (Gelzer, Καστέλλα). Instead of attempting to associate the site with one of the many Castellum place-names of Roman Africa (cf. Gelzer 1890, 104), Honigman and L. Poinssot suggest its identification with the region south of the great chotts, which was known to the Arab geographers of the Middle Ages as al-Castiliya and comprised the three towns of el-Hamma, Tozeur and Nefta (Honigman 1939, 56; Poinssot (L) 1940). The precise location of the town from which the region took its name, however, is not known.

George of Cyprus, 648 (Gelzer, Νταλλα). This may perhaps be identified with the see of Donatus Apissanensis (411), which
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has in its turn been identified with Apisa Maius, the modern Tarf el-Cheria (Atlas Tun. 50, Bou Arada, 111; Gelzer 1890, 104; Honigman 1939, 56; Maier 1973, 102; Schmidt (J) 1894); however, this lay in the province of Carthago Proconsularis.

George of Cyprus, 668-669 (Gelzer, 'Ρινοχοροπόρου /Ρινοχοροπόρου / Ρινοχοροπόρου; Honigman, 'Ρονχοχορού (?)). The reading of the name as Rusuccuru, a town now positively identified as Dellys (Laporte 1973; Février (PA) 1976, 777) and not Tigzirt as once thought (Frézouls and Hus 1954), is put forward by Gelzer (1890, xxxi) and adopted by Honigman. Under the diocese of Egypt, however, George of Cyprus lists Ρινοχοροπώρα / Ρινοχοροπώρα (691), a town situated at el-C Aris. It seems highly probable, therefore, that the name has been transposed in the same way that Κένεσιος is transposed in line 671a (cf. Goubert 1965, 195 n. 84; Honigman 1939, 56).

Cf. Duval (Y) 1970, 160-161. The magister militum Maurice, who was buried at Rusguniae (cf. Gaz. AA, q.v.; Gaz CB, Inscr. 45-48) on 30 March, Indiction XIV, in the church that he himself had built before 1 November, Indiction IX, may well have been a provincial governor of Mauritia I. The following date-ranges are possible; assuming that both dates fell within the same indiction period: A.D. 545-551, 560-566, 575-581, 590-596, 605-611, 620-626, 635-641, 650-656, etc.

George of Cyprus, 671a; cf. Gaz. AA, Septem (q.v.).

George of Cyprus, 671b-674.

Goubert 1944, 6-10; 1945, 127-141; 1946, 73-80; cf. contra Diehl 1896, 470; Gelzer 1890, xxxi-xliv. Comentiolus, sent to Spain as patrician and magister militum Spaniae by Maurice, was responsible for defeating the barbari hostes and constructing defences at Cartagena in 589/590 (CIL(2), 3420; Gőrés 1907, 534-535; Goubert 1944, 64-65; ILCV, 792).

See note 61.

Cf. Goubert 1946, 77.

George of Cyprus, 675-684. The other towns are: Turris (Porto Torres), Sanafer, Sinis, Sulci (S. Antioco), Fausania
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(Terranuova Pausania) Chrysopolis, Oristanum (Oristano) and Castrum Tharros (Torre di S. Giovanni di Sinis) (Diehl 1896, 470-471; Gelzer 1890, 109-111; Goubert 1965, 195-197; Honigman 1939, 57).

(*86) Gregory I, Reg., I, 47 (June 591). On the administration of Sardinia, see in particular Diehl 1896, 475-476.

(*87) Gregory I, Reg., I, 46-47 (June 591); 59 (July 591).

(*88) Id., IV, 25 (May 594).

(*89) Id., IX, 70 (Nov.-Dec. 598); 195 (July 599). An ex-tribune, John, is also recorded on an inscription from Caralis (IL Sard. (1), 112).

(*90) Id., V, 38 (1 June 595); VII, 3 (Oct. 596); Diehl 1896, 469; 499; Goubert 1965, 197. In October 596, Gregory (l.c.) interceded with Gennadius on behalf of the islanders, who wanted the return from Africa of the tribune Anastasius and the removal of his successor, count Ruferius.

(*91) XCV, 13; Maspero 1912, 12; 129. The reference to 'Mauritians' does not imply that the campaign was waged in the Mauritaniae, or even necessarily that Moors from those regions took part in it (cf. Diehl 1896, 481; Goubert 1965, 207). Both Theophanes and Malalas refer to Cusina as chief of the Mauritians (ξαρχος τῶν Μαυριτάνων) in 562 (Theophanes, a. 6055; Malalas, Chron., XVIII (ed. Dindorf, 495)); this would suggest that the term 'Mauritians' had taken on a more general meaning in the late sixth century, just as the term Mauri had at an earlier date. For the second tribe mentioned, Zotenberg's text reads Μαρλκός; but Maspero shows this to be scribal error (1912, 13 n. 3); the enemy were not, therefore, 'Mauritians and Moors' (Diehl 1896, 481), but 'Moors and Mazici'.

(*92) Jones 1964(1), 311.

(*93) Reg., I, 59 (July 591); 72-73 (Aug. 591).

(*94) Theophylact Simocatta, VIII, 6, 6-7. On the date, see Goubert 1965, 208 n. 7. Goubert states that Gennadius allowed the Moors to take possession of the city of Carthage itself (1965, 207); but, quite apart from the foolishness of such a strat-
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gem, this is not what the text says. It appears likely that
the episode took place within the environs of Carthage or at
least within the province of Carthago Proconsularis (cf. Diehl
1896, 482); though in view of the very general sense in which
Theophylact Simocatta uses the term 'Carthaginian' elsewhere
(II, 3, 13), it may even be wondered whether it was not the
exarchate of Carthage that was meant.

(*95) Cf. Gaz. AA, Limisa (q.v.); Gaz. AB, Agbia (q.v.); Gaz. AC,
Bordj el-Ksour (q.v.).


(*97) Id., IX, 9.

(*98) Gaz. CB, Inscr. 36.

(*99) Gregory I, IV, 32; Diehl 1896, 597-598; Goubert 1965, 210-211.
He is addressed as excellentia ustra.

(*100) Gregory I, Reg., X, 16; cf. XI, 7 (Oct 600); Diehl 1896, 597-
598; Goubert 1965, 212-213. Innocent is addressed variously
as eminentia ustra, gloria ustra and dignitas ustra (Gregory
I, l.c.).

(*101) Jones 1964(1), 314-315; Bréhier 1969, 51; Stratos 1968(1),
40-56.

(*102) Nicephorus (ed. de Boor, 3); Diehl 1896, 517. The discovery
in Carthage, however, of a statue base dedicated to Phocas by
the exarch of Italy, Smaragdus, places Nicephorus's statement
in some doubt (CIL, 529; Tissot 1880). Goubert suggests that
Heraclius only became exarch of Carthage in around 604 and that
in the interim period, after Gennadius's death or departure,
Africa was governed first by the prefect and then, after 603,
by the exarch of Italy (1965, 214-218). Heraclius was cert­
ainly exarch in 608, when he is referred to as πατρίξιος καλ
στρατηγὸς Ἀφρικῆς (George Cedrinus (ed. Bekker(1), 711-712);
Theophanes, a. 6100) and his brother, the patrician Gregory,
as his ἐπαυτράτης (opp. citt.; cf. Nicephorus (ed. de Boor,
3)).
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(*1) A number of Jewish converts to Christianity were made in this period amongst those who saw in the disasters that were overtaking the Roman empire the expected fall of the fourth beast of the Book of Daniel and in the advent of Islam the rise of Hermolaus Satan, the Little Horn (Doctrina Iacobi, passim; cf. Jones 1964(1), 316-317).

(*2) See Ch. III.8.

(*3) Constantine Manasses. 1. 3664-3667; Nicephorus (ed. de Boor, 3); Theophanes, a.6100; Theophylact Simocatta, III, 1, 1; 6, 2; cf., 3, 2; 5, 10; 6, 4; 7, 11 seg.; 9, 17; 10, 1 seg.; 18, 1 seg.; 18, 26; Diehl 1896, 517; Guilland 1967(2), 162; Pernice 1905, 25-26; Stratos 1968(1), 80. On the date of Heraclius's appointment, see also Ch. II. 7: 96 n. 102.

(*4) Cf. Nicephorus (ed. de Boor, 5).

(*5) John of Antioch (ed. Müller, 38); Leo the Grammarian (ed. Bekker, 146); Nicephorus (ed. de Boor, 3-4); Theophanes, a.6100-6101.

(*6) See, however, Ch. II. 7: 96 n. 102.

(*7) Theophanes, a.6100.

(*8) Diehl 1896, 519-520; Pernice 1905, 26-34; Stratos 1968(1), 82-87.

(*9) John of Antioch (ed. Müller, 38); John of Nikiu, CIX, 25; Theophanes, a.6102.

(*10) Bréhier 1969, 54; Diehl 1896, 520; Pernice 1905, 34-41; Stratos 1968(1), 87-91.


(*12) John of Nikiu, CVI, 2-4; CXVI, 4; Nicephorus (ed. de Boor, 7); Theophanes, a.6102. Favia and Heraclius's mother, Epiphania, had earlier been imprisoned by Phocas.

(*13) Nicephorus (ed. de Boor, 12); Diehl 1896, 521-523. Heraclius's reluctance to accept the crown is also mentioned by Nicephorus (ed. de Boor, 12) and the Chronicon Paschale (ed. Dindorf, 708). It may also be noted that the reading of Καρχυσίδινα and Καρχυσίδινος for Χαλυβόνα and Χαλυβόνος in the text of Theophanes (a.6107-6108) would seem to imply that the Persian advance reached as
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far west as Carthage. The former reading is accepted by de Boor (1890; and edn. of Theophanes) and Pernice (1905, 82 n. 2), but opposed by Gelzer (1893). Diehl, though seeming to favour Gelzer's argument, remains equivocal (1896, 522 n. 1). Apart from the general unlikelihood that the city of Carthage could have fallen at this date without it exciting more explicit comment in the sources, meagre though they are, two further points may be considered. First, the source in question, Theophanes, dates from two centuries after the supposed event; the text need not therefore be accepted to the letter as solid evidence. Secondly, Καρχηδόνα (-ος) could apply equally to the city, province or exarchate of Carthage (cf. Ch. II. 7: n. 93); since the Persians are known to have overrun Cyrenaica, there is no reason to suppose that they could not have also raided Africa, especially if Tripolitania is included (cf. p. 103).

(*14) CX, 10-13.

(*15) Diehl suggests that it may have been Gregory, Heraclius's brother and the emperor's uncle; but there is no evidence to support this suggestion (1896, 523; cf. Stratos 1968(1), 123), or the one made by Gelzer that the exarch in c.615 was Caesarius, then active in Spain (1890, xlii; cf. Diehl 1896, 524). On Caesarius, see also Ch. II. 7: 94-95.

(*16) Διονυσιας ἑρμοφεδής (ed. Combes, 324); cf. Leontius of Neapolis, Vita Ioah. Eleem., XII; XIV-XV; XLIVb.

(*17) Nicephorus (ed. de Boor, 9; 21).

(*18) Id. (ed. de Boor, 21).

(*19) H onorius I, Epist., IX.


(*21) Relatio motionis inter Maximum, (ed. Combes, 111-114); Duval (Y) 1971; Duval (N) and Février (HA) 1969, 317-320. Diehl assumed that Peter, who is referred to as πατριχίος and as στρατηγὸς Νομιδίας τῆς Ἀφρικῆς, was already exarch in 633 (1896, 537; 597-599); however, a lead seal in the Vatican collection demonstrates that the dignity of patrician was given not only to
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the exarch, since it refers to the same Peter as πατριχίος and δοσθυς (see Ch. III. 1: 125 n.73).

(*22) Duval (Y) 1971; Duval (Y) and Février (PA) 1969, 317-320. See Gaz. CB, Inscr. 54.

(*23) Diehl 1896, 557; Goodchild 1967, 122; Stratos 1968(2), 115-116; 1968(3), 57. For the Arabic sources, see the references given in Gaz. AA, Oea; Sabratha (q.v.).

(*24) George had been prefect of Africa since July 634 at the latest (Doctrina Jacobi, praef.; I, 2; cf. Maximus Confessor, Epist., XII (ed. Combegis, 459-460); cf. I (363-364; 391-392); XVIII (583-584); Diehl 1896, 543 n.2; 597-598.


(*26) Id., XII (459-460).

(*27) Id., XII (459-462); cf. John of Nikiu, CXX, 6.

(*28) Maximus Confessor, Epist., XLIV (ed. Combegis, 645-646); Diehl 1896, 542-547; Stratos 1968(2), 188; 1968(3), 57-60.


(*30) Cf. Ibn CAbd al-Hakam, 43; Diehl 1896, 554 n. 2; Duval (Y) 1971, 214 n. 2.

(*51) On Gregory, see Diehl 1896, 547-551; Grumel 1930.

(*52) On Gregory, see Diehl 1896, 525; 550; 554-556; 597-599; Guillard 1967(2), 166. Gregory is also mentioned as patricius on lead seals found at Carthage (Delattre and Monceaux 1913, 280-282, no. 1; 1917, 107-108, no. 1; cf. 1914, 284-285, no. 2 (magister militum)) and Tipasa (Tifech) (CIL, 10965), and on an inscription at Thamugadi (Gaz. CB, Inscr. 57).

(*53) On the date, see Stratos 1968(3), 60.

(*54) Theophanes, a-6138; Michael the Syrian (ed. Chabot (2), 440); Diehl 1896, 547-551; Stratos 1968(3), 60-64. On the date of the rebellion, see Stratos 1968(3), 63-64.


(*57) See Ch. III. 7: 199-200.

(*58) See Ch. III. 1: 128 . Although in the 630s the Arab threat to Africa itself was still remote, the absence of references to
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Moorish raiding in the seventh century cannot necessarily be taken to imply that none took place. Indeed, a total of eight coin hoards with termini post quos falling in the reign of Heraclius suggests that insecurity was as much a fact of life in the seventh century as it had been in the sixth, even if it did not reach proportions serious enough to warrant mention in the documentary sources (see III. Appx. 6).


(*41) Ibn ʿIdhârî (1), 11; al-Nuwairî, 324; cf. Diehl 1896, 566 n. 1; Fournel 1875(1), 140.


(*43) Ibn al-Athîr, 1896, 361-362; Ibn ʿIdhârî (1), 11-12; al-Nuwairî, 324. For other interpretations of these episodes, see Diehl 1896, 565-570; Fournel 1875(1), 140-141; Marçais (G) 1946, 30-31; Stratos 1968(3), 220-222; 251-252.

(*44) Cf. Diehl 1896, 570 n. 2; Stratos 1968(3), 72-73.

(*45) See Gaz. AA, Cululis (q.v.).

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324-326; ʿUbayd Allāh, 37-38; Diehl 1896, 570-571; Fournel 1875(1), 142-148; Julien 1970, 6-7; Stratos 1968(3), 222-225; 278-280.

(*47) Lib. pontif. (ed. Duchesne (1), 346); Paul the Deacon, V, 12; Theophanes, a.6160; Diehl 1896, 571-572; Stratos 1968(3), 253-260.


(*49) a.6161; George Cedrenus (ed. Bekker(1), 764). On the economic value of the slaves taken in Ḫifriya by the Arabs, see Marçais (G) 1946, 24.


(*51) See Ch. III. 7: 212-213 n.57.

(*52) A legendary account of the fall of Theueste to ʿUqba is translated by Cherbonneau (1869).

(*53) See Gaz. AA, Bagai (q.v.).

(*54) See Gaz. AC, Lambaesis (q.v.).


(*56) See Gaz. AC, Thubdeos (q.v.).


(*58) The passage in the Life of pope John V (685-686) which records the renewal of the peace treaty between Justinian II and the Khalif in September 685 and adds, et provinciа Africa subiugata est Romano imperio atque restaurata (Lib. pontif. (ed. Duchesne (1), 366); cf. Diehl 1896, 581-582; 582 n. 1), presumably relates to the defeat of the Arabs by the Moors and Romans in 683.

(*59) al-Baladhurī (1), 360; Ibn ʿAbd al-Hakam, 75-77; 81-85; Ibn
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(60) Justinian II, Exemplar (ed. Migne, 427). See the discussion of this document by A. Toynbee (1973, 227-228).


(63) Constantine Manasses, l. 3895-3907; George Cedrenus (ed. Bekker (1), 776); John Zonaras, XIV, 23, 1-3; Nicephorus (ed. de Boor, 39); Theophanes, a.6190.

(64) Constantine Manasses, l. 3904-3921; George Cedrenus (ed. Bekker (1), 776); John Zonaras, XIV, 23, 4-6; Nicephorus (ed. de Boor, 39); Paul the Deacon, VI, 10; Theophanes, a.6190; Ibn ʿAbd al-Hakam, 77. Most of the Arabic sources appear to have conflated the two falls of Carthage into a single episode in the manner already described. Al-Mālikī, however, relates that the city fell yet again after Hassan's defeat of the Kahina (al-Mālikī, 145-146). The reasons for rejecting this chronology of events, which is in fact the one followed by Caudel (1900) and Julien (1970, 12-13), are clearly set out by Creswell (1940, 208-211).


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(*68) See above p. 108 n. 60.

Appendix. 1. Notes.

1. The information upon which this table is based comes, except where otherwise stated, from Procopius, III, 11, 1-21.

2. See Ch. II. 2: 34 n.19.

3. See Ch. II. 2: 34 n.20.

4. See Ch. II. 2: 34 n.21.

5. See Ch. II. 2: 34 n.22.

6. The *comitatenses* were regular troops. The precise number of comitatensian cavalry is uncertain. Procopius gives the combined total of *comitatenses* and *foederati* as 5,000 and lists four commanders for the former and nine for the latter. Assuming that the units under each commander were of the same strength, it is possible to estimate the number of *comitatenses* as 1,500 and *foederati* as 3,500 (Jones 1964(2), 667). It seems clear from Procopius's narrative, despite opinions to the contrary voiced by Diehl (1896, 16-17) and Bury (1923(2), 127), that the allies and *bucellarii* were not included in the total of 5,000 cavalry.

7. For the number of *foederati* see the previous note. Sixth-century *foederati* were different from those of the fourth century. Although for the most part barbarians, they were individually recruited and were paid like regular troops. They were organized in *τάγματα* and on campaign were commanded by Roman officers (Jones 1964(2), 663-666). The unit commanded by Cyril had a strength of 400, supporting the calculation made in the preceding note.

8. The allies (*ζήμματος*) were barbarian troops serving under their own commanders and equivalent to the *foederati* of the fourth century (Jones 1964(2), 663).

9. The 600 Huns were mounted bowmen from the tribe of the *Masse-gatae*. They were the crack troops of the sixth-century Byzantine army (Bivar 1972).

10. The number of Belisarius's own *bucellarii* who took part in the campaign is not known. At *ad Decimum* there were 300 under the command of John the Armenian (III, 17, 1), 800 under Uliaris (III, 19, 23), and an unspecified number of others, both officers
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(δορυφόροι) and men (διανοικοι), with Belisarius himself (III, 19, 13). Diehl bases his suggested figure of 1,500-2,000 on the assumption that Procopius included the buccellarii in the total of all the cavalry (1896, 17). Although Stein accepts this figure, he rightly points out that the buccellarii were not included in the cavalry total (1949(2), 313). It seems quite likely, therefore, that the number of buccellarii was higher than 2,000. It may be noted, for example, that at Tricarum Belisarius's buccellarii and 500 other cavalry were more than a match for Tata's picked force of 5,000 cavalry, and this was in close hand-to-hand fighting (see Ch. II. 2: 45-47). In Italy Belisarius is known to have had 7,000 buccellarii (VII, 1, 18-20). The paymaster (optio) of Belisarius's buccellarii was John the Armenian (III, 17, 1-2). It may also be noted that two of Belisarius's buccellarii, Aigan and Rufinus, were in command of τάγματα of foederati; the practice of giving important commands to their own δορυφόροι was not uncommon with sixth-century commanders-in-chief (Jones 1964(2), 665-668).

11. Like the comitatensian cavalry, these were regular troops (Jones 1964(2), 659-661). They appear to have been organized in five units of 2,000 men each.

12. Rufinus: a Thracian who was bandifer in the household of Belisarius (IV, 10, 3-4).

13. Aigan: one of Belisarius's δορυφόροι, of the tribe of the Massegatae (III, 11, 7-9; IV, 10, 4).


15. John: John Troglitas, the brother of Fappus (IV, 17, 6; 28, 45; cf. Ch. II. 6).

16. Cyril was sent with 400 men on an abortive mission to help Godas in Sardinia, and only arrived in Africa after Carthage had fallen to Belisarius (III, 11, 1; 24, 19).

17. John the Armenian: optio, or paymaster, in the household of Belisarius (III, 17, 1-2).

18. Uliaris: (III, 19, 23).
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21. Although no other δορυφόροι of Belisarius's household are mentioned (cf. III, 19, 13), we know of a υρασιοτῆς called John (IV, 5, 6).

22. The dromones were single-banked warships, with an average complement of 20 men.

23. The transports had a capacity of 3,000 to 50,000 medimni, or 55 to 930 tons (Courtois 1955, 160 n. 2). The variation in capacity was therefore considerable. On average, however, each ship would have carried 96 men (including 60 crew) and 16 horses.
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(*2) Id., I, 27, 1, 10-13. See Ch. II.3: 49-50.

(*3) Gaz. CB, Inscr. 5, 14, 16, 20-21, 28 (m.m. Africae); 25-27 (m.m. per Africam); 23 (m.m. Libya).

(*4) Cod. Iust., I, 27, 2, 4-5; 8; 13-15.

(*5) Id., I, 27, 2, 15; 18.

(*6) See Ch. II.6: 82 n.55; II.7: 92 n.58.

(*7) See below, Ch. III.5. On the praetorian prefect and his authority, see Diehl 1896, 97-107.

(*8) On the title and dignity of patrician, see Guillaud 1967(2), 132. Magistri militum of praetorian rank included Belisarius (533-534), Germanus (536-539), Solomon (536/539-544), Sergius (544-545), Areobindus (545-546), John Troglitas (548-552) and Marcian (563-564/565). Solomon (534-536; 539-544), Sergius (544-545) and perhaps Theocore (†569) were praetorian prefect and magister militum Africae at the same time.

(*9) See Ch. II.7: 91 seq.

(*10) On the households of prominent military commanders, see Aussaresses 1909, 13-15; Diehl 1896, 123-124; Jones 1964(2), 665-667; Maspero 1912a, 66-68.


(*13) Procopius, IV, 19, 6. For other references to Solomon's bucellarii see Procopius, IV, 14, 23; 14, 39; 21, 28; 28, 3.

(*14) Id., IV, 18, 7-8.

(*15) They are described as armigeri: Corippus, Ioh., VI, 528-537; cf. Ch. II.6: passim.

(*16) See Ch. II.2: 34. On the office of domesticus, see Procopius, III, 11, 5; Jones 1964(2), 598; 602-603.

(*17) See Ch. II.6: 75; cf. Diehl 1896, 124.

(*18) Procopius, III, 11, 8; IV, 16, 2. See also Ch. II. Appx. 1.

(*19) See Ch. II.7: 92 n.102. The rôle of the ἀκατάπτηγος is discussed by Aussaresses 1909, 36.

(*20) The officium of the magister militum Africae is referred to only once (Cod. Iust., I, 27, 2, 35; cf. Jones 1964(2), 597-598).
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In contrast, the complete schedules are known for the officia of the praetorian prefect (Cod. Iust., I, 27, 1, 21-39).

[21] Gregory I, Reg., I, 59 (July 591); 72-73 (Aug. 591); cf. Jones 1964(2), 598; 602-603. A number of lead seals from Carthage also attest the presence of cubicularii holding either military commands or posts on the staff of the magister militum or exarch (see Ch. III.2: 137 n.18.).

[22] See Ch. II.2: 34 n.21.

[23] The room was known as Ἀπεξεύσωμα (Procopius, III, 20, 4-9).

[24] Procopius, III, 21, 1-6; IV, 18, 8; 26, 32; 28, 2 seq.

[25] Id., IV, 14, 37; de Aed., VI, 5, 9. It seems, however, that at the time of Thrasamund a chapel already existed within the Vandal royal palace, dedicated to the Virgin Mary (Anth. lat., no. 380; Monceaux 1906a, 190-191, no. 154).


[27] Cod. Iust., I, 27, 2, 2; 4. This title had been applied to duces since the later fourth century (Jones 1964(1), 143; Guillard 1967(1), 27). The duces were also uiri clarissimi (Cod. Iust., I, 27, 2, 20; 23; 26; 29; 32) and later in the sixth century were styled gloriosi (see Ch. II.7: 92 n.61).

[28] Cod. Iust., I, 27, 2, 1-3. The duties and authority of the duces in Africa are discussed by Diehl (1896, 126-137), and those in Byzantine Egypt by Maspero (1912a, 80-88).

[29] As in Byzacium in 546 (see below).

[30] Cod. Iust., I, 27, 2, 4-4b; 8; 15. On the different types of troops making up the provincial armies, see below Section 2.


[33] Cod. Iust., I, 27, 2, 12; cf. Anastasius I, Ed., 2; 9. On the relative powers of the civil and military provincial governors in Africa in the later sixth century, see Ch. II.7:92-93.
III.1. Notes.

(*54) Cod. Iust., I, 27, 2, 15; 17; 35.

(*55) Id., I, 27, 2, 20; 23; 26; 29; 32.

(*56)Procopius, IV, 21, 9-10; 25, 8.


(*58) Cod. Iust., I, 27, 2, 20; 23; 26; 29; 32.

(*59) Cf. id., I, 27, 2, 9-9b. The pay of the African duces under Justinian may be compared with that of the dux of Libya Inferior, who, in 539, received a basic salary of 50 annonae and 50 capita, commuted for 400 solidi in all, as well as a payment 'in kind' of 90 annonae and 120 capita, which were commuted for 1,005 solidi (Justinian, Ed., XIII, 18). The only comparable data from Roman Africa concern the dux Mauritaniae, who, under Valentinian III, received 50 capita as part of his pay (Valentinian III, Not., 15 a.445)). This evidence is discussed by Diehl (1896, 128-129) and Jones (1964(2), 644; 676-677). Jones also suggests that the commutation of the annona for 5 instead of 4 solidi was intended to replace the quinquennial donative (1964 (2), 670).

(*40) The officia that came under the control of the praetorian prefect are set out in Cod. Iust., I, 27, 1, 21-42.

(*41) Id., I, 27, 2, 21-22; 24-25; 27-28; 30-31; 33-34; cf. Diehl 1896, 130-131; Jones 1964(2), 598-599.

(*42) Anastasius I, Ed., 2; 14; Justinian, Ed., XIII, 18; Jones 1964(2), 598 n.84.

(*43) See Ch. II.7: 56.


(*45) Cod. Iust., I, 27, 2, 1a-2.

(*46) See Ch. II.3: 48-49.

(*47) The difficulty in determining with precision the geographical limits of the provinces of Africa after the fourth century is made more acute by the fact that they may not have been entirely
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The basis for the provincial boundaries that are shown on Maps 3-7 is therefore the map published by Salama in 1951; the modifications that have been made to it are discussed under the relevant provinces below.

(*48) Cod. Iust., I, 27, 1, 12. Note that some editors give Tingi instead of Zeugi, and Mauritania instead of Mauritaniae; for discussion of these textual problems, see Diehl 1896, 106-111.

(*49) Lat. Veron., 12; Desanges 1963, 60 n.2.

(*50) de Aed., VI, 5, 12.

(*51) Tiberius II, Nom., XIII.

(*52) George of Cyprus, 640-641. See Ch. II.7: 93 n.68.

(*53) For the extent of Africa Proconsularis, see Salama 1951, map.

(*54) Cod. Iust., I, 27, 1, 12.


(*56) Not. Dig., Occ, VII, 140-152; 179-198; Baradez 1953, 18; Jones 1964(2), 610; 652.

(*57) On the Constantinian province, see Jones 1964(1), 42; 107.

(*58) III, 3, 31; IV, 4, 26 (Hippo Regius); III, 25, 1 (Bulla Regia).

(*59) VI, 7, 1-10; cf. Desanges 1959, 430-431; 1963, 64-68.

(*60) George of Cyprus, 655-657; 660-662. See Ch. II.7: 93-94 n.70.

(*61) On the administration and geographical extent of Numidia Proconsularis in the later empire, see Chastagnol 1958; Ferchiou 1977a, 12-14; Gsell 1922, ix-x; Saumagne 1940.

(*62) Salama's map places it in Byzacium (1951). Procopius's statement that 'Αμήστρα lay in Byzacium is unlikely to have any bearing on the present argument, for reasons explained elsewhere (Gaz. CA, 'Αμήστρα (q.v.)).

(*63) Chastagnol and Duval (N) 1974, 100-102; fig. 2; Duval (N) and Frérot 1975, no. 424.

(*64) Cf. Chastagnol and Duval (N) 1974, 91-94; 112 n.60; fig. 2.

(*65) Duval (Y) 1970. See also under Mauritania Sitifensis.

(*66) de Aed., VI, 7, 2. Numidia therefore included the regions known in the fifth century as Gaetulia and Abaritana (cf. Ch. II.1: 20 n.11).
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(*68) Procopius, IV, 15, 50-59 (esp. 51).

(*69) Id., IV, 25, 1; Jordanes, Rom., 384; Victor Tonnennensis, a.546, 2. Cf. Ch. II.5: 70-73.

(*70) See Ch. II.4: 59 n.8. Guntarith was also present at the battle of Cillium in 544 (see Ch. II.4: 66 n.37).

(*71) See Ch. II.7: 89 n.26.

(*72) Gaz. CB, Inscr. 33.


(*74) Gaz CB, Inscr. 57.

(*75) The evidence for this dux is a seal from Carthage: Σεράνον κοφικουλα(τρον) // [β]θασιους καλ γορ(τουλαρνον) στρατηγάτου Νομιδ(ας) (Delattre and Monceaux 1912, 331-333, no. l). One may also note the seal of a στρατηγάτης, Photinus, found at Rusicade, the port of Constantina (CIG, 8990; Monceaux 1903, 253-254, no. 111). Στρατηγάτης, however, can also mean the tribune of a town (Guilland 1967(1), 388). In any case, the seal and the document formerly attached to it could have been dispatched to Rusicade from almost anywhere in the empire; the seal of an ἀρχήν ἐπάρχων of the same name, for example, has been found at Carthage (Monceaux 1903, 73, no.10).

(*76) On Theoctistus, see Ch. II.7: 89 n.26. On Peter, see Duval (Y) 1971; Duval (Y) and Février (PA) 1969, 317-321; and Ch. II.8: 100.

(*77) Jones 1954, 21; 27.

(*78) See Gaz. AA, Constantina (q.v.).

(*79) See note 61.

(*80) See note 73.

(*81) Gaz. CB, Inscr. 58-59. The officium of each dux contained an official ranking as a primicerius (see p.120 above); however,
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the two primicerii in question could equally well have been officers serving in the provincial or field-army.

(*82) This is the assumption made by Diehl (1896, 494) and followed by Goubert (1965, 202).

(*83) Chastagnol 1958, 10; Jones 1964(1), 42.

(*84) Cod. Iust., I, 27, 1, 12; 27, 2, 1a; 23-25.

(*85) Procopius, IV, 6, 21; 10, 2. Neither Rufinus nor Aigan, who commanded troops in Byzacium in this period, is referred to as dux or ἀρχηγός of the province.

(*86) Procopius, IV, 23, 3; Corippus, Ioh., IV, 8. See also Ch. II.5: 66.

(*87) Procopius, IV, 27, 5.

(*88) Corippus, Ioh., VI, 49. See Ch. II.6: 77.


(*90) A number of impressions of this official's seal have been found in Carthage: Th[e]s[etoce][uoethi][Ionhhi][c][jul(ario) inpa-(eriali) sp(athario) et mag(istro) uuzach(nae) (Laurent 1962, 84-85, no. 91; 84 n.1; Zacos and Veglery 1972, 1643, no. 2885; cf. Monceaux 1903, 75-76, no. 15-16; Delattre and Monceaux 1918, 129-130, no. 1). It is possible that the seal was that of John Troglitas. But John was a common enough name amongst Byzantine army officers, as reference to Haury's index to Procopius will show. There are no grounds, therefore, for associating the seal with any officer of that name who is not known from another source to have had connections with Byzacium.

(*91) The evidence is again a lead seal: Deus a(d)iuta Leontii // majistro mil(itum) Vyzac(eneae) (Zacos and Veglery 1972, 1647-1648; nos. 2898a-2898b).


(*95) Cod. Iust., I, 27, 2, 1a. The alternative reading of Lepte for Thelepte is almost certainly erroneous (see Ch. II.3: n.16).

(*94) Diehl 1893, 340-341; 1896, 190.

(*95) Ioh., IV, 8.

(*96) Procopius, IV, 27, 5-6.

(*97) Gaz. CB, Inscr. 50, 52, 54. The identification of Peter as the
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exarch of the same name is based on the title of eminentissimus attached to his name (cf. Duval (N) 1956, 285-286; Duval (Y) 1971, 212). See Ch. II.8: 100.

(*98) Diehl 1696, 557-559. See Ch. II.8: 102-104 and Ch. III.4:n.33.

(*99) Procopius, de Aed., VI, 3, 9; 4, 14.

(*100) See Ch. II.7: 93 n.66.


(*102) Cod. Iust., I, 27, 1, 12; 2, 1a; 20-22.

(*103) See notes 89 and 90.

(*104) See Ch. II.4: 64-65.


(*106) Corippus, Ioh., VI, 221.

(*107) John of Nikiu, CIX, 22-24; Waspero 1912a, 65; 138.


(*110) Procopius, de Aed., VI, 4, 4; Ward-Perkins 1952; Ward-Perkins and Goodchild 1953, 22-24; fig. b; pl. XIa-c. A complex of late Roman buildings lying some 250 m. north-east of the Byzantine town walls, which Caputo (in Bianchi Bandinelli et al. 1964, 107-110) interpreted as the sixth-century ducal palace, has more convincingly been shown by Goodchild (1965) to have been an incomplete bath-complex of pre-Vandal date.


(*112) Jones 1964(1), 42.

(*113) See Ch. II.4: 62.

(*114) Cod. Iust., I, 27, 1, 12. This argument supposes that a civil governor would not have been appointed to a province that had not yet been reconquered. On the other hand, however, it should perhaps be noted that Mauritania Sitifensis lay outside that area ruled by the Vandals in 477 and that in theory it had not ceased to be part of the Roman empire since 442, although
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in practice imperial control had not been exercised there since 455 (see Ch. II.1: 19-20).

(*115) IV, 20, 20 (transl. Lewing): ... Ζάβην τε τὴν χώραν, ἡ ὑπὲρ ὅρος τὸ Ἀδράσιν ἔστη Μαυριτανία τε ἡ πρώτη καθέται μυκτόπολιν Σίπτην ἔχοσα, ... In the light of this statement, Desanges puts forward the tempting theory that the enigmatic Μαυριτανία Tabia insidiana of the Verona List is a corruption of a sixth-century alteration to the text, that was intended to be read as Μαυριτανία Zabia Iustiniana (Lat. Veron., 12; Desanges 1963, 60 n.2; cf. Gaz. CB, Inscr. 2). It may also be noted that an inscription from Thanaraeus Castra (Berroughia) records Zabenses completing a church built, or begun, by a Moorish prefect Iugmena in 474 (Albertini 1925; cf. Atlas Alg., 14, 58, add.).

(*116) VI, 7, 9.

(*117) George of Cyprus, 667; Duval (Y) 1970. Cf. Ch. II.7: n.73.


(*120) Procopius, IV, 20, 31-32.

(*121) George of Cyprus, 668-669. Cf. Ch. II.7: 94. On the archaeological evidence for the Byzantine occupation of the coastal cities, see Ch. III.7: 215-218.

(*122) Cod. Iust., I, 27, 1, 12; 27, 2, 1a; 29-31.


(*125) Cod. Iust., I, 27, 2, 1a.

(*126) George of Cyprus, 669. Cf. Ch. II.7: 94 n.78.

(*127) Mauritania que dicitur Gaditana (Rau. Cosmog., I, 3; Carcopino 1940, 440 n.3).

(*128) Procopius, III, 1, 4-5; 1, 14-15; 3, 26; 5, 6; IV, 10, 29; VIII, 6, 3; 6, 22; de Aed., VI, 7, 14.

(*129) Cod. Iust., I, 27, 1, 12. The other was Mauritania Caesariensis (cf. Procopius, IV, 20. 31).

(*130) Jones 1964(3), 363. There is no mention of a Mauritania Tingitania in the sixth century (see, however, note 40).
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(*135) Cod. Iust., I, 27, 2, 2.

(*134) Procopius, IV, 5, 6.

(*135) See Ch. II.7: 94-95.


Diehl takes the references to Julian as patrician to imply that he was exarch of Africa (1896, 587 n.3); but even provincial duces could be of patrician rank (see Ch. II.7: n.61). The last province of Byzantine Africa, Sardinia, falls outside the scope of this chapter (but see Ch. II.3: 48 and II.7: 95).
III.2. Notes.

(*1) Maspero 1912a, 43; 70-71.


(*5) Maspero 1912a.

(*4) The number of provinces in the diocese of Egypt was increased to six when Tripolitania was ceded by Africa in the late sixth century.

(*5) Although in theory a similar system operated in Egypt, in practice the magister militum per Orientem, under whose command the duces came, never once entered Egypt at the head of an army during the sixth century and is only once recorded as having withdrawn Egyptian troops for service elsewhere. The senior commanding officers were therefore the duces themselves, who were all of equal rank (Maspero 1912a, 77-79).

(*6) Not. Dig., Occ., VII, 140-152; 179-198; XXV; XXX-XXXI; Baradez 1953, 18; Jones 1964(2), 610; 652.

(*7) See Ch. II.3: 48.

(*8) See Ch. II.3: 54.

(*9) Procopius, IV, 1, 6; 1, 10-11.

(*10) See Ch. II.4: 58.

(*11) The collection of taxes from the provincials began within a year of the reconquest (Cod. Iust., I, 27, 2, 18). On the overhaul of the taxation system, see Ch. II.4: 59. On late Roman methods of conscription, see Jones 1964(2), 614-619.

(*12) Gascou 1975; Maspero 1912a, 130.

(*15) Ch. II: passim.

(*14) These questions will be investigated more fully in the final section of this chapter.


(*18) The names include Seranos, the dux Numidiae (see Ch. III.1:126n75), and John, the dux Byzacii (see Ch. III.1: 127 n.90).
remaining four, two of whom are referred to as magistri militum, are less certainly associated with Africa, though the fact that the lettering of two of the seals is in Latin does suggest that the officers to which these relate held their commands in the west. The texts are as follows:

John: + Theotoce [u]et[i Ioanni // cubicu(lario) ... sacel(lario) magist(ro) [mil]itu(m) (Delattre and Monceaux 1918, 129-130, no. 1; cf. Monceaux 1903, 75, no. 15).

Leo: + Leo [dom]esticu(s) [cu]bicu [la]ri(us) // atq[ue ma]gist(e)r [militu]m spa[thari]us (Delattre and Monceaux 1912, 429-431, no. 1).

Maurice (7th c.): + Μαυριχιος, δούκας τῆς Θεοτόκου // [+ κομβίχιον] λαρ(ιον) βασ(ιλικ ο(χαλ) χαρ(τουλαριος καλ) [σα]κελλ[ατ][ρου] (Delattre and Monceaux 1905b, 330-331, no. 1; cf. 1918, 143-144, no. 1; 1919, 137-138, no. 1).


On the cubicularii, see Guilland 1967(1), 269-282; Jones 1964(2), 566-570. It may also be noted that under Justinian the eunuch Narses commanded armies in Italy as sacellarius and then as praepositus before being appointed overall military commander of the province (Jones 1964(2), 570).
III.2. Notes.

659-661; Maspero 1912a, 43-44.


(*27) See Ch. II.6: 75.

(*28) See Ch. II.4: 60-61.

(*29) The adaptation of the Roman and French frontier armies to the terrain in which they had to fight in *Mauritania Caesariensis* is discussed by Salama (1977, 561-582).

(*30) See Ch. II: Appx. 1.

(*31) Maurice, I, 2, 1; II, 5, 8; 10, 1 seg.; III, 6, 1 seg.; 8, 1; VII, 11a; Aussaresses 1909, 15.

(*32) Cod. Iust., I, 5, 12, 17.


(*34) The former *magister militum Africae* Artabanes became *comes foederatorum* and *magister militum in praesentis* in 546 (see Ch. II. 5:73 ).

(*35) There were, however, *foederati* under the command of the *dux Palestinea* in 536 (Justinian, *Nov.*, CIII, 3, 1). Maspero also argues that *foederati* were based in Alexandria in the sixth century, under the command of an officer named Ptolemy, who is referred to as 'commander of the barbarians' (John of Nikiu, XCVII, 11; Maspero 1912a, 61-63; 1912b, 109 n.3). The text on which this argument is based, however, does not make it clear whether Ptolemy held his command in Alexandria or at Aikelâh (= Metelis ?); further, the title 'commander of the barbarians' would seem more likely to have been applied to a *praefectus gentis*. If this were indeed to be the explanation, the identification of the *gens* in question would be difficult to make, since the location of Aikelâh is uncertain, save that it lay near Alexandria (cf. Maspero 1912a, 41 n.6). However, it may be noted that a prefect of the *Macae*, a tribe inhabiting *Libya Superior*, is referred to early in the sixth century (Anastasius I, Ed., 11).

(*36) See Ch. II.3: 56 n.54.

(*37) Procopius, IV, 13, 1-17; cf. Ch. II.3:52 and Appx. 1. On the *foederati* in the sixth century, see Aussaresses 1909, 15-16;
III.2. Notes.

Jones 1964(2), 663-665; Maspero 1912a, 45; 1912b.


(*39) Maurice, II, 5, 5; VII, 4a; VIII, 2; Aussaresses 1909, 16-17.

(*40) See Ch. II.2: 42.

(*41) On the doubtful loyalty of the Huns and Heruls, see Ch. II.3:n.34.

(*42) See note 9. On the use of allies in the sixth-century Byzantine army, see Aussaresses 1909, 16-17; Jones 1964(2), 663; Maspero 1912a, 45-46; 1912b.

(*45) Otherwise as praepositi, decuriones or centenarii (see Ch. II.1: 27).

(*44) See Ch. II.1: 31 n.102-103.

(*45) See Ch. II.3: 52.


(*47) See Ch. II.6: passim. It is interesting to note that at Lariscus, in 548, John followed the practice recommended later in the Strategicon of placing his Moorish and Byzantine troops in separate camps; on this occasion, however, it was the Byzantine troops whom the general had more cause to fear (see Ch. II.6: 84; Gaz. AA, Lariscus (q.v.).

(*48) See Ch. II.6: 85. Bezina, another of John's allies in 548, is given the title of praefectus by Corippus (Ioh., VII, 279).

(*49) Jones 1964(2), 660.

(*50) Cod. Iust., I, 27, 2, 4a-5; 7; 13.

(*51) Id., 5; 7.

(*52) Id., 8.


(*54) There are, however, a number of examples in the west, dating to the reign of Honorius and earlier of regiments of limitanei being upgraded to pseudocomitatenses and even to comitatenses (Jones 1964(2), 651; 1964(3), 365-366, table VII).


(*56) Jones 1964(2), 662-663; Maspero 1912a, 56-57.
III.2. Notes.


(*58) *Cod. Iust.*, I, 31, 4; 46, 4; XI, 60, 3. On the limitanei in the sixth century, see Jones 1964(2), 661-663.

(*59) *Cod. Iust.*, I, 27, 2, 8; 13; Jones 1968, 293-294.

(*60) Cf. Ch. III.1: 119.

(*61) See Ch. II.4: 65 n.36.


(*63) See Ch. II.5: 70 seq.

(1) Jones 1964(2), 661-662; Maspero 1912a, 141.

(2) Maspero 1912a, 47-56.

(3) Maspero 1912a, 80-99; 133-148. Town garrisons could sometimes be made up of more or less than a numerus, however, and at Syene, Elephantine and Philai they appear to have been limitanei.

(4) Gaz. CB, Inscr. 43.

(5) Jones 1964(2), 634 n.57; 674 n.15b.

(6) P. Cairo, 67057; Jones 1964(2), 655; 660; Maspero 1912a, 109; 143-144.

(7) ILS, 9211.

(8) P. Cairo, 67321; P. Lond., 1663; Sb., 8026.

(9) Maspero 1912a, 50-51; 142-143. Jones, however, suggests that the regiment was raised in Africa under Justinian (1964(2), 655; 660).

(10) See note 2.

(11) Gaz. CB, Inscr. 44.

(12) Egypt: Maspero 1912a, 47 n.4; 142-144. Italy: Brown (TS) 1978, 327.

(13) Cf. Gsell, in ITALG(1), 81. A soldier named Bopidônç is mentioned as one of the bucellarii of Belisarius in Africa (Procopius, III, 16, 9).

(14) Gaz. CB, Inscr. 45.

(15) Cf. Jones 1964(2), 655; Maspero 1912a, 96 n.3.

(16) Maspero 1912a, 89. On the rôle of the African duxes in the civil administration, see Ch. II.7: 92 and III.1:119. At the end of the sixth century, the civil and military administration of Corsica was entrusted to a tribune dependent on the dux of Sardinia (see Ch. II.7: 95). This, however, is the only known example of a tribune in the African prefecture taking a direct hand in matters of civil administration. The province of Sardinia may in any case have been more Italian in this respect than African, since a number of examples of tribunes acting as governors of Italian towns are known (Jones 1964(1), 313 n.2b; (2), 760).

(17) Gaz. CB, Inscr. 4, 33.

(*18) Gaz. CB, Inscr. 52; cf. 50-51, 53-54.

(*19) Duval (N) 1971c, 431-433. Similar problems of interpretation concern the primicerii buried at Sufetula (Gaz. CB, Inscr. 50) and Theueste (Gaz. CB, Inscr. 58-59), who may have belonged to a town garrison, but could equally well have been attached to the field-army of the magister militum Africae or to the officium of the dux (see Ch. III.1: 120); primicerii are also recorded in the limitanei (Jones 1964(2), 674-675). Likewise, the optio attested at Ammaedara (Gaz. CB, Inscr. 42) could have belonged to a unit of comitatenses, limitanei, bucellarii or foederati (cf. Jones 1964(2), 673).

(*20) See Ch. III.1: n.75.

(*21) Cod. Iust., I, 27, 2, 2; Procopius, IV, 5, 6.

(*22) Instances of more than one numerus being commanded by a tribune with authority over the tribunes of the other numeri are recorded in Egypt at Arsinoe and at Antaiopolis (Maspero 1912a, 96-99).

(*23) See Gaz. AA, Ain el-Ksar (q.v.).

(*24) For the full text, see Gaz. CB, Inscr. 31.

(*25) I owe to M. J. Durliat, for example, the suggestion that the ciues were local possessores, who paid for the fort in lieu of taxation (personal communication, 26/10/76); P. A. Février suggests, on the other hand, that they were local magistrates and inhabitants, who paid for it as an act of munificence (1970, 171).

(*26) See Ch. III.5.

(*27) Jones 1964(2), 675; Stein 1933.

(*28) Maspero 1912a, 61.


(*31) It might even be possible to go further, since the Strategicon puts the size of a decarchy (δησαρχία) of infantry, commanded by a λοχαγός, at 16-18 men and also notes the use made of such units in garrisoning small fortified posts (Maurice, II, 5; IX, 3; Aussaresses 1909, 29). It should be remembered, however, that the Strategicon deals exclusively with the early seventh-

The 17 men named in the text constituted the whole garrison or only the NCOs.

It may be noted that in the first part of the text are heavily abbreviated.

Cod. Iust., I, 27, 2, 8. It is not clear whether some of the tribunes referred to in the rescript (Id., I, 27, 2, 9 seq.) would have commanded limitanei rather than comitatenses. Maspero argues, on insecure grounds, that in Egypt the regional circumscriptions of the limites would have been commanded in the sixth century by praesidui, whose functions would have been analogous to those of the praesidui of the African limites, who are listed in the Notitia Dignitatum (1912a, 100-103). The only specific reference to an officer in charge of a limes in Byzantine Egypt, however, relates to a tokephtm tov limatov commanding a limes in the Thebaid, which seems to have included the city of Philai and the two castra of Elephantine and Syene (Maspero 1912a, 101-102). The prefect whose permission the Macae had to obtain in order to be allowed into the coastal regions of Libya Pentapolis, however, is more likely to have been a praefectus gentis than a commander of limitanei, though he may of course have been both (Anastasius I, Ed., 11; cf. Maspero 1912a, 101).

(*34) Jones 1964(2), 653.
(*35) See below, pp. 155-158.
(*38) Gaz. CB, Inscr. 32.
(*39) Cagnat 1904b; Duval (N) and Frévo 1975, 448-449; 449 n.1.
(*40) At Mascula, for example, the tribune who set up the stone commemorating the construction of town walls is mentioned last of all in descending order from the emperor, Tiberius II Constantine (Gaz. CB, Inscr. 33).
(*41) A master of rhetoric or medicine is referred to at Mactaris in the sixth century (Charles-Picard 1950, 160-161), and a defensor civitatis at Ammaedara is also styled m(a)g(ister)(Duval (N) and

Prévot 1975, 155-158, no. 121-122).


(*45) AE, 1967, 554; Pévrier (PA) and Marcillet-Jaubert 1966. For
discussion of the date of this text, which may belong to the
reign of Justinian I, Justin II or Tiberius II, see also AE,
1974, 722; Pévrier (PA) 1968, 209 n.43; 1972b, 165.

(*44) Lucianus: Albertini Tablets, V, 40; VI, 27; IX, 31;
XXV, 18-19; 25. Quadrantius: Id., X, 18. Cf. Courtois,
in Courtois et al. 1952, 13 n.2; 198.

(*45) CIL, 18551; cf. Gsell 1911, 27, 138. I am most grateful to
Elizabeth Fentress for drawing this text to my attention and for
further information on the extent of the imperial domains in
the region.

(*46) See Ch. II.1: 20.


(*48) Pévrier (PA) 1966. Magistri recorded in pagi or castelli are
listed by Veyne (1958, 104). A closer parallel could perhaps
be sought in two castra founded on ecclesiastical land in Italy
in the late sixth century and mentioned in the letters of
Gregory the Great (Reg., VIII, 32 (Aug. 598); IX, 206 (July 599)).
Precisely how these castra, at Squillace (prov. Catanzano) and
Gallipoli (prov. Lecce), came to be founded and how they were
organized remains obscure, however, and as T. S. Brown points
out, 'the inhabitants were not soldiers (although there may have
been a military presence) but rustici, local country people who
sought refuge there' (1978, 328; cf. 332, no. 1-2). Neither
is there any evidence for limitanei in Italy.


(*50) Johnson (AC) and West 1949, 218-229; Jones 1964(2), 672-673;
Maspero 1912a, 109-112.

(*51) Cod. Theod., VII, 15, 1. For discussion of this text, see
Jones 1964(2), 651-653; 1968, 293-294; Matthews (JF) 1976,
170-172. The fact that veterans might also be granted lands
formerly belonging to gentiles would appear to support the idea
that Roman colonists were also able to hold lands in the region

of the limes and fossatum. As Jones stresses (l.c.), however, there is no evidence that limitanei were granted lands in the frontier regions of Africa before the Byzantine reconquest.

(*52) Occ., XXV; XXX.

(*53) On these structures, see Ch. IV.3: 267-273.

(*54) Much field-work still needs to be done to document the physical remains of the Roman frontier system in Africa and to enable its method of operation to be more fully comprehended. See, however, the recent work carried out on the Tunisian sector of the limes Tripolitanus (Trousset 1974; 1975), which advances the progress made earlier on the Libyan (Goodchild and Ward-Perkins 1949; Goodchild 1950) and Algerian (Baradez 1949; 1953) sectors of the frontier.

(*55) See Ch. III.7.

(*56) See Ch. II.6 (in particular n.46).


(*60) Gaz. AC, Burgus Speculatorius (q.v.).

(*61) Gaz. CB, Inscr. 40.

(*62) Compare, for example, Kalemerus Maurus (CIL, 2929 (Lambaesia)); Calamena (acc.) (Corippus, Ioh., VIII, 407).

(*63) CIL, 2494; cf. Baradez 1949, 236.

(*64) See Ch. II.1: 28-29.

(*65) Compare, for example, the building of a castrum at Altaua by Masuna, rex gentium Maurorum et Romanorum (Ch. II.1: 27-28).

(*1) Note, however, that Hippo Regius and Rusguniae may also have each been ducal headquarters at some time during the sixth and seventh centuries (see Ch. III.1: 126; 131).

(*2) For the list of these sites see the keys to Maps 3 and 4. Sufetula is omitted here because it had no official fortification.

(*3) The former being garrisoned by limitanei, the latter by units out-stationed from the capital.

(*4) Maspero 1912a, 90-91. On the value of Hierocles as a source, see note 16.


(*7) Hierocles, 723, 6a - 733, 5; Maspero 1912a, 26; 60; 100.

(*8) Anastasius I, Ed., 8. Maspero takes φοσσάτα to mean the same as castra or φροφριον (1912a, 20). It would seem probable that it had the same meaning as the Latin fossata (pl.); however, there is no recorded archaeological evidence for a fossatum of the African type in Libya Superior.

(*9) The only known exception in Egypt is Philai. The city of Palmyra in Syria, however, was also garrisoned by limitanei up to the reign of Justinian (Maspero 1912a, 100).


(*11) Some πόλεις, however, such as Klysma, could also be referred to as castra for topographical reasons (Maspero 1912a, 20). The significant distinction is not therefore between πόλεις and castra, but between πόλεις and settlements that did not rank as πόλεις.

(*12) Cod. Iust., I, 27, 2, 8.

(*13) Id., I, 27, 2, 13.

(*14) Id., I, 27, 2, 5; 8.


(*16) This text is based on a mid-fifth-century register, imperfectly revised up to the reign of Justinian. The number of cities

recorded in Egypt from the reign of Diocletian onwards, however, is about 99, somewhat higher than the figure derived from Hierocles (Jones 1964(2), 713; 718).

(*17) Jones 1964(2), 715-716.
(*18) See Ch. II.7: 92-93.
(*19) On the date of de Aedificiis, see Ch. I: 2-3.
(*20) See Appendices 1 and 2.
(*22) Id., VI, 7, 16-20. Other evidence for the incomplete nature of de Aedificiis is assembled by Downey (1947, 171-181).
(*23) See Appendix 1.
(*24) Not the same eighteen.
(*25) Of the located sites, 17 out of 24 (or 71%) have produced independent evidence for a town wall.
(*26) See Appendix 2.
(*27) Note, however, that the identification of Diana and Thabudeos with sites refered to by Procopius is not certain.
(*28) See Ch. III.3: 149.
(*29) See Appendix 3.
(*30) On the possible relationship between the sizes of forts and the sizes of their garrisons, see the second part of this section.
(*31) It should still be borne in mind, however, that most of the sources refering to cities are the same ones that refer to their fortifications. Furthermore, the 69 cities listed in Appendices 1, 3 and 4 probably represent only a fraction of the total number of cities that actually existed in sixth-century Africa (see Ch. III.8: 221-222.
(*32) See Map 6.
(*34) See Ch. III.1: 128. It is perhaps possible that Sufetula, Ammaedara and Bagai were the ducal headquarters of Byzacium, Numidia Proconsularis and Numidia respectively in the late sixth century. On the meaning of castrum in the late Roman and early medieval periods, see Rivet 1976, 134-135.
(*35) See Appendix 4.


(*57) See Ch. II.6: 75.

(*58) See Ch. III.3: 146-149.


(*40) Procopius, III, 21, 10.


(*42) Remondin 1961, 64-65; Rouillard 1924.

(*43) Dated 561 (?) and measuring externally 50 x 50 m. (Butler (HC) 1920, 40-42; ill. 38-39; Prentice 1922, 35-39, no. 906).

(*44) Dated 558 and measuring externally 80 x 80 m., with polygonal corner towers (Butler (HC) 1920, 50-52; pl. VIII; Prentice 1922, 45-48, no. 915).

(*45) Kendall 1962, 31-32; Kraemer 1958, 16; 19-20. See also n. 51.

(*46) For example, Ain el-Ksar: see above Ch. III.3: 149-155.

(*47) See above pp. 159-166.

(*48) A legionary fortress, for example, would cover an area of 20-24 ha. (Webster 1969, 182). Richmond gives the following figures for the areas of forts for cohorts and alae in Roman Britain (Collingwood and Richmond 1969, 25-26):

- Cohors quingenaria: 480 men, 1.49 ha. or more
- Cohors quingenaria equitata: 480+ men, 1.52 ha.
- Cohors millenaria: 800 men
- Cohors millenaria equitata: 800+ men, 2.23 ha.
- Ala quingenaria: 512 men
- Ala millenaria: 768 men, 3.77 ha.

(*49) These problems are discussed by Richmond (1955) and, more recently, by Breeze and Dobson (1974).

(*50) Cf. Aussaresses 1909, 19-45; Maspero 1912a, 70 n. 3.

(*51) The evidence is collected by Maspero (1912a, 115-117). The numerus of limitanei at Nessana comprised 20 decarchies of 8-10 men (Kraemer 1958, 21).


(*55) Even where the plans of barrack buildings are published (see Notes 42 and 43), their internal layouts are often far from clear.

(*54) Belkhodja 1960, fig. A; Romanelli 1970, pl. 3540; von Petrikovits 1976, fig. 5, 2.

(55) The unenviable task of compiling a final report from the often inadequate records made by the excavators has fallen to prof. Jean Lassus (Aix-en-Provence), to whom I am greatly indebted for his help, in particular for making available to me such original documentation as exists and discussing its possible interpretations. It should be stated, however, that the views expressed here do not necessarily correspond in all respects with prof. Lassus's own, although on points of observable fact we have tried to ensure that our accounts are in complete accord.

(56) Breeze and Dobson 1974, 13, table 1; Richmond 1955.

(57) By this means, for example, the garrison of the fort at Thamugadi has been put at over 1,000 infantry (Lassus 1969, 86; 1975, 473; von Petrikovits 1976, 70-72).

(58) This was done in order to expose the plans of the earlier temples and buildings associated with the spring, which underlie the fort.

(59) The layout of those built against the walls is less regular than that of the others, because of the need to accommodate features of the wall defence, such as access to the towers on the west and the foundation piers of the staircases flanking the walls on the north and south.

(60) Webster 1969, 192-195.

(61) Idem.

(62) Von Petrikovits suggests that the ground floors of each row of contubernia would have held 80 men and then doubles this figure in order to allow for first-floor accommodation as well. He therefore makes no allowance for the storage of equipment. His figure of 15 m.² for the size of the compartments, derived from Lassus's preliminary publication (1969, 86), is also over-optimistic. More curiously, however, he only counts six rows of contubernia in the eastern part of the fort (1976, 68-72; fig. 4).

(63) This is the figure suggested by Lassus, though he assumes that there would have been six men to each floor (1975, 473).

(64) XV, 13; cf. Maspero 1912a, 70 n.3. The commanding officer was a στατάρχης.

(65) The possibility might also be considered of horses being kept outside the fort (see n.75); in such circumstances, a garrison of 600 cavalry could be envisaged.

(66) Lassus: personal communication, 7/1/78.

(67) Intended, that is to say, to hold fodder rather than water. The daily ration of barley for sixth-century cavalry horses is given in an Egyptian papyrus document as the equivalent of 1.59 kg. (P. Oxyrh., 2046; Walker 1973, 340; cf. Jones 1964(2), 629; 673).

(68) Ewart 1911. I am very grateful to Prof. Colin Wells, University of Ottawa, for discussion of the problems of interpreting barrack buildings in Roman forts and for drawing many of the references quoted in this paragraph to my attention. Reference should also be made to Prof. Wells's own paper on the subject (1977b).

(69) Richmond 1968, 82-84; pl. 30b; Walker 1973, 339-340; Wells 1977b, 660-661.


(71) Wells points out that the space of 0.91 m. between the fore and hind legs would suggest an animal of only about ten hands (1977b, 661).

(72) Breeze 1977, 454; Wells 1977b, 663.

(73) 1975, 58-60; 63-64; fig. 13-14; cf. Wells 1977b, 663.

(74) IX, 5, 2; Aussaresses 1909, 52 n.4.

(75) It could perhaps be argued that forts were built in the sixth century in such a way that they could be used by either cavalry or infantry; it would seem more probable, however, that the garrisons established by Solomon were intended to be as permanent as the stone-built forts in which they were stationed. The Diocletianic fort of Dioysias (Qaṣr-ṣ-ṭRūn) in Egypt provides an interesting parallel for the fort at Thamugadi, despite the difference in date. Its interior of 0.47 ha. contained 54 barrack compartments, each measuring about 3.57 x 4.47 m. internally, arranged around the inside of the fort's walls and in two free-standing rows of six and seven compartments each. They also had a verandah and, apparently, upper stories. The

Unit stationed at Dionysias was an ala of cavalry. Schwartz, however, interprets the barrack buildings as intended exclusively for human habitation, suggesting that horses and some of the men of the garrison lived outside the fort (1969, 1-26; plan. 2). While the stabling of horses outside the fort should also perhaps be considered at Thamugadi, it might also be worth considering the possibility that horses were stabled on the ground floors at Dionysias. Three or four horses could have been housed in each compartment, allowing 3.57 x 1.49 m. or 3.57 x 1.12 m. respectively to each horse, thereby allowing the size of the garrison stationed inside the fort to be estimated at between 162 and 216 cavalry.

(*)76 See Ch. IV, 3: 271-272.

(*)77 For example, the Nabatean-period stables at Mampsis in the Negev (Negev 1967, 79-80; fig. 1; 1971, photo p. 168). Other examples are listed by Christern 1976, 241 n.50.

(*)78 Christern 1976, 90-93. Christern also draws the parallel of the sixth-century fort at Thamugadi (1976, 243).

(*)79 Christern's thesis that the so-called "maisons à auges", many of which appear to be broadly contemporary with the stables at Theueste, were also xenodochia (1976, 231-244) is strengthened by consideration of the evidence for the space allotted to horses in Roman military stables. The alternative explanations proposed for these buildings, however, are rehearsed by N. and Y. Duval (1972).

(*)80 XV, 13; cf. Maspero 1912a, 70 n.3. The seventy mounted Huns recorded at ad Centenarium in 535 might perhaps have represented two such units. At another point, however, Procopius refers to a group of twenty-two bucellarii (III, 23, 5; IV, 13, 2).

(*)81 Some calculations of this type are attempted by Petrikovits (1976, 72).

(*)82 See Appendix 5. The dividing line between 'forts' and 'town walls' cannot be drawn with any degree of certainty; and although elsewhere (Ch. IV, 3: 278) I have suggested an arbitrary figure of 1.75 ha., it may be noted that even this is well below

the size of a fort built for a first- or second-century military cohort (see n.47).

(•83) I am grateful to Drs. A. Fabian and J. E. Pringle for carrying out the statistical tests upon which this statement is based.
III.5. Notes.

(*) Jones 1964(1), 461-462; 462 n.125.

(*) Dig., I, 8, 9 (Ulpianus); cf. Justin II, Nou., V, 2 (a.569).
This was by virtue of the fact that town walls and gates were legally defined as res sanctae; on the theory and practice of this legal definition in the late Roman period, however, see Seston 1966. On the building of town walls by cities, see Cod. Theod., XV, 1, 34 (= Cod. Iust., VIII, 11, 12); XV, 1, 49 (= Cod. Iust., X, 49, 1); Jones 1964(2), 736-737.

(*) Cod. Iust., I, 27, 2, 14-15. On the financial returns submitted by the duces and magister militum, see Jones 1964(1), 451. The office of the praetorian prefect that dealt with building works was the scrinium operum (Cod. Iust., I, 27, 1, 36).

(*) Gaz. CB, Inscr. 4-28.

(*) Gaz. CB, Inscr. 29, 32-33 (see also Ch.III.3:152).

(*) Gaz. CB, Inscr. 36.

(*) Gaz. CB, Inscr. 4.

(*) Gaz. CB, Inscr. 33.

(*) See Ch. II.3 and Gaz. CB.

(*) Jones 1964(2), 737.

(*) IV, 20, 25-29.

(*) See Ch. II.3: 54 n.43.

(*) Gaz. CB, Inscr. 1.

(*) Gaz. CB, Inscr. 15, 19. In the province of Cappadocia I, Justinian combined the office of comes domorum with that of provincial governor (Nou., XXX, 6 (a.536)); it seems unlikely, however, that count Paul would have been a provincial governor, since Vaga and Calama lay in different provinces. The Notitia Lignitatum lists the rationalis rei privatae fundorum domus divinae per Africam under the comes rerum privatarum (Occ., XII, 16; cf. 11). On the administration of the res privatae in the later Roman empire, see Jones 1964(1), 412-427.

(*) See Ch. III.3: 153-155.

(*) IGLS, 1809.

(*) Diehl 1896, 223-225.

(*) Février (IA) 1970, 171.
III.5. Notes.

(*19) See Ch. III.8: 234-235.

(*20) See Ch. IV. 3:271-273. Many of the villas represented on late Roman African mosaics have the appearance of fortified buildings, and the physical remains of such structures have often been mistaken for Byzantine forts. Two prime examples of the latter include praedia Rufi Volusiani (Hr. el-Tersass) (Atlas Tun. 50, Teboursouk, 68; Cagnat 1888a, 96; Carton 1895, 110-111; 1904, 138-139; Diehl 1896, 1896, 275) and Ksar Djema el-Djir (Atlas Tun. 50, Grombalia, 53; Carton 1900, 15-17; plan; Diehl 1896, 270-271; Guérin 1862(2), 202; Renault 1910, 9-10; pl. p. 12).

(*21) This seems likely to be the case, for example, for two castra founded on church lands in the late sixth century at Squillace (prov. Catanzano) and Gallipoli (prov. Lecce) in Italy, and inhabited by rustici (Gregory I, Reg., VIII, 32 (Aug. 598); IX, 206 (July 599); cf. Brown (TS) 1978, 328; 332, no. 1-2).

(*22) Gaz. AA, Masticana (q.v.); Gaz. CB, Inscr. 39. The name Masticana probably derives from that of an estate.

(*23) 1896, 224 n.3.


(*26) The building of this fort may be compared with the examples of provincial church-building discussed by Mango (1974, 26-27).


(*28) IGLS, 1789.

(*29) IGLS, 1726.

(*30) IGLS, 2507.


(*33) IGLS, 270.

(*34) Remondot 1961, 64; Rouillard 1924.

(*35) See Ch. III.3: 155 n.50.

(*36) Another example of the state providing a bishop with funds for the construction of a castrum is to be found in the letters of Gregory the Great, where the bishop of Castrum Misenate (Misen, prov. Napoli) is said to have pocketed the money that he received
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for this purpose (Reg., IX, 121 (Feb.-Apr. 599); cf. Brown (TS) 1978, 328-329; 332, no. 4).

(*57) Prentice 1922, 45-48, no. 915; IGLS, 1682; cf. Prentice 1922, 48-49, no. 918. Thomas may also perhaps be identified with the περιοδεύτης referred to in note 29.

(*58) Butler (HC) 1920, 50-52; pl. VIII.

(*59) IGLS, 1630-1631.

(*60) Gaz. CB, Inscr. 41. Compare, however, CIL(5), 5418; ILCV, 799.

(*61) Gaz. CB, Inscr. 36.

(*62) Gaz. AA, Limisa (q.v.).

(*63) The verb aedificauertunt need not be taken with strict literalness to mean that the brothers were physically engaged in building the tower. Two men described as stone-masons are, however, recorded as building a tower in 543 at Halban in Syria; it seems hardly likely that these two could have been any other than the master masons (Prentice 1922, 27, no. 871; cf. Butler (HC) 1920, 18).


(*65) IGLS, 2828. This recalls the arrangements made under Aurelius at Adraha in Arabia, in which each δεξαμενή of the town appears to have been responsible for the upkeep and defence of a sector of the town walls (Pflaum 1952, 317-318). The building of town walls in Illyricum in 407 and in the years immediately following was funded by special levies, the burden of which was shared out amongst the landowners of the province on the basis of their tax assessments (Cod. Theod., XI, 17, 4; XV, 1, 49; cf. Cod. Iust., X, 49, 1).

(*66) Reg. IX, 11 (Oct. 598); 195 (July 599).

(*67) Jones 1964(1), 462.


(*69) Gaz. CB, Inscr. 31.

(*70) See Ch. III.3: 149-150.

(*71) Procopius, III, 16, 9-11; de Aed., VI, 6, 2-5.

(*72) The evidence that Liehl cites for the local inhabitants of Mauritania (Sitifensis) building fortifications on their own initia-
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tive after the third century (1896, 224) relates in fact to the official policy of founding castella on imperial estates. The fourth- and early fifth-century fortifications built in Mauritania Tingitania are also almost certainly official works (cf. Salama 1954; 1966, 1305).

(*55) Some of the ones more likely to date from the Byzantine period are described in Gazetteer B.

(*54) As suggested above, Diehl's distinction, together with the examples that he cites in support of it, do not give a coherent picture (1896, 223-225).

(*1) Diehl's views on the defensive system of Byzantine Africa have been largely followed by Gsell (1901(2), 344-349), Caudel (1900, 5-14) and Romanelli (1935, 133-140; 1970, 399-400), and have been applied to Byzantine Egypt by Maspero (1912a, 18-19).

(*2) Diehl 1896, 139-141.

(*3) Diehl dismissed the idea that Byzantine military occupation had extended south of the Aurès and Nementch mountains; see, however, Ch. III.7: 207-215.


(*6) Diehl 1896, 144-145.

(*7) See Ch. III.5.

(*8) Baradez 1949, 361. The list of Roman town walls in Africa prepared by P. M. Duval (1946, 18 n.2) is unfortunately in need of considerable revision.

(*9) See note 35 and Ch. III.8: 228-229. On public granaries in pre-Vandal Africa, see Allais 1933.


(*11) See Appendix 5.

(*12) Diehl 1896, 143-144. On clausurae, see Ch. IV.3: n.4.


(*16) Even in the late nineteenth century, the spacing of forts forming part of defensive lines was related to the range of the artillery of the day, so that each fort could cover the approaches to the one next to it and so that there should be no dead ground between them. In the system of forts built around Portsmouth in the 1860s, for example, the maximum distance between any two forts was 3 km., while the maximum range for effective bombardment was estimated at the time to be 7.32 km. (8,000 yards) (Saunders 1966, 152; fig. 1, 4). It is not unlikely that Diehl was influenced by some of the military thinking current at the time in which he was working. An extreme example of the direct transposition of late nineteenth-century military concepts onto

(supposedly) sixth-century archaeological data, however, may be found in a paper written by two French Army officers in 1897; in this they attempt to explain the 'Byzantine' defensive system of the Oued Siliana valley in terms of flanking fields of fire obtainable from strategically sited blockhouses, forgetting that the Byzantines had no rifles (Hilaire and Vellard 1897).

(*17) Arguments that the castles of Frankish Syria either could or were intended to 'guard frontiers', 'command valleys' or 'close routes' have been admirably demolished by Smail, who argues instead that the principal function of fortified places was to reinforce Frankish dominion over the areas in which they were built (1956, 204-215).


(*19) Diehl 1896, 223.


(*21) Diehl 1896, 168. As Gsell points out in his review of Diehl's book, 'une bonne armée mobile, toujours prêt à l'offensive eût été encore plus efficace que tous ces remparts, entre lesquels les envahisseurs pouvaient passer sans trop peine pour ravager les campagnes' (1898c, 86-87).

(*22) See Ch. II.1: 27-30.

(*23) See Ch. II.1: 27.

(*24) Cod. Iust., I, 27, 2, 4: ... usque ad illos fines provincias Africanas extendere, ubi ante invasionem Vandalorum et Maurorum res publica Romana fines habuerat et ubi custodes antiqui servabant, sicut ex clusuris et burgis ostenditur. See also Ch. III.1: 115.

(*25) For these references, see Ch. III.4: 161.

(*26) Cod. Iust., I, 27, 2, 1.

(*27) Id., I, 27, 2, 17.

(*28) Cf. Maspero 1912a, 18. On the meanings of limes at different periods, see Cagnat 1904a; Collingwood and Richmond 1969, 71-72;

Fabricius 1927; Piganiol 1962. The word ducatus is used by Gregory the Great of Sardinia (Reg., I, 47 (June 591)); the more usual words for denoting the circumscription of a dux, however, were limes or provincia.

(29) There was an important difference, however, between the forts garrisoned by limitanei and those garrisoned by comitatenses; but whether there was also a significant geographical distinction between areas garrisoned by one or the other type of troops cannot be determined in the present state of knowledge (see Ch. III.4: 158-166).

(30) Cod. Just., I, 27, 2, 8.

(31) It is only when disturbances required the intervention of the forces of the magister militum Africae that they are ever likely to have been recorded in contemporary sources. On the dispersal of provincial forces to their various garrison posts after a campaign, see Ch. II.6:77-78. Musters of troops from the castra surrounding Rome and Ravenna under their duces in the seventh and eighth centuries are listed by T. S. Brown (1978, 327).

(32) See Ch. II.5: 72-73.

(35) The fact that forts were also placed on the sites of former Roman towns on account of their ready supplies of building materials (see Ch. IV. 2:253) might perhaps be taken as an argument against this view. In the present state of archaeological research, however, the condition of urban life in African cities in the sixth century remains largely a matter for conjecture (see Ch. III.8).

(34) See Ch. III.1: 119. Troops were also used for enforcing Justinian's religious policy (Diehl 1896, 434-449; Markus 1966, 143-144).

(35) The argument advanced by van Berchem that the siting of Roman garrisons in Egypt was determined by the need to protect the depots of the annona militaris runs the risk of becoming circular, quite apart from its other shortcomings exposed by Price (1976, 146-151). By the sixth century, however, annonae and capita were commuted for money payments. Transport and storage costs

were thus reduced and garrisons were able to purchase their own foodstuffs directly from the local producers. Alternatively, the governor of a province was empowered to order the inhabitants of certain villages to provide for a garrison's requirements, and the quantity of corn and fodder rendered in this way was subsequently off-set against tax (Jones 1964(2), 670-674).

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(*1) The references given in brackets after place-names in this chapter are to Maps 3-6; for example, M3,1 stands for Map 3, site 1.

(*2) On the function of arms-depots, see Jones 1964(2), 671.

(*5) Six out of the ten fortifications datable to after the reign of Justinian are situated either in Carthago Proconsularis or in the adjacent parts of Byzacium.

(*4) See Ch. II.7. A great many other less securely datable fortifications, however, have been recorded in this area (see Map 5), which, if they were to be investigated more thoroughly might substantially alter the distribution-pattern of known sixth-century fortifications in the province.


(*6) On the suggestion that Kairouan may have been the site of a Byzantine fort before the foundation of the armed stronghold (qaIrawan) by Uqba ibn Nafi in 670, see Aboul-Wahab 1940; Despois 1930; Monceaux 1903, 244-245, no. 84; Solignac 1952, 10-14; Tissot 1888(2), 607-610; cf. Diehl 1894.

(*7) On these and the other campaigns referred to in this section, see Ch. II.

(*8) de Aed., VI, 6, 17-18.


(*10) 1955, 346; cf. Despois 1955, 127. See also Ch. II.1: 29-30.

(*11) See Ch. II.1: n.81.

(*12) See Ch. III.1: 124.

(*15) It has been suggested that this was a fortified monastery; if this were true, however, it could still have housed a garrison (see Gaz. AB, Ksar Graouch (q.v.)).


(*15) 1940, 417 n.7. See also Ch. II.7: n76.

(*16) 1908b, 234-236.


(*18) Monceaux argues for a Byzantine date thus: 'D'apres la forme des lettres, comme d'apres la presence de la croix pattee, le monument date du temps de l'occupation byzantine' (1908b, 234-236).
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(*19) Ch. II.1: 25. See also Audollent 1942, 205-207.

(*20) Maier 1973, 230. Latin-speaking communities existed in the towns of al-qastilîya as late as the ninth century (al-Ya qûbî, 212; Marçais (G) 1941, 48).

(*21) In Tripolitania, for example: see below.

(*22) On the military administration and geographical extent of Tripolitania in the sixth century, see Ch. III.1:128-129. On the military occupation, see also Diehl 1896,228-232; Goodchild 1966.

(*23) Procopius, IV, 21, 5. See Ch. II.4: 64.

(*24) See Ch. II.6:79-80 (in particular n.46). The occupation of Lebda and Sabrata by the Moors prior to the Arab conquest is recorded by Ibn c Abûd al-Hakam (35-37; cf. Oates 1953, 113).


(*28) See Ch. II.7: n.23.

(*29) On the military administration and geographical extent of Numidia in the sixth century, see Ch. III.1:123-126. For Mauritania Sitifensis, see Ch. III.1: 130. The breakdown of the numbers of fortified sites in each region of Numidia is as follows (N = Numidia proper; NF = Numidia Proconsularis; MS = Mauritania Sitifensis):

<table>
<thead>
<tr>
<th>Region</th>
<th>N</th>
<th>NF</th>
<th>MS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justinianic</td>
<td>13</td>
<td>10</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Undated</td>
<td>4</td>
<td>8</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Post-Justinianic</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
</tbody>
</table>

Note, however, that Zabi in Mauritania Sitifensis may have been abandoned militarily by 553/555.

(*50) On the Moorish settlement of this region, see Courtois 1955, 113-126. For a geographical description, see Naval Intelligence
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Division 1943(1), 52-63. The sharp contrast that Courtois saw between the Romanized plains and the barbarous mountains has been blunted somewhat by recent survey work in Mauritania Sitifensis, which has produced evidence for extensive Roman penetration of the mountains (Leveau 1975).

(*51) de Aed. VI, 7, 2-8.

(*52) There is an obvious need for archaeological survey in Numidia to determine the extent of native and Roman settlement in late antiquity.

(*53) Despite a suggestion by Procopius that fortifications may have been built inside the massif (IV, 20, 22), no trace of any has yet been found there.

(*54) Baradez 1953, 9.

(*55) There is no evidence for Byzantine fortification at Thagaste. See, however, Ch. III.8:

(*56) III, 19, 32; cf. IV, 15, 44.

(*57) The cursus publicus had continued to function in Africa under the Vandals (Procopius, III, 16, 12). The courier Michael, who is attested at Thabraca, would seem more likely to have belonged to this service than to the bastagae of the sacrae largitiones or of the res privata, the organization of both of which is in any case obscure. Justinian drastically reduced the scope of the cursus publicus in the eastern provinces; Procopius states that, except along the road leading to the Persian frontier, the number of posts was reduced to one for each day's journey (Hist. Arc., XXX, 1-11; Jones 1964(2), 830-834).

(*58) Gaz. CA, Φώσιλα (q.v.).

(*59) See the discussion of Mauritania below.


(*41) 1896, 245-249.

(*42) The question of Byzantine military occupation south of the Aurès is also discussed by Albertini (1932, 58-59), Courtois (1955, 69; 326 n.8; 328 n.4) and Desanges (1963, 56-59; 67-68).
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(*44) Gaz. CA, Bδον (q.v.).

(*45) Corippus, Ioh., II, 144-158; Diehl 1896, 246-247.

(*46) Occ., XXV, 21-26; 28.

(*47) The identification of these entries is discussed by Baradez (1949, 136-149) and J. F. Matthews (1976, 167-168).

(*48) See Ch. III.2: 142-144.


(*50) See Ch. III.3: 155-156.

(*51) 1932, 56. It is possible, however, that the oliariu arcariu was a unit of assessment rather than a person.

(*52) See Ch. III.3: 149-155; Gaz. AA, Ain el-Ksar (q.v.).

(*53) See Ch. III.3: 157-158; Gaz. AC, Burgus Speculatorius (q.v.).

(*54) Ioh., II, 156-158.

(*55) See Ch. II.1: 27.


(*57) Diehl's assertion that the Rûm attested at Thabudeos and Tiaret were regular Byzantine troops, sent to the aid of the Moors of the Aurès and the Zab in around 680, must surely be rejected (1896, 265-266; 576). Regular troops could hardly have been spared to defend such insignificant territories while there existed so immediate a threat to Proconsularis and to Carthage itself in the Muslim stronghold of Kairouan. In the ninth century, al-Ya¿qubî mentions the existence of Rûm at Tozeur, el-Hamma, Taqiyyous and Nefta (212), as well as at Tubunae and Bagai (213-214; cf. Marçais (0) 1941, 48); these groups clearly did not represent Byzantine garrisons.

(*58) de Aed., VI, 7, 8.

(*59) See above p. 204.

(*60) The influence that existing nomadic routes exerted on the development of Roman strategy in southern Mauritia Caesariensis and Numidia is discussed by Baradez (1949, 150-162) and Salama (1977, 579-580; map 1). On nomadism and transhumance in the Maghrib in medieval and modern times, see Braudel 1972(1), 99-101; 177; fig. 7; Naval Intelligence Division 1943(1),
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216-218; fig. 49; 1945, 153; fig. 30; Despois 1964, 216-232). That the Moors against whom Solomon and John Troglitas had to content in Byzacium were nomads rather than transhumants is illustrated by the descriptions of their fighting methods, in which women, children and flocks are mentioned (see Ch. III.1: 30-31).

(*61) 1949, 163-212.
(*62) Ioh., II, 156-158; cf. al-BakrI, 152.
(*65) Many of the sites listed in this section are surrounded by extensive traces of former agricultural exploitation (cf. note 61). Little has yet been done, however, to attempt to date them or their associated settlements.

(*64) See notes 27 and 57.
(*65) In discussing the evidence for Byzantine military activity in Mauritania Caesariensis and Gaditana (or Tingitania), Diehl (1896, 260-267) made use of the list of bishops known as the Βρόνος Ἀλεξανδρίνος, which Gelzer had identified in 1893 as relating to the early seventh century at the latest. Honigman, however, in an article published posthumously (1961), has shown it to be an antiquarian compilation of the eighteenth century.

(*67) Gavault 1895, 141.
(*68) Babelon 1898; Gavault 1895, 139. However, this object may be earlier than sixth-century.
(*69) See Map 6, 669 (?); Ch. II.7: 94 n.78.
(*70) Atlas Alg., 6, 24 add.+ map (of 1844); Berbrugger 1850b, 309; Gavault 1895, 132; 136-138; pl. VI; cf. al-IdrisI, 104.
(*71) Atlas Alg., 5, 3; OIL, 9271; Courtois 1955, 381 n.119; IILCV, 1829a-b; Monceaux 1908a, no. 320.
(*75) Baradez 1952, 21; 72-78; pl. 50; Christern 1968; Lancel 1966, 19; pl. 36; Leschi 1950b, 46-51; pl. 34.
(*74) See Gaz. AA, Septem (q.v.).
(*75) The sea-routes of the Mediterranean in later antiquity and the
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early middle ages are described by Courtois (1954b, 138-140).


(*78) Such, for example, as is currently being undertaken in Carthage by the Ceramic Unit of the British Save Carthage Excavations, directed by Drs. David Peacock and Michael Fulford (cf. Peacock 1974, 272; fig. 6).

(*79) Duval (N) 1977b. One of the functions of the dromones stationed at Septem was probably to protect sea-borne traffic (Cod. Iust., I, 27, 2, 2 (a.534)). See also Ch.II.7: 89-90 & Ch.III.8:229-231.

(*80) See Ch. II.7: 89 n.27.

(*81) See Ch. II.1:28. On the inscription, see Ibn Khaldûn (1), 234; (2), 540; Cagnat 1887, 157, no. 684; CIL, 9738; 21542; Gsell 1901(2), 425-426.

(*82) See Ch. II.1: n.68.

(*85) Jodin 1972. The eight published Byzantine coins from Morocco, dating from Leo I to John I Tzimiscæs, are of doubtful historical value (Boube 1967).
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(*) de Aed., VI, 4-7.

(*) See Ch. III.4: 162.

(*) IV, 18 (cf. Diehl 1896, 387): Δέγεται δε έν Διβήθ πεντήκοντα καλ ἐκατόν ἀστη Ἰουστινιανάς ἀνασώσοντα, τὰ μὲν τέλεον τὰ δὲ κατὰ πολὺ διαρρέοντα, καὶ ἡράς τὸ μεγαλοπρεπέστερον ἀνασώσοι ταλλωπίσεως ἵπποιας, κοσμῆμα τε καὶ κατασκευές ίδιας καὶ ἐνισταίως, τειχῶν τε περιβόλων, ἑτέρας τε μεγίστας οἰκοδομίας εἰς ὃν καὶ τὸ κόλπος κοσμούτα, τὸ τοῦ θεοῦ ἱλαστεῖται, ἐπιρροής τε καὶ ἔκτατων τὸ τε χρεάν καὶ κάλλος, τῶν μὲν έκ προομιλίων ἐσαχθέντων οὖν ὄντων ταῖς κόλποι πρότερον, τῶν δὲ άδίκς πρὸς τὴν ἀρχαίαν ἐκαταστάσεως τάξιν.

(*) III, 14, 17; 15, 32-36; de Aed., VI, 6, 8-16. Cf. Gaz. AA, Caput Vada (q.v.).

(*) de Aed., VI, 6, 13-16 (transl. Dewing): μαρτύρια τοινυν διηνεκεί το τοῦ θεοῦ δάρων πιστοθμονος Ἰουστινιανός βασιλέως, φόδῃ θουλομένῳ τὰ άμπηκότα τα εξόδο γίνεται, ἐς πόλιν άκτικα μεταβιβάσαι τὸ χωρίον τοῦτο βεβολείνται, τειχεῖ μὲν ἐργανυ, τῇ δὲ άλλῃ κατασκευῇ ἐς κόλπον δρόκον ἀπογεγραμμένην εὔδαιμονος, καὶ γέγονεν έργον τὸ τοῦ βασιλέως εὐνομία. τειχός τε τὸ γάρ ἀκοπεται- ρνέναι καὶ πόλις, καὶ ἄργον τὰς ἐξαποινας άμελείται. οὐ τὸ ἄργον τῇ ἐξέπλην ἀποκατάστασιν πολιτικὴς βιοτεύσεως, ὅσι ἄργον δίαιταν ἐτί, ἀλλ' ἀστελαν διαχειριζόντες. ἐπει καὶ ἄργον ἐξαιτία διότερους, καὶ ἑτὲ τῷ σφόν ἀναγχαλών ἐξηλπισάουσι, καὶ ἄργον ἀλλήλοις συμβάλλουσι, τάλλα τε ἄκαντα ἀράσσουσιν ὥστ' ἐκ τὸ κόλπος ἐξίσωμα ἤκει.

(*) For these references, see under the individual entries in Gaz. AA. Note also that, contrary to the opinions of Tissot (1885(2), 181-182) and Diehl (1896, 169; 269; 308; cf. Salama 1951, 102), there is no evidence that Caput Vada was renamed Justinianopolis.

(*) Gaz. CB, Inscr. 25-27. Inscriptions from Zabi and Theueste also record the building of the towns from the foundations upwards (Gaz. CB, Inscr. 2; 23); the latter text came from the town walls. At Capsa, however, the inscriptions record, perhaps more accurately, only that the walls were built by Solomon (Gaz. CB, Inscr. 20-21).
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(*8) Maier 1973, 77; and passim. The bishops of Proconsularis and Byzacium in 646 numbered 111 (68 and 43 respectively); however, the lists for the councils of Numidia and Mauritania of the same year are lost, only one bishop being mentioned for each (Maier 1973, 80-84).


(*10) Charles-Picard 1959, 22; Courtois 1955, 109-112; Jones 1964(2), 715-716. It may also be noted that the number of communes (including communes mixtes and communes de plein exercice) existing in Algeria and Tunisia in 1943/45 was 445 (Naval Intelligence Division 1943(2), 11; 1945, 170).

(*11) Only 69 places are actually referred to in contemporary sources as urbic, urbs, ciuitas, oppidum or municipium: see Appx. 1, 3 and 4.

(*12) Jones 1964(2), 812-823. Jones points out that the system of assessing land in Africa by area (measured in centuriae), irrespective of its productivity, could have been particularly damaging to landlords who owned sub-standard lands (l.c., 820).

(*13) Cod. Theod., XI, 28, 13. For the references to earlier discussion of this document, see Lepelley 1967, 138-140.

(*14) Lepelley 1967. It should be borne in mind, however, that the imperial estates probably represented the better agricultural land in these provinces; further, that no information survives as to crop-yields, which could conceivably have been falling. The extent of the imperial domains in Proconsularis and Byzacium in 422 are given in the text as equal to 7,432 km.² and 7,620 km.² respectively. In 451, the agri deserti of the imperial estates in Numidia were estimated as 13,000 centuriae (6,560 km.²) (Valentinian III, Nou., XXXIV, 2; cf. Jones 1964(2), 816).

(*15) If one may assume the ratio of cultivated to uncultivated land in Numidia to have been roughly the same as those in Proconsularis and Byzacium some three decades earlier, then the total extent of the imperial domain in Numidia may be estimated at between 12,988 km.² and 16,924 km.² There are some grounds, however, for thinking that the level of desertion in Numidia may have been
somewhat higher in 451 than were those in the other two provinces in 422.


(*16) Expositio totius mundi, 61; Albertini 1930; Frend 1954, 67-68.


(*18) Addyman 1962, 64; fig. 4. For descriptions and reconstructions of Roman olive-presses, see Christofle 1930b; Oates 1953, 85-87; fig. 3. And on olive-presses of the fifth to seventh centuries in Cyrenaica, see Catani 1976.

(*19) Camps-Fabrer 1953, 18-31; maps.

(*20) It was in order to bring marginal lands into cultivation, for example, that second-century emperors granted mancian tenancies, by which tenants were able to hold newly colonized lands, in particular those supporting olives, vines or fruit trees, as perpetual leasehold. On the granting of mancian tenancies, see Camps-Fabrer 1953, 22-24; Frend 1954, 66. For evidence of the continuation of such tenancies into the late fifth century, see Saumagne, in Courtois et al. 1952, 97-142. The extent and methods of olive-cultivation in Africa in ancient and modern times are discussed in Camps-Fabrer 1953; Despois 1955, 106-110; 297-302; Haywood 1938, 45-50; Naval Intelligence Division 1943(2), 216-218; fig. 55; 1945, 295-297; fig. 59. The expansion of settlement associated with olive-cultivation in Africa is somewhat analogous to the expansion that took place in northern Syria from the first century onwards (Tchalenko 1953(1), 399-400; 406-408). However, the chronological development and the social consequences of the expansions in these two areas may not be directly comparable, and great care should therefore be taken in using the evidence derived from Syria to interpret events in Africa. For this reason, some of the views expressed by Frend (1954, 78-79) should be treated with circumspection.

(*21) Decline in some areas may still have been compensated for by expansion in others. An inscription from Vppenna, datable to between the fourth and sixth centuries, records that a pius uir named Dio had, during his eighty year life-span, planted 4,000
trees, presumably for the most part olives (IIT, 243). The importance of olives over other trees cultivated in the area south of Theueste is illustrated by the fact that the late-fifth-century Albertini Tablets mention olives 178 times, compared with 61 references to figs of various types and 7 to other trees including almonds and pistachios; vines are also mentioned, but cereals are not (Courtois, in Courtois et al. 1352, 201-202). An economy based on grain and fruit, including olives, however, is suggested by a fourth- to seventh-century prophylactic inscription, written on a lead cross and found deposited in the channel of an aqueduct at Furnos Maius in Proconsularis. This text asks that the following crops be spared the calamitous effects of a hail storm (line I, 20): corn (mises), vines (bineae), gardens (orta), fruits (poma), holm- or holly-oaks (iliceta) and olives (obiba) (Audollent 1951).

(*22) Addyman 1962, 64-65; fig. 4.
(*25) Duval (N) 1964. On the basilicas, see Duval (N) 1971d; Duval (N) and Baratte 1973, 31-59; 75-78; 99-101; 104-111. On the effects of economic diversification on settlement types in Byzantine Italy and Sicily in the sixth to eleventh centuries, see Guillou 1976. A most striking parallel to the kind of urbanism found at Sufetula in the sixth and seventh centuries is represented by Caucana, a port on the southern coast of Sicily. This settlement, occupied from at least the fourth to the seventh century, consisted of a scatter of individual houses and some churches covering some 6 ha. The houses were small and of one or two storeys, set around a central courtyard, somewhat analagous to those transformed into fortlets at Sufetula in the sixth century (Guillou 1976, 171-172; Felagatti 1966; 1976). I am also grateful to Dr. R. J. Wilson for discussing this site with me. See also Ch. II.2: 37 n.45 (on Caucana) and Ch. IV.3: 271-272 (on the fortlets at Sufetula).

(*24) This problem is commented upon by N. Duval (1964, 87-90; cf. Février (PA) 1970, 165).
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Prosperity followed by gradual urban decline seems to have occurred at another town, the municipium Thadduritanum, lying mid-way between Thuburbo Maius and Membressa (Atlas Tun. 50, Bou Arada, 45; Ferchiou 1977b). The removal of agricultural processes, in this case corn-drying, to the town centre is also recorded in Britain, at Verulamium in the early fifth century (Frere 1966, 97-98; Wacher 1974, 220-222; fig. 52).

(*) See Ch. II.1: 26-32.

(*) This process, to which encouragement was given by the victory of Islam in North Africa, is discussed by Frend (1954).

(*) The material state of Byzantine Africa is discussed by Diehl (1896, 382-407).

(*) See Ch. II.4: 63.

(*) See Ch. II.7: 87.

(*) See Ch. II.7: 89-95.

(*) The picture of Heraclius's reign as a period of prosperity is drawn by Belkhodja (1970), who ascribes it to the benefits of Maurice's reforms.

(*) See Ch. II.5: 68. Malta as well as Sicily may have received some of these fugitives (Brown (TS) 1975, 73). Known refugees to Constantinople included the priest Paul, who had retaken Hadrumentum for the emperor in 546 (Procopius, IV, 23, 29) and, at a later date, the poet Corippus (cf. Cameron 1976, 1).

(*) See Ch. II.7: 89 n.28.

(*) Metcalf 1962.

(*) The principal reason for the relative scarcity of data seems to be the lack, until recently, of an adequate system for reporting and recording hoards discovered other than in the course of archaeological excavations. The evidence from the seventh century, particularly at the time of the Arab invasion, is easier to interpret than that of the sixth century, partly because of the somewhat larger number of hoards documented but more especially because after 581/582 the Carthage mint took to dating its issues according to the indiction. Because of this, it has been found possible, for example, to date a hoard of
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268 solidi, found in 1972 in excavations at Rougga, near Thysdrus in Byzacium, very precisely to the year of the Arab incursion of 647. I am most grateful to M. R. Guéry of the Institut d'Archéologie Méditerranéenne, Aix-en-Provence, for communicating to me the draft text of his report on this hoard and for allowing me to make use of his catalogue of sixth- and seventh-century Byzantine Hoards from Tunisia (cf. Guéry, Morrison and Slim, forthcoming). In Appendix 6, with further assistance from M. Guéry, I have expanded the list so as to include hoards found elsewhere in North Africa as well as some others whose termini post quos lie inside the sixth century although before 533. Hoards of the Byzantine period found in Sardinia are discussed somewhat superficially in a paper by Rowland (1977, 95-96; fig. 14).

See Ch. II.4: 63-64 and Ch. II.7: 95-96.

For a convenient summary of the effects of the Black Death on fourteenth-century Europe, see Ziegler (P) 1970. On the problem of interpreting the references to plagues in the fifth century and the effects that they may conceivably have had on the population, and hence on the economy and society, of late Roman Britain, see the opposing arguments advanced by Wacher (1974, 414-422) and Todd (1977).

See Ch. II.4: 59.

Nou., VI (a.570).


Jones suggests that it may have been the plague of 543 (1964(3), 270 n.112).

1964(2), 803.

Theophanes, a.6100. Cf. Ch. II.8: 98. The 'sweet gifts of Bacchus ... (which) fertile Africa send(s)' (dulcia Bacchi//munera, ... // ... // ... quae fertilis Africa mittit) are also attested at the table of Justin II (Corippus, Iust., III, 87-90; transl. Cameron).
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(*46) On the administration of the annona in earlier centuries, see Cagnat 1916; Jones 1964(1), 466; (2), 697-701. On the annona in Byzantine Egypt, see Rouillard 1928, 121-148.

(*47) Teall 1959, 97 n.32.

(*48) Delattre 1925, xlix-1, no. 5; Delattre and Monceaux 1905b, 330-331, no. 3; 1908, 94-95, no. 2; 1911, 187; 1913, 316-317, no. 4; 1914, 169-170, no. 1; 1916, 367-369, no. 2; Diehl 1896, 500-502; Icard 1934; 1936; Monceaux 1903, 74, no. 13. One particular example may be noted, the seal of the chartularii who administered the annona at Carthage: — ὁ χάρτουλαρίον τοῦ σειτωνείχος (Delattre and Monceaux 1913, 250-252, no. 1).

(*49) Albertini 1932. Cf. Ch. III.7;

(*50) Hist. Franc., IV, 43; V, 5; cf. Cassiodorus, Variae, III, 7 (a.507/511); Frend 1954, 70 n.4.

(*51) Ibn ʿAbd al-Hakam, 47-49. Whether or not the figure of 2½ million dinars (estimated at between 10,625 and 11,200 kg. of gold) may be believed, the sum was apparently sufficiently large for the mint of Carthage to have ceased production for the following indictional year (Guéry, Mossion and Slim, forthcoming). Whether the export of oil and corn to Constantinople was in the hands of the state or organized entirely by individuals at the time (cf. Teall 1959, 97-98; 97 n.32; 137), the practice already common by the sixth century of commuting taxes and renders in kind for payments in gold (Hendy 1970, 138-145; Jones 1964(1), 460-461) would imply that the products needed by the capital would also have been bought from the local producer with gold. This would explain the large sums of gold coinage found in some hoards of this period (see Appx. 6; cf. Frend 1954, 73-74).

(*52) For references, see Courtois 1954b, 130; Frend 1954, 61-62.


(*54) Gregory of Tours, Hist. Franc., X, 2; Courtois 1954b, 131-135.

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records that when Amr took Tripoli in 642/643, the Arabs carried off a large quantity of fine silk brocade from the merchants there; evidently, the merchants would have been easterners (al-Baladhurī, 355).

(•56) 1954b, 134-135.


(•58) On the estates of the Roman church in the sixth century, see Jones 1964(2), 789. Gregory the Great sent a notary named Hilary to take charge of the church of Rome's possessions in Africa (Reg., I, 73-74 (Aug. 591); Diehl 1896, 509; Markus 1964, 123).

(•59) Diehl 1896, 407. For other references to St. Julian, see Monceaux 1908a, 185-186, no. 237; 192-194, no. 240-241; Leschi 1934. And for St. Isidore, see AE, 1929, 63.

(•60) Monceaux 1908a, 199-202, no. 246.

(•61) Id., 192-194, no. 240; Courtois 1952.

(•62) Monceaux 1906a, 464-465, no. 182; CIL, 12130.

(•63) Devréesse 1940, 152-154.

(•64) Diehl 1896, 543 n.1.

(•65) CIL, 9137; Monceaux 1903, 240-241, no. 75. Devréesse (1940, 155-156) cites other examples.

(•66) Onomastic studies reveal that 13% of the names on Christian epitaphs from Roman and Byzantine Carthage are of Greek derivation, compared with 21% on pagan epitaphs. Elsewhere, Greek names achieved less popularity: 9% on Christian epitaphs at Mactaris, a little over 9% at Ammaedara and hardly any at all at Kelibia, Sitifis and Altaua (Duval (N) 1977a, 451). The number of epitaphs of the Byzantine period recording people who had come from the east, however, is even smaller. Apart from the military officers' epitaphs listed in Gazetteer CB, only a handful are known: Sila, the lector George, son of Tiberius and Capria, aged 24 years (Berthier 1968); Constantina, Ulpia Constantia, born in Byzantium, daughter of Oraia, aged 7 years (CIL, p. 620, e; IlAlg(2), 1941; Monceaux 1903, 248, no. 94); Hippo Regius, Theodosius peregrinus, son of Stephen Konides from Lycia, died
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13 Dec. 587, aged 10 (?) years (AE, 1928, 35; Albertini 1929; Harrou 1953, 217 n.10); Theueste, Eulogios Anatolikos (Lancel 1956, 326-327; fig. 1); Sullectum, John, whose parents came from Apamia in Syria, died aged 9 months (CII, 11106). Some other examples, collected by Devrésse (1940, 156), are less certainly of Byzantine date; indeed, one of them, Maxima from Tripoli in Syria, who died at Tipasa in Mauritania, is more likely to date from the Vandal period (Albertini and Leschi 1932, 84-86, no. 2; Baradez 1952, 77; fig. 3).

(*67) The main features are summarized by N. Duval (1971e).

(*68) On the latter, see Carton 1895, 281-284.

(*69) Diehl 1896, 391; Duval (N) and Février (fA) 1972, 38; Saladin 1887a, 8-11; 21; 29-31; 224; fig. 11, 13-14, 35-37; 1901; Ward-Perkins 1951, 103; Ward-Percies and Goodchild 1953, 61.

The discovery of the wreck of a ship off Capo Passero in Sicily containing the complete internal fittings for a sixth-century basilica, suggests that the importation of Proconnesian marble into Africa would have been more often the result of imperial patronage than of free commerce (Agnello 1963; Krautheimer 1975, 280). The Byzantine capitals reused in the mosques of Tunisia are at present being studied by W. Harrazi of the I.N.A.A.

(*70) Excavation of marble chippings from under the pavement of the church of St. Polyeuktos, at Sarachane in Constantinople, for example, has shown that the Proconnessan marble fittings of the church built during the reign of Justin I were finished in situ (Harrison 1973, 297).

(*71) Duval (N) 1977b; Tavano 1974. A form of church-decoration which does not seem to have been influenced from outside Africa and which developed in the sixth century was that in terracotta plaques bearing relief representations of saints, religious motifs and Biblical scenes (Courtois 1952; Ferron and Pinard 1952; Truillot 1959). The stamped bricks of the lower Loire region, datable to a period between the sixth century and the Norman conquest of the area, may well have been inspired from Africa, even though in their form and iconography they appear
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to be somewhat different (Costa 1964, nos. 1-179; Truillot 1959, 232).


(*73) See Gaz. CB. On the question of the survival of Punic after the third century and on the cultural importance of Libyc or Berber, see Brown (P) 1960; Courtois 1950; Saumagne 1953.

(*74) Cod. Iust., I, 27, 1, 41-42. Corippus may himself have been a grammaticus (Cameron 1976, 1).


(*76) Vergil: epitaph from Hippo Regius of Constantina, aged 12 years (Marrou 1953, 222-230); restoration of fountain seats at Ciuitas A... (CII, 23673; Gauckler 1899a; IICV, 785; ILS, 5732a; Marrou 1968, 347). Martial: lintel of a mausoleum of the Victoriani at Henchir Zouara (Marrou 1966, 372-373; 1968, 348-351). A curious scholastic text is also used at Ksar Sbahi (Février (P) and Marcille-Jaubert 1966, 163-164).

(*77) See Brown (P) 1968.

(*78) Markus 1966, 148. One may suspect that the same conclusion should also apply to the late fifth- or early sixth-century sarcophagus from Theueste, decorated in relief with figures representing the Church of Rome, flanked by Faith and Piety (Christern 1976, 83-85; 127; 230-231; pl. 21; Gsell 1902, 29-33; pl. V.7, IX.2; Wilpert 1934).

(*79) Quoted and translated by Markus 1966, 147. On the controversy over the Three Chapters, see Levéresse 1940, 147-149; Diehl 1896, 434-449; Duchesne 1925, 156-218; Markus 1966.

(*80) Kaegi 1965, cf. Ch. II.3: 53-58. See also Duval (N) and Prévot 1975, 87-88, no. 5b.

(*81) Markus 1964. See also Duval (N) 1958a; 1958b.


(*83) Nouv., XIII (a.582). On provincial assemblies in general, see Chastagnol and Duval (N) 1974; Jones 1964, 763-766.

(*84) Corippus, Joh., praef., I; Gregory of Tours, Hist. Franc., X, 2.
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(*85) III, 16, 11; IV, 23, 23.

(*86) Ioh., VII, 484-494.

(*87) See Ch. III.3: 148.

(*88) This official, who is also referred to as m(a)g(ister)?, may have been defensor ciuitatis (Duval (N) and Prévot 1975, 155-158, no. 121-122; cf. Jones 1964(2), 726-727; 758-760).

(*89) See Ch. III.3: 153. Note also the possible reference to a curator at Diana Veteranorum (Duval (N) 1977c, 864-865).

(*90) On the decline of town councils in the sixth and seventh centuries, see Jones 1964(2), 757-763.

(*91) Duval (N) and Prévot 1975, 209-211, no. 201.

(*92) CIL, 5176; de Rossi 1876; ILAlg(1), 927.

(*93) CIL, 27959; ILAlg(1), 3669; Monceaux 1906b, 227.

(*94) CIL, 13535; Monceaux 1906b, 274-276, no. 175. A baptistery built at Thibiouca (Hr. Zouitina) by someone called Hegerit also appears to be late fifth- or sixth-century in date (Duval(N) 1972b, 57-62).

(*95) Ch. III.5.

(*96) CIL, 24039; Gauckler 1894, 232-233, no. 6; ILCV 778.

(*97) CIL, 23673; Gauckler 1894a; ILCV 785;ills. 573a; Marrou 1968, 347.

(*98) The date of this inscription seems likely to be sixth-century, although the name of the reigning emperor is uncertainly restored: in(perante) d(o) m(i)n(o)m(tro) Fl(auio) Justi(niano), or I justification, or even perhaps Ti(bertio) Fl(auio) (Ab, 1967, 554=1974, 722; Février (PA) 1968, 209, no. 43; 1972b, 169; Février (PA) and Marcillet-Jaubert 1966).

(*99) 1964, 24.

(*100) Sites at which early Arab occupation has been attested and investigated in recent excavations include: Henchir el-Faouar, in northern Tunisia (Mahjoubi 1968); Limista, the Byzantine fort (Belkhodja 1968; cf. Gaz. AA (q.v.)); the theatre at Bulla Regia (Bouloudeneine 1958); the amphitheatre at Theueste (Février (PA) 1967, 100-104; fig. 9-11; Lequemé 1967, 115-122; fig. 1-2, 4, 13; Baghli and Février (PA) 1970, 27-29,
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fig. 17); Mileu (Bagli and Février (PA) 1970, 19, fig. 9-12); Sitifis (Février (PA) Gaspary and Guéry 1970, 87-161); Carthage, Salammbô site (Hurst 1975, 32-36; pl. VIII; Roskams, in Hurst 1976, 194-196; fig. 6-8; pl. XXb, XXI). Occupation continuing at least into the seventh century has also been attested at Rusguniae (Guéry 1965, 37-40) and Tipasa in Mauritania (Baradez 1961, 92-96).

(*101) For this reason the general work by Claude on sixth-century Byzantine towns is very superficial in its treatment of Africa (1969, 253-257).

(*102) See above, p.224-225 on the Christian topography of late Roman and early medieval towns in the western Mediterranean area in general, see Février (PA) 1977, 325-327.

(*103) For these sites, see Gaz. AA (q.v.). Excavations at Caesarea, directed by Dr. T. W. Potter in 1977, have produced evidence for the abandonment of the forum after c. 530 (Fentress, in Potter, forthcoming).

(*104) See Appx. 5.


(*106) See Gaz. AA, Theueste (q.v.).

(*107) See Gaz. AA, Sabratha (q.v.).


(*109) See Gaz. B.

(*110) See Gaz. AA.

(*111) See Gaz. B.

(*112) For example, Italy (Warå-Perkins 1962), Lycia (Harrison 1977), Epirus Nea (Albania) (Karaiskaj and Lera 1974), Greece (Andrews 1953, 219-222; Carpenter and Bon 1936, 23-27; 128-131; 210-215; fig. 18-20, 151-159). Reoccupation of Iron Age hillforts is also attested in south-western Britain in the fifth to seventh centuries (Fowler 1971).

(*113) I am most grateful to Dr. James Howard-Johnson for permission to
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reproduce his translation of this passage (de Re Stragegica, X, 4-5): ὅθε ἁγνῶ τε, ὅτι πολλοὶ τὴν προσοχήν εὐθεῖαν ὄρθωντες καὶ ταῦτα διὰ παντὸς ἐστάναι νομίζοντες, ἐπειδή πόλεις μεγάλας πολεῖς ἐμελλον, οὐ μᾶλλον τῆς ἀσφαλείας ἢ τῆς εὐκρεπείας ἐφρύντων, διὰ κατὰ πεδίων ταῦτας πολλ jadxς ἀνυχοδόμον τίποις τε καὶ παραδείσους καὶ λειμᾶσθαι ἀφαίρεσεν. Ἡμεῖς δὲ τὸ ἀδελφον τῶν ἐπίσημων ὄρθωντες καὶ τὴν ἀσφαλείαν μᾶλλον τῆς εὐκρεπείας προκρίνοντες ἐκεὶ ταῦτας πολεῖς ὑπελεύθερα καὶ τείχη περιβάλειν, ἐνδα δὲ τὰ τῶν πολιορκηθέντων ἄδούνατη μηχανήματα.

(*114) See Map 3 (Calama = no. 10).

(*115) 1896, 594.

(*116) For example at Telergma, south of Constantina, between 22 January and 4 October 636 (Duval (Y) and Février (PA) 1969, 282; 300-310). Compare other examples, at Mahidjiba under Heraclius and Heraclius Constantine (Berthier 1956; 1965, 286; fig. 2; Duval (Y) and Février (PA) 1969, 287; fig. 46), at Thamugadi under Constantine III (Gaz. CB, Inscr. 57); and at Belalis Maior (Hr. el-Faouar) in Byzacium under Heraclius (Mahjoubi 1974, 313-315, no. 1; 324-326). The discovery of an inscription in North Wales dated, in all probability retrospectively, to the consulship of Justin (540), however, serves as a reminder that such texts do not necessarily imply that Byzantine political influence was still making itself felt in the places in which they were found at the dates in question (Nash-Williams 1950, 93, no. 104).

(*117) Courtois 1942, 40.
IV.1. Notes.

(*1) III, 5, 8; 15, 9; de Aed., VI, 4, 2-5.

(*2) Chapter III. 6-7.

(*3) Contrast Cyrenaica, where the continuity of occupation of some forts and gaur from the third century to the sixth and later makes it extremely difficult to detect changes in the organization of the defensive system of the area at any one period (Goodchild 1951; 1953). The same general problem faces researchers in Syria (Wheeler 1952).

(*4) Medieval changes are not usually so extensive as to alter the general character of a fort and are easily distinguished by their different masonry. A more serious problem has been the systematic destruction of some buildings for political or military reasons, or merely for their building materials. Since the establishment of French control in the mid-nineteenth century and the opening-up of North Africa's interior to agricultural and industrial development, it has been the latter of these that has given rise to the greatest concern. Byzantine fortifications which underwent extensive remodelling in the Middle Ages include Capsa and Hadrumentum; Turkish refurbishment took place at Clupea, Ammaedara and Sicca Veneria; and defences reoccupied and refortified by the French army include Calama, Theueste, Capsa and Sicca Veneria.

(*5) Dain 1950.

(*6) See Ch. I: 5-6.

(*7) Collinet 1924; Freusser 1911, 44-45; fig. 12; pl. 54-57.


(*11) For example, Bacias (Gaz. AA, q.v.), ad Turres, Burgus Spectatorius, Midili and Thabudeos (Gaz. AC, q.v.).
IV.2. Notes.

(1) Procopius, III, 15, 32-33; de Aed., VI, 6, 10. The method for laying out a marching camp is described in detail in the Strategicon of the emperor Maurice (XII, 8, 22; 9; cf. Aussareses 1909, 96-97), while a more picturesque account of soldiers in camp is given by Corippus (Ioh., II, 265-286).

(2) IV, 11, 15.
(3) IV, 13, 38.
(4) IV, 15, 13.
(5) IV, 19, 8.
(6) IV, 2, 8.
(7) IV, 15, 13; 17, 25-30.
(8) Cod. Theod., XV, 1, 36 (Arcadius and Honorius to the Comes Orientis, November 397).
(9) X, 3.
(10) 1896, 174-176.
(12) See Chapter I. Vitruvius also recommends the builders of town walls to use whatever material is available (I, 5, 8).
(13) Duval (N) 1971a. For full descriptions and bibliographical references to sites referred to in this chapter, see the relevant entries in Gazetteers AA-B.
(14) XII, 1. For the height of curtain walls, see Ch. IV. 4: 283.
(15) The units of measure employed in Byzantine buildings of the age of Justinian are discussed by Wulzinger (1932, 28-32), Underwood (1948) and Schilbach (1970, 13-16; 20-21). Naturally enough, some variation does occur. For analysis of the units of measure employed in the early fifth-century pilgrimage church at Theveste, see Christern 1976, 172-177.
(16) 1896, 253.
(17) XII, 4: Diehl 1896, 149. At Thessalonica the town wall, built by the praetorian prefect Hormisetas between 441 and 445, rested on a foundation of large marble blocks, derived from the demolished hippodrome (Vickers 1974, cf. Evans 1977). At Ancyra the lower 6-10 m. of the citadel walls, built probably by Heraclius (c. 630), were of large reused ashlar blocks, while the upper 5
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or 6 m. were of opus mixtum (de Jerphanion 1928, 148-153).

(*18) In the Saxon Shore fort at Pevensey, the sections are also about 20 m. in length (Johnson 1976, 56). The same feature occurs in the Long Wall in Thrace (Harrison 1974, 246; pl. 26b).

(*19) The separation of towers from the curtain wall is recommended by Philon of Byzantium for this reason (V, A, 62-63). The practice seems to have become common in the later Hellenistic period (McNicoll 1971, 24).

(*20) Hurst 1975, 36.

(*21) Delattre 1892, 259.


(*24) Diehl cites (1896, 146, n. 5) Procopius's reference to the fortification of Martyropolis, in Armenia, as a parallel for the walls built in Africa. In fact there is no resemblance between them at all. At Martyropolis, there already existed a town wall four feet thick and twenty feet high. Justinian therefore constructed another wall four feet thick, four feet in advance of the first, and filled the intervening space with stones and mortar; on top of this solid foundation, twelve feet thick, the wall was carried up a further twenty feet (de Aed., III, 2, 11-13). Evidently the two four-foot (1.26 m.) walls were solid enough to sustain the lateral thrust of the liquid mortar until it had dried; had the same technique been attempted with the slighter type of walls found in Africa, they would have simply burst apart.

(*25) Lassus suggests that earth was used instead of mortar at Thamugadi (1969, 78; 1975, 464); but the walls stand 15 m. high and are only 2.50 m. thick, an impossible feat unless they were bonded with mortar of some kind.

(*26) McNicoll 1971, 24-25. However, Philon of Byzantium advocates the use of metal cramps or mortar (V, A, 6): also wooden tie-beams as a precaution against stone-throwing engines (V, A, 13; Garlan 1974, 340-342).
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(*27) Procopius, de Aed., II, i, 4-10.
(*28) 1896, 176-179.
(*30) Camps-Fabrèr 1953, pl. I.
(*31) The examples are too numerous to list individually; but see Butler (HC) 1920, passim.
(*32) 1893, 426; 1896, 178.
(*33) Saladin 1892, fig. 60. See Pl. XLVIIb.
(*34) For example, the Arab structures belonging to the Arab or Andalusian settlement which overlay the fort at Tubernuc Plate LIIIb and at Henchir el-Faouar (Mahjoubi 1968, 296-297). Pilaster strips built in a kind of long-and-short work which resembles opus africanum can be seen in the north wall of Sousse.
(*35) The Punic houses excavated on the Byrsa in Carthage are built in opus africanum (Picard 1952).
(*37) Guey 1939, 196-203; fig. 6.
(*39) See Appendix AB, Ksar Graouch (q.v.).
(*40) The pioneering work of Col. Baradez (1949) was more important for drawing attention to the general scale of ignorance of Roman fortifications in the desert regions than for adding appreciably to the understanding of the Roman limes system. Baradez mentions only one other military work built of bricks, similar to those at Thabudeos, in the region; this was a tower at el-Habel (1949, 288; Atlas Alg., 38, 70).
(*41) The earliest use of opus mixtum in Asia Minor appears to be in the walls built by Claudius Gothicus at Nicaea (Iznik) between 258 and 268/9 (Schneider 1938; Schneider and Karnapp 1938, 42). The same technique was later used on the Theodosian walls of Constantinople (Krischen 1938; Weyer-Plath and Schneider 1943; Schneider 1937). From the third to the sixth centuries, opus mixtum was the normal type of masonry used for fortifications in the Balkans, for example at Këvnv (Kaninês) in Epirus Vetus
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(Procopius, de Aed., IV, 4, 3; Bace 1974), and numerous Bulgarian sites (Bošković 1970; Trifunović (ed.) 1969, passim; Hodginott 1975, 237-336).

Examples include Madara in Moesia II (Hodginott 1975, 261; pl. 162), other sites in north-eastern Bulgaria (Ovčarov 1971; 1977, 470); Cyrrhus (van Berchem 1954a, 267-268; pl. XXIV) and Sergiopolis in Syria (Kollwitz, Wirth and Karnapp 1954, 93-97; pl. 23-24; Karnapp 1968; 1970. For sites in Cyrenaica, see Goodchild 1966, 232-250; and for a discussion of the types of masonry employed in post-classical fortifications in Greece, see Andrews 1953, 221.


For example, in the town walls of Britain and Gaul built during the third and fourth centuries (Butler (RM) 1959).

Winter 1971, 69-100; Garlan 1974, 199.

The differences between the Greek and Italian types of emplecton masonry, described by Vitruvius (II, 8, 7), are discussed by Tomlinson (1961). Tomlinson's interpretation of Vitruvius's account of Greek emplecton walls is that they consist of 'a solid core of unbroken stones (i.e. not rubble) arranged in courses and set in mortar. This core is bonded to two faces of worked stones by means of headers and through-stones. As a result of the use of headers and stretchers the surface pattern of the faces (the only part of the wall visible when it was completed) resembles that of woven cloth' (Tomlinson 1961, 136). However, Vitruvius's description was based on text-book accounts rather than on first-hand observation, and in fact mortared walls of this kind are virtually unknown in Hellenistic fortification, though the use of headers and stretchers was common in dry-stone construction. Vitruvius's purpose was apparently to draw the attention of contemporary Italian builders to the structural value of building the faces of their mortared walls into the core.

Philon of Byantium recommends the width and height of walls to be 10 and 20 cubits respectively (V, A, 11-12), whereas the de Re Strategica advocates 5 and 20 cubits (XII, 1; cf. Garlan 1974, 342).
IV.2. Notes.

(*48) Winter argues (1971, 91-95) that the late acceptance of the use of mortar in fortifications in the Hellenistic world was due in part to the greater susceptibility of concrete walls to fall down, either through neglect, as a result of earthquakes or under bombardment. It is true that an earth-filled rampart, such as those used from the fifteenth century A.D. onwards as a defence against artillery, will absorb the shock of a projectile better than one in solid concrete (though the strength of the concrete is also a factor). However, whether or not the rampart falls down depends on its thickness and on the solidity of its foundations; both these factors are ignored in Winter's argument.

(*49) For example at Volubilis (Jodin 1966) and Carthage (Carton 1912, 169-171; Harden 1971, 31). The Roman Republican wall at Utica was also built with large stone blocks (Lézine 1968c, 149).

(*50) Goodchild 1966, 236; 1971, 180-181; Lauer 1963; Pedley 1967, 143-144; fig. 1, 8-16.

(*51) 1950, 35-36.

(*52) Trousset 1974, 134; 1975, 46.

(*53) Atlas Alg., 48, 27; Blanchet 1890; Diehl 1896, 246-247; Gsell 1901(2), 370 n.2; cf. scepticism expressed by Baradez 1949, 121.

(*54) Duval (FM) 1946, 96; 163; fig. 12.

(*55) Gavault 1897, 105-107.

(*56) Barrier and Benson 1906, 22-24; pl. VI; Thirion 1957, 205-209; fig. 1.


(*58) Duval (FM) 1946, 95.

(*59) Février (PA), Gaspary and Guéry 1970, 72-77; fig. 55-56.

(*60) Hurst 1975, 36-38; fig. 12. A similar type of construction seems to have been used on the wall of the fortified pilgrimage church at Theueste, of about the same date, although here the rubble fill was unmortared (Christern 1976, 90-104); the wall can perhaps be paralleled by that of another fortified church at Androna in northern Syria, which is dated to 526 (Butler (HU) 1920, 58-61; illn. 52-56).


(*62) Jenkins and Megaw 1932, 71.
Notes.

(*1) XI, 1-6.

(*2) None of the surviving military hand-books of the sixth century describes the procedure for layout out a permanent fort, although the method of constructing a marching-camp is described by Maurice (pa) (XII, 8, 22) and in the *De Re Strategica* (XXI-XXX).

(*3) Diehl's typology (1896, 186-215) may be faulted for this very reason.

(*4) Systems of linear defence must be excluded from this typology, for the time being at least, because there is yet no evidence for their being built in Byzantine Africa. In a rescript of 534, however, Justinian refers to *clusuris et burgis* and (twice) to *clusuras et fines* (Cod. Iust., I, 27, 2, 4-4a); but in all three instances the clausurae in question were existing Roman frontier works, which Justinian intended Belisarius's army to reoccupy. Although the term *clausurae* can have any one of a range of different meanings, all associated with the idea of something which encloses or is enclosed, it seems likely that rather than meaning to imply simply 'forts' (cf. *TII, clausura* (q.v.), II; Diehl 1996, 144 n.5), Justinian was referring here to the kind of linear defensive work typified by the second-century *fossata* of southern *Numidia* and *Mauritania*, of which smaller examples blocking the entrances to valleys have also been found in the Tunisian sector of the *limis Tripolitanus* (Baradez 1949; Trousset 1974, 62-64; 139-141; fig. 6, 18). Procopius also associates *κατασκευασμένοι* with fortified passes, though it is to the defile itself rather than to the fortification of it that he specifically applies the term (de *Aed.*, III, 3, 2; 7, 5; IV, 2, 17). There is, however, as already mentioned, no evidence for the construction of *fossata* or *clausurae* (in the sense of linear works) in Byzantine Africa; nor is there any for the military reoccupation of existing Roman works of this kind. Such works, however, were built elsewhere in the empire during the reign of Justinian; for example, in *Armenia* (de *Aed.*, III, 3, 1-6; Mitford 1967), *Lazica* (de *Aed.*, III, 7, 5), *Thermopylae* (de *Aed.*, IV, 3, 1-22;
Mackay 1962) and Isthmia (de Aed., IV, 2, 27-28; Bronner 1950; Jenkins and Mégaw 1932, 77-79). Reference may also be made to the Long Wall in Thrace, built by Anastasius I and refortified by Justinian (de Aed., IV, 9, 6-13; Harrison 1969; 1974), and to a tenth-century Byzantine wall built on the Lower Danubian limes (Condurachi, Barnes and Diaconu 1967).

(*5) Compare, for example, the tower-houses at Halbān, dated 543, at Serdjibleh and at Kfellūsīn, dated 492 (Butler (HO) 1920, 10, illn. 16; 230-231, illn. 232; 225, illn. 227-228). For an analysis of the functions of towers on the limes Palaestinae, see Gichon 1974B.

(*6) The word gāsur, which in the parts of North Africa where French was the colonial language is spelt ksar (pl. gsur or ksour), means in Arabic a fortification of any kind. In place-names it may even be applied to Roman buildings that never had a defensive function. In Libya, however, it has been adopted by archaeologists specifically to denote the kind of structure under discussion here (Goodchild and Ward-Perkins 1949, 90 n.31). The alternative term, centenarium, which is used by Troussot (1974, 136), seems less acceptable. Not only does this term not denote any particular form of building (the 0.70 ha. fort at Aqua Viva built under Constantine is described on its inscription as a centenarium (Leschi 1943b)), but the meaning of the word itself is not entirely clear. If, as seems likely, it meant a fort built or commanded by a centenarius, then it is doubtful whether more than a handful of the gsur of Tripolitania would qualify.

(*7) Goodchild and Ward-Perkins 1949, 88-92; Smith 1968. See Fig. 46.

(*8) Pérucaud and Gauckler 1905; Troussot 1974, 65-66; fig. 16. See Fig. 47.

(*9) Guénin 1909; Monceaux 1900b; Addyman 1962.

(*10) Geel and Graillot 1693; 1694b; Barađez 1959.

(*11) For a classic example of the value that an attentive study of masonry can have for dating, see Brogan and Smith 1957. Outside
IV.3. Notes.

Libya, the excavation neither of the tower at Liana nor of those at Sufetula can be described as 'scientific', although some attempt was made to observe changes in the stratification in the former case. More use has been made of pottery as a dating criterion, however, in recent work on the Tunisian section of the *limes Tripolitanus* (Trouset 1974).


(*15) *Atlas Alg.*, 20, 297, add.; Chabassière 1866, 120; pl. II; V, 2; XIX, 3; Diehl 1093, 365; Gsell 1093, 277-279; 1901(2), 387; 390; pl. 102; Margais (G) 1914, 143-144; photo. facing p. 122. See Plate LXVa.

(*16) Smith 1968.

(*17) Goodchild and Ward-Perkins call them *limitanei*, but see Jones 1968, 293-294.

(*18) 1949, 94.

(*19) Eg. Syria (*Butler (HO)* 1920, 21-22; iln. 20-20a); Italy and *Illyricum* (Guillou 1976).

(*20) Février (PA), Gaspary and Guéry 1970, 59-64; fig. 41-44. See Fig. 46.

(*21) Charles-Picara 1949, 518-522. See Fig. 48.

(*22) Duval(N) and Baratte 1974, 92-96; fig. 55-56; Adyman and Simpson 1966, 159-162; fig. 3; pl. 3-12. In both towers, the basements were used as store-rooms and for stables, and there is no suggestion that they were intended for occupation, as in the subterranean parts of some houses at *Bulla Regia* (Beschaouch, Hanoune and Théobert 1977, 34 *eg.*). A small tower of this kind with stables provided below ground is also to be found in Cyrenaica at Gasr el-Heneia (Goodchild 1951, 131-141; fig. 2-5; pl. I-I). In neither case at Sufetula is it certain, however, whether the stables of the earlier buildings were still in use during the fortified phase, although in the northern tower the part added in the fortified phase contained its own stable which had to be reached down a flight of stone steps.


(*24) The one exception is Gastal, whose Byzantine date, however, though probable, is as yet unproven.
Notes.


(*26) The same arrangement is to be found in the second phase of the late Roman or Byzantine fort at Gasr Beni-Gdem, in Cyrenaica (Goodchild 1953, 70-71; fig. 10; pl. VI, 3).

(*27) Garlan 1974, fig. 50.


(*29) Note, however, that although it is not strictly speaking a *quadriportium*, the Saxon Shore fort built in stone with projecting bastions at Richborough has been tentatively assigned to the reign of Probus (Johnson (JS) 1970).

(*30) Ballistae had of course been used in a defensive rôle before the third century, and this fact is reflected in the plans of some forts such as the Claudian fort at Hodd Hill (Richmond 1968, 73-74); but it was only in the fourth century that they became a general feature of town and garrison defences (Corder 1955).

(*31) At Burgh Castle, a Saxon Shore fort built probably in the third quarter of the third century, the transition of styles may be studied within the same fort; it was begun with rounded corners and internal corner-towers, but had external bastions added during the course of construction (Johnson (JS) 1975, 37-40; 98).


(*34) The fortification of *Castra Martis* is mentioned by Procopius (*de Aed.*, 6, 33).

(*35) A 0.06-ha. fort, dated by an inscription to 556/557 (Butler (HC) 1920, 102-103).

(*36) J. Petrović, in Trifunović (ed.) 1969, 95; plan p. 96. The walls enclose 0.11 ha.

(*37) A defensive structure at *Aggar*, with slightly projecting corner towers, may also be Byzantine (area 0.05 ha.).

(*38) Diehl's plan is certainly incorrect, but a more accurate one has yet to be made.

(*39) Comparison of Guérin's and Diehl's descriptions of the fortlet at *Cululius* suggests that this may also have been the case there, but excavation is needed to clarify the matter.
IV.3. Notes.

(*40) Diehl identifies such fortlets as *πυργοκάστελλα* after Procopius's description of the towers built by Justinian at Theodosiopolis (1896, 156). However, for the reasons explained below in Section 5, this description seems misleading. Procopius was referring to three-storeyed towers flanking a town wall and not to unroofed forts, themselves flanked by towers.

(*41) This is also the case in the late tenth-century castle at Paphos (Cyprus), where the entrance is also of the bent variety (Megaw 1972); and also in the late twelfth-century Crusader castle of Belvoir, where the fifth tower again houses a bent entrance (Frawar 1972, 300-307).

(*42) The Roman examples of the third and fourth centuries of forts of this type, which are presented by Goodchild (1950, fig. 5), range in size from 0.036 to around 0.72 ha. The smallest one, Mselletin in Tripolitania, is exceptional and its plan probably derived from the desire of its builders to make it look more grandiose than in fact it was.

(*43) Woolley and Lawrence 1936, 110-120; fig. 24-25; pl. XXIII, 2; XXIV, 2-3; XXV, 1).

(*44) von Petrikovits 1971, 216; fig. 19.

(*45) For example, Senlis, Périgueux and Carcassonne (Butler (RA) 1959, fig. 4).

(*46) For example, at Apollonia in Cyrenaica, where it was associated with projecting towers. This wall was refortified in the sixth and seventh centuries (Fedley 1967, 143-144; fig. 1, b-16; Goodchild 1971, 180-181).

(*47) The different types of Hellenistic wall-traces are described, with numerous examples, in Garlan 1974, 245-250; and McNicoll 1971, 27-28.

(*48) The same is true at Isthmia, where an arch of the first century was incorporated into the north-east gate of the fortress (Jenkins and Megaw 1932, 71-73; fig. 2).


(*1) Liehl 1896, 145-146.

(*2) XII, 1; cf. Liehl 1896, 146. The Byzantine cubit (πῆχυς) at the time of Justinian is estimated to have been 0.460 m., and the foot (ποδός) 0.3123 m. (Schilbach 1970, 13-16; 20-21; cf. Underwood 1948; Wylzinger 1932, 28-32).

(*3) See above, Ch. IV. 2:255-257.

(*4) Jenkins and Megaw 1932, 76.

(*5) Karnapp 1968. The measurement is to the rampart-walk.


(*7) Karnapp 1968.

(*8) Boyadžiev 1959; Hodainott 1975, 269; fig. 68.

(*9) Richmond 1930, 251-256.

(*10) de Aed., III, 5, 6-11.

(*11) de Aed., IV, 10, 13; II, 1, 16.

(*12) Philon, V, A, 17-19; Garlan 1974, 347-349; fig. 47-48; Winter 1971, 121; fig. 96-97, 118.

(*13) de Re Strategica, XII, 5.

(*14) de Re Strategica, XII, 6-7. In the case of defences erected in high positions the author of the de Re Strategica advises the creation of a vertical scarp at least three cubits high, 30 to 40 cubits in advance of the wall (XII, 8-9). An operation of this kind took place at Zenobia (Procopius, de Aed., II, 8, 22), the effects of which may still be seen today.


(*16) van Willigen 1899; Lietzmann 1929; Schneider 1937; Krischen 1938; Meyer-Plath and Schneider 1943.


(*18) 1954a, 267; 1954b, 163-164.

(*19) 1968, 97-106.


(*21) See Ch. IV. 5; 297.

(*22) Procopius, V, 14, 15; Richmond 1928, 399-340; 1930, 30; cf. de Re Strategica, XII, 3.


(*24) As, for example, at Rusafa and Isthmia (see below).

(*25) Gaz. AA, Carthago (q.v.) for references.


(*27) This information is derived from the results of the excavations carried out by Mr. Henry Hurst for the British Academy Save Carthage Committee and was kindly supplied by the supervisor of the site, Mrs. Elizabeth Fentress (see also Hurst 1976, 193).

(*28) See Gaz. AA, Sitifis (q.v.). The ditch was 5-10 m. wide and 2-3 m. deep, and was revetted on the inside by a dry-stone wall composed of reused blocks of stone. I am grateful to prof. P.-A. Février for further elucidation of the dating evidence for this ditch (communication: 14/4/77). More recently, however, prof. Février has informed me of the existence of a second ditch, skirting the north-western corner of the fort which may perhaps prove to be Byzantine (5/10/77).


(*30) V, 21, 14-19. For a commentary, see Marsden 1971, loc. cit.

(*31) Maurice, X, 3.


(*33) Richmond 1928, 400 n. 3; 1930, 39.

(*34) 1.25 m. at Theueste, compared with a little over 3.00 m. at Rome (Richmond 1930, 69).

(*35) Procopius, V, 21, 3-12; cf. Maurice, X, 3; Ammianus, XIX, 7, 6-7; Marsden 1969, 197-198. The psychological effect of onagri on the Goths at the siege of Adrianople in 376 draws attention to another tactical use of the weapon (Ammianus, XXXI, 15, 12).

(*36) Here, too, it was Belisarius who built up the parts of the wall that had fallen down.

(*37) Ammianus, XIX, 1, 7; 5, 6; 7, 4; XX, 7, 2; XXI, 15, 10-11; Marsden 1969, 197-198. Ballistae were also used against siege-engines: cf. Ammianus, XX, 7, 10; 11, 13.

(*38) Marsden suggests that the problem in the fourth century was a lack of skilled operators (1969, 174-190). Whether the situation had improved by the sixth century it is not possible to say.

(39) *ie. 400-500 yards (Marsden 1969, 91; 117-118; cf. Schilbach 1970, 42). Procopius gives the range as equivalent to two bow-shots (V, 21, 17). See note 44.


(41) This calculation is based on the assumption that the range of a ballista fired on flat terrain at an angle of 45° will be 365 m. (400 yds.) (Marsden 1969, 91), from which the initial velocity of the bolt may be calculated to be 60 m s⁻¹. Marsden states, however, that late Roman ballistae were probably more powerful than those to which these figures apply; the distances calculated should therefore be regarded as minima. The equation to determine the distance at which a bolt fired horizontally will hit the ground is

\[ d = v \times 0.45177 \times \sqrt{s} \]

where \( d \) represents distance, \( v \) represents velocity and \( s \) represents the height above ground from which the bolt is fired (the units being metres and seconds). The range of a ballista could be reduced by not winding it back fully; but this would also reduce its hitting power, which, after range, was one of its principal assets.

(42) The same problem of having to divide one's defensive armament into two parts, one to bombard the enemy at long range, the other to offer flanking fire for the curtains and bastions at the time of an attack, occupied the minds of military theorists from the fifteenth century onwards (cf. Hale 1967). Ballistae, however, were more manoeuvrable than the early types of canon and could probably have performed both functions, though not necessarily at once, since this would have depended on how many these were in each tower.

(43) The casemates in the Aurelian wall of Rome were 6-7 m. above ground level (Richmond 1928, 402; 1930, 76, fig. 12). On the third-century walls at Beauvais and Senlis, the casemates were 8 and 7 m. above ground respectively, at the same height as the rampart-walk (Johnson 1963, 213-214).

(44) The Strategicon gives a bow-shot as equal to the width of 150
cavalry (Maurice, II, 4; III, 8). A cavalry horse was estimated as 3 feet wide (id., IX, 5) and the sixth-century Byzantine foot is calculated to have been 0.3123 m. (Schilbach 1970, 13-16; 20). A bow-shot would therefore be 140.535 m. (cf. Aussaresses 1909, 52 n.4). The Σαγιττάριον or βολή τόξου, which Schilbach calculates to have been the equivalent of 328.84 m. (1970, 42), probably represented a ballista-shot, which Procopius says was equal to two bow-shots (V, 21, 17). See also note 39.

(*45) Bivar 1972; Haldon 1975, 11-30; 41-42; cf. Procopius, I, 1, 12; 18, 32; V, 27, 27-28. The stones hurled from the walls of Alexandria, which dispersed the first Muslim attack on the city, may have been fired from onagri, but more probably were thrown by slingers (John of Nikiu, CXIX, 4).

(*46) Procopius, V, 14, 15.

(*47) Richmond 1928, 403.

(*48) The out-works described by Philon of Byzantium, however, do appear to have been based on the principle of preventing the enemy from entering the zone of dead ground before the walls (V, A, 69-75; Marsden 1969, 120).

(*49) Richmond’s figures (1928, 402; 1930, fig. 14), based on an angle of depression of 27°, make mathematical nonsense, since the projection of a ballista-bolt would have been parabolic, not straight.

(*50) V, 22, 4-8.

(*51) V, 22, 21.

(*52) Karnapp 1968, fig. 14.

(*53) Jenkins and Megaw 1932, 77-79; fig. 5.

(*54) Broneer 1968, 83; fig. 1. The spacing on the fort at Isthmia was 30 - 65 m. (Jenkins and Megaw 1932, 76).

(*55) The ditch fronting the Great Wall in Thrace in the area south of Derviş Kapı is, in its silted state, 10 m. wide and nearly 3 m. deep, with a berm 27 m. wide. In one place it has a shallow V-shaped profile, in another a flat bottom, 3-4 m. wide (Harrison 1974, 246). The spacing of the towers on the wall, 120-160 m. apart, might suggest that ballistae were intended to provide flanking fire. It seems more probable, however, that the wide

spacing was due to the great length of the wall and the lack of adequate troops to defend it. It is clear from the modifications that Justinian made to the wall that it was not considered possible for the existing garrisons to hold the wall against a concerted enemy attack in their quarter, without the speedy arrival of reinforcements (Procopius, de Aed., IV, 9, 6-13).

(*56) I, 5, 4.
(*57) de Aed., II, 5, 3.
(*58) See above, Ch. IV. 3: 279.
IV.5. Notes.

(*) These two considerations justify the use of the term 'tower' rather than 'bastion' to describe them.

At Tipasa (Tifech), Tower c's top floor was 15.50 m. above ground level.

Lauffray 1951: tower 33.

As in Hellenistic fortification (cf. Garlan 1974, 351) and probably in the late Roman towers at York (Eburacum) (von Petrikovits 1971, 199; fig. 29.8).

eg. Gamzigrad (Duval (N) 1971b, fig. 8).

Baradez 1949, Fig. p. 282. See also Gaz. AC, Thabudeos (q.v.).

eg. Beauvais, Soissons (Johnson 1973, fig. 4).

See Ch. IV. 5:298. However, corner-towers of this type are found in Syria in the sixth century, for example at al-Habbat (Butler (HC) 1920, 102-103; illn. 119-120).

For example, Saldum (V. Petrović, in Trifunović (ed.) 1969, 95-96; plan), Bosman (V. Kondić, in Trigunović (ed.) 1969, 99; plan) and Hajduška Vodenica (E. Čeršek, in Trifunović (ed.) 1969, 143-144; plans).

II, 5, 8-9 (trans. Dewing): ἄλλα καὶ ἄνδρον τοῖς πύργοις ἐκαλυμμένος πεποιημένος, τριῳδότοις τε αὐτοῖς λίθων ἐκιβολαῖς τεκτηνάμουσι γεγονομένος θόλων, πυργοκάταστολον αὐτῶν ἐκάστου ἐνυαλ τε δαλετοτείχες. καστελλάων γὰρ τὰ φροντίῳ τῇ Δατίων χαλαθοί φωνῆ.

de Aed., III, 5, 11; IV, 11, 16.

1930, 355.

1896, 156-158.

1896, 156.

de Aed., IV, 9, 10-11 (transl. Dewing): ' [The Emperor] blocked up all the exits from each tower leading to those adjoining it; and he built from the ground up a single ascent inside each individual tower, which the guards there can close in case of emergency and scorn the enemy if they have penetrated inside the circuit-wall, since each tower by itself was sufficient to ensure safety for its guards'. (τὰς μὲν ἐξόδους, ἀυξηρ ἐκ πύργου ἐκάστου ἐς τοὺς αὐτοὺς ἐχωμένους ἐξάγωσιν, ἐφράξατο κάπας.
IV.5. Notes.

Harrison writes that the towers were 7-11 m. wide and projected 3.5-8 m. from the walls (1974, 246).

(*16) Karnapp 1968, fig. 13, 18-19. Karnapp’s reconstruction of wooden roofs enclosing the top floors of the towers at Rusafa is questionable, for reasons that will be apparent below.

(*17) loc. cit.

(*18) Richmond 1930, 84-86.

(*19) The use of the towers on the Theodosian wall of Constantinople was granted to the landowners through whose land the wall passed, on condition that they took in hand the upkeep of the fabric (Cod. Theod., 15, 1, 51). In 422, the ground floors were assigned as quarters for troops returning from service (Cod. Theod., 7, 8, 13; Cod. Iust., 12, 40, 7).

(*20) For example, the Aurelian wall of Rome (Richmond 1930, fig. 12-13) and, presumably, the late-fourth-century walls at Sitifis (Février (PA), Gaspary and Guéry 1970, 72-77).

(*21) The reason for providing a roof in Hellenistic fortifications was to protect the delicate parts of the catapults from the elements (McNicoll 1971, 22). Late Roman *ballistae* were placed in casemates below the level of the tower-top in fortifications of the third and fourth centuries (Richmond 1930, 76-83).

(*22) X, 3. The tactical use of *ballistae* is discussed in Section 4.


(*26) Marsden 1969, 141-143; fig. 6; diagr. I. The problem of the dead ground immediately in front of the walls can also be overcome to a certain extent by this means.

(*27) These may be defined as being cylindrical inside, and more than semi-circular in plan.


(*29) Marsden 1969, 141-147; fig. 6-9.
IV.5. Notes.


(*51) Circular corner-towers are also found at Carin Grad (Justiniana Prima) (Deroko and Racojčić 1950, 130; fig. 18), Bosman (V. Konđić, in Trifunović (ed.) 1969, 99) and Veliki Gradac (D. Vučković-Todorović, in Trifunović (ed.) 1969, 126-127). A more general use of circular towers is found on the town wall of Gamzigrad, where, however, the corner-towers were polygonal externally (Bošković 1951, 63; fig. 5-6; Luval (N) 1971b, 115-122; fig. 7-11; pl. X), and at Čezava (D. Pribaković, in Trifunović (ed.) 1969, 89).

(*52) Three of the corner-towers of the sixth-century quadriburgium at Saldum Gradac are circular (P. Petrović, in Trifunović (ed.) 1969, 95-96). Muslim ribats in North Africa often have circular corner-towers, those at Sousse and Monastir being two obvious examples (See Ch. V:322).

(*53) XLL, 2.


(*55) de Jerphanion 1928, 155-163; French and Mitchell 1973, 8c-93. The angles of the towers at Ancyra are 90° at the point and roughly 150° on the sides, though since the side walls usually converge slightly the latter angles are often a little more.


(*57) Rey 1925, 33-40. The walls have now been dated by their brick-stamps (Zheku 1972).


(*59) Mano-Zisi 1966, pl.III, fig. 7; 1968, pl. II, fig. 2. Cutwater-shaped towers also occur at Tocra (Teuchira), in Cyrenaica (Boardman 1966, 25-26; fig. 5; Goodchild 1966, 235; Vickers 172, 40-41), and at Ardea, in Italy (Boëthius and Lawrence (AW) 1962); the dating of the latter as sixth-century and Byzantine, however, is somewhat questionable.

(*40) Such towers are also found as additions to the rectangular towers on the town wall at Tripoli, but these appear to be of Muslim date (Gaz. AA, Oea (q.v.)).
IV.5. Notes.

(*41) The flanking of gates by hexagonal towers is recommended by Philon of Byzantium on account of these towers' solidity, compared to rectangular towers, and in order that the destructive effects of stone-throwing engines on the gate might be lessened (V, A, 2-6). The south gate of the Justinianic fortress at Isthmia is flanked by a pair of octagonal towers, with circular insides, but their leading edge is flat, not pointed (Jenkins and Megaw 1932, 73-74; fig. 7). They resemble more the Silviri-Kape and Edirne-Kape at Constantinople (Meyer-Plath and Schneider 1943, fig. 5).

(*42) Polygonal towers are placed at the corners of the sixth century fortresses at Rusafa (Karnapp 1968) and Gamzigrad (cf. note 31).

(*43) von Petrikovits 1971, 198-199; fig. 29.

(*44) Unless the tower, or bastion, flanking the cross-wall at Tipasa (Tifech) is cutwater in shape. Such towers occur, however, at Rusafa.


(*2) At Sergiopolis (Rusafa), for example, the gates had triple carriage-ways and were defended by massive flanking towers and barbicans (Karnapp 1970).

(*3) The postern gates in the Aurelian walls of Rome are built in the same manner (Richmond 1930, 247).

(*4) Gateways having flat arches made up of joggled voussoirs surmounted by semi-circular relieving arches may be seen in the Augustan theatre at Orange and in Diocletian's palace at Split (Porta Aurea). The antecedents for the joggled voussoirs found in early Muslim architecture are discussed by Creswell (1969(2), 538-539).

(*5) An undefended gate would obviously have made nonsense of the whole attempt at fortification; for this reason the term 'unfortified' (von Petrikovits 1971, 201) has been avoided.

(*6) Embrasures of this type became common only as the Middle Ages progressed; eg. Corfe Castle (Dorset), late-thirteenth-century embrasures in the Outer Bailey (RCHM 1970(1), fig. p. 68; pl. 87).

(*7) The same technique of recessing the trace of the walls at the position of the gateways can be seen in the late Roman enceintes of Iatrus and Abritus (Hoddinott 1975, fig. 24, 29).

(*8) In plan, the gate at Zarai may have resembled those of the late Roman Andernach type (von Petrikovits 1971, 200; fig. 30, 4).

(*9) After the twelfth century, stone machicolation would have been provided in such circumstances to enable those on the wall-top to fire down on those immediately below them and to enable them to quench any attempt to burn down the gate; but although Vegetius (IV, 4) recommends the use of openings above the gate for the latter purpose, there is little evidence for such machicolation, either in stone or in wood, in the sixth century (Toy 1955, 120; 197-198). See Ch. IV. 7: nn. 22 and 26.

(*10) Philon, V, A, 2-6; Marsden 1969, 114; see above, Ch.IV.5: 300-301.

(*11) For the Golden Gate, see Macridy Bey and Casson 1931; Krischen 1938, pl. 19-22, 42-44; Meyer-Plath and Schneider 1943, 39f.;

fig. 8-18; pl. 27-30. For an acclamation from Byzantine Africa, see Inscription 34.

(*12) See note 9.

(*13) The machicolation over the outer gate was added by the French Army in the late nineteenth century (See Gaz. AA, Thueste (q.v.).)

(*14) One that was to be developed to great effect in the later Middle Ages (cf. Deschamps 1932).


(*17) Breeze and Lobson 1976, 33-35; pl. 4.


(*20) Eg. the fourteenth-century gateways of medieval York (RCHM 1972, 41-43). A similar arrangement of an outer portcullis and an inner pair of wing-doors was used in the Augustan north and south gates at Aosta, though not in a gate-tower (Richmond, in Salway (ed.) 1969, 254).

(*21) Hoddinott 1975, 134; 158-159; fig. 24-25, 29-31. Although these and other examples in the Balkans are described by Hoddinott and other writers as propugnacula, their proportions suggest that they were in fact towers (Popa 1967, 284). Another late Roman gate-tower with two barriers (type unspecified), dating to the early fourth century, has been identified at Singara (Oates 1968, 100; fig. 9).

(*22) The moving parts of Hellenistic gateways have been studied by Winter (1971, 253-268).

(*25) Lassus argues that the slot at Thamugadi was too irregular to have taken a portcullis and suggests instead that it was intended to take the framework for some other kind of gate. It seems more likely, however, that the irregularities are the result of weathering. Procopius describes another type of gate system that Belisarius used in his defence of Rome in 536/537. These were called lupi, presumably because they resembled wolves' jaws, and consisted of wooden grilles with metal spikes fixed to each joint in the carpentry; they were leant back against the gateways,

and since the grille extended only over the upper part of the structure, access to the gate was still possible beneath it; on the approach of the enemy, however, the whole framework could be tipped forward, so as to fall on their heads and impale them on the spikes. However, such weapons do not explain the slots at Thamugadi and Ksar Belezma; at Rome they were probably used as a temporary expedient to give additional protection to gates which had not originally been planned to withstand direct assault by an organized army (Procopius, V, 21, 19-22; Richmond 1930, 248).


(*25) Fopa 1967, 278. The English Exchequer rolls record there being in store at Leeds Castle (Kent), in 1374, '8 portecolys, to which belong 20 pykes with 20 plates of iron, 14 long iron plates, and transverse iron plates, and 188 nails for re-ironing the same portecolys' (Salzman 1967, 255).

(*26) ROM 1972, 121; 156.

(*27) Aeneas Tacticus, XXXIX, 3-4; Garlan 1974, 197-198.

(*28) Vegetius, IV, 4 (transl. Creswell 1952, 111 (adapted)): sed amplius prodest, quod inuenit antiquitas, ut ante portam addatur propugnaculum, in cuius ingressu ponitur cataracta, quae anulis ferreis ac funibus pendet, ut, si hostes intrauerint, demissa eadem extinguantur inclusi. It should be noted that Vegetius gives this advice in the context of describing methods for preventing attackers burning down the main gate.

(*29) Livy, XXVII, 26, 10-12; Polybius, X, 33, 8; cf. Toy 1955, 26-27.

(*30) The floors were probably of wood at Thamugadi and Ksar Belezma.


(*32) For Hellenistic examples, see Garlan 1974, 192; 254-256; 353-355; fig. 4, 22-23, 52; Winter 1971, 234-251. Late Roman examples are given by von Petrikovits 1971, 201; fig. 30; and Johnson 1976, 122; fig. 69.


(*34) Vitruvius, I, 5, 2.

(*35) Creswell 1940, 23-29; 1958, 174-179; Tignica (q.v.).

(*56) For the shortcomings of Diehl's use of masonry as a criterion for dating, see Ch. IV. 2: 260-261.

(*57) At Thugga Terebentina, one of the gates to the fort was closed by means of a roll-stone, operating apparently within the thickness of the wall. The same type of door (diam. 2 m.; thickness 0.23 m.) was found in the kasr built by the deacon Argentius at Casae (el-Madher) and other examples have been seen in structures of uncertain date at Mehta Kerba (diam. 1.15 m.) and Oued Hameida (diam. 1.13 m. and 1.56 m.; thickness 0.16 m.), in the region south-east of Sitifis (Jacquot 1900). A somewhat analogous system, with a rectangular monolithic slab operating within the thickness of the wall, was used to close the entrance to the passage and burial chamber of the so-called Tombeau de la Chrétienne, a Mauritanian burial monument of the first century B.C. (Christofle 1951; Camps 1961, 201-205). It seems likely that roll-stones were a local development, and that the one at Thugga Terebentina belongs to a later phase of occupation.

(*58) Procopius, V, 19, 16. The walling-up of the main gate at Apollonia in Cyrenaica has also been linked with the imminent threat of Arab invasion in the seventh century (Pedley 1967, 143).

(*39) Curiously enough, the same phenomenon has been noted in Hellenistic fortifications, where the quality of the blocking masonry suggests an early date (Winter 1971, 250-251; fig. 275-277). Blocked postern gates are found in Byzantine African forts at Sitifis, Aggia, Calama, Lepcis Magna and Thamugadi.
IV.7. Notes.

(*1) Ch. III. 4: 171-177.

(*2) Duval (N) 1971a.

(*3) Fortified churches and monasteries obviously constitute a different category of building from the chapels associated with fortifications that are under discussion here, even though monasteries could often house garrisons (cf. Krautheimer 1975, 271 seq.). The only securely attested fortified monastery in Byzantine Africa is the one built by Solomon at Carthage (Gaz. AA, Carthago (q.v.)). See also, however, Gaz. AB, Ksar Graouch, Thubursicu Numidiarum (q.v.); Gaz. B, Hr. el-Ksar (q.v.).


(*5) Petrović and Zotović, in Trifunović (ed.) 1969, 105-110; fig. XXXIII-XXXIV.

(*6) Vučković-Todorović, in Trifunović (ed.) 1969, 126-127; fig. XLIV. It may also be noted that the chapel at Veliki Gradac was built, like that at Ammaedara, against the inside of the fortress walls, adjacent to one of the towers.

(*7) Cf. Richmond and McIntyre 1939, 125; Webster 1969, 189-190.

(*8) de Aed., VI, 4; 5, 9; 7, 16. Other examples are given by Krautheimer (1975, 271). Mention may also be made of the prophylactic use made of crosses and Christian monograms, sometimes on reused blocks of stone or tombstones, in the walls of official and unofficial fortifications in Africa (the same feature is also noted in the citadel walls of Ancyra; French and Mitchell 1973, 90). At Calama, an inscription makes the purpose of such crosses abundantly clear: in hoc sig[r]um vincimus inimic[os] ... (Gaz. CB, Inscr. 18); while elsewhere on the same enceinte, a postern gate was placed under the protection of the martyrs Clement and Vincentius (Gaz. CB, Inscr. 17: cf. Seston 1966, 1497-1498).


(*10) de Re Strategica, X, 1-4; Maurice, X, 4.

(*11) Procopius, IV, 1, 2.

(*12) On rations and fodder, see Johnson and West 1949, 225-229; Jones 1964(2), 671-674.
IV.7. Notes.


(*14) Maurice, X, 4. Compare this advice with Agricola's record in Britain; according to Tacitus, his forts contained a year's supply of corn for the troops (Agricola, 22; cf. Richmond and McIntyre 1939, 129-132).


(*16) 1975, 468.

(*17) One example is the incident at Methone, in which 500 men of Belisarius's expeditionary force died after eating rotten bread in a hot climate (Procopius, III, 13, 16-20).

(*18) 1975, 468.

(*19) Duval (N) and Baratte 1973, 96; cf. Ch. IV. 3:271-272. A medieval example may be seen in a late tenth- or eleventh-century tower, La Torraccia in Pietrapertusa, just south of Rome (Stiesdal 1962, 74-75).

(*20) 1896, 188.

(*21) 1911, 137-138.

(*22) A passage in the Syriac Chronicle of Joshua the Stylite (written soon after 507) has been taken as referring to the use of machicolations by the Persians defending Amida in 504; on this occasion, the Byzantine army found it difficult to fight the Persians because the latter had built 'small houses' along the walls, in which they hid themselves and in which they were able to continue fighting without being seen by their attackers (Chron., LXXII; cf. Creswell 1969(2), 542). It is possible, however, that these represented some kind of crenellation, similar perhaps to that described in the de Re Strategica in a passage which is also unfortunately imperfectly understood (XII, 3).

(*23) Richmond 1930, 94-96.


(*25) A number of examples are recorded by Butler (HC): Kfellūsīn, dated 492 (1920, 225-228; illn. 227); Serdjibleh, where there is a two-seater on the first floor (1920, 230-231; illn. 232); Kefr Hauwār (1920, 231-235); Ḥeřāḏeh, where house III, dated
IV.7. Notes.

516, has a cylindrically shaped latrine chamber on the first floor (1920, 256; illn. 269; cf. illn. 275).

(*26) This lies at Yeni Foça, near Izmir. The third floor of the tower has two corbelled features, the first a machicolation guarding the ground-floor entrance, the second a latrine, which could presumably have also served as a machicolation in certain circumstances (Weaver 1971, 255; fig. 4; pl. IIa, IIIb, IV a-b). Corbelled chambers, resembling latrines but evidently built with a purely defensive purpose in mind, are also recorded from the sixth century. At Dar Qita, in Syria, a watch-tower (dated 551) survives with a corbelled chamber set at the level of the third floor, directly above the ground-floor doorway (Butler (HC) 1920, 189-190). Other examples are listed by Creswell (1969(2), 540-542).

(*27) 1969, 83; 1975, 468-469.
V. Notes.

(*1) For example, Deschamps 1934, 43-57; Toy 1955, 57-60.

(*2) Ch. IV.1.

(*3) See Ch. III.8: n.100.


(*5) Mahjoubi 1968.

(*6) See Ch. IV.2: 261 n.34.

(*7) Lemta was the Roman Lepti Minus and the Δέττης of Procopius (III, 17, 8). Though Procopius calls it a city, there are no clear signs there of fortification, apart from the Aghlabid ribat. On this, and on other supposed Byzantine fortifications, see Boisnard 1935, 37; Carton 1905; Dienl 1896, 269; Ennabli (A) 1976, 500-501; Guérin 1862(1), 127; Hannezo, Molins and Montagnon 1897, 292; Pellissier 1853, 263, 1936a, 33; 1936b, 49; Saladin 1887, 11; Temple 1835, 131; Tissot 1888(2), 170-171; Zbiss 1954. A sixth-century coin hoard was found at Lemta in 1909 (III, Appx. 6: no. 17) (see Pl.LXXVIa).

(*8) See Gaz. AA, Iunci (q.v.).

(*9) On the masonry of the ribat of Sousse, see Lézine 1956, 26-28. There is no certain evidence for the employment of Christian masons or officials on the major buildings erected in Ifriqiya by the Aghlabids. This has been suggested, however, in one interpretation put forward to explain the reuse of a Byzantine marble panel, carved with peacocks and other birds, that forms the lintel to a window of the ninth-century great mosque at Sfax. The stone bears the Greek text:... ἐπικραξίαν καὶ σὺν αὐτῷ ἐπιφροσύνην, τὰς κοσμοδάσας τόνδε τὸν σεπτὸν σον ὅμοιον ((Grant) virtue and joy their companion who decorate this holy building that is consecrated to You) (Albertini 1926; Gauckler 1907, 339-340; Marçais (G) and Golvin 1960, 36-39). If there were people in Sfax in the ninth century who could understand the inscription, however, it is unlikely that they would have been the descendants of the Christian inhabitants of Byzantine Africa, since the post-Byzantine medieval Christian inscriptions from Kairouan and Tripolitania are, without exception, written in Latin. Possibly, therefore, the text made no more sense to
V. Notes.
ninth-century Sfaxians that the commemoration stone intended for
the Genoese cathedral in Ajaccio meant to the sixteenth-century
Tunisians who used it as the lintel for a door inside the Dijama
el-Ksar in Tunis (Delattre 1899, 450-452).

(*)10 On the ribats of North Africa, both as buildings and as institu­
tions, see Idris 1935; Marqais (G) 1925; Zbiss 1954. Only
one ribat in Ifriqiya is known to have been established within
the remains of a Byzantine fort. This was the ribat described
by al-Bakri in the eleventh century as the Bordj Abi Sulaiman,
overlooking the former harbour of Carthage; it seems fairly
certain that this was the fortified monastery built in just such
a position by Solomon in the sixth century (al-Bakri, 94; see
Gaz. AA, Carthago (q.v.)).

(*)11 Creswell 1940, 167-170; Lézine 1956; 1966a, 21-32; 66-77;
Marqais (G) 1925, 422-429; 1948; 1954, 30-31. As Lézine has
justly observed, the date of 821 provided by an inscription on
the watch-tower of the ribat should be regarded as a terminus
ante quem for the ribat itself. His argument for placing its
construction before that of the ribat of Monastir, however,
which is dated to 796, seem to be altogether less convincing
(1956, 20-21). In view of the close similarities between the
two buildings, it might seem more reasonable, pending the pro­
curement of more positive evidence, to regard them both as
broadly contemporary (see Pl. LXXVIb).

(*)12 See below, note 29.

(*)15 1952, 89-91.

(*)14 A degree of local influence is favoured by G. Marqais, who
stresses at the same time the need for more detailed study of
early Muslim fortifications in both the east and the west (1946,
65-66; 1954, 32-35). Lézine, however, categorically denies the
possibility of the ribat of Sousse having been influenced by
local Byzantine works (1956, 24).

(*)15 See Lespois 1953, fig. I, no. 2; Jacques-Leunie 1951, figs. on
pp. 86; 86; 120-130; 132; 134-135; Llabador 1944, 185-190.

(*)16 1956, 21; 23; pl. XVIIa.
V. Notes.

(17) Byzantine gate-towers with an outer portcullis and an inner wing-door are discussed in Ch. IV. 6:307-310. Despite Lézine's opinion to the contrary, there seems to be nothing more rational about placing the portcullis immediately in front of the inner wing-door (cf. 1956, 21 n. 52). This may have been a modification made possible by the replacement of the wooden ceiling above the entrance-passage by one in stone which could not be set on fire; however, it would seem very unwise to conclude with Lézine that such an arrangement is likely to have been later in date than the other. The development of the portcullis in early Muslim architecture is discussed by Creswell 1940, 05; 1952, 106-116.

(18) 1956, 12; 23; pl. IX, XXIIa.

(19) See Ch. IV.6: 309.

(20) See Gaz. AA, Hadrumetum (q.v.).

(21) Creswell 1940, 273; fig. 219; Marçais (G) 1954, 35-36. On this feature of Byzantine walls in Africa, see Ch. IV. 4: 280-281.

(22) On the ninth-century walls of Sousse, see Creswell 1940, 271-273; fig. 217-218; pl. 65-69; Lézine 1968a, 44-45; 96-105; Marçais (G) 1954, 35-36; cf. Gaz. AA, Hadrumetum (q.v.). On the sixth-century walls of Theveste, see Gaz. AA, Theveste (q.v.); cf. Ch. IV. 5. (see Pl. LXVIIa-b).

(23) Leschamps 1930, 350-351; Müller-Wiener 1966, 44-45; plan 2; Smail 1956, 237-241; fig. 6; pl. VIIa.

(24) Leschamps 1934, 43-57; Smail 1956, 230-236.

(25) See Ch. IV. 3: 276 n.41.

(26) See Ch. IV. 6: 308-309.


(28) 1940, 23-29; 1958, 174-179.

(29) Examples include AjdābIjah, Mahdiya, Raqqa'da, Ashr and wal'a of the Banū Hammād (Blake, Hutt and Whitehouse 1971, 109-111; 115-120; Chabbi 1960).


(32) See Ch. IV. 5: 291.

(33) See Ch. III. 5: 182-183; Ch. IV.7: 317.
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Note: works that it was not found possible to trace are marked with an asterisk.
A. LATIN, GREEK AND ORIENTAL (NON-ARABIC) SOURCES.

Abbreviations:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CFHB</td>
<td>Corpus Fontium Historiae Byzantinae, Berlin.</td>
</tr>
<tr>
<td>CSEL</td>
<td>Corpus Scriptorum Ecclesiasticorum Latinorum, Vienna.</td>
</tr>
<tr>
<td>CSHB</td>
<td>Corpus Scriptorum Historiae Byzantinae, Bonn.</td>
</tr>
<tr>
<td>CUF</td>
<td>Collections des Universités de France, Paris.</td>
</tr>
<tr>
<td>FGH</td>
<td>Fragmenta Historicorum Graecorum, ed. C. Muller, Paris.</td>
</tr>
<tr>
<td>MGH(AA)</td>
<td>Monumenta Germaniae Historica (Auctores Antiquissimi), Hannover.</td>
</tr>
<tr>
<td>MGH(Ep)</td>
<td>Monumenta Germaniae Historica (Epistolae in quart), Hannover.</td>
</tr>
<tr>
<td>MGH(SRG)</td>
<td>Monumenta Germaniae Historica (Scriptores Rerum Germanicarum in usum scholarum separatim editi), Hannover.</td>
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<tr>
<td>MGH(SRM)</td>
<td>Monumenta Germaniae Historica (Scriptorum Rerum Merovingicarum), Hannover.</td>
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AE = L'Année épigraphique. Revue des publications épigraphiques relatives à l'antiquité romaine. (Paris 1888-).


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*CIL* = *Corpus Inscriptionum Latinarum*, volume 8 (Berlin 1881-1955) unless otherwise stated.


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IGLS = Inscriptions grecoques et latines de la Syrie, 7 vols.  
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ILAf = Inscriptions latines d' Afrique. Tripolitaine, Tunisie, Maroc, 

ILAlg = Inscriptions latines de l' Algérie, ed. S. Gsell et al., 

ILCV = Inscriptiones latinae christianae ueteres, ed. E. Diehl, 
3 vols. (Berlin 1924-31); supplement, ed. J. Morreau and 
H. I. Marrou (Dublin 1967).

ILS = Inscriptiones latinae selectae, ed. H. Dessau, 3 vols. (Berlin 
1954-62).

ILSard = Iscrizioni latine della Sardegna, ed. G. Sotgiu, 1 (Padua 
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ILT = Inscriptions latines de la Tunisie, ed. A. Merlin (Paris 
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*P. Cairo* = J. Maspero, *Catalogue général des antiquités égyptiennes du Musée du Caire; Papyrus grecs d'époque byzantine* (Cairo 1911-16).

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F. Lond. = F. G. Kenyon and H. I. Bell, Greek Papyri in the British Museum (London 1893-1917).


Relatio motionis inter Maximum = Relatio motionis factae inter abbatem Maximum et socium eius atque principes in secretario; ed. L. Combefis, PG, 90 (Paris 1865), 109-130.
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Sb. = F. Preisigke et al., *Sammelbuch griechischer Urkunden aus Aegypten* (Berlin-Strasbourg-etc. 1913-).


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**Abbreviations:**

- AJA: American Journal of Archaeology.
- Arch. des Miss.: Archives des Missions scientifiques et littéraires (Paris).
- Arch. J. des Miss.: Archives des Missions scientifiques et littéraires (Paris).
- BAR: British Archaeological Reports (Oxford).
- Bull. Soc. d'Oran: Bulletin de la Société de Géographie et d'Archéologie de la province d'Oran (Oran).
- EZ: Byzantinische Zeitschrift (Leipzig).
- Cah. Tun.: Les Cahiers de Tunisie (Tunis).
- CCARR: Corsi di Cultura sull'Arte ravennate e bizantina (Bologna).
- EAA: Enciclopedia dell'Arte antica classica e orientale (Rome).
- FA: Fasti archeologici (Rome).
- Mém. Acad. de Metz: Mémoires de l'Académie nationale de Metz (Metz).
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Mém. Soc. Sciences de Lille: Mémoires de la Société des Sciences de Lille (Lille).

Nouv. Arch. des Miss.: Nouvelles Archives des Missions scientifiques et littéraires (Paris).


PBSR: Papers of the British School at Rome (London).


Quad. Arch. della Libia: Quaderni di Archeologia della Libia (Rome).

REK: Reallexikon zur byzantinischen Kunst, ed. K. Wersel and M. Restle (Stuttgart).

RE: Paulys Real-Encyclopädie der classischen Altertumswissenschaft (Stuttgart).


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