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Part 1

Introduction and Survey at Old Jarma

1. FROM GARAMA TO JARMA

D. J. Mattingly

‘The Romans, careful Relaters of their great victories, doe speake little of the interior parts of Affrica’ (Jobson 1904, cited in Bovill 1933, 13)

‘What could be more intriguing than the empire of the Garamantes in the Fezzan...’ (Wellard 1970, 193)

‘[The name “Garamantes”] is applied to an ill-defined people, a vague territory, a mythical kingdom, an unmeasured period of time. Tombs, chariots, rock paintings – everything has become Garamantian, from one edge of the Sahara to the other ... There is an accounting to be made; it will be a long accounting and it will take a long time.’ (Diolé 1956, 22).

INTRODUCTION

One of the central preoccupations of the Fazzān Project (FP) was the ancient Libyan people known as the Garamantes. More than 50 years on from Diolé’s ‘ill-defined people ... a mythical kingdom’, we are in a position to give a new account of this important civilisation. This volume, dedicated to the site of the Garamantian capital, is a further contribution to the new baseline of knowledge about them.

The volumes of the *Archaeology of Fazzān* are by no means the definitive account of the Garamantes; the overall paucity of research is such that almost every day of every field season we are still encountering new and surprising evidence of their spread, their culture and their behaviours. It is unlikely that the capacity of the Garamantes to surprise will be exhausted in the near future. However, it is important to stress at the outset that a key goal of the FP work has been to contextualise the Garamantes in relation to the broad sweep of Saharan history and lifeways. What happened in the region before and after the Garamantes is of huge importance, and how the Garamantes interacted with other Saharan peoples, with the Mediterranean civilisations and with the Sub-Saharan world are also hugely relevant to this story. The Garamantes were principal actors to be sure, but the focus of this book is in fact a biography of the site of Jarma, one of the earliest and longest lived urban centres in the Sahara.

Situated in the heart of the Libyan desert province of Fazzān, c.1000 km south from Tripoli, Old Jarma is one of the most evocative ruins of the Libyan desert (Fig. 1.1). It encapsulates both the



Figure 1.1. View of the ruins of Old Jarma, looking W towards the qaṣabah (FP 1998).

deep history and the decayed glory of the desert heritage. Part of our fascination with this site stems from the fact that it is one of the earliest urban centres in Libya and, unlike the early coastal towns, its foundation was not the result of trading posts or colonial initiatives of external Mediterranean peoples (Phoenicians, Greeks, Romans). Those Mediterranean civilisations of the Classical period are a benchmark against which to measure the cultural achievements of North African indigenous societies. Their key criteria for recognising other peoples as civilised were agriculture, urbanisation, literacy, sedentarism, socio-legal order and social hierarchy. Although the Roman sources were unwilling to recognise this explicitly, the Garamantes ticked most of these boxes (Mattingly 2003, 81; 346; 2011a, 34–35). The story of the Garamantes is thus the history of Libya's first indigenous civilisation and her first powerful, urban state. Old Jarma was the prime centre of the Garamantes and the Wādī al-Ajāl was the heartlands of the Garamantes. Although less significant in political terms in the Islamic era, the Wādī al-Ajāl has nonetheless remained one of the most productive oasis areas of the central Sahara

and Old Jarma is one of the largest Islamic settlements in the Libyan desert. The town was in terminal decline by the 19th and early 20th centuries, but nonetheless the urban story of Jarma extends over more than two millennia.

Although the focus of this book is the site of Jarma, the Saharan context was a vital part of the story and an understanding of this is needed to fully bring out the implications for the broader Trans-Saharan world (for further background, see chapter 1 in *AFI*, Mattingly 2003). At various points, therefore, we shall engage with issues relating to the wider landscape and it is necessary at the outset to define the principal geographic parameters and terms to be used. Jarma lies at the heart of a zone of oases known since the early Arab period collectively as Fazzān (Fig. 1.2). In the strict sense of the term, Fazzān designates the oases of the Wādī ash-Shātī, the Sabhā area (with an outlier to the east towards Zalā at al-Fuqhā), the Wādī al-Ajāl, Wādī 'Utba, al-Hufra depression around Murzuq, the ash-Sharqiyāt area round Zuwīla. There are additional clusters of oases on the north-south Trans-Saharan route that passes through eastern Fazzān that should probably be viewed as distinct from

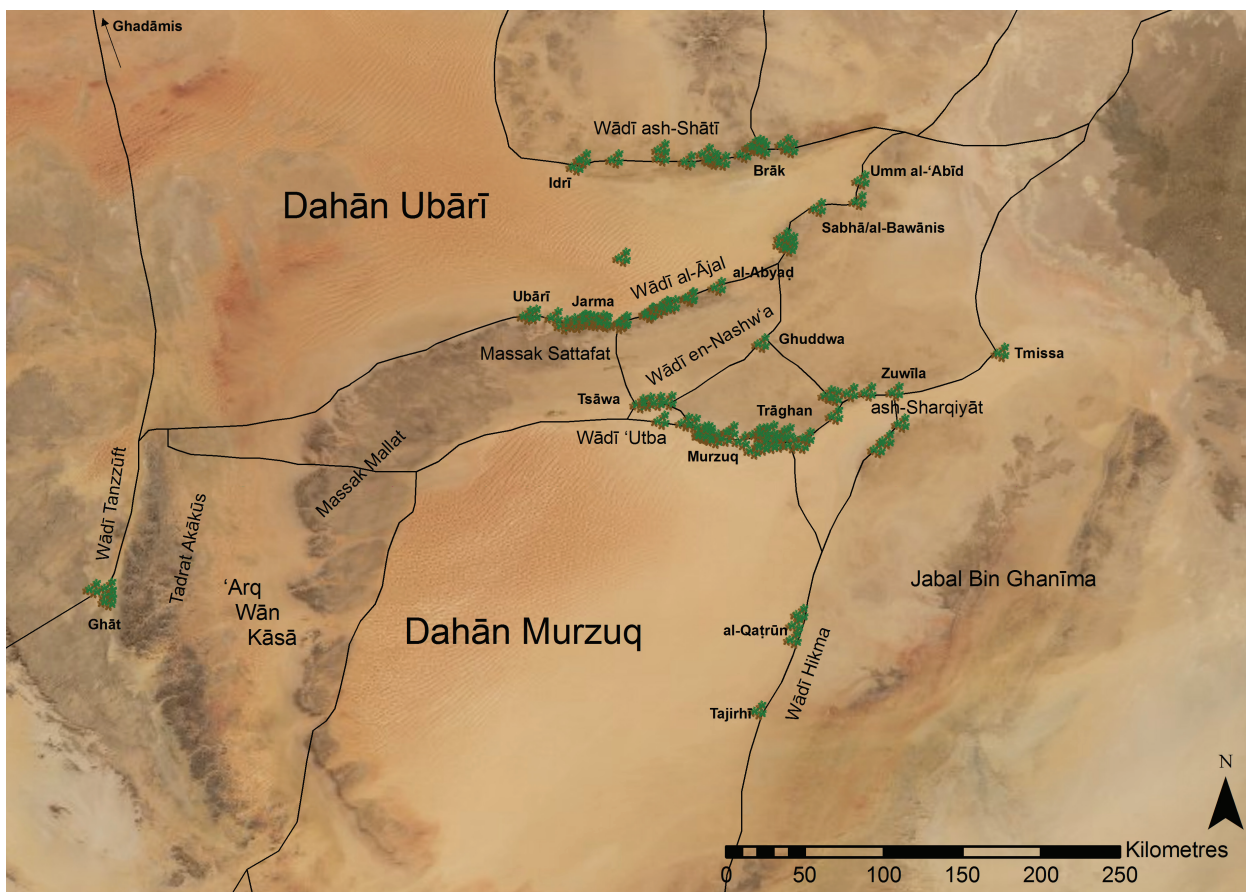


Figure 1.2. Map of Fazzān, showing principal areas of oasis settlement. Image data © Esri.

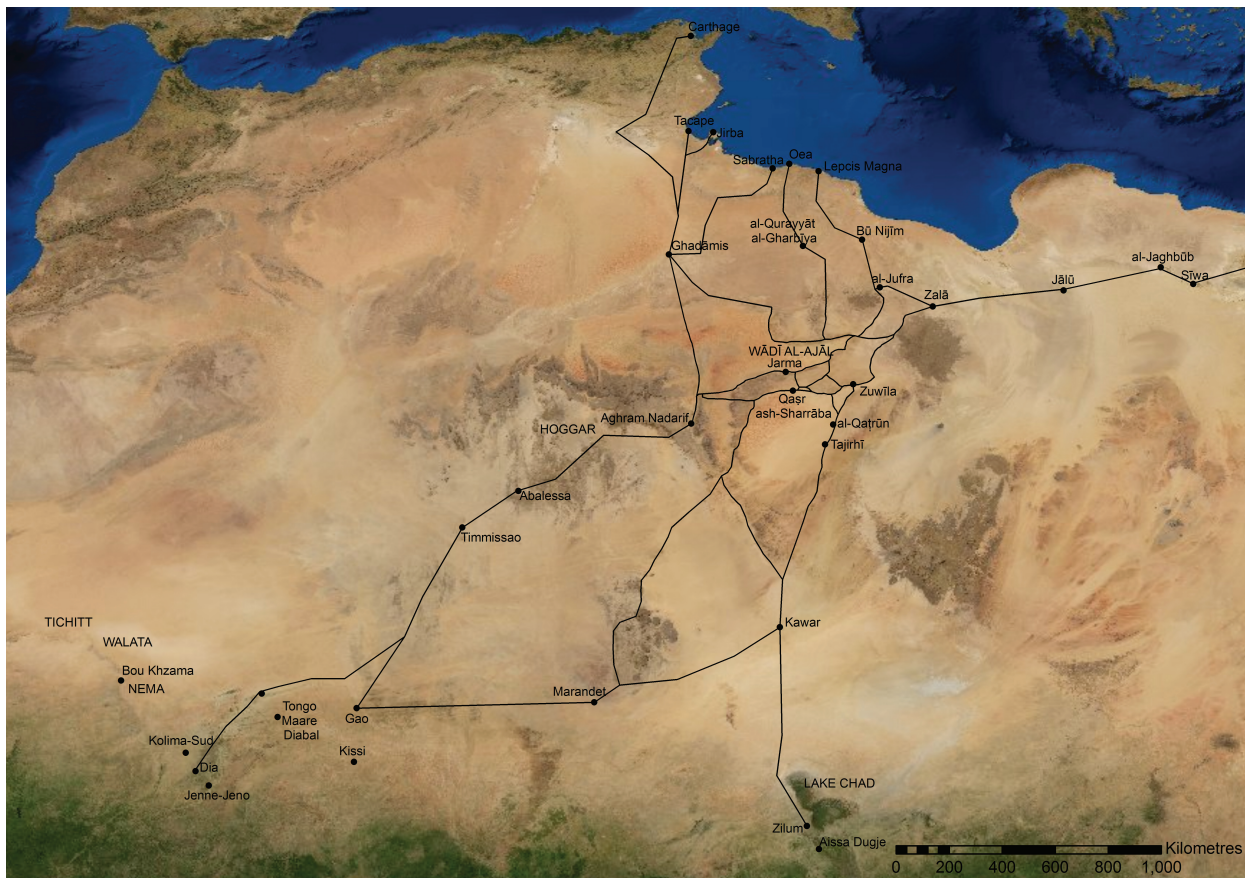


Figure 1.3. Map of the main Trans-Saharan routes and centres in relation to Fazzān. Image data © Esri.

Fazzān proper, though which have at times been united politically with it (Fig. 1.3). These include the oases of al-Jufra to the north (Hūn, Waddān, Sūkna) and the oases of the Wādī Hikma to the south (al-Qaṭrūn and Tajirhī). The inhabitants of the former include a higher proportion of Arab tribes and the latter are dominated by the Tubu. The main route towards the Niger Bend in Sub-Saharan West Africa passes down the Wādī Tanzzūft (with a main centre at Ghāt). Although at times incorporated administratively, it was culturally apart from Fazzān proper, with a large Tuareg element in its population. The other major centre of the western Libyan Sahara is the famous site of Ghadāmis, but this site is separated from Jarma by a difficult desert crossing of the Dahān Ubārī (Ubārī sand sea) and the Hamada al-Hamra.

The heartlands of Fazzān are the three bands of oases represented by the Wādī ash-Shāṭī, the Wādī al-Ajāl, and the Wādī ‘Utba/al-Ḥufra/ash-Sharqiyāt depression. The Wādī al-Ajāl is often referred to in terms of its eastern and western sectors, respectively referred to as al-Wādī ash-Sharqī and al-Wādī al-Gharbī (Scarīn 1937b).

The Garamantes were the most important (or at any rate, the most celebrated) ancient people of the

central Sahara and Old Jarma was their key centre (Mattingly 2006; 2011b). The Fazzān Project (1997-2002) made survey and excavation at Old Jarma one of its main priorities and it is fitting that the last of the series of reports we have produced on the *Archaeology of Fazzān* should be devoted to this key site (Mattingly 2003; 2007; 2010). As in previous volumes of this series, we are also taking the opportunity of bringing together the results of earlier work at the site, in particular by Charles Daniels (between 1958–1977) and Mohamed Ayoub (between 1961–69) (Mattingly 2010, 1–15 for an explanation of the context of their work).

Visiting Jarma for the first time in 1958, Daniels found an abandoned (but still largely intact) walled mudbrick town of about 10 ha, with a citadel fortress (*qaṣabah*) towards its west end, several standing mosques, numerous holy tombs of *murābiṭūn* (marabouts), and extensive domestic quarters lacking only their roofs (Fig. 1.4). Early excavations in the 1960s by Ayoub subsequently created a huge crater in the centre of the mudbrick town, with deep exploratory trenches extending between areas of standing buildings. When I first visited Jarma and Fazzān in 1996, I was immediately struck by the huge depth of surviving stratigraphy visible at the



Figure 1.4. Abandoned domestic quarter just to N of the qaṣabah (CMD 1965).

heart of the ancient town (Fig. 1.5). The site clearly had the potential to illuminate the structural history of a Saharan town, alongside a long-term record of its material culture and palaeoeconomic data relating to diet and lifestyle. As we shall see, the excavation we carried out fully lived up to this diagnosis. The site proved to have an occupation sequence spanning more than 2000 years, from origins in the 4th or 3rd century BC, until finally abandoned at the insistence of the Italian colonial authorities in the 1930s. The Garamantian phases can be compared on a range of physical, cultural and botanical/faunal criteria with the post-Garamantian and Islamic levels, with interesting contrasts emerging about the relative prosperity and interconnectedness of the site across time. This is the arguably the most significant archaeological sequence to have been studied in the Sahara and has major historical implications for our understanding of oasis life, Trans-Saharan trade and the social complexity of ancient desert communities. The opening chapter of this book reviews the written records relating to Old Jarma and the history of past research at the site.

What's in a Name?

It has long been appreciated that Old Jarma was the likely location of the Garamantian capital Garama (Hornemann 1802, 133, 154; Duveyrier 1864, 275–79; Pace in Pace *et al.* 1951, 175–78, showed that the derivation of the Arabic name from the Latin was straightforward). However, the etymology of the toponym is much less certain, though it is clearly a pre-Arab name, whether Berber or another language. One ancient writer sought to explain it

in terms of an eponymous individual who gave his name to both the people and their principal oasis centre (see below, Isidorus of Seville). However, this explanation is typical of the foundation myths of many cities in the Greek world elaborated in the Hellenistic period (Pace *et al.* 1951, 179). If the name related to a specific agnate or ethnic group, it is harder to comprehend the apparent spread of Garamantian power and culture well beyond the area allocated to the people by Herodotus (*History*, 4.183–85).

Another theory about the origin and meaning of the name saw *aman* as the name of a people and *gara* as a term for mountain (Tissot 1884/1888, 712, n. 6; Pace *et al.* 1951, 178 n. 1). Neither ‘Aman of the mountain’ nor ‘people of the mountain’ quite seem to match what we know of the Garamantian heartlands.

A more plausible possibility, and the one favoured here, is that the name Garama relates to the Tuareg/Berber term *Aghram* – designating an oasis town, frequently fortified (Liverani 2006a, 1 and 442; Pace *et al.* 1951, 177). As we shall see in discussing the early Islamic sources, Jarma was known to have had a nearby settlement called Tsāwa, known also as ‘Little Jarma’. There are also a number of modern toponyms that may derive from this term: Aghram Nadarif near Ghāt, Agār in the Wādī ash-Shāṭī, a site called Aggār near Tsāwa in Wādī ‘Utba. Garama might thus be understood to have the meaning of ‘The Oasis’ or ‘The Town’. There is a potential issue of primacy here – did Garama mean ‘Oasis/Town’ in the local language from its foundation? If so, the name of the principal settlement needed no qualification as their kingdom grew, but secondary centres may have combined the Aghram descriptive term alongside local toponyms, as at the south-western outpost known as Aghram Nadarif (Liverani 2006a). Or did the dominance achieved by the Garamantes lead to later oasis towns adopting the ‘Aghram [...]’ formulation in simple emulation of the metropolitan centre? Certainty is impossible, but there is a distinct possibility that the Garamantes’ name was not seen as designating a specific ethnic identity, but became synonymous in the central Sahara for ‘Oasis People’ or ‘Village People’ and this could help account for the widespread nature of this kingdom at its peak (Liverani 2006a, 442–44). The Garamantian kingdom was thus a political entity built up of a number of originally separate oasis communities.

The qualification of the more recent toponym as ‘Old’ Jarma is a 20th-century development,

resulting from the abandonment of the last occupied dwellings in the 1930s, when the remaining population was transferred to two newly constructed villages nearby (Agīf and Tūska) – but collectively still known as Jarma in the Wādī. In the late 1960s, the Italians began construction of a tarmac road along the south side of the Wādī al-Ajāl. Subsequently, New Jarma has developed along the road frontage and the villages of Agīf and Tūska have in turn been abandoned. The site of Jarma has thus migrated twice in living memory across a distance of several km.

When reading the 19th-century travellers' accounts (see below), there is scope for further confusion as several referred to the site we know as 'Old Jarma' as 'New Jarma', distinguishing it from another 'Old Jarma' ('Jarma kadima'), evidently a large mudbrick ruined settlement about 2–3 km to the south-west and midway between GER001 and the mausoleum UAT001 (see Fig. 1.6a). This site, mentioned by Clapperton (Bruce-Lockhart and Wright 2000, 87) and Barth (1857, 144), is almost certainly the castle-like building described by Duveyrier (1864, 279 and plate XV) and named by him as 'Qecir el-Watwat' (Fig. 1.6b).

The Italian colonial administrators also mentioned this site (Gigliarelli 1932, 123):

'Dall'antica Garama, le cui rovine sorgono a breve distanza dal paese ... Ad un tre chilometri a sud del paese, si scorgono disseminati su vasta superficie i resti di costruzioni dirute che dovevano evidentemente formare in un'epoca lontana, un vasto abitato. Ma chi s'addentra ed osserva da vicino quei ruderi rileva facilmente l'antica civiltà da cui ebbero origine. Sono queste le rovine chiamate Gërma el-Ghedima, tra cui particolarmente interessante per conservazione e il castello ditto dei pipistrelli (Gser el-Uatuàt) è la necropoli (Gseirāt el-Rum) inoltre d'ogni intorno architrave, pietre de perfetta squadratura e levigate, capitelli segnano il posto dove sorgeva l'antica Garama.'

It was clearly believed at this date that the ruins of ancient Garama lay beneath the ruins of 'Gërma el-Ghedima' rather than the site we know as Old Jarma (see further Gigliarelli 1932, 119: 'trovarsi presso l'attuale Gërma notevoli resti romani dell'antica Garama'). As we shall see, the Italian archaeological mission in 1933 reversed this judgement and commented that no evidence existed at the alternative Old Jarma of Roman finds or architectural stonework. It is possible that

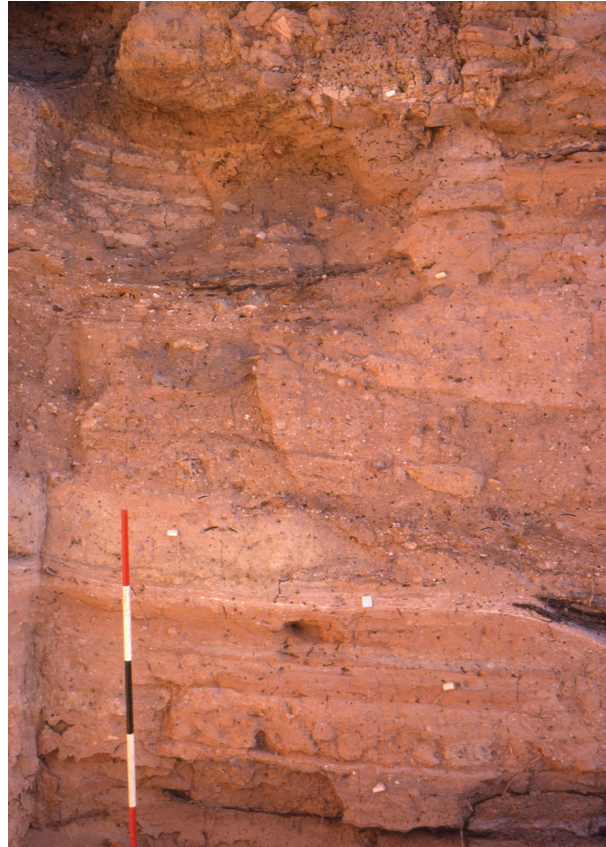


Figure 1.5. View of Ayoub's deep sondage in the centre of Old Jarma (DJM 1996).

Gigliarelli's source had confused 'Old' and 'New' Jarma in attributing finds of architectural stonework to the former.

When the FP began in 1997, the exact location and identity of this other 'Old Jarma' was lost to memory and resolving these questions has exercised us over the subsequent years. In 2000, we thought it probably corresponded with GER009, a site represented by an upstanding section of mudbrick tower by the modern main road (Bruce-Lockhart and Wright 2000, 87, n. 24). Subsequently, we made an identification with some extensive, but vestigial traces of mudbrick walls slightly further north-west (Mattingly 2003, 15; 2007, 122 = GER004). We have now finally established that the site in fact lay 300 m north-west of GER004, where the eroded traces of a substantial fortified *qasr* are just discernible on the 1958 air-photographs. This fortified site, which we designate as GER056, has now vanished under modern oasis gardens, as is evident in Figure 1.6c/d.

Relocating this site matters because the 19th-century travellers indicate that the other 'Old Jarma' was also a large site. The account in Denham and Clapperton (1826, lxiii) noted that 'the remains of ancient Germa ... appeared to occupy a space more

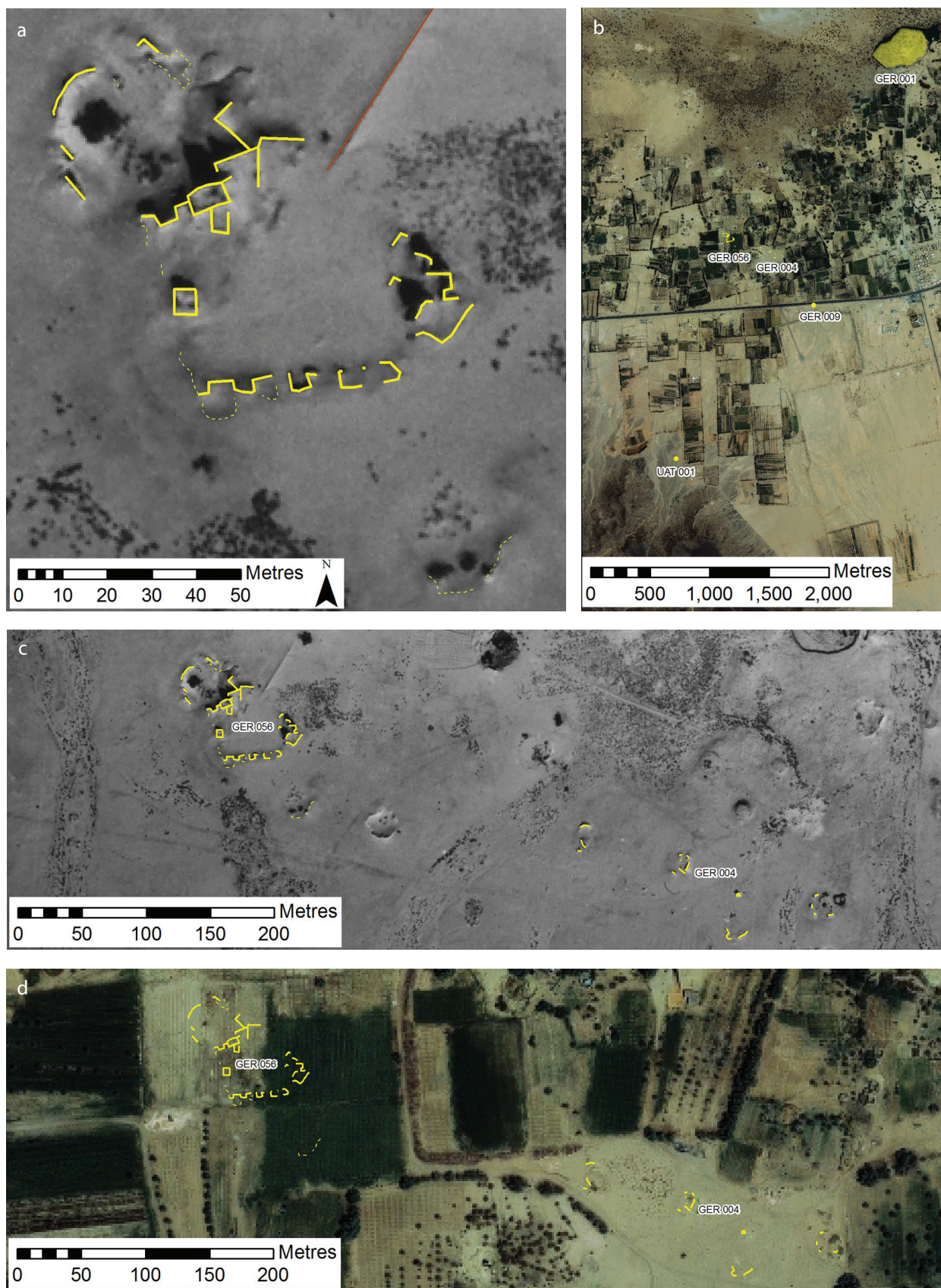


Figure 1.6. Location and nature of the site (GER056) described as 'Old Jarma' by the first European travellers. a) features mapped from 1958 air-photo; b) location of GER056 in relation to GER001, UAT001, GER004, GER009; c) GER 004 and GER056 on the 1956 air-photo; d) the same area from a 2006 satellite image, showing extent of destruction of the sites (Martin Sterry).

extensive than the present town' (cf. Clapperton's comment that 'by the Mud ruins it appears to have been of considerable extent', Bruce-Lockhart and Wright 2000, 87), while Barth (1857/1858, 144) noted that the outer wall of this long-deserted mud-brick town was 5,000 paces in extent – though this figure seems excessive. It is possible, however, that GER004 and GER056 represent separate elements of a single extensive settlement.

No evidence of pre-Islamic features were noted by any of the early travellers or by the first scientific mission sent by the Italians to the Jarma area in the 1930s. The Italians assessed both sites and decided that only the site we call Old Jarma (GER001) had ancient origins. The early origins and nature of the remains discovered by us at Old Jarma (GER001) support the view that it was the Garamantian capital. On the other hand, we now know that both in the Garamantian and Islamic era, the town of Old Jarma was not an isolated settlement but lay within a cultivated landscape, with many satellite villages, some of considerable extent (see below, Chapter 20; Mattingly 2010, 209–10, with fig. 4.6 showing villages in the vicinity of Jarma). In this book, references to Old Jarma relate strictly to GER001, but readers should be aware of the possible confusion caused by references to 'Jarma kadima' in studies prior to the 1940s.

THE LITERARY EVIDENCE

Jarma in the Ancient Sources

The literary references to the Garamantes have been summarised in an earlier volume in this series (Mattingly 2003, 76–90). A few additional comments are offered here on the extent of the Garamantian kingdom and specific references to the site of Garama.

The first appearance of the Garamantes in history occurs in the 5th-century BC account of Herodotus (*History*, 4.183) where they were located 10 days' journey west of the oasis of Awjīla and 30 days south of the coastal Lotophages (the island of Jirba). A further 10 days beyond the Garamantes (to the south-west) were the Atarantes. Although the journey time does not perfectly map onto the distances traversed west of Awjīla, Jarma fits the distance from the coast at 30 days and from the inhabitants of the Wādī Tanzzūft, who are most likely to be identified with the Atarantes at this date (Liverani 2000a/b/c; 2004; 2006a, 448–52). Although Herodotus described the Garamantes as 'quite numerous' it is unlikely at this early date that the Garamantian heartlands extended beyond a

small number of emerging oases in Fazzān. Even in the Wādī al-Ajāl, the main phase of oasis agriculture on a wide scale seems to date to the latter centuries BC (Mattingly *et al.* 2010b, 129–31) and in the Murzuq area the pioneering foundation of extensive oases may date to the 1st millennium AD (Sterry and Mattingly 2011, 113; Sterry *et al.* 2012).

Pliny the Elder was the first ancient writer to mention a town called Garama, where the site was described as the celebrated capital of the Garamantes (*NH*, 5, 35–38, *clarissimum oppidum Garama caput Garamantum*). His information relates to the campaign of Cornelius Balbus, when a Roman military expedition invaded Fazzān from the north-west in 20 BC, having first taken the oasis of Ghadāmis (ancient Cidamus). Garama was evidently captured by Balbus and the name was presumably among those displayed on placards in the triumphal procession in 19 BC. As we shall see later, there is archaeological evidence to suggest that even in the late 1st century BC, Garama possessed some monumental buildings and certainly an advanced urban character. There is general scholarly agreement that Pliny's list of people and places presented in the triumphal procession of Balbus included additional names from more widespread Saharan campaigning, which included the conquest of Cidamus and related sites, and also further west in southern Algeria (Daniels 1970a, 13–16; Desanges 1957; 1980 for full commentary on Pliny's text; Mattingly 1995, 18, 30, 43–44). Nonetheless, a number of other *oppida* listed by Pliny can plausibly be associated with the Garamantes, including Dedris and Baracum (Idrī and Brāk in the Wādī ash-Shāṭī?). Thelgae was certainly a Garamantian centre, but is not identified; from its position in Pliny's account it may also have been in the Wādī ash-Shāṭī. The Dasibari river may be a reference to the Wādī al-Ajāl, if the ancient names for Ubārī and neighbouring ad-Dīsa are contained in Dasibari. Finally, a case can perhaps be advanced for identifying Pliny's *mons Gyri*, from which gems came, with Eghei Zuma, the source of amazonite in the northern Tibesti (the suggestion was first made by Ayoub 1968a, 79). Following the north-south route from al-Qaṭrūn to Kāwār, Rohlfs claimed to have seen turquoise and red stones near the well of 'Mechrou' and speculated that they derived from Garamantian quarries for semi-precious stones nearby in the northern Tibesti (Rohlfs 2001, 198–99). An alternative source for the carnelian is suspected to lie in the volcanic landscapes of northern Fazzān, to north of the Wādī ash-Shāṭī (Mattingly 2003, 356–58).

By the late 1st century BC and early 1st century AD, the Garamantes were starting to appear as actors in affairs much further north (Tacitus, *Ann.*, 3.74, 4.23–26) and in AD 69–70 they laid siege to Lepcis Magna on the coast (Tacitus, *Hist.*, 4.50). A case can be made for the Garamantian kingdom having absorbed the oasis communities of al-Jufra (on the main route to the coast), the three main depressions of Fazzān proper and outliers such as Zāla (on the route to Egypt), the Wādī Ḥikma (on the route to Chad) and Wādī Tanzzūft (on the route to the Niger).

Ptolemy referred explicitly to Garama on two occasions in his *Geography*. The first recorded the distance between Lepcis Magna and Garama as 5,400 stadia and mentioned two journeys on this route of 20 and 30 days by Flaccus and Maternus (*Geography*, 1.10). Garama was thus an important geographical reference point in the central Sahara for the Roman empire. He also referred to Garama as a *metropolis* (*Geography*, 4.6.30). Other possible Garamantian centres included in Ptolemy's central Saharan toponyms include Gelanus (possibly Gholaiia/Bū Nijīm), Vanias, Sabae (probably Sabhā), Bouata, Bedirum, Thumelitha (Ptolemy *Geography*, 4. 6.3–6). Ptolemy also referred to a feature described as *pharanx* or *fauces*, most plausibly the linear depression of the Wādī al-Ajāl (Daniels 1970a, 16–17; Ptolemy 4.6.12–13). The impression from both Pliny and Ptolemy is that the Garamantes possessed more than one significant centre in the central Sahara, though neither gives any hint at the true scale of oasis settlements at this period.

There are few other explicit references to Garama in the Roman sources (Solinus 30, largely repeated information from Pliny's account, for instance). Apollonius of Rhodes referred to a Greek tradition linking Garama with the nymph Tritonia and their offspring Nasamon (*Argonautica* 4.1485–1501).

'But alas for Canthus struck down in Libya by the hand of death ... Caphaurus, the man who did, this was no weakling, but a grandson of Phoebus and the chaste lady Acacallis, whom her own father, Minos, banished to Libya when she was carrying the god's offspring in her womb. In due course the noble child was born – they call him Amphithemis or Garamas. He married a Tritonian nymph; and she gave him two sons, Nasamon and the powerful Caphaurus, who as we have seen killed Canthus in defence of his sheep.'

Isidore of Seville stated that the Garamantes were a people of Africa near Cyrene, named after

their king Garamante, allegedly a son of Apollo, who founded the city of Garama. Such etymologies were all the rage in the Greco-Roman world, but tell us little about Garamantian realities. The Garamantes were also presented as neighbours of the Ethiopians and as having a reputation for cruelty (Isidorus of Seville 9.2.125). As a slave-using society, that should not surprise. Mela (1.45) said the Garamantes were polygamous, with women shared in common among them, but such suggestions were a staple stereotype of the 'barbarian other' (Strabo, *Geography*, 17,3,19 on polygamy among interior Libyan peoples in general). It would be unwise to let such statements shape our view of the possible nature of Garamantian social units (see further, Liverani 2007a/b).

Jarma in the Islamic Sources

The main problem with reconstructing the post-Garamantian history of Jarma from the Arab sources is that Jarma was no longer central to historical processes and events and thus rarely featured (el-Hesnawī 1990; Levtzion and Hopkins 2000; Rossi 1937; 1968; Thiry 1995 are key compilations or discussions of the sources). The scanty references in Early Islamic sources to Jarma indicate that the town was by then not on the primary lines of Trans-Saharan communication (Thiry 1995, 374–77, for an excellent summary of main references). Although in the Roman sources the region known as Phazania appears to have lain further to the north-west around Ghadāmis, by the early Islamic era, the Arab sources pair Jarma and Fazzān together (Thiry 1995, 374). The first Arab campaign into the central Sahara in the 7th century by 'Uqba bin Nāfi was reported by Ibn 'Abd al-Ḥakam in the 9th century AD (on the history of the early Arab campaigns, Rossi 1968, 24–32). 'Uqba, having captured Waddān and taught its ruler a lesson by cutting off his ear and exacting 360 slaves, asked who lived beyond his lands into the desert. The answer was: 'There is Jarma. It is the largest town of Fazzān' (Levtzion and Hopkins 2000, 12). 'Uqba and his cavalry reached Jarma in eight days (Levtzion and Hopkins 2000, 12):

'When he approached he sent a messenger, calling on the inhabitants to accept Islam, which they did. He stopped six miles from the town and their king came out to see 'Uqba. The latter sent his cavalry, which cut the king off from his retinue and then made him walk. He reached 'Uqba in a state of exhaustion, for he was soft, and began to spit blood. He then asked: 'Why have you

treated me this way after I have obeyed you and come?’ ‘Uqba answered: ‘To teach you a lesson, for when you remember this you will not make war on the Arabs.’ Then he imposed on the king a tribute of 360 slaves.’

In the 10th century, al-Muqaddasī described in broad terms ‘extensive harsh desert countries’ bordering the Maghrib to the north and Egypt to the south. Among the people of this zone were the Qaramāṭiyyūn ‘who transact with salt’ (Levtzion and Hopkins 2000, 53–54). Another 10th-century source, al-Mas’udī, also mentioned the Q.r.māt.n, though again in a geographically imprecise sense (Thiry 1995, 375). This suggests that the name of the Garamantes lived on into the early Islamic age.

In the 12th century AD, al-Idrīsī referred to two towns, Jarma and Tsāwa, as the two main centres of Fazzān (Levtzion and Hopkins 2000, 120–21):

‘The land of Zaghāwa adjoins the land of Fazzān, among the localities of which are the towns of Jarma and Tsāwa. The Sudān call Tsāwa ‘Little Jarma’. These two towns are close to one another; there is one stage or less between them. In size and population they are the same. They draw their water supply from wells. There are date palms here, and the inhabitants sow sorghum and barley, which they irrigate by means of a device which they call *injafa*. In the country of the Maghrib this device is called *khaṭṭāra*. Nearby is a silver mine on a mountain called Jabal Jirjīs, but its return is small and the prospectors have abandoned its exploitation, and left the extraction to whomsoever wishes to do it. From Tsāwa to the mine is about three stages.’

It is interesting to note that by the 9th century at latest the modern Arabic spelling of Jarma and Fazzān was established in place of the Roman forms Garama and Phazania (Rohlf’s 2001, 145).

The site of Tsāwa may lie beneath or close to the modern village of that name in the Wādī ‘Utba area. Although nothing as substantial as a town has been recorded there, some Kufic tombstones of 12th–13th-century date are known from a cemetery (Mostafa 1965, 124–25). An alternative idea canvassed by the FP is that the toponym Tsāwa has been transferred over the centuries from a substantial Garamantian and early Islamic centre about 25 km to the west-south-west at Qaṣr ash-Sharrāba (Mattingly 2003, 95, 149; 2007, 265). Qaṣr ash-Sharrāba was a Garamantian town of at least 12 ha, with a central fort and two smaller fortified

structures (*qṣur*). Occupation at the town certainly extended into the early Islamic period (AMS dates span the 3rd–13th centuries). Whether or not Qaṣr ash-Sharrāba can be identified with early Tsāwa, the site gives us important information about the urban morphology of late Garamantian towns and may help us to interpret the more partial traces of Garamantian Jarma (Mattingly and Sterry 2013, also below, Chapters 11 and 20).

Al-Idrīsī also mentioned that a route of 25 stages connected Jarma and Awdagust in West Africa (Levtzion and Hopkins 2000, 118), which would seem to indicate that Jarma remained connected into the network of Saharan trade routes. A less reliable late 13th–14th Syrian writer, al-Dimashqī, rather confusingly located the towns of Fazzān, including Jarma, Tsāwa, Zuwīla and Wān (= Waddān?), on the shores of large salt lake in West Africa (Levtzion and Hopkins 2000, 211).

Writing in the late 9th century, al-Ya’qūbī divided the desert into three distinct zones – the territories of Waddān, Zuwīla and Fazzān. Fazzān was apparently a large region with an overall chief and a main town (unnamed but Jarma is the chief candidate). He also supplied the information that the population of Fazzān was frequently at war with the Mazāta berbers, who had presumably infiltrated the northern part of the territory (*Kitāb al-buldān*, 345.6; Thiry 1995, 89). Another 12th-century source is Yāqūt, whose geographical work *Mu’jam* includes a reference to Jarma as a *qaṣabah* in Fazzān (Thiry 1995, 376). At this date, Fazzān had fallen under the authority of the kingdom of Kānim and for the first time Zuwīla was included among its ‘numerous palmeries’ (Thiry 1995, 378). In the 13th century Ibn Sa’īd stated that Fazzān lay to the east of Waddān ‘and consists of islets of palms and water but has more towns and inhabited places than Waddān. All these places are now under the sway of the king of Kānim. The capital of Fazzān is Zuwīla.’ (Levtzion and Hopkins 2000, 194). The image of Fazzān as a land of villages and palmeries persisted into the 13th–14th century, as in Ibn Khaldūn (*Hist des Berbères* I, p. 191; Thiry 1995, 379).

Other early Arab sources indicate that Fazzān was off the radar and old stereotypes about nomads were reviving. For instance, Ibn Ḥawqal (late 10th century, Levtzion and Hopkins 1981, 46) stated that Fazzān:

‘... contains water points around which are tribes of unheeded Berbers who are unacquainted with cereals and have never seen wheat and barley or any kind of grain. They are for a most part in a

state of wretchedness and their dress is a piece of cloth worn sash-wise. Their staple diet is milk and flesh.’

These early Arab sources suggest strongly that part of the old Garamantian heartlands remained an independent kingdom for a prolonged period, with its main centre still at Jarma. The people of Jarma no longer exerted any control in eastern Fazzān (the Sabhā oases, al-Hufra and ash-Sharqiyāt zones) nor the Wādī ash-Shāṭī (progressively falling to the Mazāta), but it appears that there was a much reduced territorial state outside Arab control, centred in the Wādī al-Ajāl and the Wādī ‘Utba areas. Between the 10th and late 12th centuries, the main power in eastern Fazzān, with a capital at Zuwīla, was the kingdom of the Banū Khaṭṭāb (el-Hesnawi 1990, 31–33; Rossi 1968, 65–66). When the Banū Khaṭṭāb dynasty was ended by the incursion of a Mamluk adventurer, Sharaf al-Dīn Qaraqush al-Ghuzzi, the region entered a turbulent period of warfare that finished when the king of Kānim defeated the last of the sons of Qaraqush and established a phase of Kānīmi rule, which was transformed by its governor into the Banū Nasūr dynasty (el-Hesnawi 1990, 33; Martin 1972, 482–85; Rossi 1968, 67–68).

In the later Medieval and Early Modern period, there are a number of references to a people called the Khurmān (or Kharmān), evidently with a main presence in the western Wādī al-Ajāl (Rossi 1968, 182–83). The name strongly suggests that they were descendants of the Garamantes, occupying the old Garamantian heartlands. They are first mentioned in relation to a Fazzānese oral tradition that, when the rule of the Banū Nasūr came to an end in the late 14th century, they gained overall power in Fazzān, making Zuwīla their capital. But the greed and rapacity of the Khurmān led to the region rapidly descending into a new period of anarchy (el-Hesnawi 1990, 33–34; Nachtigal 1974, 151). The Khurmān were evidently supplanted by the dynasty of the Awlād Muḥammad, founded by a *shayk* reputed to have come from Morocco, leading a *hajj* pilgrimage. The historical sources for the period are poor until the 18th–19th centuries, when we have the written records of the best of the European travellers (notably Nachtigal 1974, 144–80 and Rohlfs 2001, 133–65) and a surviving Ottoman Chronicle of the 1750s that covers the period from the mid-16th century (Nachtigal 1974, 151–54 on the discovery of a copy of the Chronicle in the library in Malta in 1878). El-Hesnawi has since discovered and published further documents, along

with an important unpublished manuscript (the so-called al-Jadīd document), relating to the history of the Awlād Muḥammad (1990, 5–17, gives the fullest account of the available Early Modern sources and unpublished documents). From these various sources, a number of further references to the Khurmān and the people of the Wādī al-Ajāl (broadly the same thing) and to Jarma can be gleaned (see el-Hesnawi 1990, 27–268, for the best account of the Awlād Muḥammad; cf. also Rossi 1968, 182).

The origins of the Awlād Muḥammad have been variously ascribed to a group from West Africa (Bovill 1964, 100), the western Saharan (Ayoub 1968a, 114) or Morocco (Duveyrier 1864, 227; Lethielleux 1948, 18; Nachtigal 1974, 151, all tell versions of the story). During his 1798–99 sojourn at Murzuq, Hornemann was informed that the Sultan of Fazzān’s family were evidently of *sharīf* status and had allegedly conquered Fazzān about 500 years ago (that is, around the end of the 14th/start of the 15th century, if this oral testimony is to be believed (Bovill 1964, 100). The Moroccan version of the story, features a pious man of *sharīf* status leading a caravan of western pilgrims to Mecca passing through Fazzān. He was prevailed upon by the oppressed people of the region to return after his completion of the *hajj* to become their Sultan and to end the in-fighting between rival local rulers. The new documents discovered by el-Hesnawi add weight to the foundation of the dynasty at the very end of the 15th century by a caravan trader called Sultan Muḥammad al-Fasi (1990, 36–37, 50–52).

A key element in the consolidation of Awlād Muḥammad power in Fazzān was the encouragement of in-migration of *murābiṭūn*, holy men, and their settlement on land in diverse parts of Fazzān (el-Hesnawi 1990, 191–203; Gigliarelli 1932, 207; Rossi 1968, 182–85). As we shall see, there are a number of *murābiṭūn* attested at Jarma, with apparent links with Morocco and *sharīf* families.

Thus, rather than the 500-year overlordship transmitted by Hornemann, the Awlād Muḥammad appear to have controlled Fazzān for less than 350 years and were subject to repeated external and internal challenges to their authority. The main threat came from the Ottoman and Qaramānli government based in Tripoli, which periodically sought to engineer a more lucrative return on Trans-Saharan commerce by direct intervention in Fazzān (Rossi 1968, 142–352; cf. Martin 1972; 1984). The rule of the Awlād Muḥammad was also challenged periodically by dissident groups in Fazzān,

notably the Khurmān whom el-Hesnawi (1990, 75) characterises as the ‘traditional rivals of the Awlād Muḥammad’. According to Ḥasan al-Wazzān (Leo Africanus), in the 16th century Fazzān was evidently ‘an ample region, with great store of castles (*qṣur*) and villages, and being inhabited by rich people ... bordering on the kingdoms of Agadez, the Libyan desert and the Land of Egypt’ (al-Wazzān 1600/1896).

The region was not an easy one for a single authority to control, because of the desert terrain, the harsh climate, the localised fortified centres. The oral histories collected by Duveyrier and Nachtigal recalled the Khurmān as particularly persistent opposition from their heartlands in the Wādī al-Ajāl. Between 1577–1588, the Ottomans extended their rule over Fazzān (Martin 1972), but after Sultan al-Nāṣir ousted them and re-established Awlād Muḥammad authority, the Ottoman authorities continued to use the Khurmān to foment dissent. In 1612 the Khurmān supported the Ottoman forces in their second (short-lived) take-over of Fazzān. Similarly, in 1622–1623, the Khurmān again seem to have sided with the Ottomans, when the Awlād Muḥammad attempted to impose higher taxes on them. The first step taken by the Khurmān was to send some of their leading men to appeal to the Ottoman Dey in Tripoli. The Awlād Muḥammad Sultan al-Ṭāhir attempted to dissuade the Khurmān envoys from their mission by sending *murābiṭūn* intermediaries to meet them at Sabhā and Sūkna, but without success. When an Ottoman army was sent south with the Khurmān, he was forced to flee to Sudan (el-Hesnawi 1990, 72–76). The Ottoman authorities saw fit on this occasion to appoint one of the Khurmān, Aḥmad bin Huwaydī, as their governor in Fazzān and he ruled from Murzuq for three years before a further revolt opened the way for a return of the Awlād Muḥammad Sultans, who secured a peace treaty via the intermediation of the *murābiṭūn* and the promise to pay an increased tribute to Tripoli. Aḥmad bin Huwaydī disappeared from history (el-Hesnawi 1990, 117–19; Rossi 1968, 183–84).

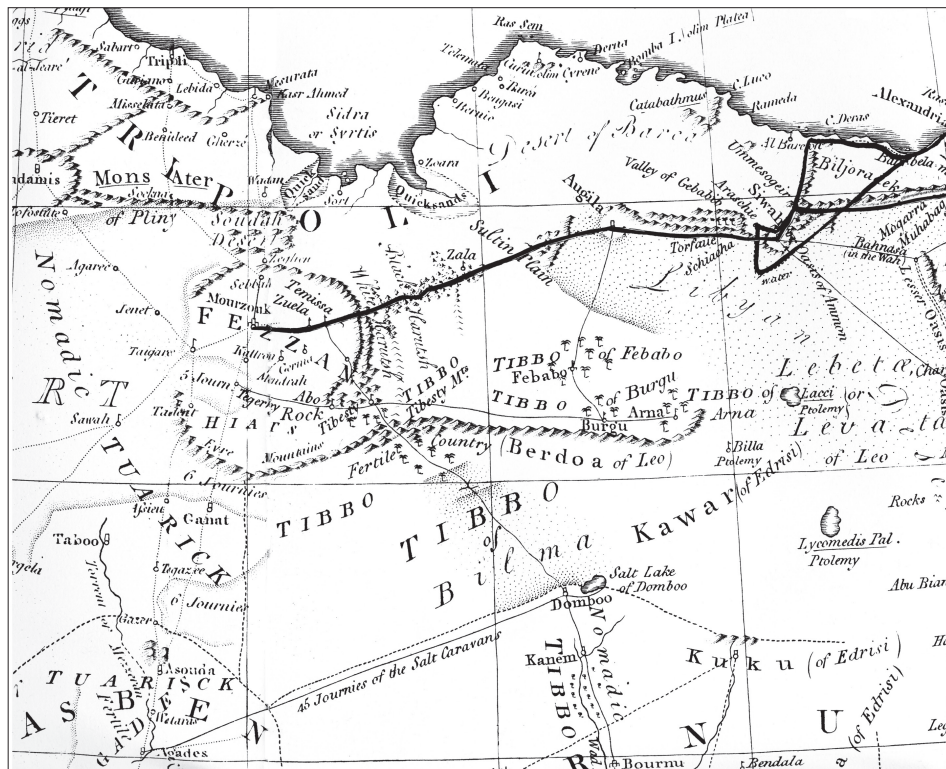
It is interesting that on the two occasions when the Khurmān exercised rule over all of Fazzān, they made Murzuq their centre, rather than Jarma. The sources assembled by el-Hesnawi make it clear that the heartlands of the Khurmān were the Wādī al-Ajāl (specifically the western part of it, al-Wādī al-Gharbī, which was evidently also known as the Wādī al-Khurmān, el-Hesnawi 1990, 89, n. 1). The political centre of gravity within Fazzān had thus shifted irrevocably to the east. Although, we shall

see there is evidence to show that Jarma remained a substantial centre at this date, with impressive fortifications, it was Murzuq, as the key focus for Trans-Saharan caravans, that was the most important location for political control. Aḥmad bin Huwaydī was probably from a local Jarma family, as the continued prominence of the name into the 20th century indicates (the Garamantian cemetery of Sāniat bin Huwaydī was located by the family farm a few km east of Jarma). Although, it is not explicitly stated in el-Hesnawi’s sources, it seems most probable that Jarma was the primary settlement of the Khurmān.

The long-term antipathy between the Awlād Muḥammad and the Khurmān was finally dispelled by the emergence of a mutual threat to their power and prosperity when the Ottoman Pashas established Muḥammad al-Ghazayl al-Muknī as governor of Fazzān in 1689 (Rossi 1968, 211–12). The Awlād al-Muknī made Fazzān their personal fiefdom for much of the next two decades, taxing, extorting and maltreating the population to the extent that they provoked revolts and long-term notoriety (el-Hesnawi 1990, 83–95). After the murder of Muḥammad al-Ghazayl in the first uprising in 1689–90, his brothers Alī and Yusuf evidently sought revenge on his killers and there are indications that this included people from the Wādī al-Ajāl. Muḥammad bin Juhaym of the Awlād Muḥammad evidently took refuge in the Wādī al-Ajāl in 1690, defeating Alī al-Muknī when he led an army in pursuit (el-Hesnawi 1990, 89). In 1699–1700, there was a further major revolt against Ottoman rule during which Alī al-Muknī was evidently defeated by Muḥammad Kāyd of the Awlād Muḥammad in another battle in the Wādī al-Ajāl, this time explicitly at Jarma (el-Hesnawi 1990, 92; al-Jadīd ms folio 4). Rohlfs also had access to an Arabic manuscript relating to the Awlād Muḥammad dynasty and his version of this incident is worth quoting in full (Rohlfs 2001, 134):

‘Les habitants de la province de Cherguiya se révoltèrent contre Moukni et l’assiégèrent à Tragen. Il les repoussa et se mit à leur poursuite, entreprenant alors une grand razzia en direction d’ouadi [al-Ajal], il tomba près de Djerma [Jarma] sur un descendant des Ouled-Mohamed, du nom de Mohamed-Kaïd, qui lui vainquit et le poursuivit jusqu’à Mourzouk. Il assiégea alors la ville pendant un mois, mais il se rendit compte qu’elle était trop bien fortifiée pour être prise d’assaut et dut négocier avec Moukni.’

Figure 1.7. Mapping the Sahara: a) the Delisle 1720 map of North Africa (from Ghisleri 1912, 47); b) Hornemann (1802), note position of Jarma SE of Murzuq.



This seems to place the Khurmān at the heart of the revolt and now making common cause with the Awlād Muḥammad, whose exiled Sultan Muḥammad al-Nāṣir was eventually able to return from exile and regain control (el-Hesnawi 1990, 95).

The overall impression we gain from these accounts is that for much of the late Medieval and

Early Modern periods, the Wādī al-Ajāl remained a semi-autonomous district, only grudgingly paying tribute to the political powers of the day in Zuwīla, Trāghan or Murzuq. The Khurmān of the Arab sources were surely the descendants of the Garamantes, though in this era only spasmodically playing more than a localised role. On rare occasions

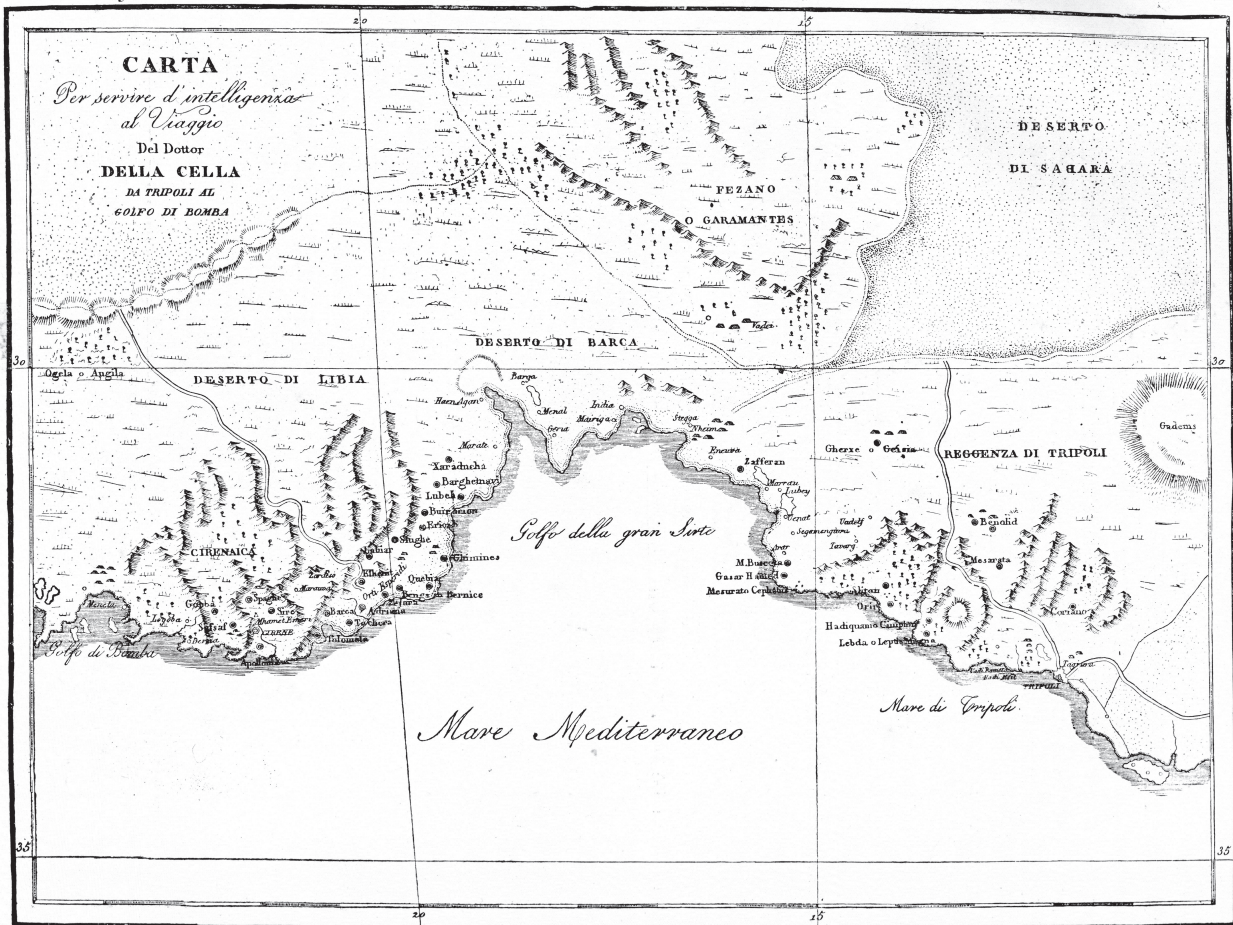


Figure 1.8. The della Cella map of 1826, showing North Africa as seen from Italy (from Ghisleri 1912, 59).

when they appear to have gained political control over a wider area of Fazzān, it is notable that this authority was operated from the eastern capital of Murzuq, not Jarma. Nonetheless, the ability of Jarma to withstand siege and for the Khurmān to put substantial and effective armies in the field is suggested by some of the events reprised above. However, by 1700, the Khurmān and the Wādī al-Ajāl were fading from contemporary events and the 18th and 19th centuries seem to have been times of severe decline at Jarma and elsewhere in the Wādī.

The Accounts of 19th-century European Travellers

In the late 18th century, European knowledge of the interior of the Sahara remained minimal (Figs 1.7 and 1.8). This changed with the passage of a number of intrepid European travellers through Fazzān between the late 18th and early 20th centuries, but the number of direct testimonies of Old Jarma are disappointingly slight. None of the travellers spent any length of time in Jarma, so the information collected is disproportionately meagre in comparison with we learn about Ghadāmī

(Bovill 1964 (Laing); Cherbonneau 1857 (Bonnaire); Duveyrier 1864; Largeau 1881; Mircher *et al.* 1863; Richardson 1848; Rohlfs 1874/1875), Ghāt (Barth 1857/1858; Denham and Clapperton 1965; Richardson 1848; Rohlfs 2001, 73–97), or Murzuq (Denham and Clapperton 1965; Lyon 1821; Nachtigal 1974; Richardson 1848; Rohlfs 2001). On 17 June 1822, Walter Oudney and Hugh Clapperton visited Jarma, approaching along the Wādī al-Ajāl from the east (Denham and Clapperton 1826, lxii–lxiii):

‘Our course lay along the wadey, which grew finer and finer as we advanced, the number of gum-mah and gussub field and date groves increasing. The hills formed some small recesses; the tops of most were level, and all at the same height. Passed several villages built all in the same manner. Notwithstanding the nearness and fitness of the stone, the salt mould is preferred; perhaps from want of lime, and the ease with which the house is erected. Another thing: so very little rain falls, that there is no danger of the fabric falling ... About eleven arrived at Germa, a larger town than any in the wadey, but both walls and houses

have the marks of time. We waited in the house of the kaid till our camels came up. The sheikh, Mustapha ben Ussuf, soon visited us. He is an old man, a Fezzaneer, dark complexion, arch of nose small, tip depressed, and alae expanded, lips a little thick, but mouth not large, hair black, and from the appearance of the beard, woolly. His ancestors may be considered as characteristic of the natives of Fezzan ... the ague is very prevalent in the wadey; and, if we can believe the natives, the water is a very powerful agent in inducing bilious affection. The town is surrounded by a ditch, now nearly dry, and its site covered with a thick crust of the muriate of soda, evidently containing a large quantity of the muriate and sulphate of magnesia. This crust extends to a considerable distance from the town, and is five or six inches thick in places. There are several wells, not two feet [60 cm] deep, containing excellent water. The date trees are close to the vicinity of the town, and most are heavily loaded with fruit. It is lamentable to see the number of houses in ruin, and the marks of poverty in the dress of the inhabitants. We could scarcely get a fowl to buy; and a sheep was out of the question.'

The somewhat idiosyncratic and unpunctuated diary of Hugh Clapperton, ignored in the account of the expedition compiled by Denham, provides some additional illuminating details of the visit to Jarma (Bruce-Lockhart and Wright 2000, 86–90):

'The inhabitants of Kharifa [Qarāqra] appear to be very poor though surrounded by fine fields gardens & date groves the wells are plentiful and the water good it appears that most of the land belongs to the sultan and other people who reside in Morzuk – the Sheikh Ali Tibbo was in rags and we through the meanness of the government of Morzuk can hardly get anything to buy for ourselves our road [to Jarma] lay through date groves fields & gardens and we passed the towns [sic] of Tiwiwa 2 miles to the West and El Fougar ... Braik which is 4 Miles to the West – here the Wells are about 3 or 4 feet deep & the Wady narrows at this point Then Tewish about 3 Miles from Braik to the S.W. at 11 we arrived at Germa We pitched our tents outside the town among some Tallah trees – We were visited by the Sheikh who is an old man called Mustapha who brought some fowels which we ordered and paid for ... We could get no fowls or any other kind of provisions to purchase as the people said they had got orders not to sell any though they came in crowds to get Medecine ... New Germa [i.e. what we know as Old Jarma] is situated nearly in the middle line between the Mountains on the south and the Sand hills on the north and surrounded by date trees gardens and fields which they say all belong to the Sultan the soil appears much better here than in most parts of Fezzan consisting mostly of a black mould, but on the north side of the Town in a considerable salt marsh the salt of

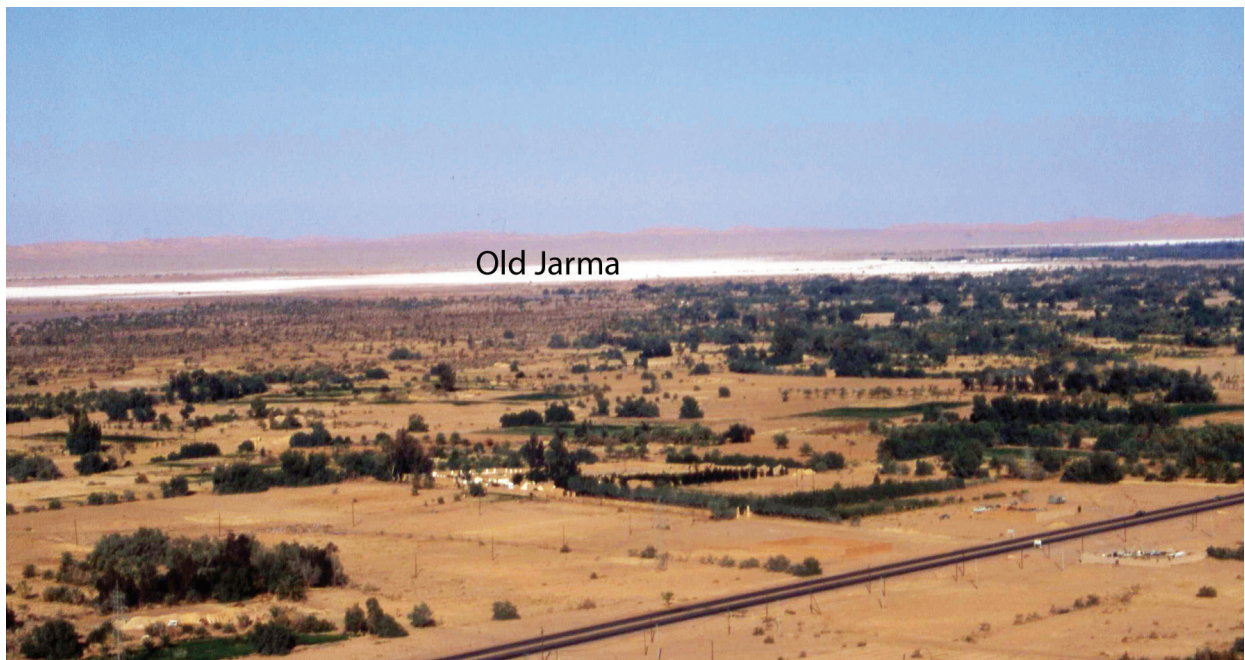


Figure 1.9. Old Jarma (centre) seen from Zinkekra, just below the salt flats which are particularly vivid after winter rains (FP 1998).

which looks like a mighty hard frost after a day of rain [Fig. 1.9] and tastes very bitter - the town is surrounded by a high Wall of mud and flanking towers and there is the remains of a wet ditch which surrounded the town now nearly filled up - the castle is inside the walls but now serves to keep the Sultans dates in only and a very poor place it is for that - the inhabitants are miserably poor in their appearance and the houses are most all in ruins - the Waters in most of the wells are sweet & good and we have in various places in Fezzan found wells of excellent water within a few feet of a salt marshes ... Germa is considered by the people of the country as more sickly than any other and indeed it has the appearance of it but the people of the Wady are as drunken a set as are to be met with in any part of the world.'

Unable to obtain provisions in and around Jarma, Oudney and Clapperton pressed on to the west. When the expedition passed by Jarma again on 11 July, they were armed with a new letter (*tiskera*) from the Murzuq authorities instructing the villages in the Wādī al-Ajāl to supply their needs and severely rebuking the *shaykh* of Jarma in particular for his previous failings (Bruce-Lockhart and Wright 2000, 114–15; see also Denham and Clapperton 1826, lxxviii for an account of a lively wedding party observed on this second visit to Jarma):

'We were waited upon by Sheikh Mustafa on our arrival who was as full of promises as before but when he heard the Tiskera read how he stormed & swore calling all people to witness if he had not done everything to serve us.'

Duveyrier was one of the first Europeans to make the association between the modern toponym and Garama (1864, 275–76). However, he gave no details of the state of the Early Modern settlement of Jarma, instead focusing his remarks on what he thought were the ruins of the Garamantian capital at 'Djerma el-Qedima' or 'Qecir el-Watwat' south of the modern settlement (see above).

The German explorer Heinrich Barth visited Jarma in May 1850. His account (Barth 1890, 71) begins encouragingly:

'Being anxious to visit Old Jarma, and to convince myself of its identity with the Garama of the Romans, I hired a miserable little donkey, and accompanied by the stupid young son of Saeba, set out [from al-Grayf] on an exploring

expedition into the eastern part of the valley. Keeping in general along the south border of the plantation ... I went on slowly till I reached the south-west corner of Jerma kadim, fortified with a rectangular tower built of clay, and exhibiting a very curious arrangement in its interior. The whole circumference of the town, which was deserted long ago, is about 5,000 paces. Here near the town there are no Roman ruins whatever, but the remains of several large and strong towers built of clay are to be seen a little further on.'

Barth was mainly interested in locating the Jarma mausoleum reported by Oudney and Clapperton, but missed it and, reaching Tuwash, had to back-track. The site he described as Old Jarma (Jerma kadim) was not the site we know as Old Jarma today, but the ruined village (GER056) that lies midway between Old Jarma and the Waṭwāt mausoleum (see above, Fig. 1.6 and pp. 7–9 for discussion). Barth only briefly mentions the occupied town of Jarma, which he passed on route eastwards along the Wādī the following day. It is unclear from his description whether he even entered the settlement, but the final observation about the uncared for state of the palm grove suggests significant under-population (Barth 1890, 72–73):

'It was almost four o'clock in the afternoon when Overweg and I pushed on, entering the extensive grove of New Jarma, - a miserable place, which being almost entirely shut in by the palm grove, is almost deserted. The grove, however, exhibited a very interesting aspect, all the trees being furnished with a thick cluster of palm-bush at their roots, while the old dry leaves were left hanging down underneath the young fresh crown ... it did not argue much for the industry of the inhabitants.'

Another mid-19th-century visitor was Edward Vogel, sent out to join up with Barth's depleted mission in Central Africa in 1853. While awaiting the departure of his caravan from Murzuq, he managed a brief excursion to the lakes in the Dahān Ubārī and the Wādī al-Ajāl. As he was subsequently killed in Central Africa, only a brief notice survives of this part of his journey (Vogel 1854, 279):

'A row of palm-trees, together with numerous wells and villages, forms a fringe along the northern side throughout the whole Wadi; Bimbeja, Kerkiba, and Djerma (17 miles W. of

Kerkiba) being the most important of these villages. Djerma, though nearly as large as Sebha, is almost abandoned, and contains only forty inhabitants. To the W. of Sebha, and also near Murzuk, I found ancient towns, apparently built by the Romans; likewise the enclosure of a well near Djerma, undoubtedly of Roman origin, together with extremely interesting tombs...

Jarma in the Colonial Period (1911–1951)

The initial Saharan exploration and census-taking by the Italian colonial regime encountered a failing village within the ruins of the town (Gliarelli 1932, 123):

‘Poche e misere casupole costituiscono l’attuale villaggio [di Gérma]. L’oasi comprende circa 5000 palme, 16 giardini ed altrettanti pozzi.’

The account of Scarin (1937b, 625) is a little fuller:

‘Il villaggio odierno di Gérma è situato in mezzo all’oasi (ab. 144, palme 3000) in un leggero rilievo, su area molto vasta, con i resti d’un castello quadrangolare. Il centro abitato è quasi completamente distrutto; sono rimaste in piedi poche abitazioni, di cui in alcune sono stati adoperati materiali trovati qua e là nei resti delle costruzioni romane (colonne, pietre squadrate, capitelli).’

The archaeological focus of the Italian Mission to Fazzān of Pace, Sergi and Caputo (October to December 1933) was the cemeteries of Garamanian date, but they made one significant intervention in Old Jarma. This sondage dug by Caputo confirmed the existence there of Roman period



Figure 1.10. The stone-footed building excavated by the Italians in 1933 (after Pace et al. 1951, 241).

remains, while observations at the alternative ‘Jarma kedima’ (noted by the first European travellers) a few km to the south revealed nothing before the Islamic/Early Modern structures (Pace et al. 1951, 159):

‘Si premette che nei testi italiani si nota molta, ma spiegabile incertezza quanto al sito di Germa l’Antica (el Ghedima). Le rovine di questo centro appaiono, nelle quasi assoluta totalità, di architettura sahariana e d’epoca postromana, in ogni caso di tipo locale. Sono le solite costruzioni di fango. Ma giacciono nello stesso luogo in cui sorgono le abitazioni di Germa attuale e non, come si dice, ad alcuni chilometri da questa, bensì frammiste. Questa Germa ‘antica’ è quale si mostra, assolutamente medievale e moderna. Quello che c’è di classico sia pure di tarda epoca e che solo lo scavo ha potuto accertare, affiora raramente, forse vi è sepolto.’

The presence of some large stone blocks reused in the mosques of the town and traces of others in the foundations of buildings, led to a trial excavation. Caputo uncovered part of a stone-footed rectangular building between the ‘large’ and ‘small’ mosque at Jarma. It is not clear if this means the two main mosques, in which case his intervention was between the South Gate of the city and the central mosque, or whether it means between the central mosque and the small Fātimah Hadria mosque close to the East Gate. If the latter, the structure unearthed by Caputo (Fig. 1.10) may well equate with Building 8 in the FP sequence, though the description of the building does not precisely match that structure (Pace et al. 1951, 240–41):

‘... conci di notevole grandezza ... si sono dimostrati appartenenti a una stanza leggermente trapezoidale avente queste dimensioni: m. 7.70 x 7.50; 6.65; 6. Il muro che si conserva maggiormente alto è quello di sud, raggiungendo m 0.62 contro uno spessore di m. 0.77. La tecnica costruttiva è di duplice aspetto: quella in grandi conci appartiene ai muir di nord e di ovest, nel quale ultimo però fu aggiunta una fodera di piccoli blocchi piani su tutte le facce, meno l’interna; questa è la seconda tecnica, che, a doppio paramento con pietre intermedie, è la sola adoperata per il muro sud. I conci maggiori sono congiunti con calce, i piccoli con argilla. Sull’asse EO, quasi al centro, sono i resti di un focolare, a ridosso di due blocchi di arenaria

quarzosa, che occupano il mezzo del grande vano per un'altezza complessiva di m. 0.46, e non so a quale altro scopo collocati, uno sull'altro, se non per fondazioni di colonne o pilastri che saranno serviti, come ho osservato in case tarde di Leptis Magna ... Si è trovato qualche coccio del tipo della ceramic dipinta in bianco e rosso ... La casa sorta in epoca romana ebbe un rifacimento in epoca proto-bizantina. Questo ci dicono le due tecniche costruttive e i frammenti in ceramica tornita di buona argilla e cottura, trovati nello sterramento.'

The key points to note from this account are as follows:

1. The dressed stone blocks visible at the surface did relate to buildings constructed with regular masonry walls;
2. The two different techniques observed in the excavated building (both ashlar and coursed, two-faced construction using smaller blocks) suggest a Roman period initial phase and a later refurbishment;
3. The larger ashlar walls (north and west) were bonded with mortar, the smaller two-faced work with mud (south);
4. The nature and quality of the stone dressing is comparable with Roman work in the coastal cities in northern Libya;
5. Wheel-made Roman pottery was recovered along with local wares with painted red and white decoration;
6. There was a raised central hearth in the room, aligned east-west.

As we shall see, all these observations have been borne out by later work. Caputo's discovery convinced the Italian colonial authorities that Old Jarma was indeed the location of the capital of Garamantes. Once the Italians established ancient origins for the still partly occupied but failing old mudbrick caravan city, they forcibly relocated the last remaining inhabitants and declared the site an ancient monument in 1935 (Pace *et al.* 1951, 240). The swamp-like mosquito breeding grounds alongside the old town had contributed significantly to the decline in population over many years and the malarial marsh affected Libyan workers brought together to assist the Italian mission, necessitating a move of their main camp away from the oasis (Pace *et al.* 1951, 157). This was a secondary issue in relocating the population further away from Old Jarma.

Although primarily focused on finds from tombs, the Italian discoveries of Roman material in the Jarma area caused something of a sensation (Camps 1955a; Wheeler 1955), though it was to be 30 years before there was proper follow up.

The American archaeological adventurer Count Byron de Prorok also visited Jarma in the early 1930s, but his account is so full of inventions and exaggerations that it cannot be trusted (Prorok 2001, 107–08):

'Here, a few inhabitants came from their crude straw huts to see our roaring caravan approach. They left their wells, which were operated by weary donkeys who walked their little paths and dragged on a rope, hauling a little water to the surface ... The contrast of the ancient capital with the little hovels that mark it – hovels simply made of bamboo canes and leaves – is a mute testimony to departed glory ... The ruins were in desperate condition, which we spent the day visiting, and where we succeeded in finding evidence of Libyan and Roman foundations. We calculated that fifteen thousand people must have existed in this region prior to the Turkish conquest; but that slavery and barbarism had wiped out the population.'

Jarma in Post-Independence Libya (1951–2011)

The French travel writer Phillipe Diolé made an extensive Saharan journey in the early 1950s, with one aim of his quest being to investigate the heartlands of the Garamantes. His colourful account (Diolé 1956, 134–35) perfectly captures the hopes and prejudices of the age – especially regarding the cultural responsibility for the rise and decay of their civilisation (Rome and the current inhabitants respectively):

'A few bushes could hide the dead city of the Garamantes from our sight. It is there all right, its jagged walls pointing towards the blue sky. It is a mass of ruins devoid of nobility, without a single column, without one white gleam of stone or marble. Clay bricks crumble between the fingers; everything has fallen in, slid down a decaying slope. The colour of everything is a dull and dismal red, almost black under the implacable blaze of the sun. This is not a city in ruins; it is something that has gone to pieces, that has decayed on the spot and is now clammy, toothless, without form. Where are the houses, the palaces, the temples. What was I hoping to find here? Volubilis?



Figure 1.11. M. S. Ayoub at the Jarma mausoleum UAT001 (CMD 1965).

Timgad? If anything is left, it will be under the soil, mingled with the brick dust. But, for lack of resources, there has never been much excavation here ... In any case the site is worth studying. There has certainly been a stronghold here. The entire city is built on a hillock, defended by a rampart. Thick walls are still standing, and there is a depression where the moat was ... But in the clarity of the plan and the solidarity of the ramparts Roman order can be divined. This was more than a military post; it was, in spite of its present decay, a city, where men did their best to implant civilisation with the means at hand. Careful examination reveals that the brick walls were set on strong foundations of sandstone ... The children crowding round lead me to the ‘mosque’. There is nothing more than a quadrangle of walls open to the sky; but the uprights of the door are made of two beautiful pieces of stone with sharp angles – incontestably a Roman work...’

The Sudanese archaeologist Muḥammad S. Ayoub (Fig. 1.11) came to Jarma late in 1961, having been appointed as the first Controller of Antiquities for the Fazzān (Ayoub 1967a, 23):

‘The city of Old Germa stands in a palm grove in the valley about 10 km north of the Royal Cemetery. Aerial photographs show that the city is oval shaped. It is surrounded by a wall built with an extremely hard mixture of black soil and salt. At many points along the walls are the remains of towers and gateways. The walls are surrounded by a moat, partially filled with water supplied by a spring which rises in the western [eastern?] corner of the city. The water in this moat is stagnant and full of mosquitoes ... In the western corner of the city stands a structure surrounded by a high wall; the local people still maintain this was the palace of the governor of Germa during the late Islamic era. This structure seems to have been a high fort, with walls and towers reminiscent of Saharan Islamic architecture. This ruin is surrounded by lanes, passages, and the ruins of houses. ... I made a careful study of the city and its surroundings. I noticed that some of the mudbrick walls of houses which were occupied until recent times stood on big stone block foundations. Some of these stones had been used to make steps up to the modern houses, and a number of the blocks were in fact capitals of columns. The builders of the mudbrick houses had plainly used stones from earlier buildings as supports and foundations for their own structures.’

After his initial prospection in 1961, he quickly began a series of excavations at Old Jarma as well as at other Garamantian sites in the Jarma area. The work took place in 1962–1964 and 1966 (Ayoub 1968b, 18). Though some initial notices on these excavations were published in the 1960s, nothing close to a final report has ever appeared (Ayoub 1962; 1967a; n.d.). The excavations will be described in Chapter 3 below. His excavations at some of the most important Garamantian cemetery sites around Jarma (Ayoub 1967a/b; 1968c; n.d.) have been commented on in detail in *AF3* (Mattingly 2010, esp. 213–43; 359–69).

There was considerable press coverage of his work in Libya at the time, with the standard description of the site running along the following lines: ‘The city, protected by a circular wall, is buried under 12 feet of sand, and excavations have revealed a temple and two cemeteries’ (*Sunday Ghibli* 2 May 1965). Some of the initial

claims about the work were inflated or fanciful – for instance, the identification of one building as a temple of Tanit (*Sunday Ghibli* 19 January 1964) or the discovery of a pottery shop at Sāniat bin Huwaydī (*Sunday Ghibli* 26 May 1963). Ayoub’s overall conclusions (1967a, 41) about his excavations at Old Jarma are worth citing at length:

‘The lowest layer in the excavated site of Germa had not yielded any materials earlier than the first century AD. Most of the oldest structures had been erected during the first half of the second century AD. ... It seems the Garamantes had been deeply influenced ... by the Greco-Roman architecture. ... The remains found in the ruins show that the inhabitants of this site had enjoyed a happy luxurious life. This was sometimes interfered with by raids or troubles which left the traces of ashes on the walls of the structures. Most of the ashes relate to the early third century. ... The buildings were soon restored and re-inhabited again and Germa started to enjoy all the appearances of the cities existing in the Roman world. ... The site was continuously occupied till the last days of the C7 AD. ... The city was absolutely deserted in the 8 Century AD. ... A new site to the west of the excavated area was inhabited by the Khorman during the C14 AD. ... On this new site the Khorman erected a mudbrick high walled structure (the casba) and the small mudbrick settlements which surround it. It seems that the first site was completely covered afterwards with sand and dust. ... During the C19 AD, none of the local people remembered the ruins which were under their houses so the European travellers who visited Germa never heard of them.’

As we shall see, there are serious problems relating to the methods applied by Ayoub and much that he says here has been contradicted or substantially nuanced by subsequent work.

The work of Charles Daniels (CMD) overlapped with that of Ayoub and his published works and interim reports for long represented the benchmark of knowledge (Daniels 1965; 1967; 1968a/b; 1969a/b; 1970a/b; 1971a/b/c; 1973a/b; 1975; 1977a/b; 1989; Mattingly 2010 presents a detailed study of his work at sites other than Old Jarma). In 1958–59, CMD visited Old Jarma for the first time and his notes and photographs provide valuable indications of the site at that time (Figs 1.12; 2.39b). His unpublished notes from the 1959 visit which predate the start of Ayoub’s work are worth quoting in full:

‘13 August 1959: Visit to Germa Deserta. Went round the perimeter almost all the way after having arrived at west end, by following the track from its west end clearly shown on aerial photograph. Moat to west not very pronounced. Moat to north quite pronounced, especially to N/E corner, on E it rather resembles a great lake. Quite a moat at SE too and a dip along rest of S side and SW ... The Casbar and W mosque are in a raised portion of the town, densely populated. The E portion is less thickly ‘housed’ and over against the E wall there are appreciable gaps in the town. The Casbar-Mosque portion is raised somewhat, most noticeable by the mosque, and is possibly the oldest part of the tell, not an addition. The Casbar is falling and its inside shows considerable signs of rain-water erosion, though few buildings. To the W of the Casbar & between it and the outer wall there is a marabout, almost neglected. The houses in the W portion are decaying & occ. there is a palm-tree trench cut in the ruins where there has been attempt to plant amongst (& presumably over, in time) the deserted houses. Most have died. In the [south] mosque there is the remains of a well (see sketch) with water about 15ft (?) down perhaps 20 or 25 even. Inside the small priest’s house (?) there was an interesting stone shaft, about 4ft x 1 1/2ft and a foot thick, but it was completely unmarked by the carver ... The marabout near the mud entrance is a double one, the W-most grave has a bright green pot on it, inverted – it was there 16 months ago when I last saw it. Around the graves were piles of almost ripe dates as offerings. In the east part of the town at least 2 other marabouts. Also, in the east portion, lying in the north part of the town is the second mosque. It has a well and a squarish trough in the courtyard. A well to the East of the town still in use, though pretty filthy in colour, & on the point of collapsing for final time ...



Figure 1.12. GER001, view of qasbah facing W (CMD 1962).



Figure 1.13. Ian Richmond (left) cleaning the standing section at GER001.4 (CMD 1965).

A good scratch yielded many stones but none suggestive of Roman use. Also no pottery of any antiquity which was not manifestly ‘wog’, & therefore undatable.’

With Sir Ian Richmond, he was subsequently able to make a series of crucial interventions at Jarma in support of Ayoub (Figs 1.13–1.14). During the 1962–63 winter visit of CMD and Sir Ian Richmond to Fazzān, Ayoub allowed Richmond to cut a slit trench through the floor of the impressive building he had uncovered (GER001.1). Richmond observed that there were mudbrick walls visible below the stone phase of this building (Chapter 3 below). In 1965, with Ayoub’s approval and assistance, CMD followed up with some stratified trenches in

GER001.1 and cleaned the standing section behind GER001.4 to try to establish the chronological sequence and dating evidence (Daniels 1965; Mattingly 2007, 115–20). CMD also made further sondages in 1969 below the floor of the Garamanian temple identified by Ayoub (GER001.3) and a partially excavated complex at the north-west limit of Ayoub’s excavation area (GER001.4) (Daniels 1969b). Another task undertaken by CMD was the survey and record of portions of the Medieval Arab town. The extant citadel (*qaṣabah*), previously the Governor’s residence, was surveyed in detail by measurement and by photography. Other records of the domestic buildings, city walls and gates will be included at relevant points in the report (Chapters 2 and 3).

The American writer James Wellard spent three weeks in Fazzān in November and December 1963, meeting Ayoub there and becoming fascinated by the Garamantes and the archaeology of the Sahara. This led to his publishing two books (1965; 1967) and a series of journalistic pieces (1964a/b). He recognised the disparities between the impoverished and under-populated oases of the 1960s and the abundant signs of a once thriving but now lost civilisation. His descriptions of the standing buildings of Old Jarma were exaggeratedly dismissive to make the contrast with the ‘lost city’ of the Garamantes more striking: ‘a collection of mud hovels beside the washboard track which runs along the valley’ (Wellard 1965,

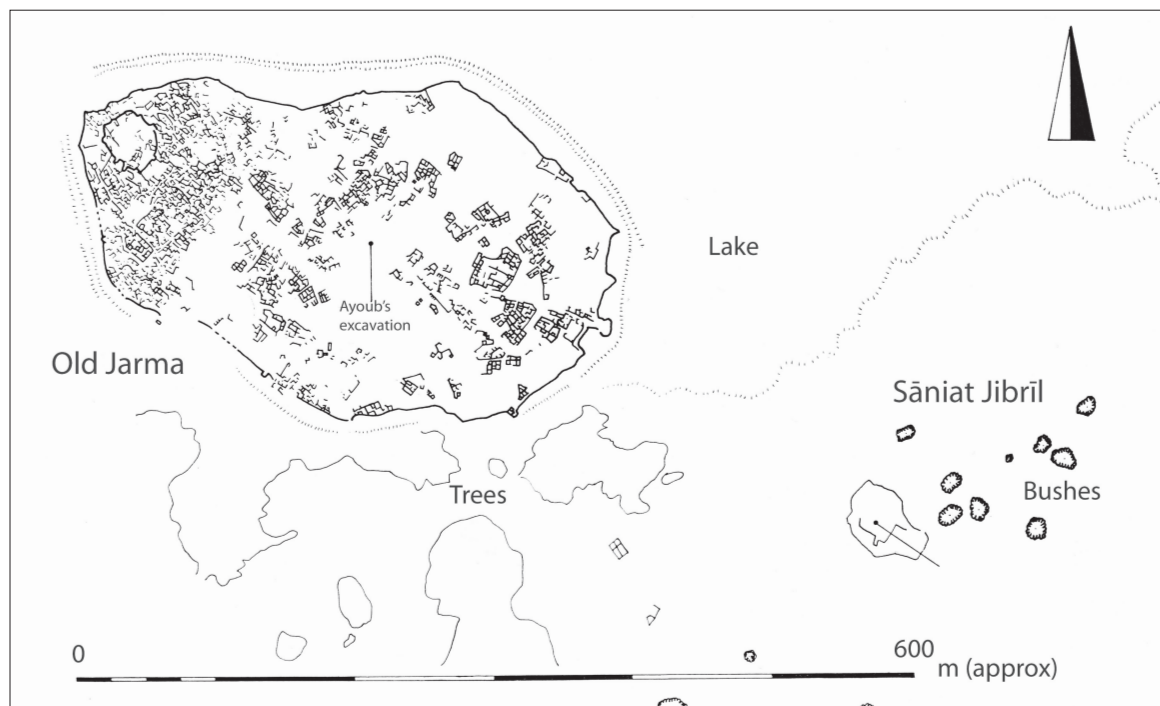


Figure 1.14. CMD’s plan showing relationship between Old Jarma, Sāniat Jibrīl and the postulated lake.

31) and ‘a mud-built Arab village of incredible squalor, infested with mosquitoes and scorpions’ (Wellard 1964a, 610). He described it as ‘an eerie place, with its crumbling mosques, Roman wells, and malarial marshes’ (Wellard 1965, 51). Wellard claimed that the site was actually abandoned because so many children died from scorpion stings each year, though this is in fact a confusion with another nearby village, Ibrayk (Wellard 1964a, 610; Despois 1946, 97). His main description of the excavations is worth quoting in full (Wellard 1964a, 610):

‘[t]he famous Germa mausoleum was in fact the tomb of some unknown Roman, a person of considerable importance, possibly a provincial official, perhaps an army commander ... we can conclude that the Romans were here for at least six centuries, first as conquerors, then as administrators and finally as colonists ... It had already been noted that Germa ... had a great number of dressed stones built into the lower courses of the mud huts, indicating that there was an ancient settlement under the labyrinth of hovels that constituted the modern village; and soon after excavations were begun, buildings of characteristic Roman construction began to emerge from the rubble. There was no doubt that here was the Romanized capital of the Garamantes. The Garama of Pliny and other Roman historians had been discovered. Work has, of necessity, gone slowly, and has to stop during the summer months. So far, what appears to be the main citadel (or according to another theory, a large temple) has already been uncovered. Near it, the streets and houses of a provincial Roman city are being uncovered, indicating that Garama ... retained its importance as the capital of the Garamantes throughout the first six centuries of our era.’

His views on the Romans were similarly forthright (Wellard 1965, 167):

‘So Oudney was right. The Romans were here as conquerors and colonizers; and it was from Germa, or *Garama*, that they controlled the roads and tracks which went south and east to the trading posts throughout Central Africa.’

This view was slightly tempered by the time he wrote his later book, but the Romans still cast a long shadow over the changes in desert civilisation as he saw it (Wellard 1967, 65–68):

‘... it was the prosperity of these defenceless Africans that incited white settlers along the Libyan coast to invade the Fezzan. These immigrants (originally it seems having come to Africa from Asia Minor) were the Garamantes ... the presence of a Roman tomb nearby [to Jarma] attested to the conquest of the Garamantian Empire by the legions in 19 BC ... so valuable was the Saharan caravan trade that the Roman army must have continually sent reconnaissance forces down into the desert ... loaning [the Garamantes] engineers ... to build forts and blockhouses along the caravan routes.’

As we shall see, the belief that the Romans (or non-African white people) were ultimately responsible for the urban society that emerged here flies in the face of the evidence, but strongly echoes the Italian colonial view (Pace *et al.* 1951, 213–18 and 252–70), also voiced by Wheeler (1955, 128–31). Wellard’s work extended beyond being an observer. At Ayoub’s invitation he undertook excavation of a Garamantian pyramid tomb at al-Ḥaṭīya (Wellard 1964b). Although the structure had been robbed, sufficient evidence remained to show that this was very far from being a Roman monument, leading Wellard to date it to the period before Roman contact (in reality the tomb was Classic Garamantian in date and reflected the underlying Saharan character of Garamantian society, Mattingly 2007, 76–83).

The British writer Philip Ward took a more realistic view of the Roman contribution to Garamantian civilisation. He visited Fazzān in December 1963 and again in December 1964 (with his new wife Audrey) and October 1966, researching his guidebook to southern Libya. During these trips he met Ayoub cataloguing artefacts from Jarma in the Sabhā museum (Ward 1968, 37). Ward’s account concerning Jarma is quite brief and largely based on ‘intelligent conjecture’ (presumably his conversations with Ayoub). He writes of a ‘city submerged under seven metres of mud-brick tell indicating continued occupation of the site of Garama’ (Ward 1968, 70–71). His photographs (Fig. 1.15) show that by December 1964 Ayoub’s excavation had already reached its maximum extent towards the north, exposing Building GER001.4 below the section visible in the distance and that some of the architectural blocks from the temple GER001.3 were informally displayed on site. He noted the lack of any evidence of Roman annexation of Fazzan: ‘it is inconceivable that so practical a power as the Roman Empire should



Figure 1.15. Philip Ward's photographs of Ayoub's excavations in December 1964: a) Audrey Ward by Building GER001.1, facing NW; b) architectural elements from GER001.3, facing NW (Philip Ward archive).

ever try to establish permanent lines of communication over such vast distances with so little profit resulting from the expenditure of manpower and money' (1968, 73). While admitting that the standing buildings at Old Jarma were difficult to date and might be only a few hundred years old, he postulated that the 'Berbers built a new fortress and a village on the remains of Garama, possibly about the sixteenth century' (1968, 73). His book is also notable for the vivid impression it gives of the trials and tribulations of travel in southern Libya in the mid 1960s, a point even more clearly illustrated by unpublished notes and manuscripts written by him and Audrey at the time (Fig. 1.16).

In the 1960s, the German archaeologist Helmut Ziegert excavated some deep soundings at Old Jarma (for the general context of his work in Fazzān, see Ziegert 1969). He seems to have had the same basic idea as the later Fazzān Project, to excavate from the top to the bottom of the stratigraphic sequence, but his two square trenches were too restricted to permit effective control of the process.

The trenches can be recognised, still several metres deep, though the sections have slumped. Our local informants reported to us that it proved difficult to follow the stratigraphic sequence, because of the number of pits and the lack of complete rooms encountered. Sadly, nothing about his findings has ever been published.

The Austrian archaeologist, Ruprechtsberger visited Jarma in the 1980s–1990s and took many photographs of the key Garamantian sites, including Old Jarma. These images represent a useful record of the state of the monuments before the start of the Fazzān Project, though the descriptive text largely summarised the earlier work of the Italians, Ayoub and CMD (Ruprechtsberger 1989; 1996; 1997).

THE FAZZĀN PROJECT (FP) EXCAVATIONS AND SURVEY 1997-2001

One of the drivers behind the research design for the FP was the fact that the connections of the historical Garamantes with the neolithic pastoralists and rock artists of the region and similarly with the Fazzānese population under Islamic suzerainty had been little explored hitherto. Much of the previous work in the region had had a restricted chronological focus, or had concentrated on burials. There was thus an opportunity to construct a broad diachronic study of a key Saharan region that would bring together evidence for settlement form and lifestyle, funerary traditions, material culture and inter-regional contacts. The potential to shed further light on an important Libyan people (for a range of broad studies of ancient Libyans, see Bates 1914, Brett and Fentress 1996; Camps 1980; Desanges 1962; Hachid 2000) was even more exciting if the study encompassed the broad range of population groups: Fazzāni, Berbers, Arabs, Turks, Tuareg, Tubu, Dawāda, sub-Saharan groups, and so on.

The specific aims of the Fazzān Project were outlined as follows (Mattingly *et al.* 1997, 12–13):

1. to study the settlement history of Fazzān in the last 12,000 years;
2. to map in detail archaeological remains in the vicinity of Jarma;
3. to carry out stratigraphic excavations at Old Jarma (ancient Garama);
4. to evaluate the environment and climate of the past;
5. to assess the hydraulic technology of oasis exploitation across time;

6. to gain knowledge of the diet, health and nutrition of the inhabitants of Fazzān through the study of botanical remains, animal bones and human skeletal evidence;
7. to study the economic contacts of the region through time;
8. to enhance and bring to press unpublished work by Ayoub and Daniels.

The work at Old Jarma contributed to the elucidation of all these themes. It included both survey and excavation aimed at investigating all phases of the history of Jarma (Mattingly *et al.* 1997; 1998a/b; 1999; 2000a/b; 2001; 2002 for interim reports). We also sought to clarify aspects of the earlier excavations carried out by Ayoub and CMD, so as to produce a more rounded picture of this key site. The survey work is described in Chapter 2, complementing the accounts of past visitors and historians and providing the essential background detail that makes up Part 1 of this book.

The excavation work features in Part 2, with the presentation of Ayoub and CMD's work (Chapter 3), followed by an introduction to the FP excavations (Chapter 4). Excavation was focused on four adjacent zones, sites GER001.G1-G4). G1 was the main excavation trench (Chapter 5), with G2 a standing section at its edge that had been first

recorded by CMD (Chapter 5 and 7). Area G3 was a small trench opened over the corner of a building partially revealed in Ayoub's excavations and that linked with the G1 sequence (see below, Chapter 6). G4 comprised a series of sondages below the foundations of the Garamantian temple Building GER001.3, again adjacent to G1 and G2 (Chapter 8). A small amount of recording was also done on a structure first revealed by Ayoub and recorded by CMD, GER001.4 (Chapter 3).

A large number of AMS (radiocarbon) dates were obtained as part of the FP work and for the first time, they allow a more nuanced picture of the urban chronology to be presented (Chapter 4). Some key types of feature are discussed in Chapter 9, along with an initial analysis of small finds by context type and phase.

The architectural fragments from stone buildings are presented in Part 3 (Chapter 10), along with discussions of the evidence from both excavation and survey relating to the urban layout and domestic buildings of the Garamantian (Chapter 11) and Islamic eras (Chapter 12).

The finds from the excavations are presented in Part 4, divided between pottery (Chapter 13), glass (Chapter 14), figurines (Chapter 15), ground stone tools (Chapter 16), other small finds (Chapter 17) and palaeoeconomic data, specifically plant



Figure 1.16. A famous peril of desert motoring in the pre-tarmac era – the washboard tracks (Philip Ward archive).

remains and animal bones (Chapters 18 and 19). Part 5 attempts an overall synthesis of a remarkable urban biography, combining the stories of structures, people, animals, economic activity and food processing, nutrition, trade and consumption. The material presented in this book provides a unique diachronic dataset for a Saharan site, allowing us to analyse changes across time in the material culture, diet and trading connections of the town.

The CD accompanying this volume (Part 6) contains further chapters presenting stratigraphic

data (Chapter 21) and tabulated information on and catalogues of different classes of finds: architectural stonework, pottery, glass, figurines, ground stone tools, small finds, botanical and faunal remains (Chapters 22–29). We plan to make these data available also via a web depository.

Jarma now emerges from the shadows and the dust as a key testimony to the historical realities of the Garamantes and to the Medieval Saharan lifestyles that long outlived the waning of the Garamantian kingdom.