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0. INTRODUCTION: THE WORK OF C. M. DANIELS IN FAZZĀN, SOUTHERN LIBYA

By D. J. Mattingly, J. N. Dore[†] and C. M. Daniels[†]

CHARLES DANIELS AND LIBYA

Life and Career

Charles Manser Daniels (CMD) was born on the 10 August 1932 and attended Newcastle Royal Grammar School and Durham University, gaining a BA in Modern History in 1952 and an MA in Archaeology in 1958. After a research fellowship at the University of Newcastle, he was appointed Assistant Keeper of the Museum of Antiquities there – a post he held until 1973, when he was made Lecturer in the Department. He finished his career in 1996 as Senior Lecturer, still at Newcastle, serving also as Keeper of the Museum of Antiquities and Head of the Department. His fieldwork was notably wide-ranging, though the North-east of England and Hadrian's Wall was always a core concern of his (Daniels 1978). In the early 1960s he worked with the British School of Rome, excavating a series of churches in South Etruria (Christie 1991). As early as 1958 he had made his first trip to southern Libya (Fazzān) and his work on the Garamantes took place in a series of ten campaigns spread over the next 20 years. In the 1980s he shifted his focus to excavating in Sudan, but still combining two of his long-term interests, the archaeology of African societies and of churches (see further Jones 1996, for an obituary of CMD in *Libyan Studies*).

Although acknowledged as a fine field archaeologist, it is fair to say that CMD did not excel in delivering final reports on his various projects. The short book (Daniels 1970b) and nine articles on the Garamantes published in his lifetime do not do justice to the extent and significance of his Libyan fieldwork (see further below on the published outputs). The early excavations at Zinkekrā were written up in substantial form (Daniels 1968a; 1970a), but the later phases of the Zinkekrā work and other large-scale excavations at Sāniat Jibrīl and Sāniat bin Huwaydī (and minor excavations at a host of other sites) have remained very largely unpublished. This had nothing to do with lack of ability as a writer and synthesiser, nor

was it the result of disorganisation – his archive of materials was well maintained. CMD published many important articles and a few larger reports in his life, but he was a perfectionist when it came to the point of completion of his major projects. It is a pity that this tendency towards prevarication led to much of his best work only being published posthumously, finally enabling the quality and importance of his contributions to become better known than was the case in his lifetime (see also Rushworth 2009 for the long-delayed publication of CMD's work at Housesteads fort).

It is apparent from the archive that a huge amount of work had been achieved in terms of organising the finds, largely in a period when Charlotte Tagart was employed as a research assistant in the early 1980s. However, almost nothing existed in terms of draft stratigraphic reports or overall synthesis. In certain respects, the work of the Fazzān Project (FP) has allowed us to get round some of the mental 'road blocks' that deterred CMD from committing to print – the lack of a pottery type series for anything but the imported wares, or the uncertainty of attribution of a Garamantian date to some of the oasis villages and urban settlements. However, the passage of time has not been entirely helpful to the process of publication and the observant reader of this volume will perceive areas where some crucial piece of evidence was no longer accessible to us, or data are presented less fully than one would ideally hope for in a modern report. Nonetheless, this is an extraordinary body of work – all the more important because there is so little like it from anywhere else in the Sahara or the Maghrib relating to an indigenous people of this time period. The finds assemblage reported on here is quite extraordinary in terms of the range, quantity and quality of imports that reached the central Sahara from the Roman Mediterranean world (see especially Chapters 3, 5, 6 and 8 below). But there is also vital information about the evolution of a highly distinctive local material culture that we can recognise as 'Garamantian' across a period of 1500 years (see especially Chapters 1–3, 5–6, 8).

Table 0.1. Summary of CMD's Fieldwork 1958–1977.

Year	Site	Nature of Work
1958	General visit to Wādī al-Ajāl (GER001, ZIN001–3, TAG001, LAR001, etc.)	Photographic record of selected sites
1959	Tāqallit cemetery (TAG001)	Excavation, sherding
1959	al-Khara'iq cemetery (CHA001)	Sherding, examination
1959	Old Jarma (GER001)	Site visited and described
1959	al-Ḥaḥīya (ELH001–2)	Site clearance
1962/3	al-Ghrayf (LGR001)	Site examined
1962/3	Tuwash (TWE001)	Excavation
1962/3	al-Fuḡār (FUG001)	Excavation
1962/3	Royal Cemetery (GSC030)	Excavation
1962/3	Tāqallit (TAG001)	Sherding
1962/3	Zinkekrā (ZIN001–3)	Site visited
1965	Zinkekrā (ZIN001–3)	Survey, excavation, sherding
1965	Jarma (GER001)	Surveying, excavation
1965	Sāniat Jibrīl (GER002)	Excavation
1965	Tuwash (TWE001)	Excavation
1965	Waṭwāt (UAT001)	Surveying, excavation
1965	al-Fjayj (FJJ002–11)	Surveying, sherding
1965	Tinda (TIN001)	Surveying, sherding
1965	Ikhliif (CLF008–010 f)	Surveying, sherding
1967	Zinkekrā (ZIN001–3 f)	Excavation
1967	Waṭwāt (UAT001–18)	Surveying, sherding
1967	Royal Cemetery (GSC030–31 f)	Surveying, sherding
1968	Qaṣr Māra (MAR001 f)	Exploration, sherding
1968	Qaṣr ash-Sharrāba (SCH020 f)	Exploration

Year	Site	Nature of Work
1968	Bī'r Baqqārā (BBG001 f)	Sherding
1968	Wādī al-Nashw'a (NSH001 f)	Exploration
1968	Ghuddwa (GDD001 f)	Sherding
1968	Muzurq/Trāghan (MZQ001)	Exploration
1968	Zuwīla (ZUL001 f)	Exploration, sherding
1968	Murzuq (MZQ001)	Surveying, planning
1969	Jarma (GER001)	Surveying, photography, excavation
1969	Zinkekrā ZIN001–3)	Surveying, sherding, photography
1969	Sāniat Jibrīl (GER002)	Survey
1971	Sāniat Jibrīl (GER002)	Excavation
1971	Qaṣr Lārkū (LAR001 f)	Exploration, sherding
1971	al-Qṣir (LEK001 f)	Sherding
1971	Tuwash (TWE021)	Exploration
1971	Ikhliif (CLF001–2, 008–010)	Exploration
1973	Ikhliif (CLF008–10)	Surveying, planning, excavation
1973	Tinda (TIN001)	Survey, excavation
1973	al-Khara'iq (CHA003–08)	Survey, excavation
1973	al-Qṣir (LEK001 f)	Survey, planning
1973	Zinkekrā (ZIN001.3)	Excavation
1973	Sāniat bin Huwaydī (GER011)	Excavation
1973	Sāniat Jibrīl (GER002)	Survey, recording
1977	Sāniat bin Huwaydī (GER011)	Excavation, photography, planning, surveying
1977	Sāniat Sulaymān Krayda (GER027)	Survey, excavation

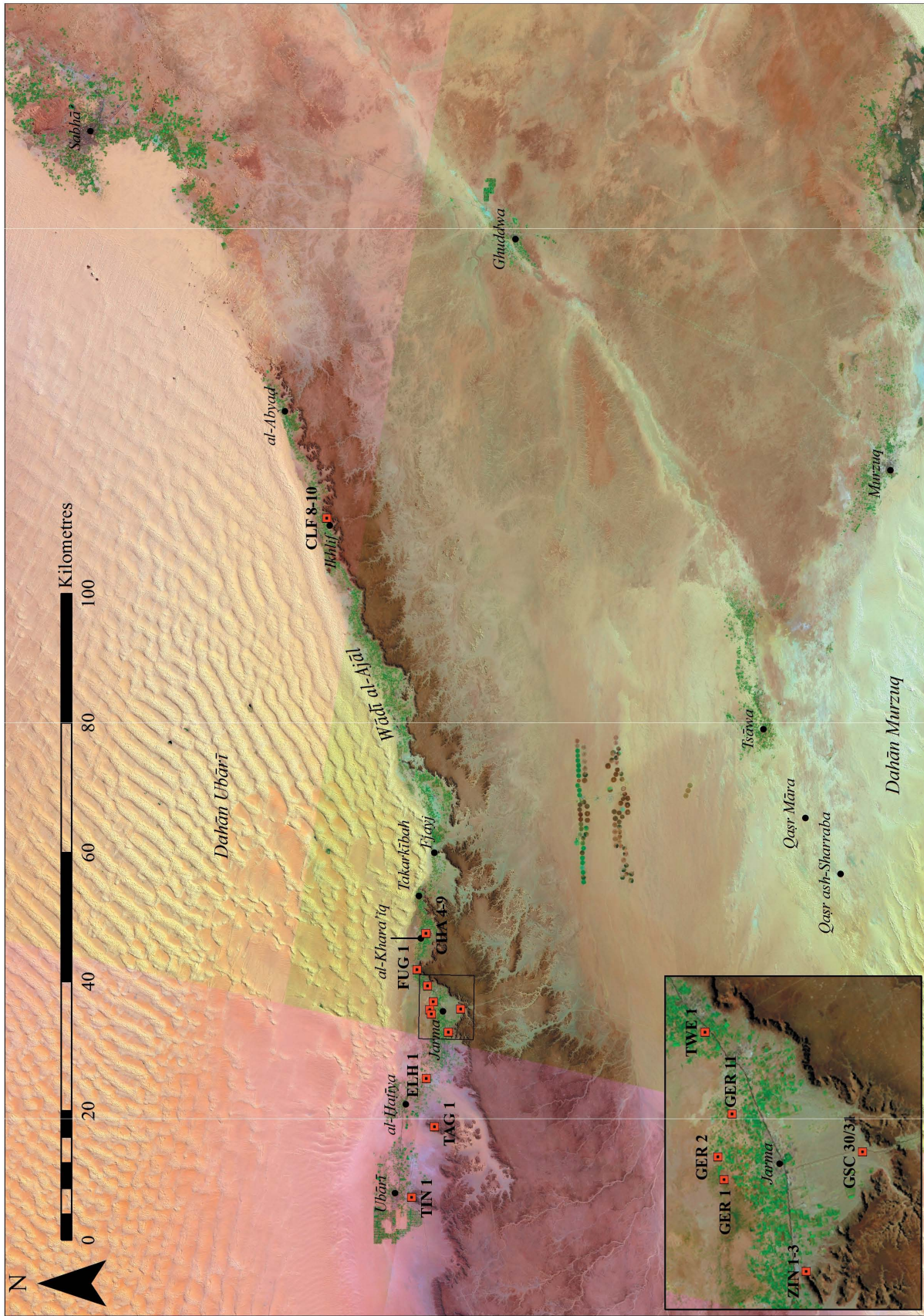


Figure 0.1. Map of the Wādī al-Ajāl, showing location of principal sites excavated by CMD (DMP).



Figure 0.2. Fazzanese farmer in one of CMD's ethnographic photographs (CMD 1959).

The Garamantes have emerged in the last decade much more prominently into the scholarly spotlight as a result of the publication of the *Archaeology of Fazzān* (hereafter *AF*) volumes (Mattingly 2003; 2007). The reports in this volume will make it much more apparent how big a debt is owed to CMD for opening up study of this hugely significant African people.

The Contribution of Mohammed Ayoub

Another major player in the archaeology of Fazzān needs introducing at this early stage. Mohammed Suleiman Ayoub was a Sudanese archaeologist, who was appointed as Controller of Antiquities for Fazzān in 1961. He quickly became fascinated by the Garamantes and embarked on an ambitious sequence of excavations of Garamantian sites that was continued for much of the 1960s. Some of Ayoub's excavations were conducted on a very large scale, though in truth none of them very scientifically executed. Ayoub had a basic understanding of stratigraphy, but does not seem to have supervised his diggers closely or to have made detailed records as he went along. However,

he was aware of his limitations and several times requested British archaeologists like Olwen Brogan and later Sir Ian Richmond to send him expert assistance. CMD was the man that Brogan and Richmond encouraged to take up the challenge and although for much of the time CMD worked separately from Ayoub, it was inevitable (and fortunate for us) that their programmes frequently overlapped. It is clear from CMD's archive that he devoted considerable resources to making sense of some of Ayoub's published and unpublished work (Ayoub 1962; 1967a/b; 1968a/b/c; no date).

Inevitably, this volume thus represents an attempt to rescue information relating to the excavations of Ayoub as well as those of CMD. The personal correspondence of CMD includes many letters of the early 1960s between himself and Olwen Brogan or Ian Richmond concerning the situation in Fazzān. Ayoub worked at a rapid pace and for extended periods. For example, digging at Old Jarma between mid-February and the end of April 1962 he claimed to have discovered 'a palace built of Roman blocks of stone, 24 gold ornaments and 150 unbroken pots and many other remains' (quoted from letter to CMD from Olwen Brogan of 29 May 1962). Brogan and Richmond saw the potential significance of Ayoub's work, but were anxious about its quality.

CMD clearly worked hard to influence Ayoub and to help him improve his approach, but he also took steps to ensure that something of value could be salvaged from the mess that tended to be left behind from large-scale clearance operations carried out by inadequately supervised untrained labour. At Old Jarma (GER001), CMD followed up Ayoub's destructive clearance with some stratified trenches to try to establish chronological sequence and dating evidence. At the cemetery of Sāniat bin Huwaydī (GER011), which Ayoub initially mistook for a 'pottery shop' from which he was simply quarrying ceramic finds, CMD made detailed records of the finds' assemblages in Sabhā museum as well as conducting his own excavations to clarify Ayoub's rather confusing account. As CMD would have wanted, Ayoub's findings will be frequently reviewed and expanded on in this volume and in *AF 4* which will be devoted to Old Jarma.

CMD's Publications on the Garamantes

Some comments are required on the relationship between CMD's published outputs on his Libyan work and the sequence of field seasons described

below. There is an unpublished manuscript report in the archive relating to the 1959 field visit, but it was only from 1965 onwards that regular interim reports were produced. Copies of these unpublished typescript reports exist in the archive and have formed the basis of much of the description below (Daniels 1965; 1967; 1968b; 1969b; 1971c; 1973b; 1977b). CMD's first published contribution on the Garamantes was a substantial report on the excavations at Zinkekrā covering the 1965 and 1967 seasons, published in *Libya Antiqua*, the journal of record of the Libyan Department of Antiquities (Daniels 1968a). A shorter version of the same report was later published in the *Antiquaries Journal* (Daniels 1970a).

In 1969, a summary article on the Garamantes appeared in a volume prepared in relation to the field conference of the Petroleum Exploration Society (Daniels 1969a). This first attempt at a synthesis was swiftly followed (and built on) by two further important studies. The first of these was a slim but masterful monograph (aimed at a popular readership and sadly long out of print), drawing not only on the new evidence from Zinkekrā, but also on CMD's wider survey of cemeteries and settlements in the Wādī al-Ajāl (Daniels 1970b). Most of the book was completed before his work at Old Jarma and Sāniat Jibrīl had proceeded far. A substantial paper presented at a conference held in Libya in 1968 was published and again offers an important statement of CMD's views at this stage of the research (Daniels 1971a). Quite a few of the minor elements of fieldwork from the early campaigns were presented here, including an important discussion of the series of mausolea that CMD had added to the long-known example at Qaṣr Waṭwāt. Another important contribution from this period was a paper on Libyan inscriptions from the Wādī al-Ajāl, drawing on his 1959 research at Tāqallit (Daniels 1975).

The inception of the UK-based Society for Libyan Studies in 1969 soon offered a suitable publishing venue for his interim reports, so the privately circulated 1971, 1973 and 1977 reports all appeared in only slightly modified form in the *Annual Report of the Society for Libyan Studies* – generally known today simply as *Libyan Studies* (Daniels 1971b; 1973a; 1977a). These were quite brief and largely unillustrated statements. In the absence of more detailed reports, this has left the later work carried out by CMD far less well understood, in comparison with his first excavations on Zinkekrā. After 1977 CMD did

not return to Jarma again and by the early 1980s he had begun a new field programme in Sudan (Welsby and Daniels 1991). Although progress was made towards final publication, notably in a period when Charlotte Tagart was employed as a research assistant, the flow of outputs of the early 1970s was not maintained.

With the exception of the briefest of allusions in a general survey of the Roman frontier in Africa (Daniels 1987, 138), only one further study appeared in his lifetime. A special volume of *Libyan Studies*, celebrating the first 20 years' work of The Society for Libyan Studies, included an important updated statement of synthesis (Daniels 1989). The article remains the clearest published statement on the archaeology of the southern and eastern Fazzān (it draws heavily on the unpublished interim for 1968) and on the work undertaken at Jarma, Sāniat Jibrīl, the escarpment settlements excavated in 1973 and Sāniat bin Huwaydī.

The CMD Expeditions 1958–1977

The reports in this volume are organised in thematic groups – early escarpment cemeteries, oasis-centre villages, cemeteries, finds reports – rather than as a chronological sequence. One function of this introductory essay is to explain the broader context of the CMD campaigns and what was achieved on a year-by-year basis. His work in the Fazzān began with two brief visits in 1958 and 1959 and a third in 1962/63 (with Sir Ian Richmond). Seven full seasons of fieldwork and excavation then followed between 1965–1977 (information on the principal sites investigated each year is summarised in Table 0.1 and locations mapped on Fig. 0.1). The objects of these campaigns were four-fold: to record as much of the archaeology of the Wādī al-Ajāl by fieldwork and survey as possible; to excavate selected habitation and cemetery sites; to recover floral and faunal material against a time when this could be identified; to compare the al-Ajāl sites and material with the Wādī ash-Shāfī to the north and the Murzuq-al-Ḥufra area to the south.

The information below has been drawn from various papers (including personal correspondence), interim reports (both published and unpublished) and articles produced by CMD. The aim is to provide an overall picture of the extent of work carried out and the general results which were achieved. Where possible we have identified the original team members responsible for supervising



Figure 0.3. One of many vehicle problems for the Durham University expedition in 1959 (CMD 1959).

and recording specific excavations. For instance, John Tait was his principal assistant in the early campaigns at Zinkekrā and many of the larger site surveys were the work of Patrick Carmody. The volume is also illustrated by many of the wonderful pottery and finds drawings produced by CMD's wife, Miriam Daniels.

Photography was one of CMD's listed hobbies and his ancient Leicas among his most treasured possessions. His superb photographs are a vivid and priceless record of both the archaeology and the socio-economic conditions in Fazzān between the late 1950s and the 1970s (Fig. 0.2). The region is utterly transformed today. The photographs also convey something of the difficulties of carrying out fieldwork in this hyper-arid region, with its furnace-like mid-summer temperatures and already uncomfortable heat in April. There is hardly any tarmac road visible in CMD's Fazzān photos and there are numerous images of vehicles stuck in soft sand or broken down on the long desert transits from the Libyan coast (Fig. 0.3).

The account books reveal the incredible frugality of the enterprise – many of the field seasons were achieved with less than £1,000 in funding – a large proportion of which went on transporting people and vehicles from the UK. With these tiny budgets, the teams each year were necessarily small and

close-knit groups, united by the tough living conditions and limited diet. Rations were evidently parsimonious in the extreme at times. Honorary membership of the fictitious 'Sabhā Rowing Club' (evidently conveyed by a presentation scarf) was a hard-earned perk for participants. Taking into account the difficult logistical circumstances of his expeditions, the amount that was accomplished is truly astonishing.

CMD was not the first to work on the Garamantes, of course, following on from pioneering Italian work in the 1930s (Pace *et al.* 1951; *Saharo Italiano* 1937; cf. Mattingly 2003, 16–21). In the immediate post-War period, with Fazzān a French protectorate, there was a small amount of work carried out on its archaeology by French teams (Pauphillet 1953).

The appointment of Ayoub as Controller of Fazzān in 1961 opened a new phase of intensive work. Operating with large teams of labourers, Ayoub turned up some spectacular finds, but poor recording and hazy understanding of stratigraphic contexts threatened to reduce the value of the enterprise. He appealed to the British archaeologist Olwen Brogan for help and she consulted with Sir Ian Richmond. As a result of his pioneering visits in the late 1950s, CMD was the obvious candidate to be sent to assist. He was more than willing and



Figure 0.4. Group photo of the Durham University Expedition of 1959. (CMD is second from left).

both Brogan and Richmond worked hard to open doors and help him secure funding. Richmond had been brought on board after a conversation with Brogan in June 1962, agreeing to devote a week or so over the Christmas vacation to accompany CMD and to assess what needed to be done (letter from Brogan to CMD dated 14 June 1962). From that moment Richmond was a firm promoter of the work and his sudden death in 1965, just as the CMD campaigns were getting established on a secure footing, was a set-back. Another senior figure in British archaeology, Mortimer Wheeler, evidently gave CMD support at this time, though he is far less evident in the surviving archive of correspondence than is Richmond.

In so far as we have been able to reconstruct the team rosters, people who took part in the main field seasons from 1965–1977 were as follows: Giuma Anag (1973); Chris Arthur (1967); Eric Balley (1973); David Bird (1971); Tony Birley (1965); David Breeze (1967); Olwen Brogan (1958, 1965); David Browne (1969); Patrick Carmody (1965, 1967, 1968, 1969, 1971, 1973); Ian Caruana (1977); Hugh Chapman (1969, 1977); Miriam Daniels (1965, 1967, 1969, 1971, 1973, 1977); John Gillam (1971, 1973); Andy Gilson (1977); Bill Hanson (1973); Mark Hassall (1969); John Hayes (1969); Barri Jones (1965); John

Little (1969, 1973); Tina McGeorge (1973, 1977); S.A. Medd (1967, 1969); Faraj al-Rashedy (1973); John Scott Elliot (1965, 1967); Peter Scott (1973); Jack Tait (1965, 1967, 1968); Ibrahim Tawahni (1977); Tim Tatton Brown (1973, 1977); Humphrey Welfare (1973). In addition the Department of Antiquities provided (and paid for) up to 15 workmen each season.

First visit in 1958

The Libya expedition of 1958 appears to have been organised by Olwen Brogan and David Smith, in the year following completion of their excavations at Ghirza in the Libyan pre-desert (Brogan and Smith 1984). A party of 10 people travelling in four vehicles departed from Tripoli and in a whistle-stop tour took in the key Roman sites of the pre-desert in addition to visiting the Wādī al-Ajāl, Murzuq, Idri and Sabhā in Fazzān. Only a few days (28–30 April) were actually spent in the Wādī al-Ajāl – focusing on the key sites reported by the Italian mission of the 1930s – Old Jarma (GER001), the Waṭwāt mausoleum and associated sites (UAT001–003), Zinkekrā (ZIN001–003), Tāqallit (TAG001) and other escarpment cemeteries, Qaṣr Larkū (LAR001), plus a large *qasr* (fortified building) at Fjayj

(FJJ056). Not all the personnel can be identified, but the group certainly included CMD, David Smith, Olwen Brogan, Joyce Reynolds, as well as the following only referred to by first names in the archive: Lavendar, Patrick, Eric, Pete, Johnny, Phyllida. No excavation took place. CMD focused on recording the sites visited by means of photography, basic notes and sketch plans. This expedition clearly whetted CMD's appetite and laid the foundations for future work.

Second visit in 1959

CMD returned to Fazzān in 1959 as part of a Durham University Libyan Expedition, comprising six people (CMD, with individuals referred to only as Bill S, Dave and Mike plus two unnamed others, see Fig. 0.4) and two vehicles called Clarence and Augustus! Whatever the wider aims of the expedition, CMD clearly saw it as an opportunity to carry out preliminary fieldwork, with a view to establishing a more substantial project. The group arrived in the Wādī al-Ajāl at the hottest time of the year in late July, which may have imposed some limitations on what could be practically accomplished. CMD made his main focus the investigation of two cemeteries at Tāqallit (TAG001) and al-Khara'iq (CHA001), with 'Bill S.' as his main helper. Though no report was published on this season's work, we do have CMD's draft of an intended report (which has been incorporated into Chapter 6). At Tāqallit CMD made a rough plan of the site, with its distinctive stepped tombs, and recorded a large sample of the Garamantian funerary furniture (offering tables and stelae) at the site. A few simple graves were excavated (see Chapter 6 below). A second cemetery, comprising pyramid tombs, was also surveyed, but not excavated, at al-Khara'iq. CMD's observations have been subsumed into the published account in *AF 2* (Mattingly 2007, 168–73).

It appears that a number of other sites were again visited, **Old Jarma** and various fortified buildings (*qsur*) are described in CMD's notebook and photographed to some extent, though no detailed field investigation of them was undertaken. It is possible (on the basis of a single photograph in his 1959 album) that CMD excavated a burial at one of the al-Ḥaṭṭiya pyramid cemeteries (ELH001), though he elsewhere claimed to have only discovered these during his next visit (see below, Chapter 6, where the photograph is reproduced as Fig. 6.12).

Third visit 1962–63

In the winter of 1962–63 CMD and Sir Ian Richmond were invited by Ayoub, on behalf of the Libyan Directorate of Antiquities, to spend two and a half weeks in the Wādī al-Ajāl in order to search for new sites and to undertake a limited amount of excavation.

Two cemeteries (ELH001–002) were discovered lying in the sandy gravel desert (*sarir*) near al-Ḥaṭṭiya to the west of al-Ghrayf, containing the remains of numerous mud brick tombs of pyramidal shape (Mattingly 2007, 75–83). This type of tomb had previously only been recognised at the foot of the escarpment of al-Khara'iq. No excavation was undertaken at this juncture (though he may have in fact partially excavated a shaft in 1959, see below Chapter 6). Some additional surface sharding appears to have been carried out at the nearby TAG001 cemetery.

A group of mausolea (possibly accompanied by a cemetery) was discovered by CMD a short distance east of **Tuwash** village (TWE001). Three mausolea were found, with substantial podia (base platforms) but little superstructure surviving (see Mattingly 2007, 149–52 and Chapter 6 below). A further mausoleum was excavated at al-Fuḡār (FUG001). The remains of this structure had been previously noted though not excavated. Excavation was undertaken with the assistance of Ayoub (see Mattingly 2007, 162–64 and Chapter 6 below).

Excavation of Tomb 5 at the **Royal Cemetery** (GSC030) had already begun under Ayoub's control when CMD and Sir Ian Richmond arrived in December 1962. It was agreed that CMD be allowed to complete the work. Though the tomb had suffered as a result of robbing, sufficient pottery and glass of Roman manufacture was recovered to date it (Mattingly 2007, 140–44 and Chapter 6 below).

The site of **Zinkekrā** (ZIN001–003) was again visited, but no fieldwork took place there.

Fourth visit and first season of systematic fieldwork 1965

The first proper season of systematic fieldwork was carried out in the Wādī al-Ajāl by the 1965 Fazzān Expedition during March, April and part of May 1965 (Daniels 1965).

The main aim of the work was to locate and investigate evidence for the earliest occupation of the Garamantes in the area near Jarma.

The prominent fortified spur of **Zinkekrā**, a few km to the south-west of Jarma, seemed to be the obvious location for such an occupation (ZIN001–003). The work combined survey of the base, scarps and top of the spur site and excavation at selected sites (Mattingly 2007, 93–104 and Chapter 1 below). Of five sample sites excavated, two were on the top of the promontory (ZIN001.034 and ZIN001.037), two were on the north escarpments (ZIN002.11 and ZIN002.013) and one at the base of the southern escarpment (ZIN003.105). The earliest activity consisted of open hearths dug into the hillside, associated with a few fragments of burnished pottery with Neolithic-type decoration, bones and flint scrapers. Later came rough shelters and hearths and finally some buildings with crude stone foundations and rough mud-brick walls and floors. A great amount of pottery, bone and flint was recovered with rubbers, saddle querns, pounders, organic material, dung and beads, but only one vessel of imported type was found and no ARS or other sigillata ware. It was clear from the striking contrast between the content of finds from these sites and those from Jarma, **Sāniat Jibrīl** and many of the cemeteries that Zinkekrā was not occupied after Roman material first began to reach the **Wādī** during the 1st century BC.

Further investigation was undertaken of Garamantian buildings previously excavated by Ayoub at **Old Jarma**, in order to establish their precise nature, date and purpose. The best example (GER001.1) was selected for further excavation (Mattingly 2007, 115–20 and to be published more fully in *Archaeology of Fazzān 4*).

It was also decided to begin the task of establishing a chronological sequence of Garamantian pottery types. The importance of establishing a type series lay in the key which such a typology would have provided for the dating of every Garamantian site. One of the existing working faces in Jarma was selected, which promised an unbroken sequence of strata from modern to Roman and immediately pre-Roman levels. This was then cut-straight, cleaned and drawn, and a substantial amount of pottery and other material extracted from its levels. Though not fully achieved by CMD, the strategy outlined here was in fact the basis of the FP work at Old Jarma between 1997–2001 (see Mattingly *et al.* 1997; 1998a/b; 1999; 2000a/b; 2001).

The third task undertaken at Jarma was the survey and record of portions of the medieval city. Demolition of its mudbrick buildings was being carried out by Ayoub in order to make way for the

excavation of lower levels (by this date he had already demolished the two principal mosques). It was felt that an attempt must be made to record the more important features, since Jarma had been one of the major caravan centres of the Chad-Tripoli trade routes for slaves and other merchandise. The *kasbah* (previously the Governor's residence) was still extant though under threat.

An attempt was made to locate 'pottery kilns' reported by Ayoub at a modern farm called **Sāniat Jibrīl** near Old Jarma. It was hoped to recover examples of locally produced pottery together with closely datable imported wares. However, the 'kilns' proved to be the remains of smithing hearths, though traces of four or five separate buildings were discovered and four trial trenches excavated (Mattingly 2007, 119–21 and Chapter 3 below). This settlement site evidently dated to the early centuries AD.

An additional area of work concerned the survey of several km of the dense escarpment cemeteries in the Zinkekrā to **Waṭwāt** area and a second, slightly larger area at **al-Fjayj** (Mattingly 2007, 98–114, 183–95). This was to shed further light on Garamantian burial customs and to collect as many sherds as possible for comparison with and augmentation of the finds from the habitation sites and as part of the overall study of pottery begun in Jarma. No excavation was attempted.

In order to complete the work carried out on various mausolea at **Tuwash** (TWE001) during 1962/3, a trench was cut through the largest podium to ascertain whether there was a burial shaft under the monument, as was the local custom revealed by many tombs in the **Wādī**. Over 1.30 m of solid foundation was removed and the subsoil tested before it became clear that in fact no shaft had existed. A survey was then made here and at **al-Fuḡār** together with their accompanying remains. The mausoleum of **Qaṣr Waṭwāt** (the 'Jarma Mausoleum') was also surveyed afresh and the architectural fragments that had previously been moved to **Sabhā** museum were included in a new paper-based reconstruction.

Fieldwork, sherding and surveying were carried out in several other areas of the **Wādī**. Settlements found at **Tinda** (TIN001) and at **Ikhliḡ** (CLF008–010) were recognised as being akin to the early settlement on Zinkekrā. The site at Tinda is a particularly close parallel, although in its area of about 8 ha, very much larger than Zinkekrā (Mattingly 2007, 54–57, 242–44 and Chapter 2 below).

Fifth visit/second season of main fieldwork 1967

The 1967 Expedition was in the field for almost four weeks over the Easter period (Daniels 1967). Work was concentrated on the fortified spur-site of Zinkekrā, where excavation was carried out on 23 habitation sites and survey work was completed on a further five. The sites chosen fell within three areas: the north slopes and terrace area, the top of the spur and the flat plain to the south.

Work on the north escarpment of Zinkekrā focused on site ZIN002.013 where two areas 14.1 x 1.8 m and 4.8 x 4.2 m were systematically stripped to the bedrock (3–4 m below present surface level). A complex sequence of occupation levels and structures was revealed. Eight further sites (ZIN002.119, 120, 125, 204, 209, 213, 217 and 218) were also investigated on the north slopes, several in relation to a prominent terrace wall near the base of the hill, others representing building platforms terraced into the scarp (see Chapter 1 below). Outside the terrace wall two crouch-burials were found in lined shafts (ZIN002.013 T44 and T45). From their position it was clear that they post-dated the construction of the wall, though by how long was not clear. Although no pottery was recovered, in each case the skull was propped on a wooden head-rest (for the burials, see Chapter 6 below). On the summit of Zinkekrā five areas were chosen for excavation, revealing single huts or groups of shelters (ZIN001.39, 51, 60 and 61) and part of a small village (ZIN001.70–75). Although generally less stratification remained here than on the northern and terrace slopes rich layers of animal dung were again associated with every structure. In three areas (ZIN001.39, 51 and 70–75) rock-cut post-holes and palisade slots indicated the possibility of a pre-stone period. In other cases, especially shelter-complex 39, it was clear that timber partition walls had existed contemporaneously with low stone walls (the upper parts of which had been made of wood). Complete excavation of Shelter 39 provided several hearths and trodden floor-surfaces, the earliest of which pre-dated the structure. Area 70–75 revealed itself to be part of a small, tightly packed village of stone or stone-and-frond huts. Thick rubbish levels and internal modifications indicated an intensive occupation, the latest object from which was a single fragment of a black-glaze lamp possibly of Roman Republican date. Other than this example all pottery recovered was from handmade local vessels. The western-most site excavated (ZIN900.0) lay on the narrowest part of the spur a short distance

behind the present stone defensive wall. Here the remains of an earlier stone wall with entrance and at least one projecting bastion were found. In front of this earlier wall an attempt had been made to cut a defensive ditch across the neck. Five rectangular mudbrick buildings discovered on the southern flank of the hill in 1965 were also excavated. The buildings, with one exception, were constructed in good mudbrick and all were well laid-out. The largest (ZIN003.105) was 20 x 5.25 m in size and internally divided into a series of 1–3-room units themselves often subsequently subdivided or modified. Two others (ZIN003.102 and 103) were 2-room buildings, while ZIN003.100–101E–101W proved to be a group of three 2-room dwellings. Linked to ZIN003.105 was another complex, Building ZIN003.306–08, though this was only partly excavated. Little pottery was recovered from this group of buildings and their dates were not clearly ascertained, but the conversion of the area to a cemetery in the late 1st century AD provides a *terminus ante quem* for the whole.

In addition an amount of fieldwork, surveying and sherding was carried out on five cemeteries and settlement sites in the eastern Wādī, and the overall field survey of the escarpment graves in the Jarma area continued, covering the 7-km stretch between Qaṣr Waṭwāt and the Royal Cemetery (Mattingly 2007, 105–14; 132–44).

Sixth visit, survey of southern sites in Wādī Barjūj, al-Hufra and Zuwīla areas 1968

Plans for the 1968 season were modified at a late date to take advantage of the chance to work with a British Near East Land Forces Expedition that was exploring the southern part of Fazzān (Daniels 1968b; 1989). The offer to take some archaeologists along gave CMD the long-hoped for opportunity to conduct reconnaissance survey in the areas of Wādī Barjūj, Wādī al-Nashw‘a and the vicinities of the Islamic capitals of Fazzān at Murzuq, Trāghan and Zuwīla. Working partly on information supplied by Ayoub, and partly from a consideration of the topography of the area concerned, a series of sites known to contain archaeological material was visited, and many more were added to the list. There was no excavation, but important records were compiled on two key Garamantian sites in the Wādī Barjūj, Qaṣr Māra (MAR001) and Qaṣr ash-Sharrāba (SCH020), though CMD thought both of these Islamic in date (Mattingly 2007, 257–65). The latter site is particularly significant

as a large urban site, which is now proven to have originated in the Garamantian period and continued into the early Islamic period. Some 32 km west along Wādī Barjūj the site of Bi'r Baqqārā (BBG001–3, 006) was also visited and several separate Garamantian cemeteries and a fortified site (*qasr*) identified (Mattingly 2007, 254–56). Two areas of the Wādī an-Nashw'a were studied. One in the Dūjāl vicinity revealed an abundance of tightly packed cairn cemeteries, yielding imported pottery spanning the 1st to 5th centuries AD, and the other the village of Ghuddwa, where several cemeteries with typical Garamantian stelae and offering tables and imported Roman pottery were found (GDD001–4). Qsur in the area (GDD005–9) were also associated with late Garamantian and Islamic pottery (Mattingly 2007, 267–72). Escarpments on the northern side of the Murzuq-Trāghan area and isolated masses of rock towards the sand sea on its southern side were searched. Those to the north proved somewhat unproductive. Those to the south yielded several hundred cairns, in groups, but no pottery to date them. Habitation of the area at some pre-Islamic date is certain, but precisely when was not known at the time of the expedition. The fortress block and the older mosque of Murzuq were surveyed and planned (Mattingly 2007, 276–81). This work was undertaken to provide comparative material for similar buildings surveyed and planned in Jarma itself. Between Misqwīn and Zuwīla several foggaras were noted, while around Tirbū (to the south of Zuwīla) another six were found. A few escarpment cairns were also searched to the east of Tirbū, but only in one group of 100–200 did they occur in any number. To the north-east of Zuwīla on the sides of Jabal Lowsat, a number of cairns were noted although in no case were sherds of imported pottery recovered, to allow close dating. A group of early Islamic antiquities at Zuwīla was surveyed (Mattingly 2007, 282–88), documented and photographed, including the tombs of the Banū Khaṭṭāb (ZUL003), the early mosque (ZUL002) and the walls of Zuwīla (ZUL001).

*Seventh visit/third season of main fieldwork
1969*

The 1969 Expedition was in the field for almost a month over the Easter period (Daniels 1969b). Work centred on excavation in Jarma, though an intensive surface survey was also carried out at Sāniat Jibrīl.

It was decided to carry out a complete survey of the standing mudbrick medieval city of **Old Jarma** (GER001), which covered almost 8 ha. A series of enlarged prints had been made from aerial photographs. These were checked, measured and modified, building-by-building, and the results drawn out as a single plan covering the entire city, to which the detailed survey of the *kasbah* carried out in 1965 was then added. Additionally selected buildings were photographed and fully described and a series of overall photographs taken of the town. A section running east to west across the entire site was also surveyed. The survey is summarised in *AF 2* (Mattingly 2007, 115–20) and will be published in fuller detail in *AF 4*. Buildings GER001.3 and GER001.4 were selected for excavation as each still had a section face, complete to the topsoil, standing across it at some point. Both buildings had been partially cleared by Ayoub. GER001.3 was a stone-walled building c. 13 m square, with a stepped façade on its east side. Trenches were cut across the building, and taken down to natural sand 1 m below the surviving traces of floor. These showed that the stone building had been preceded by three phases of mudbrick walls, representing two main periods of building, the second of which had been demolished and purposely levelled for the construction of the stone building. Work on the standing section face and the careful cleaning of the surviving stone course also showed that this had served as a plinth on which mudbrick walls had been built, a state of affairs not hitherto recognised in Jarma. At GER001.4 a continuous section existed, varying from 1.7–3.4 m in height, running the entire length of the building. This section was cleaned and studied. Next the whole of the area already partly cleared was excavated to a depth of up to 1.5 m. This revealed the same basic picture as Building GER001.3, but in much greater detail and complexity.

A surface survey was carried out across the low mound of Sāniat Jibrīl (GER002), some 300 m east of Jarma. The purpose was to enable a general plan of the area to be produced. Enlarged aerial photographs were checked and modified to provide material for this plan. During this work it became clear that although the density of mudbrick building debris and Roman-date pottery lessened considerably as one advanced from the centre of the site, it continued as far west as Jarma itself.

Limited further work at Zinkekrā consisted of an extension of the 1965 survey. Buildings and

other sites to the south (covering 17 ha), which had been put on to the plan in 1967 were now accurately re-surveyed and added to the overall map. This completed the large cemeteries and the western termination of the terrace wall on the northern slopes of the spur and added the outer enclosure banks or walls to the northern and eastern parts of the promontory. In addition field survey, sherding, photography and annotation of the new area was carried out.

Eighth visit/fourth main field season 1971

The 1971 Expedition was in the field for almost a month over the Easter period (Daniels 1971b/c). The prime object of the season's work was to recover the date, duration of occupation, and nature of the settlement at **Sāniat Jibrīl** (GER002). An area which incorporated two of the 1965 trenches was selected, and within this c.500 m² was stripped revealing a single, large building complex and the outer wall of an adjoining building. On investigation the building complex disclosed three principal structural periods, which, on the strength of imported pottery recovered, run as follows: (1) the late 1st and early 2nd centuries; (2) mid 2nd to early 3rd centuries; (3) the 4th and 5th centuries. An earlier and a later period produced no diagnostic pottery. The excavation is important for furnishing us with more information about Classic Garamantian domestic architecture in the mudbrick tradition and for the evidence of manufacturing activity at the site (see Chapter 3 below).

Other fieldwork was carried out in the eastern parts of the Wādī. Part of a considerable system of what appear to be large field-enclosures, lying within low banks, was investigated in the vicinity of **Qaṣr Lārḳū** (LAR001–009, Mattingly 2007, 196–98). In shape and appearance these are remarkably different from the saniat fields of present-day cultivation. Therefore, it was of interest that imported pottery was collected from much of the area. Amphora sherds formed the majority of pieces but a small number of fine red ware sherds was recovered, including one fragment of late 1st- or early 2nd-century date, a second of the late 2nd or early 3rd century and two of late 4th and early 5th century. A new escarpment settlement was discovered (LEK 001–2) and several cemeteries were sherded in the **al-Qṣir** area of the Wādī (Mattingly 2007, 204–12). Additional escarpment settlements were also now recognised

at **Tuwash** (TWE021, Mattingly 2007, 156–57) and **Ikhliif** (CLF001–002, 008–010, Mattingly 2007, 240–44)

Ninth visit/fifth main field season 1973

The 1973 Expedition was in the field for almost three months (Daniels 1973a/b). The season's work consisted of three main and several subsidiary projects. The general aims were:

- i) to investigate several 'Zinkekrā-type' escarpment settlements along the whole of the Wādī al-Ajāl;
- ii) to excavate a suitable number of datable Garamantian skeletons to provide an adequate group for study;
- iii) to complete the examination of the valley centre settlement at Sāniat Jibrīl;
- iv) to undertake photography, documentation and sherding of further escarpment cemeteries of the Wādī.

Originally noted in 1969 (see above), the promontory site of **Ikhliif** (CLF008–010, referred to by CMD as Cleff 2) was more thoroughly investigated. An area of the western slopes and base of the promontory was surveyed and planned in detail, and selected sites were excavated (Chapter 2 below). In some cases later erosion had removed all traces of occupation, but in most the small platforms or terraces produced hearths, ash, animal droppings and the remains of palm and plant material, similar to the occupation layers on Zinkekrā, although usually considerably thinner in depth. A few fragments of pottery were recovered, in general similar to types known from Zinkekrā. Selected sites were also excavated on the eastern side, with similar results to those on the west. The flat top of the spur was found to be covered by a whole series of dry-stone-wall huts and small scooped shelters, which were tested by preliminary trenches. Considerably deeper deposits of occupation material were encountered here than on either the eastern or western slopes. In addition, part of the ancient pathway up the eastern slopes of the spur was found and recorded (Mattingly 2007, 242–44).

At the escarpment site of **Tinda** (TIN001, by modern Ubārī) a measured survey of between one half and two thirds of the total site was carried out and a series of selected features excavated. The results showed that the occupation was divided into two periods. The first of these was

earlier in date than the arrival of Roman pottery in the Wādī (during the latter centuries BC) and consisted of several ha of small platforms on the steep slopes, each containing a rough shelter and hearth. The whole had been surrounded by an enclosure wall or bank. The second period may not have followed immediately after the first for although roughly similar platforms existed, the later surface indications of shelters and enclosures bore little resemblance in plan to the earlier, and a considerable amount of small stones and scree material had accumulated, or been dumped, in some areas between the first and second periods.

Another escarpment settlement was located on and around the detached flat-topped rocky bluff above the well-known Garamantian pyramid cemetery of **al-Khara'iq** (CHA001), which had first been noticed in 1959. A survey of most of al-Khara'iq top sites (CHA003–007) was carried out and chosen sites were again excavated (Mattingly 2007, 168–74). Occupation here evidently extended from early Garamantian features to comparatively recent times, with a Tuareg village, now abandoned, lying over the earlier Garamantian remains. At the **al-Qṣir** escarpment site (LEK001–002) a detailed foot survey and preliminary planning and annotation were carried out, showing an early habitation site occupying the slopes and spur top. A considerably larger area of the village on the **Zinkekrā** promontory top (ZIN001.070–75), first investigated in 1967, was excavated and planned, and more samples of the occupation and its artefacts recovered (all the escarpment settlement excavations are summarised in Chapters 1–2 below).

The main work on Garamantian burials in 1973 focused on the site of **Sāniat bin Huwaydī** (GER011, Mattingly 2007 124–25). A small area on the edge of the cemetery was selected and some 45 tombs isolated. All of these which could be excavated, with the exception of two, proved to be of the 3rd century or later, and except for a few of the smaller, each had been robbed or disturbed. Two levels of tombs existed. The lower of these turned out to be of large square mudbrick structures mostly in almost complete condition, but often impinged upon by later tombs. Two of the earlier tombs were excavated completely. Each had suffered from damage in antiquity, but neither had been robbed. Tomb 15 produced three amphorae, one two-handled flagon, one incense burner, one lamp, eight fine red-ware bowls or dishes of Italian manufacture, a saddle quern

and rubber, and a few dark blue beads. Tomb 17 produced an even larger number of grave goods: a saddle quern and rubber, an incense burner, 11 amphorae, the remains of probably five glass and nine small Egyptian faience bowls, and no less than 31 fine red-ware bowls and dishes of Italian manufacture. These included vessels stamped by potters mainly working at Pisa in the mid-late 1st century AD (see Chapter 5 below).

The existence of burials overlying some of the occupation deposits on the north escarpment of **Zinkekrā** had been noted during the 1967 excavations (ZIN002.013). In 1973 a larger area was completely cleared to allow the excavation of a good number of graves. However, only five additional graves were discovered and several of the skeletons recovered were already damaged. In most cases, however, the remains of head-rests of wood were noted, although these objects were mostly too badly collapsed to be recoverable. Chance discoveries of individual Garamantian burials also occurred at **al-Khara'iq** and **Ikhliif** (all these burials are reported in Chapters 6–7 below).

A week's work was carried out at **Sāniat Jibrīl** (GER002). This further phase of excavation mostly consisted of solving outstanding problems concerning the buildings previously excavated. In addition the whole of the area of **Sāniat Jibrīl** was surveyed in detail, surface finds were recovered and a detailed description of the area was made (see further, Chapter 3 below – though note that no sign exists in the archive of the records of this survey).

A reconnaissance survey of Garamantian cemeteries covered the eastern-most section of the Wādī al-Ajāl from **al-Qṣir** to **Ikhliif** (Mattingly 2007, 204–46).

Tenth visit/sixth main field season 1977

In 1977 it was decided to concentrate efforts on the cemetery of **Sāniat bin Huwaydī** (GER011) and attempt to resolve certain questions unanswered in 1973 (Daniels 1977a/b). Excavation was concentrated on the earlier tombs. On the periphery of the cemetery three tombs which had been emptied some time before 1972 were recognised as of the early type, cleaned, measured and photographed. Where the mound stood highest it was clear that it consisted mainly of layers of sand, which had drifted over the earliest tombs, and here another six tombs were located and excavated.

All except one proved rich in grave goods. These early tombs were mostly rectangular in shape, up to 5 x 4 m in size, with rectangular chambers (in one case square) at the bottom of which the burial lay. Externally, the tomb consisted of a substantial mudbrick structure standing about 1 m high and with a roughly flat top. The tombs faced either east or west and most had large offering tables placed on this side, together with stelae, both elements of grave furniture often enhanced by red pigment on the visible faces. Additional pots (large round-bottomed local storage jars and imported amphorae) had often been placed beside the table. Several of the tombs were unrobbed and richly furnished with grave goods, including many imported amphorae, fineware vessels and glass vessels from the Mediterranean world (Tombs 42, 51, 52, 53). It appears that the cemetery began to be used in the later 1st century AD, when rich burials were placed there in large tombs. As sand built up against the early tombs the ground level was raised and later burials extending in time to the 5th century AD were superimposed over the earlier ones or inserted in the gaps and on the periphery of the earlier tombs. Trenches were dug to define the limits of the cemetery, and the whole was surveyed and planned. The cemetery is of exceptional importance for our understanding of Garamantian funerary practices and material culture (Chapter 5 below).

A further element of the 1977 work concerned a surface survey on the nearby mound at **Sāniat Sulaymān Krayda** (GER027, Mattingly 2007, 129). A trial area was then excavated. This produced several rooms of a mudbrick building containing much occupation material. A large number of fragments of imported amphorae was

recovered, together with local pottery similar to that from Jarma and Sāniat Jibrīl. The large amount of imported material, both on the surface and stratified, suggests the building to be an ancient one, and that the mound is another Garamantian oasis settlement or village (Chapter 4 below).

THE PRESENT VOLUME

A word of explanation is required regarding the length of time it has taken to get this volume into print. Quite a lot of the work on this volume was completed in the years 1999–2001, during the Leverhulme-funded work at the Universities of Newcastle and Leicester, when John Hawthorne and David Edwards were employed to write up elements of the CMD archive. However, when their contracts ended, Hawthorne left archaeology, with quite a lot remaining to complete in his chapters. More pressingly, it had become clear that much more work than had been envisaged remained to be done to complete the pottery type series that was vital to reporting the finds from the CMD excavations (Dore *et al.* 2007). While the efforts of the two project directors (Mattingly and Dore) were engaged with getting out the first two volumes of the final report (including the type series in *AF 2*), *AF 3* remained in abeyance. The tragic death of John Dore in summer 2008 has had a further impact on the work on this volume (and this is particularly evident in the reporting of the finds). In the end the editor of the volume has had to shoulder a much heavier burden of both writing and editing to complete the work, while at the same time directing two new field projects in southern Libya and helping in the mitigation of renewed oil

Table 0.2. Dating correlates of phases of Garamantian civilisation and earlier Pastoral and subsequent Post-Garamantian phases.

Abbrev	Phase	Date BP	Date BC/AD
LPAST	Late Pastoral	5000–3000	3000–1000
PAST	Pastoral (undifferentiated)	7500–3000	5500–1000
EGAR	Early Garamantian	3000–2500	1000–500
PUGAR	Proto-urban Garamantian	2500–2000	500–1 BC
CGAR	Classic Garamantian	2000–1600	AD 1–400
LGAR	Late Garamantian	1600–1300	400–700
GAR	Garamantian (undifferentiated)	3000–1300	1000 BC–AD 700
POSTGAR	Post-Garamantian	1300–900	700–1100
EISLAM	Early Islamic	900–700	1100–1300

prospection in the Jarma area. A good deal has been accomplished in the intervening years, including photography and examination of all the artefacts held in the Jarma Museum, which have allowed the re-identification of many of the key finds from both CMD's and Ayoub's excavations.

Despite a number of imperfections, it is hoped that the book is a fair tribute to the remarkable work of CMD and his teams.

Phases of Garamantian Activity

Following the convention established in *AF 1* and *AF 2*, the Garamantian period is sub-divided into a series of phases: Early Garamantian, Proto-Urban Garamantian, Classic Garamantian, Late Garamantian. Table 0.2 summarises the chronological significance of these terms, along with explanation of the chronology of the immediately preceding and subsequent phases in this part of the Sahara.

A Note on the Presentation of Finds in this Volume

The first part of the volume comprises the stratigraphic reports and interpretative summaries of the sites excavated by CMD (Chapters 1–6). Wherever possible the principal ceramic finds (or at least a representative sample) from each site are presented in the body of the relevant chapter and discussed in relation to the overall site chronology. Ceramic finds have been correlated with established type series – for pottery most notably with that devised for the FP by Dore, Leone and Hawthorne, building on the work achieved by CMD and Hayes (Dore *et al.* 2007, published in *AF 2*). Although many of the same vessels were illustrated in the *AF 2* type series, it has been felt useful to present the material here in assemblages, drawing out the profound visual differences between the ceramic forms of different phases. References to the pottery commonly draw on other work by John Dore (see Dore 1989; Dore and Keay 1989 on Sabratha; Dore 1996 on the UNESCO Libyan Valleys Survey). The fabrics also varied quite a lot – references in the text to Zinkekrā Ware and Berber Red Ware relate to the

broad classification made by CMD between the Early and Proto-Urban period handmade fabrics and the Classic Garamantian fabrics. The sites excavated by CMD provide an interesting cross-section of Garamantian archaeology in terms of site type and period. The characteristic ceramic assemblages from the Early Garamantian and Proto-urban Garamantian phases at **Zinkekrā** can thus be usefully compared with the slightly later site at **Tinda** or with the Classic Garamantian settlement at **Sāniat Jibrīl** and that site with the contemporary funerary assemblages of **Sāniat bin Huwaydī**.

Other categories of finds are dealt with in Chapters 7–9, respectively devoted to human bone, other material culture (glass, beads, metal, stone, wood, textile, etc.) and palaeoeconomic (botanical remains and animal bones). The site of Sāniat bin Huwaydī is a special case because of the fact that a number of tombs produced large intact assemblages of grave goods. The non-ceramic material is listed and to some extent illustrated along with ceramic finds in Chapter 5, as well as being catalogued by material type in Chapter 8.

The finds assemblage from these Garamantian sites is remarkable in many ways and its presentation here will be of great interest to specialists in Saharan archaeology, but also to those working both north and south of the Sahara because of the way in which it illustrates Trans-Saharan connectivity in the pre-Islamic era (a key theme of the current DMP work that seeks to build on CMD's achievements). We have aspired to as detailed a level of publication as possible for the finds. This is justified not only by the intrinsic interest and significance of the material: there is an equally important practical outcome for the Libyan Department of Antiquities as the finds assemblage from CMD's excavations (along with those of Ayoub too) form the core of the historical collections on display in Jarma museum. This remarkable collection has for some years lacked a catalogue and most artefacts are unlabelled and unidentified by site in the display cases. This volume will serve as a vital step in the reconstruction of the Museum Catalogue and in re-attaching provenance and significance to these objects.

