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On the Roman Army Camp at al-Burdân (Egypt)

An archaeological survey¹

At the small Beduin village of al-Burdân, about 4 km west of the junction where the road leading to al-Hammam leaves the modern highway to Marša Matrûh (fig. 1), the ruins of a Roman army camp are visible in a commanding position whence the whole region can easily be supervised². The camp is roughly square in shape and its remains cover the whole area from about 90 m north of the actual position of the highway as far as the summit of the southern sequence of hills, which, at a distance of about 600 m, follows almost parallel with the coast-line of the Mediterranean Sea. Unfortunately, during the last decades of this century, most of the remains of this fortress have been destroyed.

The location is well marked on the map of the Survey of Egypt (1:100 000 Sheet No. 88/42, named 'ancient wall') at about the western end of the Mallaḥât Maryût, the western arm of Lake *Mareotis*, and was briefly described by Anthony de Cosson in

¹ The permission to do this survey was kindly granted by the Permanent Committee of the Islamic Section of the Egyptian Antiquities Organization (E. A. O.) in its session of July 21st 1990, and of the Pharaonic section of the E. A. O. in its session of Oct. 15th 1990. Beside the present writer, members of the team were Chief Inspector Abd al-Aziz Shinawy (Pharaonic section of the E. A. O.), and Inspector Antar Ismail Ahmad (Islamic section); to both colleagues I wish to express my thanks for their fruitful collaboration. I also received information on the location of some important remains from H. Jaritz.

² According to R. FOURTAU, *Bull. Inst. Égyptien* 8, 1914, 99 ff. esp. 105, V; A. DE COSSON, *Mareotis*, being a short account of the history and ancient monuments of the north-western desert of Egypt and of Lake Mareotis (1935) 116; J. BALL, *Egypt in the classical geographers* (1942) 104; 131; 136, the site should be identified with the antique village (*komi*) of Chimo, mentioned by CL. PTOLEMY, *de geogr.* IV 5/8; and in the description of the Mediterranean coast by the anonymous author of the *stadiasmus maris magni* (between A.D. 250 and 300); *cf.* also the extract from the original edition of C. MÜLLER, *Geographi Graeci Minores* by Y. Kamal. *Monumenta Cartographica Africae et Aegypti* (repr. 1987) 1, 221, 5–6; however, the place of Chimo is significantly omitted by K. MILLER, *Itineraria Romana* (1916) 869 ff. (Strecke 126) who apparently did not trust this identification. Indeed the distance from *Taposiris Magna* (modern Abusîr), given in the *stadiasmus* as 7 stades (*cf.* BALL *op. cit.* 131), is much too short (the correct distance should be 108 stades), and the longitude as offered by Ptolemy for the same place (*cf.* BALL *op. cit.* 104) is from the position of al-Burdân 215 stades too far to the west. Both authors also describe the site of Chimo as a village (*komi*) while the remains at al-Burdân leave no doubt that it is a military fortress. We may thus conclude, following also the advice of K. Miller, that it is so far not possible to identify the site with any known place name.

his valuable book on the ancient monuments of the *Mareotis* region³. He mentions the walls on the southern, eastern, and western sides, including the foundations of several small projecting towers along the south wall⁴, a strong 'central keep' in the middle of the enclosure and a 'fine vaulted' cistern⁵. Today the majority of these remains have disappeared. The surrounding walls of the enclosure, which about twenty years ago were still clearly visible from the Marša Matrûh highway, are now mostly reduced to some rather insignificant heaps of earth and stones with big gaps between. The south-eastern quarter is totally gone. Of the inner arrangements witnessed by A. de Cosson, only the ordinary barracks of the soldiers as they are distributed in the upper south-western region are still extant (fig. 2; 3). The remains do not extend to the central area of the *castrum*, where under normal conditions the more official buildings are to be expected, as for example the *principia*⁶ and the *praetorium* of the camp.

The most conspicuous feature of the fortress today is the outer fortification wall although it is heavily destroyed. Clear traces are still to be seen at the south-western corner (fig. 4). As is typical for the period to which this *castrum* must be attributed (see below), the corner itself is a half-circular structure⁷ without any outward projecting tower⁸. Within the corner a rectangular inner tower or elevated platform should be conjectured, upon which, during an enemy attack, a number of soldiers, or even catapults could be stationed in a higher position⁹. Unfortunately in our case direct traces of such an inner corner tower are not in evidence. Probably it was built of a different material, perhaps wood¹⁰ or ashlar masonry, both of which might have been carried away after the abandonment of the fortress. But, on both sides of its conjectural position, two narrower inner lateral platforms of a breadth of about 1,05 m are extant, following exactly the curve of the outer wall and leaving between them an empty space of approximately 7,20 m length¹¹, which could once indeed have been occupied by the lost inner platform.

³ DE COSSON (note 2) 115 f.

⁴ Towers are, however, not in evidence and it is unclear what he meant by this.

⁵ What he understood as the "several small projecting towers" is not clear since traces of such towers were not visible to us, and they are also not the rule in Roman military *castra* of this period. The 'central keep' in the middle of the *castrum* seems to be part of the *principia* of the army unit stationed in the camp of al-Burdân; finally, that the camp also contained a cistern is quite understandable.

⁶ DE COSSON (note 2) 18 indeed describes a bigger central building in the centre of the *castrum*, labelling it "the central keep", which might well be identified as a part of the *principia* of the *castrum*; on the shape of such central buildings in Roman army *castra* see H. VON PETRIKOVITS, *Die Innenbauten römischer Legionslager der Prinzipatszeit* (1975) 68 ff. Abb. 14; further examples are collected in: S. GREGORY, *Roman military architecture on the eastern frontier* (1995) vol. 1, 139 f. fig. 6.8–9.

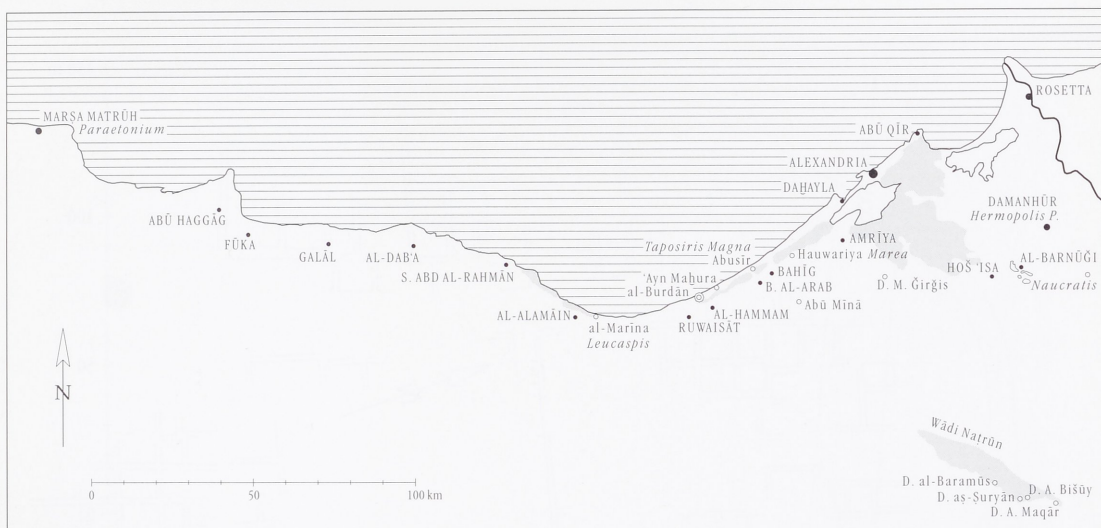
⁷ In English publications this shape is usually described by the very simplified expression "playing-card", as *pars pro toto* GREGORY (note 6) 49 ff.

⁸ See H. VON PETRIKOVITS, *Fortifications in the north-western Roman Empire from the third to the fifth centuries A.D.* *Journal Roman Stud.* 61, 1971, 178 ff., spec. 197 ff.; probably one of the last *castra* with rounded corners is the Constantinian fortress of Intercisa-Dunapentele (Hungaria) which is, however, already furnished with outside projecting towers, *ibid.* 184 fig. 21.

⁹ On the function of the corner towers see A. JOHNSON, *Römische Kastelle* (1987) 88 ff.

¹⁰ The Column of Trajan in Rome shows several representations of wooden towers, *ibid.* 88 f. Abb. 45.

¹¹ The northern margin is clearly visible in the ground, the corresponding western one is covered by a small modern building but is easily discerned.



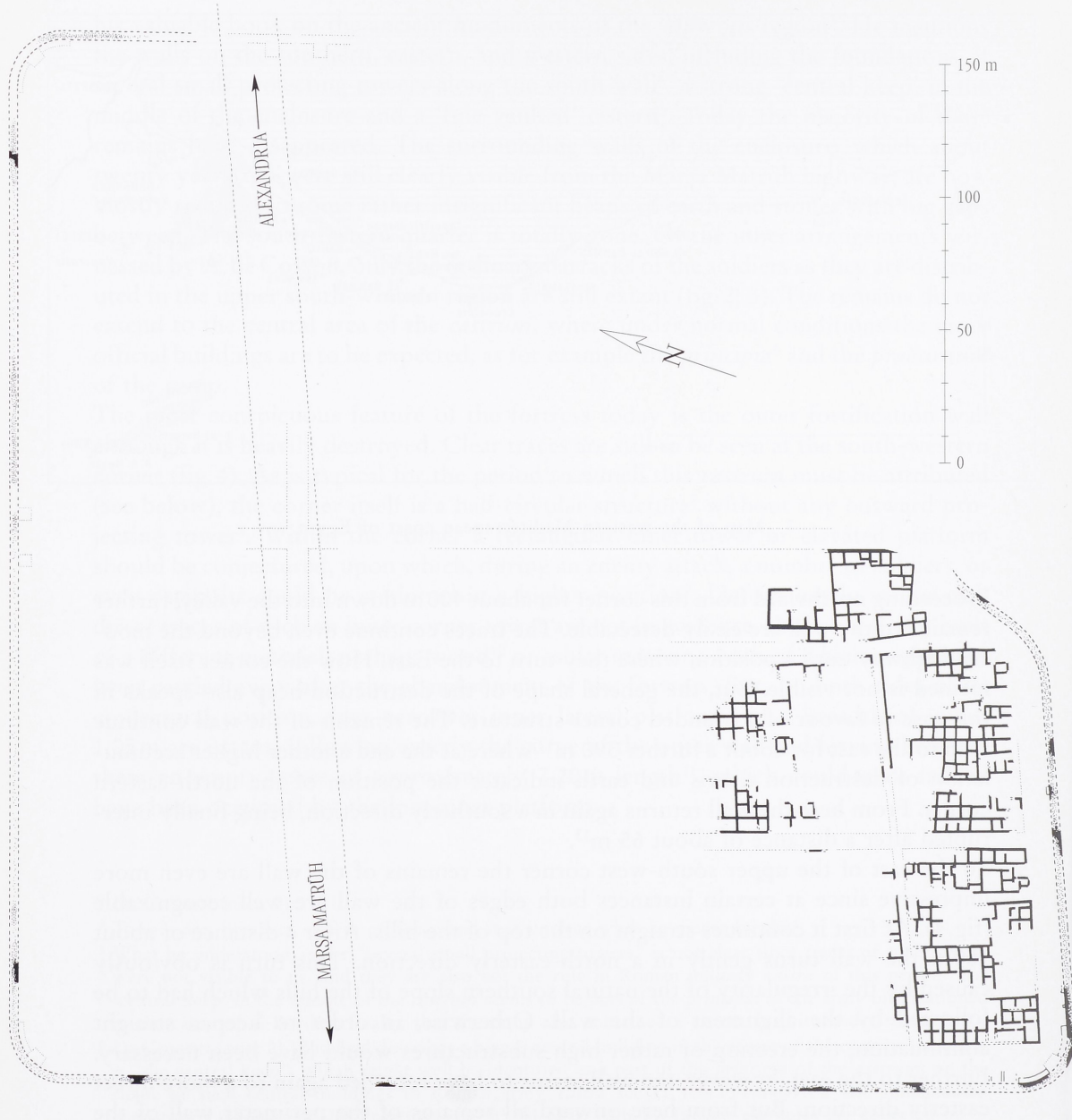
1 Map of the western Mediterranean coast of Egypt.

Proceeding northward from this corner for about 400 m down into the valley, further remains of the wall are easily detectable. The traces continue even beyond the modern highway until a position where they turn to the East. How the corner itself was formed is not visible. But, the general shape of the destruction heap also speaks in this case in favour of a rounded corner structure. The remains of the wall continue then to the east for about a further 390 m¹² where at the end another higher accumulation of destruction debris and earth indicates the position of the north-eastern corner. From here the wall returns again in a southerly direction, being finally interrupted after a distance of about 65 m¹³.

To the east of the upper south-west corner the remains of the wall are even more impressive since at certain instances both edges of the wall are well recognizable (fig. 4). At first it continues straight on the top of the hills. After a distance of about 160 m the wall turns gently in a north-easterly direction. This turn is obviously caused by the irregularity of the natural southern slope of the hills which had to be followed by the alignment of the wall. Otherwise, in order to keep a straight continuation, the erection of rather high substructures would have been necessary. Further to the east, however, the wall seems to have returned again to a more direct easterly direction. But from here onward all remains of the perimeter wall of the *castrum*, which some twenty years ago were still traceable, are completely destroyed by modern quarrying, which, with the help of sawing machines, extracts regularly sawn stones out of the rock. The position of the south-eastern corner of the camp can thus only be extrapolated from the position of the lower north-eastern corner and a theoretically straight continuation from the visible lower part of the eastern

¹² This part of the wall is interrupted only for a distance of ca. 60 m in the more easterly section by a heap of modern building debris which covers the remains of the ancient wall.

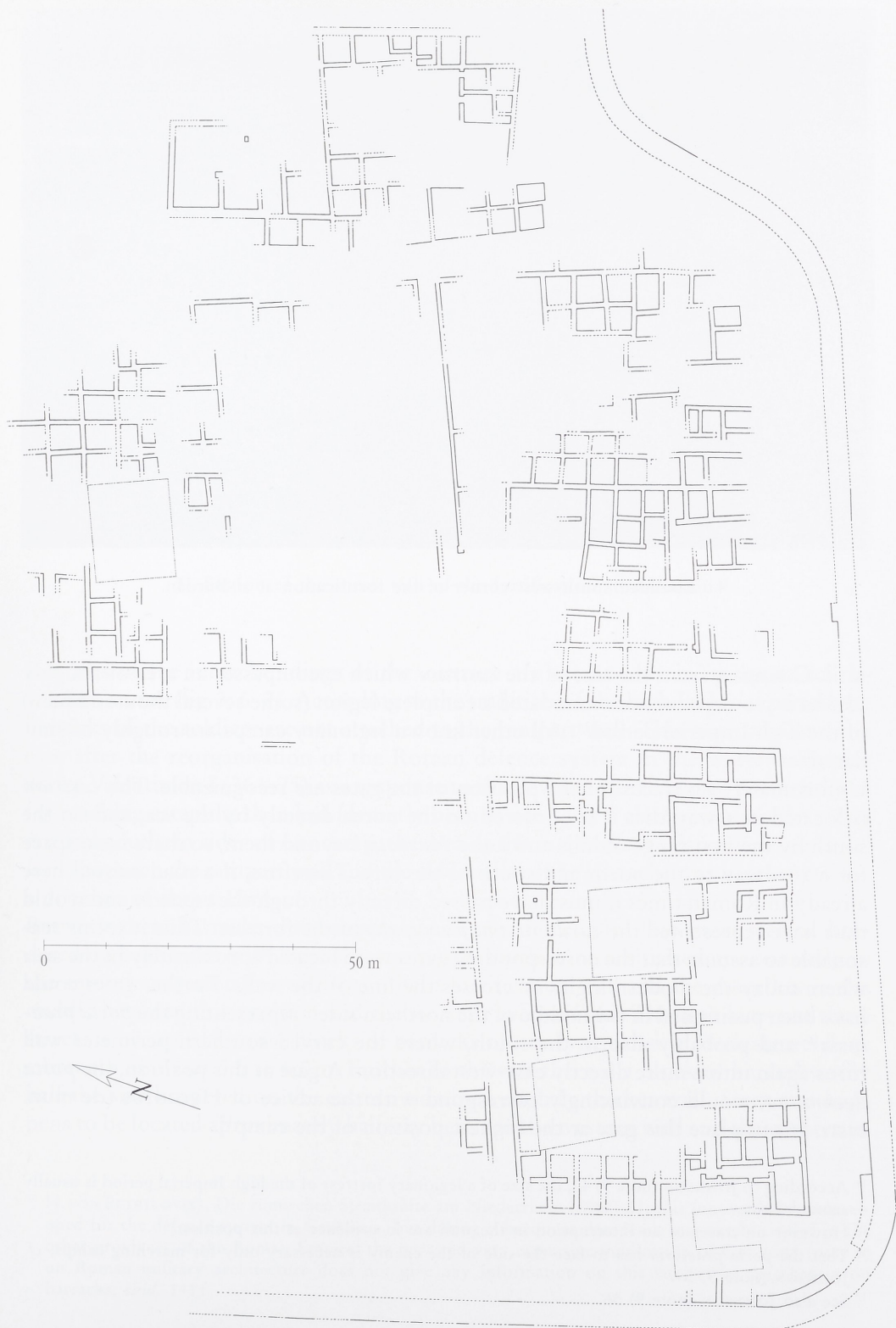
¹³ About 20 years ago this wall could still be seen and followed until the south-east corner.



2 General Plan of al-Burdân (the scale line corresponds roughly with the position where some years ago the outer wall was still visible). – Scale 1:2500.

3 Houses in the south-west area of the *castrum* at al-Burdân. – Scale 1:1000.







4 Rounded south-west corner of the fortification at al-Burdân.

wall. Counting from the size of the *castrum* which encompasses an area of roughly 15,8 ha it would have accommodated a complete legion (some several thousand men) of the high Imperial period¹⁴. All other known legionary camps are roughly of similar sizes.

Unfortunately no traces for the position of the gates are recognizable. The *castrum* is located in a way that it is bordered on the north directly by the sea, and on the south by the first range of hills and Lake *Mareotis* beyond them, so there is no space for a roadway to the north and south of the fort. Therefore, if a road existed here already in Roman times it must have passed directly through the *castrum* and would thus have represented the *cardo* or *via principalis* of the fortress. Thus it seems reasonable to assume that the corresponding gates were located approximately in the area where today the modern highway crosses the line of the walls. Further gates could have been positioned in the middle of the northern side¹⁵ representing the *porta praetoria*¹⁶ and probably also in the south, where the curved southern perimeter wall turns again into a more directly east-west direction. A gate at this position, the *porta decumana*, would convincingly correspond with the advice of HYGINIUS (*de mun. castr.* 56) to place this gate at the highest position of the camp¹⁷.

¹⁴ According to JOHNSON (note 9) 42, the size of a legionary fortress of the high Imperial period is usually around 20 ha.

¹⁵ However no traces of an interruption in the wall are in evidence at this position.

¹⁶ That the *porta praetoria* has to face the side of the enemy is necessary only for marching camps, cf. JOHNSON (note 9) 54.

¹⁷ See also JOHNSON (note 9) 56.



5 Section of the south wall of the fortification at al-Burdân.

Remains of the inner buildings of the *castrum* are extant only in its upper south-western sector (fig. 3; 6–7). According to the tradition of the high Imperial period the barracks of the soldiers are not attached to the rampart wall. This was only later the case after the reorganisation of the Roman defence system in the western Empire under Valentinian I (364–75) as a response to the development of more powerful and far-reaching catapults than had formerly been in use¹⁸. As is clearly seen on the western and southern sides of our camp, the area of the *intervallum* (also called *via sagularis*) between the rampart wall and the side-walls of the barracks was kept empty for a distance of about 10 m.

Between these barracks three streets are clearly detectable. Two main streets, bordered on both sides with barracks, run north-south. One is situated approximately in the smooth eastern curve of the southern fortification wall and the other lies in the middle between this position and the western *intervallum*. The area between these streets is occupied by two blocks of barracks of nearly equal size. Both streets have a breadth of about 5,5 to 6,0 m. Further to the east there is a block of barracks only half the size bordered on the eastern side by a slightly thicker wall. Since this happens to be located approximately halfway between the western wall and the conjectur-

¹⁸ H. VON PETRIKOVITS, *Die römischen Streitkräfte am Niederrhein* (1967) 21; this innovation was developed for the defence system in Germania, but during subsequent decades it was surely copied in the other provinces of the Roman Empire; the new and very expensive publication of GREGORY (note 6) on Roman military architecture does not give any information on this subject in the chapter on barracks; *ibid.* 141 f.



6 Traces of barracks in the south-east area at al-Burdân.

al position of the eastern wall of the *castrum* it seems very reasonable to expect another street at this position. This would then represent the north-south *via decumana* of the *castrum*. The apparent irregularity in the sizes of the barrack blocks can be explained by the presence of a straight wall situated just in the middle of each block, and there is reason to suggest, that no communication was provided between the barracks on either side of these middle walls. It thus demonstrates, that the blocks, as they are visible, have to be understood as double blocks, comprising two single rows constructed directly against each other, back to back, without any interior connection with each other.

A further clear street runs east-west at a distance of roughly 48 to 50m to the north of the southern perimeter wall. It is only 4,5m wide, but surprisingly, it does not continue further to the east beyond the second of the two north-south running streets to reach the position of the *decumanus*. Thus it acts as a method of communication only in the area between the western *intervallum* and the second north-south street, and must be considered as one of the secondary transverse streets (*viae vicinariae*). Other streets are not in evidence, since all the sections which at one end of the inner arrangement appear as streets are in other places interrupted by transverse walls. The possibility should be considered, however, that some of these transverse walls were added later by other occupants of the camp.

The position of the *cardo* or the *via principalis* of the *castrum* has to be estimated considerably further to the north. If our understanding of the situation is right, that the Roman street from *Paraetonium* (Marša Matrûh) to Alexandria led directly through this *castrum*, as expressed above, its location has to be conjectured rather in



7 Traces of barracks in the middle region of the camp at al-Burdân.

the lower third of the camp, where the surface of the terrain is relatively level; it is here that the modern highway is located¹⁹. This area is also dry throughout the whole year while the lower regions are often flooded with water in winter.

The distribution of the barracks within the fortress is not sufficiently regular to provide an easily distinguishable arrangement of their structures. The whole area is divided into many small rooms which are in most cases quite equal in size, but they are rather irregularly arranged in comparison with other Roman army camps. In general they form large compact groups with more or less straight outer walls. Doors are, according to the conditions of this survey, recognizable in only a very few cases. As a rule the rooms along the sides do not seem to be directly accessible from the outside.

The western section of the western block is further divided into a northern and southern part. The northern one shows a large number of rooms of equal sizes, while the southern one has a much more individual arrangement. The situation is best seen in the south-west corner of this western block. Under certain conditions the remains in this area could even be understood as a single building. It is composed of two rows of rooms separated from each other by an inner corridor which evidently served for communication. Since its remains protrude slightly further out of the ground than elsewhere, some doorways are also detectable. Particularly noticeable others are several entrances from this corridor into the different rooms. The arrangement has some

¹⁹ If we are lucky, portions of the gates, or at least of one of them, might still be retrieved, because they should be situated either to the north or to the south of the actual highway.

similarities with a *valetudinarium*²⁰ of a Roman army *castrum*²¹, but it is, however, of a rather small size. Unfortunately the position of an outer entrance is not evident. It might have been situated on the western side which is now covered by a modern Beduin house, and therefore either buried or destroyed.

It seems that similar, individually arranged sections were present all along the southern edges of the surviving barrack blocks. Of the actual easternmost block, which presumably borders the western side of the *cardo*, the layout of the interior shows a slightly different arrangement. Furthermore the alignments of the different inner and outer walls are more irregular than elsewhere. Some larger room units are particularly noticeable at the northern end. It may be that in this area some of the *fabricae* (workshops) of the *castrum* were located.

Until now the Roman military camp of al-Burdân on the Mediterranean coast is the only example of its kind with rounded corners yet discovered on Egyptian territory²². All other army *castra* in Egypt show the usual design with outward projecting towers common from the second half of the 3rd century and especially in the time of the Emperor Diocletian (284–305). Thus our fortress, although only partially preserved, must be regarded as one of the earliest military *castra* of the Roman period to have survived in Egypt.

On the other hand this camp of al-Burdân is thus a valuable example of how the various army *castra* in the different provinces of the Empire did not follow separate traditions, but were built, as Polybios (POLYB. VI, 41) already explains, roughly according to the same concept everywhere. Innovations which proved to be useful in one region were soon adopted in other regions. Rounded corners are characteristic of early army camps of the high Imperial period²³ in Gaul, Germany, and Britain, as well as in some cases on the Danubian border and in Northern Africa, for example at “Lambaesis”²⁴ and “Gheria al-Gharbia”²⁵. Their absence along the eastern frontier may have to be explained by the fact that troops in that earlier period were billeted in fortified towns or “had constructed sites according to the tradition of the marching-camp”²⁶. Concerning the strategical position of the *castrum* it is located, as al-

²⁰ This probability was helpfully pointed out to me by S. von Schnurbein (Frankfurt).

²¹ How such *valetudinaria* usually look like is shown by VON PETRIKOVITS (note 6) 98 ff. Abb. 27.

²² The only other Egyptian example known to me so far is the so-called Dayr al-Dîk situated a short distance to the north of Antinoopolis (briefly mentioned in: Actes du XI congrès international d'archéologie chrétienne Lyons 1986, 2 [1989] 1870) which, however, was not a military fortress but apparently rather a camp for quarry labourers. The further example of Qasr al-Banât, mentioned as such by J.-CL. GOLVIN / M. REDDÉ, Quelques recherches récentes sur l'archéologie militaire romaine en Égypte. Comptes Rendus Séances Acad. Inscript. 1986, 172 ff., spec. 178 ff. fig. 3, has recently been shown to have square corners, see GREGORY (note 6) 56; in any case, it is a very small structure and apparently also of later date, not comparable with a legionary camp.

²³ JOHNSON (note 9) 245 ff.; a recently discovered new example is the 1st century *castrum* of Lahnau-Waldgirmes (Hessen) in Western Germany, S. VON SCHNURBEIN et al., Ein spätaugusteisches Militärlager in Lahnau-Waldgirmes (Hessen). Germania 73/2, 1995, 337 ff. Abb. 3.

²⁴ J. LANDER, Roman Stone Fortifications. Variation and Change from the first Century A.D. to the Fourth. BAR Internat. Ser. 206 (1984) 52 ff. fig. 38.

²⁵ *Ibid.* 114 ff. fig. 97; GREGORY (note 6) 55 fig. 3.25 (d) and (e) offers two different plans of this fortress.

²⁶ LANDER (note 24) 135; as exceptional he mentions the Severan fortress of Ain Sinu (*Zaguræ*?) in Northern Iraq with projecting rounded corner towers and square towers along the walls, *op. cit.* 132 f. fig. 125; However, according to GREGORY (note 6) 109, this fortress should be dated to the 6th century.

ready mentioned and pointed out by A. de Cosson²⁷, at about the western end of the Mallahât, the western arm of Lake *Mareotis*, thus at a position where drinkable water was still available. This might even offer the possibility that ships from Alexandria could reach this place which would have been important for the regular supply of the garrison. Finally a fortress at such a position serves also as a strong protection of that place.

At the present state of investigations an exact date for the construction of the *castrum* of al-Burdân cannot be given. According to the pottery finds it certainly existed and was inhabited in the 2nd half of the 3rd century. But there is reason to propose an even earlier date for its foundation from about the beginning of the century, in the time of Septimius Severus (193–211), during this Emperor's sojourn in Egypt in A.D. 199/200. His inspection of the defences of this country took him as far south as the island of *Philae*²⁸ and he could easily have made some precautions in the north-western region of Egypt to protect the country against a possible invasion from Libya as well. After his departure from Alexandria a fresh revolt in 203/204 forced the Emperor to return again to Africa²⁹. Thus a military *castrum* built at the peak of the western arm of Lake *Mareotis* and between its shore and the sea, as at al-Burdân, could have closed the road between *Paraetonium* and Alexandria very effectively³⁰. A further point worth considering is a date in the reign of Caracalla (211–217), for, during the revolt in Alexandria of December 215³¹, the presence of the Emperor (215/216) was needed and further army fortresses were constructed to control the town³². Under these circumstances a legionary fortress to the West of Alexandria might have served a useful purpose³³.

According to M. Caudel the site was destroyed by Uqba ibn Nafi, one of the generals of the conquering Arab army passing en route to Libya in the 7th century³⁴. This, however, can hardly have been the case. The *castrum* shows no traces of any building activity from the later Roman or late antique period. The distinctive ashlar masonry set in lime-mortar typical for buildings in the coastal regions of Egypt at that time is conspicuously absent³⁵. According to our understanding of the site, the fortress was already abandoned during the course of the late 3rd and early 4th century since our

²⁷ See note 3.

²⁸ A. R. BIRLEY, *Septimius Severus. The African Emperor* 2(1988) 139.

²⁹ Supposed by J. HASEBROEK, *Untersuchungen zur Geschichte des Kaisers Septimius Severus* (1921) 132 ff.; BIRLEY (note 28) 151 explains the presence of the Emperor in Africa only with the desire "to put the finishing touches to the defence of his patria".

³⁰ That it belongs to a cavalry unit from Alexandria sent in A.D. 179 to *Taposiris Magna* (today Abusîr) and other posts in the *Mareotis nomos* as mentioned by J. LESQUIER, *L'armée romaine d'Égypte d'Auguste à Dioclétien*. MIFAO 41 (1918) 391 is, however, doubtful because these troops were detachments from the *ala veterana Gallica*, an auxiliary unit itself which did not need a camp the size of the fortress of al-Burdân.

³¹ H. HALFMANN, *Itinera principum* (1986) 229.

³² H. BENGTON, *Grundriß der Römischen Geschichte mit Quellenkunde*. I. Republik und Kaiserzeit. Handb. Altwiss. 3,5 3(1982) 394 f.

³³ Suggested by H.-Chr. Noeske (Frankfurt).

³⁴ M. CAUDEL, *Les premières invasions arabes dans l'Afrique du Nord* (1900); cit. after DE COSSON (note 2) 116 n. 1.

³⁵ Characteristic sites are Hauwarîyya-Marea, *Taposiris Magna*-Abusîr, 'Ayn Mahûra, Abû Minâ etc.

pottery finds³⁶ continue only to this date. The few finds of later date (until the beginning of the 5th century) may be plausibly explained by the presence of a police post which could have been established at this position.

Abbildungsnachweis

- 1 Umzeichnung nach Vorlage von P. Grossmann; Typographie WISA Frankfurt a. M.
- 2–3 Zeichnungen P. Grossmann; Typographie WISA Frankfurt a. M.
- 4 Neg. DAI L83567/68
- 5 Neg. DAI L83565/66
- 6 Neg. DAI L83463/64
- 7 Neg. DAI L83563/64

³⁶ The finds are exclusively surface finds discovered in the rubbish heaps of the fortress situated to the east of the surviving remains of the eastern wall.