

LIBYAN ANTIQUITIES SERIES - 1

# GHIRZA

A LIBYAN SETTLEMENT  
IN THE ROMAN PERIOD



OLWEN BROGAN and D.J. SMITH



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SECRETARIAT OF EDUCATION  
DEPARTMENT OF ANTIQUITIES

# GHIRZA

A LIBYAN SETTLEMENT  
IN THE ROMAN PERIOD

BY  
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## PREFACE AND ACKNOWLEDGEMENTS

Ghirza is in Tripolitania, now (1980) the Western Province of the Libyan Arab Republic. The site lies about 150 miles (250 km.) south-east of Tripoli and 80 miles (130 km.) inland from the Gulf of Sidra, the Greater Syrtis. It has long been known for its two groups of mausolea; but these remarkable monuments had never been adequately recorded, while the ruins of the large settlement with which they are associated had generally been entirely ignored or accorded only brief references. This report has grown out of a visit to the site made in 1952 by the late Dr. Ernesto Vergara-Caffarelli, then Director of the Department of Antiquities of Tripolitania, David Oates and Olwen Brogan, as a result of which it was decided to attempt a systematic study of the settlement, tombs and other remains. Some preliminary work was done in 1953, after which small expeditions led by Olwen Brogan and D.J. Smith worked at Ghirza for three or four weeks each spring in 1955, 1956 and 1957. The expeditions were carried out in partnership with the Department of Antiquities of Tripolitania. Dr. Vergara-Caffarelli himself spent some time at Ghirza each season, deputed Brahim Camuca to direct the Libyan workmen, sent the Department's photographer N. Deliberali to photograph the tombs and their sculptures, initiated the removal of the fallen sculptures to the Department's Museum in Tripoli Castle, and finally had the smallest of the tombs (South G) dismantled and re-erected in the Museum.

Subsequent Directors of the Department of Antiquities have maintained the Department's interest in the work at Ghirza, and we remember with special gratitude the help given by Ess. Abdul Aziz Gibril and Dr. Salaheddin Hassan. We owe to Dr. Salaheddin Hassan the decision to publish the Report in the series of monographs published as Supplements to *Libya Antiqua* which was endorsed by his successor Dr. Abdullah Shaiboub who gave his valuable support to the final stages of getting the publication through the press.

The untimely death of Dr. Vergara-Caffarelli in 1961 left us with the responsibility of preparing this report without the advantage of his intimate knowledge of classical art and archaeology. All he has left us about Ghirza is his article on the subject in the *Enciclopedia dell'Arte Antica Classica e Orientale*. As regards the present authors' work an interim report on the settlement was published in *The Journal of Roman Studies* xlvii (1957) and a short account of the Libyan inscriptions (by Reynolds, Brogan and Smith) appeared in *Antiquity* xxxii (1955). This volume is the definitive report.

The work was planned and carried out, and the report has been compiled, in collaboration. But generally it may be said that in the field Olwen Brogan directed her attention especially to the documentation of the monumental tombs and their sculptures, the survey of the flood-control walls in the Wadi Ghirza, and investigation of the cisterns, while D.J. Smith was mostly concerned with the survey of the settlement and study of its buildings, the middens and cemeteries. Both, however, shared the work of supervising and recording the excavation of Building 32, one of the middens, and a number of graves.

Of the many participants in all phases of the enterprise, we owe thanks first and foremost to the Department of Antiquities, which provided transport and shared the wages bill, then to the Department of Agriculture which in 1956 and 1957 lent a 600-gallon water-truck. (In 1955 water had to be brought in drums from Misurata.) For this we must thank the then Nazir of Agriculture, Ess. Mohammed Bey Derna, and the then Director, Mr. Eric Sicely.

With so many good friends we were able to keep our own expenses to a minimum: in no year did these exceed £300, a figure to bring a smile to archaeologists today but quite substantial in the mid-fifties. We gratefully acknowledge the grants made to us by the British Academy, the Cambridge University Craven Fund, King's College, Newcastle upon Tyne, and by the Russell Trust which has always treated Libyan archaeology with special generosity.

We are particularly indebted to Ess. Brahim Camuca who accompanied all the main expeditions and patiently and skilfully directed the workmen recruited from the local tribe, the cabila Manassala of the Orfella. It

was he also who was responsible in the field for the dismantling and transport of Tomb South G. We shall also long remember our good friend the Shaikh of Ghirza, Al Haj Kilani Baba, who always made us welcome and himself took part in the work on the site. We warmly thank: (1) our other colleagues in the field, archaeologists, architects, and draughtsmen: M.H. Ballance, G.A. Barnsley, D. Black, J. Christiansen, G. Clarke, C.M. Daniels, J. Goer, J. Keelan, R. J. Millward, M. Montgomery, Miss J.M. Reynolds, R. Todd, W. Wickens, E.J. Wise; (2) the specialists who have examined our finds, or helped us in other ways, and who have contributed valuable appendices to the report: Mrs. Anne Bell (draughtswoman); Mr. Kevin Black (draughtsman, fig. 1); the Director and staff of the Building Research Station; Mr. W.A. Campbell (microchemical analysis); R.A.S. Cowper and Dr. W.B. Cowper (report on skeletons); Dr. D.B. Harden (glass); Dr. J.W. Hayes (Roman pottery); Miss A. M. Henshall (textiles and hair); G.W.I. Hodgson and staff, Royal Veterinary College; the Director and staff, Royal Botanic Gardens, Kew (wood and charcoal); Miss Mary Hurrell (drawings of small finds); Mrs. Jean Lunn (cartographer); Dr. Glenys Lloyd-Morgan (mirror boxes); Dr. J. Philipson (marine shells); R.H. Pinder-Wilson, British Museum (Islamic pottery); Miss J.M. Reynolds (inscriptions); Dr. B.J. Selman (entomology); the late Professor D.E. Strong (sculpture); drs. M. van der Veen (botanical remains); the late Dr. John Walker, British Museum (coins); Dr. J.P. Wild (textiles); Dr. A. B. Wildman (textiles and hair); N. Wood (architectural drawings). It must be noted that some of the appendices were completed a number of years ago.

We also record with gratitude the generosity of the Society for Libyan Studies, acting on the recommendation first of Dr. J.A. Allan and then of Mr. C.M. Daniels, in financing a cartographer, a draughtswoman, and Miss Charlotte Tagart to assist us with the final preparation of our report; and for providing accommodation for Miss Tagart and ourselves to work together in one place at this stage we are indebted to Professor R.M. Harrison, Head of the Department of Archaeology of the University of Newcastle upon Tyne. But only we know how much we owe to Charlotte Tagart's patient persistence in mastering the seemingly endless problems of bringing to conclusion a work of this size and complexity, the authors of which have ordinarily been separated during recent years by some two thousand miles.

We remember gratefully the encouragement we received from the late Sir Mortimer Wheeler, the late Sir Ian Richmond, and the late Dr. J.B. Ward-Perkins, the hospitality of kind hosts in Tripoli, especially Mr. and Mrs. C.H. Johnston and Mr. and Mrs. Philip Bradburne, and the generosity of the Society for Libyan Studies in financing the completion of the plans.

We thank the National Museum of Antiquities of Istanbul for permission to reproduce their photographs of sculptures in the Museum brought there in the nineteenth century from Ghirza.

We made several further visits to Ghirza after 1957, including one in 1958, when we were joined by Mr. C.M. Daniels, and another in 1967, with Mrs. D.J. Smith. In addition, during the nineteen-sixties O. Brogan continued to explore other sites to gather comparative material. She wishes particularly to thank H.E. Ess. Abdulaziz Gibril, formerly Under-Secretary of State, Department of Antiquities and Tourism, for his unflinching encouragement and help in this work.

Finally we wish to thank Dipl. Ing. H. Braeuner for sending us his fine air-photographs (pls. 3a, 46) and giving us permission to reproduce them. These photographs are an important aid to the description of our sites.

*Post scriptum.* The authors are much indebted to Mrs. D.J. Smith for assistance in checking the page-proofs and, again, to the Society for Libyan Studies for commissioning Dr. D.J. Mattingly to complete the Indices. Needless to say, however, they remain responsible for any errors or omissions in the work. The ancient settlement of Ghirza is, however, protected by the Antiquities Law.

Olwen Brogan  
D.J. Smith

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D.A.T.	Department of Antiquities, Tripolitania.
D.J.S.	D.J. Smith.
E.S.	Eric Sicely.
O.B.	Olwen Brogan.
N. Del.	N. Deliberali.
M.H.B.	Michael Ballance.
C.M.D.	Charles Daniels.
Istanbul.	National Museum of Antiquities, Istanbul.
N.T.	Library Photographic Section, University of Newcastle upon Tyne.

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## ABBREVIATIONS AND BIBLIOGRAPHY

<i>Afric. It.</i>	<i>Africa Italiana</i>
<i>Ant. J.</i>	<i>The Antiquaries Journal</i>
<i>Arch. J.</i>	<i>The Archaeological Journal</i>
BAC	<i>Bulletin Archéologique du Comité des Travaux et Monuments Historiques</i>
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Cagnat, <i>Armée</i>	R. Cagnat, <i>L'Armée Romaine d'Afrique et l'Occupation Militaire de l'Afrique sous les Empereurs</i> (1913)
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- LA *Libya Antiqua*
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- LS *Libyan Studies: Select Papers of the late R. G. Goodchild* (ed. Joyce Reynolds, 1976)
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## SUMMARY

This report is a comprehensive and detailed survey of Ghirza, 250 km (150 miles) south-east of Tripoli in Libya. Here lies the largest assembly of Romano-Libyan remains known in the pre-desert of Tripolitania. They comprise a settlement of some forty buildings, with associated middens and other features, cemeteries, fourteen monumental tombs, and evidence for the cultivation of 3 km of the Wadi Ghirza. The settlement consists of buildings ranging from dwellings of one or two rooms to large castle-like structures, of which there are six, two of them 40-50 m. sq. Surface pottery and other evidence indicate occupation from the late third century A.D. to the early sixth. The monumental tombs, derived from classical types, have long been renowned for their reliefs depicting scenes of contemporary local life as well as subjects from Graeco-Roman mythology. Latin inscriptions show that these tombs were erected by prosperous Libyans, presumably leading inhabitants of the settlement.

One of the buildings was excavated and found to have been a temple of Semitic type dating from the fourth and fifth centuries. It yielded a score of small stone altars, five of which were inscribed in characters of the so-called Libyan alphabet, as well as a number of stone offering-tables such as were also noted in the cemeteries, and a few fragments of figure-sculpture. About A.D. 950/1000 the remains of this building were converted into a house and, apparently, a shop. This re-occupation was terminated by a fire c. 1050. From the debris came Fatimid and Zirid coins, painted and glazed pottery from the Qala'a of the Beni Hammad in Algeria, remains of patterned textiles, mirror-boxes, and other interesting finds, while the surviving walls preserved many graffiti of this period in Libyan characters.

In the Conclusions the evidence for the dating and culture of the ancient settlement is related to the history of late Roman and early Byzantine Tripolitania.

There are fifteen appendices, eight of which are by specialists in particular studies.





## CHAPTER I

### INTRODUCTION

*For the notes see p. 38*

#### (i) THE PRE-DESERT

Tripolitania consists essentially of the coastal plains of the Gefara, Homs-Misurata and Syrtica, of the hill-country or Gebel, comprising the districts of Msellata, Tarhuna, the Gebel Garian and Gebel Nefusa, and of desert areas further south (fig. 1). The Gebel is defined on the north by an escarpment (height 300-600 m.) which sweeps in a great semi-circle round the Gefara from the coast a little west of Homs to the Tunisian coast near Gabes. Its maximum distance from the sea, about 160 km., is reached near the Tripolitanian-Tunisian frontier.

The area of Tripolitania generally called the 'pre-desert' is the zone of drainage from the south side of the Gebel Nefusa and Gebel Garian and the north-east side of the Hamada el-Hamra. It is a vast expanse about 400 km. square, and rocky save along the numerous wadis. In it there were in the nineteen-fifties only two settlements meriting the title of town, namely Beni-Ulid and Mizda.

Southwards the Gebel falls away more gently. Its waters drain into a series of very large wadis comprising the Wadi Sofeggin and its tributaries. The Sofeggin, the greatest of the Tripolitanian river basins, swings round the south of the Gebel in another half-moon, from Zintan to the coastal salt marshes of Tauorga which its waters and those of neighbouring wadis have created through the ages. The Sofeggin and its tributaries are the remains of a majestic river system formed in quaternary times which revives briefly and sporadically when after heavy rains, the wadis flow with floodwater. These wadis have carved for themselves deep and wide beds in the limestone plateau which is the basic geological feature of the region.

There is another belt of high land between the Wadi Sofeggin and the next big river system, the Wadi Zemzem. These hills are at their most impressive between Mizda and the Gheriat, fringing the north-eastern edge of the Hamada el-Hamra, the forbidding plateau where the Wadi Zemzem rises. Towards the east they sink into a rocky plateau. The Zemzem is, in turn, fed by a number of major wadis.

Further south and south-east of Zemzem is another wadi system, the Bei el-Kebir. Here, however, the pre-desert is merging into the desert and, save for the outlying oasis-fort of Bu Ngem and a few minor points dependent on it, we are outside the Roman Empire.

The pre-desert thus consists of alternating uplands and wadi basins. Most of the upland is relatively flat, except in the north near the Gebel and to the south-west where it is broken up into the hills and escarpments resulting from the erosion of the Hamada el-Hamra. Along the lower course of the Wadi Zemzem the hills often take a conical shape, or they may be flat and table-like. A line of seven conical hills marks the eastern side of the confluence of the Wadis Ghirza and Zemzem. They form a prominent landmark but one that is reproduced almost identically at points further east.

The surface of the tableland is generally covered with large and rough stones, unpleasant to walk on and a peril to tyres. It is seamed with camel tracks, narrow paths made through the centuries by kicking the stones aside. In some parts the plateau has a basaltic mantle; such are the black tracts around Beni Ulid and the boulder-strewn waste above the upper Wadis Mesueggi and Ghargar. Elsewhere, as in long stretches between Wadis Nféd and Zemzem, the stones have been worn down to fine gravel - *serir* - which makes excellent 'going' for vehicles. Yet here and there on the plateau are shallow depressions where a little sand or soil has accumulated and where, especially in spring, pasture may be found for the flocks and even, after rain, crops of barley may be sown; but in general the plateau is a barren waste save for tufts of drought-resisting plants.

The climatic zones of Tripolitania follow the rainfall and the configuration of the country, which are, of course, closely related. Fantoli<sup>1</sup> distinguishes six climatic zones: (1), the maritime climate of the 3-10 km. wide coastal strip; (2) and (3), the coastal and continental steppe climates; (4), the climate of the Gebel, the *altopiano*; (5) and (6), pre-desert and desert climates.

The region with which we are primarily concerned is bounded on the north by the isohyet of 100 millimetres but its heart lies between the 75 mm. and 50 mm. isohyets and it has moreover large tracts between the 50 and 25 mm. lines. Ghirza lies near the last of these. The first question that the visitor asks himself is, how could a settlement ever have existed here?

Fantoli regards 200 mm. per annum as the minimum rainfall necessary for reasonably successful agriculture. On this basis Tripolitania is a borderline country and the pre-desert uncultivable. What made, and still makes, some degree of agriculture possible in the latter, is the water which floods down the wadis after storms, and the broad flat beds of many of these wadis over which it is able to spread widely.

The wadi-beds, with their large deposits of alluvium brought down by long ages of floods, provide the cultivable land of the pre-desert. So rich are they, so suited for corn-growing when there has been a good flow of water, that under the *Pax Romana* Libyan farmers settled increasingly along the wadis in large numbers. The crops which they raised in good years must have been of great value to the economy of Tripolitania. The Wadi Sofeggin has long been renowned in Libya for its crops of corn - barley and wheat - and there is an old saying:<sup>2</sup>

"Sofeggin, its head figs,  
its middle barley  
its feet dates"

alluding to the fig-gardens of Zintan, near the head-waters of Sofeggin, the cereal crops of the central part of the wadi, and the dates of Tauorga.

Large tracts of the wadi beds still contain plentiful bushes and even trees. There are many tamarisks (Arab. *etbel*), generally bushes, but sometimes growing into quite large trees of which there would be more were they left alone by man and his flocks; there is the spiny *sidr*, or *Zisypus lotos* found on soils which would be capable of growing olives; there are the feathery bush known as *rtem* and many others. In the southern wadis the commonest tree is the *talba* (*Acacia tortilis*), a spiny acacia which can attain quite an impressive size. The most beautiful of all the wadi trees is the *batum*, the *Pistachio atlantica*, whose bark exudes a kind of mastic and from whose berries an oil prized for its medicinal qualities is extracted. The *batum* is still found in considerable quantity in the upper parts of the more inaccessible wadis flowing into the Sofeggin from the North and in the Wadi Merdum. We have not seen *batum* in the Wadi Sofeggin itself though there are a few examples to be seen south of Mizda. The word Sofeggin is Berber, *Soff* being wadi and *Gin* being the word for *batum*, and probably there was once a time when the Wadi Sofeggin looked as the Wadi Tareglat looks today.

In the southern wadis, however, the *talba* was probably always the commonest tree, and its wood has been found in buildings of the Roman period. The vegetation of the pre-desert has had a long but losing fight against man, which was intensified when motor vehicles began to penetrate the wadis to collect charcoal for sale in the coastal cities. In the middle nineteen-seventies large-scale irrigation projects were initiated in some of the wadis, based on new wells bored into newly-found deep aquiferous layers.

## (ii) SITUATION

The ancient settlement of Ghirza lies at Lat. 30°57' N., Long. 14°33' E., 250 kilometres (150 miles) in a direct line south-east of Tripoli and 130 kilometres (80 miles) from the western shore of the Greater Syrtis or Gulf of Sidra.

Ghirza is shown (ref. 6854) on Sheet 9, Bu Ngem, of the 1 : 500,000 *Map of Libya* issued during the War by the British General Staff Geographical Survey and based on the much clearer Italian map, the *Carta Dimostrativa della Libia* (scale 1 : 400,000) prepared by the Istituto Geografico Militare. For the area see the *Topographic Map of the United Kingdom of Libya*, 1-350 B, 1 : 2,000,000, 1962, issued by the Geological Survey, Washington, D.C. The new maps of Tripolitania, scale 1 : 250,000 and 1 : 50,000 issued by the U.S. Army Map Service do not reach as far south or as far inland as Ghirza though Sheet 33-2, Beni Ulid, of the former, covers the ground as far as the Wadi Zemzem, ten km. from Ghirza (ref. 5430). Ghirza and other important ancient sites are shown on the *Map of Roman Libya - West Sheet (Tripolitania)* of the *Tabula Imperii Romani*, 1 : 1,000,000 (Sheet H.I. 33 - Lepcis Magna; Soc. Antiq. London, 1954). The wadi Ghirza and those further south are shown in the U.S. Map 1 : 1,000,000, NH 33.

With the numerous new roads, building projects and other public works which are to be found in the length and breadth of Libya even the maps of 1962 are becoming rapidly out of date.

The transliteration of Arabic place-names into western languages always presents difficulties. The few maps available in the nineteen-fifties were Italian in origin, but the Italian spelling which still prevailed for topographical publications at that time has now almost ceased to be used by non-Italians. For the new American

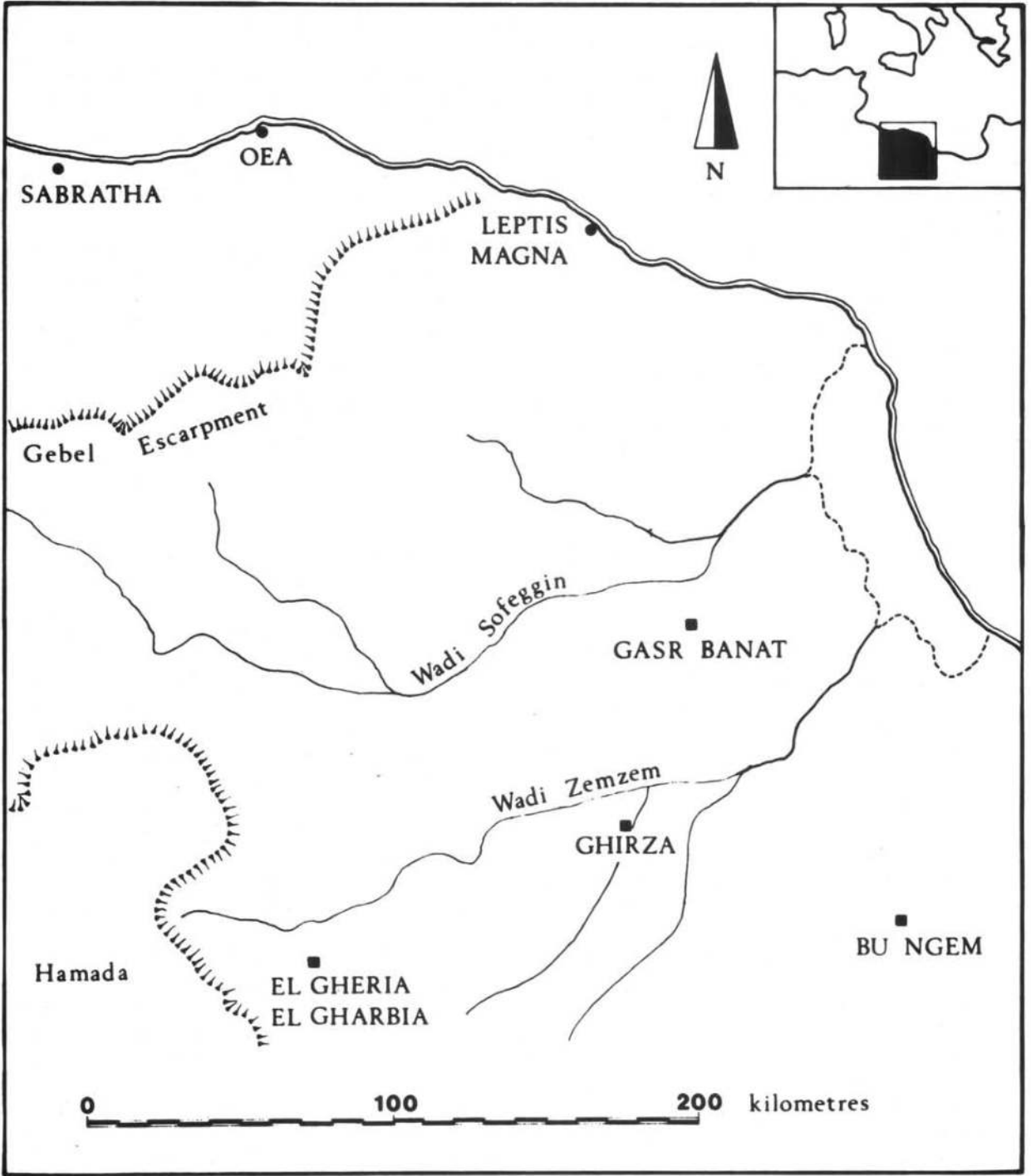


Fig. 1. Roman Tripolitania.

maps one of the internationally approved systems was adopted. We have however in most cases retained the rough-and-ready English versions still commonly employed.

### (iii) THE NAME OF GHIRZA

The ancient name of Ghirza is not known. The present name is shown in Lord Rennel's map of 1802 illustrating the travels of Hornemann (1798-99).<sup>1</sup> C. Müller thought that it was probably the Gereisa of Ptolemy, one of several unidentifiable places mentioned as being in the region of the Syrtes.<sup>2</sup> Against this it has been contended that Ghirza cannot be Gereisa, because the period of the settlement is too late for Ptolemy.<sup>3</sup> But if the name was that of the wadi, this argument would not hold good. Furthermore, we now know that there was some settled occupation in many of the southern wadis of Tripolitania from the first century A.D.,<sup>4</sup> and at Ghirza itself sherds of late first and early second century pottery have been found (p. 238 below). Müller's view ought not, therefore, to be dismissed too readily.

Méhier de Mathuisieulx believed the name to be Arabic, and remarked that the wadi had given its 'modern' name to the ruins.<sup>5</sup> The name Ghirza is, however, regarded as Berber by Libyans whom we have questioned, and some names of other pre-desert wadis, e.g. Sofeggin, Tininai, are Berber.<sup>6</sup>

Though spelt with a 'gh' by Smyth,<sup>7</sup> the word Ghirza does not begin with the Arabic letter *ghrain* but with the *kof* which is a hard 'g' in the pronunciation of Tripolitania. The Berber prefixes *Gur* and *Ger* are common in place-names of Roman Africa. *Gur* signifies mountain and is found in Mons Gurbessa, Gurbisensis, Montana Gurubi (Gourba in the Cap Bon Massif), Gurgaitensis, Gurza near Sousse (Gurgensis), Mons Gyri; *Ger* is found in Gergis, Aggersel. Alternatively there is the Berber word GRZ or KRZ (in Tefinagh #O ) discussed by Mercier.<sup>8</sup> This means something narrow, hence *korzi*, a gorge. Mercier states that this Berber word has passed into the popular Arab dialect of North Africa, e.g. Jebel Grouz or Gourzi in Algeria.<sup>9</sup>

*Gur* is also found in the name of Gurzil. According to Corippus, Gurzil was the god worshipped by the Tripolitanian Moors whom John Troglita fought in the 6th century A.D.<sup>10</sup> There is, again, a very interesting reference in El-Bekri, the Arab geographer of the 10th century, to a stone idol called 'Gurza' which was still worshipped by the Berbers of his day. This, he says, was situated on a hill half-way between Gasr Ibn Mimun and Waddan, which must have been, if not actually at Ghirza, somewhere in its region.<sup>11</sup>

Ghirza thus may well be connected with these old *Gur* or *Ger* names, and it is by no means impossible that it is the Gereisa of Ptolemy.

### (iv) PREVIOUS REPORTS

Tales of ancient places where the inhabitants were turned to stone by divine wrath or by evil spirits abound in folklore. Dr. Thomas Shaw, Regius Professor of Greek and Principal of St. Edmund Hall, Oxford, in the mid-eighteenth century, had travelled much in North Africa, and brought back with him an account of one such petrified site, called Ras Sem 'in the province of Darna in the Kingdom of Tripoly six days' journey to south of Bengaze.'<sup>1</sup> The story caught the imagination of London society, and the Ambassador from the court of Tripoli, Cassem Aga, was asked for his views. 'He reported from a thousand persons, as he said, and particularly from a friend of his, of great veracity, who had been upon the spot, that this scene of petrifications consisted of a large town..... That this friend of his saw there different sorts of trees..... all of them turned into stone. That there were men also to be seen in different postures and attitudes; some of them exercising their trades and occupations..... The women likewise, were some of them giving suck to their children; others were sitting at their kneading troughs..... That he saw different sorts of animals, such as camels, oxen, asses, horses, sheep.... all of them converted into stone.... It is further related, that several pieces of petrified money had been brought from thence; some of which were of the bignes of an English shilling, charged with a horse's head on one side, and with some unknown characters on the other'.<sup>2</sup>

The celebrated traveller James Bruce, who was in Cyrenaica in 1766, visited Ras Sem south of Benghazi.<sup>3</sup> He says 'it is four days' smart travelling south..... It gets its name the Fountain of Poison<sup>4</sup> from its bitter spring of greenish waters..... there are no petrifications but what are common in many other parts of Africa;' a tame ending to a traveller's tale. The petrified city was to crop up again, however, to stimulate the curiosity of the first visitor who has left us a record of a journey to Ghirza, though the name of the site had already appeared on maps before his visit and is shown on Rennel's map of 1802 illustrating the travels of Hornemann.<sup>5</sup> This first known European to have visited Ghirza, in spring 1817, was Lieut. (later Rear-Admiral) W.H. Smyth.<sup>6</sup> He had been engaged at Lebda, the site of Lepcis Magna, removing columns and other antiquities which the Bashaw of Tripoli, Yusuf Karamanli, wished to present to the Prince Regent. While there he heard of the sculptures to be found in a place far to the south, and in Tripoli he met Mukni, Sultan of Fezzan, who told him that within the previous month 'he had passed through an ancient city, now called Ghirza, abounding in spacious buildings

and ornamented with such a profusion of statues as to have all the appearance of an inhabited place'. 'This account', says Smyth, 'supported by several collateral circumstances, impressed me with the idea of its being the celebrated Ras Sem, so confusedly quoted by Shaw and Bruce, and consequently inspired me with a strong desire to repair thither.'

He set out from Tripoli on the 28th February, accompanied by two young princes of the Karamanli house, the Bashaw's son-in-law and nephew, and reached Beni Ulid on March 3rd. As the account of his journey is not always easy to come by it may be worth while to quote the part concerning Ghirza.

'Benioleet consists of several straggling mud villages on the sides of a fertile ravine,.... inhabited by the Orfilla tribe.<sup>7</sup> Having found several people here who had recently arrived from the place I was bound to, I repeated my inquiries respecting the sculpture, and again received positive assurances that I should see figures of men, women, children, camels, horses, ostriches, etc., in perfect preservation; and the belief of their being petrifications was so prevalent, that doubts were expressed whether I should be able to remove any one of those whom it had pleased Providence thus to punish for their sins.

'On the 6th, after our party had been joined by three mountain chiefs, Mahmoud, Abdallah and Hadgi Ali, with twenty-five Janissaries and fifteen camels laden with water, barley, tents, etc., we proceeded over a hilly and bare country to the southward.' Early on the 9th the party came in sight of Ghirza, and Smyth continues, 'I instantly perceived the error of some writers, in ascribing cold springs and moving sands to this spot, for the site is mountainous and bare, presenting only dreary masses of lime and sandstone, intersected with the ramifications of the great wadie of Zemzem.<sup>8</sup> And although I had not allowed my imagination to rise at all in proportion to the exhilarating accounts I had heard, I could not but be sorely disappointed on seeing some ill-constructed houses of comparatively modern date, on the break of a rocky hill, and a few tombs at a small distance beyond the ravine.

'On approaching the latter I found them of a mixed style, and in very indifferent taste, ornamented with ill-proportioned columns and clumsy capitals. The regular architectural divisions of frieze and cornice being neglected, nearly the whole depth of the entablatures was loaded with absurd representations of warriors, huntsmen, camels, horses, and other animals in low relief, or rather scratched on the freestone of which they are constructed. The pedestals are mostly without a dye, and the sides bore a vile imitation of arabesque decoration. The human figures and animals are miserably executed, and are generally small, though they vary in size from about three feet and a half to a foot in height, even on the same tombs, which adds to their ridiculous effect; whilst some palpable and obtruding indecencies render them disgusting.

'Across a fine but neglected valley,<sup>9</sup> to the south-east-ward, in which were numerous herds of wild antelopes and a few ostriches, is a monumental obelisk of heavy proportions, and near it are four tombs of similar style and ornament with the first set. These are remarkable however as more strongly combining a mixture of Egyptian and Greek architecture, and are placed so as to give a singular interest to the scene.

'There are but three inscriptions, and those are comparatively insignificant, nor can other particulars be learned, the whole of them having been opened, in search probably of treasure, but as no person resides near the spot, I was deprived of any local information. A wandering Bedoween, who had been some time in the Wadie, brought me a fine medal, in a large brass, of the elder Faustina, which he had found in the immediate vicinity.

'The tombs appear to have remained uninjured by the action of either the sun or the atmosphere, excepting only a deep fallow tint they have imbibed; the sculpture therefore, as we must call it, remains nearly perfect. As these edifices are near the Fezzan road, people from the interior have occasionally tarried to examine them, and being the only specimens of the art they ever saw, yet representing familiar objects, they have described them on their arrival at the coast in glowing colours. It is this nucleus, which..... soon swelled into a petrified city, and at length attracted the curiosity not only of Europe, but obtained universal belief in Africa. It has been deemed a species of pilgrimage to resort thither, as the caravan passes, and inscribe a blessing for the supposed unfortunate petrified Moslems, and with these the pedestals are actually covered.<sup>10</sup> Thus, notwithstanding the diminutive size and despicable execution of these bas-reliefs, the Turks who accompanied me eyed them with admiration and respect.

'Ghirza is situated near some barren hills called Garatilia, and from its want of water, and sterile, comfortless appearance, could only have been a military post in communication with Thabunte,<sup>11</sup> and the stations along the shores of the greater Syrtis. The wadie, indeed, may have been formerly well cultivated, being even now covered with spontaneous vegetation and flourishing talha, cypress, lotus, and other trees. I observed no traces of roads or aqueducts, during my short stay, but I was too much occupied with my operations for determining the geographical position of the place, to extend my researches to any distance.'

Smyth brought away specimens of the sculptures - to prove that they could be moved - and in a letter to Rear-Admiral Penrose, written in *H.M.S. Weymouth* in November 1817, he refers, among the antiquities he has embarked, to the 'small stone with the horseman on it... from one of the tombs of Ghirza.'<sup>12</sup>

The next visitor on record is Major Dixon Denham who, with Captain Hugh Clapperton, R.N., crossed the Sahara to Lake Chad and back in 1822-25.<sup>13</sup> On January 5th, 1825, they left Socna on the last stages of their return journey. They soon afterwards separated, and Denham arrived at Ghirza on the 13th. He writes, 'We

found here the remains of some buildings, said to be Roman, situated about three miles west-south-west of the well, and which appeared to me extremely interesting; there must have been several towns, or probably one large city, which extended over some miles of country, and the remains of four large buildings, which appear to have been monuments or mausoleums, though two of them are nearly razed to the earth. Those which I thought interesting, or capable of representation, I sketched: the architecture was rude though various: capitals, shafts, cornices, and entablatures, lay scattered about; some of curious if not admirable, workmanship.' Denham clearly thought better of Ghirza than had Smyth, and he took the trouble to copy all the inscriptions he could find and to make sketches of some of the friezes. As will be seen, these records are of inestimable value.

The ruins are next referred to by Heinrich Barth who passed them on his way back from tropical Africa in 1855.<sup>14</sup> He merely states that he left Socna on 12 August, 'following the Trik el-Merhoma and passing by the wells El-Hammam, Ershidiye, and Gedafiye and then by the narrow Wadi Ghirza (the place once the great object of African research for Lieutenant now Admiral Smyth), with its interesting ancient sepulchres in the form of obelisks, [we] reached Wadi Zemzem on the 19th.' Méhier de Mathuisieulx later expressed a doubt as to whether Barth went to Ghirza, saying 'la route caravanère depuis cinquante ou soixante ans suit un trace qui laisse généralement à une journée de marche la ville ancienne. C'est cette nouvelle route que Barth a prise lorsqu'il est revenu du Tchad mais comme il ne fait que mentionner ces vestiges admirables et que son retour s'est effectué tres rapidement, je crois qu'il ne les a pas vues.'<sup>15</sup>

Yet Barth's reference to the narrow Wadi Ghirza, which he would enter coming up from Gheddafiya, rings true. Admittedly, he is vague about the ruins, but he may have been content merely to glance at them as he passed along the wadi, from which he could not fail to see them. It should be remembered that he was just at the end of five years of strenuous travel, and that he passed through the wadi in August. The heat at Ghirza at that time of year is so intense that it requires great energy to move about and a fatigued traveller may be excused for not tarrying there or for not climbing up to the tombs which, as Barth knew, both Smyth and Denham had already described. Moreover, as the tribes were in a state of rebellion he was anxious to press on.

Ghirza must have been familiar to Turkish officers, for some of them removed certain of its sculptures to Istanbul in the eighteen-fifties or sixties.<sup>16</sup>

The Frenchman Méhier de Mathuisieulx gives by far the best account of the Tripolitanian pre-desert and its antiquities before the work of modern Italian and British archaeologists.<sup>17</sup> He travelled in Tripolitania in 1901 and 1903, visiting Ghirza on the second expedition. He did much useful preliminary work, taking photographs and drawing plans, and is the first to devote any space to the southern group of tombs or to the settlement, reducing the latter from Denham's several miles to a length of 800 metres. His account of the settlement is not, however, very clear. For him it was an important Roman town, the remains of which were now isolated in a frightful desert of stones. He describes towers as still 10-12 metres high and mentions one building flanked by a square tower, massive and well-preserved, which might be Building 26 or perhaps 31 (below, pp. 60, 62; ): it depends on what is meant by flanked. He also refers to another fine edifice 65 metres long on its east face, the height of which exceeded 18 metres. The 18 metres now present some difficulty, but the reference may be to the prominent east face of Building 31 (p. 63; Pl. 12) which was in all 55-50 m. long and undoubtedly once much higher than it is today. Unfortunately his photographs of the buildings were lost before he could publish them. He also took squeezes of some of the sculptures, photographs of which were for long the only illustrations of them available for students.<sup>18</sup>

With the coming of the Italians there were more visitors to Ghirza, though it was not until after 1925 that they could penetrate freely so far into the hinterland.<sup>19</sup> It was an Italian officer, Guido Bauer, who carried on the work of Mathuisieulx and published accounts of Roman remains in this part of the pre-desert, for the administration of which he was responsible. His account of Ghirza is of unique value because his photographs of Tombs South A and C record these monuments as they then stood, virtually intact;<sup>20</sup> only a few years later they collapsed in an earth-tremor, probably that of the winter 1937-38.

When at the end of World War II British archaeologists became temporarily responsible for the Tripolitanian Antiquities Service the site was visited by D.E.L. Haynes, and after him by the late R.G. Goodchild.<sup>21</sup> Mr. Haynes wrote a useful account of the ruins in his *Ancient Tripolitania* in which for the first time a clear, though brief, description was given of the settlement as well as of the tombs.<sup>22</sup>

## NOTES

### CH. I. INTRODUCTION

#### (i) The Pre-desert

<sup>1</sup> A. Fantoli, 'Il clima della Libia nei suoi rapporti con gli insediamenti umani e con la colonizzazione', *Annali dell'Africa Italiana* III (1942); *ibid.*, *Le piogge della Libia* (1952).

<sup>2</sup> Barth i, p. 104; H. Vischer, *Across the Sahara from Tripoli to Bornu* (1910), p. 63.

#### (iii) The name of Ghirza

<sup>1</sup> E.W. Bovill (ed.), *Missions to the Niger i: The Journal of Friedrich Hornemann's Travels and the Letters of A.G. Laing*. Hakluyt Society (1964), map 1, p. 58. Rennel probably received the information from Hornemann, though the latter did not himself visit the site.

<sup>2</sup> C. Müller (1901), p. 659, iv, 3, 11, 'Intra utramque Syrtim oppida sunt haec... Gerisa (Gaerisa ed. Vic). Hodie Gersa, prope Ouadi Semsem.'

<sup>3</sup> Vergara (1960), p. 864.

<sup>4</sup> Brogan (1964), (1970); Brogan/Smith (1967).

<sup>5</sup> *NAM* xii, p. 22.

<sup>6</sup> Most places in the pre-desert now have Arabic names. Zemzem, the name of the holy well at Mecca which has been given to the great wadi into which the Wadi Ghirza flows, is perhaps an Arabic approximation to some earlier Berber name (cf. the Wadi Zazemet, tributary of Wadi Zemzem, the name of which does not seem to be Arabic).

<sup>7</sup> Beechey (1828), pp. 504-12.

<sup>8</sup> G. Mercier, 'La langue libyenne et la toponymie antique de l'Afrique du Nord', *Journ. Asiatique* ccv (1924), pp. 189-320.

<sup>9</sup> *Ibid.*, p. 276.

<sup>10</sup> Corippus, *Johannidos*, e.g. iv, 194.

<sup>11</sup> El Bekri, *Description de l'Afrique Septentrionale*, trans. by MacGuckin de Slane (Paris, 1913), chap. 33, p. 31.

#### (iv) Previous Reports

<sup>1</sup> T. Shaw, *Travels or Observations relating to Several Parts of Barbary and the Levant*, 2nd edn. (1757), p. 155. The story of the petrifications had been reported to the King of France in 1724 by J. A. Peyssonnel; see Dureau de la Malle, *Voyages dans les Régences de Tunis et d'Alger*, i (1838), p. 52.

<sup>2</sup> *Ibid.*, p. 156; a common form of Punic coin, and as such more likely to turn up on a Tripolitanian site than in Cyrenaica. Perhaps Cassem Aga's friend, presumably from Tripoli, knew of Ghirza.

<sup>3</sup> Playfair (1877), p. 285. Bruce had shortly before visited Leptis Magna: 'where there are a great extent of ruins, but all in bad taste...' He goes on to say that in the time of Louis XIV there were many statues 'of good taste', but the Government of Tripoli 'would not suffer them to be transported, pretending they were bodies of unfortunate Mussulmans petrified or confined there by magic; so that the French Consul could do no better than bargain privately for the heads of those statues, which were struck off and shipped with the columns.'

<sup>4</sup> *Guida d'Italia del Touring Club Italiano, Tripolitania,*

*Cirenaica* (1929), p. 455, Maaten Risam, 105 km. from Benghazi on the route to Gialo: 'acqua salmastra presso i quale si trovano molti avanzi di legno petrificati, che dettero in passato origine alla leggenda di una città pietrificata insieme con gli abitanti e gli animali.'

<sup>5</sup> Bovill, *Missions to the Niger* i, p. 58.

<sup>6</sup> Smyth (1854), p. 482 ff., a letter, dated in Tripoli, March 27, 1817. This had been quoted *verbatim* in Beechey (1828), pp. 504-512.

<sup>7</sup> Beni Ulid (Bani Walid), still often called Orfella, the Orfella being a famous tribe, of Berber origin but now completely Arabized, that holds the territory from Beni Ulid to the Giofra.

<sup>8</sup> His memory misled him. The Wadi Zemzem does not intersect the site, but is ten km. north of it. He probably had his first view of Ghirza from a low hill just north of the Wadi Zemzem.

<sup>9</sup> The 'fine valley' is the Wadi Ghirza. The inscriptions he refers to must be those on the northern tombs, A, B and C.

<sup>10</sup> The tombs are covered with Arabic graffiti, but these are almost entirely names. To our disappointment we have found no sign of any blessings being invoked upon 'petrified Moslems'; cf. n 3 and 4 above.

<sup>11</sup> O. Cuntz, *Itineraria Romana* i (1929), p. 9, a station on the Antonine Itinerary (perhaps to be identified with Tubactis).

<sup>12</sup> Smyth (1854), pp. 488-9.

<sup>13</sup> Denham (1826), pp. 305 ff.

<sup>14</sup> Barth (1857), v, p. 449.

<sup>15</sup> *NAM* xii, p. 23.

<sup>16</sup> One wonders if there are any records of the wadi awaiting discovery in the archives of Tripoli Castle.

<sup>17</sup> *NAM* (1904), p. 23 ff.

<sup>18</sup> SEHRE', p. 192.

<sup>19</sup> See Guide of *Touring Club Italiano* (1929), p. 207, *Storia*.

<sup>20</sup> Bauer (1935).

<sup>21</sup> Goodchild/Ward Perkins (1949), p. 94; Goodchild, *Libyan Studies* (1976), pp. 7, 8

<sup>22</sup> Haynes (1946), (1955).



# GHIRZA: the wadi and settlement

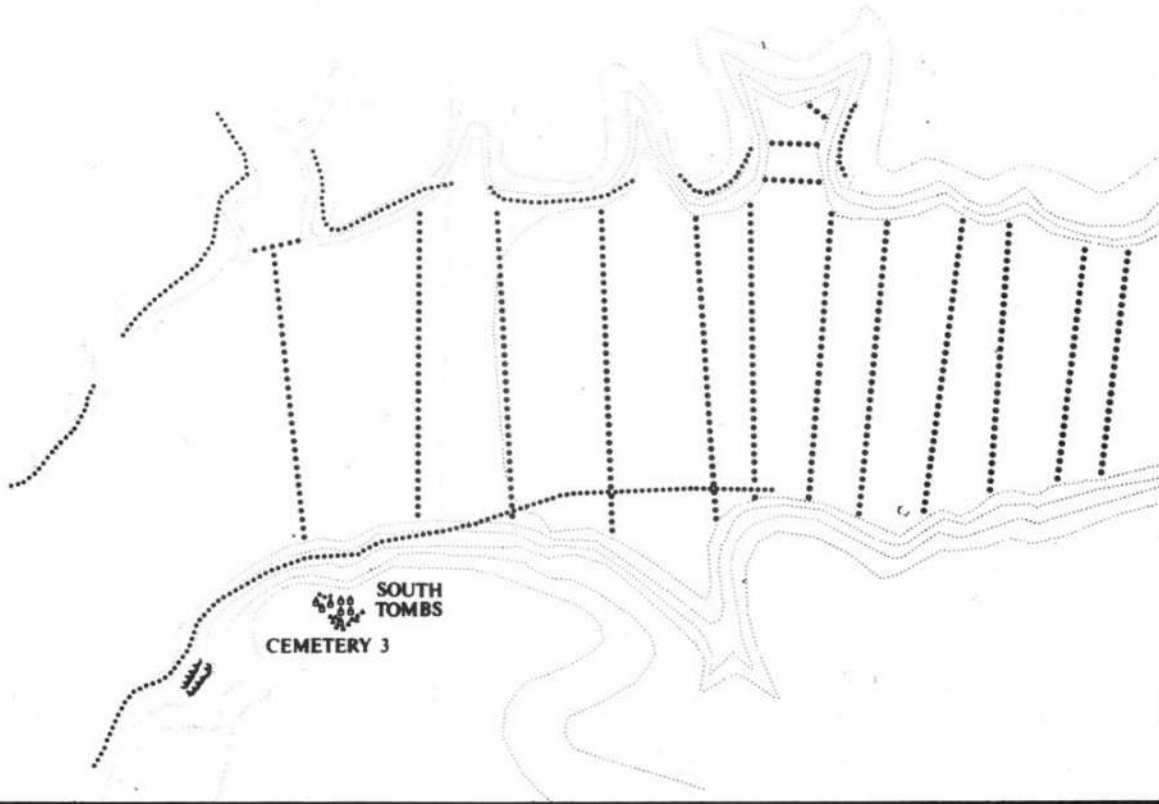
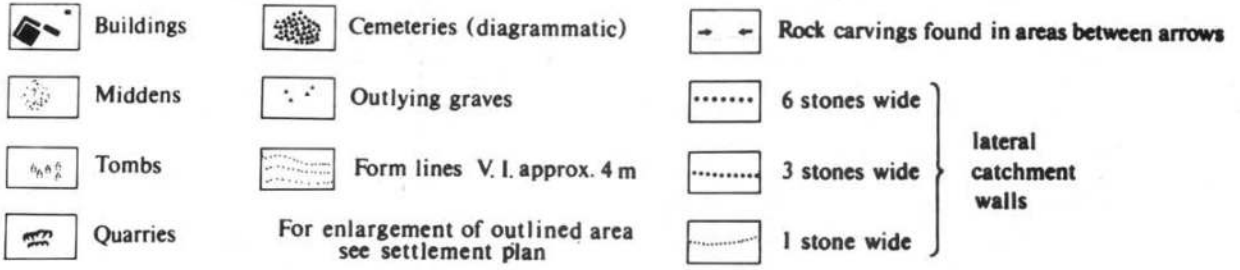


Fig. 2. The Wadi Ghirza. Drawn by Jean Lunn.

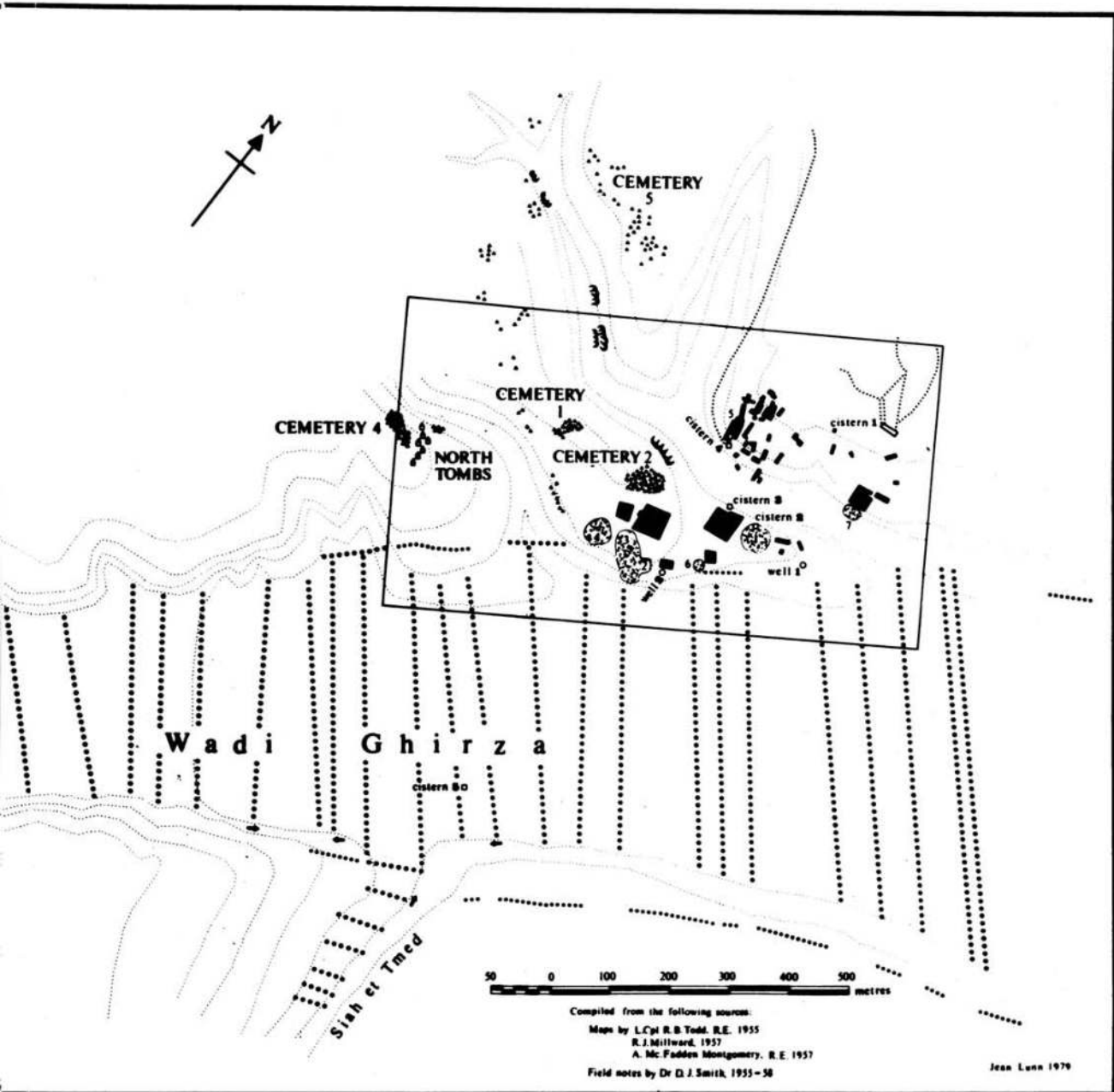
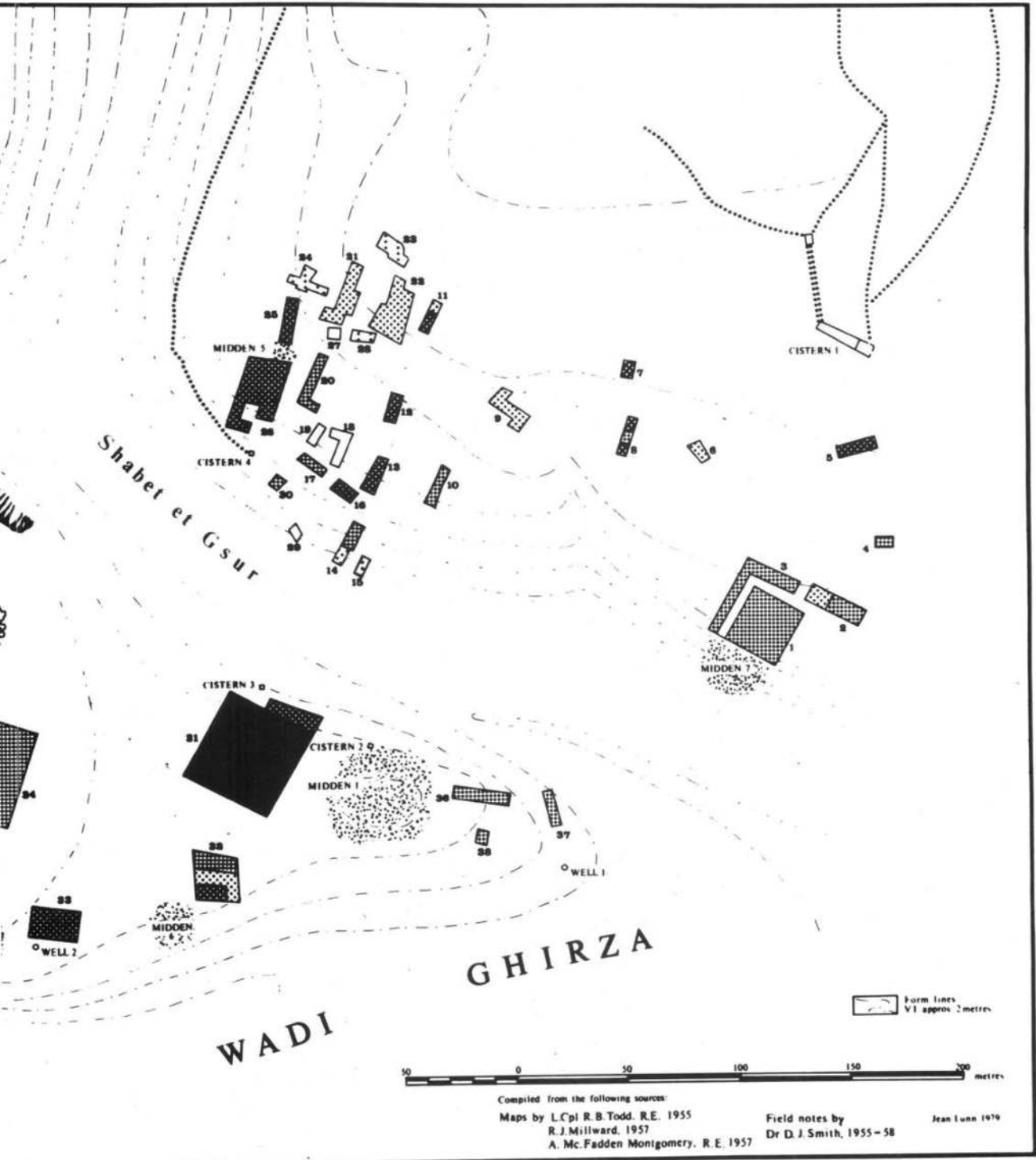




Fig. 3. The Settlement. Drawn by Jean Lunn.





## CHAPTER II

### THE SETTLEMENT

*For the notes see p. 115*

#### (i) THE WADI GHIRZA AND ITS EXPLOITATION

##### (a) *The Wadi Ghirza*

The head of the Wadi Ghirza lies in the eastern outliers of the Hamada el-Hamra, some 30km. south-south-east of the oasis of el-Gheria el-Garbia and approximately 25km. north of latitude 30° N. Thence to its confluence with the Wadi Zemzem its course is generally towards the north-east, its length about 140km. Ten kilometres above the confluence lie the ruins of the ancient settlement, and 2.3 km. further to the south-west are those of the South Group of monumental tombs (p. 182). It is with the antiquities of this stretch of the Wadi Ghirza that the present report is concerned, and it is appropriate, therefore, that the work should begin with an account of the important evidence of ancient exploitation of the wadi itself near the settlement.

At the southern group of monumental tombs the wadi is 400m. wide, and from here to a point about 200m. east of the settlement, where it has broadened to over 600m., its bed was traversed by remains of substantial walls (fig. 2). Altogether thirty-five were recorded in a distance of 2.9km., at intervals ranging from 20 to 200m. but generally of 60 to 70m., and it seems more than probable that in the larger intervals were others which are buried or have been entirely swept away by exceptionally heavy floods. Some of those surviving at the time of our survey were still standing to a height of about a metre and were up to two metres in thickness. Shorter and narrower walls are to be found in the right-bank tributary, the Siah et-Tmed, which enters the Wadi Ghirza south of the settlement, and in a lesser tributary on the left bank. All are now ruined beyond further description.

In addition, along either bank of the wadi ran a continuous wall (Pl. 4a) which is clearly part of the same system. That on the south-east bank runs at first near the southern group of monumental tombs, high up on the side of what here can be called a gorge; then, after passing the tombs, it drops gradually down to the level of the wadi-bed, crosses a re-entrant in the side of the gorge and thereafter maintains a course at the same level as far as the Siah et-Tmed, whence it continues for several hundred metres along the now much lower bank of the wadi. The wall on the north-west bank runs sometimes along the top of the steep side of the gorge, sometimes halfway down the side, dipping to cross the tributary gullies until it reaches the settlement, where it appears to have followed a course low down on the wadi-bank, skirting the south of the inhabited area. These walls consisted of a double row of upright stones, presumably with a packing between which has been washed out.

Sometimes this doubling of the lateral walls occurs near a building where the walls were developed into small conduits. This is to be seen beside Building 26 on the edge of the Shabet el-Gsur, where the conduit led into the cistern on the slope south-east of the building.

(Readers must note that a substantial wall shows on air-photographs taken since 1958. This runs obliquely across the shabet from its middle to the conduit leading to Cisterns 2 and 3. It is modern and was built to guide floodwater into the conduit which the Department of Agriculture at that time restored along with the cisterns, to the great satisfaction of the dwellers in the Wadi Ghirza).

The extent of this system, almost exactly co-terminous with the stretch of the wadi between the southern tombs and the settlement, leaves little doubt that all can be regarded as contemporary. Similar systems are a feature of many other wadis in Tripolitania,<sup>1</sup> invariably in association with evidence of settlement in Roman times and obviously long derelict, and are a feature of at least one other desert on the border of the Roman Empire.<sup>2</sup> Nor can there be any doubt as to their purpose: that of the transverse walls to restrain and spread the

flow of stormwater so that it should have time to permeate the earth and also to deposit its alluvial content, that of the lateral walls most probably to prevent stones from being washed down on to the cultivable ground thus gained and, incidentally perhaps, to encourage the formation of trackways here and there on the detritus that they retained (Pl. 4a).<sup>3</sup>

The development of such a system must have resulted in an appreciable rise in the water-table and in humidity, and also in an increase in soil fertility, with beneficial effect to trees, other vegetation, and wild animal life, as well as to man and his animals and crops. At Ghirza, although the area actually cultivated in normal years will unfortunately never be known, the construction of these walls improved an area of the wadi amounting to some 1,220,000 sq. metres (122 hectares = 301.462 acres or 0.4375 sq. mile). See, further, p. 308 ff.

Sculptured reliefs from the monumental tombs are eloquent of the part that cultivation played in the life of the settlement (Pls. 64-67), while an olive press in one of the buildings (p. 64) encourages one to visualize ploughing, sowing, and harvesting of wheat and barley among groves of trees (p. 220). Timber surviving in two other buildings (p. 72) and evidence from a rubbish mound (p. 97) add to the olive the acacia, rhus, tamarisk and possibly the almond (p. 97), and the trees will have given welcome shade to the numerous goats and cattle whose existence is attested by a remarkable inscription (p. 182). Indeed, from this record of a funerary sacrifice it is clear that at least one individual possessed wealth and to spare in flocks and herds. Its findspot, in the North Group of monumental tombs (p. 182), confirms the implication that this person was a member of one of the leading families; while from the tombs themselves, surrounded as they are by burials of the humblest type (p. 107), it is amply evident that wealth was concentrated in very few hands.<sup>4</sup> Precisely the same conclusion follows from an examination of the settlement.

#### (b) *The settlement*

The plain through which the Wadi Ghirza pursues its lower course tilts gently but perceptibly from south-west to north-east, and stormwaters of millennia have dissected the north-west bank of the wadi into innumerable gullies and minor valley systems (Pl. 1). One of the longer and more developed tributaries is the Shabet el-Gsur, which in its last few hundred metres runs from west to east and enters the Wadi Ghirza at an angle of 35°. Here, on rising ground on either side of the shabet and in immediate proximity to the Wadi Ghirza, stand the remains of the ancient habitations (fig. 3).

The settlement, undefended and unenclosed, extends over an area 500m. from north-east to south-west and 300m. from north-west to south-east. But the buildings are unevenly distributed, the greater number lying on the north side of the Shabet el-Gsur and forming a group which is notable for a certain regularity in orientation. With two exceptions the size of the buildings here is not such as to merit special comment, and there is about them more than one suggestion of a relatively short occupation (see below, p. 76). This impression is supported by the virtual absence of remains of rubbish mounds, which in contrast are a conspicuous feature of that part of the settlement on the south side of the shabet (p. 92). Moreover, the only wells are on the south side of the shabet (p. 98), which also has two large cisterns, the inhabitants on the north side being provided for by only two, or perhaps three, cisterns dependent on an unreliable rainfall (p. 34).

In contrast, the fewer buildings on the south side of the Shabet el-Gsur are not only sited largely at random but are also mostly exceptionally substantial structures. Their dimensions, together with the number and bulk of the middens as well as agglomerations of huts, reveal at a glance that here the settlement was firmly established and lasted long. The situation was well chosen. It is formed by a spur of rocky ground which descends to the Wadi Ghirza between the Shabet el-Gsur and a smaller valley to the south and west, the Shabet et-Tiswiyr (fig. 3). From its point the spur rises westward and broadens to a width of 150m. across the top, where the westernmost building of the settlement stands. Five buildings are grouped around a midden near the point of the spur, one is sited more to the south and west on the bank of the Wadi Ghirza, and two others occupy slightly higher terrain a little further to the west. Among these buildings are the two largest in the settlement (p. 47), and it is impossible not to see in them the establishments - granaries and other stores, byres and stables, as well as dwellings - of those leading families whose surplus wealth is attested by the monumental tombs. Here also are three or four large middens, one of which is of especially impressive size (p. 92), indicating a period of occupation much longer than that of the buildings on the other side of the shabet.

In the southern area too, within a stone's throw of the westernmost buildings, is one of the ancient cemeteries, while another is situated only a hundred metres further west and a third, distinguished by the presence of the northern group of monumental tombs, lies just beyond the Shabet et-Tiswiyr (fig. 3).

There are thus notable differences, as well as similarities, between the two parts of the settlement on either side of the Shabet el-Gsur, and these demand an explanation. First, however, must come an examination of the buildings and their associated features.

## (ii) THE BUILDINGS

### (a) *Classification and description*

The settlement is the largest known in the pre-desert.<sup>1</sup> Its remains comprise thirty-eight more or less distinct buildings. Buildings 1-30 are on the north side, 31-38 on the south side, the numbering being in general from east to west. In plan and size they range from small structures with only one or two rooms to castle-like edifices with several rooms arranged round a courtyard and of more than one storey, but three (31, 32, 34) are of more complex plan and two of these are also exceptionally large (31, 34). Unfortunately, it is these larger buildings which are the most ruined, but many of the others are still partly standing to the full height of their ground floor rooms, while in some of those which were of more than one storey there remain parts of the second storey and even of a tower rising to the height of a third storey.

In front of and around the buildings, and actually in the courtyard of 35, there are enclosures, partition walls, and huts of markedly inferior construction. Other huts stand, singly or in clusters, in almost every part of the settlement, but most thickly on the slope between Buildings 33-35 and the bed of the Wadi Ghirza. Numbers have not been given to these in order to avoid risk of confusion with the more important buildings.

The buildings fall into five classes or categories, according to size and plan, viz:-

*Class A.* Buildings of regular, though normally not strictly rectangular, plan, consisting of a single range of two or more rooms, each with its own door leading to the exterior but with no direct means of communication between room and room. Most of these buildings were probably of one storey, but two certainly had towers of three storeys (5 and 8). One which was almost certainly of only one storey stands 3.0m. high, and this was probably its original height (16). There are sixteen buildings of this class, viz.:-

2, 3, 5, 7, 8, 10-14, 16-20, and 25 (p. 48).

*Class B.* Buildings of different sizes, less regular in plan than those of class A and inferior to them in construction, but much superior to the huts which constitute class E (below). There are fourteen of these, viz.:-

4, 6, 9, 15, 21, 23, 24, 27-30, 36-38 (p. 57).

*Class C.* The buildings with courtyards, of two storeys, and in at least three instances with a tower. These are six in number, viz.:-

1, 26, 31, 33, 34 and 35 (p. 60).

*Class D.* Two buildings of exceptional plan: 22 and 32 (pp. 69, 80)

*Class E.* The huts, already mentioned, in considerable number (p. 70).

As well as differences of plan there are differences in standards of external masonry. Five grades can be distinguished (Pl. 4, 12a), to one or other of which nearly every building can be assigned, in whole or in part (figs. 3, 18), as follows:-

*Grade 1:* characterized by stones squared to dimensions of c.20-25 cm., laid in fairly regular courses with a little use of chips as packing. This grade is represented only in Building 31, but its differentiation from grade 2 is really a matter of the overall effect (Pl. 4b, 12a).

*Grade 2:* at its best, as in Building 26 (Pl. 10a, 11a), hardly inferior to grade 1, but with a tendency towards less regularity in shape and coursing of the stones and slightly more frequent use of chips as packing. Represented in 5 and 7, the north and south parts of 8, all except the north room of 11, in 12, 13, 16, 25 and most of 26 (see below), parts of 31 and 32 (see below), and 33.

*Grade 3:* appreciably inferior to grade 2, the stones being much less regularly shaped and coursed, while the use of chips as packing can be regarded as characteristic of this grade (Pl. 4c). Represented in 1, the east part of 2, 3, 4, the central part of 8, 10, the northern part of 14, 17, 20, 21, the ground floor of the west range of 26 (p. 60), 30, parts of 32 (p. 81), and in 34, 35, 36, 37 and 38.

*Grade 4:* irregularly shaped and coursed stones with less use of chips as packing. Represented in the west part of 2, 6 and 9, the north room of 11, the south part of 14, in 21, 22 (Pl. 4d) and in part of 32 (p. 89).

*Grade 5:* characterized by obvious re-use of stones from an earlier building or buildings, as in 32 (p. 90; Pl. 4e), or by similarly poor construction, with or without the use of a bonding agent. Represented in 15, 23, 24, and 28, as well as 32.

Four buildings, 18, 19, 27, and 29 are ruined beyond classification, and an attempt to grade the huts would generally be unprofitable.

It can be said, therefore, that, ignoring part of a building which is of a grade different from that of the main structure, twenty-two out of the thirty-eight buildings fall into grades 2 and 3, nine being of grade 2 and 13 of grade 3.

Grades 2-5 are represented on both sides of the Shabet el-Gsur, but it may be worth noting that of the thirty buildings on the north side eight are of grade 2, eight of grade 3, five of grade 4, and four of grade 5, whilst of the eight buildings on the south side one belongs to grade 1, one to grade 2, five belong to grade 3, and one, Building 32, partakes of grades 2, 3, 4 and 5.



There are, as might be expected, grounds for believing that these different grades of masonry represent different periods of construction,<sup>2</sup> at least in certain instances, but the indications will be considered later, with such other evidence as there is for the chronology of the settlement (p. 76 ff.).

(b) *Buildings of class A* (p. 47): 2, 3, 5, 7, 8, 10-14, 16-20, 25.

*Building 2: fig. 4.*

This, the most easterly building in the settlement, lies north-east of 1 and east of 3, approximately a few metres equidistant from both. It measures 28.75 m. (east-west)  $\times$  4.0-5.50 m. and consists of an original building of three rooms in masonry comparable to and probably contemporary with that of Building 1 (grade 3). To the west end have been added two rooms in masonry of grade 4. From the small quantity of debris it seems unlikely that this building was of more than one storey.

*Building 3: fig. 4.*

An L-shaped building west of 2, consisting of two ranges running approximately parallel to the north and west sides of Building 1. The west range is built up to and is clearly later than the north range, the masonry of which can be described as similar to that of Building 1 (grade 3). Like Building 2, this was undoubtedly of only one storey.

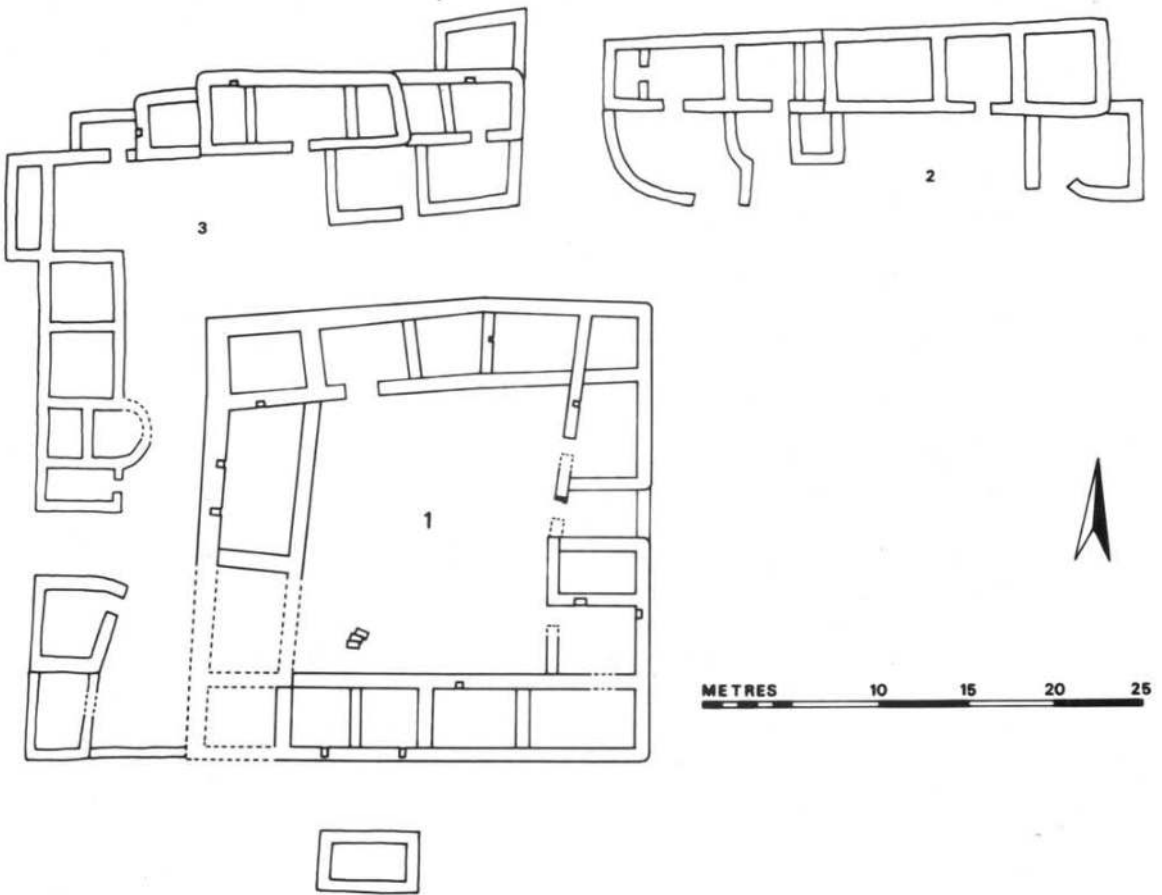


Fig. 4. Buildings 1, 2, 3.

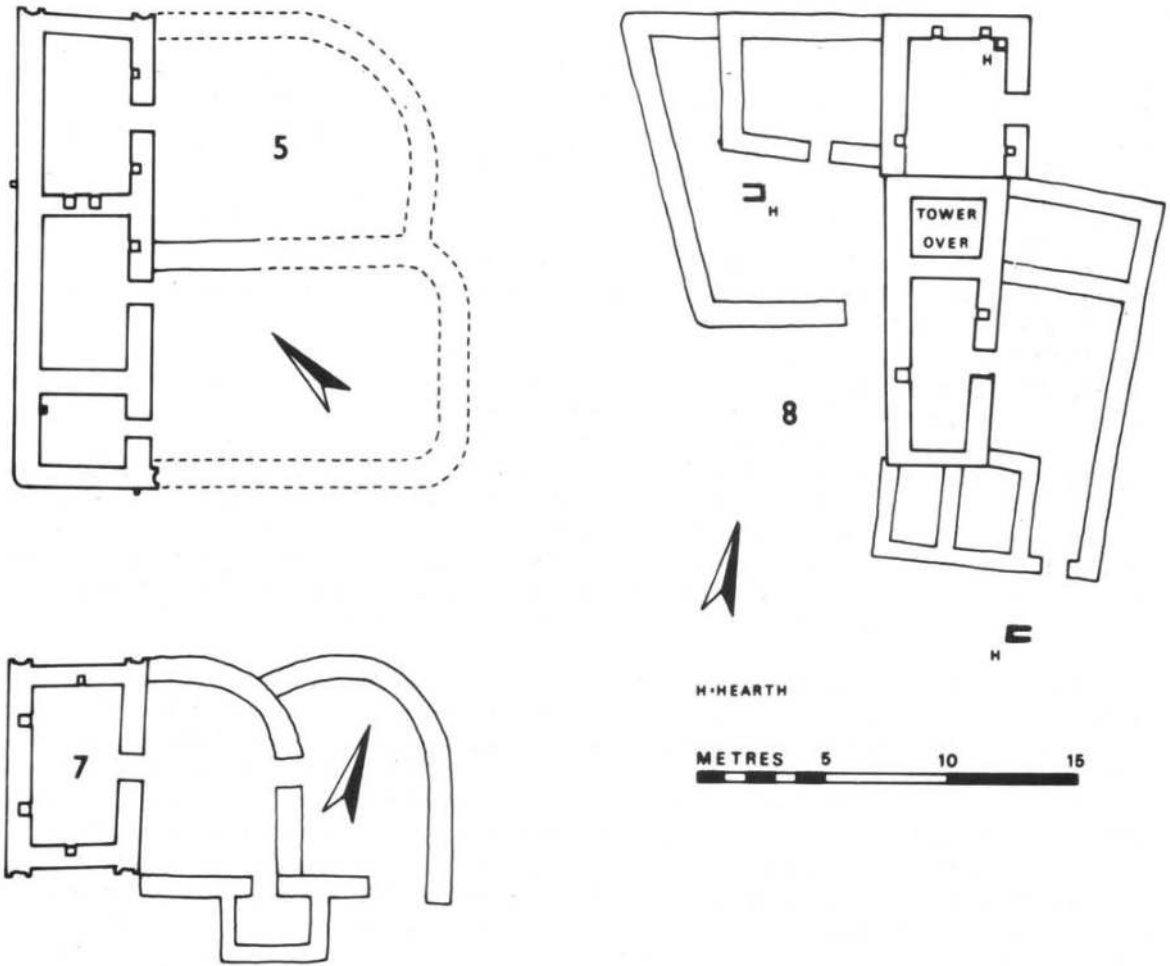


Fig. 5. Buildings 5, 7, 8.

*Building 5: fig. 5, Pl. 6a.*

North of 2 and 3 at a distance of 60m. It measures externally 18.0 × 5.40m. The long axis runs north-east/south-west and the three rooms into which the ground floor is divided were entered by three doorways on the south-east side. There are no internal doorways. The masonry is of grade 2.

The building does not appear to have had more than one storey except at the south-west end where the walls still stand to a considerable height and an offset for the floor of a third storey can be seen.<sup>3</sup> In the north-west wall of the second storey is a small square window high above floor level. In the north-east corner of the ground-floor room a stone handgrip projects from the same north-west wall: it was evidently one of a series such as survives in Buildings 1, 12 and 26 (p. 75).

This building, then, consisted of a range of three self-contained rooms, with a tower probably of not more than two storeys over the room at the south-west end of the range. Access to the first floor of the tower was by means of projecting handgrips, to the second floor and the roof presumably either by handgrips in the walls which have collapsed or by ladders, or even by wooden stairs (p. 75).

In front of the building are two contiguous enclosures of unequal size, formed by roughly built walls. These appear to be secondary. But an unfinished wall at the south-west end of the front of the building indicates that the original builders had themselves envisaged a walled forecourt. Similarly unfinished walls were provided for an additional room, apparently never completed, at the north-east end of the building. Such unfinished walls will be noted as a feature of a number of other buildings.

It remains only to record the provision of projecting tethering-stones (p. 74), in the external walls, two in the rear wall and one in the wall at the south-west end.

The north-west angle is rounded.

Thirty-five to forty metres north-west of this building lies Cistern 1 (p. 98).

*Building 7: fig. 5.*

95.0m. west of 5. It consists of a single room 6.25 × 3.50m. with an entrance 1.10m. wide on the east side, a rectangular niche (p. 75) in the north and south walls and two niches in the west wall. On the north and south

sides are unfinished walls for additional rooms which were never completed. The masonry throughout is of grade 2.

The thickness of the walls would normally imply an upper storey, but the quantity of fallen debris does not support the implication. Roughly built walls form an enclosure in front of the building.

*Building 8: fig. 5, Pls. 6b, c.*

15.0m. south-east of 7. This is one of the most interesting buildings in the settlement, in that its walls show masonry of grades 2 and 3 in juxtaposition, and it is clear from the plan as well as from the walls themselves that those of grade 3 preceded those of grade 2. In this building, therefore, two periods of construction can certainly be recognized.

*Period I: masonry of grade 3.* The original building seems to have been either only a tower c. 5.0 × 4.0m. of two storeys (Pl. 6c), or to have been of oblong ground-plan with a tower at the north end. The latter possibility is suggested by the external aspect of the west wall,<sup>4</sup> where the relationship of the masonry of the south room to that of the tower appears to indicate that this room is a replacement of an earlier room, its west wall being bonded in, externally, to the gaps left when the walls of the earlier room were pulled down: internally the wall abuts against the south wall of the tower. It is difficult otherwise to account for the fact that the west walls of the tower and present south room, although of strikingly different grades of masonry, are continuous, whereas between the masonry of the tower and that of the room on its north side, which is clearly an addition and not a replacement, there is a straight joint. Of the hypothetical original south room there is, however, no other visible indication.

The ground floor of the tower is full of debris from the upper storeys. Its entrance must have been in the east wall but is completely buried. Of the superstructure only the west wall is still standing, with a small square window of the second-storey room, a line of sockets for the timbers which supported the third storey and, above these, a projecting handgrip, the only survivor of a run of grips which probably gave access to a flat roof: it is hardly conceivable that there were more than three storeys altogether. The uppermost courses of masonry seem to belong to grade 2 rather than to grade 3 and may represent reconstruction, or even a heightening, of the upper part of the tower at the same time as the north room was built and the south room replaced.

*Period II: masonry of grade 2.* Reference has already been made to work of secondary construction on either side of the tower. The room on the south side, measuring internally 6.80 × c.2.75m., its west wall internally bonded into the tower, has remains of a well built doorway at the centre of its east wall and two rectangular niches, one in the east wall 1.20m. north of the doorway, the other in the west wall almost opposite the doorway.

On the north side of the tower, and built up against it with butt joints, is a room still standing in parts probably to its original height. It had a well built entrance 1.20m. wide on the east side, four rectangular niches - one in the east wall south of the entrance, two in the north wall and one in the west wall almost opposite the first mentioned - and a hearth in the north-east corner (p. 99). The latter is the only internal hearth visible in any of the buildings and is therefore of special interest: it is constructed of two stone slabs set upright, at right-angles to the north and east walls respectively, and was found to contain charred wood (p. 260). The slabs forming its sides have been cracked by heat and the wall above it bears signs of burning, though not such as to suggest prolonged or intensive use - a point to which reference will be made later (p. 76). No pottery or other objects were found in the hearth.

On the west side of this room was another, slightly larger room of which the walls, almost entirely collapsed, were not bonded in but of the same grade of masonry and presumably of contemporary construction. Its single doorway 85cm. wide in the south wall opens into a yard with its entrance at the south-east angle, where the roughly built enclosing wall stops short of the west wall of the main building. At a distance of 1.30m. from the south-west angle of this room is a rectangular open-air hearth with stone slabs set on edge forming three sides and the fourth - the west - left open. There is an exactly similar hearth on open ground to the south of the main building, and others like these may be seen elsewhere (p. 99).

On the east side of the building are roughly built walls, largely collapsed, which form two forecourts, corresponding with the ground floor of the tower and the room to the south of it, and three rooms or small enclosures at the south end. These are of some interest; for, despite the relationship of the north wall of the north forecourt to the east wall of the tower and that of the room added to it on the north, it is clear that the forecourts and the yard on the west side of the building must either be contemporary with or later than the enlargements constructed in Period II, which is characterized by masonry of grade 2.

It remains to mention a feature some ten metres south-east of the south-east angle of the main building (i.e. of the external angle of the room south of the tower). This is a section c. 5.0m. in length of a well built, covered stone water-conduit, presumably originally rendered internally with 'cistern' plaster (p. 72). Unfortunately the section is too short to give any certain indication of either the course of this conduit or of the source or point of delivery of the water.

Between these remains of an aqueduct and the hearth west of them (p. 99) lies a stone which has been displaced from a threshold (p. 74).

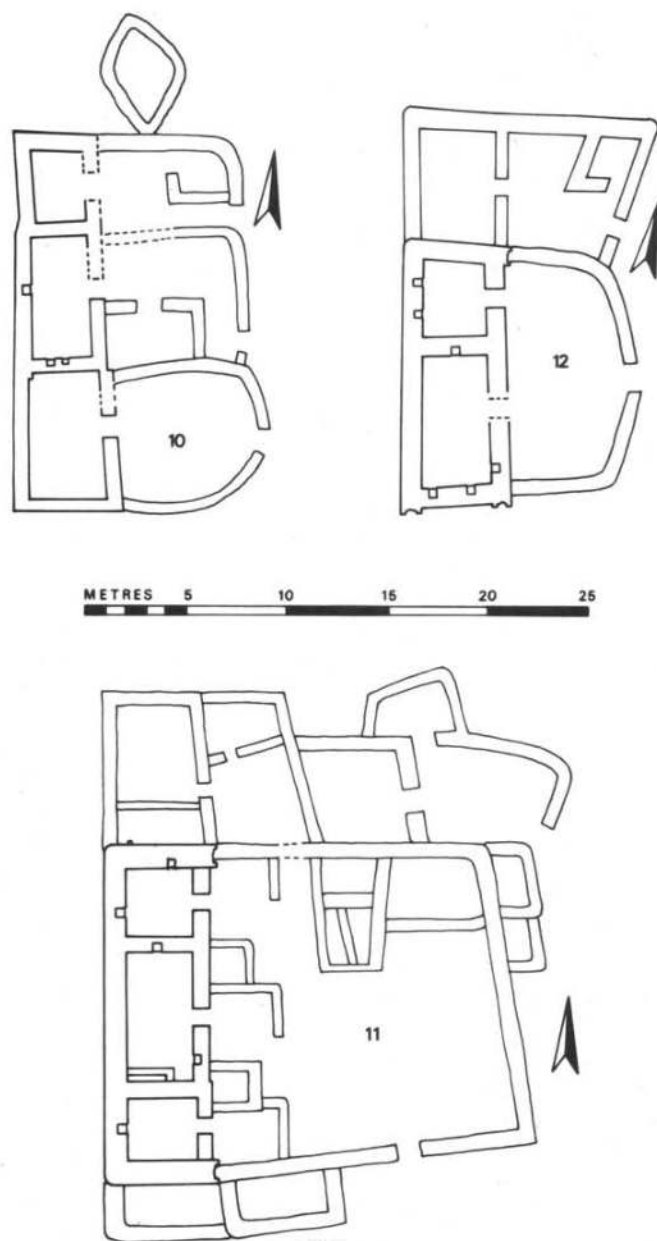


Fig. 6. Buildings 10, 11, 12.

*Building 10: fig. 6.*

75.0m. south-west of 8. It is constructed throughout in masonry of grade 3 and consists of a range of three self-contained rooms  $18.50 \times 5.0$ m. overall, each with the entrance at the centre of its east wall. In the central room are three niches. There are forecourts or yards in front of the rooms which may also be contemporary, at least in part. At the north end is a curiously shaped feature resembling a foundation for an addition of curvilinear plan.

The north and west walls of the room at the north end of the range stand partly to a height indicating at least a second storey, with a small square window on the west side.

Externally in the west wall of the range a fragment from a quernstone of black lava has been inserted as packing between two stones. Such fragments similarly used will be noted in other buildings.

*Building 11: fig. 6, Pl. 3a, 7a.*

60.0m. north-west of 10. Originally it consisted of a range of three self-contained rooms, constructed in masonry of grade 2, the central room being about twice as large as those at either end, forming a building measuring externally  $17.0 \times 5.5$ m. Each room has an entrance in the centre of its east wall; all have rectangular niches, two in the north room in the north and west walls, two in the central room in the north wall and in the east wall south of the entrance, and one in the south room in the west wall opposite the entrance. Near the south

wall of the central room and parallel with it at a distance of 35 cm. is a low, narrow wall which runs from the west wall for 2.30 m. and then turns a right-angle to meet the south wall: the purpose of this feature is not evident, and it is not possible to offer a satisfactory explanation for it (p. 76).

The north, west and south walls are exceptionally thick, i.e. 1.10-1.20 m., suggesting that the builders allowed for the possibility of a second storey. Provision was certainly made for a walled forecourt, the north and south end walls being carried forward for a few centimetres and left unfinished (cf. below, Building 12). The existing forecourt, however, has every appearance of later construction. It is approximately 16.0 m. square, bounded by dry-built walls, and has a single entrance in the south wall. Within, in the north-east angle and in front of the doorways of the central and south rooms, walls of equally inferior construction form what appear most probably to have been enclosures for animals. Externally, other enclosures have been built at the south end of the building and against the wall of the forecourt, and also around the north-east angle of the forecourt wall. Here it is evident that these enclosures are secondary to an additional room constructed at the north end of the building in masonry of grade 4.

The walls of this additional room are much less thick than those of the main building. Its internal dimensions are approximately 7.0 × 4.0 m. The single doorway, 70 cm. wide, is near the centre of the east wall. Immediately south of the doorway are remains of a wall which crossed the room without interruption from east to west. Owing to collapse, the original height of this wall cannot be determined, and it is impossible to know what purpose it served. It is too far from the north end wall of the main building to have formed a manger, and its construction would have rendered useless the tethering-stone built into that wall. Nor is it possible to know whether, and if so how, it was related to a row of small triangular sockets chipped out of the fourth course of masonry above the tethering stone (Pl. 7a), c. 1.30 m. above present ground-level. (See, further, p. 76)

*Building 12: fig. 6, Pl. 3a, 7b, c.*

3.0 m. almost due south of 11. It consisted originally of two rooms, with a common forecourt, to which was added at the north end a third room with a forecourt of its own. The earlier walls are 1.0 m. thick, the later 90 cm., but all except those enclosing the forecourt of the original building can be described as of masonry of grade 2. The original building measured externally 14.0 m. (north-south) × c. 5.50 m. Its north-west angle was rounded but the north wall projects slightly beyond the north-east angle and is unfinished, as if it had been intended to develop it into the north wall of the forecourt. Similarly, the east and west walls project slightly beyond the south wall and are unfinished, as though another room or rooms had been envisaged at this end of the building.

The south room of the original building measures 6.60 × 3.25 m. and is still standing to its full height. It is entered by a doorway c. 1.0 m. wide at the centre of the east wall and has rectangular niches in three of its walls: one at the centre of the north wall, two in the south wall near the corners of the room, and one in the east wall near the south-east corner.

The north room, 3.85 × 3.05 m., is also entered by a doorway 90 cm. wide at the centre of its east wall and has two rectangular niches in the opposite wall. Above it rise the remains of a second storey, the floor of which was supported, on the evidence of the number of sockets 15-30 cm. in depth preserved in the west wall, by four or five beams. It is curious that in the opposite wall there are only two large sockets with perhaps a third near the north-east corner, suggesting that tree-trunks with two strong branches may have been used for the beams, the ends of the trunks being placed in the sockets in the east wall and those of the branches in the sockets in the west wall. An offset 10-20 cm. wide runs round all four walls just above the level of the sockets. In the north wall of this second-storey room, near the north-east corner, is a small rectangular window, while projecting from the east wall, 45 cm. from the south-east corner, are five handgrips (Pl. 8a), such as have been noted in 5 and 8 and will be noted again in 1 and 26, which evidently gave access either to a flat roof or to a third storey. The original building may therefore be visualized as having two self-contained rooms on the ground floor, with a tower of one or two storeys rising above the north room. The walls forming the original forecourt, though markedly inferior in construction to those of the building itself, were nevertheless already in existence when the additional room and its forecourt were built.

The additional room, measuring internally 5.50 × 3.75 m., was simply built on to the north end of the building, the north wall of which thus formed its south wall. A doorway 85 cm. wide opens into the forecourt, which is entered through an opening of much the same width on the east side. In the north-east corner of the forecourt is a small room 2.0 m. square with a doorway in its south wall. The north-west angle of the room and the north-east angle of the forecourt are rounded externally.

*Building 13: fig. 7.*

Some 15.0 m. almost due south of 12. It comprises three rooms, but though built throughout in masonry of grade 2 its plan and construction seem to show a modification of the primary layout.

The original intention appears to have been to construct a simple rectangular building c. 17.0 × 5.0 m. with three self-contained rooms. The north room has an entrance at the centre of its east wall and a rectangular niche in the west wall immediately opposite the entrance. The central room has a similarly placed entrance c. 60 cm.

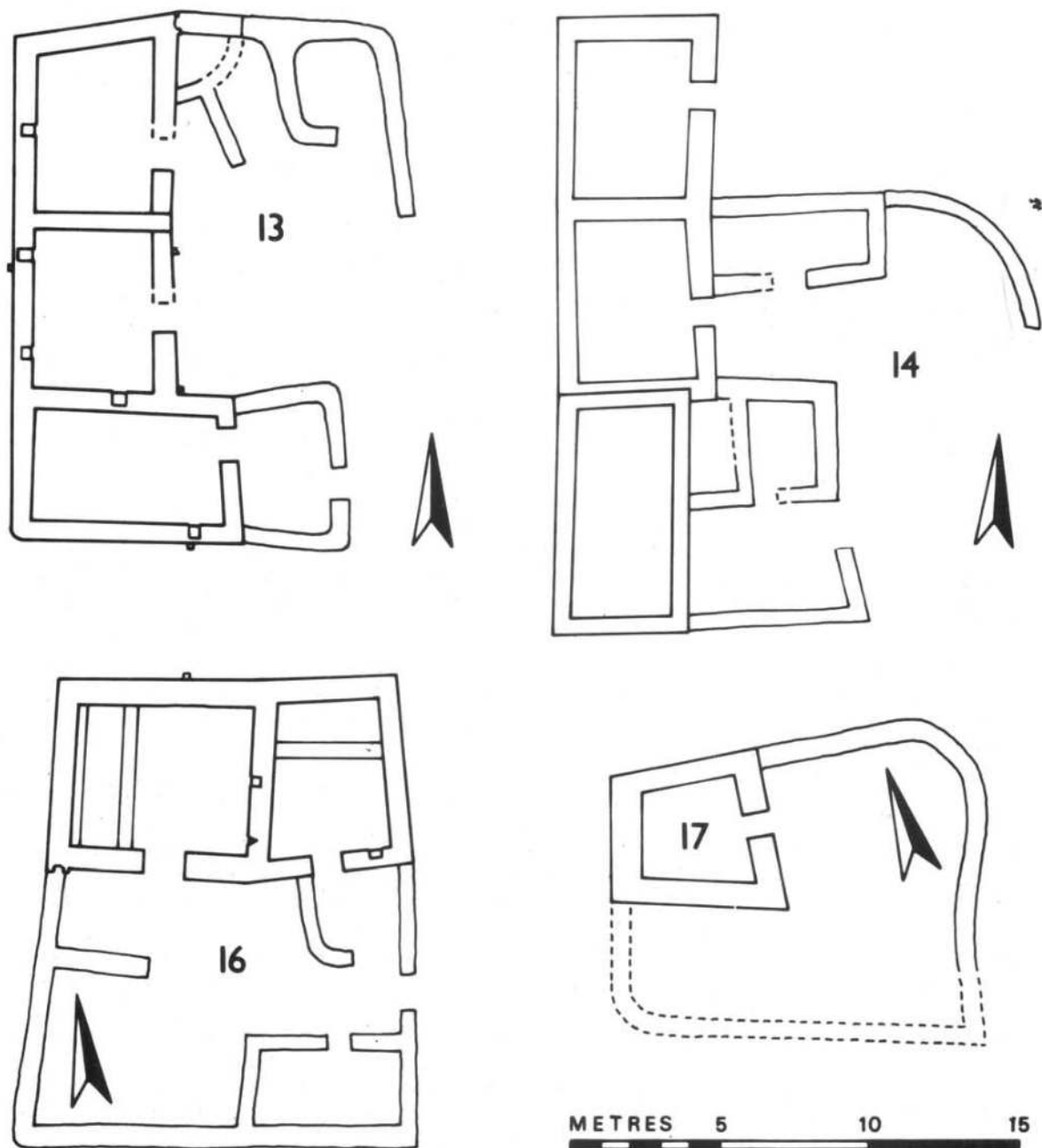


Fig. 7. Buildings 13, 14, 16, 17.

wide, two rectangular niches in the west wall - one 70cm. from the north-west corner, the other 1.0m. from the south-west corner - and a third in its south wall 90cm. from the south-east corner.

The south room, however, projects approximately 2.50m. to the east of the east wall of the other two rooms, resulting in an L-shaped plan. It is entered by a doorway 1.10m. wide in the east wall, 40cm. from the north-east corner, and has a rectangular niche in the south wall 80cm. from the south-east corner. There are two indications that this projection was a modification of an original plan for a primarily rectangular building: one is the slightly awkward bonding of the north wall of the projection into the south-east angle of the central room, the other the position of the tethering-stone which projects from the east wall of the central room only a few centimetres from the angle formed by this wall and the north wall of the projection. In spite of its apparently inconvenient position this tethering-stone, like that on the other side of the doorway of the same room, is very worn; but it must have been re-used, for it seems unlikely that it would have been placed - still less employed - where it is if the projection had been envisaged when the building was planned.

Other peculiarities of construction in this building are the straight joints where the east walls of the north and central rooms meet the dividing wall between them, and the straight joint between the lowest courses of the west wall of the north room and the north-west angle of the central room, the upper courses being bonded.

The north wall of the building projects beyond the north-east angle and is unfinished, evidently to provide for extension in the course of time.

In addition to the two tethering-stones mentioned above there are two in the west wall of the building and another in the south wall. Near the more southerly of the two in the west wall a fragment of a quernstone of black lava has been inserted as packing between two stones.

*Building 14: fig. 7.*

14.0m. south of 13, almost at the foot of the north bank of the Shabet el-Gsur. In its plan and differing standards of construction two periods are clearly evident.

*Period I: masonry of grade 4.* The first period is represented by a rectangular building  $8.20 \times 4.40$ m. overall, with walls 50-60cm. thick. The only visible internal feature is a rectangular niche in the north wall 85cm. from the north-west corner. The position of the entrance is concealed by debris but must have been on the east side where there is a small forecourt. The northern half of the latter is subdivided into two small outhouses or enclosures, added in Period II.

*Period II: masonry of grade 3.* Against the north wall of the first building was constructed a second,  $c.13.15 \times 5.50$ m. overall, with walls 75-95cm. thick. This building is subdivided into two self-contained rooms of approximately equal size, each having an entrance 95cm. wide in the east wall. The east wall of the north room projects slightly beyond that of the south room, probably due to an error on the part of the builders, and what remains of the partition wall forms a straight joint against the west wall, but these two rooms are without doubt entirely of one build and period. The south room has no fewer than four rectangular niches: one on either side of the entrance, near the north-east and south-east corners, the other two opposite them.

The south wall, where it is built against the north wall of the first building, is approximately half the normal thickness, assuming full width only where the additional building projects beyond the east wall of the first.

Only the south room has a forecourt, on the north side of which is a rectangular outhouse or enclosure.

*Building 16: fig. 7.*

7.0m. north-west of 14. Its walls are substantially constructed in masonry of grade 2 and still stand to a height of nearly 4.0m. The building measures  $12.15$  (east-west)  $\times 6.80$ m. overall and is subdivided into two self-contained rooms each with its entrance in the south wall. This is one of the few buildings in the settlement which does not face east.

The west room measures  $c.5.80 \times 5.0$ m. The width of its entrance, 1.25m., is exceptional. In the east wall are two niches, one being of the normal rectangular type, the other very small and triangular. The west wall has an offset 30cm. wide just above ground level. Running across the room, parallel with the west wall and 1.60m. distant from it, is a low wall 45 cm. thick, the purpose of which is not evident: a similar feature has been noted in the description of 12 and is to be noted also in the east room (see below).

The east room has one rectangular niche in the south wall, 95cm. south of the entrance, and, running east and west across the room at an average distance of 1.45m. from the north wall, a low wall 55cm. thick for which, as in the case of the two similar features mentioned, no explanation suggests itself: there is no evidence of make-up for a platform. (See, further, p. 76)

The walls of this building vary in thickness from 65cm. to 90cm. and none of the external angles is rounded. In spite of their height and strength there is, however, no suggestion of an upper storey, the quantity of debris being such as to indicate that originally the walls were probably not much higher than they are at present. As will be seen in the description of 26, the height of the rooms, though apparently excessive, seems to have been not abnormal.

In the manner already noted in the descriptions of other buildings, the west wall was projected beyond the line of the south wall but left unfinished. It was later extended, in masonry of an inferior standard, to form the west side of a small rectangular forecourt.

*Building 17: fig. 7.*

6.50m. west of 16. It measures approximately  $11.0 \times c.5.50$ m. overall and consists of a single room  $5.85 \times 5.50$ m. with walls varying in thickness from 65cm. to 1.0m. constructed in masonry of grade 3: the external angles are not rounded. Apart from the doorway 85cm. in width near the centre of the east side the room is featureless.

The doorway opens into a small forecourt of irregular shape, the entrance to which cannot now be seen.

*Building 18: fig. 8.*

Immediately north of 17. It consists of a range of three self-contained rooms of undoubtedly contemporary construction, with a fourth room, not necessarily a later addition, projecting westward of the room at the north end of the range and built up to its west wall with straight joints: the plan is thus L-shaped. The building is too ruinous, however, to permit grading of its masonry.

The range of three rooms measures  $17.90 \times c.4.65$ m. overall. The south room,  $5.40 \times 3.20$ m., has an entrance 1.0m. wide in its east wall and two rectangular niches, one in the south wall, the other in the west wall; the east wall on the north side of the entrance is built with a straight joint against the wall dividing this room from the central room.

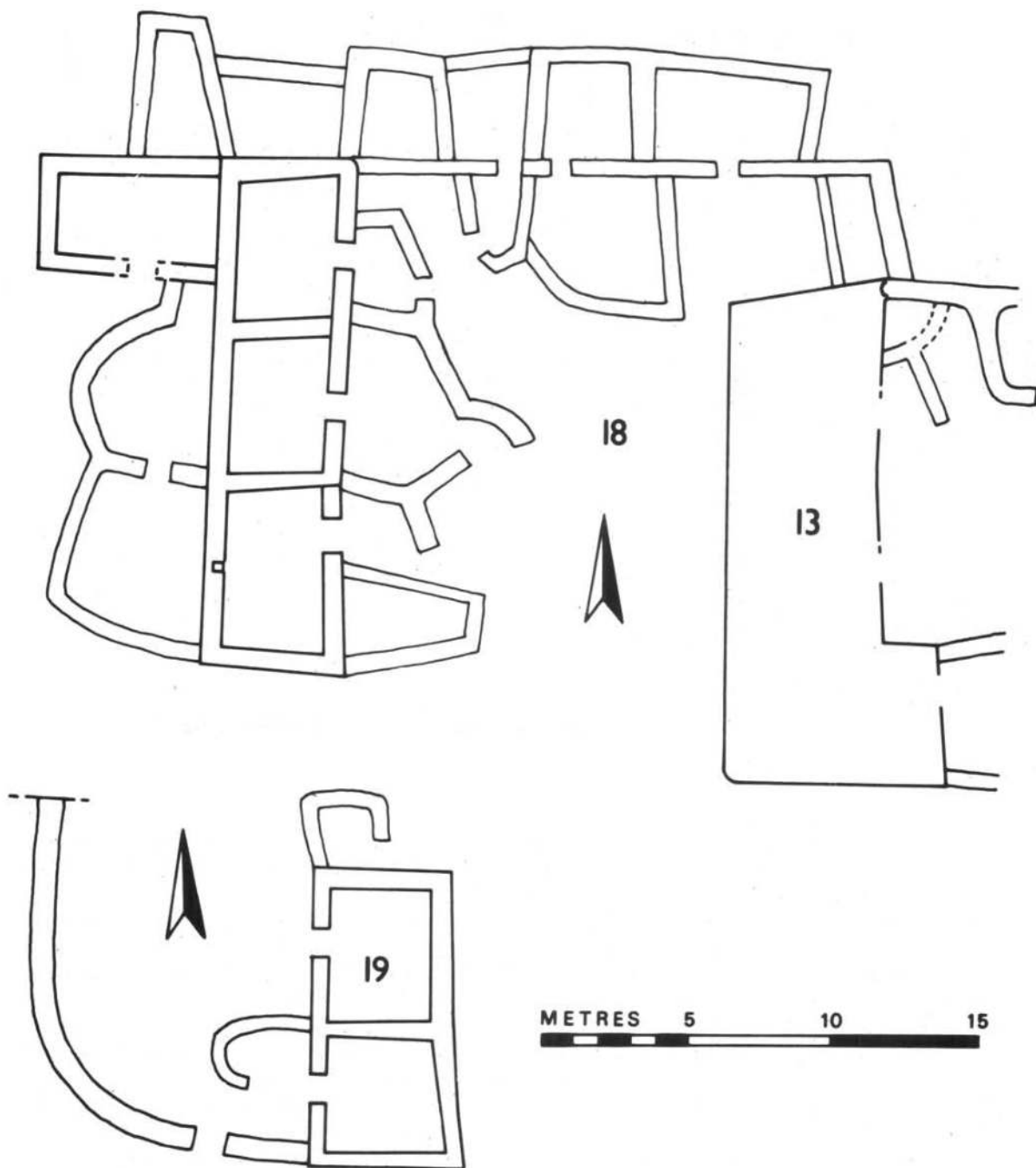


Fig. 8. Buildings 13 (part), 18, 19.

The central room,  $4.65 \times 3.30\text{m.}$ , and the north room,  $4.80 \times 3.45\text{m.}$ , also have entrances in their east walls but are otherwise featureless. The north-east external angle of the range is the only rounded angle.

The fourth room, built on to the rear wall of the north room, measures  $c.6.15 \times 5.60\text{m.}$  overall and has its entrance in its south wall.

On both sides of the building are ruined walls, two of which, curving round in front of the entrances of the south and central rooms, may have been constructed to act as windshields; but most of the others appear to be the remains of the usual outhouses and enclosures.

*Building 19: fig. 8.*

Just west of 18. Like 18 it is too ruined to allow a reliable assessment of its masonry. It measures  $c.8.65\text{m.}$  overall from north to south,  $4.40\text{m.}$  across at the north end and  $4.95\text{m.}$  across at the south end. Internally it is divided into three rooms. No entrances can be discerned in any of the external walls, but there appears to have been a doorway  $90\text{cm.}$  wide in the wall between the southern and central rooms; if so, it is one of the rare instances of an internal doorway at Ghirza.



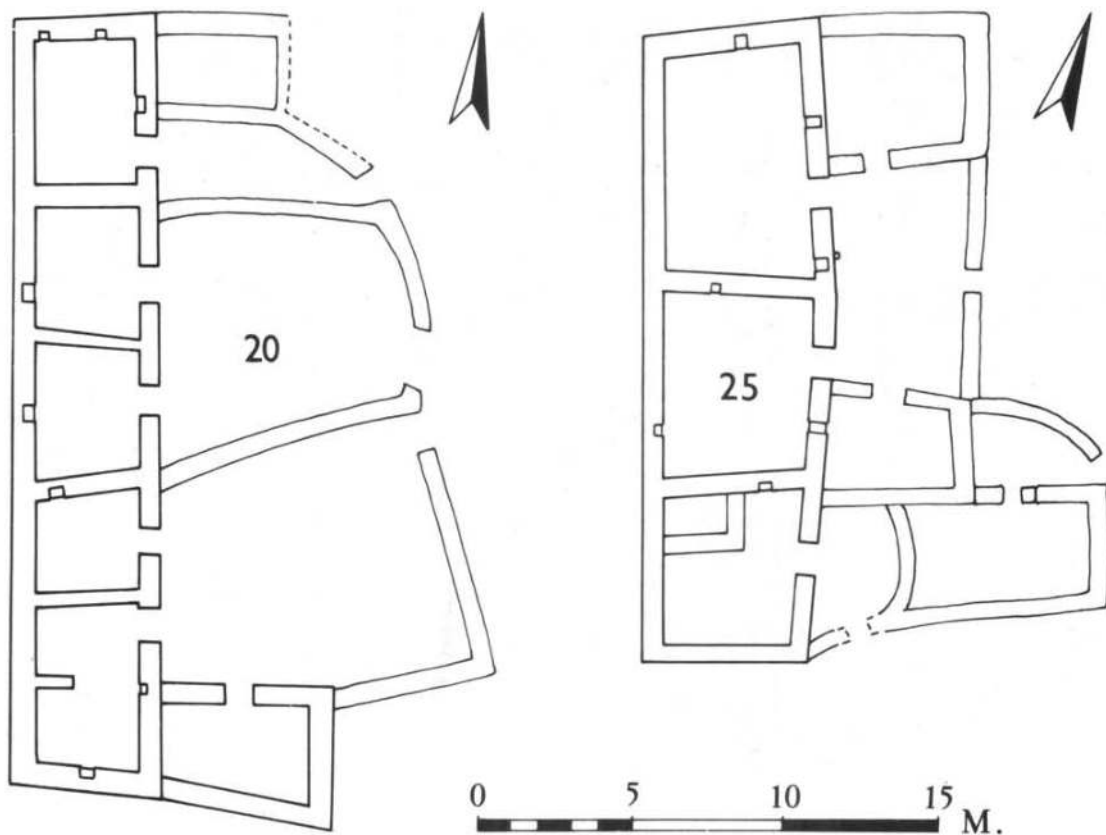


Fig. 9. Buildings 20, 25.

*Building 20: fig. 9, Pl. 10b.*

A few metres north-west of 19. The south-west angle of its rear wall is 8.0m. from the east face of 26 and the space between these two buildings is the only suggestion of a 'street' in the entire settlement (Pl. 9b). This suggestion, however, is due to the enlargement of 26 (p. 61).

Although very ruinous the building appears to have been of grade 3 throughout. There is nothing to suggest that it rose to more than one storey and its west, i.e. rear, wall is probably standing in part more or less to its original height. The north-west angle, of large rounded quoins, is well preserved. The external walls are c. 70-90cm. thick.

This building comprises six rooms. Five form a range lying north-south and measuring 25.0 × 5.0m., while the sixth has been built on to the east wall of the southernmost of the five, thus producing an L-shaped plan. Apart from the entrance doorway 80cm. wide at the centre of its north wall the projecting room is featureless. Each of the five rooms of the range has an entrance in its east wall. Internally the northernmost has two rectangular niches in its north wall and a third, just north of the doorway, in its east wall. The southernmost room, which is partly subdivided into two bays, has two such niches and the other three rooms have one each.

The projecting room, the southernmost room of the range and the room next to this room all open into a subrectangular forecourt bounded by dry-built and roughly constructed walls and having an entrance at the north end of the east wall. Apparently, these three rooms were at some time the property of a single individual or family. The central room of the range and the room to the north of it both open into another subrectangular forecourt, similarly constructed and entered at the south end of its east wall, while a much smaller forecourt also entered from the east leads to the doorway of the northernmost room. In the case of the latter, however, it is to be noted that there is a suggestion of a projecting room, extremely derelict, corresponding to that at the southern end of the range but probably either an addition or a careless reconstruction.

*Building 25: fig. 9, Pl. 8b.*

15.0m. north-west of 20. It measures 21.0m. (north-south) × c.6.0m. and consists of a range of four rooms, each with its entrance in the east wall. The southernmost room appears to have been built first as a freestanding structure. But here there is nothing to suggest any appreciable interval between the construction of this room and that of the other three. On the contrary, the masonry throughout the building is entirely of grade 2. The amount of debris is insufficient, and the walls are hardly thick enough, to indicate more than one storey.

The most interesting feature of this building is to be found in the north room. Here, between the well preserved doorway and a normal rectangular niche to the north of it, a row of seven small triangular niches

replaces part of a course of masonry (Pl. 8b), while a similar niche has been made in the course below. At the same level on the opposite side of the doorway two stones have been shaped to make another small triangular niche next to a rectangular niche of the normal type.

Roughly built walls form an irregular enclosure on the east side of the building and near the south end of this enclosure, lying on the surface, a fragment from the upper stone of a rotary quern of black lava was noted (Pl. 8c). Between the south end of the building and the north wall of 26 is a low rubbish mound (Midden 5; p. 92).

(c) Buildings of class B (p. 47): 4, 6, 9, 15, 21, 23, 27-30, 36-38

Building 4: fig. 10.

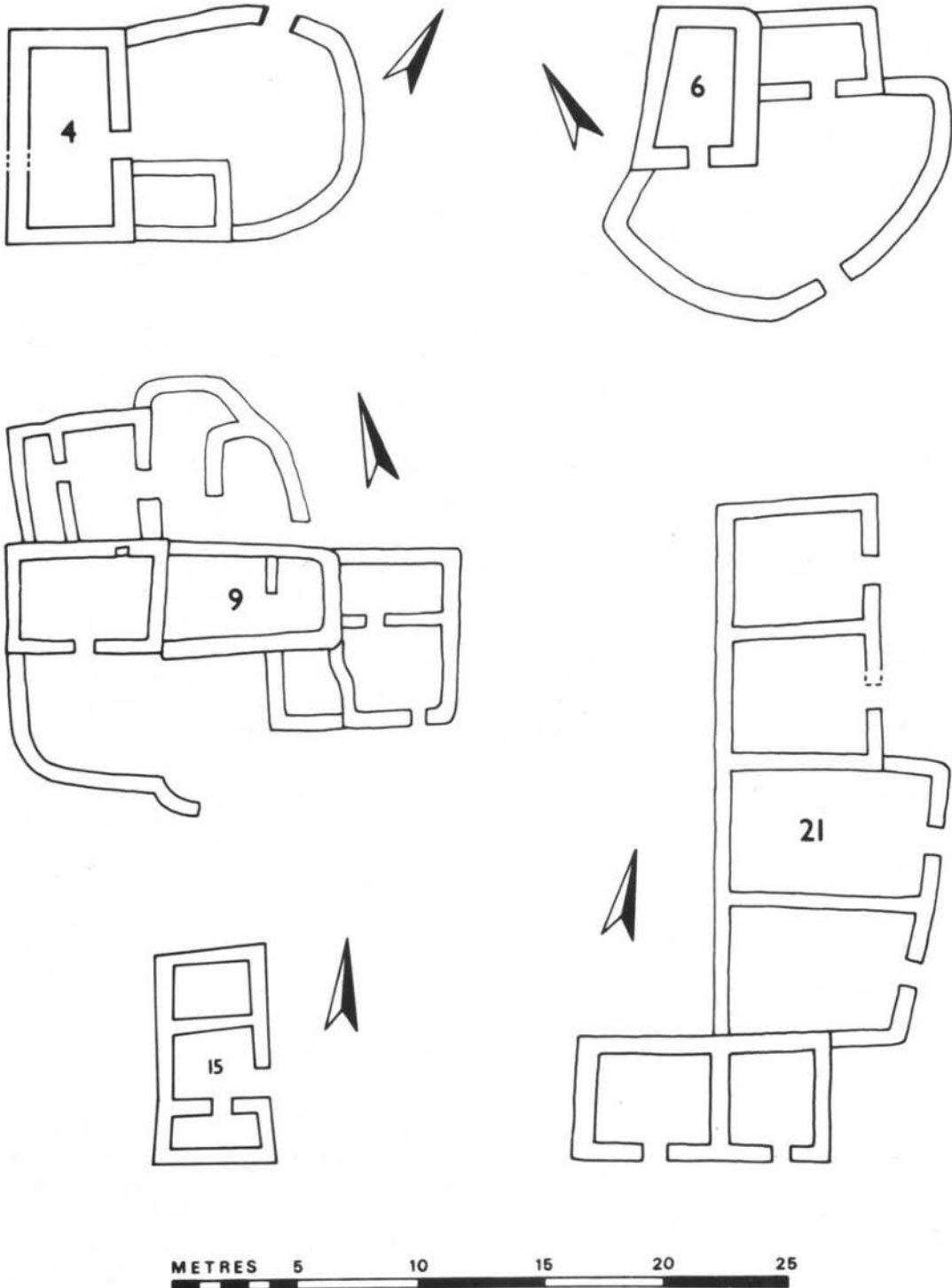


Fig. 10. Buildings 4, 6, 9, 15, 21.

27.0m. north of 2. A building 8.75m. (east-west)  $\times$  5.0m. in masonry of grade 3, of one room, with a small enclosure on the south-east side.

*Building 6: fig. 10.*

25.0m. east of 8. This was a small two-roomed structure in masonry of grade 4. The walls of one of the rooms abut on to those of the other and both rooms are self-contained with separate entrances. They appear, however, to be contemporary. An irregular enclosure in front of the building *may* have been built later but there are no grounds for thinking so.

A fragment of a late 2nd - or 3rd-century lamp was picked up in one of the rooms (p. 236).

*Building 9: fig. 10.*

42.0m. west of 8, is an amorphous, hut-like cluster of rooms and yards mostly constructed in masonry of grade 4. To an original room, 5.40  $\times$  3.25m. internally, with an entrance at the centre of the south wall and a rectangular niche in the north wall, has been added another room on the east side, while at the east end of this room is a further addition of three rooms forming a self-contained unit with its own narrow entrance on the south side. Similarly, on the north side of the original room another self-contained unit of two rooms entered from the east has been added. But so far as can be seen these apparent additions are no more than stages in construction and do not represent work of different periods.

*Building 15: fig. 10.*

A few metres due east of the earlier part of 14. It is a small three-roomed structure 8.65m. long (north-south)  $\times$  4.40/4.95m. There is a doorway 90cm. wide at the centre of the wall between the central and the south room and a suggestion of an entrance to the building in the east wall of the central room.

*Building 21: fig. 10.*

15.0m. north of 20. Although very ruined the surviving walls, c. 70cm. thick, can be described as of grade 4. The amount of debris does not suggest more than one storey but is in fact so small that clearance if not also partial demolition by stone-robbers may perhaps be suspected. Only one of the external angles is rounded.

Compared with the plans of most of the buildings so far described, that of 21 is unusual. At the south end two approximately square rooms form a rectangle 10.50  $\times$  5.25m. lying east-west, each room having an entrance in its south wall and the east room a niche in its north wall. The rest of the building lies behind the east room. First comes a large block 11.50m. (north-south)  $\times$  c.9.0m which projects several metres beyond the east wall of the two-room unit just described, and is itself subdivided by an east-west wall into two approximately equidimensional rooms, each entered by a doorway at its east end. Then come two more rooms forming a rectangle 11.25  $\times$  6.75m. lying north-south in line with the east room of the southern two-room unit, each room having its entrance on the east and the south room perhaps a niche in its south wall.

Straight joints may indicate that the central block occupies what was originally an open space between the north and south units. On the other hand, it is to be noted that the north wall of the east room of the south unit butts against the east wall of the west room while there is no corresponding joint in the south wall, and no butt joint could be discovered where the west wall of the central block becomes the west wall of the north unit.

To the south-east of this building and connected with it are walls too collapsed to be reduced to a coherent plan.

*Building 23.*

11.0m. north of 21. This is the northernmost building of the settlement. It is a small, irregular building of very poor construction, its masonry classifiable as grade 5. The plan is obscured by debris.

*Building 24.*

West of 21. It can be described in exactly the same terms as 23.

*Building 27: fig. 11.*

Immediately south of 21 and perhaps in some way connected with it. It is, however, too ruined to permit further description and its masonry could not be classified.

*Building 28: fig. 11.*

East of 27. It is of subrectangular plan and structurally classifiable as of grade 5, but otherwise ruined beyond description.

*Building 29: fig. 11.*

At the foot of the bank on the north side of the Shabet el-Gsur, about 20m. west of the original Building 14. It is a small, subrectangular structure of one room with walls 60-75cm. thick and a doorway 90cm. wide which opens into a small irregular enclosure. The walls, however, are too ruined for classification of their masonry.

*Building 30: fig. 11.*

On the north bank of the Shabet el-Gsur about 10.0m. south of the west end of 17. Though small and very ruinous it is nonetheless of some interest. It consists of a single room 5.05  $\times$  3.90m. internally with doorways in the north and east walls, the walls being of grade 3. The doorway in the east wall, 1.20m. wide, leads into a

subrectangular enclosure attached to the building but with walls of grade 4/5. There is an entrance 1.75 m. wide in the centre of the east wall of the enclosure, a one-roomed outhouse in its south-east angle and another in its north-east angle. In the northern half of the enclosure are two bowl-shaped hollows in the rock. One is 55 cm. in diameter, the other 60 cm. Both are man-made and show cracks and discolouration of the rock suggesting the action of fire. It seems most likely that they were ovens (p. 99). Several identical ovens can be seen in the neighbourhood of 20, 26, and 30 (p. 99) but only these two are enclosed as though belonging to this particular building.

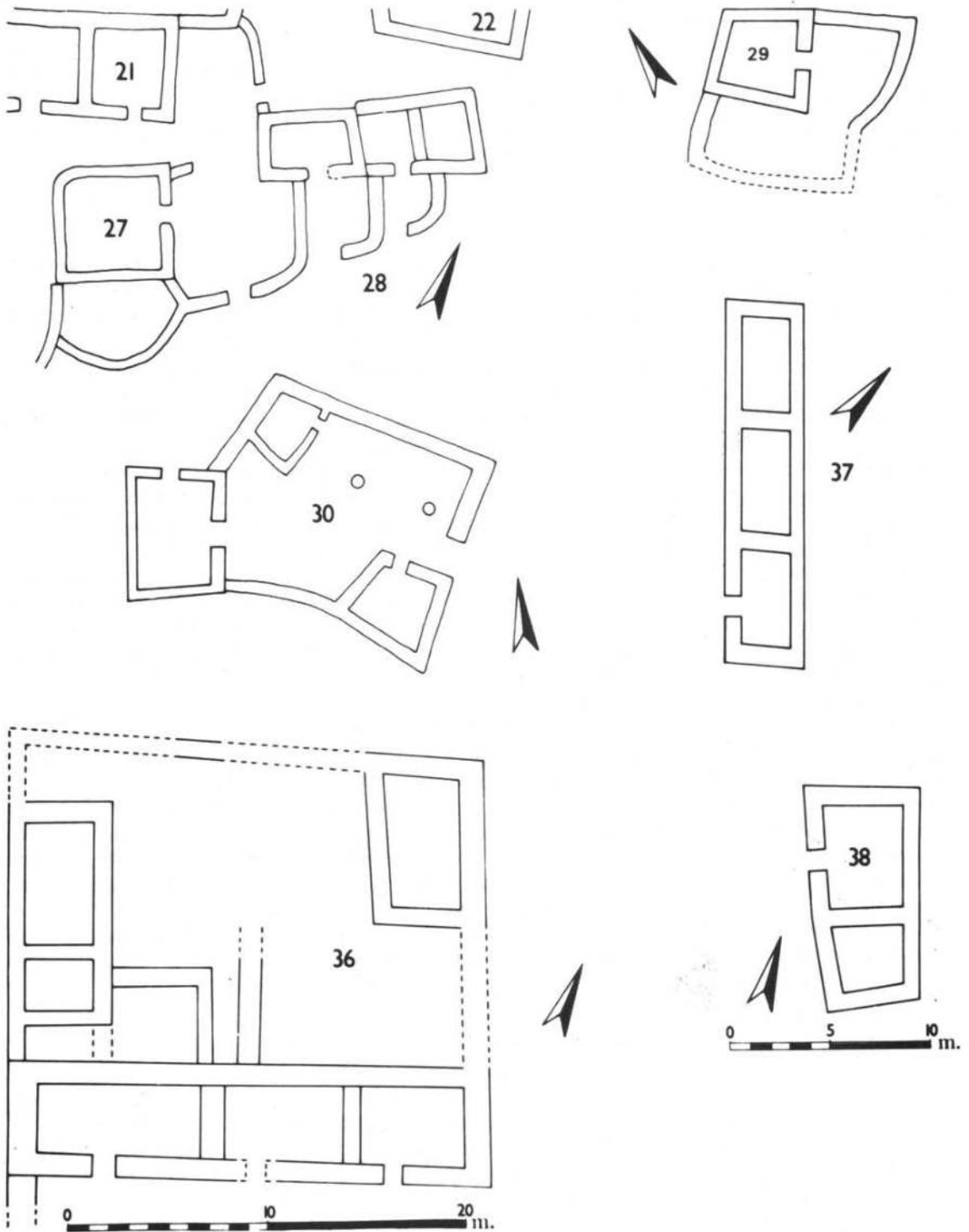


Fig. 11. Buildings 21 (part), 22 (part), 27, 28, 29, 30, 36, 37, 38.

*Buildings 36, 37 and 38: fig. 11.*

At the extremity of the spur between the Shabet el-Gsur and the Shabet et-Tiswiyr, east of Midden 1 (p. 92). All are minor structures, much ruined but of masonry apparently assignable to grade 3 and undoubtedly of only one storey. Buildings 37 and 38 are the only two in the entire settlement which opened towards the west.

Building 36 consists of a range of three rooms measuring overall 24.0m. (east-west)  $\times$  c.6.0m. Each room has an entrance in its south wall. On the north side of the range is what appears to be a subrectangular enclosure 24.0  $\times$  17.0m. overall containing outbuildings and probably having an entrance in its east wall. The masonry of the enclosure and outbuildings is of grade 4.

Building 37 is the easternmost building on the south side of the Shabet el-Gsur. It is completely ruined but measures overall (?) 18.20m. (north-south)  $\times$  3.90m. and comprised three rooms. Only one entrance, in the west wall of the south room, can be identified.

Building 38 lies a few metres to the south of 36. Though now ruined it has been a relatively well constructed building measuring overall 11.35m. (north-south)  $\times$  5.85m. at the north end and 5.10m. at the south end. It comprised two rooms, north and south, the south room being 3.30  $\times$  2.85/3.35m. and perhaps opening off the larger north room, 4.05  $\times$  5.05/5.25m., which had a doorway 1.0m wide at the centre of its west wall. On this side was evidently a small roughly built forecourt.

(d) *Buildings of class C (p. 47): 1,26,31,33,34,35*

*Building 1: fig. 4, Pl. 5.*

On the north edge of the Shabet el-Gsur at the confluence of the shabet and the Wadi Ghirza. This is the first building to come into sight of travellers approaching from the direction of the Wadi Zemzem. Its plan is that of a building some 26.0m. square, with a courtyard c. 16.0m. (north-south)  $\times$  14.0m. enclosed on all sides by ranges of rooms, fifteen in all. Externally the masonry may be classified as grade 3.

The entrance, centrally placed on the east side, consists externally of an archway 2.80m. wide framed in a rectangular recess 10cm. deep (Pl. 5b) and internally of a narrower doorway. There appears to be no provision for a gate in the archway but two or three large stones in the ground on the northern side seem to suggest that the width of the opening was at some time reduced. Of the internal doorway only part of the north jamb, of well dressed stones, is visible above the debris; it would have been closed by a wooden door and may have been of the same type as the entrance doorway of 26 (Pl. 11a; see below). On this jamb are two Libyan inscriptions and on the underside of a voussoir in the archway is another (p. 251). The space between the archway and the inner doorway does not seem to have been roofed over.

In the south-west corner of the courtyard the remains of a flight of stone steps<sup>7</sup> indicate that there was a second storey, and a narrow horizontal recess, for the timbers that once supported the floor of an upper room, may be seen on the north face of the wall forming the north side of the entrance. In the south-east angle of this upper room are six projecting handgrips (Pl. 5d), three in the south wall, three in the east wall, one above the other, which evidently gave access to the roof (p. 75).

The ground floor room at the north-east angle has no means of entry, and may therefore have been a cistern or a store<sup>8</sup>. The same may be true of the corresponding room at the north-west angle, unless there is a doorway concealed by debris in the wall dividing this room from that immediately to the east. The thick walls at this angle, tapering in the second storey, suggest that there was once a third storey forming a tower. Other features noted were the arched niche in the east wall of the ground-floor room on the south side of the entrance; nine rectangular niches in this and six other rooms on the ground floor; an arcuate door or windowhead with simple moulding lying on the debris of the north wall of the courtyard; a stone threshold with pivot hole and oblong socket for a wooden jamb (Pl. 5e) lying on the ground on the north side of the building; and fragments of querns of black lava amongst the debris and built into the external wall.

This building has what are clearly dependent buildings on the north, west and south sides. One of these, on the south side, is a small rectangular hut of one room, in masonry of grade 4, but the others are long buildings of several rooms each. They have already been described as Buildings 2 and 3 (p. 48).

*Building 26: fig. 12, Pls. 3a, 9, 10, 11.*

This is the westernmost of the cluster of buildings on the north side of the Shabet el-Gsur. Though second in size to Building 1, its degree of preservation makes it not only physically more imposing but from the architectural point of view much more instructive. Imposing it certainly is, as it rises like a castle from the rocky bank of the shabet (Pl. 9a), its height and bulk dominating all the buildings in the immediate vicinity.<sup>9</sup>

The view from the west shows the building still standing to a height of some 7.0m. It also shows quite distinctly two different standards of masonry in the west or rear wall. To a height corresponding to that of the ground-floor rooms on the other side of the wall the masonry is of grade 3; above that it is of grade 2 (Pl. 9a). That this is not to be explained simply as the work of two different gangs of masons, or as two phases of the same operation, follows from an examination of the rest of the building. Externally the masonry of grade 3 is visible only in the west wall and in those parts of the north and south walls which are the end walls of the west range of

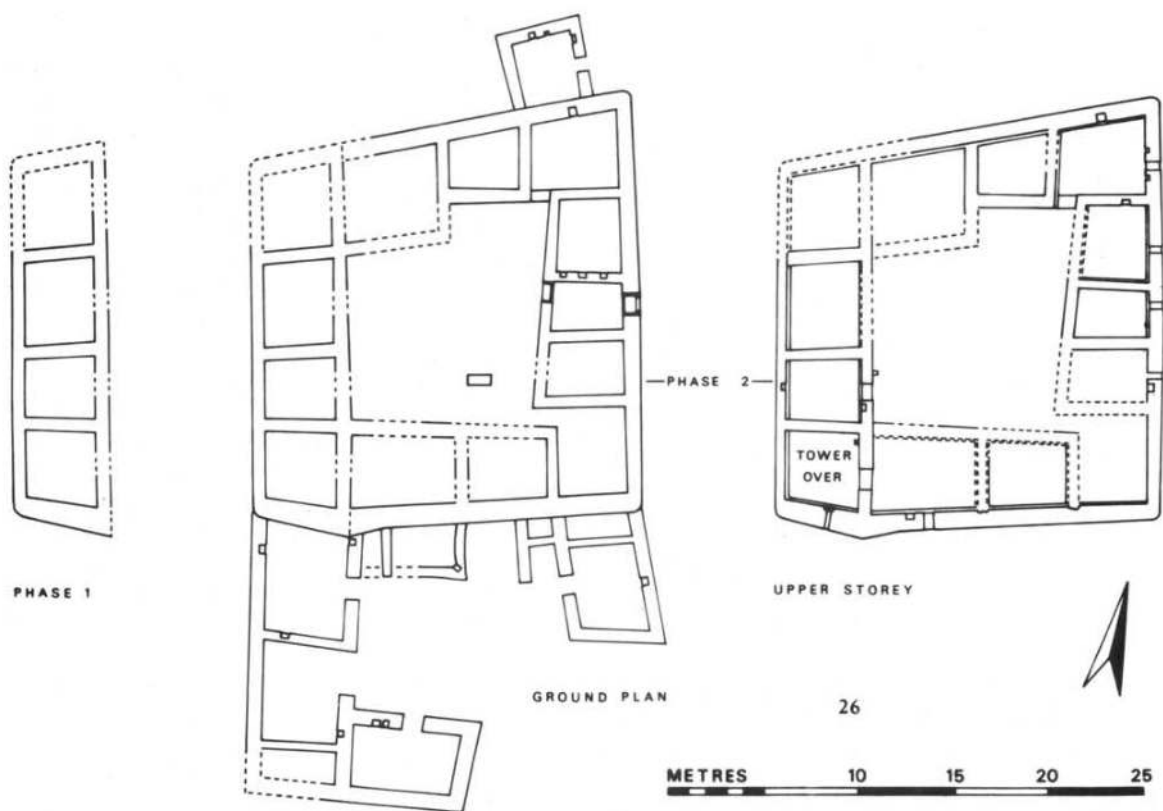


Fig. 12. Building 26, phases 1 and 2.

ground-floor rooms. At the north end of the range the wall has almost entirely fallen, but at the south end the evidence is clearly preserved and the difference between the masonry of grade 3 and that of grade 2, above and to the east of it, is well exemplified (Pl. 10a). In short, there are in 26 two periods of construction, the first represented by a single-storey range (of four rooms, each presumably having its own entrance in the east wall), the second by an enlargement of this range into a courtyard building of at least two storeys and a tower and with outbuildings attached to its north and south sides.

*Period I: masonry of grade 3.* Of the earlier building little further can be said, since the ground-floor rooms are completely choked with debris. It must suffice to note that it measured externally 21.0m (north-south)  $\times$  5.0m., that the end walls were constructed at more than a right-angle to the rear wall and that the south end wall appears to have been made exceptionally thick (1.35m.), presumably for additional strength on the sloping ground. The north-west and south-west corners were rounded. In other words it was a building similar to those, some of grade 2 and others of grade 3, already described under class A and class B.

*Period II: masonry of grade 2.* The size and other features of the original building influenced the planning and construction of the courtyard building in which it was incorporated. In the first place its obtuse north-west and south-west angles presented a setting-out problem. The north-west angle was accepted and the north wall of the new building laid out in accordance with it. But while on the south side the builders decided to extend the end wall of the existing building they adopted a line more at right-angles to its long axis, and the marked bulge in the south wall of the new building is the result of this decision. The north-east and south-west corners were constructed with rounded quoins and on the east side it is possible to see the course of irregular boulders on which the new wall was founded. In the centre of the east wall is the only entrance, a doorway 85cm. wide with jambs and squared-off arch of irregularly shaped voussoirs (Pl. 11a). The north and south walls of the building thus enlarged measure 20.50m. while the length of the east wall is 22.70m.

The doorway is very well built, with a massive flat stone lintel behind the arch bearing most of the weight of the wall above. Pivot-holes for double doors were provided at both ends of the lintel immediately behind the arch. On the external face of the arch are many graffiti including one in the Libyan alphabet (p. 251), and on the underside of the lintel are faint traces of decoration in red paint, which extends also to the jambs, again including a line or column of Libyan characters (p. 251).

The doorway leads into an entrance chamber. The floor is buried in debris but from the underside of the lintel of the entrance to the ledge which carried the timbers of the floor above is 2.0m., and if to this is added 2.0m. for the height of the doorway itself the height of the entrance chamber may be estimated at about 4.0m.

From east to west it measures c. 3.70m., from north to south c. 2.60m. At the north end of its west wall a second doorway, 70cm. wide with flat stone lintel, leads into the courtyard.

The courtyard is heaped high with fallen masonry and it is impossible to enter any of the ground-floor rooms on the west and south sides. But there can be little doubt that the ground-plan is the same as that of the floor above (fig. 12), and that, as on that floor, there were four rooms on the west side (i.e. the original building), five on the east side, of which that in the centre is the entrance chamber, and two between the east and west ranges on both the north and south sides. The total number of rooms on the ground floor was therefore thirteen. They vary in size from the entrance chamber, which is the smallest, to one - the largest on the south side - which probably measures about 4.0 × 5.50m. The level of the upper floor of the second room from the south on the east side was, however, 1.25m. lower than that of the room over the entrance chamber and it may be that the height of the entrance chamber was exceptional for a ground-floor room. In the south wall of the room north of the entrance chamber are three rectangular niches. A similar niche has been built into the north wall of the room in the north-east angle, and in the same wall of this room is a fragment of a quernstone of black lava.

Rising above the debris near the south-east angle of the courtyard is what appears to be the top of a flight of stone steps. These presumably gave access to a wooden balcony surrounding the courtyard at the level of the second storey. No remains of such a balcony have survived, but from the wall of the range of rooms on the west side of the courtyard, a little below second-storey level, projects a stone which may have been one of a series of brackets or corbels supporting a balcony.<sup>10</sup> About 3.0m. further south, at much the same level, is a hole in the wall where a stone is missing and it is tempting to think that there was another bracket. Be this as it may it seems evident from the plan that the balcony must have consisted of planks or split logs nailed to beams approximately 1.0m. apart, the beams on one side being carried on stones projecting from the walls and on the other supported either on stone piers<sup>11</sup> or wooden posts.

There are features of interest in a number of the second-storey rooms. In the east wall of the room in the north-east angle, midway between two miniature rectangular niches, is a small arched window into which has been built a fragment from a quern of black lava. From this window it would be possible to see almost all the buildings on the north side of the Shabet el-Gsur and for a considerable distance down the Wadi Ghirza towards the Zemzem. Above it is one of the relatively rare instances of herringbone masonry. In the east wall of the room to the south is another, smaller arched window. The room over the entrance chamber was probably the same height, i.e. 4.0m., as the entrance chamber itself and has in its east wall a series of projecting stones for handgrips, like those already noted in 1, 5, 8 and 12, serving as a means of ascent either to a flat roof or possibly to a tower above the entrance to the building. The only tower for which there is conclusive evidence, however, was at the south-west angle. Here, in the east wall of the second-storey room is again a run of handgrips, and the sockets for the timbers of the floor above can be seen, while from the courtyard and from the Shabet el-Gsur it is possible to study the somewhat uncertain manner in which the construction of a third-storey tower with rounded angles was carried up from the level of the second-storey (Pl. 10a). From the second-storey room below this tower a small window in the south wall (Pl. 10c), carefully arched internally but externally rectangular, affords a view of Buildings 33 and 34 on the south side of the Shabet el-Gsur and beyond them, across the plateau, as far as the range of bare hills on the southern horizon. A larger, rectangular window in the south wall of the next room to the east, if not too high to be accessible, would have permitted wider observation over the Wadi Ghirza, its small tributary the Siah et-Tmed and the open country beyond. Finally, mention must be made of the room immediately north of that below the tower in which the doorway, c. 90cm. wide and originally over 2.0m. high, still retains the timbers serving in place of a lintel, while in sockets in the wall above are the stumps of timbers which supported the flat roof.<sup>12</sup>

It remains to notice the outbuildings which are an important feature of Building 26 as enlarged. One, standing against the north wall, consists of a rectangular one-roomed structure with entrance on the east side and, internally, one niche in its east wall and two others in its north wall. Its masonry is inferior to that of grade 3 while not characteristic of grade 4. But standing against and along the south wall is a group of outbuildings in masonry which must be classified as grade 3, though it may be noted that it compares favourably with the masonry of the internal faces of those walls of the enlarged Building 26 which are externally typical of grade 2.

These outbuildings were perhaps not stables, which may be the first interpretation to spring to mind, but rather an additional dwelling or dwellings. Almost every room has at least one rectangular niche - one has two, another three - such as seems most likely to have served as a cupboard, and on the edge of a stone forming the side of one of these niches a favourable light reveals a column of small, lightly incised Libyan characters (p. 252).

There is no sign of the 'metal lined water pipe' of which 'traces' were once reported in a brief description of Building 26.<sup>13</sup>

*Building 31: fig. 13, Pls. 3a, 12, 13.*

On the northern side of the spur between the Shabet el-Gsur and the Wadi Ghirza. As first planned this building was approximately 47.0m. square but an extension was later constructed on the north side, adding 8.50m. to the east wall, measuring 25.50m. from east to west and diminishing in width to 8.0m. where it projects from the north wall of the main building. In area the original building occupied five times as much ground as the

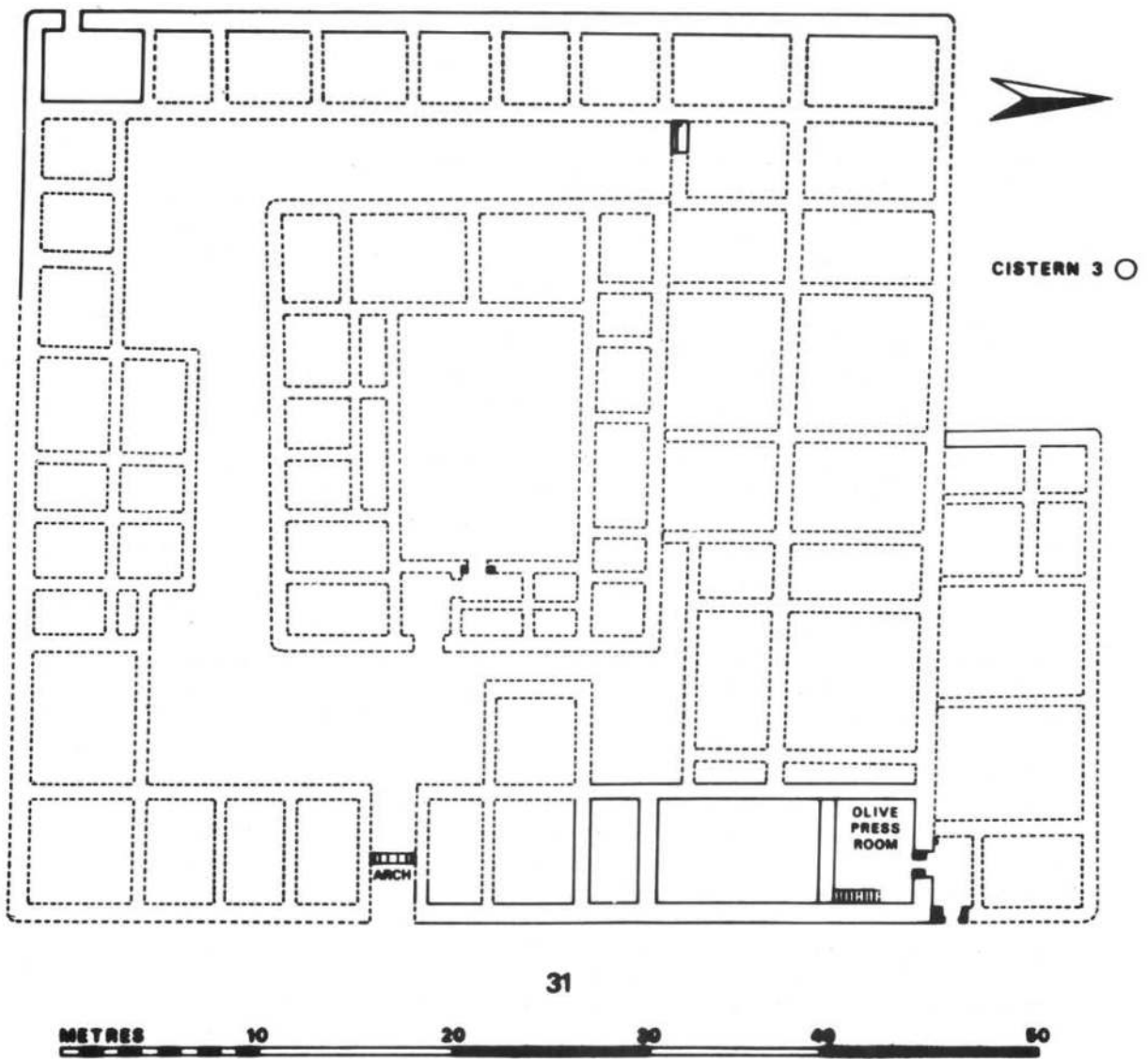


Fig. 13. Building 31.

enlarged 26, dependent outbuildings excluded. In plan, so far as can be seen, it consisted of a central courtyard building c. 23.0 × 20.0m. surrounded by ranges of rooms, with an intervening space on the east, south and west sides and a row of rooms or yards occupying the corresponding space on the north. It requires no effort of the imagination to see in the central building the plan of a typical large fortified farm and in the surrounding ranges additional accommodation for stock and storage. The plan of 31 might be regarded, therefore, as illustrating the fulfilment of an evolutionary process which in the relation of Building 1 to Buildings 2 and 3 is incomplete and in the outbuildings attached to 26 has been modified by limitation of space. But apart from the example of 34 (see below), parallels for Building 31 have not so far been observed elsewhere in the pre-desert. Further discussion falls more appropriately into section (iv) (p. 76).

On the south and west sides the external walls survive only in places and nowhere to more than the height of a few courses. But on the east side, towards the north-east angle, a fine stretch of the wall is standing for a distance of 10.0m. and to a height of over 4.0m (Pl. 12a).<sup>14</sup> Here the overall standard of masonry is the best to be seen at Ghirza, and while it should perhaps be described as a superior grade 2 it has been classified, in order to emphasize its superiority, as grade 1. This wall is further distinguished from any other at Ghirza in having putlog holes regularly spaced at intervals of 2.50m. in rows 1.0m. apart. Until recently it also preserved a very well constructed second-storey window c. 50cm. square.<sup>15</sup> On the same side of the building but set back about 3.10m. from the external wall, its centre 19.50m. from the south wall, an arch constructed with voussoirs of excellent masonry has likewise been destroyed only in recent years; its position and width, c. 2.50m., suggested that it might have been part of the main entrance to the building<sup>16</sup>. On the north side a fragment of the west wall of the extension still stands to some height, preserving a small triangular window (Pl. 13b) reminiscent of the triangular niches in 25, and part of the north wall of the extension also survives, both of grade 2.

The interior is a sea of debris. At least one upper storey has entirely collapsed into the labyrinth of ground-floor rooms, which are discernible with difficulty. The only readily visible features are the stone uprights of an



olive press (see below), a stone lintel of a ground-floor doorway still in place near the north-east angle, and a stone threshold 1.50m. long, also *in situ*, of a second-storey room near the north-west angle. Elsewhere, lying in the debris towards the south side of the building are two stones of exceptional interest. The end of one, slightly damaged but probably originally c. 35cm. high, measures 26.5cm. across what must have been the top and 28cm. across the bottom. The lower part bears in relief a compass-drawn flower with six petals enclosed in three concentric circles of cable pattern, above which rises an ear of wheat between leaves, the whole design being framed by a much battered moulding of cable pattern (Pl. 13c). The second stone, found beside the other, is a small, damaged and weathered *aedicula* 34 cm. wide and originally c. 51m. high (Pl. 13c). Outside the building, near the west wall, lay fragments of another *aedicula*, much better made, which had three arched niches, the central niche being slightly larger than those on either side if it, separated by pilasters and topped with gables bordered by cable pattern and ornamented with acroteria (Pl. 13d); this is 51.5cm. high and was c. 92cm. wide when complete. It is possible, however, that all three stones originally belonged to Building 32 (p. 80).

The first of the readily visible features noted above demanded investigation. They are the only uprights for an olive-press known at Ghirza and the most southerly so far discovered in Tripolitania. Investigation ultimately entailed clearance of the area immediately south of them and the results were not without interest. The uprights were found to be set like the jambs of a doorway in the south side of the north wall of a room 5.25cm. (east-west) × 4.0m. and at a distance of 1.30m. from the east wall of the room. That they were not doorjambs, at least initially, is evident from the distance between them, c. 55cm., though it appeared that the wall behind them had ultimately been breached and that they then came to serve as such. An interval of 55cm. implies allowance for a pressbeam of considerable thickness and commensurate length, and, before the construction of the later east-west wall to the south (see below), the length of the press-room would easily have accommodated a beam of up to 9.0m. The size and weight of the uprights, however, perhaps do not suggest so long and heavy a beam: each measures 2.25m. × 35cm. × 57.5cm. The east upright is pierced by two holes, and the west has two corresponding sockets, the lower 15cm. square and 85cm. above floor level, the upper 20cm. square and 1.50cm. above floor level, thus providing two positions for the wooden bar which served as a moveable fulcrum (Pl. 13a).<sup>17</sup> There is no sign of the capstone with which the uprights would have been crowned.

The east wall of the press-room, part of the external wall of the building, was found still to be standing to a height of 1.70m. and internally to have retained over an extensive area a facing of 'cistern' plaster (Pl. 12b). The same facing plaster will be noted again in the description of Building 32, of cisterns 4 and 5 at Ghirza, and of tombs in Cemetery 3 (p. 72). This plaster extends to and continues behind a steep and narrow flight of stone steps, bonded together with a grey mortar containing specks of charcoal, which evidently led up to the second-storey room with the square window in its east wall. The lowest step had been displaced and was found at a distance of 1.15m. from the north-east corner of the room. The fifth from the bottom has also been displaced. The remaining seven measure 55cm. in width and have a height and tread of 20-25cm. All are moderately worn.

From their relation to the plaster facing of the wall against which they are built it is clear that these steps are not an original feature. There is, in fact, reason to think that they were probably constructed during a modification of the press-room after, and possibly long after, the press had ceased to be used. To the same modification can be attributed the later wall, already mentioned, which crosses the press-room from east to west at a distance of 4.0m. to the south of the uprights. A hint of the period at which these alterations were carried out is afforded by the grey mortar employed in the construction of the steps and abundantly evident in the debris removed during clearance of this room. This is characteristic of the modifications in Building 32 in the later tenth or early eleventh century (p. 90). It was probably then that the wall between the uprights of the olive press, doubtless already long derelict, was opened to form a narrow doorway.

At this point it is instructive to turn briefly to another site where the uprights of an olive press may be seen. This is one of the scattered group of three or four buildings known collectively as the Gsur Chanâfes, some 30km. north-east of Ghirza.<sup>18</sup> Here the uprights are 40cm. apart; each measures 20cm. across at the front and 50cm. from front to back, while in one a hole 15cm. square is visible 65cm. from the top. Seventy centimetres below this hole the stone disappears into the debris of the building but undoubtedly there will be a similar hole not much lower, and sockets corresponding to these two (or possibly three) in the other upright. Moreover, south of the press an area of the wall of the room retains a facing of 'cistern' plaster 2.0-2.5cm. thick, identical with that of the press room in Building 31. But the point to be noted is that the uprights are recessed into the inner face of an external wall of the building.<sup>19</sup> This leads back to Building 31 and to a consideration of the position of the press in relation to the plan. There the uprights appear at first sight to be recessed into an *internal* wall; but the plan of the building suggests that this wall was originally the external north wall, and that the extension to the north of it is secondary. The suggestion is confirmed by the existence of a tethering-stone in the north side of the wall in question (fig. 13) and by comparison of the masonry of the extension, which is of grade 2 (Pl. 12b), with that of the parent building. Moreover, the extension had at least one entrance of its own, a doorway in the east wall of the room north of the olive press, and for what it may be worth it appears from its surviving jamb perhaps to have been a doorway of the type preserved and associated with masonry of grade 2 in Building 26, as enlarged, and also in Building 33 (see below). Its surviving masonry is certainly of grade 2.

The objects discovered during clearance of part of the press-room can be briefly listed:

- (1) bronze coin, heavily corroded and quite illegible;
- (2) fragments of an amphora or amphorae and a sherd from a black cooking pot with soot adhering to it;
- (3) a fragment of an upper stone and one of a lower stone of a quern or querns of black lava. (It is possible that these had been built into a wall; see Buildings 1, 10, 13, 26.);
- (4) part of a rectangular limestone trough externally 50cm. wide × 30cm. high with sides 5cm. thick, internally very worn, and part of another, similar trough;
- (5) black rubbing-stones.

It remains to record an interesting feature outside the building, on the east, towards Building 32. This is a line of stones with, at the centre, a small recess facing approximately east. It has the appearance of a rudimentary prayer-wall, the recess corresponding to the mihrab in a mosque, such as the faithful who live in the desert have occasionally constructed near their camp-sites.<sup>20</sup> If prayer-wall it be its period is most probably that of the re-occupation of 31 and 32 (p. 64), i.e. the later tenth-early eleventh century. Nearby are four graves, possibly contemporary with it (p. 100).

*Building 33: fig. 14, Pl. 14.*

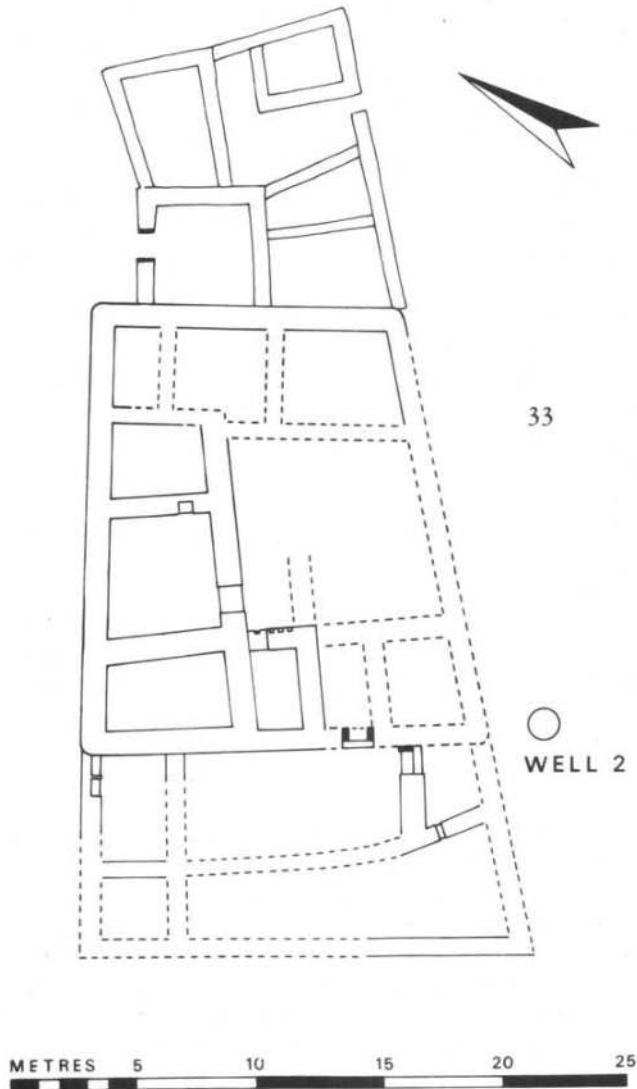


Fig. 14. Building 33.

This is the most southerly building in the settlement and occupies a position commanding wide and distant prospects eastward and southward. From the roof of its tower (see below) it should have been possible to overlook the whole of the settlement, to scan country to north and west as far as the skyline, and to see some way up as well as a long way down the wadi.

The building is semi-ruined but the west wall of the tower at its west end still stands in part to a height preserving evidence of three storeys, while more than sufficient remains to show that the standard of masonry throughout was of grade 2. In plan it is an irregular quadrilateral, the north side measuring 27.25m. and the east end 12.25m.; but there are grounds for regarding the plan as comprising a main building measuring 18.80m along its north wall, 12.25m. along its east wall, with four rounded corners, and an annexe 8.45m. wide at its north end running the whole length of the west wall of the main building and having its north-west and south-west angles squared. There is no reason to think, however, that the main building and annexe were not contemporary. In fact, their lower courses are bonded together where they meet on the north side, and herringbone masonry, uncommon elsewhere at Ghirza, is a feature of both.

It seems not unlikely that the annexe contained stabling. In its south wall, set back from the line of the south wall of the main building, is a doorway of which half of an arcuate doorhead is visible *in situ* above the debris. The doorway is probably at least c.85cm. wide. Beyond is what appears to have been a yard, 7.25m. (north-south)  $\times$  3.65m., with two rooms across the north end and perhaps a range of rooms 3.0m. wide along the west side. All the walls except that at the north end have fallen and the plan could not be ascertained in entirety. Side by side in the north wall, which is 85cm. thick, are two large recesses each 60cm. wide which conceivably served as mangers.

In the yard, on the east side immediately to the north of its entrance, is the entrance to the main building. Here, again, an arcuate doorhead rises above the debris, its width of 65cm. indicating an unusually narrow doorway. This gave access either to an entrance chamber or to an open passageway between two flanking rooms leading to a small courtyard. To the east of the room on the north side, 1.95m. (north-south)  $\times$  3.30m., is a room of the same width (north-south) but perhaps 4.80m. from east to west, which occupied part of what would otherwise have been a quadrangular courtyard. The courtyard is bounded on the south by the external wall of the building, on the east and north by two of the largest rooms.

On the ground floor the principal rooms are six in number and in plan form an L-shaped suite, the vertical stroke of the L representing the range bounded by the north wall of the building and the horizontal stroke the rooms bounded by its east wall. The east rooms are extremely ruined. The best preserved room is the second from the west end of the north range which has in its east wall, at a distance of 70cm. from the south-east angle, an arched niche 60cm. wide  $\times$  60cm. deep, and in its south wall a blocked doorway 90cm. in width. The ground-floor room at the west end is full of debris.

At the west end, part of the wall preserves the lower courses of a rounded corner (Pl. 14b), evidently the south-west corner of a tower, and rises well above a small window which must have been only a little lower than the ceiling of a second-storey room. The west wall stands even higher, preserving in its internal face five courses of masonry set in herringbone pattern, another square window of the second-storey room, and the ledge 20cm. wide which carried the timbers of a floor above. Externally, the walls of this tower, which was presumably of not more than three storeys, have an appreciable batter, thus reducing thickness and weight as they approached their full height. The three corners of which courses survive are all rounded and so undoubtedly would have been the fourth, the south-east, which has entirely collapsed.

It is to be noted that south of the tower the west wall of the building still stands almost as high as the second-storey window, indicating a room above that on the north side of the entrance passageway, and it may be that a second-storey room or rooms extended across the passageway and the room on its south side as far as the south wall of the building.

At the east end is another annexe consisting of two medium-sized and several smaller rooms forming a block 10.15m. (north-south)  $\times$  11.70m. with entrances 90cm. and 1.0m. wide on the north and south sides respectively.

On the north side are extensive outbuildings. Though extremely ruined it is possible to see that they consisted of ranges of rooms enclosing two yards, which may be described as the south yard and the north yard. The south yard is bounded on its south side by the main building. Its only discernible entrance is at the east end of the north side where there is a way in from the north yard. It is conceivable, however, that there may have been a more direct entrance through the southernmost room of the east range, in the east wall of which there has been a doorway 1.20m. wide. That this range was of more than one storey, with a wooden balcony giving access to the upper rooms, is indicated by the remains of a flight of stone steps parallel with, but standing clear of, its west wall. The range appears originally to have terminated at the sixth room from its south end, the north-east and north-west corners of which are rounded. The upper storey, therefore, may have extended no further than this room, but that it existed suggests that the main building also was of two storeys, the tower rising one storey higher.

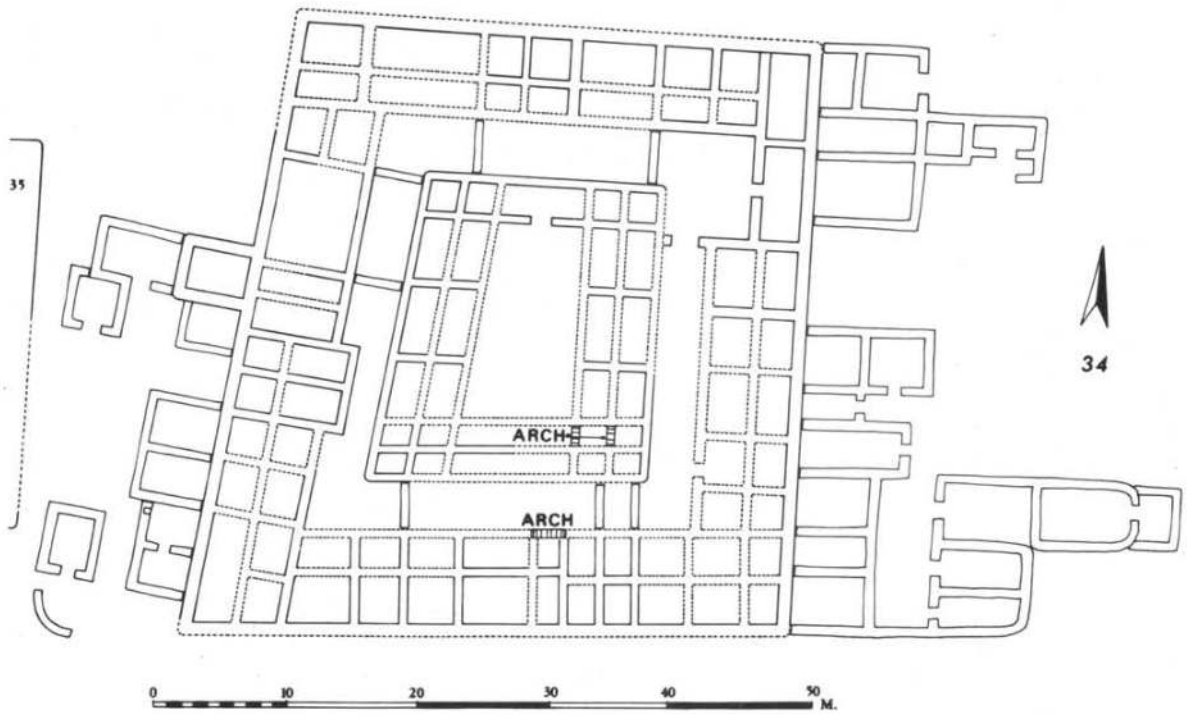


Fig. 15. Building 34.

The north yard has a wide entrance on its north side. As in the south yard, the doorways of a number of the surrounding rooms can be identified. But the only other noteworthy feature is the manner in which the rooms at the north-east angle appear to be secondary to the east range and perhaps also to the block of two rooms on the east side of the entrance. Here the plan of these outbuildings suggests piecemeal growth, the process beginning with the construction of the east range.

Less than 2.0m. south of the south-west angle is Well 2 (p. 98).

Twenty-nine metres west of the north-west angle of the main building a north-south wall 65cm. thick emerges from one of the tips of Midden 2 (p. 92) and is preserved for a length of 11.0m. (fig. 3). Similarly, walls partly buried by Midden 1 are noted below (p. 96).

*Building 34: fig. 15, Pl. 15.*

Building 34 occupies slightly higher ground some 35m. north-west of 33. It is ruined beyond detailed description, the ground plan being only partially recoverable from the mass of superincumbent debris. That there was a second storey at least in part of the building is indicated by the height of a surviving fragment of wall, and here and elsewhere the masonry where classifiable is of grade 3.

This building, the largest in the settlement, measures 39.50m., 46.0m., 46.0m and 48.50m. along the north, east, south and west sides respectively. The plan resembles that of 31 in that it appears to indicate an outer building with rounded corners and single or double ranges of rooms on all four sides, and an inner courtyard building, originally freestanding but later joined to the north range.

Between the outer and the inner buildings is a space (?) 3.60m. wide on the east side, 3.50m. wide on the south side and 4.0m wide on the west side. Across this space run several walls, at least some of which appear to be of later construction. The inner building itself measures (?) 17.25m. (north side), 23.75m. (east side), 21.0m. (south side), and (?)28.75m. (west side). Owing to the collapse of the north-west corner the length of the north and west sides cannot be determined with certainty, but it is evident that this building is larger than Building 26. Except perhaps on the east side it consists of double ranges of rooms surrounding a central courtyard. The position of its entrance is problematical. A room on the north side was entered from the courtyard and in another room which must have opened on to the courtyard, on the east side, a tethering-stone in the east wall suggests a stable. The arches of two internal doorways rise above the debris of the south range, the keystone of the more westerly of them bearing a representation of a *phallus* in low relief (Pl. 15b).<sup>21</sup>

At the south-west corner of this building the height of the surviving wall indicates an upper storey. Here can also be seen the remains of a floor, constructed of trunks of trees, brushwood and thin stone flags, together with those either of a floor above or of a flat roof which has fallen upon them (fig. 19, Pl. 15c).

The entrance to the outer building is not visible but was most probably on the south side; there lies Midden 3 (p. 92) which there seems reason to associate with Building 34. At a distance of 18.50m. from the north-west

corner a bastion or tower 5.0m. wide, probably of at least two storeys, projects 5.40m. from the west side. Internally the remains suggest a double range of rooms on the east, south and west sides, varied here and there by single rooms, and on the north side a slightly more complicated plan. On the south side, facing the inner building, five arches and fallen voussoirs in line indicate either an arcade or a row of vaulted rooms.

Mention must be made of the rows of huts which stand externally against or close to the east and west walls of the outer building. At the north end of the east wall there is a group comprising five or six rooms, three of which are built in a row against the wall, the others in a row outwards from the central room of the three. Another row, consisting of six rooms with a seventh built outwards from that at the north end of the row, stands against the south end of the east wall. Parallel with this row and opposite the three southern rooms is another group comprising five rooms in an L-shaped plan. A wall joining the south-west corner of this group with the south-east corner of the row standing against the wall of the main building creates a yard between them. Near the east end of the south side of the main building is another small hut-like structure consisting of three rooms, again in an L-shaped plan.

On the west side of the outer building a projecting bastion or tower has already been noted. A two-roomed hut has been built against its west wall and in the angle between its south wall and the west side of the main building two walls 60cm. thick have been erected to form a single-roomed structure internally c. 4.0m. (east-west)  $\times$  3.0m. South of this is a space 3.50m. wide. Then comes a row of four rooms with walls 60-85cm. thick and perhaps of a slightly higher standard of construction than those of the other huts so far described. Internally the northernmost room measures 5.0m. (east-west)  $\times$  3.40m., the next 5.0m. (east-west)  $\times$  3.0m., the next 3.70m. (east-west)  $\times$  3.0m. and the southernmost 3.70m. (east-west)  $\times$  2.70m. At the north end of the west wall of the second room from the south is a rectangular niche 50cm. wide  $\times$  60cm. deep, and near the west end of the wall separating this room from the southernmost is a doorway 1.0m. wide, on the north side of the stone lintel of which is an inscription in exceptionally bold Libyan characters (p. 252).

*Building 35: fig. 16, Pl. 16.*

A few metres west of 34, this is the westernmost building on the south side of the Shabet el-Gsur. It measures 23.90m., 29.0m., 23.70m. and 26.80m. along its north, east, south and west sides respectively, and has a central courtyard surrounded by ranges of rooms on each side. Except for the south-east quarter, which has been entirely ruined and partly reconstructed, the walls still stand in many places to the height of a second storey. There is no evidence that they rose anywhere to a third storey or that there was a tower. All four corners are rounded. In the south wall, 7.25m. from the south-west corner, is a tethering-stone and another is preserved

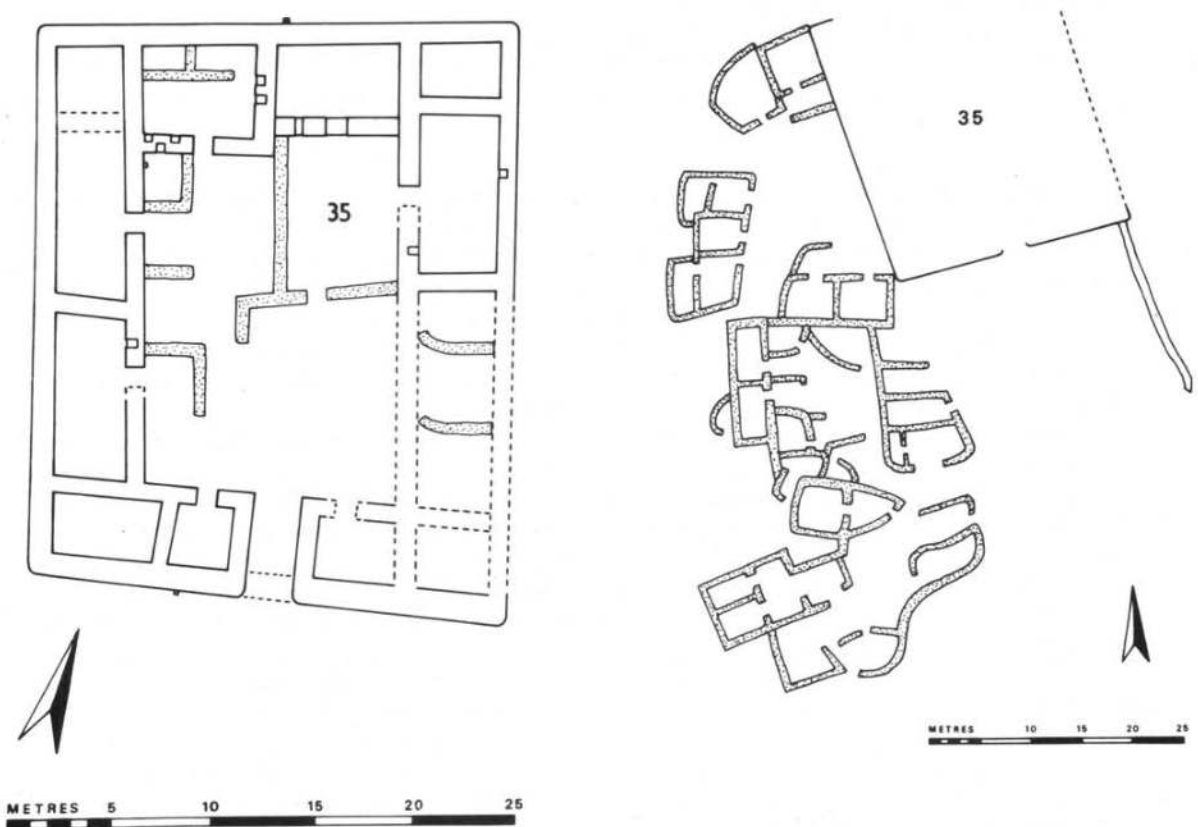


Fig. 16. Building 35 and associated huts.

in the north wall 11.5 m. from the north-east corner. The north wall stands to a considerable length and height. It affords a typical example of masonry of grade 3 (Pl. 4c), and it is to this grade that all the other surviving walls can be assigned.

The entrance is at the centre of the south side. It consists of a passageway 2.30 m. wide and approximately 5.0 m. long which leads between flanking rooms into the courtyard. At the south or outer end of the passageway the corners are rounded, at the north end squared. This entrance is reminiscent of that of Building 1, where a passageway arched at the outer end is closed at the inner end by a wall with a doorway leading into the central courtyard (p. 60). Here no arch survives, but it seems probable that a springer is missing from the hole in the west wall just inside the entrance (Pl. 16b); unfortunately the other side of the entrance has collapsed.

The courtyard appears to be approximately square, the only practicable measurement being 12.40 m. across the north side. In addition to being strewn with debris it is compartmented by walls which are of the same standard of construction as the building; they give the impression of quartering the courtyard and dividing the rooms surrounding it into groups of three. On each side of the courtyard two rooms open directly into it, the other four being in the angles of the building. As in the case of Building 1 there is reason to think that there was no means of access at ground level to the rooms in the angles.<sup>22</sup> Two wide doorways are preserved complete with heavy stone lintels. One is the entrance to the second room from the north on the west side. The other is the second room from the west on the north side, and here a piece of wood used as packing under the lintel on the east side of the doorway can still be seen.

In the wall to the north of the entrance to the second room from the south on the west side is a rectangular niche 40 cm. wide × 60 cm. deep.

(e) *Buildings of class D (p. 47): 22, 32*

*Building 22: fig. 17, Pl. 3a.*

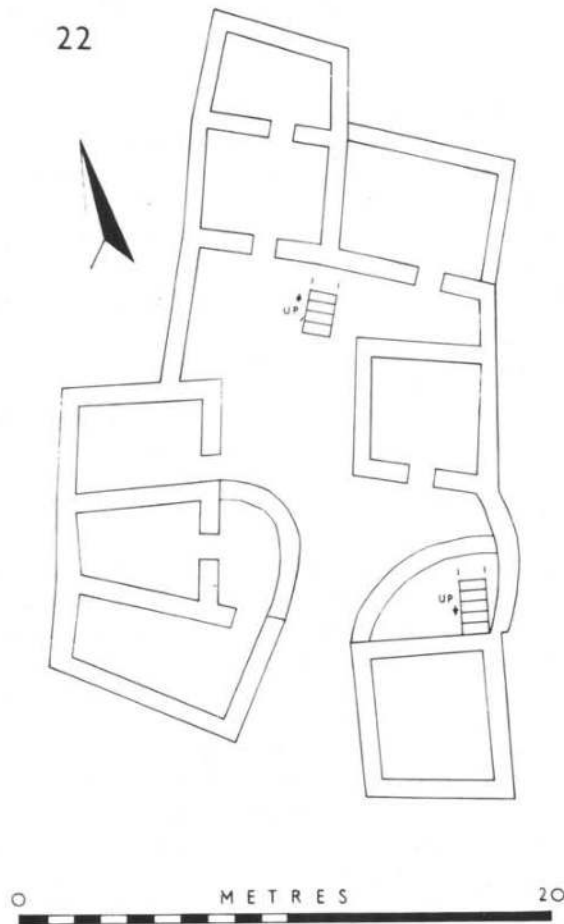


Fig. 17. Building 22.

This is the third largest building, after 1 and 26, on the north side of the Shabet el-Gsur, while in both plan and construction it is the most curious in the whole settlement.

From north to south the building measures 30.0m. and from east to west is 17.0m. at its widest. But its plan is exceedingly irregular, showing two groups of three subrectangular rooms and two single rooms linked by walls which thus form an enclosure or yard. Except for a doorway between an outer and an inner room, in the group of three rooms at the north end of the building, all doorways originally opened on to this yard. The entrance to the yard itself is at the south end of the building. On the left as one enters the yard is the other group of three rooms, the doorways of two of which have been enclosed, presumably for confinement of stock, by a curving wall of later construction. On the opposite side of the yard a similar wall encloses the angle between the single room at the south-east corner of the building and the building's east wall, the latter appearing here to have been roughly rebuilt. The doorway of the south-east room must lie beneath the debris in this angle: the only feature visible, however, is a flight of stone steps. A few metres north of these steps stands the other single room, its north and south walls apparently bonded into the west wall of the building and with an entrance in its south wall, and about a metre from its north-west angle are the remains of a second flight of stone steps which appear to have given access to a floor or to the roof over the north group of three rooms.

The standard of construction is poor and the masonry may be classed as grade 4. But unlike any other building of this grade Building 22 is notable for the number of re-used stones in its doorways and in the flights of steps. In finish these stones can only be compared with those of the monumental tombs, but it is impossible to suggest from which tomb or tombs they might have been taken. One, probably from a doorway near the north-west angle of the building, bears simple incised geometric decoration. On another, probably from the doorway of the room at the south-west angle, are two columns of characters of the Libyan alphabet (p. 251). Altogether, with its exceptional and rambling plan, its inferior construction and re-used stones, Building 22 has every appearance of being one of the latest buildings of the settlement.

#### *Building 32.*

About 25.0m. south of 31 on ground sloping gently down towards the Wadi Ghirza. It was noted during the survey of the settlement in 1955 that this also was a building exceptional both in plan and construction. The questions that it raised demanded investigation and it was accordingly cleared, with most important results, in 1956 and 1957. The report on this work, too lengthy to be given here, is the subject of section (v) (p. 80ff.).

#### (f) *Buildings of class E (p. 47): huts*

However structurally insignificant compared with the buildings of classes A-D, huts are a conspicuous feature of the settlement. As already noticed, they are found singly and in rows along the east and west sides of 34 (p. 67), and are particularly characteristic of the westernmost part of the settlement south of the Shabet el-Gsur. Here there are three large groups.

One is an apparently homogeneous agglomeration of approximately rectangular rooms and yards (fig. 16) extending for a distance of 36.75m. from the foot of the north bank of the Wadi Ghirza in the direction of 35. To the east rises the long mound of Midden 3 (p. 92, Pls. 3b, 32b), material from which has washed down and accumulated against the walls of the rooms at the north and on the east. All the walls are dry-built, but so far as they survive are classifiable, like those of 34 and 35 at the top of the bank, as grade 3. Except for a range of rooms on the west side the southern third of the plan is uncertain. Immediately to the north stand the better preserved remains of a hut obviously of relatively recent construction, a path winding up to it from the south-east. The plan of the rest comprises a yard with a single range of rooms on its west side and double ranges on the north and east: there is a resemblance to the plan of the outbuildings on the north side of 35. Some of the rooms are intercommunicating. Three huts, extremely ruined, have been built out from the east wall of the main group towards one which is freestanding.

The second group is much less regular in plan and is inferior in construction. It consists of a cluster of self-contained dwellings and enclosures which straggle up the bank of the wadi from a point a short distance to the west of the first group to a point on the lower slope of the east side of Midden 4 (p. 93, Pl. 3b). Here, the relationship of the northernmost group to the midden is of some interest and its possible significance will be considered in due course.

The third group (fig. 16) extends in a southerly direction from the west side of 35 towards the northern slopes of Midden 4 (Pl. 16a) and in character is similar to the second group. The northernmost huts are actually built against the west side of 35 at its north-west angle. A few metres south of them is a small five-roomed hut and to the east of that is a hut of two rooms. The doorways of these three huts open on to a communal yard with two entrances. The southernmost of the three backs on to a roughly square yard subdivided into irregular enclosures and bounded on the west by a hut of two rooms, each room having its own doorway opening on to the yard. Built against the east side of the east wall of the yard are three more enclosures, the largest of which is subdivided by a wall with a doorway so as to form a small room at its west end. South of this complex is another, very irregular, comprising a single-roomed hut with forecourt and a two-roomed hut with forecourt, both

forecourts having doorways opening into an enclosure bounded by a rambling wall with small compounds built against its internal face. In this group it is not difficult to visualize some of these small enclosures and compounds as pens for animals, and others, outside the doorways of the huts, as shelters for cooking-fires; and it is instructive to note the contrasts in construction and plans between these ancient huts and those built at Ghirza for winter accommodation at the present day.

Finally, a row of huts between Building 26 and the Shabet el-Gsur may be mentioned. This originated with a round hut with a niche in its north side and entrance on the east. Three roughly rectangular rooms were added successively to its north side and three successively to its south side.

(g) *Summary*

The results of the survey of the buildings are summarized below in two tables. In Table I the buildings are listed in numerical order with the class and grade to which each has been assigned. In Table II they are tabulated by class and grade.

**Table I**

Bldg.	class	grade	Bldg.	class	grade	Bldg.	class	grade
1	C	3	14	A	3/4	27	B	?
2	A	3/4	15	B	5	28	B	5
3	A	3	16	A	2	29	B	?
4	B	3	17	A	3	30	B	3
5	A	2	18	A	?	31	C	1
6	B	4	19	A	?	32	D	2/3/4/5
7	A	2	20	A	3	33	C	2
8	A	2/3	21	B	4	34	C	3
9	B	4	22	D	4	35	C	3
10	A	3	23	B	5	36	B	3
11	A	2/4	24	B	5	37	B	3
12	A	2	25	A	2	38	B	3
13	A	2	26	C	2/3	huts	E	3/5

**Table II**

	grade 1	grade 2	grade 3	grade 4	grade 5
A		5,7, part 8, most 11, 12, 13,16,25	2,3, part 8, 10, part 14, 17,20, part 26	2, part 11, part 14	
B			4, part 26, 30,36,37,38,	6,9,21	15,23,24,28
C	31	most 26, 33	1,34,35		
D		part 32	part 32	22, part 32	part 32
E			one group		all others

Fig. 18.

Four buildings, viz. 18, 19, 27, 29, are ruined beyond grading, but in six others, 2, 8, 11, 14, 26, and 32, two or more grades are preserved in juxtaposition. In two of these, 8 and 26, it is clear that grade 3 preceded grade 2, the evidence from Building 26 being quite conclusive. In Buildings 2, 11 and 14, however, the sequences were 3-4, 2-4 and 4-3, respectively, and although at first sight these are mutually conflicting, as well as seeming to invalidate the sequence 3-2, this is not necessarily so. Masonry of grade 4 is very inferior and almost invariably that of relatively unimportant structures. It would be unjustifiable as well as unprofitable to attempt to credit it with the same potential significance for dating as may be attached to that of the superior grades; these include, of course, grade 1, but evidence for the relation of this grade to others has still to be considered. Only in Building 32 is it possible to be certain of the chronological relationship of masonry of grade 4 to that of grades 2 and 3, and even to assign it to a definite period. But before proceeding to the report on the excavation by means of which these data were established the construction and features of the buildings in general must be reviewed.



### (iii) MATERIALS, CONSTRUCTION, AND FEATURES OF THE BUILDINGS

#### (a) Materials

*Stone.* All the buildings were constructed of small, more or less squared blocks (cf. Pl. 4) of an excellent limestone obtainable in the immediate vicinity of the settlement. The stone outcrops conveniently along the sides of the wadis and indications of quarrying are particularly evident in the Shabet el-Gsur (fig. 3). The stone is milky white when freshly cut but weathers to a shade of brown tinged with pink.<sup>1</sup>

*Mortar and Plaster.* Despite the availability of limestone for mortar the walls of all the buildings, except the huts which are of dry construction, were bonded only with mud and have a rubble and mud core. But in Building 32 the crevices between the stones in at least one internal wall had been plastered over before the actual facing plaster was applied. It will be recalled that original facing plaster survived also in the olive-press room of Building 31 (p. 64), and it may be that internal walls in the larger buildings generally were so treated.<sup>2</sup> In Building 32 both under-plaster and the facing coat, c. 2cm. thick, are of pure lime mortar, the facing coat being fortified by the addition of grit. The facing plaster in Building 31 is of exactly similar composition. In the pre-desert, plaster of this kind more commonly survives as a rendering in ancient cisterns, where it was evidently employed for its waterproof qualities, and hence is referred to throughout this Report as 'cistern' plaster.<sup>3</sup> It is one of the diagnostics of work of the Roman, including late Roman, period.

Medieval walls in Building 32 preserved a very different facing of hard grey plaster containing specks of charcoal, and quantities of fragments of plaster of this kind were found both in the debris of this building and in that removed during clearance of the olive-press room in 31 (p. 64). Similar plaster was observed round the entrance doorway of 26, and had been used in setting the stones of the small arched window in the first floor room at the south-west angle of that building (pp. 61, 62, Pl. 10c).

*Timber.* Remains of what appears to have been a floor supported on tree trunks, and of a roof of similar construction which has fallen upon it, have already been noted in Building 34 (p. 67, fig. 19, Pl. 15c). In 26 the stumps of floor and roof beams and timbers serving as a lintel still survive *in situ* (p. 62)<sup>4</sup> and offsets or sockets for floor and roof timbers can be seen in all the buildings standing to a sufficient height. From examination of the stump of one of these beams the wood has been identified as a species of acacia (p. 260), one of the characteristic trees of the Wadi Ghirza and of pre-desert wadis in general. It is evident, therefore, that in antiquity the strong and lengthy timbers needed for floors and roofs, not to mention the beam of the olive-press, could be found at hand.<sup>5</sup> But neither the timbers serving as a lintel in 26 nor any of the surviving stumps suggest that the beams used in construction were more than roughly trimmed trunks and branches; indeed, the occurrence of five sockets in one wall and of only three in the opposite wall in the northernmost room of 12 seems to indicate that here the timbers supporting the first floor had included trunks complete with branches (p. 52).

#### (b) Construction

*Walls.* The bare rock on which the buildings stand rendered foundations, in the usual sense of the term, unnecessary, and the first course to be laid was generally a footing of flat stones projecting slightly beyond the

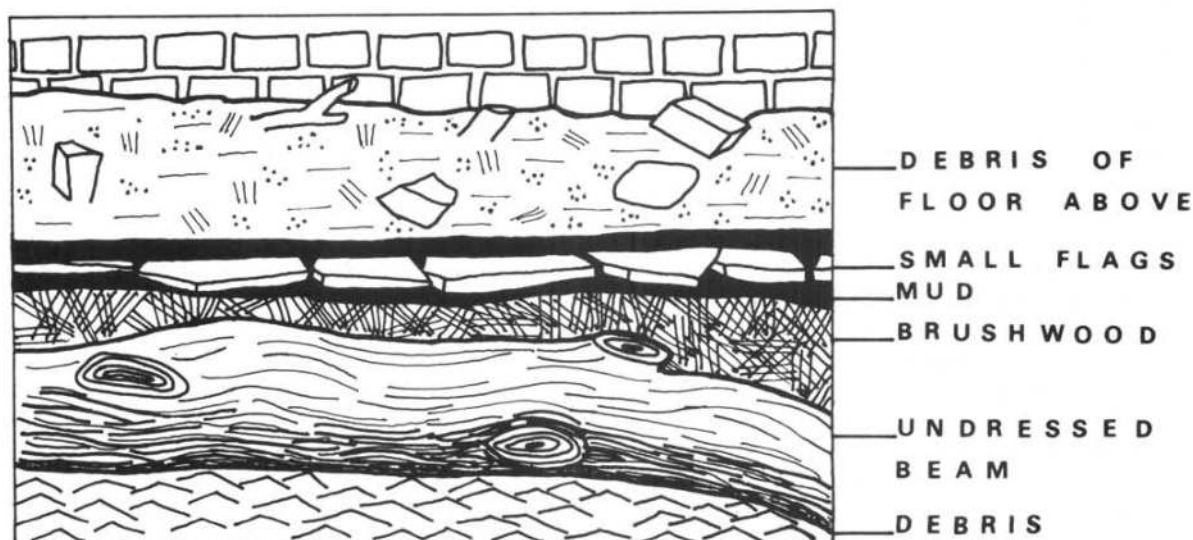


Fig. 19. Building 34: (?) cross-section of a floor.

intended line of the wall. The course of large irregular stones supporting the east wall of 26 (p. 61, Pl. 11a) is a notable exception to the rule and was obviously demanded by the especially uneven, sloping ground on which that building stands.<sup>6</sup> But the use of mud as a bonding agent required that, to ensure stability, walls so constructed should be not less than c. 1.25m. in thickness at the base, and that above the first storey increasing height should be offset by diminishing thickness; good examples of this principle can be seen in 5 and 33 (Pl. 14b).

External angles are normally rounded, but only 26 exhibits the rounded angles constructed with large quoins (Pl. 9b) which have been noted as a usual though not invariable feature of later Roman fortified farmhouses of the pre-desert (p. 61).<sup>7</sup> As already observed, however, in 5,7,11,12,13 and 16, walls project beyond the angles as if to allow for eventual enlargement of these buildings (p. 76). Only 31 affords evidence for the use of scaffolding<sup>8</sup> during construction and this is also the building in which the external facing stones have been trimmed and laid with greatest care; the putlog holes measure c. 15cm. square, are 2.50m. apart horizontally and 1.0m. apart vertically (Pl. 12a).

The standards of external masonry have been described and classified above (p. 47). It was noticed that the standard of the masonry of the outer face of an external wall is generally superior to that of its inner face and to that of both faces of all internal walls (Pl. 11), and the inferior internal standard may well imply that the masonry of these walls was concealed, at least in all the larger buildings, by a facing of plaster (cf. p. 72). Thus, the courses of herringbone masonry in 26, 32 and 33 may not have been visible (Pl. 14a). Internally, also, many walls which at the face make straight joints with other walls are in fact bonded into them at the core.<sup>9</sup>

*Roofs and floors.* No roofs or remains of roofs survive, but they were presumably flat and constructed in the same way and with the same materials as the floors. The means by which access was gained to them can still be seen in some of the buildings (p. 75, Pl. 8a).

There is reason to think that floors may have been constructed of thick stone flags, laid on brushwood and mud over untrimmed beams.<sup>10</sup> These are the materials in what appear to be a collapsed floor in the room at the south-west angle of the inner building of 34 (p. 72, fig. 19, Pl. 15c). The remains are largely buried and it is consequently impossible to be certain whether they are indeed those of an ancient floor or merely represent an attempt to rehabilitate this part of the building when it was in ruins.

Over the roughly trimmed trunk which served as one of the beams supporting the floor - if floor it was - is a layer of mud about 2cm. thick; the total thickness of the floor approximated to 45cm. Above it lies the debris of what was either a second floor of similar construction, or, since the debris includes small branches as well as brushwood, more probably that of a roof. An excellent illustration of the possible appearance of such a roof, from the interior, is afforded by that of a modern hut in the Wadi Tareglat (Pl. 15e)

### (c) *Architectural features*

*Entrances.* Few entrances have survived intact. In 5 and 12 well constructed rectangular entrance doorways can be seen, with the gaps in the masonry above them from which stone or wooden lintels or possibly even square-headed arcuate doorheads (see below) have been removed (Pl. 7b). There is no indication that the doorways of such buildings were furnished with jambs either of stone or timber but these, too, could have been removed.

The entrances to 26 and 33 are more pretentious. These have slightly recessed, dressed stone jambs supporting square-headed arched or arcuate doorheads (Pl. 11a). A pivot-hole 10cm. in diameter at the north end of the stone lintel behind the doorhead of 26 indicates a single door which was 90 cm. wide (fig. 12). The keystone of the doorhead of 33 is decorated with a (?) rosette or similar motif in low relief recalling that carved on a stone in the debris of 31 (p. 64, Pl. 13c).

In 32 the threshold, with raised doorstep, and remains of the jambs of an arcuate entrance doorway in the south wall are *in situ* and the parts of the doorhead were lying nearby, while from the form of the jambs of the entrance to the extension of 31 (p. 64), again *in situ*, it seems possible that here was another doorway of this type.

Buildings 26 and 33 are both of class C (p. 47) and it is natural to surmise that the most closely comparable buildings in this class, viz. 1 and 35, may also have had arcuate entrance doorways. In 1, although no parts of an arcuate doorhead could be detected in the surrounding debris (but see below), the remaining north jamb does suggest a doorway of this type. Here, however, the entrance is more complicated than in 26 or 33 in that the actual doorway was not in the external wall of the building but in the wall surrounding the courtyard, the external wall being pierced opposite it by a high arch 2.50m. wide (fig. 4, Pl. 5). There is no evidence that the archway was provided with a gate, but it appears to have been at some time reduced in width by a wall built half-way across from the north side. In 35 the remains seem to indicate an arched entrance in the external wall, 2.25m. wide, similar to that of 1 (fig. 16, Pl. 16b), and it is unfortunate that the internal doorway is completely buried by a heap of fallen masonry. A curious feature of the entrance to 1, which may have been paralleled in that of 35, is that although the walls stand to the height of the second storey there is no provision for a room above the passage between the external arch and the internal doorway. While it is probable that the passage was at least roofed over, the disappearance of the topmost courses of the enclosing walls, and with them the sockets or

offsets that would have carried the roofing timbers, renders the point uncertain.

Another type of entrance may be represented by the arch on the east side of 31 (p. 63, fig. 13). Its position and width, c. 2.50m., combine to suggest that here was the main entrance to this building and that it took the form of a wide passageway, probably arched at both ends. Internal arches of comparable width and construction rise above the debris of the correspondingly large 34 (Pl. 15a), in line with the voussoirs of others which have collapsed (p. 68).

There are no remains of doors or doorposts and it seems improbable that any might still be found beneath the debris which surrounds most and completely conceals some of the entrances. Presumably the doors were of simple but strong construction, bearing little or no resemblance to the panelled wooden doors so realistically imitated in stone on a number of the monumental tombs (Pls. 59b, 76b, 89d, 93a, 97b, 113a).

*Internal doorways and thresholds.* Seven internal doorways of ground-floor rooms are visible in whole or in part. Five are rectangular and have stone lintels. One of these, which leads from the entrance chamber into the courtyard of 26, is furnished with dressed stone jambs (fig. 12, Pl. 11b); at either end of the lintel are pivot-holes, 11.0cm. and 6.5cm. in diameter respectively, their position indicating double doors secured from the courtyard side. The second example, a few metres south of the uprights of the olive-press in 31 (fig. 13), is almost entirely buried, but a large lintel 1.50m. long and supported on what appear to be monolithic jambs can be seen. The third is in 32 (p. 82, Pl. 18c). The fourth, with a lintel bearing a brief Libyan inscription (p. 68), stands in one of the buildings constructed against the west wall of 34 (fig. 15). The fifth, the doorway leading into the east room on the north side of the courtyard in 35, is of interest for a thin wedge of wood inserted as packing under the lintel on the east side. The other two, in 34, are arched (fig. 15), the west end of the keystone of one of them bearing a representation of a *pballus* in relief (Pl. 15b).

In all these ground-floor doorways stone lintels, arches or arcuate doorheads were necessary to support the weight of walls rising above to some height. But lying on the heap of debris on the north side of 1 is a dressed stone from an arcuate doorhead which, if not removed from the entrance doorway (see above) in recent times, seems probably to have fallen from a doorway in the second storey. The only example of a second-storey doorway still relatively intact is preserved in 26. This led, presumably from a wooden balcony surrounding most of the courtyard at second-storey level (p. 62), into the second room from the south on the west side (fig. 12). It is noteworthy for its height as well as for the timbers which serve as a lintel (p. 62).

Four stone thresholds, all of internal doorways, were recorded. Part of one lies amid debris on the ground on the north side of 1 (Pl. 5e); it has a pivot-hole and, in the raised doorstep, a rectangular mortise 9 × 3cm. for a squared wooden jamb. The second lies on the ground a few metres south of 8; this appears to be intact, measuring 83 × 50cm., but has no provision for doorposts and possibly came from an arcuate doorway in which the pivot-hole was in a separate block behind one of the jambs. The third is *in situ* at second-storey level in 31 (fig. 13). The fourth lies on the debris on the south side of 34 (Pl. 15d); this, although broken, has been 91 × at least 43cm. and preserves a rectangular mortise at either end of the raised doorstep.

*Windows.* Windows can be seen in 5, 8, 10, 26 (five), 31 (two) and 33 (two), and parts of two or more which had fallen were found on the west side of 32. All those surviving are windows of second-storey rooms. Most are or were approximately square, the largest being that in the east wall of 31 (Pl. 12a), which was 50 × 50cm., and that in the west wall of 33. Those in 5 (north wall at west end), 8 (west wall), 10 (west wall at north end) and 33 (north wall at west end) are much smaller (Pls. 6a, c, 14a), while the window in 8, just mentioned, is noticeably smaller on the external face of the wall than on the internal face.

Two of the five windows in 26 are square (south wall, second room from the west, and west wall, second room from the south (Pl. 9), and two are arched<sup>11</sup> (east wall of room at north-east angle and of the room to south of this (Pls. 9b, 10b, c). The fifth (south wall of room at south-west angle) is also arched, but is constructed of specially shaped stones and resembles an arcuate doorway in miniature (Pl. 10c); these stones have been grouted with a grey mortar (p. 62).

The smallest, and only surviving triangular window, is that in the west wall of the addition to 31 (p. 63, Pl. 13b). There is no indication that any of the windows, even the largest, was provided with bars or a grille, or could be closed by shutters.<sup>12</sup> The height above floor level of some of them, e.g. in 5, 26 (south wall, square window) and 33 (north wall) suggests that they may have been introduced for purposes of ventilation rather than observation.

Amongst the debris near the west side of 32 were found two dressed stones, each with a slight moulding, which probably belonged to two different windows of arcuate type, and on the ground on the same side of this building, but further south, were parts of two more (?) windows, rectangular in shape, exceptionally well finished and moulded (Pl. 21d).

#### (d) *Other features of the buildings*

*Tethering-stones.* Tethering-stones built into the walls are an interesting and relatively common feature of many of the buildings, viz. 5, 8, 11, 12, 13, 26, 34 and 35. Except for one in the east wall of a room on the east side of the inner building of 34 and one in the west wall at the north-west of the courtyard of 35 (fig. 16), all those

visible are in external walls. They are found in end and rear walls as well as on the front of buildings, and sometimes there are more than one in the same wall. The hole in one on the north side of 35 is vertical but in every other stone it is horizontal. In some of the stones the hole shows signs of considerable wear. Measurements of a typical example (Building 5, west end) are: projection 15 cm., depth 15 cm., thickness 15 cm., diameter of hole 10 cm., height above ground 1.20 m. (fig. 5).<sup>13</sup>

From the debris of 32 came a tethering-stone ornamented with cable moulding and an incised geometric pattern (p. 245, fig. 75). All *in situ*, however, are plain.

*Steps, hand and foot grips.* In 22, the courtyards of 1 and 26, and the southern courtyard of the outbuildings on the north side of 33 (figs. 4, 12, 14, 17) are the remains of flights of stone steps. In 22 they apparently ascended directly to upper rooms, but in 1,<sup>14</sup> 26 and 33 they evidently led up to a wooden balcony (p. 79) giving access to the rooms of the second storey (figs. 4, 12, 14). In both 1 and 26, however, and also in buildings elsewhere<sup>15</sup>, projecting stones served as a means of mounting directly from one room to the room or the roof above it: in 5 from the first to the second storey of the tower at the west end, in 1, 8, 12 and 26 from the second storey to the roof, and in another room of 26 from the second storey into the tower at the south-west angle.

The series or run of grips preserved in the east wall above the north room of 12 may be complete (Pl. 8a). Here there are five grips, one above the other at intervals of 45 cm., the lowest being 45 cm. from the level of the floor, and at a distance of 45 cm. from the south-east angle of the room in a wall which appears to have been c. 3.50 m. high. The runs in the east wall of the room above the entrance chamber in 26 and under the room below the tower of the same building comprise a larger number of grips but the spacing is approximately the same as in 12 (fig. 12). Building 1 affords the only example of two runs in the same angle, one in either wall (Pl. 5d), and from this and from the choice of a corner in every other instance it seems that the grips were used in conjunction with the adjacent wall. It may be that ascent and descent were facilitated by provision of a rope.

There are, however, instances where a means of ascent from one floor to another or to the roof was required but was obviously not provided either by stone steps or by grips, and where provision of ladders or wooden stairs<sup>16</sup> must be assumed.

*Niches.* In the walls of at least one of the rooms in most of the buildings, including the huts, can be seen one or more small niches. These are perhaps the most common feature of the buildings at Ghirza. It is interesting to see them imitated, if not perpetuated, in the Arab winter huts constructed in 1953-54 near the north group of monumental tombs.

Two examples, one in the east wall of the room on the south side of the entrance to 1, the other in 33, are arched (Pl. 5c), their construction resembling that of the window in the east wall of 26 (p. 75), while north of the doorway in the east wall of the north room in 25 there is a row of seven triangular niches, with an eighth immediately below and another south of the doorway, all of diminutive size (p. 56, Pl. 8b). But these are exceptional; the rest are rectangular and consist normally of three slabs of stone, that is, two uprights supporting a horizontal slab (Pl. 6d). In some the core of the wall at the back of the niche appears to have been plastered over with mud; in others it was perhaps left untouched. Length, breadth, and depth range from approximately 30 to 50 cm. Although their height above floor level varies considerably they presumably served simply as open cupboards.<sup>17</sup>

Such niches are not entirely restricted to dwellings. Three may be seen in the south wall of the enclosure in front of 11, while in a building on the north side of the yard at the west end of 33 there are niches similar in height, depth, and construction to those of normal type but two or three times greater in width which, as already suggested (p. 66), may have served as mangers; if so, it may be of interest to note that the building would have been wide enough to accommodate donkeys but hardly horses or mules.

*Graffiti.* Four of the buildings are of special interest in that certain parts of them bear *graffiti* in Libyan characters. These are described and discussed in Appendix 5 (p. 250), but as a feature of the buildings they must also be mentioned here.

They have been noted on the underside of a voussoir of the arch and on the stones of the north jamb of the inner doorway at the entrance of 1, on a dressed stone re-used probably in a doorway in 22, on the underside of the lintel behind the arch of the entrance doorway of 26, on the east jamb of the easternmost of two niches side by side in a room in the outbuildings on the south side of the same building (Pl. 142b), and on the north side of the lintel of a doorway in the range of buildings standing against the west wall of 34. That on the underside of the lintel in 26 was executed in red paint and may have been one of several there of which it seems possible to discern faint traces. Of the rest, the characters of the inscription on the lintel in the buildings on the west side of 34 are 5 cm. high and are boldly cut compared with those of the *graffiti* in 1 and 22 and in the outbuildings of 26. There they are hardly more than lightly, though quite neatly, scratched in vertical columns. Indeed, the *graffito* on the jamb of the niche in the outbuildings of 26 was only discovered when the light of the sun happened to be falling at the most favourable angle and at any other time of day would have passed unnoticed; others may still await discovery in the same circumstances, both at Ghirza and elsewhere. All as yet defy interpretation, but their association with entrances<sup>18</sup> and a niche or place of storage tends to suggest that they were either proprietors' names or more probably, apotropaic formulae.

*An unexplained feature.* In the central room of 11, in both rooms of 16, and in the east room of 28, is a feature for which no satisfactory explanation can be offered. It consists of a low wall built across the room at a distance of 35 cm. in 11, of 1.45 m. (average) and 1.75 m. in 16, from one of the walls (figs. 6, 7, 11). In one of the rooms of 16 the feature is opposite the entrance; in the other instances it is found at one end of the room; and in 25 a similar low wall encloses a space 2.10 × 1.20 m. in the north-west angle of the south room (fig. 9). It is possible that such a feature exists but is concealed by debris in other buildings.

In the well preserved example in the east room of 16 there is no evidence to indicate that the purpose of the wall was to retain make-up for a platform, though that is what it most strongly suggests. Conceivably it formed a storage-bin, perhaps for firewood or fodder. If, however, packed with earth, the resulting platform might have served either as a 'divan' (recalling the bed-dais in old Libyan houses), or for storing jars of provisions (as in troglodyte dwellings in the Gebel Matmata, Tunisia).

#### (iv) THE ARCHITECTURE AND DATING OF THE BUILDINGS

Comment on the architecture of the buildings must begin with a consideration of plans, but in the current state of knowledge can usefully be extended only to buildings of classes A and C (p. 47) and of grades 1-3 (p. 47). This excludes the buildings of class B (p. 47), at least some of which seem to be merely inferior versions of those of class A, and the two exceptional buildings forming class D (p. 47), viz. 22, already adequately described (p. 69, fig. 17), and 32, to be described in detail below (p. 80), and also the huts which constitute class E (p. 70). Exclusion from this section must not, however, be taken to imply that the structures concerned are of little or no significance: on the contrary, as will be seen, Building 32 is of singular importance, and even the huts must have a place in the history of the settlement.

Buildings of class A, which normally comprise a single range of self-contained rooms more or less regularly planned, have not hitherto been recorded except at Ghirza.<sup>1</sup> In the present context the most significant feature of six of them is their uncompleted state, side and end walls projecting slightly in readiness for prolongation to form additional rooms or forecourts (5, 7, 11, 12, 13, 16). One, Building 7 (p. 49, fig. 5), actually consists of only one room, with provision for additional rooms on either side of it. Another, 12 (p. 52, fig. 6), consists of two rooms with provision for an additional room or rooms to its south and for prolongation of its north wall towards the east to form the north wall of a forecourt. A third, 11 (p. 51, fig. 6), is a complete range of three rooms with provision for prolongation of the walls at both ends of the range to form the north and south walls of a forecourt. It can be assumed that the forecourts, if completed, would have been rectangular or very nearly so, probably with a single entrance in one side; and it is evident that their enclosing walls would have been as high as those forming the rooms. The examples of Building 5 and 12 (pp. 49, 52, figs. 5, 6, Pls. 6-8) show that the room at one end of the range could be surmounted by a tower rising as much as two storeys above it.

It may be significant that all the uncompleted buildings are in masonry of grade 2 (p. 47), while two buildings of the same class but in masonry of grade 3 were enlarged in masonry of grade 2. One of these is Building 8 (p. 50, fig. 5, Pl. 6), which was enlarged by the addition of a room at its north end so that it simply became a three-roomed instead of a two-roomed building of class A. The other was a building to which no number has been given because it was incorporated *in toto* in, i.e. enlarged to form, the building numbered 26 (p. 60, fig. 12, Pls. 9a, 10a).

This enlargement of a building of Class A in masonry of grade 3 into one of class C, the enlargement being in masonry of grade 2, is one of the most important features noted during the survey of the settlement. In the first place it confirms that the uncompleted buildings of class A were expected to develop into courtyard buildings. Secondly, it demonstrates how a building of class C could be formed in a single operation — though it might equally be in more than one operation — from a building of class A.

There is, however, no similar evidence that the other five buildings of class C were enlargements of buildings of simpler plan: so far as can be seen each was constructed in its present form *ab initio*. Four of these, 1, 35, and probably also the buildings which form the nuclei of 31 and 34 (pp. 60-68, figs. 4, 13, 15, 16), are essentially similar in plan to 26; and the same can be said of 33 (p. 65, fig. 14), the plan of which is only a variant attributable to adaptation to the terrain.

Buildings 31 and 34 in their entirety are complex structures appearing at first sight to have little in common with the other four buildings of the class to which they have been assigned; and in fact, like the buildings of class A, they have as yet no recorded parallels elsewhere. But on examination their complexity resolves itself into a plan consisting of a building of class C surrounded on all four sides by uninterrupted ranges of outbuildings; and outbuildings are also a notable feature of three of the other four buildings of this class, viz. 1, 26 and 33. The difference lies in the plans. In the case of 1 the outbuildings, i.e. Buildings 2 and 3 (p. 48, fig. 4), form ranges on only two sides of the parent building, while in that of 26 and that of 33 limitations of site determined that the outbuildings should be attached to the parent building on one or more sides. Outbuildings were evidently necessary adjuncts to buildings of class C at Ghirza, only one of the six (i.e. 35) being without them.

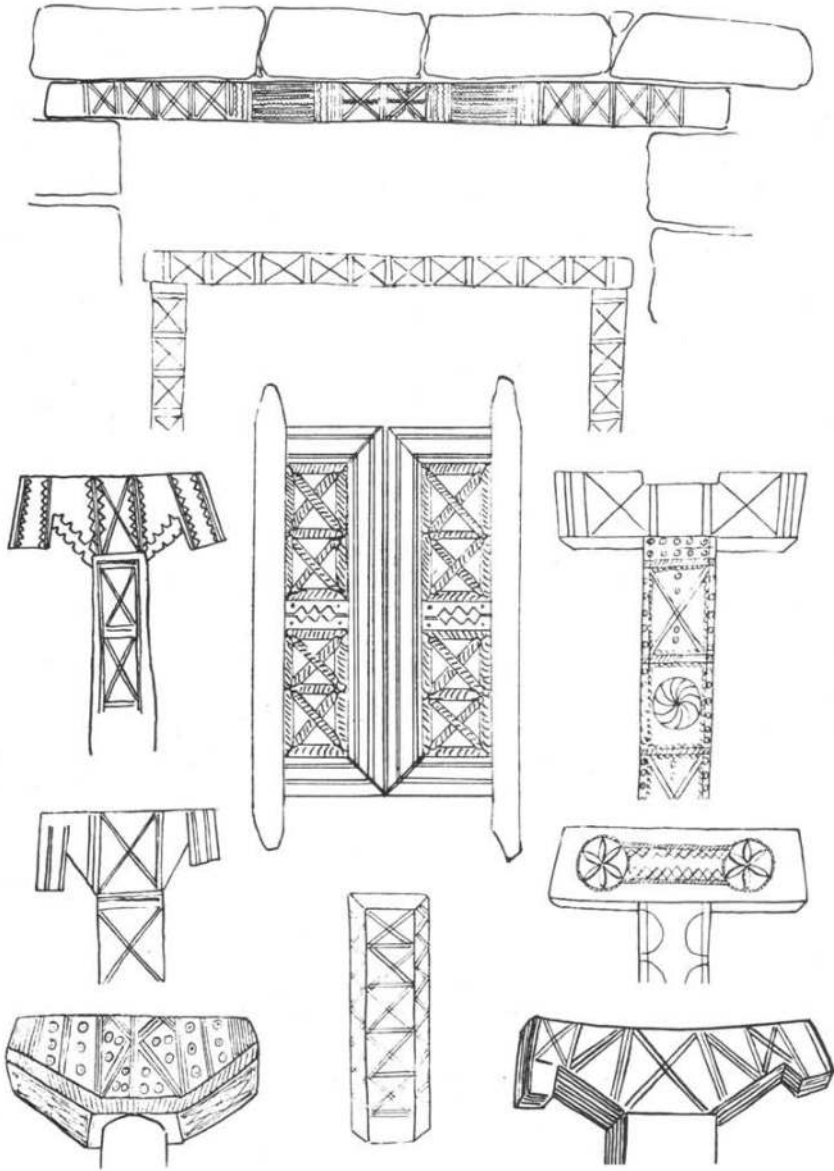


Fig. 20. Decorative woodcarving in southern Morocco. After Paris (1925).

In fact, it seems possible to postulate that exceptionally large buildings such as 31 and 34 could represent the culmination of a process during which outbuildings were constructed around an original building until they entirely enclosed it. Buildings 1, 2 and 3 would illustrate the partial completion of the process. And it is interesting to note that in Morocco, where indigenous architecture affords exact parallels for the decoration of stones from Building 32 at Ghirza (pp. 243-6, figs. 20, 74-76), at least one castle in the High Atlas (Pl. 146a) suggests the general appearance of Buildings 31 and 34.

It is perhaps necessary to emphasize that, with or without outbuildings, these six buildings are all of the same type, a type of the 'fortified farm' which was the characteristic form of permanent dwelling in the interior of Tripolitania from the third century A.D. until medieval times.<sup>2</sup> So far the only attempt at classification of these structures is that of R. G. Goodchild.<sup>3</sup> Proceeding from his conclusion that 'the type of masonry encountered in these buildings provides the best basis for chronological classification' he distinguished three classes, of which the second and third represent successive stages of devolution from the first. The first class he tentatively assigned to the earlier part of the third century, the second to a period including the second half of the third century and, especially, the fourth, and the third class to the subsequent centuries and mostly to the early Islamic period.

It can be said at once that Goodchild's first and third classes are not represented at Ghirza, while the evidence from Ghirza indicates that construction of buildings of his second class continued for longer than he thought (p. 238). To this class he assigned six types of courtyard building ranging from one with the simplest<sup>4</sup> to one with the most developed ground-plan, though at the same time stressing that his typological sequence did not necessarily imply a corresponding chronological order. Only one of these is identifiable at Ghirza. This is Goodchild's Type IV, exemplified by one of the fortified farms — Gasr 'E' — near Bir Shedewa in the middle Sofeggin; it is a building, c.14.0 × 13.0m. and, though markedly smaller, closely similar in plan<sup>5</sup> and construction to Building 35 (p. 68, figs. 16, 21). But the complex of parent building and outbuildings which in Buildings 31 and 34 is seen in a unified, 'ideal' form appears to be a development of Goodchild's Type IV, justifying differentiation as an important additional type: once recognized as such it might be identified elsewhere. At Ghirza, it may be recalled (p. 46), there seem grounds for regarding these two buildings as the establishments of the leading families.

Goodchild considered that the example of his Type IV was 'probably originally of not more than two storeys', and characterized the class that it represented as consisting of 'fortified buildings in small masonry, moderately well-coursed and trimmed, and with doorways generally of large well-cut blocks and voussoirs. The angles of the buildings are usually, but not invariably rounded with large roughly-dressed quoins..... The most carefully-built specimens..... are probably of the second half of the third century, but the majority are likely to be of the fourth century....'<sup>6</sup> Generally speaking, this description is also applicable to the buildings of grades 1-3 in classes A and C at Ghirza; and it may again be recalled that Goodchild regarded differences in standards of construction as at least potential criteria of date. This leads to a comparison of the materials, standards and features of construction of buildings of these two classes at Ghirza with those of buildings of Goodchild's Type IV, and the most closely related Types II and III, elsewhere (fig. 21).

So far as materials are concerned there is no difference, but among the uses of timber elsewhere than at Ghirza may be noted the provision for wooden staircases in the church of Chafagi Amer,<sup>7</sup> the use of beams as lintels, and the remarkable underpinning of a flight of stone steps in Gasr 'D' near Bir Shedewa.<sup>8</sup> When standards are scrutinized, however, it becomes evident that no building at Ghirza exhibits masonry of a quality comparable with that of the most carefully constructed buildings of Goodchild's second class. On his

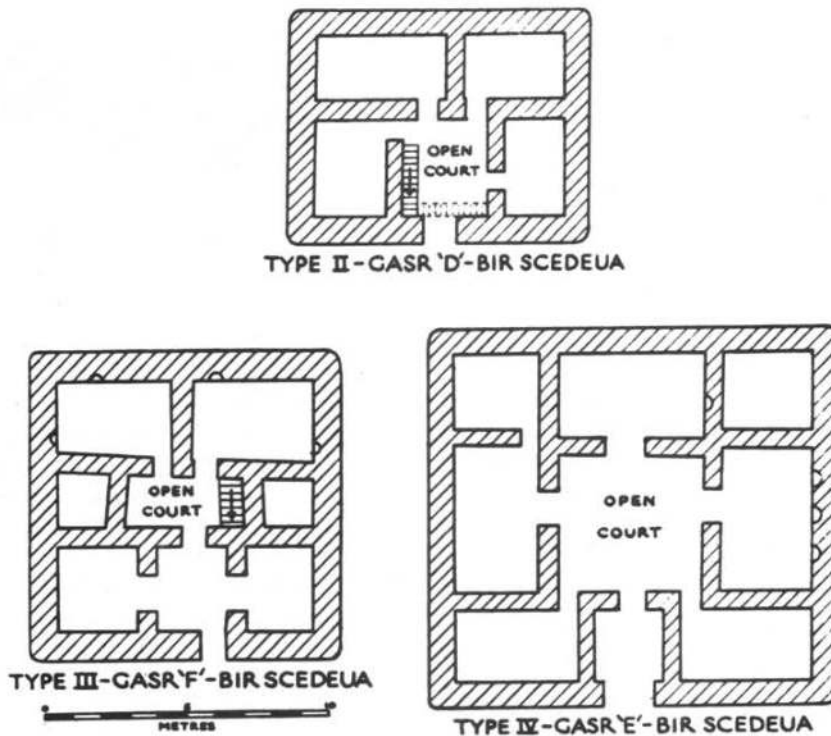


Fig. 21. 'Fortified farmhouses' in Tripolitania. From Goodchild (1950a), by courtesy of The Society for the Promotion of Roman Studies.

assessment this must imply that none of the buildings at Ghirza dates from before the fourth century; and, as will be seen, there is evidence to confirm this implication (p. 238). In fact, the only reasonably *datable* buildings with masonry of a standard to which grades 1 and 2 at Ghirza approximate are the churches of Chafagi Aamer and Gasr es-Suq el-Lhoti, most probably assignable to the late fourth-early fifth century;<sup>9</sup> while the markedly inferior grade 3, which is represented elsewhere and much nearer to Ghirza in buildings in the Wadi Shetaf — the Gsur Chanâfes — and in the Wadi Umm el-Ageram, is at Ghirza itself demonstrably almost certainly not earlier than the fifth century (p. 238).

Many of the architectural features of the buildings of classes A and C are paralleled almost universally in those of Goodchild's Types II-IV. Such are the rounded angles, square-headed arched and arcuate entrance doorways, arched, arcuated-headed and rectangular windows and niches, and tethering-stones. Indeed, the first and second are particularly characteristic features of the fortified farms, the rounded angles being degenerate survivals of those of the three finely constructed buildings of Goodchild's first class (p. 77),<sup>10</sup> and the arcuate-headed entrance persisting into early Islamic times<sup>11</sup>. But although entrances simply arched with voussoirs as distinct from square-headed arched or arcuate doorways are encountered in fortified farms elsewhere — and perhaps were copied from those of local third-century military structures — the only instance of a wide arched entrance possibly of the type seen in Building 1 (p. 73, fig. 4, Pl. 5a, b) and envisaged in 35 (p. 73, fig. 16, Pl. 16b) is preserved in Gasr Chanâfes North; and it is interesting that, as in the archway of Building 1, the underside of one of the voussoirs there is inscribed in Libyan characters (p. 252).

Tethering-stones, on the other hand, seem to be restricted to buildings of Goodchild's second class<sup>12</sup>, or of classes A and C at Ghirza, and it may be noted that modestly ornamented examples have been observed<sup>13</sup> *in situ* at Gasr en-Naggazza in the middle Sofeggin and lying amongst fallen stones beside Gasr Chanâfes South and the fortified farm a few kilometres to the south-west in the Wadi Umm el-Ageram; one was also discovered at Ghirza, in the debris of Building 32 (p. 245, fig. 75). Such stones recall the illustration of a horse tethered to a building in one of the well known trio of late Roman mosaics depicting scenes of villa-life from Tabarka in Tunisia (Pl. 35a).<sup>14</sup>

One feature of a number of the buildings of classes A and C in grades 2 and 3 has so far been recorded only once elsewhere.<sup>15</sup> This is the provision of projecting stones as a means of access from one storey to another or to the roof (p. 75, Pls. 5d, 8a). In other buildings there must have been internal ladders or wooden stairs, for which contemporary evidence in a church has already been noted (p. 78), but no indication of such concessions to convenience could be discovered at Ghirza. Only in the courtyards of 1, 26 and the outbuildings on the north side of 33 can remains of flights of stone steps be seen (p. 75), and these apparently gave access to a balcony surrounding the courtyard which provided the only means of passing from room to room of the second storey.

Such a balcony would have necessitated supporting brackets in the wall as well as posts or piers in the courtyard. But while one possible survivor of a row of brackets was noted in 26 (p. 62), neither in this nor in any other comparable building in Tripolitania have posts or piers for support of a balcony been recorded. The reason may simply be that the courtyards of these buildings are invariably buried under debris, even up to the height of the first storey (p. 62). In Tunisia, however, excavation of a fortified farm, of Goodchild's Type IV/class C at Ghirza, brought to light not only seven stone piers for support of the balcony but also a complete ground-plan c.18.0m. square which included a stable 12.40 × 3.55m. with stone mangers for twelve animals.<sup>16</sup> There was perhaps a cistern or well 25.0m. to the south. Occupation in the fourth century was suggested by a coin of 337-350.

The excavation of this building also yielded the original dedicatory inscription, assigned on stylistic grounds to the time of Diocletian, and crude reliefs depicting figures of Victory and other motifs. Very similar reliefs are associated with a number of fortified farms in Tripolitania. Among these, in particular, is one from a *gasr* near Shemek in the Sofeggin which bore an inscription, in lettering assignable to the fourth or fifth century, referring to the building that it adorned as a (?) 'centinari'.<sup>17</sup> This and another such, apparently contemporary and also from a fortified farm,<sup>18</sup> reveals one of the terms by which these structures were known to their builders.<sup>19</sup> The latter, however, cannot have learnt this term from fourth-century military inscriptions, in which it signified a structure bearing no resemblance whatever to a fortified farm;<sup>20</sup> the term must have passed into local speech in the third century, when at least one military building essentially similar to the typical fortified farm and described in its dedicatory inscription as a *novum centenarium* was erected in 244-246 in the upper Sofeggin.<sup>21</sup> But in the inscription of the Tunisian fortified farm to which reference was made above, and in another inscription assigned to the fourth or fifth century from a fortified farm in Tripolitania, the building concerned is designated a *turris*,<sup>22</sup> an appropriate and readily understandable term. This was, in fact, the conventional Latin term, well attested in literature and place-names, for a tower-like type of rural dwelling common from ancient times in West Mediterranean lands and especially so, it seems, in the African and Spanish territories of Carthage.<sup>23</sup> Even today, in southern France, Corsica, Italy and other shores of the western Mediterranean, a form of it survives as a distinct type of farmhouse<sup>24</sup> in which animals are accommodated on the ground floor and the family on the floor above, while the third storey — where there is one — is a store for grain and fodder.



This type of farmhouse can be recognized in numerous ancient wall-paintings and sculptured reliefs, as well as mosaic, depicting scenes of rural life.<sup>25</sup> Again, one of the well known trio of apsidal mosaics from Tabarka in Tunisia merits particular mention, for it preserves an illustration of a farmhouse or farm building consisting of a long structure essentially of one storey, though with three attics above, with three doorways indicating as many self-contained rooms on the ground floor, and a tower with tiled roof rising a storey higher at one end of the range;<sup>26</sup> the two adjacent buildings represented in the same mosaic are not altogether dissimilar. This is surely the type of non-defensive rural dwelling represented at Ghirza, albeit in understandably starker form, by Buildings 5 (p. 49, fig. 5, Pl. 6a) and 12 (p. 52, fig. 6, Pl. 7b), and possibly by other buildings of class A (pp. 48-57); and, as the history of 26 demonstrates (p. 60), such a dwelling was quite capable of being transformed into a much larger building — of class C (p. 61) — whilst still retaining the character of a tower-house.

Ancient farmhouses obviously of the same type as those of class C are known in other countries. One in Tunisia has already been cited, while the type is as characteristic of the Gebel Akhdar in Cyrenaica<sup>27</sup> as it is of both the Gebel and the pre-desert of Tripolitania. Further afield, two small buildings in Arabia described as '*centenaria*'<sup>28</sup> and others in the Negev<sup>29</sup> were possibly analogous. Yet despite the minutest scrutiny of air photographs not a single instance of the type appears to have been observed in a comparable region of Algeria,<sup>30</sup> and it is undoubtedly true to say that in the Tripolitanian pre-desert lies an area of settlement, represented by the fortified farms, 'which in their extent, uniformity of pattern, and degree of preservation are perhaps unique in the Roman world.'<sup>31</sup> Functionally, and economically, these buildings may be regarded as the counterparts of the villas in other, more favoured parts of the Empire;<sup>32</sup> and notwithstanding the striking resemblances between the typical 'fortified farm' and the tower-like military posts which appeared in Tripolitania in the first half of the third century,<sup>33</sup> there is no archaeological reason<sup>34</sup> to conclude that what are probably the earliest recognizable examples<sup>35</sup> of the type in Tripolitania represent the initial phase of an officially promoted settlement-policy, still less that these were actually 'designed and constructed by Roman military architects.'<sup>36</sup>

Finally, it is worth noting the two invaluable graffiti from Tunisia which record in outline the appearance of such buildings in antiquity (fig. 22). They suggest height, irregular roof-lines with crenellated parapets, and occasionally a large arched window in an upper storey; and they evoke again the castle-like kasbahs of Morocco (cf. p. 77, Pl. 146a).

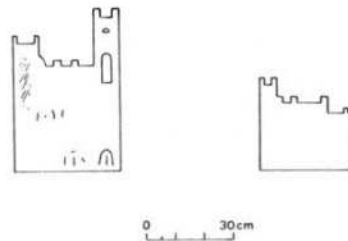


Fig. 22. 'Fortified farmhouses' in southern Tunisia. From Troussset (1974), by courtesy of the Centre National de la Recherche Scientifique, Paris.

### Conclusions

A brief summary of the conclusions to be drawn from a detailed survey of the buildings may not come amiss. It is evident that there are characteristics which cut across the classifications based on plan and grades of masonry, closely relating all the major buildings, i.e. those of grades 1-3 in classes A and C (see table, p. 71), one to another. The implication of this is that these buildings must be regarded as contemporary in a broad sense of the term, and comparison with the fortified farmhouses of Goodchild's 'Period II'<sup>37</sup> shows that the fourth century is probably the earliest period to which the buildings of classes A and C at Ghirza can be assigned.

But while differences of plan, i.e. of class, need connote no more than differences of function or of proprietary status, it has been established that there is a chronological significance in the differences between certain grades of masonry (p. 71). In this regard one building is of particular interest, incorporating masonry of grades 2, 3, 4 and 5 as well as being of exceptional plan and construction. This is Building 32, the investigation of which is the subject of the next section.

## (v) BUILDING 32

### (a) Introduction and summary

As a preliminary it may be recalled, though at risk of repetition, that the survey of the settlement revealed differences in standards of external masonry which in certain instances could be interpreted as work of different

periods. In particular, buildings constructed in masonry of grade 2 appeared to be later than those of grade 3 (p. 71). The dating of the grades remained, however, undefined. It could only be assumed that the buildings of grades 1 - 3, i.e. the best constructed, must have been contemporary with the monumental tombs, the majority of which can be assigned on epigraphic and stylistic grounds to the fourth century (p. 212). The assumption was supported by the fragments of late Roman pottery, and of lamps ornamented with Christian symbols, lying everywhere on the rubbish mounds (p. 234) and amongst the tombs of the cemeteries (p. 111) in the vicinity of the settlement.

The only hope of advancing beyond hypothesis lay in clearing at least one of the buildings of its encumbering debris. For several reasons the choice fell on Building 32. In the first place its masonry was partly of grade 2, partly of grade 3, and partly of grade 4, whilst some walls could even be ascribed to grade 5. Secondly, it appeared to be moderately well preserved, standing in part to the height of one storey with remains of barrel vaults belonging to ground floor rooms visible on the western side. Thirdly, its clearance did not seem to be beyond the expected resources of the expedition planned for 1956.

The primary purpose of this operation was, therefore, to obtain, if possible, criteria for dating one or more of the grades of masonry visible in the remains of this building, the assumption being that any information gleaned therefrom could reasonably be regarded as applicable to the same grades in other buildings. But an obviously exceptional plan having two large courtyards, and the use of vaulting, apparently unparalleled elsewhere in the settlement, were added inducements to a detailed examination of Building 32. Apart from its uniqueness at Ghirza, the vaulting was of interest because it suggested a late building.<sup>1</sup> Moreover, the debris contained many building-stones with incised geometric decoration, some of it picked out in red and green paint. Considering these features it seemed not impossible that clearance might reveal the remains of a Christian church. This would have been of prime interest, carrying the known extent of Christianization at one bound from the Sofeggin to the Zemzem.<sup>2</sup> As it turned out, however, the building was of even greater interest than a church, the plan and finds - in particular over twenty small altars - proving it to have been originally a temple of Semitic type, the first of its kind to have been identified south of the Gebel.<sup>3</sup>

The building showed three stages of development (fig. 26). On the evidence of many and various objects found the first two stages (Periods 1A and 1B below) together ran from possibly the second but more probably the fourth century to the first half of the sixth, while the third stage (Period 2) is securely dated by coins and pottery to the later tenth and early eleventh century, when the ruins of the building were re-occupied and converted into a dwelling. Temple and dwelling both ended in fire.

(b) *Period 1A; fig. 23.*

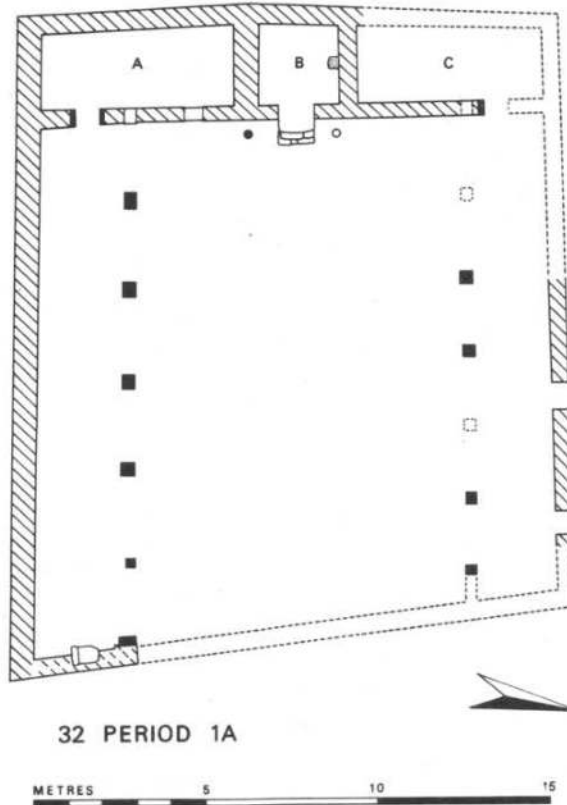


Fig. 23. Building 32: Period 1A.

The first building was constructed in masonry of grade 3 (Pl. 4c). Originally it consisted of a courtyard with a range of three rooms opening from it on the west side and arcades along the north and south sides. The east side had been extensively robbed, presumably by the medieval occupants of the building, but it is almost certain that here lay the main entrance (see below, Period 1B). The only entrances actually found were two doorways, which had had frames and doors of wood, in the north wall. Except that the north side was shorter than the south the building would have formed a rectangle measuring approximately 16.0m. from north to south and 20.0m. from east to west.

The arcades on the north and south sides of the courtyard were respectively c.2.25m. and c.2.50m. wide, and the arches in both had been carried on six piers or orthostats (Pl. 17). The south arcade was ultimately partly built up, while the north arcade was partly dismantled in Period 1B (see below). Owing to the difference in length between the north and south sides of the building the interval between the piers of the north arcade was necessarily less than that between those of the south arcade. The westernmost arch of the south arcade ended on a springer built into the east wall of the southernmost of the three rooms already mentioned (Pl. 17a), but the manner in which the easternmost arch and those at either end of the north arcade terminated is unknown. At the east end of the south arcade the wall preserved the lower part of a niche, built with slabs projecting from the wall, but there was nothing to indicate either the purpose or the period of this feature.

Of the rooms forming the west side of the courtyard the northernmost - room C - contained nothing on which to comment except, in its east wall, a small niche and a stone jamb on the south side of the doorway in its east wall. The corresponding room - A - on the south side of the central chamber measured internally 5.50m. from north to south and 2.25m. from east to west, was entered through a doorway at the west end of the south arcade (Pl. 18c), and had a small window about 50cm. square looking out on to the courtyard. The sides of the doorway are incised with many repetitions of a symbol consisting of a pointed ellipse which in some instances is supported on a rectangle divided vertically into two squares (Pl. 18b), but it is impossible to know to which period this decoration can be assigned. There was nothing to indicate how either of these two rooms had been roofed in any period.

Room B, the central room, measured 2.25m. square. It had been vaulted, the vault springing almost from floor level (Pl. 17a) and traversing the room in a semi-ellipse from north to south. The floor was raised some 40 to 50cm. above the level of the courtyard and floors of the flanking rooms. It had twice been paved, first with 'cistern' plaster (p. 72), later with a plain white plaster, and in the pavement on its north side was a hole 50 × 35 cm. through which could be seen the packing of stones and sand below. Here, evidently, stood a square object which was in position before the first pavement was laid, but whatever it was must remain a matter for conjecture. The entrance, 1.05m. wide, was approached by three low stone steps showing very considerable wear (Pl. 19a) and appeared to have been simply a gap between dwarf walls 50cm. high, above which the room was open to the full width and height of the vault. If so, it must have been intended not to conceal or to safeguard but merely to shelter whatever it may have contained.<sup>4</sup>

This small chamber was obviously the most important in the building and its importance had been emphasized by the erection of a column on either side of the entrance. Only the lowest drum (diam. c.30cm.) of the south column remained *in situ*, 70cm. from the steps, where it had been incorporated in the structural additions of Period 1B (Pl. 20a); but a circular quarter-round moulding of white mortar 50cm. north of the steps showed where the corresponding column had been bedded. At first sight a pair of columns flanking the entrance suggested, of course, a small porch, and architecturally such a feature would indeed have afforded adequate as well as appropriate emphasis to the entrance of this central room. Yet, as will be seen (p. 88), there is reason to think that the evidence is capable of another interpretation which is much more interesting as well as more probable. Be that as it may, room B was clearly the 'holy of holies' and for convenience will hereafter be referred to as the *sacellum*. Nothing was found in it except debris and, at the north-east corner, a large silver coin of Harun al-Rashid (p. 274, Pl. 147).

(c) *Period 1B; fig. 24.*

Period 1B saw significant enlargements, in dressed stone and masonry of grade 2 (Pl. 17). The most important was the addition of an antechapel to the *sacellum*, together with a second chapel (hereafter called the north chapel) on the north side of the antechapel. At the east end of the courtyard are remains of a forehall of uncertain plan which appears most likely to have been constructed at this time, while to the south side of the building was added another courtyard with two rooms occupying its western end. These enlargements are given here in order of importance, but in describing and discussing them it will be more convenient to reverse the order, so leaving the most complex features to the end.

*The south courtyard.* This was simply added on the south side of the original building. It measured externally 10.80m. (north-south) × 19.20m. The entrance, a stone-built doorway 75cm. wide with provision for a door, was in the south wall 6.75m. from the south-west angle; it had been of the arcuate-headed type.

Of the two rooms at the west end that to the south requires little comment. It measured internally 8.25 × 3.50m. The entrance had been robbed but must have been about mid-way along the east wall.

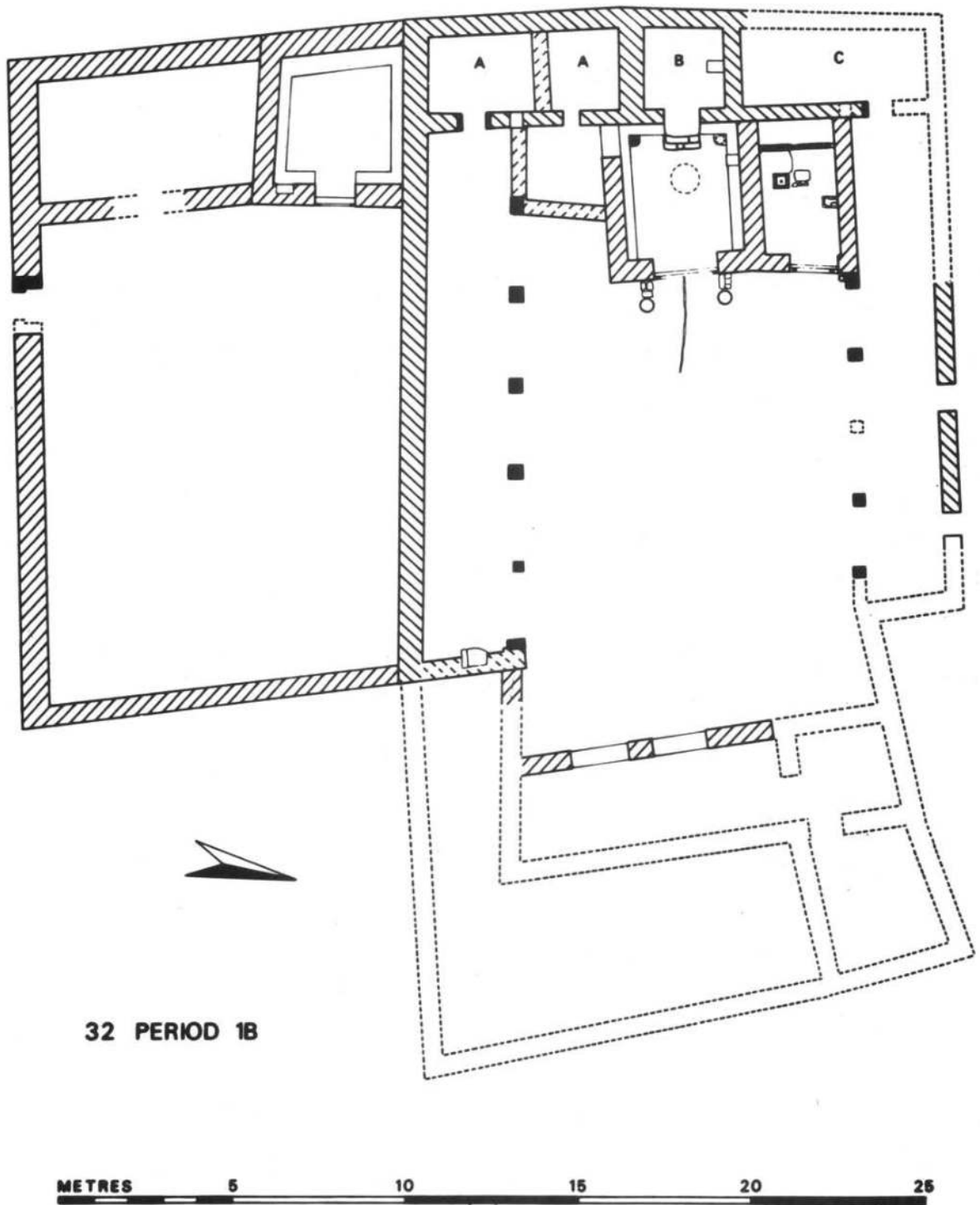


Fig. 24. Building 32: Period 1B.

The other room, approximately 3.75m. square internally, was of much more interest. It had a doorway 1.20m. wide with a worn stone threshold 27cm. across (Pl. 21c), at either end of which were sockets 5 × 4cm. × 2.5cm. deep for squared jambs of wood. Inside, a low bench of squared stone blocks ran round all four walls interrupted only by the doorway (Pl. 21c). The bench was 35cm. high (perhaps originally twice as high on the west side), 35 and 30cm. wide on the north and south sides respectively, 36cm. wide on the east side and 60cm. wide on the west side. In the east wall, 60cm. south of the doorway and 1.0m. above the bench, was a niche 50cm. wide and 30cm. deep. Beside this, in the corner of the room, was a hole through the wall, made with plaster characteristic of Period 2 (Pl. 21c), possibly to permit communication between the occupants and persons in the courtyard without the door having to be opened. The walls were well preserved, the west wall at

the south-west angle still standing to a height of 2.85m. above the bench. Walls and bench had all been faced with 'cistern' plaster (p. 72) which had also been laid as a rendering for the floor. Nothing was found to indicate the original purpose of this room.

*The forehall.* The lower courses of walls in well dressed masonry on the east side of the original courtyard (Period 1A) were all that remained of what must have been a forehall. Owing to extensive stone-robbing the plan could not be recovered with certainty, and the only evidence for ascription of these walls to Period 1B is the superior standard of the masonry, which equals that of the monumental tombs. It is probable that some of the walls actually date from Period 2, but those of the central part are indubitably Roman. Here, two long monolithic thresholds in the west wall indicate wide entrances, but, again probably in Period 2, these had been walled up (Pl. 21a). An interpretation of the remains as those of a forehall where the main entrance to the original courtyard might be expected seems reasonable.

*The antechapel.* The antechapel added to the *sacellum* in Period 1B consisted of a rectangular room 3.40 × 3.50m. entered from the courtyard by a doorway which, from its width of 1.80m., must have been fitted with double doors. The doorway had a worn stone threshold with rectangular sockets for squared wooden jambs at either end and a horizontal hole at the centre through which water could drain from the floor into a rock-cut channel, 5cm. deep and plaster-lined, in the courtyard. Like the north room in the south courtyard the antechapel was provided with a low and narrow bench (Pl. 19a), but here the bench ran along three sides of the room only, the north, south and west, being interrupted on the west side by the steps leading up to the *sacellum*. The height of the bench was 37cm., its width 33cm. on the north side, 27cm. on the south side and 30cm. on the west side. In one place, 30cm. wide, on the north side near the north-west angle, it was raised to a height of 46cm. above the floor. Walls, benches and floor had been rendered in 'cistern' plaster, the plaster incorporating in the south-west angle the lowest drum of the column which stood on the south side of the entrance to the *sacellum* in Period 1A (Pl. 20a). The corresponding column on the north side had been removed, but whether in this period or in period 2 it is impossible to say; its position, as noted above, was marked by a quarter-round moulding of white mortar.

The entrance to the antechapel had also been flanked by columns. Of these, however, there survived only circular mouldings of white mortar, 45cm. in internal diameter, in which they had been set, together with buttresses which had been inserted between them and the wall behind (Pl. 20b). Again, there is reason to think that these columns do not necessarily imply a porch (see below, p. 88).

Just in front of the steps of the *sacellum* was a circular gap in the pavement where an object 81-85cm. in diameter at the base had been removed (Pl. 19a). The object was almost certainly a large stone basin (Pl. 25a), of which the greater part was found outside the entrance to the antechapel: the diameter of its base was virtually equal to that of the gap in the pavement. From sand and ash on the pavement at the south-west angle came an illegible bronze coin of third-century type (p. 242, no. 3), but all the other finds in this room were of Period 2 (see below).

The antechapel had been roofed with a barrel vault of rubble and mortar faced with small, thin slabs of stone. These were dressed with the same tooling as the stones in the surviving walls of the forehall but, like the rest of the interior, had been rendered with 'cistern' plaster.

*The north chapel.* The room on the north side of the antechapel measured 3.80 × 2.15m. It had a doorway and very worn threshold 1.48m. long (Pl. 19b), shorter but otherwise exactly similar to the doorway and threshold of the antechapel. The raised doorstep running the length of the threshold was 20cm. high and there was a drainage hole through it near the south end. This end of the threshold was missing and had been replaced in Period 2 by a mass of white mortar which still retained the stump of a doorpost. At the north end was another circular moulding indicating the position of a column (Pl. 20c), but no trace remained of any corresponding moulding at the south end.

The walls and the natural floor of rock had been rendered with 'cistern' plaster. In the north wall were some re-used dressed stones, while the roof, barrel-vaulted in rubble and mortar like that of the antechapel, appeared to have been constructed or reconstructed with dressed stones taken from a much better building.

The finds in this room included, together with abundant evidence of re-occupation in Period 2 (see below), a bronze coin of Tetricus I, A.D. 270-274 (p. 242, no. 2). In addition, the room contained several intriguing and at present inexplicable features. About halfway along the north wall, at ground level, a rectangular structure 32cm. wide and 25cm. high projected 40cm. into the room (Pl. 19b). Originally it was probably higher, and its south side had been semi-circular before being squared off with stones and mortar and faced with 'cistern' plaster. The position of this feature invites comparison with that of the rectangular gap in the pavement of the *sacellum*.

The most important feature, and at the same time the most puzzling, lay a little beyond this and slightly off centre in relation to the long axis of the room. It consisted of a stepped stone 41.5cm. square, 14.4cm. high, with a socket 5cm. square in the top, and what appeared to have been a foundation of stones beside it, the whole measuring 1.04m. from north to south (Pl. 19b). But although it had every appearance of being of Period 1B it must be noted that around its base there were remains of grey plaster which elsewhere is one of the characteristics of the modifications of Period 2 (see below).

Beyond this again, at the back of the room and extending across it, was a pit 70cm. wide, formed by setting two large slabs on edge (Pl. 19b). It contained a mass of rubbish from Period 2 (see below) mixed with ash and charcoal, most of it indicating that the room had then been occupied predominantly by women. It is possible, however, that in Period IB the 'pit' was packed with sand and stones and flagged or plastered over to form a *daïs*. That it was an original feature is certain, for the two slabs at the front had both been faced with 'cistern' plaster.

This was an important room and there seems no reason to doubt that it was a subsidiary chapel. Its construction necessitated the dismantling of at least the two westernmost arches of the north arcade of Period 1A. Whether or not the westernmost pier of the arcade was incorporated in the north face of its north wall, where it would have been expected, could not be discovered because it was impossible to remove the debris packed against that face without risk that the wall would collapse.

It remains to record a minor structural alteration which was carried out before the end of Period 1B. In the antechapel a doorway, with threshold at the level of the top of the bench, was made in the south wall at the south-west angle. This led to two newly made rooms, formed by building the walls shown on the plan by broken hatching (fig. 26), which were connected by enlarging the small window of Period 1A into a narrow doorway 1.25m. × 60cm. at its widest (Pls. 17b, 18c). A new window or windows may have been provided in the wall facing the courtyard, but if so probably without much benefit to the rear room. The floor of the rear room consisted of a paving of two layers of white mortar on a levelling bed of mud. It is clear that these two new rooms were intimately associated with the antechapel and the *sacellum*, and the objects found in the rear room (p. 283) - two fragments of an alabaster bowl, two fragments of thin glass, part of the base of a glass dish and fragments of a (? late) Roman amphora - suggest that this may have been a store for offerings and ritual vessels.

In the southern half of what in Period 1A had been a single room on the south side of the *sacellum* were found traces of a hearth and, in the north-west corner, two Roman lamps, one upside down on top of the other. The upper lamp, which was inverted and broken, is datable to the early sixth century, the lower, which was intact, to the early second (p. 236, nos. 1, 9); there is no reason, however, why an intact lamp should not be re-used even centuries after it was made.<sup>6</sup> The walls of this room, and of the new room to north of it, were blackened, and over clean sand on the floors lay ash, sand and debris. Neither was cleared out in Period 2.

Further evidence that the temple was ultimately destroyed by fire was observed when two small altars, re-used as paving stones in the south arcade in Period 2 (see below), were extracted for removal to the Castle Museum in Tripoli. Beneath the paving was a layer of ash, and it seems probable that certain patches of ash elsewhere in the building might also have resulted from a destructive fire at the end of Period 1B rather than from the much more extensively attested conflagration which terminated Period 2.

#### (d) *The finds of Period 1*

The activities of those who re-occupied and modified Building 32 in Period 2, together with the subsequent fire and the collapse of much of what remained of the building, left very few of the many objects of Period 1 *in situ*. It is therefore necessary to consider all the finds of the two phases of this period together.

Three categories of material are to be taken into account in attempting to date these phases, viz. the coins (Appendix 2, p. 242), the pottery and the lamps (Appendix 1, p. 234). First, the coins, of which six were discovered; all are of bronze. Unfortunately, only two are legible. Of these the earlier is of Lucilla, wife of Lucius Verus, datable to A.D. 164-169, the later of Tetricus I, A.D. 270-274. Two of the other four, however, are at least recognisable as third-century issues. One of the latter, as already noted (p. 84), was found in ash and sand on the floor in the south-west corner of the antechapel.

The evidence of the datable pottery and lamps is more informative. Of the pottery one sherd can be assigned to the early/mid-second century, three fall into the period early fourth-late fifth century (Tripolitanian Red Slip Ware), one is late fourth-early fifth and one late sixth to mid-seventh. In the catalogue of lamps the list begins again with one and a fragment of another datable to the first half of the second century, after which the next chronologically are two of c. mid fourth-mid fifth century, then two of the fifth, two of about the first half of the sixth and one of the sixth. The numbers are very small and if any conclusions can be drawn from them they must be extremely tentative. But, allowing for present inexactitude in the dating of the Tripolitanian Red Slip Ware, it would appear that the emphasis is decidedly on the period from the mid-fourth to the mid-sixth century, with a possibility of prolongation into the first half of the seventh; the sherd and two lamps of the early second must therefore be regarded as survivals, to which further reference will be made in due course, and it is certainly safe to assume the same of the datable coins. The evidence can perhaps be most clearly summarised in tabulated form, allowing one line for the period assigned to each sherd or lamp, as follows:

TABLE III

pottery.....

lamps ———

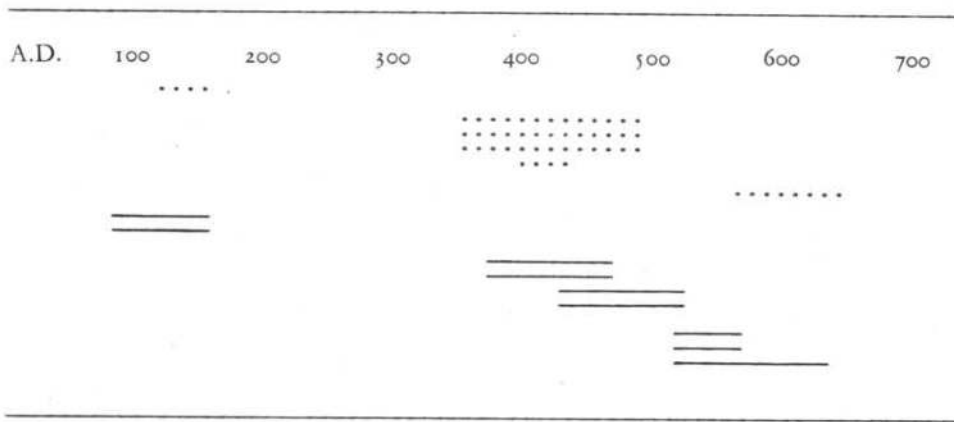


Fig. 25. Table III: chronology of pottery and lamps from Building 32, Period 1.

Although admittedly far from being as satisfactory as could be wished, it may be claimed that this at least suggests a dating for the time-span of Period 1; and, as will be seen (p. 96), the ceramic evidence is complemented by that from the nearby Midden 1. If, then, Period 1A began about the middle of the fourth century, is it possible to discern when the enlargements of Period 1B were carried out? Here the only clue is the standard of masonry - grade 2 (p. 82) - of the additions made to the original temple in Period 1B; and, to anticipate the conclusions, it may be said that this evidence appears to indicate the early fifth century (p. 238).

From the survival, re-used in walls of Period 2, of two of the many small stones with incised decoration, it is evident that these were not produced by the medieval occupants of the building. Generally the decoration consists of patterns of incised lines forming rectangles, triangles, lozenges, saltires and chevrons (figs. 74-76) and in a number of instances is picked out in paint which is most frequently red, occasionally green or, though rarely, black. But although of simple character, the decoration is significant for its close resemblance to that of many of the small altars (p. 243), of which two, as noted above, were re-used as paving-stones in the south arcade in Period 2 (p. 89) and over twenty more were found throughout the debris.

It is these small altars (pp. 243-5) which place the identification of the building as a temple in Period 1 beyond any doubt, and they are possibly the most important of all the finds from Building 32. In form, most more or less resemble the typical small Roman votive altar. Some show discolouration about the *focus* from the heat and fumes of a thurible, while around the *focus* in a number of instances were four small knobs on which the hot vessel could stand without being in contact with the rest of the stone.

Several of the altars are of special interest either for their inscriptions or for a combination of two or even of all three of these features. Five are lightly inscribed in characters of the Libyan alphabet (p. 250), two of the inscriptions being picked out in red paint. It is singularly disappointing, therefore, that the inscriptions have so far baffled all attempts at decipherment, for it may reasonably be assumed that with one exception they record at least the names of their dedicators and perhaps also that of the deity to whom they were dedicated: no other evidence for the latter came to light. The exception consists of only a single character, +, which is associated with a crude representation in low relief of a human figure with arms upraised in a manner recalling figures on Neo-Punic stelae,<sup>7</sup> as well as Christian *orantes* (p. 251, no. 6; Pl. 139b). A very similar figure is represented on one of the altars with longer inscriptions (p. 250, no. 4; Pl. 139a).

Almost all the altars, inscribed and uninscribed, are more or less decorated in incised lines, sometimes picked out in red or green paint, forming angular patterns and motifs of consistently similar kinds. These at once relate them to the decorated architectural fragments already noted. Predominant are bands of chevrons, cross-hatching, rectangles containing saltires, grid patterns, and 'bird's eye' motifs. Ornament in relief is generally confined to cable mouldings, decorated circular bosses (two on one altar, one on another), and to the two representations of human figures mentioned above.

Eight have another particularly interesting feature, viz. the incorporation of niches in one or more sides (pp. 243-5, nos. 1, 2, 8, 11, 12, 13, 16, 24, 26). Generally the niches are in pairs and are arched and emphasized by a raised surround decorated with an incised pattern. In one instance there is a single large niche on each side of the altar (no. 8; Pl. 24b); in another there are pairs of niches on two opposite sides, each niche being inscribed with a column of Libyan characters (no. 2; Pl. 136); but the others have pairs of niches on one, two or three sides. Of the latter, one has in addition a third niche above the pair on the front (no. 24; Pl. 23a-c). Here a glance is sufficient to suggest that this altar is a conventionalised representation in miniature of a two-storeyed tower. The top, flat save for the *focus* and the knobs for support of the thurible, projects like a cornice above the arched 'second-storey' window at the front, on either side of which the incised grid pattern seems to be intended to indicate courses of masonry, while at 'ground-floor' level the pairs of arched niches on the front and the left and

right sides of the stone can be taken to represent either arched doorways or an arcaded lower storey. Once these features have been recognised it is not difficult to see that the other six altars with niches can be interpreted similarly. In short, in addition to being altars these stones were in effect votive buildings, and it can be no coincidence that the buildings on which they were modelled were evidently tower-like structures such as predominated at Ghirza and throughout the pre-desert.

It has not been possible to discover a contemporary analogue for these altars, but it is difficult not to believe that many of the stelae from Carthaginian sanctuaries of several centuries earlier are their precursors.<sup>8</sup> One of these is particularly interesting in that it is actually a representation of a (round) tower and bears a dedicatory inscription to Tanit and Ba'al Hammon,<sup>9</sup> while the others are model shrines in the form of altars which, significantly (as will be seen, p. 88), were also small funerary monuments.

With the identification of Building 32 as a temple in Period 1 it is possible to account for the presence in the debris of a number of objects which otherwise might have been difficult to explain. Amongst the smallest are the *ligula* and spatula of bronze (p. 283; fig. 88A,B), while the other bronze objects (p. 283; fig. 88C-F) may also possibly have found their way into the temple as *ex votos*, and the alabaster bowls, of which two lids and several fragments were discovered (p. 283, (a) (1) (2)), as containers of more costly offerings such as, perhaps, incense. Likewise, the three fragments of figure sculpture (p. 284) can be interpreted as the remains of cult statues and statuettes. It is noteworthy that one of these was from a well made statuette of white marble which must have been brought from one of the coastal cities. The other two, however, were local products of considerably inferior standards. Enough remains of one of them to suggest a male figure in a short tunic with straps passing over the shoulders and crossing on the chest (no. 1, Pl. 27). The third fragment, an ovoid head with features crudely indicated, is the most barbaric object so far discovered at Ghirza (no. 2, Pl. 27a, b). Two *aediculae* were also found (p. 284).

Whether these fragments are representations of more than one deity or betoken different aspects of a single deity it is impossible to say. But while it may be noted that the bipartite and tripartite *aediculae*, to which reference has already been made (p. 64), suggest pairs and trios of figures, it is appropriate to mention here the discovery in the Shabet el-Gsur, near Cistern 3, of a carved slab portraying in relief seven figures (Pl. 27e).<sup>10</sup> This at once invites comparison with the representation of seven native gods on a well known sculpture from Béja in north-eastern Tunisia<sup>11</sup>, and at the same time recalls an offering table found in Building 32 which is provided with seven hollows for offerings (Pl. 26b, nearer row, second from the right). This was only one of many offering tables (p. 111), similar to those of Cemeteries 1 and 2 (p. 106) which were recovered from the remains of the building.<sup>12</sup> Some of these may have been intended for solid offerings but from others it is evident that liquid offerings were envisaged either as an alternative or in addition (e.g. p. 284, no. 2, Pl. 26b, further row, second from the right); and that libations played an important part in the cult to which the temple was devoted, as well as in the cult of the dead, seems further attested by the numerous stone bowls and fragments of basins which also came to light in the course of the excavation (p. 284, Pl. 26a).<sup>13</sup> Several of the latter bear decoration in incised lines comparable with that of the altars and with that of most of the architectural fragments, while one is inscribed with two vertical strokes in a pointed ellipse (no. 84, fig. 78) forming a symbol which appears again on one of the altars (p. 243, no. 5, fig. 74), and another, a fragment from the rim of a large, well made bowl, is inscribed internally with the symbol and on the rim itself with a line of nine characters of the Libyan alphabet (p. 250, no. 1a; Pl. 133b).

Like the architectural fragments and the altars, none of the offering-tables or bowls was found *in situ* and at least some of them had probably been re-used as building-stones in Period 2. Only the position of an exceptionally large basin, probably that of which the base was found outside the antechapel (and from which may have come the fragment of inscribed rim), is suggested by the circular impression in the pavement of the antechapel at the foot of the steps leading up to the *sacellum* (fig. 24).

So far as Tripolitania is concerned the temple of Ghirza is at present unique. At first sight, the essentials of its plan - a chapel approached through a courtyard with monumental entrance - recall a form of sanctuary which (may have) developed in Africa from a fusion of Roman and Syrian views on temple-architecture. The development is well illustrated by four temples at Dougga. "The most typical is that of Saturn, constructed in 195 after Christ as a replacement for a tophet. It consists of a propylaeum, an extensive courtyard with porticoes and a triple cella." Here the most notable element is the triple cella, encountered at Dougga also in the temple of Tellus (Ceres) - a smaller version of that of Saturn - and in the temples of Minerva and Mercury; at Timgad, again, the Severan temple of the spring incorporates a triple cella, and even the plan of the temple of Apollo at Bulla Regia, although the least regular of the series, is analogous.<sup>14</sup>

But any resemblance between the plan of Building 32 in Period 1, whether phase A or B, and the plans of these temples is admittedly superficial: in particular one must note the absence at Ghirza of the triple cella which is characteristic of the others. Much more striking are the close parallels between Building 32 in Period 1B and a rural temple of the second and third centuries A.D. at Kheurbet Semrine in Syria, 50km. north-west of Palmyra.<sup>15</sup> Here was no porticoed courtyard, but an irregular cluster of single-roomed buildings, of which no fewer than five were furnished with a broad bench extending round three walls, while in another the bench or dais was confined to the rear wall. It is particularly interesting to find that in one of the buildings with benches



round three walls a large stone basin stood on the floor at the end opposite the entrance, and furthermore that the rim of the basin, like that of one of the fragments of a basin from Building 32, was inscribed. Many fragments from at least eight other inscribed bowls and basins were also discovered on the site, together with nine altars, coins and other objects of bronze, even including a spatula seemingly very similar to that from Building 32.

There is every reason to interpret the rooms with benches at Kheurbet Semrine and at other contemporary sanctuaries in the same district as chapels for a cult or cults in which ritual banquets played an important part, and the stone basins as craters in which wine for the celebrants was mixed.<sup>16</sup> Hence the resemblance of such chapels to *triclinia*, with benches normally 50-60cm. high and 1.30-1.80m. broad on which the celebrants reclined. But while the height of the benches in Building 32 is comparable, their narrowness contrasts markedly with the average breadth of the Syrian examples; and even allowing for the fact that narrow benches were noted in some of the Palmyrene shrines, and in others were absent altogether, it is impossible to see accommodation for ritual meals in the small antechapel at Ghirza. There, the purpose of the benches may rather have been to provide a place for the votive altars.

It is tempting to speculate on the possible significance of the resemblances between these Palmyrene temples and Building 32 in Period 1B. But evidence of participation by Palmyrenes or other Syrians in either the construction or the cult of the temple at Ghirza is conspicuous by its absence, and it is in any case impossible to explain why it was not until the temple was enlarged, possibly as late as the early 5th century, that it should have received an antechapel recalling in plan the Palmyrene shrines. One is compelled to conclude, therefore, that the resemblances noted above, however suggestive, are nevertheless fortuitous.

At the same time, it is undoubtedly the influence of Semitic rather than Greco-Roman religious traditions which can be discerned in both the architecture and the cult-objects of Building 32. The small altars, particularly those in the form of model towers, probably represent the development of a type of Carthaginian funerary stela into the small Roman votive altar on which incense might be burnt.<sup>17</sup> The plan of the building, moreover, is uncompromisingly non-classical and specifically that of a conventional Semitic temple: the sacred precinct with sanctuary on one side open to the central court and facing the entrance on the other side which constitute its essential features are all here,<sup>18</sup> while the artificially raised floor of the *sacellum* perhaps even affords a suggestion of a 'high place'<sup>19</sup> where the principal object of veneration - cult-figure or betyl - will have been enshrined. Yet another feature of this building which appears to perpetuate a very ancient tradition in Semitic temple-architecture is the provision that was made for pairs of columns flanking the entrances to the *sacellum* in Period 1A and to the antechapel and north chapel in Period 1B (p. 84). For several reasons it is unlikely that these columns indicate porches: in the first place, it is evident from the surviving drum on the south side of the entrance to the *sacellum* that the column erected here must have been constructed of sections only c. 30cm. in diameter (p. 82, Pl. 20a), while the inadequate bedding of mortar for its companion and also for the columns at the entrances to the antechapel and north chapel (pp. 84, Pl. 20b, c) shows that the slender columns so constructed and founded cannot have been intended to rise to any height, still less to bear the weight of a stone canopy. In short, there seems every probability that they were not functional but freestanding columns such as have been discovered and are described in texts as flanking doorways in Semitic temples in the second and first millennia B.C.<sup>20</sup> Were it not for the other, unequivocally Semitic features of this temple at Ghirza it might indeed be regarded as incredible that such a tradition should still manifest itself, in Tripolitania, as late as the fourth and fifth centuries after Christ:<sup>21</sup> yet it is difficult otherwise to account for the evidence.

It remains to add a comment on the nature of the cult to which this temple was devoted. After the altars the most significant finds from Period 1 are the offering-tables (p. 87). As already noted, the latter are of exactly the same forms as the offering-tables which are a particular feature of Cemeteries 2, 3, and, possibly, 4 (p. 111), and like them were intended to receive liquid offerings. On the evidence of these,<sup>22</sup> as well as of the plan of the temple,<sup>23</sup> and also on other considerations (p. 87), it could be plausibly contended that the building was devoted to the cult of Ba'al Saturn in his dual role of god of earthly fecundity,<sup>24</sup> whose monuments clearly reveal by their distribution his appeal to the peasantry of the cereal-producing region of Africa,<sup>25</sup> and lord of the nether world.<sup>26</sup>

Be that as it may, it seems appropriate to mention here a remarkable relief which probably comes from one of the monumental tombs (p. 224, Pl. 125a). It appears to portray an act of worship such as might conceivably have been witnessed in this temple. It depicts a figure, bearing a ewer, standing in front of a table or bench on which is a row of human heads. The latter are clearly heads, not skulls, and their form recalls the sinister head from Building 32 (p. 87, Pl. 27). The scene may be open to other interpretations, but it can certainly be suggested that it depicts a libation before either sculptured heads or actual heads embalmed or otherwise preserved. Furthermore, this relief recalls another, from a tomb in the Wadi Nesma, which appears to portray an act of decapitation beside, again, a podium or table supporting a human head (Pl. 27d).

(c) Period 2: fig. 26.

Between the end of Period 1 and the beginning of Period 2 there was a lengthy interval during which the building was deserted and sand accumulated to varying depths above the ash. But the ruins remained

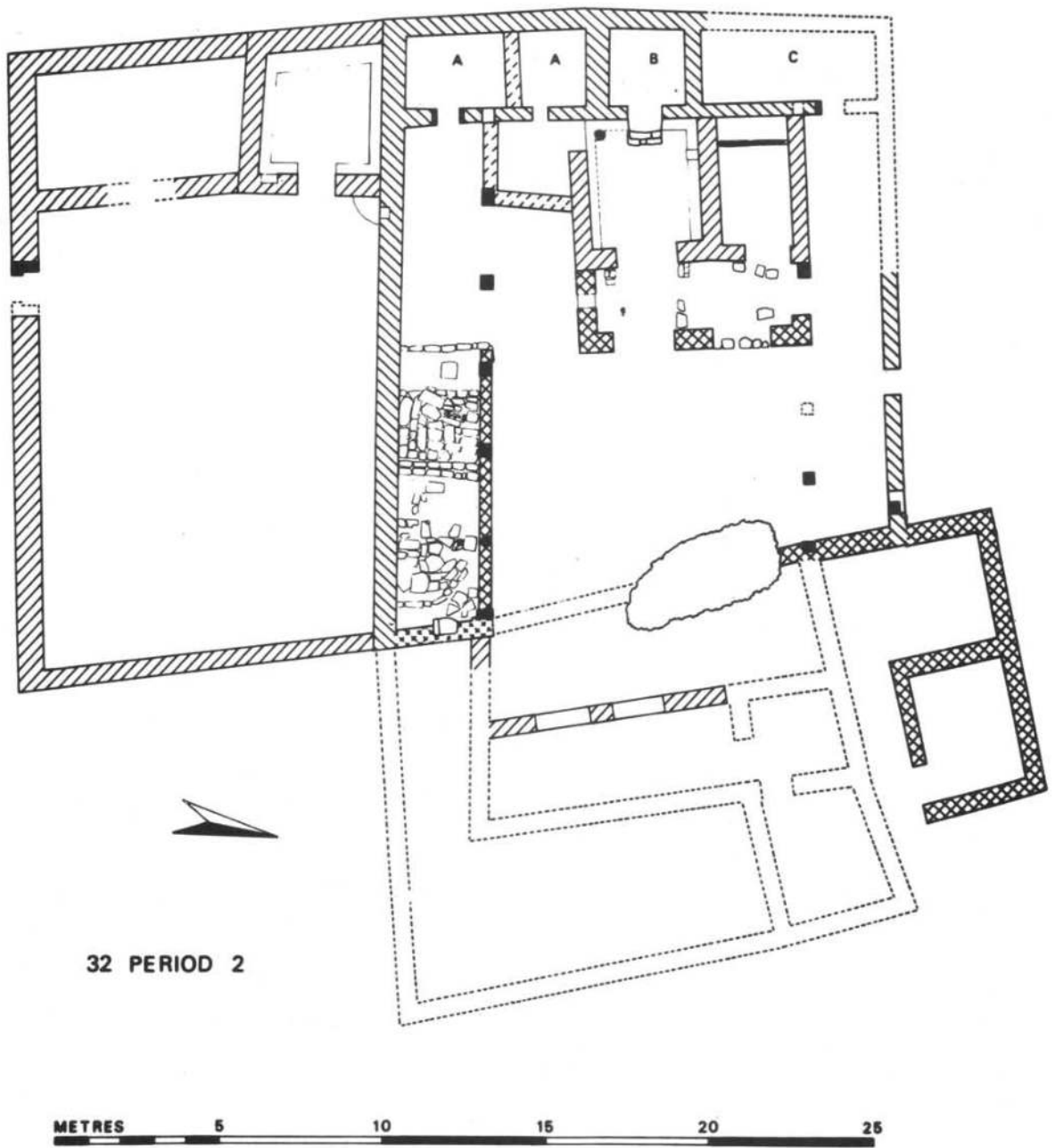


Fig. 26. Building 32: Period 2.

sufficiently well preserved to invite re-occupation. The abundant resulting material is closely datable to the later tenth and early eleventh century (p. 91) and, as might be expected, is very different in character from that of Period 1. From its distribution it is clear that the antechapel and the north chapel were inhabited, but not the *sacellum* or the rooms to north and south of it; while re-occupation of the rooms on the west side of the south courtyard is attested by a smoke-blackened lamp-hole, in a mass of the grey plaster which is one of the characteristic features of Period 2, 1.0m. above the bench in the south-east corner of the north room (Pl. 21c), as well as by the construction in the north-east corner of the courtyard of a large oven faced externally with the same plaster, and, above it in the north wall, of an arched niche 36cm. wide  $\times$  30cm. high  $\times$  30cm. deep.

The newcomers were not content, however, simply to squat in the ruins. On the east side of the north courtyard part of a fallen wall 50cm. thick, preserving one side of an arched window 73cm. high (Pl. 17a) and a re-used stone with incised decoration (Pl. 22c), and also remains of walls to the north of this, belonged to a new building in the west wall of which one of the piers of the former north arcade was incorporated *in situ* as an orthostat (p. 82). This building, in masonry of grade 4 with grey mortar, and the blocking of the adjacent doorway in the north wall of the courtyard with members of another pier of the north arcade (Pl. 18a), can undoubtedly be assigned to Period 2. In this period also the eastern half of the south arcade appears to have been walled up, the two westernmost piers being replaced by orthostats, and was also paved with re-used stones including two small altars and an offering-table (p. 243 (4), 245 (26)).

But the most important development in Period 2 was the construction, in front of the former antechapel and north chapel, of a vaulted porch 6.25 × 2.0m. internally, with an arched opening at the north end, two arched openings on the east side and a wall with a small arched window at the south end (Pl. 17). These features merit description in some detail.

First, the north end. Here, the arched opening, although resembling a doorway, has no apparent provision for a door (Pl. 28). From ground level to the shoulders of the arch measures 1.54m., to the top of the arch 2.15m., and to the top of the voussoirs of the arch 2.37m. The width at the shoulders is 1.07m. Above the arch the wall rises to a height of 5.05m., implying a second storey for which other evidence was found elsewhere (see below), and preserves a small piece of re-used stone with incised decoration (Pl. 4e). The standard of construction of this wall must be assessed as grade 5 and is in striking contrast to that of the Roman masonry, of grade 2, adjacent to it. It had been faced with plaster.

On examination the west jamb of the arch proved to be simply the second pier, counting from the west, of the north arcade of Period 1, with the springer still in position. A small hole had been made in the south side of the springer, but its purpose was not evident. On the east jamb was a graffito in Libyan characters (p. 251, no. 10) while another was traceable 1.0m. above ground level and 15cm. from the north-east internal angle of the porch (p. 251, no. 11). The underside of the arch itself was ornamented in relief in white plaster or stucco, weathered to a shade of greyish fawn, with a bold 'hand of Fatima' and motifs or symbols composed of lines and rows of dots (Pl. 29a). In the north face of the wall above the arch a row of sockets for beams suggests that the space between the porch, the north chapel and the north wall of the building was roofed over.

The third pier of the original north arcade had been laid flat and the east wall of the porch between its north-east angle and north arched opening was built upon it (Pl. 17b). At a height of 1.35m. above the ground the north shoulder of the arch was preserved (Pl. 28) and at the same height inside the porch, between the arch and the north-east corner, is a small plaster-lined, arched niche, blackened with lamp-smoke (Pl. 28). The north opening was provided with a threshold of stones; nothing similar was noted in the south opening, but there seemed to be remains of a wall dividing the northern half of the porch from the southern half.

At the south end of the porch it appears that an arch corresponding to that at the north end had been built and immediately walled up. That the two operations were carried out at the same time, however, is suggested by the fact that both arch and wall are faced with a single rendering of the same grey plaster; only the cracks in the plaster where the masonry of the one met that of the other, without bonding, betrayed what was evidently an afterthought on the part of the builders (Pl. 17b).

In the wall, 1.15m. above ground level and 70cm. from the south-east corner of the porch, was a small arched window (Pl. 17b). It measured 49cm. in height, 40cm. across the sill and 48cm. across the shoulders. The underside of the arch was ornamented with patterns of lines and dots formed in relief in the plaster. But by far the most interesting and important feature of this wall, and indeed of the entire porch, was the large number of graffiti scratched in the facing plaster on its side (Pl. 140). Apart from a few figures of horses and ostriches all are inscriptions in characters of the Libyan alphabet (p. 251, no. 9).

These additions to the remains of the former temple were such as to transform them into a medieval house of Saharan aspect, the porch being very reminiscent of the arcaded frontages so characteristic of, e.g., Ghadames. Moreover, the graffiti in the porch indicate that the occupants of the modified building of Period 2 were culturally, and in the present context therefore certainly also ethnically, successors of those who built and worshipped in the temple. In other words they were Berbers, probably of the Hawara tribe;<sup>27</sup> and if what appears to be a rudimentary prayer-wall on the east side of Building 31 (p. 65) dates from the same period as the re-occupation of Building 32 the implication must be that they were also Muslims.

(f) *The finds of Period 2 (Appendices 10—14, pp. 274-308)*

The finds from Period 2 are of the greatest interest, not only including satisfactory numismatic evidence for the date of the re-occupation of the building (p. 274) but also illuminating the cultural ambience of its medieval inhabitants. Furthermore, the distribution of many of the finds afforded additional indications that there had been a second storey above the porch. In the porch itself were a large fragment of the vault which had supported the upper storey, and many small stones with incised decoration of Period 1 which must have been re-used in its construction, while relics of occupation and eight silver coins of the tenth century (pp. 274) were found with evidence of fire in debris near the wall at the south end and at the level of its window. On the ground, buried under the debris in the southern half of the porch was the large stone basin which probably stood originally in the antechapel (see above, p. 84); it had been repaired with grey plaster and was worn smooth internally as though having been made to serve as a mortar.

It is clear from this that at least a part of the second storey and its contents had collapsed into the porch during a fire. Excavation of the former antechapel yielded equally interesting results. On the floor was a layer of burnt material c. 10cm. thick, attributable to the fire at the end of Period 1B. Over it lay sand to depths of up to 50cm., representing the interval between Period 1B and Period 2. Then, 60-70cm. above floor level, came a thick black layer containing a little pottery, including two intact vessels and a toy cooking pot (p. 274, nos. A1, B5, 6,

C9) and many other objects such as fragments of textiles (p. 291), datestones, lids of small circular, decorated mirror-boxes of oleander wood (p. 282, Pl. 150), horns of goats and gazelle, and rope. Near the entrance, on the 'cistern' plaster of Period 1B and 72cm. above the bench on the north side, were some graffiti painted in (?) ink (Pl. 30). On the south side of the room towards the west end lay a large fragment of an arch, stone-built, plaster-faced and painted yellow, the underside of which was divided into panels by means of lines raised in the plaster. The lowest panel was decorated in red paint with the figure of a mounted camel and that above by a pattern of lines in relief (Pl. 31). On one face of the fragment were two figures of mounted horses: both were in red paint and one of them, accompanied by a small, painted cross, was also incised (Pl. 31). In the debris of the south wall of the room was another plastered fragment, probably from the same arch, bearing the prints of fingertips and, faintly, of the hands to which the fingers belonged, again in red paint. These fragments must have been the remains of a doorway constructed in Period 2 between the former antechapel and the secondary room of Period 1B on the south side of it. In this room were found ostrich feathers and horsehair (from cushions?), with other evidence of occupation in Period 2, overlaid by ash and debris. At the level of the surviving walls of the room was a small altar of Period 1 (p. 244, no. 11, fig. 74) which had evidently been incorporated in part of the medieval reconstruction.

As already noted, the *sacellum* was not one of the rooms rehabilitated in Period 2, but amongst the debris in its north corner was a silver dirham of Harun al-Rashid, minted probably c.A.D. 800 (p. 274, no. 1, Pl. 147). This was the earliest, as well as the largest and finest of the Islamic coins recovered from Building 32, and it seems most probable that it had been deliberately concealed where it was found, possibly even before the building was reconstructed.

The evidence from the former north chapel was still more informative. Here, under sand and debris, a dark layer containing much charred wood and broken plaster covered the floor, and though the 'cistern' plaster of Period 1B remaining on most of the south wall was relatively clean and preserved stylized figures of horses in red paint attributable to Period 2 (Pl. 29b), that in the south-west corner had been blackened by smoke, while that surviving on the north wall had been so calcined that even the stones behind it were scorched. At the west end of the room what was probably a dais in Period 1B had been converted into a pit. At the bottom of the pit, overlying a clean layer, was a layer of ash containing fragments of plain and patterned textiles (p. 291), four loom-weights of stone, small bell-like bronze beads, mirror-boxes (Pl. 150), datestones, dessicated figs, a piece of almond shell, a bone comb, a sherd of coarse pottery and a fragment of glass.

Other objects recovered from the debris in different parts of the building and assignable to Period 2 included glazed and coarse pottery, some of the former being Beni Hammad ware datable to the eleventh century (p. 275, Pl. 148) and so complementing the evidence of the later coins, as well as glazed and unglazed lamps and lamp-fillers (Pl. 149), wooden combs (fig. 90), stone spindle-whorls (fig. 91), coloured wool, lathe-turned (?) mouthpieces of bone (for musical pipes?) (fig. 92), a toy dagger of wood (fig. 92), and fragments of a very thin and slightly convex glass mirror (p. 242). Much of this material is obviously domestic in character. But the Beni Hammad pottery, the quantity and variety of patterned textiles, the surprising number of mirror-boxes (p.282), some apparently new, not to mention the number of coins, all together suggest that the building comprised a shop or depot as well as a dwelling.

Like Period 1, Period 2 terminated with a fire which finally reduced the building to an uninhabitable ruin. Yet it was not until more than two years after the excavation ended that one of the present writers, visiting the site just after rain had washed the walls and courtyard clean, was thereby enabled to observe the full extent of the evidence of fire. In many places in the courtyard large areas of the surface had been blackened to a degree that could not be attributed to small cooking fires. On the north wall of the building much of the facing plaster had apparently been reduced to powder, and while the lowest courses of all the walls, and the lowest stones in the blocked doorway, were clean for 15cm. from the ground, there was a band above stained black by a deposit of burnt matter which in some places had been up to 75cm. thick (Pl. 18a) and the surviving piers of the original arcades were similarly discoloured at the foot. Many of the re-used stones in the paving of the south arcade were also blackened, and at the south end of the porch were indications of severe burning which extended to the doorway and benches of the former antechapel.

So ended the history of this most interesting building. But this report upon it cannot be closed without a final word on the evidence from Period 2. In the first place the graffiti on the walls of the porch are as important for the study of the Libyan alphabet as are the inscriptions of the altars of Period 1 (p. 251).<sup>29</sup> What is more, they are relatively closely dated, which cannot be said of the great majority of the ancient inscriptions in Libyan characters, and are so far the only Libyan inscriptions in Tripolitania which are certainly assignable to the middle ages. Similarly, the medieval occupation material forms a body of dated evidence at present unique in the archaeology of Libya. In the coins, glazed pottery and the textiles there are glimpses of the cross-currents of trade under the Fatimid and Zirid dynasties:<sup>30</sup> coins from the dynastic seat at Mahdia in Tunisia, glazed pottery from the Hammadite capital in Algeria, and, among the textiles, cotton from Egypt and damask from the Byzantine or the Arab world (p. 303). Side by side with these are the obviously local products, the home-made lamps and pots and the clothing, accessories and carpet, woven, embroidered or plaited as the case may be, of sheep's wool

and the hair of goats and camels. These - and the stale, herdsmen's odour that the textiles still exude - bring one very close to the medieval occupants of Building 32.

(g) *Conclusions*

It cannot be claimed that the primary purpose of the clearance of this building was altogether successful. Although two periods of occupation were discovered and both dated with reasonable confidence, the dating of the second phase of Period 1, except by means of the grade of masonry associated with it, remains uncertain; for while the masonry of Period 1A = grade 3 is seen to be assignable to probably about the middle of the fourth century, and the two grades 4 and 5 of Period 2 illustrate building standards c.A.D.1000, the wholesale disturbance of the remains of Period 1 during the re-occupation in Period 2 left *in situ* no evidence bearing upon the dating of Period 1B and the masonry of grade 2 that characterizes it.

Further discussion of the potential significance of the evidence from Building 32 for the history of the settlement as a whole must be reserved until the results of the investigation of the middens and cemeteries are reviewed (pp. 92ff). But one feature of Period 2 can best be noted here. This is the coarse grey facing plaster which is as representative of Period 2 as 'cistern' plaster is of Period 1; the two plasters are quite different and can be regarded, not only at Ghirza, as diagnostics of Roman construction on the one hand and of post-Roman work on the other.<sup>31</sup> Here there are interesting implications for two other buildings in the settlement, viz. 26 and 31. In 26 it was recorded that the shaped stones of the small window in the south wall of the second-storey room at the south-west angle had been cemented together with a grey mortar (p. 74), and in 31 that the debris removed from the olive-press room contained quantities of fragments of grey mortar (p. 64). It seems evident, therefore, that 32 was not the only building occupied or re-occupied in post-Roman times: both 26 and 31 appear to have been at least partly inhabited then, the occupants of 26 perhaps being responsible for the decoration and Libyan characters in red paint on the underside of the lintel behind the entrance doorway (p. 251) as well as for restoration of the small window in the room at the south-west angle, and those of 31 for creation of a doorway by breaching the wall between the uprights of the olive-press and for construction of the flight of stone steps and east-west cross-wall in the former press-room (p. 64). It was in the hope of discovering additional evidence bearing on the chronology of these two important buildings that the adjacent rubbish mound - Midden 1 - was subjected to special examination (p. 96).

## (vi) THE MIDDENS

Communal rubbish mounds are an interesting feature of old villages with Berber traditions in present-day Tripolitania and, though such mounds have not hitherto been reported in association with remains of ancient settlements,<sup>2</sup> it is evident at Ghirza that refuse was regularly disposed of in recognized dumping grounds. There it accumulated to form middens, some of which are of striking size. Indeed, after the buildings they are the most conspicuous features of the settlement. Five were recorded during the survey of 1955. One of these was excavated, and the remnants of two more, largely washed away, were identified in the following year. They are described below as Middens 1 to 7.

(a) *Distribution: fig. 3.*

Midden 1: occupies most of the area between Buildings 31 and 36;

Midden 2: west end of Building 33;

Midden 3: extends from the south-west angle of Building 34 almost down to the bed of the Wadi Ghirza;

Midden 4: some 50m. west of Midden 3;

Midden 5: between Buildings 25 and 26;

Midden 6: on the bank of the Wadi Ghirza south-west of Building 32;

Midden 7: a scatter of characteristic refuse on the steep bank of the Shabet el-Gsur below Building 1.

Presumably Midden 1 is to be associated mainly with Building 31, Midden 2 with 33, Midden 3 with 34, Midden 4 with 55, Midden 5 with 25 or 26, Midden 6 with 32, and Midden 7 with Building 1.

It will be noticed that all but two of the middens, viz. 5 and 7, are on the south side of the Shabet el-Gsur, while most of the buildings - though not most of the larger buildings - are on the north side.

(b) *Size*

The mounds vary considerably in size. Midden 1 covers a roughly circular area more than 50m. in diameter. It is now relatively low, but lying as it does in a particularly exposed position, on the crest of the spur between the Wadi Ghirza and the Shabet el-Gsur, its original height must have been reduced and its 'spread' perhaps correspondingly increased by the action of wind and rain (Pl. 3a). Midden 2, unlike the others, consists of several tips rather than a single mound (Pl. 32a). Midden 3, by far the largest, is between 80 and 100m. in length, 30 to

40m. in width, and possibly c.6.0m. in height (Pl. 3 2b), while Midden 4 is hardly less high but more circular in form with a diameter of some 40m. (Pl. 3b). In contrast, Midden 5 is a small, inconspicuous mound and the remains of Middens 6 and 7 are insufficient to permit any estimate of their original extent and height. Nor is there any means of estimating, on grounds of size, the length of time during which even the best preserved of the mounds, e.g. 3 or 4, was formed.

(c) *Appearance and surface debris*

In appearance and composition the middens do not differ from one another. Soft underfoot, they appear to the eye as mounds of sand strewn with potsherds, fragments of lamps, oyster shells and pieces of ostrich shell, glass, bronze or copper, lead and charred wood. But any disturbance of the sandy surface reveals the wood ash that forms a very high proportion of their contents. The dryness of the ash has, moreover, preserved many remains which would have perished in a less favourable environment, such as shreds of cloth, seeds, fruit pips and husks, palmfibre rope and matting, leather, hide with the hair adhering to it - perhaps from discarded waterskins - and even human hair. See, further, Appendix 15 (p. 308).

The importance of the middens is thus obvious. They offer, merely for the effort of collecting, not only evidence bearing on the diet and material culture of the inhabitants of ancient Ghirza but also an abundance of pottery, with all that that can tell concerning the period of occupation of the settlement. Unfortunately the difficulty and cost of bringing away for examination a large number of samples imposed the necessity of being selective. To be precise, these considerations compelled the collection of certain classes of pottery at the expense, though not entirely to the exclusion, of other categories of material. The classes of pottery selected were primarily those of the finer red wares and ornamented lamps of red terracotta, such as are widely distributed in North-West Africa and other parts of the Mediterranean and to which specialized studies have been devoted. These form the greater part of the subject of Appendix 1 (p. 234). At the same time, however, a few rims and sherds which there seemed grounds for regarding as typical of the coarse wares and amphorae were also collected, together with specimens of the surface debris in general. From a careful study of the surface of each midden it seems safe to say that the character of the debris does not differ essentially from one to another and that the samples from Middens 1 and 3, listed below, can be considered as representative.

(d) *Some objects from Midden 3*

*A fragment of tufted cloth: Pl. 33a.* This fragment was recovered from a shallow depression where the surface of the midden had been disturbed. It was submitted to Miss A. S. Henshall of the National Museum of Antiquities of Scotland, to whom we are indebted for the following report:-

'Rep cloth with rows of tufts. The warp: Z spun,  $8\frac{1}{2}$  threads per inch, a heavy hard-spun yarn 1.5-2mm. in diameter. The weft: Z spun, about 60 threads per inch, a finer lighter-spun yarn. The weave is plain, i.e. the weft passes alternately over and under the warp, but the weft has been beaten back so tightly during weaving that it completely covers and hides the warp thread and produces a cloth with a ridged effect. It is now rather decayed and in many places the warp is laid bare.

'There have been 4 rows of tufts in the weft at intervals of  $\frac{3}{4}$ in. These appear to have been of the same fibres as the cloth, but unspun, and have now almost completely disappeared. However, their position can be traced by gaps across the weft, and the fact that the warp threads lie with a curl or twist in these gaps due to their having been pulled up, whereas in the rest of the cloth they lie quite flat. Only in one small area do some of the tufts remain. Here it can be seen that the bunches of unspun fibres were inserted round pairs of warp threads across the warp, the two free ends of each tuft appearing on one face of the cloth. They do not appear to have been knotted in place.

'Among the textiles from Dura-Europos (*The Excavations at Dura-Europos*, Final Report IV, pt. 11, by R. Pfister and L. Bellinger, Yale University Press, 1945) there are a number made of goat hair, including some reps similar to the Ghirza example, but without the row of tufts. Among the wool fabrics there are 5 or 6 examples at Dura-Europos of rep cloths with a row of tufts or pile, but the method of inserting the Ghirza tufts is simpler than in any of the Dura examples. Dura was destroyed in 256 A.D. and the cloths probably belong to the first half of the 3rd century.'

Miss Henshall referred this fragment to Dr. A. B. Wildman of the Wool Industries Research Association, who kindly reported upon it as follows:-

'Fibres from the rep cloth are mostly non-pigmented and where it was possible to see the scale pattern it was similar to some types of goat hair. There are no very coarse fibres; a few are slightly medullated and in general they are too regular in diameter to be wool fibres.'

*A fragment of decorated gourd: fig. 93.* The material of this interesting fragment was identified at the Royal Botanic Gardens, Kew, by courtesy of the Director (Appendix 7, p. 260). The fragment has a rounded rim and is decorated externally with an incised lattice pattern arranged in a band of rectangular panels, the panels being separated from one another by pairs of vertical lines running downwards from the rim. It is very dry and has broken on one side along one of the vertical lines. There is no reason to doubt the antiquity of this fragment;

**TABLE IV**  
**DEBRIS NOTED ON THE SURFACE OF MIDDENS 1 AND 3**

DEBRIS	MIDDEN 1	MIDDEN 3
Amphorae	Fragments (Appendix 1, p. 234)	Fragments, inc. one of (?) 2nd or 3rd cent. (Appendix 1, p. 234)
Bones	Some animal bones	Some animal bones
Bronze	Numerous corroded fragments and 2 pieces resembling scales from scale armour but perhaps pendants or weights of some kind (fig. 88); see also below, under Lead.	4 small heavily corroded (?) coins, part of a finger-ring with plain rectangular bezel, 3 pieces resembling scales from scale armour (fig. ), part of a (?) stylus (or pair of dividers?), and many other small indeterminate pieces.
Cloth		A fragment; see above, para. (d)
Glass	A small fragment from the rim of a lamp of pale green glass 0.5 mm. thick, a small fragment of clear but weathered glass 0.5 mm. thick, a small fragment of clear glass 1.0 mm. thick decorated with thin white bands (probably modern), 3 beads inc. one lobe of a bilobate bead of green glass, each lobe 0.3 cm. in diam., total length orig. c. 0.5 cm. (Appendix 2, p. 242)	A few small fragments from vessels of very fine quality, inc. a flask or bottle of brown glass 1.5 mm. thick but of indeterminate form, and 2 beads, one being of opaque turquoise glass 1.05 cm. in diam., the other of translucent green glass 0.5 cm. in diam. (Appendix 2, p. 242)
Gourd		A decorated fragment; see above, para. (d)
Hair		Human hair; see below, para. (d)
Lamps	Numerous fragments (Appendix 1, p. 234)	Numerous fragments (Appendix 1, p. 234)
Lead	A piece shaped like a scale from scale armour but larger; see also above, under Bronze	2 pieces shaped like the piece from Midden 1
Pips		Fruit stones and pips, parched and blackened.
Pottery, coarse	Numerous sherds (Appendix 1, p. 234)	Numerous sherds (Appendix 1, p. 234)
Pottery, fine	Numerous sherds (Appendix 1, p. 234)	Numerous sherds (Appendix 1, p. 234)
Rope		A short piece of rope, probably of palm-fibre (cf. p. 302, no. 81)
Shells, ostrich egg		Numerous fragments and very small pieces pierced for threading to form a necklace; see below, para. (d)
Shells, oyster	A few shells; see below, para. (d)	A few shells; see below, para. (d)
Stone	Fragments of quernstones of black lava	2 spindle-whorls of local white limestone, roughly ellipsoid, of different sizes, a fragment of white marble 0.9 cm. thick, curved as if from a bowl, a fragment of light brown marble 1.85 cm. thick, one edge rounded, the back rough, a fragment of green marble 1.05 cm. thick, originally polished and still very smooth on both faces. Quern. frags.

Fig. 27. Table IV: surface-debris on Middens 1 and 3.

apart from its discovery on a rubbish mound where late Roman pottery is especially conspicuous, the character of the decoration relates it at once to the patterns incised on altars and other stones from Building 32 (pp. 243, figs. 74-76) and on certain of the offering tables in Cemeteries 1 and 2 (p. 111).

For fragments of a decorated gourd from Midden 1 see below, Table V, spit 2, and fig. 93.

*Hair.* This was found with the fragment of cloth described above. It was submitted with the cloth to Miss A. S. Henshall, at whose request Dr. Wildman kindly reported upon it as follows:-

'This sample, with the exception of one feature, is similar to human hair; the exceptional feature is the thickness of the cuticle. Human hair usually has a thick layer of cuticle, whereas in this sample it was difficult to see the cuticle. Scale casts were made and on one or two fibres it was possible to see faint traces of the scale pattern; this had crenate scale-margins similar to that of human hair. The fibres are naturally pigmented and some of them contain a medulla, the distribution of pigment and the type of medulla where present being similar to those found in human hair.'

*Fragments of ostrich shell.* The ostrich has now disappeared from the coastlands of North Africa, though 'a few' could still be observed in the Wadi Ghirza as late as 1817 (see above, p. 37). Beads of ostrich shell very similar to those from Midden 3 have been found elsewhere in North Africa in a Neolithic (Capsian) context,<sup>3</sup> but from their associations the Ghirza beads cannot be so ancient. On the other hand, the absence of any ostrich shell from the plentiful material of the re-occupation of Building 32 renders it unlikely that they may be of medieval date. In short they can confidently be assigned to the late Roman period.

*Oyster shells:* fig. 94. Two shells were kindly identified by Dr. J. Philipson, Department of Zoology, University of Durham, who reported as follows:-

'The oysters from the rubbish mounds at Ghirza, Tripolitania, can only be specimens of the European oyster *Ostrea edulis* Linnaeus, as this is the only species in Europe and the Mediterranean region.

'A feature which may interest you is the fact that one of the two valves was "dead" when collected, the inside of it showing small holes probably made by a sponge (possibly *Cliona celata* Grant); other growths also are visible on the inside of the valve. The flatter of the two valves showed none of these signs but like the other is somewhat eroded internally, indicating that the animal was dead when the valve was first collected. If collected dead they were presumably used for purposes other than food.' For their possible use p. 276.

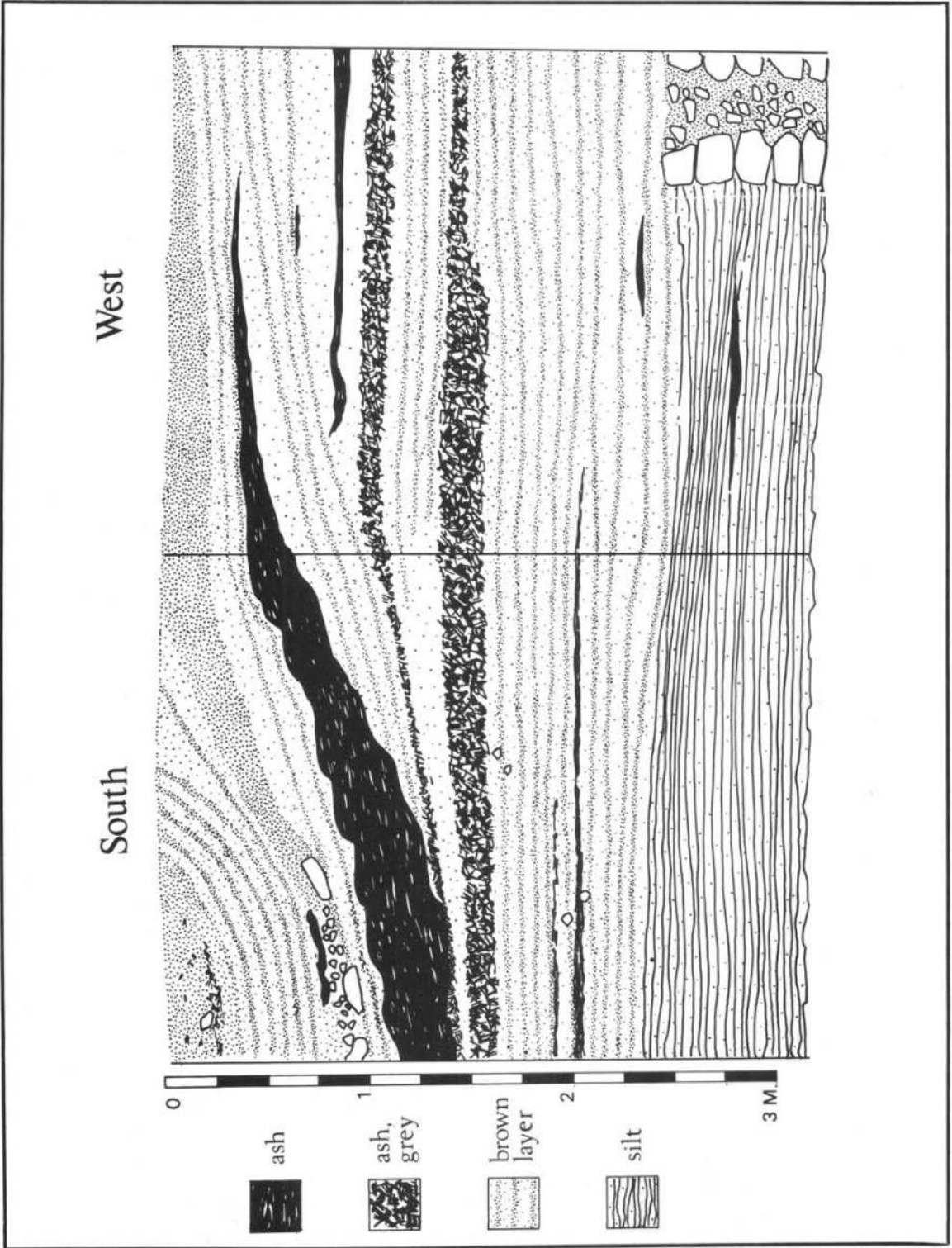


Fig. 28. Midden 1: section.



Two oyster shells were found during the excavation of Midden 1; see below, Table V, spit 2.

(e) *The excavation of Midden 1: fig. 3.*

From the surface debris it seemed that excavation of even one of the middens could yield a rich harvest of evidence for the natural history of Ghirza in antiquity, and might well also produce a stratified sequence of pottery types, the pottery from the lowest level giving perhaps some indication of the period of construction of the building or buildings with which the mound appeared to be most closely associated. Accordingly the work planned for 1956 included excavation of the three largest middens, i.e. 1, 3 and 4 - two to provide a basis for comparison of results and the third to act as a 'control'. But through a combination of unforeseeable circumstances - shortage of labour, the difficulty of digging in what proved to be extremely fine and mobile material, and the violent winds and exceptional heat towards the end of May in that year<sup>4</sup> - achievement fell so far short of expectation that in the time available it proved possible to excavate in only one of the mounds. This was Midden 1.

The procedure must be briefly described. First, a square of 2.50m. (approx. 8 English feet) was pegged out at the top of the mound. From the surface within the square were collected numerous fragments of lamps (p. 237, Appendix 1), a corroded and illegible bronze coin 1cm. in diameter, and fragments of Red Slip Ware (p. 235, Appendix 1). A trial excavation of one quarter of the square was then made and it at once became apparent that the material of which the mound was composed, as well as the way in which it was intermixed, ruled out any possibility of excavating layer by layer in the normal manner. It was decided, therefore, simply to proceed by clearing the square to a depth of 25cm. from the top of the mound, then to 50cm., then to 75cm., and so on, to refer to these depths as 'spit 1', 'spit 2', 'spit 3', etc., and to record the composition and contents of each spit as it was cleared. Needless to say this old-fashioned method left much to be desired, but no better alternative seemed practicable. Moreover, as a precaution against subsidence it became necessary to allow the excavation slightly to decrease in dimensions as it increased in depth. Well before completion of the excavation the slightest touch brought down a minor avalanche and the wind created in it a continual vortex of foul-smelling dust.

The outcome, though instructive, was disappointing. The work had not been long in progress when it became clear that a stratified pottery sequence - the result most hoped for and most needed - did not exist and, furthermore, probably would not have been found in any of the other mounds. Stratification was there, unmistakable and well defined (fig. 28, Pl. 33b), but potsherds were relatively few and far apart. Most of those justifying description were of Tripolitanian Red Slip Ware, which can be regarded as ranging from the beginning of the fourth to the late fifth century (p. 234). The majority were recovered from spits 1 to 7, only spit 10 thereafter yielding a single sherd of this ware, while more than one of the types found as deep as spit 7 (i.e. 1.50m. - 1.75m. from the top of the mound) were also represented amongst sherds collected elsewhere on the surface of Midden 1. Such as it is, the evidence suggests that Midden 1 accumulated during the period c.A.D. 350-450 (p. 238); and it will be noted that, if this can be taken as indicating the period of occupation of the building most probably to be associated with this midden (see above, p. 92), Building 31 must have been constructed at about the same time as its neighbour, 32 (p. 85). In other words, there are grounds for regarding the masonry of grade 1 in Building 31 (p. 63) as contemporary with that of grade 3 in Building 32, Period 1A (p. 82); and in so far as it appears that the addition to 31 in masonry of grade 2 (p. 64) may have been made before c. 450 the suggestion that Period 1B in 32 may date from the early fifth century (p. 86) is strengthened.

Compared with the quantity of sherds and other objects on the surface the paucity of material recovered from the excavation came as a surprise. It can only be assumed that erosion during the past fifteen centuries has carried away a considerable proportion of the fine ash that forms the bulk of the mound, leaving the solid and heavier objects as a gradually increasing residue on the surface. Doubtless the other middens have suffered similarly, to a greater or lesser extent depending upon their situation in relation to the prevailing winds, and it seems unlikely that excavation of an apparently much better preserved mound such as Midden 3 or Midden 4 would have proved appreciably more rewarding.

There was, however, one discovery which is of interest for its bearing on the history of the site and compensates to some extent for the disappointments of the excavation. This was the remains of a wall constructed on the bed rock at the bottom of the pit (spits 10-13; fig. 28, Pl. 33b). It was aligned east-west, probably c.75cm. thick, and preserved to a height of five roughly built courses (87.5cm.). But despite its poor construction it is important in revealing occupation of the site before Midden 1 began to be formed, i.e. before about the middle of the fourth century; and it is conceivable that the remains of another inferior building on the north-west periphery of Midden 1, partly buried by downwash from the midden, are contemporary with this wall (Pl. 3a). Similarly, west of Building 33 another wall is partly buried by Midden 2 (p. 67).

The composition and contents of Midden 1, as revealed in the excavation, can best be presented in the form of another table, as follows: -

**TABLE V**  
**The excavation in Midden 1: composition and contents**  
 See fig. 28 and Pl. 33b

SPIT	DEPTH	COMPOSITION	CONTENTS
1	0-25 cm.	Light-coloured sandy or plastery material in bands 5 or 6 cm. thick interspersed with thinner bands of darker, fibrous material.	Sherds of Tripolitanian Red Slip Ware (p. 235, nos. 6, 10), of a black-coated red ware, of a large jar and of very coarse handmade cooking pots of which some have a rounded rim. Fragments of basket, bronze, charcoal, gourd, wood. A bead. Two pieces of glass. Pieces of rope and cloth. Animal bones of very fresh appearance.
2	25 - 50 cm.	Similar to spit 1 but of darker colour, containing much fibrous and stubbly material in wood ash. In this spit was encountered the first of several beds composed of layers, here between 6 and 10 in number, of fine sand of a distinctive brown colour.	One sherd of Tripolitanian Red Slip Ware (p. 235, no. 5) but sherds of other well made wares inc. large storage jars, with sherds of very coarse handmade cooking pots equalling in quantity those of the finer wares. Fragments of charcoal, decorated gourd (fig. 93), wood, fibrous and textile materials (basket, rope). Animal bones, 2 oyster shells, almond shells, and fruit stone of <i>Prunus</i> sp., probably almond (p. 260).
3	50 - 75 cm.	Similar to spit 2, with a bed of brown sand in less well defined layers, perhaps 9 in number.	Sherds of Tripolitanian Red Slip Ware (p. 235, nos. 11, 13) and sherd of coarse, handmade cooking pots. One corroded and illegible coin. Glass, ostrich shell, rope, red textile and beads. Animal bones. Wood of <i>Tamarix</i> sp. and <i>Rhus</i> sp. and charcoal of <i>Acacia</i> sp. (p. 260).
4	75 cm. - 1.0m.	Plastery rubble with large stones, a bed of brown sand and a thick layer of black ash and charcoal.	One sherd of Tripolitanian Red Slip Ware (p. 235, no. 18), and rim of a cooking pot of coarse ware; the latter was in the layer of ash. Wood and charcoal as in spit 3.
5	1.0 - 1.25 m.	Partly a continuation of the thick layer of ash of spits 3 and 4, partly a bed of brown sand with 3 or 4 layers of stubbly material of which the topmost contained much fibrous matter suggesting straw or dry grass.	A fragment of glass.
6	1.25 - 1.50 m.	Largely grey ash with a little charcoal.	Dried dates, datestones, and piece of cloth.
7	1.50 - 1.75 m.	Grey ash with a little charcoal at the top. Below this a bed of brown sand* which continued downwards through three more spits on the west side of the excavation and through two more on the south side.	Sherds of Tripolitanian Red Slip Ware (p. 235, nos. 7, 20, 22). On the west side of the excavation, near the top of the spit, a piece of cloth in several folds. Animal bones. Charcoal of <i>Tamarix</i> sp. (p. 260).
8	1.75 - 2.0m.	Continuation of the bed of brown sand of spit 7*, a thin layer of grey limey material extending halfway across from the south side.	Charcoal, stubble and goats' droppings in well defined layers.
9	2.0 - 2.25 m.	Continuation of the bed of brown sand of spits 7 and 8* with perhaps 7 layers of deposition, and a thin layer of grey limey material extending across the south side of the excavation near the top of the spit.	One datestone near the top of the spit on the north side of the excavation. Charcoal of <i>Tamarix</i> sp. (p. 260).
10	2.25 - 2.50 m.	On the west side the brown sand* continued but on the south side it gave way to a thick bed of limey material which continued to the bottom of the excavation.	In the brown sand a bone and the topmost remaining courses of a wall probably c. 75 cm. thick. One sherd of Tripolitanian Red Slip Ware (p. 235, no. 10).
11	2.50 - 2.75 m.	On the south side the bed of limey material continued. On the west side the brown sand of spits 7-10* gave way to this bed of limey material, here formed of thin, compact layers, the topmost layer being 9-13 cm. thick and now extending across the excavated area up to the south side of the wall which began to emerge in spit 10. This material appeared to have been washed down from a higher level.	In the limey material a fragment from an amphora. In the silt-like material a thin patch of ash.
12	2.75 - 3.0 m.	Continuation of the bed of limey material of spits 10 and 11. Then the underlying rock.	On the west side, at the bottom of the excavation, the lower part of a large globular amphora of purplish fabric.

\* Note on the bed of brown sand of spits 7-10: fig. 28

This bed consists of some 25 layers of fine brown sand, varying in thickness up to 5 cm., which presumably indicate a period of recurrent sandstorms ('ghiblis'). For about 20 cm. from the bottom of the bed the layers contain only a few small pieces of charcoal and very small rough stones, but no pottery or bones. Then goats' droppings begin to appear, but do not become noticeably numerous until about 42 cm. from the bottom of the bed. Thereafter the layers begin to be distinguished by their principal constituent: stubble-like fibres and fibres of woody plants. In these layers goats' droppings appear in small, well defined lines. Small samples were taken from each layer throughout the excavation. See Appendix 15 (p. 308).

Fig. 29. Table IV: composition and contents of Midden 1.

If the results of the excavation of Midden 1 can be regarded as offering a basis for a general conclusion it seems clear that these mounds consist not only of wood ash and other household refuse but also of building debris and manure from byres or pens into which goats were herded at night. Altogether the middens bespeak a settled mode of life very different from that of the present semi-nomadic inhabitants of the Wadi Ghirza and surrounding region,<sup>5</sup> and also of a higher standard in at least one respect, viz. the enjoyment of luxury articles such as vessels of fine pottery and glass. These indicate a community with wealth sufficient to provide for more than basic necessities, and whose assets were not entirely locked up in livestock and stores of grain but included ready cash. Indeed, inscriptions record, in addition to a funerary holocaust (p. 262), the payment of money for monumental tombs erected by one of the leading families of the settlement (p. 261).

## (vii) OTHER FEATURES ASSOCIATED WITH THE BUILDINGS

### (a) *Wells and cisterns*

Two wells and five cisterns are known (fig. 3). Well 1 is on the extremity of the spur between the Shabet el-Gsur and the Wadi Ghirza, about 20m. south-east of the nearest building, i.e. 37. Well 2 is a few metres south of the entrance to 33. The first is now full of sand (Pl. 34a). The wellhead of the second stands about 9.0m. higher than the bed of the wadi and about 30m. above the present water-table. The water itself is foul but animals drink it apparently without ill-effect and perhaps in antiquity it was sweeter. Both wells undoubtedly date from Roman times.

Cistern 1 is situated some 40m. north-west of Building 5. It is a rectangular structure c. 30 × 4.80m. overall, its long axis lying east-west. Only the remains of the barrel-vaulted superstructure are now visible (Pl. 34b), the interior being filled with sand and debris. The masonry of the better preserved south-east end is of a superior grade 3. The eastern third was partitioned off to form an abnormally large settling-tank, 7.50 × 3.35m. in length and breadth, the actual storage tank measuring 20.10 × 3.50m. Both tanks were faced internally with 'cistern' plaster (p. 72). Unfortunately the depth is unknown, but if it were the same as the width - it is almost certainly more, probably not less than c. 5.0m. - the capacity of the storage tank would be 351,740 litres (= almost 84,280 gallons).<sup>1</sup> The cistern was fed with surface water directed by long, curving catchment walls extending to north and north-west. Two of these, converging at a point 17.0m. north-west of the east end of the cistern, conducted the water into the settling-tank. Two others converge at a point 40.0m. north-west of the west end of the cistern, directing the water into a detached, open settling-tank (4.50 × 2.50m. internally), whence it was conveyed by a channel to discharge into the west end of the cistern; both settling-tank and channel were lined with 'cistern' plaster. It is interesting to note how the catchment walls appear to have been laid out with a view to protecting the superstructure of the cistern from erosion by diverting stormwaters to either end of it; but this may have been an after-thought, the second pair of catchment walls, detached settling-tank and channel possibly having been added in the light of experience.

The other cistern on the north side of the Shabet el-Gsur, i.e. Cistern 4, was constructed against the north bank of the shabet south of Building 26 and west of Building 30 (fig. 3). Very little of it remains and its dimensions cannot be determined, but like Cistern 1 it was lined with 'cistern' plaster. This cistern was served by a catchment wall winding for more than a kilometre to the north along the top of the left bank of the more easterly of the two branches into which the shabet divides immediately west of the settlement (Pls. 1, 34c). Somewhere south-west of 26, at a point not now certain, water diverted by this wall entered a rock-cut channel, lined with 'cistern' plaster and covered with slabs of stone, which conducted it into the cistern.

Cisterns 2 and 3 are both on the south bank of the Shabet el-Gsur, the former on the north-west side of Midden 1 (p. 92), the latter a few metres from the north-west angle of the extension of Building 31 (p. 62 fig. 13, Pl. 34d). These are of a different type, being large underground chambers formed by excavation, and appear to have been intended to be filled from floodwater as it surged down the shabet after torrential storms. Cistern 2 measures 13.0m. (north-south) × 8.0m., narrowing to a diameter of 2.80m. at the mouth, and is c. 7.50m. deep from mouth to floor. It received its intake from a settling-tank by means of a partly channelled, partly constructed underground conduit entering the chamber about 3.0m. below ground level. Both settling-tank and conduit were lined with 'cistern' plaster. The former measured 1.35m. (north-south) × 2.10m. × 2.30m. deep. The latter, covered by stone slabs c. 8cm. thick, is internally c. 62cm. high × c. 60cm. wide, narrowing to c. 55 cm. as it approaches the cistern. Cistern 3 is cruciform in plan, 4.20m. from floor to roof, and its mouth is 1.05m. in diameter. It was filled from the same settling-tank as Cistern 2 through a duct 5.0m. long which was driven through the rock. A coin of Faustina I (died A.D. 140) was found in Cistern 2 (p. 242).

The arrangements for conveyance of water from detached settling-tanks to cisterns by means of aqueducts recall what appear to be the remains of an aqueduct near the south end of Building 8 (p. 50), and raise the question whether the purpose of this feature may have been to conduct overflow from Cistern 1 to another cistern. If so, its destination was most probably a cistern on the north bank of the Shabet el-Gsur, additional to Cistern 4, of which there is now no trace.

The fifth cistern, situated in the Wadi Ghirza towards the Siah et-Tmed, is probably also ancient (fig. 2). It has, however, been rehabilitated in recent years and the present cistern head is entirely of modern construction.

The water resources represented by these wells and cisterns may have been available to the community as a whole. Yet it is difficult to avoid the impression that each was the responsibility, if not the property, of individuals. The impression is especially strong in the case of Well 2, located as it is just outside the entrance of Building 33 (fig. 14); and it is this example which prompts the thought that Well 1 and the cisterns may likewise have been associated in some way with the nearest buildings, e.g. Well 1 with one or more of Buildings 36-38, Cistern 1 with Building 5, Cisterns 2 and 3 with Building 31 (the mouth of Cistern 2 appears to interrupt a wall of an earlier building on the site now occupied by Midden 1; see p. 96), and Cistern 4 most probably with Building 26. This need not be surprising, for at least the other larger buildings may have internal wells or cisterns of their own which are at present obscured by debris.<sup>2</sup>

(b) *Hearths and ovens*

Four hearths have been noted; all are similarly constructed and are probably, therefore, typical examples. Only one of the four is inside a building: it occupies the north-east corner of the north room in 8 (p. 50, fig. 5, Pl. 6d, e). Two are in the immediate vicinity of the same building: one in the enclosure on the west side (fig. 5), the other, which measures 1.0m. × 85cm. and is the largest of the three associated with this building, 2.0m. from the entrance to the enclosure at the south end (fig. 5). The fourth lies a few metres north of 11, to which it presumably belonged (fig. 6, Pl. 35b). All are rectangular structures consisting of slabs of stone set upright in the ground.<sup>3</sup> The stones have been reddened and cracked by heat. Examination of that in the north room of 8 revealed a small quantity of charcoal (p. 50). This hearth may have been used for cooking, but the larger, external hearths could have served minor industrial purposes.

Several ovens were also recorded. They are no more than bowl-shaped hollows artificially made in the natural rock; when in use they must have been covered with a flat stone to keep in the heat. Their approximate average depth may be put at 30cm., and average diameter at 75cm. The heat was sufficient to discolour and even to crack the surrounding rock and evidently came from a fire kindled in or shovelled into the oven, the ash being raked out before the dough was put in. Two are in the enclosure on the west side of 30 (p. 59, fig. 11, Pl. 35c), and these are the only examples clearly associated with a particular building. Others are found, singly, in the lane between 20 and 26, between 26 and 30, and in the open ground between 32, 33 and 34. One of those between 32 and 33 approximates to a rectangular shape, but the others could be described as generally circular. In view of their small number it seems probable that those which do not appear to belong to a particular building were used communally. Like their modern counterparts they were doubtless in daily use for the baking of bread.

(c) *An unexplained feature south-west of Building 32*

At a distance of 8.50m. south of the south-west corner of Building 32 (fig. 3) was a structure of which very little survives and for which no satisfactory explanation can be offered. It was approximately 2.0m. square (fig. 30, Pl. 34c), and appears to have consisted of a core of mortar and stones, faced with thin dressed and squared stones and stones roughly squared. This evidently re-used material may have been rendered externally with white plaster, of which a vestige remains. At the centre of each side is a projection c.50cm. wide and extending up to 63cm. The remains suggest a base, but it seems impossible to account for the projections.

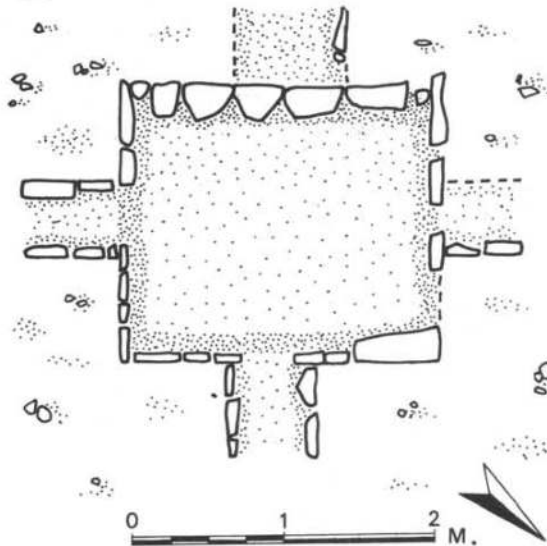


Fig. 30. Feature south-west of Building 32.

## (viii) THE CEMETERIES

### (a) *Introduction*

Five cemeteries were identified and are described below as Cemetery 1, Cemetery 2, etc. In addition, there are many outlying tombs between the Shabet et-Tiswiyr and Shabet el-Gsur which are designated as Group A, Group B, etc. where more than one tomb is concerned, and Tomb D, Tomb P, etc., in cases of a single tomb. The total number of tombs, both in cemeteries and outlying, can only be estimated owing to their disturbance and partial burial by blown sand, but there are certainly not less than 412.

This figure does not take account of the monumental tombs, which are separately described and discussed in Chapter III (p. 121), or of what appears to be a washed-out cemetery on the plateau on the north side of the Wadi Ghirza, some 300-350m. south-west of the north group of monumental tombs (fig. 2, Pl. 40a).

Twelve tombs were excavated. Four of these were in Cemetery 1 and are numbered hereafter according to the order of their excavation. In Cemetery 2 five were excavated and are similarly numbered. One was excavated in Cemetery 3; two others in this cemetery which had been opened and emptied during 1956-7 by unknown persons are also described below. The eleventh was the central tomb in a row of three constituting the outlying Group A, and the twelfth was one of the three tombs forming the outlying Group C.

Apart from the tombs described below there are others here and there amongst the buildings of the settlement which, however, resemble old Muslim graves in the pre-desert rather than the clearly ancient tombs of the cemeteries and outlying groups. One, for example, on the south side of Building 2, consists of an elliptical arrangement of stones and has a stone presumably marking the position of the head: and four large graves in a row not far from what is possibly an old prayer-wall, on the east side of Building 31 towards Building 32, have already been mentioned (p. 65).

### (b) *Construction of the tombs*

*Introduction.* So far as it is possible to judge from remains visible on the surface, the tombs in Cemeteries 1, 2, 4, 5, and the outlying groups conform more or less closely to one regular type, those of Cemetery 3 tending only to be higher and more cairn-like than the others. The three excavated in Cemetery 3 appear, however, to represent a variant of this type, though whether any other or all of the tombs in this cemetery are similarly abnormal is not evident from surface indications. Only eight tombs were noted as being of other, clearly exceptional types. The predominating, regular type can therefore be regarded as the normal tomb constructed for the common folk of the settlement.

Cemeteries of similar tombs elsewhere in the pre-desert have hitherto escaped record; they are, in fact, extremely difficult to distinguish in so stony a landscape.<sup>1</sup> Only three other examples are known to the writers;<sup>2</sup> one beside the ruins of the monumental tombs opposite the Gsur Chanâfes, the second in the Wadi Umm el-Ageram, and the third at Muagen Ngorta,<sup>3</sup> where there are six such tombs beside the monumental tombs. The cemetery of the Gsur Chanâfes is perhaps comparable in size with Cemetery 3 at Ghirza; there the normal tomb predominates, and is well represented by one tomb in an exceptionally good state of preservation. In the Wadi Umm el-Ageram the tombs are less well defined but appear in general to have been of the normal Ghirza type. It seems possible, therefore, that the normal tomb at Ghirza may prove to be typical of the humbler tombs constructed in the pre-desert during at least the later Roman period.

Nine of the tombs excavated possessed essentially similar structural features. Three of the others were of slightly different construction, and two were obviously exceptional types which differed not only from the normal type but also from each other and were selected specifically for comparative purposes.

*The normal tomb.* The normal tomb, as evident from surface remains and confirmed by excavation, was represented in Cemetery 1 by Tombs 1, 2 and 3, in Cemetery 2 by Tombs 1, 2, 3, and 4, amongst the outlying tombs near the edge of the Shabet et-Tiswiyr by the central tomb in the row constituting Group A, and by one of the three tombs in Group C.

The best preserved and consequently the most informative was Tomb 4 in Cemetery 2, which will serve as an illustration of the type (fig. 32). This tomb lies on the southern fringe of the cemetery. In shape it is rectangular, measuring internally 2.05m. by 0.80m.: the long axis is aligned east-north-east/west-south-west. It consists of four walls, each 60cm. thick, founded on bed rock, and each comprising six courses of roughly squared stones, mud-bonded, with a core of mud and rubble. These rise to a height of 94cm., which can be regarded in this case as the original height (or depth) of the tomb. At the south-west corner two long stones support the remains of a large, thick slab, a fragment of one of several with which the tomb had originally been covered (Pl. 37c, d). Part of another large slab lies on the south side of the tomb. Adjacent tombs at both ends and on the north side of the tomb each utilize one of its walls as their own, in a manner which is quite common (figs. 31, 32, 34).

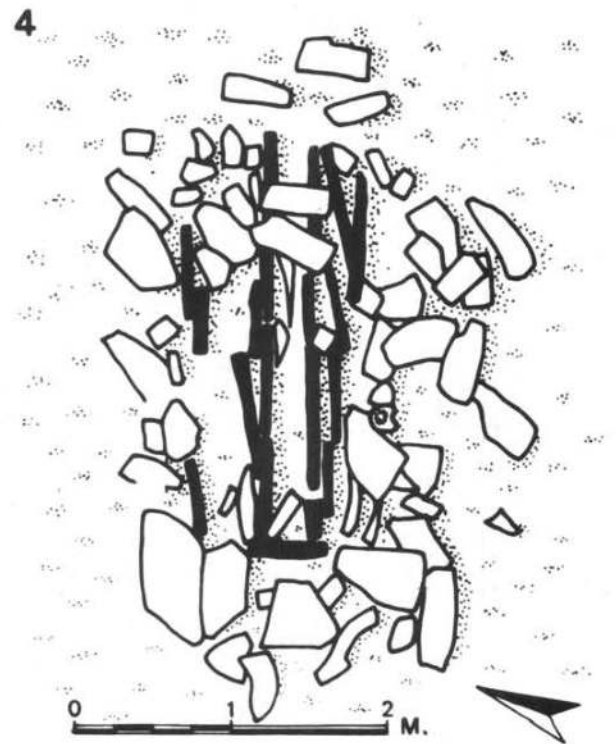
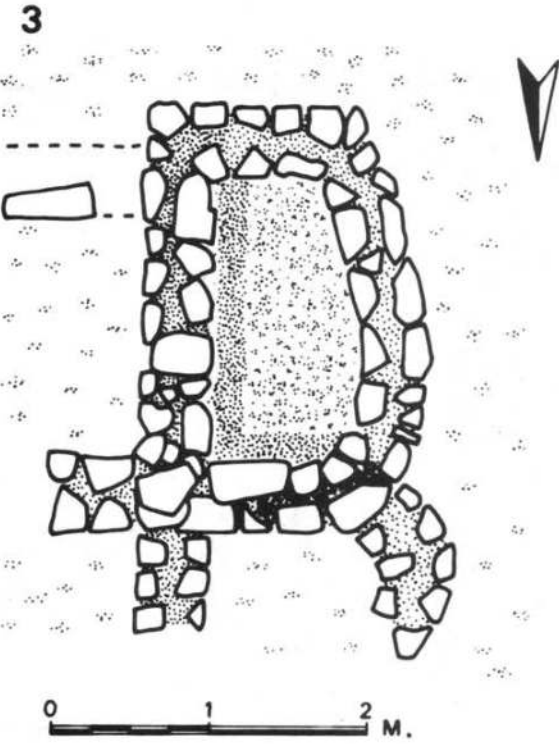
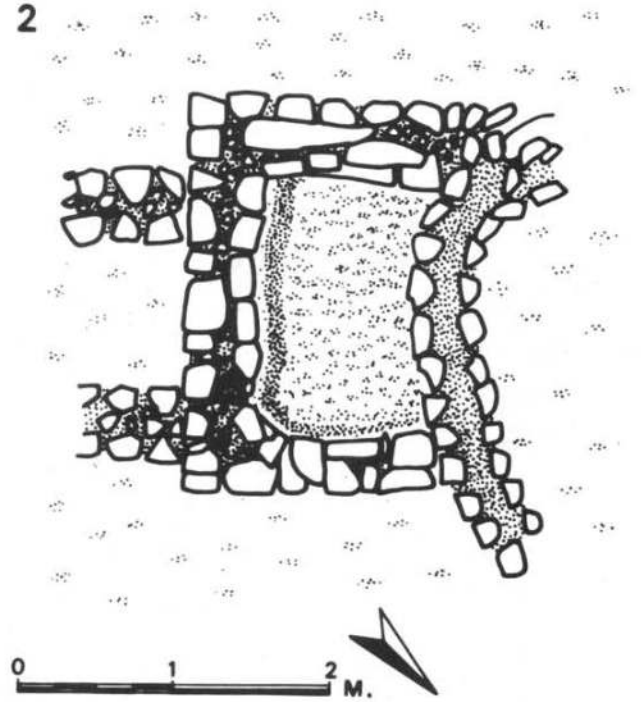
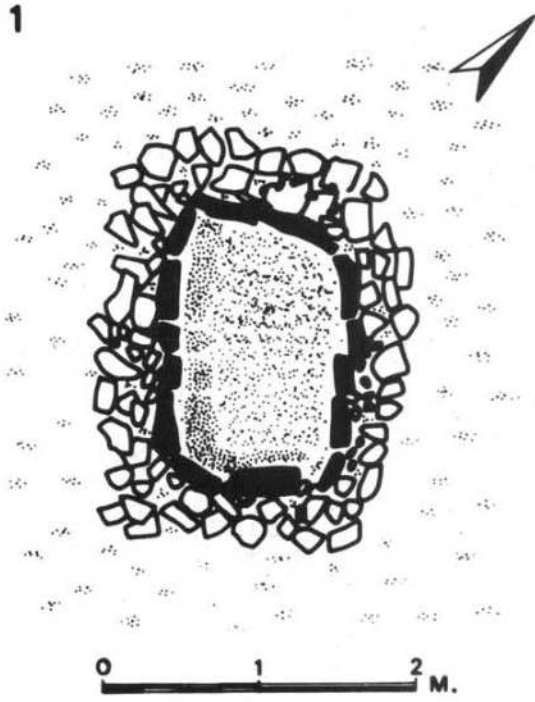


Fig. 31. Cemetery 1: Tombs 1-4.

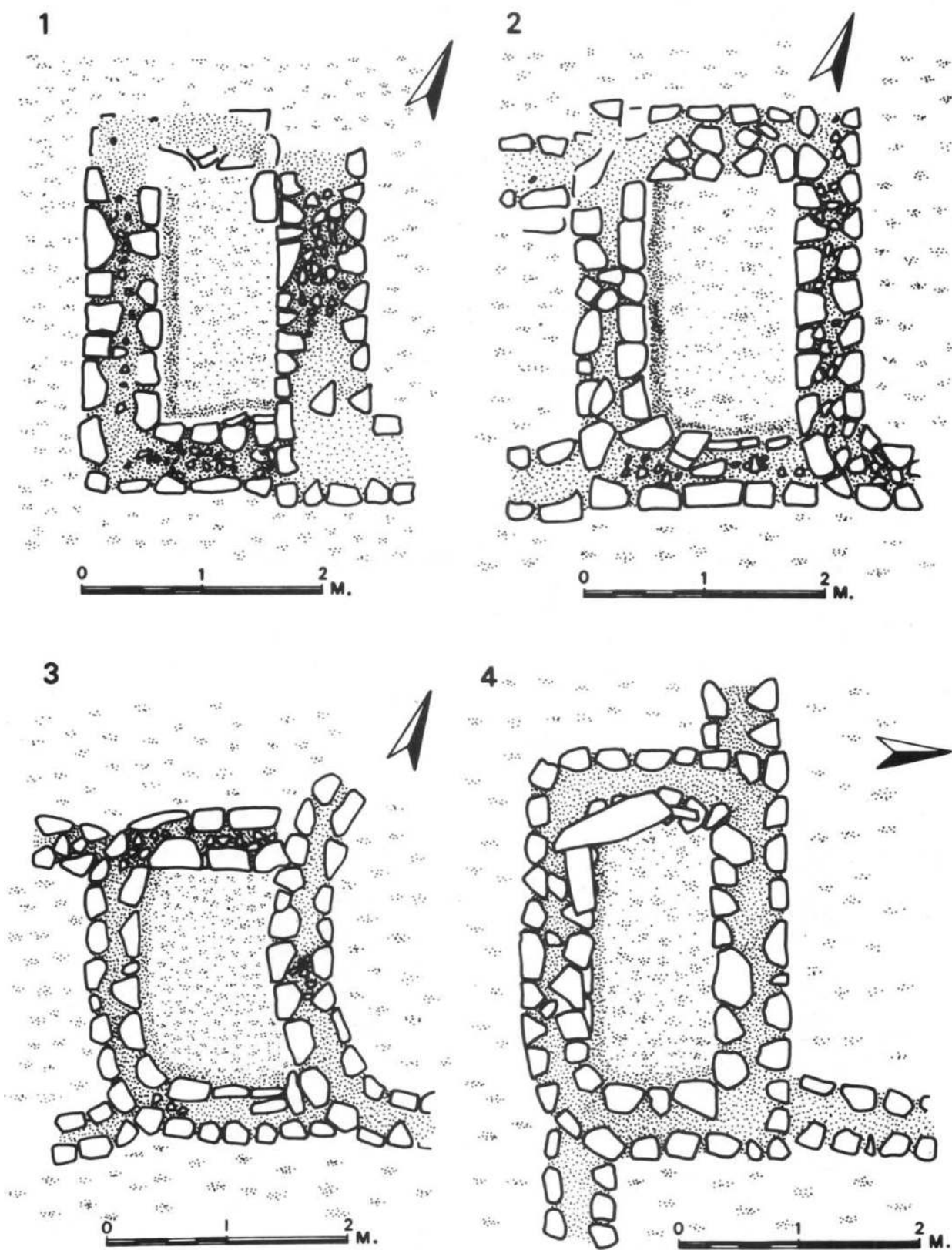


Fig. 32. Cemetery 2: Tombs 1-4.

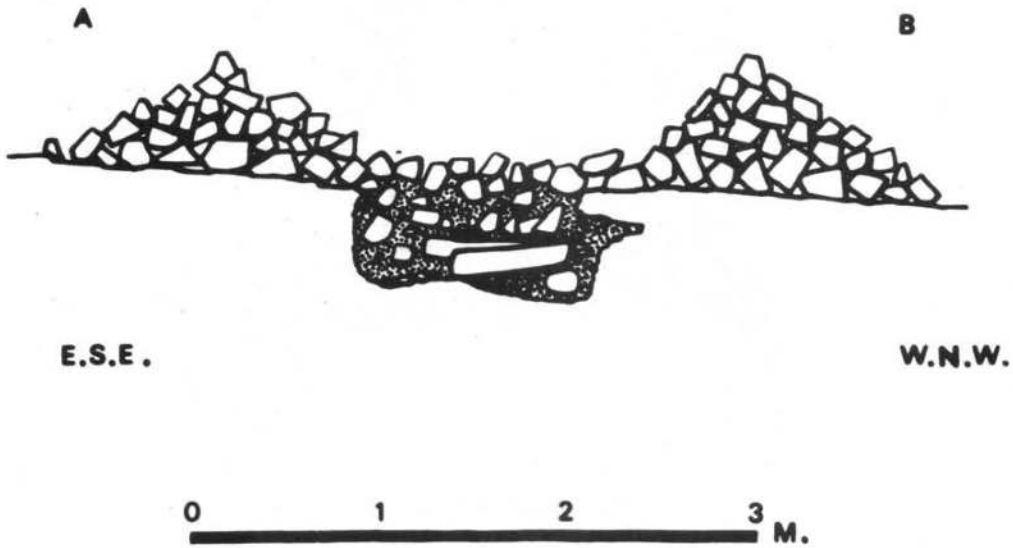
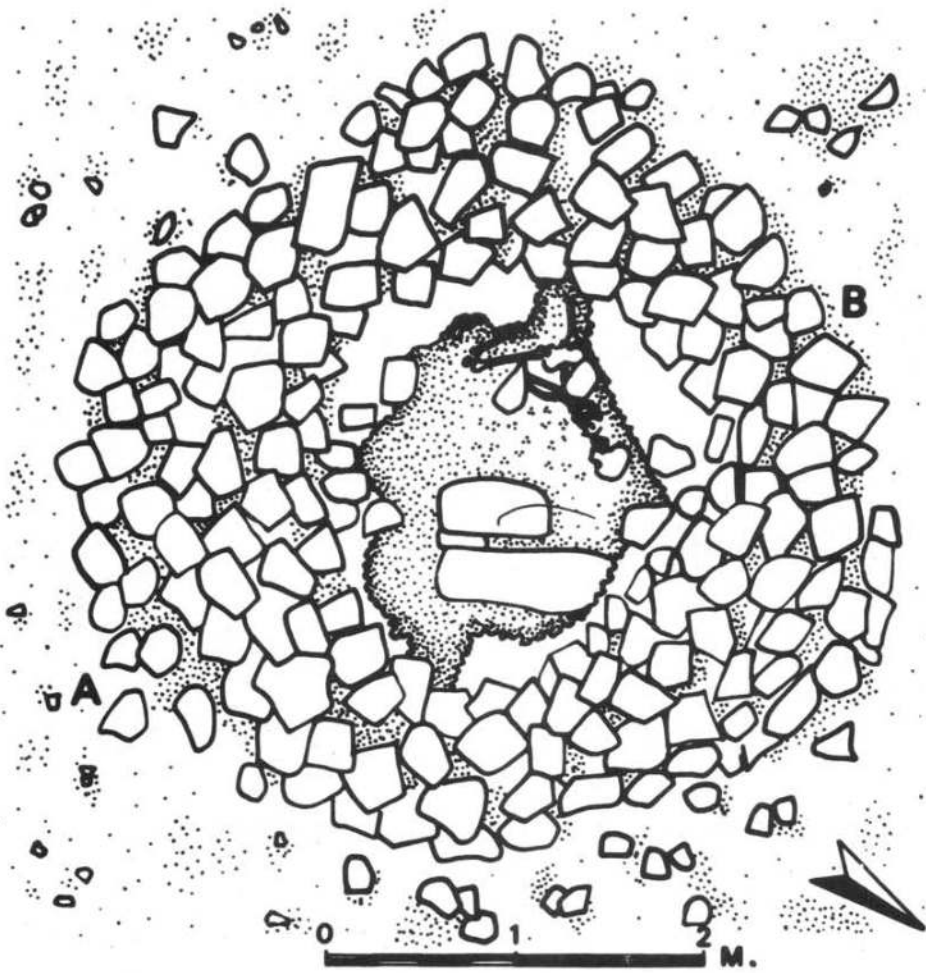


Fig. 33. Cemetery 2: Tomb 5.



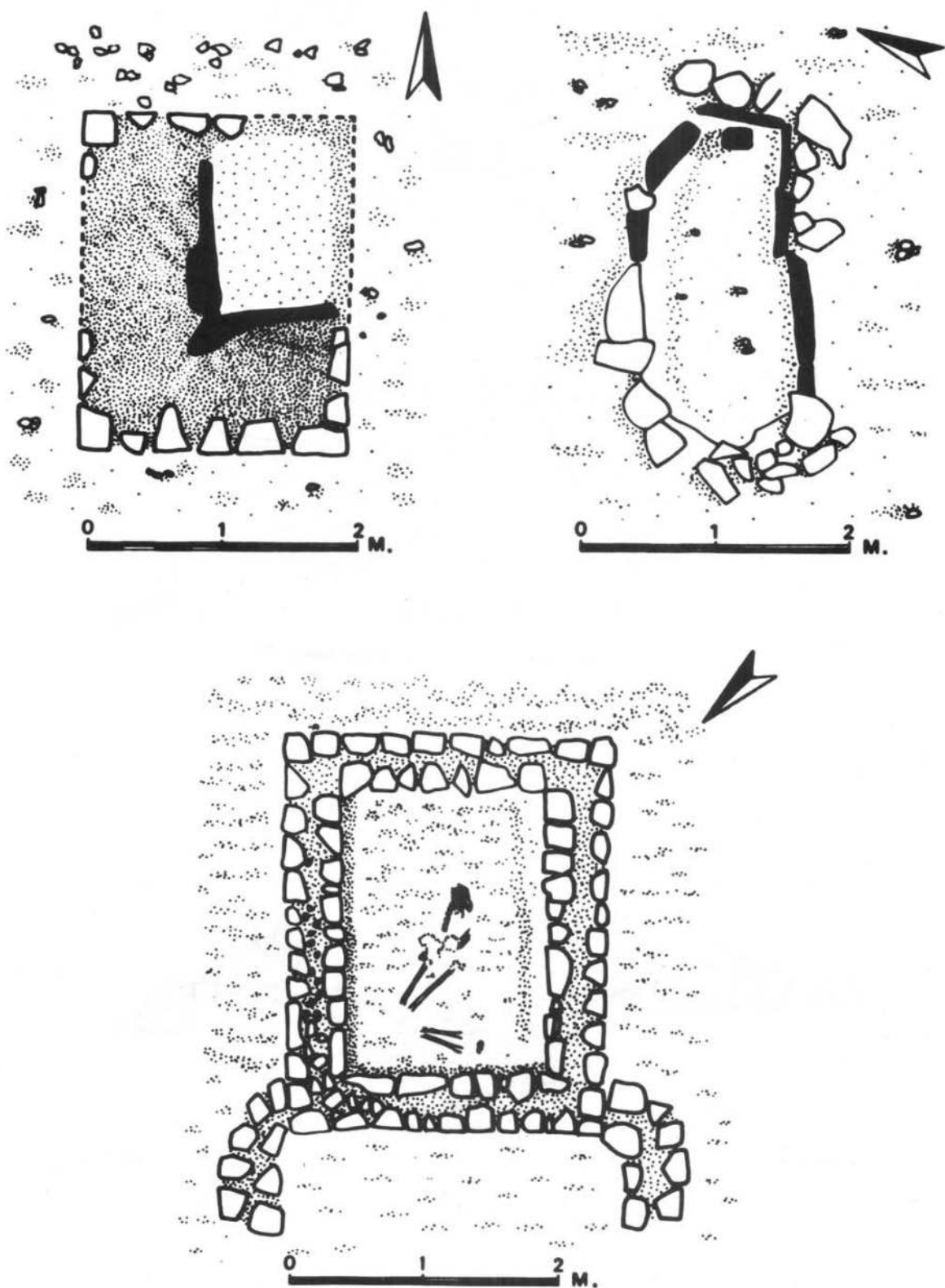


Fig. 34. Cemetery 3, Tomb 2 (above, left), outlying tomb, group C (above, right), outlying tomb, group A (below).

This brief description can be supplemented by reference to both comparable and variant features in other tombs. For instance, the excavation of nine tombs of the normal type showed that all were more or less rectangular in shape, with no discernible preference for any particular alignment. Comparison with the unexcavated outlying tombs, which are generally less obscured by sand and debris than the tombs in the main cemeteries, confirms that the rectangular shape is a regular feature, though examples tending to an oval shape were occasionally noted, and here, again, orientation does not appear to have been regarded as important. The actual size of each tomb was obviously determined solely by the space required for an extended inhumation and the one or two objects to be buried with it (p. 113). In those excavated the internal length ranged from 1.65 to 2.25m., the breadth from 0.96 to 1.33m., and the depth from 0.65 to 0.94., but doubtless many of the unexcavated are smaller, and some are perhaps a little larger, than these. Seven of the nine normal tombs which were excavated yielded evidence of inhumation (p. 258).

Generally the lowest course of the walls rests upon bed rock, which forms the bottom of each tomb. Only in Tomb 2 in Cemetery 1 (p. 101) had there been any attempt to cut into the rock, though only to a depth of 20cm. towards the south-west end and presumably merely to level out some irregularity. The same explanation might be sought for the layer of hard mud., c. 15cm. thick, which covered the bottom of the excavated tomb in the outlying Group A (p. 104), and for the layer of compact, fine earth, c. 7cm thick, which covered the bottom of Tomb 1 in Cemetery 2 and ran under the wall on its south-west side (p. 102). It is interesting to note that the bottom of Tomb 2 in Cemetery 1 is 40cm. below the present ground level at the north-east end and it may be that originally most, if not all, of the tombs stood in a greater depth of earth than, after fifteen hundred years of erosion, they do today.

Of those excavated, only Tomb 4 in Cemetery 2 preserved its walls to their original height of 94cm. (p. 102), and the height of the walls of most of the tombs can perhaps be thought of as ranging from c. 87-90 cm. Similarly, the method of construction as exemplified in the same tomb appears to have been practised almost universally. The only outstanding variant was Tomb 1 in Cemetery 1, where the walls, instead of being constructed with roughly squared stones laid in courses, consisted of long, narrow stones set on end and backed by a low, very roughly built wall which was probably c. 60-70cm. high (p. 101, fig. 31, Pl. 36b).

The method of covering the tomb with large stone slabs laid transversely has already been noted in the tomb chosen for description. Only one other tomb at Ghirza, on the west side of Cemetery 1, was observed to retain part of a cover-slab *in situ* (Pl. 37c), but broken slabs which lie on all sides in the cemeteries and about the outlying tombs leave no doubt that originally all the tombs of normal type were covered in this way. Confirmation, if needed, may be sought from the tomb cited above (p. 100) in the cemetery of the Gsur Chanâfes.

*The tombs in Cemetery 3.* Two tombs in Cemetery 3 had been opened not long before the arrival of the 1957 expedition and members of the expedition themselves excavated a third (p. 259). These tombs have been described above (p. 100) as variants of what may be considered the normal tomb in the common cemeteries at Ghirza. For the cemetery see p. 107. The excavated tomb is illustrated in fig. 34 and Pl. 38a. All were more or less rectangular and of almost the same overall size, c. 2.10m. by c. 1.30m., and all consisted of four walls without facing stones on the inside. Two of the tombs had been faced externally with 'cistern' plaster, and it seems likely that the third had been similarly faced. There was no sign of cover-slabs for any of these three tombs or elsewhere in Cemetery 3. Most probably their walls served as a revetment for a filling or a superincumbent mound which was faced with plaster.

In Tomb 2 two slabs set on edge formed a cist occupying about a quarter of the interior (p. 104, fig. 34. Pl. 38a). In this and Tomb 3 (p. 100) were remains of charcoal (p. 260) and calcined bone. The difference between the excavated tombs in Cemetery 3 and those elsewhere is therefore not merely one of structural variation; the difference in burial rite is noteworthy and perhaps important, and an attempt to account for it will be made below (p. 114).

*Exceptional tombs.* The two tombs of exceptional types which were chosen for excavation were tomb 4 in Cemetery 1 and Tomb 5 in Cemetery 2. Their essential features can be briefly described.

Tomb 4 in Cemetery 1 (fig. 31, Pl. 36e) lies on the western edge of the cemetery, 1.0m. south of a tomb of the normal type but otherwise isolated. Its alignment is east-south-east/west-north-west. When selected it appeared a heap of broken slabs, through the centre of which ran two parallel lines of large upright slabs 30cm. apart, with two smaller slabs laid across the intervening space and a third, leaning over, which had formerly served to close the west end. The two stones across the top were clearly the remains of original covering slabs, the whole structure forming an elongated cist. Its overall length was 2.60m.

Careful removal of the sand which had drifted in resulted in the discovery, midway between the ends, of a minute fragment of coarse, pink, handmade pottery (p. 114), but not a trace of any other object or substance. The skeleton had entirely perished but, from the width of the cist, must have been that of a child. Under the debris on the south side of the tomb was a small, broken stone with a roughly hollowed, circular depression, which appeared to be part of a crude offering-table.

It is natural to suspect that a tomb so different from the normal type, isolated from neighbouring tombs

and on the very fringe of the cemetery, must belong to a late period in the history of the settlement and perhaps even to an intrusive culture. But this is not necessarily so,<sup>4</sup> for although the only evidence which can be brought to bear on the point is the small sherd found during the excavation, sherds from a vessel or vessels of the same coarse, pink fabric were found near the surface of Tomb 3 in Cemetery 1 (p. 111), a tomb of the normal type.

Two other structures resembling this tomb have been noted. One is in Cemetery 3, the other on the bank of the Wadi Ghirza to the south-west of Building 32.

Tomb 5 in Cemetery 2 (fig. 33, Pl. 37e, f) differed fundamentally both from the normal tombs and from the other exceptional tomb just described. It lies slightly to the south of Cemetery 2 at a distance of 4.50m. south of Tomb 4 and was found to comprise a large grave covered with slabs and encircled with a heap of stones. The heap measured approximately 4.0m. in overall diameter and stood about 75cm. high. The grave was some 50cm. deep and 1.50m. across, but very irregular in shape, and had been formed by cutting through the hard crust of the rock (limestone) and hollowing out the softer material beneath. It was filled with sand, loose stones which had fallen in and two large fragments of slabs, and contained a well preserved skeleton. Apparently, therefore, the grave had originally been covered with large slabs, of which all except the remaining two fragments had been removed, thus allowing it to become filled with stones and sand. If so, the removal is to be attributed not to grave-robbers but to stone-robbers, the burial certainly never having been disturbed.

The body had been laid on its left side with head towards the north and its back against the west side of the grave; the legs had been drawn up until the thighs were nearly at right-angles to the trunk, while the arms were extended and the hands had seemingly been placed between the knees. The remarkably good state of preservation of the skeleton is noteworthy (p. 258) and though the individual bones were brittle their condition contrasted strongly with the advanced desiccation and decay of the scant remains in the other tombs excavated.

A second contrast between this and the other burials examined is provided by the offering, which here took the form of a goat's horn, lying 15cm. south of the knees; in Pl. 37f its position can be visualized at the point of the V-shaped interruption in the line of the shadow on the south side of the grave. The significance of this object can hardly be in doubt, for in present-day Tripolitania and other parts of North-West Africa horns are believed to possess talismanic properties.<sup>5</sup> But although this was the only offering found, the large size of the grave and the placing of the body at one side of it rather than in the centre suggest that the unoccupied space may originally have contained offerings of a perishable kind which had left no trace.

Two similar tombs were noted. One lies some 8.0m. south of Tomb 1 in Cemetery 1, and 1.50m. from the nearest tomb on the west side of that cemetery. It has the appearance of a low, roughly circular, hollow cairn, but it is possible that it was enclosed by a rough wall which has collapsed. Sherds of dark Red Slip pottery lie on and to the south of it. The other lies c.70m. north-west of Tomb 3 in Cemetery 2, near the south edge of the Shabet el-Gsur. This is a large tomb, slightly elliptical but averaging c.4.0m. in diameter, and consists of an outer ring of loose stones enclosing a walled-in burial-place, the topmost stones of the wall being flush with the present surface of the ground. It is thus less certainly an exception to the normal type of tomb and excavation might show it to be, in fact, only a variant form. At the same time, it is worth noting that its affinities seem to be less with the normal tombs in the cemeteries of the settlement than with five tombs on the skyline about a kilometre to the west of Ghirza; from the patina on the stones, these tombs are undoubtedly of some age and are perhaps to be associated with the nearby remains of an old camp-site marked by emplacements of stones for four tents.

(c) *Distribution and general observations: figs. 2, 3, 31-34.*

*Cemetery 1:* fig. 3. 140m. north-west of the nearest building of the settlement, i.e. Building 35, and some 30m. from the edge of the Shabet et-Tiswiyr. This cemetery consists of approximately 100 tombs, which form a well defined, fairly closely packed group occupying an irregular area some 50 × 25m. in extent. Excepting Tomb 4 (see above, p. 105) all except one appear to be of the normal type.

Two tombs are situated c.5.0m. to the north-west and another lies c.1.50m. to the west of the main group. Several offering-tables (see below, p. 111) appeared to be still *in situ* and one was found, overturned but perhaps more or less in position, on Tomb 2 (p. 111). On others, sherds of Late Roman Red Slip pottery were observed (p. 234).

*Cemetery 2:* fig. 3. 20-30m. north of Buildings 34 and 35. It comprises not less than 96 tombs of the normal type (p. 100) and extends irregularly over an area measuring some 75 × 50m., being rather less well defined and, except towards its eastern and southern limits, less closely packed than Cemetery 1. In addition to the normal tombs there are two which are certainly of other types, one of which, Tomb 5, was excavated (see above).

Cemetery 2 is of particular interest for the number and variety of its offering-tables, while sherds of Late Roman Red Slip pottery (p. 234) and remains of other votive objects are also in evidence (p. 111).

Three tombs stand at short distances from the main part of the cemetery. One of these is Tomb 5. Another, north-west of the cemetery, a few metres south of a camel-track which follows the edge of the Shabet el-Gsur, and approximately in line with Building 35 and the ancient quarry in the shabet, preserves an offering-table *in situ* and is therefore probably of the normal type. The third, on the other hand, is a large, slightly elliptical tomb c.5.0m. in diameter, which is enclosed by a low wall overlapped by an encircling heap of stones (Pl. 37b). This is

clearly not of the normal type but resembles the tombs near the site of the old encampment on the skyline about a kilometre to the west, and *may* belong to the same type as Tomb 5 in this cemetery; it stands on the north side of the camel-track along the edge of the Shabet el-Gsur at a distance of 72m. from Tomb 3.

*Cemetery 3; fig. 2.* This cemetery extends over a relatively small area to the east, south and west of the south group of monumental tombs (p. 45, fig. 37). It was briefly inspected in 1955, when 33 tombs were counted. No 'headstones' (p. 112), offering-tables (p. 111) or relics of votive deposits were noted then or on subsequent visits, and there is reason to think that at least some of the tombs of this cemetery must be treated as variants of the normal type (p. 105).

Two tombs of circular plan, constructed with stone slabs set upright, lie in the vicinity but are manifestly different from those of Cemetery 3. One is situated at a distance of 300 paces north of the monumental tombs F and G (p. 199ff) and a little more than 50m. from the bank of the Wadi Ghirza; it measures 3.0m. in diameter and appears to contain the remains of a slab-built cist in the centre (Pl. 38c). The other lies 300-400m. east of the monumental tombs; it measures approximately 2.50m. in diameter, but here there is no visible indication of a cist. The writers have observed isolated tombs of this type elsewhere in the pre-desert; their circular form, kerb and suggestion of a central cist recall tombs of the Copper and Early Bronze Ages in Europe, but if pre-Roman their state of preservation is surprising.<sup>6</sup>

*Cemetery 4; fig. 3, Pl. 46.* On sloping ground west of the north group of monumental tombs and on either side of a well used camel-track which passes to the south-west of them (fig. 3.) and descends into the Shabet et-Tiswiyr. This cemetery consists of a relatively loose agglomeration of some 88 tombs, including several which are clearly not of the normal type.

No offering-tables are visible, but some which were recovered in 1955 from the Arab winter huts near the monumental tombs had possibly been taken from this cemetery. A few sherds of uncertain period can be seen on some of the tombs on the north side of the camel-track.

The tombs on the north-west side of the camel-track, 38 in number, lie sometimes in groups of two or three but otherwise singly. All appear to be of the normal type, though some are more oval than rectangular in plan. Those on the south-east side of the track, however, perhaps totalling 50, include five of doubtful or clearly abnormal type. One of these is constructed with large stones set upright in a roughly elliptical arrangement. Another, nearby, 57 paces west of the monumental Tomb E (p. 166), appears to be of the same type as Tomb 5 in Cemetery 2 (p. 106). The third, measuring internally c.1.0 × 0.60m. and formed of large irregular stones set upright and backed by a rough wall c.70cm. thick, is surrounded by broken and displaced cover-slabs. The fourth is circular, with a diameter of c.4.0m. The fifth, 110 paces north-west of the monumental Tomb B (p. 134) and 22 paces north of the nearest tomb in Cemetery 4, is aligned north-west/south-east and appears to be of the same type as Tomb 4 in Cemetery 1 (p. 105).

*Outlying tombs between the Shabet et-Tiswiyr and Shabet el-Gsur; fig. 3.* Some 70 tombs occur, singly and in small groups of from 2 to 13, to the west of Cemetery 1 and along the edge of the Shabet et-Tiswiyr to the south and south-east of the same cemetery. All appear to be of the normal type. Here the groups presumably represent members of families. Similar groupings also occur in the main cemeteries but there they tend to be less obvious. In all, the number of outlying single tombs and groups of tombs which it was possible to distinguish amounted to 22.

- A. Three contiguous tombs forming a row, all aligned north/south. The tomb in the middle of the row was excavated (p. 112). Although the group does not consist of more than three tombs, six offering-tables were found collected together at the south end of the row; five were photographed (Pl. 38b). Eight more were found similarly collected together 23.0m. west-south-west of the tomb which was excavated. Presumably, therefore, most if not all of these originally belonged to tombs in this and neighbouring groups.
- B. Two tombs, contiguous, 6.0m. north-west of Group A, both aligned north/south.
- C. Three tombs, of which two are together, 23.0m. north-east of Group A, and are aligned east-north-east/west-south-west. One of these is partly lined with stone slabs and the slabs which originally covered it are scattered about at its west end. It has a 'headstone' (p. 112), not *in situ*, the top of which may originally have been fashioned in the form of a conventionalized human head, now defaced. This tomb was excavated (p. 100). The third in the group lies 5.0m. south of the other two and is a small tomb aligned, like them, east-north-east/west-south-west.
- D. A single tomb, 31.0m. north-north-east of Group A, aligned north-west/south-east.
- E. Ten tombs, of which 1-5 lie contiguously in a row, 47.0m. north-east of Group A, and are aligned west-north-west/east-south-east, while the remaining 5 lie at short distances from these and are described separately below. Cover-slabs are scattered about. Sherds of a dish of Red Slip Ware were collected from the tomb in the middle of the row (p. 234). A square offering-table with a circular depression in the centre and five square holes for offerings along one side lay 11.0m. south-east of the tomb at the south-west end of the row (Pl. 38f).

The other five tombs in the group are as follows:-

- (6) A single tomb, 1.0m. from the south-west end of the row of five, constructed with stone slabs set upright.

- (7) A single tomb, 2.0m. south-east of the second tomb from the north-east end of the row of five, aligned north-north-east/south-south-west, and constructed with stone slabs set upright. An offering-table with five holes for offerings was still *in situ* on this tomb.
- (8) A single tomb, 2.0m. east-south-east of the wall dividing the two tombs at the south-west end of the row of five, aligned west-north-west/east-south-east, and evidently of the normal type but oval rather than rectangular in plan.
- (9) A single tomb, 4.0m. north-west of the south-west end of the row of five, aligned north/south.
- (10) A single tomb, 5.0m. east-south-east of a point about midway along the south-east side of the row of five, and evidently of the normal type but oval rather than rectangular in plan. It is aligned north-north-east/south-south-west.
- F. Two tombs together, 15.0m. north-west of the south-west end of the row of five in Group E, both aligned north-north-west/south-south-east.
- G. Two tombs together, 40.0m. north-north-east of Group A, both aligned north/south.
- H. Seven tombs lying contiguously in a row, 56.0m. south of Group A, all aligned east-south-east/west-north-west.
- J. Two tombs together, 50.0m. east-south-east of Group A, both aligned east-north-east/west-south-west.
- K. Three tombs together, 65.0m. east-south-east of Group A, partly destroyed and alignment uncertain. Each had an offering-table, two being *in situ*. Two more offering-tables lay 4.0m. to the west.
- L. Five tombs forming a descending row on the slope of the east side of the Shabet et-Tiswiyr, 46.0m. west of the south end of Cemetery 1, all aligned north/south.
- M. Two tombs together, 4.0m. south-east of Group L, on the edge of the Shabet et-Tiswiyr, both aligned north-east/south-west.
- N. Thirteen tombs forming a group, 24.0m. north-north-west of Group L, running north-east/south-west down the slope of the east side of the Shabet et-Tiswiyr, all aligned west-north-west/east-south-east.
- P. A single tomb, 5.0m. from Group N, on the edge of the Shabet et-Tiswiyr, aligned west/east.
- Q. A single tomb on the edge of the Shabet et-Tiswiyr and in line with the north side of Building 35, aligned east-south-east/west-north-west.
- R. Three tombs together, 13.0m. north-west of Tomb Q, on the edge of the Shabet et-Tiswiyr; all have been disturbed, but an offering-table remains.
- S. Two tombs together near Tomb Q but lower down the side of the Shabet et-Tiswiyr.
- T. A single tomb 4.0m. south-east of Group S in line with the south side of Building 35, aligned west-north-west/east-south-east.
- U. Two tombs together 7.0m. south-east of Tomb T, aligned west-north-west/east-south-east.
- V. Two tombs together a little to the south-east of Group U, aligned north-west/south-east.
- W. Two tombs together a little to the south-east of Group V, aligned north-west/south-east. Two offering-tables lying nearby, beside the camel-track along the east side of the Shabet et-Tiswiyr, had perhaps been removed from these tombs.
- Y. A single tomb, c.7.0m. east-north-east of Group W. An offering-table lay 2.0m. to the west-north-west, another 1.0m. to the south-south-east.
- Z. About 15 tombs together on the south bank of the Shabet el-Gsur, where a gully runs into the shabet, almost opposite the west end of the quarry on the north bank.

*Cemetery 5; fig. 2.* About 500 to 600m. west-north-west of the buildings on the north side of the Shabet el-Gsur are some 25 scattered tombs, mostly single, and other features which are peculiar to this area. All the tombs are constructed in the normal manner (p. 100) except that a tendency towards greater than normal height is discernible. Two are double-tombs. One (Pl. 42), with two of its cover-slabs still *in situ* and a third displaced, preserves a relatively intact example of the construction of a normal tomb.

The other features are not tombs but arrangements of stones which, from the offering-tables associated with several of them, appear to have had some ritual purpose. Typical arrangements are described below as Feature A, Feature B, etc:-

*Feature A; fig. 35, Pl. 43, top.* Three lines, parallel and of equal length, of small upright slabs, the two outer lines curving inward at one end to join a fourth line lying at right angles to them and touching the corresponding end of the median line. The free end of the median line terminated in a small heap of stones, 70cm. across, which show signs of having been burnt. The length of the median line is 3.30m., and the distances from this line to those on either side of it are 2.60m. and 1.60m. The ground occupied by this feature had been cleared of stones. About 10m. to the north-west lies a tomb. There is at least one similar feature in this area.

*Feature B; fig. 35, Pl. 43, centre.* Five parallel lines of small stones, of which the outermost curve inward at one end and terminate, with the three lines between them, in a small cairn 1.30m. across. Here, the length of the median line is 4.70m. and the intervals between the lines are 1.70m., 90cm., 60cm., and 2.10m. Again, the ground occupied by the feature had been cleared of stones.

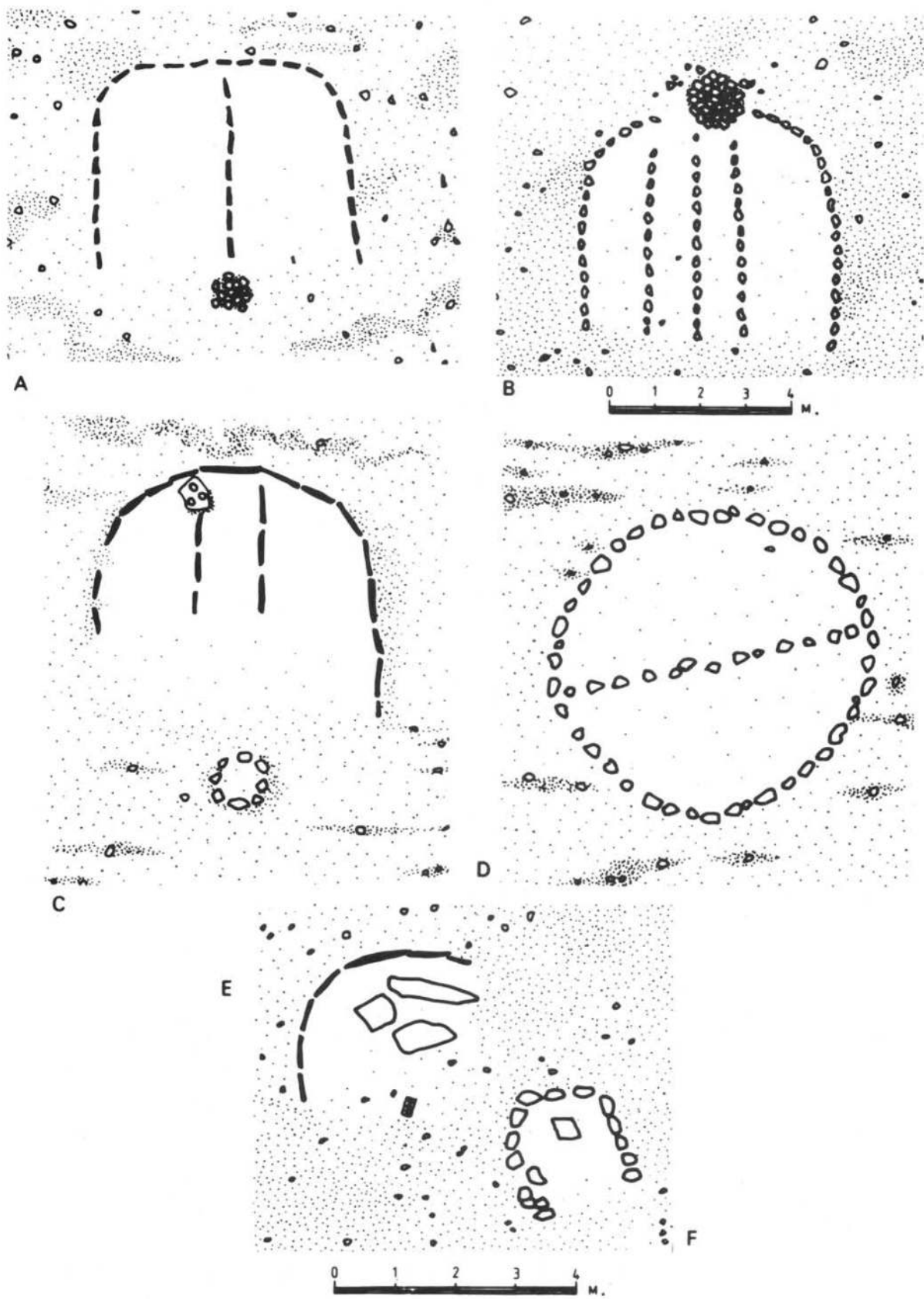


Fig. 35. Cemetery 5: Features A-F.

*Feature C; fig. 35, Pl. 43, bottom two.* Four parallel lines of stones aligned east/west, of which the outer two curve inward at the west end to terminate, with the inner two, at a slab set on edge at right-angles to them. Lying beside this slab is an offering-table of irregular shape with three equidistant circular hollows. Opposite the slab, at a distance of 5.0m. in the same direction as the lines of stones, is a small circle of stones 1.40m. in diameter, on the west side of which are fragments of a brown pot. Three of the four lines of stones do not exceed 2.50m. in length but the fourth, one of the outer two, extends to a distance of 3.90. from the slab. The intervals between the lines are 1.10m., 1.20m., and 1.50m. Six metres to the west stands a tomb.

*Feature D; fig. 35.* A roughly elliptical arrangement of small stones enclosing a cleared area, bisected longitudinally by another line of small stones. The length of the feature is 5.30m., its width 5.0m. Here was noted an oblong offering-table, overturned, with three square hollows interconnected by channels.

*Features E, F; fig. 35.* These are two features situated very close together. The larger, E, appears to be incomplete but evidently consisted of at least a curving line of upright slabs. An offering-table similar to that found at Feature D lay within the arms of the curve (Pl. 44, upper r.).

The smaller, F, consists of a horseshoe arrangement of large stones laid flat with a single large, flat and roughly square stone lying well inside the arrangement (Pl. 44, lower r.).

This feature is of a somewhat different character from the others here described and, from the way in which it appears to interrupt one of the arms of E, could be of a later period.

*Feature G.* may be described as the same as Feature A but with small cairns at both ends of the median line of stones. The length of the median line is 5.90m., the distance across the feature 5.30m.

*Feature H.* Constructed with small stones, resembles Feature G. On the opposite side of the cairn at the end of the medial line was a three-hollow offering-table *in situ* (Pl. 44, upper l.).

*Feature J.* 20.0m. from H, resembles Feature A (Pl. 44, lower l.).

It was noted that the ground occupied by Features A, B and D had been cleared of stones. This is, in fact, a characteristic of all these features. That they played some part in a funerary cult seems evident both from their location in a burial area, and from the offering-tables associated with a number of them. So far as the writers are aware, such features have not yet been noted elsewhere in Tripolitania. They are reminiscent of, though not identical with, various arrangements of stones which have been observed in the Hoggar.<sup>7</sup> Several of the latter have been excavated and found to be associated with burials<sup>8</sup> and even with artefacts, but the date of these is indeterminate.

In the same area as the tombs and features constituting Cemetery 5 a limestone outcrop forms a small eminence opposite Group Z of the outlying tombs on the west bank of the Shabet el-Gsur (p. 108). Its surface, more or less level, measures some 25.0m. north-south × 10.0m. east-west and is strewn with small sherds of pottery. Nearly all the sherds are from vessels of coarse pink fabric containing white grit and having lug-handles, but they include a few pieces of late Roman Red Slip Ware; no fragments of lamps could be found.

There are also four offering-tables: one with three hollows, broken in two, one with five hollows (one at each corner and one in the centre) and connecting channels, one with one large hollow and part of another, the rest of the stone being missing, and one with eight roughly made hollows connected by channels (Pl. 40, centre l.). In addition to these there are fragments of quernstones of black lava. Nine metres from the north end of the knoll and 2.50m. from its west side is a low, semicircular pile of stones which may originally have been completely circular. Some of the stones have been discoloured by fire and many burnt chips of stone are lying about nearby. As there is no trace of a dwelling in the vicinity this can hardly have been a regular cooking-hearth. It is tempting, therefore, to see here a place where periodic offerings were prepared and left for the spirits of the dead buried in this area, or where funerary feasts were cooked. This would account for the pottery, the offering-tables and for the hearth.

#### (d) *Features of the tombs*

In the preliminary examination of the cemeteries in 1955 it was noted that, mixed with the debris of broken cover-slabs and collapsed walls, there were fragments of late Roman lamps and Red Slip pottery, small rectangular stones containing hollows for offerings, and other stones in the form of a cylindrical shaft terminating at one end in a knob-like head. Many examples of the first two classes of object were found, and there is no doubt that they at least were regular features of the burial-grounds.

*Remains of votive objects.* These consist of fragments of lamps and dishes and, on one tomb, of two fragments of a quernstone.

The lamps are invariably of red terracotta, with unpierced handles, and usually ornamented either with degenerate palm-leaf motifs or with small squares, triangles, and concentric circles (p. 234, Pls. 134, 135); they are exactly like those which litter the rubbish mounds and which may be picked up amongst the buildings of the settlement. No complete specimens were discovered on the surface, but the type in general is well exemplified by the lamp found intact in Tomb 1 in Cemetery 1 (p. 236, fig. 73, Pl. 131a). Excepting this tomb, however, none of the tombs excavated yielded any fragment of a lamp, and it may be that lamps were only occasionally placed as votive offerings on or in the tombs.

Vessels of pottery appear to have been more frequently deposited than lamps. Again, no complete specimens were discovered, but it is probably safe to say that the majority were bowls and platters of Tripolitanian Red Slip Ware (p. 234), like the broken bowl found with the lamp in Tomb 1, Cemetery 1 (p. 236, fig. 70, Pl. 131c). Other wares, less often discovered, included a sherd of a coarse, handmade vessel of grey, gritty fabric, with plain rounded rim and a lug-handle, a sherd from a large, ribbed, wheelmade jar of buff-coloured fabric, and a lug-handle from another coarse vessel, all from Tomb 2, Cemetery 1, three sherds from a coarse handmade vessel of pink fabric, with plain rounded rim, from Tomb 3 in Cemetery 1, and a fragment of unglazed red pottery from the lid of a common type of casserole, found on a tomb in Cemetery 2. All except the last had been covered by blown sand, but were found as soon as excavation began and must also originally have been lying on the surface.

It seems doubtful whether whole vessels were ever left as votive offerings.<sup>9</sup> Even where many fragments, all obviously from the same vessel, were discovered together, as on a tomb in Outlying Group E near the Shabet et-Tiswiyr, it is clear that they represent no more than a small part of the original dish. In this connection, the evidence from Tomb 1, Cemetery 1, may be recalled; here were found, at a depth of 30 cm. and apparently not previously disturbed, five fragments from which could be restored an incomplete, large bowl (p. 236, fig. 70, Pl. 131c). It seems probable, therefore, that the sherds found on the tombs belonged to vessels used as substitutes for offering-tables of stone. For this purpose damaged vessels would often have been quite adequate.

The fragments of a quernstone of black lava lay on a tomb near the east end of Cemetery 2, on the north side. These were the only objects other than pottery or lamps noted on or amongst the tombs, but there are two reasons for regarding them as votive. In the first place it is evident from the fragments of quernstones around and in the walls of buildings and lying on the rubbish mounds (p. 94) that querns of this material were in use in the settlement and, secondly, simple and sometimes broken or otherwise useless objects including quernstones, are even today deposited on graves, particularly those of holy men, throughout North-West Africa;<sup>10</sup> this is a custom which evidently dates from pre-Islamic times.

*Offering-tables.* Many small oblong stones with two or more square or circular hollows on one side were noted in and around Cemeteries 1, 2 and 5, but none in Cemeteries 3 and 4. It seems probable, however, that those which had been used as building stones in the Arab winter huts near the North Group of monumental tombs came from Cemetery 4. A few on tombs in Cemeteries 1 and 2 and in ritual clearings in Cemetery 5 appear to be still *in situ* (Pl. 36c, 44).

Generally speaking, these offering-tables, as they can be called, show some variety in degree of finish and in the number and shape of the hollows, and there are some exceptional types; but there is no doubt that all were fashioned for a ritual purpose. This is clear from the fact that such stones have also been found in considerable number in Building 32, i.e. the temple (p. 88, Pl. 26b); and that they were made to receive libations is evident from those in which the hollows are interconnected by channels (Pls. 38, 40).

A very ordinary example of one of these offering-tables was found when Tomb 2 in Cemetery 1 was being cleared of debris preparatory to excavation (Pl. 38c). Lying overturned in the surface sand, 70cm. from the south-west end of the tomb and approximately mid-way between its two long sides, it was perhaps still more or less *in situ* (Pl. 36c). Its maximum measurements were 25 x 15 x c. 20cm., but it had not been shaped with much pretension to regularity and was damaged at one end. In line on the upper side were three small hollows, each c. 4cm. square and 1.5cm. deep, while another side, apparently to be regarded as the front, was decorated with a simple incised pattern (Pl. 38c).

More offering-tables were noted in Cemetery 2 than anywhere else except in Building 32. Most had been displaced, but one at least was apparently still *in situ*. This, showing three circular hollows in line on one of its long sides, is of the conventional type to which the majority of the offering-tables in Cemetery 2 and elsewhere belong. But four were recorded which had markedly individual characteristics. One is seen in the general view of Cemetery 2 from the north (Pl. 36a), left foreground; it had five hollows, four roughly square and one elongated, with no attempt at symmetrical arrangement (Pl. 39, top r.). The second had perhaps as many as twelve hollows, of which one was exceptionally large and was connected by channels to two or three out of the ten or eleven smaller, circular hollows (Pl. 39, centre l.). The third was an approximately square stone with seven roughly circular hollows of different sizes (Pl. 39, centre r.), and the fourth was a long rectangular stone with a single, large square hollow at one end, from which a channel ran to the other end, unfortunately broken off (Pl. 39, top l.).

Amongst the outlying tombs (p. 107) also there were offering-tables of both conventional and exceptional types. Of the five from Group A which were photographed together (Pl. 38, top r.) two were of conventional type with a row of three circular hollows connected by channels, one had a large central circular hollow with three smaller circular hollows arranged about it triangularly, another had six roughly made, circular hollows in two parallel rows of three, and the fifth a single, roughly circular hollow in a central position. In Group E, similarly, both conventional and unconventional types are represented, the first by a narrow oblong stone with five small rectangular hollows, still *in situ* with some of the upright stones enclosing the tomb also still in place, the second by an approximately square slab with five small square hollows in a line near one edge, a row of six



small, perhaps half-finished hollows near the opposite edge, and a large circular hollow near the centre (Pl. 38, bottom r.).

The most elaborate example, however, was found in the open ground between Cemetery 1, from which it had doubtless come, and the Shabet et-Tiswiyr. Not only is it decorated with crowstep and dentil patterns in low relief, but its six square hollows are arranged in two steps, three in each step (Pl. 38d).

The author of a travel book, describing a visit to the Muslim cemetery of Sidi Muneddir, Shara es-Serim, Tripoli, remarks that 'little cup-like hollows are often carved out in the top of the tombstones; the rain collects in them, and if no rain comes from heaven, some pious hand, obeying the last wish of the departed, puts fresh water and a few grains of seed there: it serves to quench the thirst of the bird of passage ....' It is difficult not to believe that this custom perpetuates pre-Islamic practices in the cult of the dead, their souls symbolized by the birds, and that the hollows are survivals of the offering-tables of antiquity.

'Headstones'. In Tomb 2, near the centre of the tomb and just below the surface, was found part of a small carved stone which had originally been in the form of a polygonal shaft, of uncertain length, terminating in a plain head (p. 112, Pl. 41, top l.). This had been one of the better made examples of a distinct class of such objects, few in number but having essentially similar characteristics, though ranging in length from c.25 to 60cm. and varying in standard of carving. They were noted in Cemeteries 1 and 2 — one was found, evidently displaced, on the open ground between these cemeteries — and also amongst the outlying tombs and in Cemetery 5 but not in Cemeteries 3 and 4. It is fairly certain that they were never so numerous as the offering-tables and, unless the grotesque head from Building 32 (p. 87, Pl. 27a, b) was part of an exceptionally large example, they appear to be associated exclusively with tombs.

The stone discovered in Tomb 2, Cemetery 1, was not *in situ*, and the same can be said of the shaft of a similar stone found just below the surface in the centre of the tomb excavated in Outlying Group A (p. 107). Fortunately, however, a clue to the original position of such stones was found at one of the outlying tombs of Group C, on the east side of the Shabet et-Tiswiyr (p. 107). Here, apparently undisturbed, was an intact example standing on the surface at one end of the tomb, presumably to mark the position of the head of the deceased; hence the term 'headstone', tentatively adopted for this class of objects (Pl. 41, bottom l., r.).

Cemetery 2 yielded a stone of a more elaborate type, but one which presumably possessed the same significance as those so far described and which may therefore be regarded as belonging to the same class. Its special characteristic is that instead of a plain head there was a schematic representation of a human face, the features being reduced to bare indication of the superciliary ridge, a long thin nose and prominent cheekbones: no attempt was made to render hair, eyes, mouth, or chin (Pl. 41, top l.). The length of the head was 15cm., the diameter across its flat top 11cm.; the shaft had been broken off 4cm. below the nose and was missing. It was not possible to assign this stone to any particular tomb.

A similar stone was found in the Shabet et-Tiswiyr, near its junction with the Wadi Ghirza. It differs from that just described in having a representation of the eyes and mouth, though merely as slits, and a projecting nose which has been broken off close to the forehead. The top is flat and circular, with a diameter of 11cm.; the lower part of the cylindrical shaft was missing. The place of discovery of this stone suggests that it must have come from one of the outlying tombs along the side of the Shabet et-Tiswiyr.

Another 'headstone', still apparently *in situ* on a tomb of Cemetery 5, may also have had a conventionalized representation of human features, but if so they have been almost entirely weathered away (Pl. 41, top r.).

(e) *The burials (see also Appendix 6, p. 258)*

*Introduction.* Only a few fragments of human bones were found in the first tomb to be excavated, viz. Tomb 1, Cemetery 2, and these appeared to have been previously disturbed. This seemed to be the case also in Tomb 2, Cemetery 1. These discoveries, together with the broken and scattered cover-slabs which litter the cemeteries, at first suggested that all the tombs had probably been disturbed by robbers, but this conclusion was not supported by further excavation. One, Tomb 5 in Cemetery 2 (p. 106), contained a very well preserved skeleton, but in most of the other tombs the skeletons had almost entirely perished, only the bones of the larger joints surviving or a line of fine flakes marking the position of a limb. Only one tomb, Tomb 4 in Cemetery 1 (p. 105), yielded no skeletal evidence at all, though a very small sherd of coarse, pink, handmade pottery was found in it; and cranial remains were found in only two tombs of normal type, viz. Tombs 1 and 3 of Cemetery 2 (p. 258). Yet in spite of the disappearance of much of the evidence it is possible to draw certain definite conclusions regarding the mode of burial, the alignment of the tombs, the provision of offerings, and the deceased.

*Mode of burial.* The most informative burial in a tomb of the normal type was that excavated in Outlying Group A, west of Cemetery 1 (p. 107, fig. 34). Here, a fragmentary calcaneum was discovered 15cm. from the north-west end of the tomb and 50cm. from its south-west side. From that point the bones of the legs, though rotted beyond recovery, could be traced right up to the region of the pelvis, where the head of the left femur remained relatively well preserved. The pelvis itself, the lumbar vertebrae, and the ribs of the left side were reduced to soft flakes, but the lower end of either the ulnar or radius of the left arm was observed in a position

suggesting that the hands had been placed extended across the lower abdomen. Nothing remained of the hands or of any other part of the skeleton.

It would seem from the position of the remains that in this tomb the body had been laid on its back with the knees raised and feet drawn up, though the length of the tomb, 2.05cm. internally, would have provided sufficient room for any individual of normal stature to have been buried with legs fully extended. But in Tomb 3 in Cemetery 1 (p. 106, fig. 31) the evidence was undoubtedly in favour of a fully extended burial, and further excavations would probably show this position to have been the rule.

Of the two exceptional tombs excavated, the shape of one, viz. Tomb 4, Cemetery 1 (p. 105, fig. 31), would not have permitted burial in any except a fully extended position. Tomb 5 in Cemetery 2 (p. 106, fig. 33) provides a complete contrast, however, both with the other tomb of exceptional type and with those of normal type. Here, on the west side, was a skeleton, entire and well preserved instead of being decayed almost to nothing, lying on its left side with the legs drawn well up. The posture and condition of the remains, no less than the construction of this tomb, present such a contrast with the evidence from the tombs of the normal type as to suggest that this burial cannot be contemporary with the others.

*Alignment of the tombs.* From a study of tombs in Cemeteries 1, 2 and 3 and in the outlying groups it was impossible to discern any tendency to align those of normal type in any particular direction. The alignment of fifty-two tombs was noted, with the following results:

Tombs aligned	north/south	15
" "	north-north-east/south-south-west	2
" "	north-east/south-west	15
" "	east-north-east/west-south-west	7
" "	east/west	4
" "	east-south-east/west-north-west	3
" "	south-south-east/north-north-west	4

It is, of course, impossible to know without excavation whether the body in a tomb aligned, e. g. north/south, had been placed with its head to the north or to the south. The evidence from the excavated tombs of normal type, although unfortunately too slight and inconsistent to offer a basis for conclusion, may be collated as follows:-

Cemetery 1,	Tomb 1	head to west-north-west
Cemetery 1,	Tomb 2	apparently disturbed; no evidence
Cemetery 1,	Tomb 3	head to south-south-west
Cemetery 2,	Tomb 1	apparently disturbed; no evidence
Cemetery 2,	Tomb 2	no skeletal remains
Cemetery 2,	Tomb 3	head to south
Cemetery 2,	Tomb 4	head to east-north-east
Tomb in Outly-		
ing Group A		head to south
Tomb in Outly-		
ing Group C		no evidence

Turning from the normal to the exceptional tombs, the alignment of tomb 4 in Cemetery 1 (p. 105, fig. 31) suffices to indicate that the head lay either towards the east-north-east or the west-south-west, but the absence of any skeletal remains prohibits further inference; while in Tomb 5 in Cemetery 2 (p. 106, fig. 33) the skeleton lay on its left side, as already noted, facing east.

*Objects buried with the deceased.* One tomb, Tomb 1 in Cemetery 1, yielded an intact lamp and several sherds of a large bowl of Tripolitanian Red Slip Ware, which were unquestionably *in situ* (p. 236, figs. 70, 73, Pl. 131a, c). They were found at a depth of 30cm. below the surface, on the natural rock forming the floor of the tomb, at 35cm. from its west end and mid-way between its two long sides. At the same end were also discovered a fragment of a human skull and a sherd of white pottery from a large, globular vessel. Here, then, votive offerings had been placed near the head of the deceased.

No other tomb of the normal type contained such positive evidence for the deposition of votive offerings. But a small sherd from a cup and a fragment from a plate or bowl, both of Red Slip Ware, in Tomb 3 in Cemetery 1, some fragments of pottery and glass in Tomb 3 in Cemetery 2, fragments of pottery in Tomb 4 in Cemetery 2 and some very weathered fragments of an extremely thin glass vessel from the tomb excavated in the Outlying Group A, all point to general observance of this ancient and universal custom by those who constructed the

tombs of normal type. Such small fragments cannot, however, have contained offerings, but must have been merely token deposits.

It is interesting that the evidence from the exceptional Tomb 4 in Cemetery 1 (p. 111), in which a very small sherd of coarse, handmade pottery was found, suggests that this tomb, in spite of its fundamentally different construction, may be contemporary with the tombs of normal type. But that from the other exceptional tomb excavated, Tomb 5 in Cemetery 2, where a goat's horn had been buried with the deceased (p. 106), joins with the evidence of mode of interment, condition of the skeleton and construction of the tomb, in confirming that this was a burial of a different culture and, presumably, of a later period.

(f) *Date and affinities of the cemeteries*

The cemeteries at Ghirza are the first and so far the only pre-Islamic cemeteries in the interior of Tripolitania in which the tombs of common people have been subjected to systematic study. Cemeteries 1 and 2, and probably also 4 and 5, are datable both from their obvious association with the settlement and from the fragments of Red Slip pottery lying on and among their tombs (p. 234) to at least the fourth and fifth centuries. Cemetery 3, however, is exceptional in a number of respects — its distance from the settlement, the variant type of the tombs excavated, and their cremations — and the discovery near the excavated tombs of sherds from a vessel of the late first/mid-second century (p. 236) seems a clear indication that the eccentricities of this cemetery can be interpreted as evidence of a much earlier origin.

Due attention has been paid to tombs of exceptional, as distinct from variant, types, but in terms of numbers they are insignificant. One of the most important results of the study of the cemeteries is the identification of a type of tomb which predominates in Cemeteries 1, 2, 4 and 5 and appears to be the only type among the outlying tombs. This is the normal tomb at Ghirza and its features are sufficiently well defined to enable the type to be identified elsewhere. With identification will go the implication of contemporaneity.

This implication will be confirmed by the discovery of associated Red Slip pottery, or even of the coarse, pink, handmade pottery which there is reason to regard as in general contemporary with it, and also by the discovery of offering-tables and 'headstones' of the types found at Ghirza. So far, however, it is possible to cite only three other cemeteries where tombs of the type normal at Ghirza have been identified (p. 100). Yet there must be many more; and wherever groups of fortified farms (*gsur*) are found, for example as at Gasr es-Suq el-Lhoti in the Wade Busra,<sup>12</sup> they should be sufficiently large to be located. Much depends on ability of the eye to distinguish them at a distance as areas of tumbled stones more uneven than the surrounding stony ground and, due to their patina, slightly darker in colour.

On the left bank of the Wadi Sofeggin behind the *gasr* to the east and on the same side of the wadi as Gasr en-Naggazza, some 30 km. south-east of Mizda, are several old burial cairns most probably to be associated with the *gsur*. Lying upon them are tapering, pointed stelae<sup>13</sup> which presumably can be regarded as corresponding to the 'headstones' of Ghirza. But nowhere, as yet — except perhaps at Tabelbalet in the Hoggar<sup>14</sup> — have stones with any characteristics of the Ghirza 'headstones' been noted.

Similarly, except for a single example from Muagen Ngorta, the types of offering-tables at Ghirza have so far no exact parallels elsewhere in Tripolitania. The nearest approximation recorded is one in a cemetery in the Wadi el-Amud, 90 km. west-north-west of Ghirza.<sup>15</sup> But this is a large, almost square stone (60 x 52 cm.) with a central square socket for a stela, three cup-like hollows on two opposite sides and a seventh on one of the other two sides; channels connect the central socket with the centremost of the two rows of three hollows. Similar stones were noted in the same cemetery, and have also been found in two other cemeteries as far apart as Medina Doga, in the eastern Gebel and at Tabunia,<sup>17</sup> 20 km. west-south-west of el-Gheria el-Gharbia. The distinguishing feature of this (? early) type is the central rectangular socket; and although there is a certain resemblance between the rows of hollows, particularly those of the stone in the Wadi el-Amud, and some of the Ghirza offering-tables, in none of the cemeteries at Ghirza was a stone of this type observed.

Again, nowhere at Ghirza or in the whole of the pre-desert has there yet been discovered an offering-table of the highly distinctive form characteristic of the cemeteries in the Wadi el-Ajal, Fezzan, the homeland of the Garamantes<sup>18</sup>. There the typical *mensa* is a large rectangular stone a metre or more in length, up to 50 cm. in breadth and perhaps 20 cm. deep. Close to and parallel with one of the long sides, on the upper surface, is a row of square or circular hollows, generally five in number, and between these and the opposite side of the stone is one continuous hollow or trough with square ends. Not one of the offering-tables at Ghirza combines a row of hollows with a trough, or consists of a trough alone, though many contain a row of square or circular hollows, most frequently three in number. Nor has any stone remotely suggestive of other distinctively Garamantian funerary monuments, such as the so-called 'hands', been observed at Ghirza or elsewhere in Tripolitania.

NOTES

CH. II. THE SETTLEMENT

(i) The Wadi Ghirza and its exploitation

<sup>1</sup> For the pre-desert cf. Goodchild/Ward Perkins (1949), p. 93, and Goodchild (1950), p. 166; also Haynes (1946), pp. 102-3 and *ibid.* (1955), p. 153. For the Gebel in the hinterland of Lepcis Magna see Oates (1953), pp. 87-8.

<sup>2</sup> The Negev: in an extensive literature see especially *Zin*, pp. 50, 54, Pls. II (1), XXII (2); Y. Kedar, 'Water and soil from the desert: some ancient agricultural achievements in the central Negev', *Geog. J.* cxxiii (1957), pp. 181-4, pls. opp. pp. 184, 185; P. Mayerson, *The ancient agricultural regime of Nessaua and the Central Negev* (1960).

<sup>3</sup> On the construction and purpose of the lateral walls cf. Goodchild, *loc. cit.*

<sup>4</sup> Cf. *SEHRE*<sup>2</sup>, p. 330.

(ii) The Buildings

<sup>1</sup> Cf. Haynes (1946), p. 107; Goodchild/Ward Perkins (1949), p. 93, n. 37. Similar but smaller agglomerations are to be seen in the Wadis Gharghar and Sasu; also in the Wadi Busra: Ward Perkins (1950). Another, comprising some nine sites with surrounding ditches near a well, lies by Bir Kimen between Bir Dufan and Zliten. *LA* xiii-xiv (1976-77), pp. 121-2.

<sup>2</sup> Cf. Goodchild (1950a), p. 35; 'In the absence of more reliable dating evidence, the type of masonry encountered in these buildings provides the best basis for chronological classification.'

<sup>3</sup> Cf. Brogan/Smith (1957), Pl. III, 1.

<sup>4</sup> *Ibid.*, Pl. III, 2.

<sup>5</sup> *Ibid.*, Pl. III, 3.

<sup>6</sup> *Ibid.*, Pl. II, 3.

<sup>7</sup> *Ibid.* Pl. IV, 3.

<sup>8</sup> 'Rooms' without an entrance are a feature of similar buildings elsewhere. Cf. Péricaud, 'La *Turris Maniliorum Arelliorum* dans le Massif des Matmata', *BAC* (1905), p. 264 (complementary note by P. Gauckler) and fig. 1 (plan, *reprod.* in Cagnat, *Armée*, p. 567); also Goodchild (1950a) p. 53, fig. 4 (Gasr Bularkan). A 'room' in Henshir Suffit in the western Gebel retains a lining of *opus signinum* and was almost certainly constructed as a cistern, while the 'entrance' from the courtyard shown in the only published plan is apparently no more than a breach in the wall: see R. Bartoccini, 'Fattoria romana ad Henscir Suffit', *Afric. It.* ii (1929), p. 108, fig. 41.

<sup>9</sup> Cf. Brogan/Smith (1957), Pl. V, 2.

<sup>10</sup> Cf. *ibid.*, Pl. IV, 1.

<sup>11</sup> As in the *Turris Maniliorum Arelliorum*: see Péricaud, *loc. cit.* (above, n. 8), p. 261 and fig. 1.

<sup>12</sup> Cf. Brogan/Smith (1957), Pl. IV, 1, 4.

<sup>13</sup> Haynes (1946), p. 107. Mr. Haynes has kindly informed us that (after thirty years) he does not now recollect the precise whereabouts of this feature. It seems most improbable that a pipe or any other metal fitting would actually have survived or been allowed to remain since ancient times. We venture to think that perhaps Mr. Haynes was misled by the appearance of 'cistern' plaster, patinated and grey, of which he may have seen remnants in the rock-cut channel that conducted rainwater into a cistern (Cistern 4, p. 98) in the bank of the shabet south of Building 26.

<sup>14</sup> Possibly this is the wall which De Mathuisieux described in 1905 as exceeding 18.0m. in height, though it is difficult to believe this figure; see above, p. 38.

<sup>15</sup> Brogan/Smith (1957), Pl. II, 1. This window was regrettably destroyed between 1958 and 1967. The slow but continual destruction of the ancient buildings in the pre-desert demands and justifies their description in what may seem excessive detail.

<sup>16</sup> Also destroyed between 1958 and 1967. In 1967 a small room in the south-west angle of this building was found to have been cleared out, revealing a 'postern' 85 cm. wide in the west wall at a distance of c. 2.0 m. from the external angle.

<sup>17</sup> Cf. Oates (1953), pp. 86-7.

<sup>18</sup> See *Map of Roman Libya*: Goodchild (1954a).

<sup>19</sup> As observed in other fortified farms in the pre-desert: cf. Goodchild (1950a), p. 37, n. 27. In the Roman olive-farms of the Gebel, on the other hand, the uprights generally appear to have been set *against* a wall and 'crowned for extra stability with a capstone, often with heavy weights superimposed on it which were bonded into the wall behind the press': Oates (1953), p. 87, figs. 3, 5, 6, 7, 8, 11.

<sup>20</sup> E.g. cf. Reygasse (1950), p. 40, fig. 42.

<sup>21</sup> On representations of the *phallus* in Roman Africa see *Sat. Afric. Hist.*, pp. 187-8.

<sup>22</sup> See above, p. 60, n. 8

(iii) Materials, Construction and Features of the Buildings

<sup>1</sup> Cf. Smyth, quoted above (p. 37): 'a deep fallow tint'.

<sup>2</sup> Cf. Christ. *Antiq.*, p. 52 (Chafagi Amer). There is no evidence at Ghirza that external walls were plastered, but remains of facing plaster on those of Gasr Chanâfes South, 30km. to the north, suggest that they may have been. It is interesting to recall here the reference to Carthaginian country houses 'covered with stucco' in Diod. Siculus, *Hist.* xx. 8. 3-5 (Loeb ed.).

<sup>3</sup> Such plaster, or at least such use of plaster, was probably introduced in Carthaginian times: cf. Harden (1963), p. 136. For a cistern so rendered, presumably contemporary with a nearby building with reliefs apparently of Punic figures and associated pottery of the first century A.D., see Brogan/Smith (1967), p. 141, Pl. XXXIX, a. Many other cisterns, normally oblong, originally roofed with a barrel vault, and lined with plaster of the same kind, exist in the pre-desert. For a particularly interesting example, actually dated by an inscription of c.A.D. 209, see Brogan/Reynolds (1964), p. 44, Pl. XXVIII, a. Another early third-century example lies immediately outside the north angle of the Roman fort at Gheria el-Gharbia: see Goodchild (1954b), p. 65 and fig. 2, and, for the Severan date of this fort, see also A. di Vita, *LA* ii, Supplements (1966), pp. 107-11. On the mortar, and its sparing use, in late Roman buildings in the Negev, cf. *Zin*, pp. 53, 95.

<sup>4</sup> Cf. Brogan/Smith (1957), p. 180, n. 27, Pl. IV, 1, 4.

<sup>5</sup> *Pace* Goodchild/Ward Perkins (1949), p. 9, and Oates (1954), pp. 100, 112. It appears not to have been noted hitherto that the builders of the well preserved Byzantine gateway at Lepcis Magna must at least have expected to be able to obtain straight timbers not less than 6.50m. in length for the actual gates, though admittedly the blocking of the gateway possibly not very long after its construction may have been a consequence of their inability to do so: see Goodchild/Ward Perkins (1953), pp. 56-8, fig. 5. For contemporary evidence from the Negev cf., again, *Zin*, pp. 53, 94.

<sup>6</sup> The walls of Gasr Duib, a *centenarium* dated by an inscription of A.D. 244-6, are similarly founded, and for the same reason: see Goodchild/Ward Perkins (1949), pp. 88-92, and Smith (1970), p. 301, Pl. II, upper.

<sup>7</sup> Goodchild (1950a), p. 36.

<sup>8</sup> Such evidence has been noted elsewhere only at Gasr Uâmes, probably a *centenarium* contemporary with or a little earlier than Gasr Duib: see Smith (1970), pp. 301-3, fig. 2, Pl. IV (upper).

<sup>9</sup> Cf. *Zin*, p. 95.

<sup>10</sup> In contrast to those of late Roman buildings in the Negev: cf. *Zin*, p. 94.

<sup>11</sup> The arched window in the east wall recalls the windows in the east tower of the north-east gateway of the Roman fort at Gheria el-Gharbia: see Goodchild (1954b), p. 62, fig. 3, Pls. XII, upper, XIII, a, b.

<sup>12</sup> In contrast to the window, with provision for the shutters, of the first-century building mentioned in note 3 above.

<sup>13</sup> Cf. Goodchild (1950a), Pl. IV, 3 (Gasr 'F', Bir Shedewa).

<sup>14</sup> Brogan/Smith (1957), Pl. IV, 3.

<sup>15</sup> Cf. Smith (1970), pp. 302-3.

<sup>16</sup> Cf. Goodchild/Ward Perkins (1949), p. 90, fig. 17 (Gasr Duib); Christ. *Antiq.*, p. 52, fig. 25 (Chafagi Amer).

<sup>17</sup> Such niches can be seen in many of the fortified farmhouses of the pre-desert: cf. Goodchild (1950a), fig. 6, Types III and IV. In late Roman Buildings in the Negev also, 'wall-cupboards were made with cut chalk slabs': *Zin*, p. 94. For similar niches in a tower-like house of the second or third century A.D. at Karanis in the Fayyum see SEHRE<sup>2</sup>, pp. 288-91. Similar open cupboards are a feature of dwellings in areas where Berber traditions survive today.

<sup>18</sup> In 1958 the present writers and Mr. C.M. Daniels discovered such a graffito on the underside of a voussoir of the arched entrance of Gasr Chanâfes South: see p. 252.

#### (iv) The Architecture and Dating of the Buildings

<sup>1</sup> Olwen Brogan has observed remains of possibly similar buildings in the Wadi Gharghar, but without having time to study them, and also in the Wadi Neina: Brogan (1966).

<sup>2</sup> Cf. Goodchild/Ward Perkins (1949), pp. 92-5, Goodchild (1950a), pp. 34-7, and *ibid.* (1950b), pp. 167-8.

<sup>3</sup> Goodchild (1950a), pp. 34-7.

<sup>4</sup> It must be noted, however, that the plan of Gasr Ghifa in the Wadi Merdum which Goodchild selected to represent his Type I (1950a, fig. 6) is almost exactly paralleled in that of a building near Shemek which is most probably of the early medieval or Islamic period. There the room corresponding to that in Gasr Ghifa which Goodchild indicated as an open court is barrel-vaulted. For another building of the same plan and period, Gasr Annessa in the Wadi Weshtata, cf. Goodchild/Ward Perkins (1949), p. 88, n. 27. The interior of this building, visited by Olwen Brogan, is rendered in plaster with characteristically medieval decoration in relief. The building near Shemek was planned by the present writers, and its analogous plasterwork photographed by C.M. Daniels, in 1958. In the Gebel, Gasr Haiuna is a closely comparable building for which a similar dating, i.e. medieval, could now be argued: *pace* Oates (1954), p. 104, fig. 6, Pl. XIV, c,d.

<sup>5</sup> Goodchild (1950a), fig. 6.

<sup>6</sup> *Ibid.*, p. 36.

<sup>7</sup> *Christ. Antiq.*, p. 52, fig. 25.

<sup>8</sup> For Bir esh-Shedewa (Bir esc-Scedeua) in the Wadi Sofeggin see the *Map of Roman Libya*: Goodchild (1954a). An impressive photograph of Gasr 'D' - one of several *gusr* in the vicinity of the well - is reproduced in Goodchild/Ward Perkins (1949), Pl. XIII, 2; for a small-scale plan see Goodchild (1950a), fig. 6 ('Type II'). This building also was planned by the present writers and photographed in detail by C.M. Daniels in 1958.

<sup>9</sup> *Christ. Antiq.*, pp. 4-5, 76-7 (for the dating, on historical grounds), figs. 25, 26, Pls. XXII, XXIII (Chafagi Aamer), fig. 27, Pl. XXIV (Gasr es-Suq el-Oti). For the settlement of Gasr es-Suq el-Oti see Ward Perkins (1950).

<sup>10</sup> Goodchild (1950a), pp. 35-6, Pl. IV, 2 (actually Gasr el-Isawi, Wadi Nfed: Gasr Banat is the name of the adjacent mausoleum); Goodchild (1954b), pp. 60-2, Pl. XIII, c (Gasr el-Gheria esh-Sherghia); one of the angles but little more of the structure survives of the third building, at el-Faschia in the Wadi Zemzem, 30km. east-north-east of Ghirza. In 1958 the present writers and C.M. Daniels visited and photographed a large *gusr* not far west of Gasr en-Naggazza in the Wadi Sofeggin which appears to illustrate a transition from the buildings of Goodchild's first class to that of his second. This *gusr* retains as quoins the large dressed blocks with inset rounded corners typical of the first class while the walls are constructed in small blocks characteristic of the second class. For a view of this *gusr* see Haynes (1946), Pl. 22.

<sup>11</sup> As, apparently, in a well preserved *gusr* c. 13.0m. sq. in the Wadi Tininai. A barrel-vaulted entrance-chamber 2.35m. wide extended across the full width of this building; cf. the post-Roman *gusr* mentioned in n. 4 above. This *gusr* was planned by the present writers and photographed by C.M. Daniels in 1958. For another degenerate, but possibly pre-Islamic, arcuate-headed doorway see *LA* i (1964), p. 139, Pl. LXIX, a (in the Wadi Garjuma, between Tarhuna and Beni Ulid).

<sup>12</sup> Cf. Goodchild (1950a), Pl. IV, 3 (Gasr 'F', Bir Shedewa).

<sup>13</sup> By the present writers and C.M. Daniels, who photographed them, in 1958.

<sup>14</sup> *Invent. Mos. Tun.*, no. 940; *reprod. SEHRE<sup>2</sup>*, Pl. LXIII, right, Percival, p. 155, and Dunbabin (1978), Pl. XLIV, no. 111.

<sup>15</sup> In the tower over the entrance of Gasr Uames, probably an early third-century *centenarium*, in the upper Sofeggin: see Smith (1970), pp. 302-3.

<sup>16</sup> The 'Turrus Maniliorum Arelliorum': *BAC* (1905), pp. 259-69 and fig. 1. For plans of analogous buildings in Tripolitania cf. Goodchild (1950a), p. 36, fig. 6, Ward Perkins (1950), Goodchild (1951), pp. 61-2, fig. 7. For Tunisia see now Troussel (1974).

<sup>17</sup> *IRT* 877: misprinted as 899 in Goodchild/Ward Perkins (1949), p. 94, n. 42.

<sup>19</sup> Cf. Goodchild (1949), pp. 32-4; Goodchild/Ward Perkins (1949), p. 94. It is difficult, however, to accept the expansion of (?) CTN to read '*centenarium*', as postulated by Goodchild and repeated in *IRT* 875; normal Roman practice was to abbreviate to the first syllable.

<sup>20</sup> Cf. L. Leschi, '*Centenarium quod Aqua Viva appellatur*', *CRAL* (1941), pp. 163ff.; Goodchild (1950a), pp. 33-4, figs. 4,5.

<sup>21</sup> i.e. Gasr Duib: cf. Goodchild (1949), pp. 32-4; Goodchild/Ward Perkins (1949), pp. 88-92, Pls. XI, 5,5, XII; Smith (1970), pp. 299-301, Pls. I-III.

<sup>22</sup> *IRT* 876 (Sidi Bu Laaba); cf. Goodchild (1949), pp. 32-4; *Christ. Antiq.*, p. 49, Pl. XXI, a. Cf. Troussel (1974), p. 138, fig. 17.

<sup>23</sup> Cf. Diod. Siculus, III, xlix; P. Grimal, 'Les Maisons à tour hellénistiques et romaines', *MEFR* lvi (1939), pp. 28-59 (esp. 53-5); C. Saumagne, 'La domaine impériale de la Tour Ronde... Turrus Rotunda', in 'La Province Romaine d'Afrique', *Les Cahiers de Tunisie* (1962), pp. 257ff. One might add, for the eastern Mediterranean, G. Tchalenko, *Villages Antiques de la Syrie du Nord* (1953), *passim*.

<sup>24</sup> A. Demangeon, 'L'habitation rurale en France', *Annales de Géographie* xxix (1920), pp. 352-75 (esp. 370-4); cf. J. Brunhes, *Human Geography* (1952); English trans. of the abridged edition of the author's *La Géographie Humaine*, (1947), pp. 60, para. (iv), 61, para. (iii); cf. *HAAN* v (1927), p. 231 and n. 3.

<sup>25</sup> E.g. see *SEHRE<sup>2</sup>*, Pls. XXXIII, 1, XXXIV, LII, 2, LIX, 2, 3; cf. Grimal, *loc. cit.*, *passim*. On towers as parts of ancient farms in Egypt see F. Preisigke in *Hermes* 54 (1919), pp. 423-32, and M. Rostovtzeff in *Anatolian Studies presented to Sir William Ramsay* (1923), p. 374, n. 1. For votive objects in the form of towers from Carthage and Egypt see section (v) of this chapter, n. 9.

<sup>26</sup> *Invent. Mos. Tun.*, no. 940; *reprod. in SEHRE<sup>2</sup>*, Pl. LXIII, 2, left, Percival, p. 154, and Dunbabin (1978), Pl. XLV, no. 113. The building concerned is that in the right foreground.

<sup>27</sup> Cf. Goodchild, 'The Roman and Byzantine limes in Cyrenaica', *JRS* xli (1951), pp. 11-16, and *ibid.* (1954a), p. 6. The fortified farmhouses of Cyrenaica are constructed with massive dressed blocks and differ in other architectural details, e.g. the form of the entrance, but are nonetheless essentially of the same type as the buildings of class C at Ghirza.

<sup>28</sup> R.E. Brunon and A. von Domaszewski, *Die Provincia Arabia* i (1904), p. 76, fig. 72 (El-Mahri, 20.40 × 16.20m.), ii (1905), p. 61, fig. 640 (Rigm el-Al, 20 × 16m.).

<sup>29</sup> We are indebted to Prof. M. Gichon for sending plans of typical late Roman buildings in the Negev.

<sup>30</sup> Cf. J. Baradez, *Fossatum Africae* (1949).

<sup>31</sup> Goodchild/Ward Perkins (1949), p. 93.

<sup>32</sup> Cf. Goodchild (1950b), p. 166.

<sup>33</sup> Gasr Duib and Gasr Uames: see Goodchild/Ward Perkins (1949), pp. 88-92, and Smith (1970).

<sup>34</sup> Nor, now, any historical reason: see below, p. 228.

<sup>35</sup> Gasr el-Isawi, el-Faschia and Gasr el-Gheria esh-Sherghia: for refs. see above, n. 10.

<sup>36</sup> Goodchild/Ward Perkins (1949), pp. 93-94. If these three buildings do, in fact, date from the early third century there could be no greater contrast than that between the standard of their masonry and the standard of construction of the Severan legionary watchpost of Gasr

Zerzi and the *centenaria* of Gasr Duib (A.D.244-6) and Gasr Uâmes, though admittedly comparison might be made with the masonry of the gateways of the Severan forts at Bu Ngem and El-Gheria el-Gharbia. Had these three buildings been constructed by the military, however, it is hardly conceivable that the fact would not have been officially commemorated in an inscription above the entrance, as e.g. at Gasr Duib and Gasr Zerzi. Yet it seems at least unlikely that there was such an inscription at Gasr el-Isawi, where three courses of masonry still stand above the relieving arch over the entrance. Finally, not one of these three buildings is situated where 'model farms' of a settlement policy would be expected, i.e. in the basin of the middle Sofeggin, the area most promising for agricultural exploitation. Nor does their distribution support their interpretation as military posts covering the eastern flanks of the cultivated zone, as proposed by Di Vita (1964), pp. 65-98 (with illustrations of Gasr el-Gheria esh-Sherghia and Gasr el-Isawi (mis-named Gasr el-Banat: see below, p. 265, n. 3)). In short, these three buildings, and others less well preserved but clearly of the same character, remain an outstanding and intriguing problem.

<sup>37</sup> Goodchild (1950a), p. 36.

### (v) Building 32

<sup>1</sup> Cf. Oates (1954), pp. 110, 112.

<sup>2</sup> Cf. Christ. Antiq., figs. 1, 31, 32.

<sup>3</sup> The small temple in the Wadi Tininai, which has yielded an inscription (*IRT* 888), is classical in character; it was planned by the present writers and photographed by C. M. Daniels in 1958. The only other known shrine south of the Gebel is at Bu Ngem. This has now been identified as the shrine of Jupiter Hammon recorded in *IRT* 920: Rebuffat (1974a), pp. 135-6, fig. 5. On the cult of Jupiter Hammon, as distinct from Ba'al Hammon, in Tripolitania, see G. Levi della Vida, *PBSR* xix (1951), p. 67.

<sup>4</sup> The worn steps rule out any possibility that the entrance might have been provided with a fixed grille, but a curtain - 'the veil of the temple' - can almost certainly be visualized here: cf. *Sat. Afr. Hist.*, p. 289 and n. 3. It seems worth recording that the open front of the temple in the Wadi Tininai (see preceding note) was provided with sockets for a grille.

<sup>5</sup> Cf. J. B. Ward Perkins, *Libya in History*, p. 108.

<sup>6</sup> On the importance of lamps in Semitic, classical and Christian belief and ritual see *Sat. Afr. Hist.*, p. 344 and n. 1.

<sup>7</sup> E.g. cf. *Sat. Afr. Mon.*, Pls. XX-XXII, XL, 5.

<sup>8</sup> Cf. *Cat. Musée Alaoui* (1955), *passim*; Harden, (1963), pp. 95-8, fig. 24, p. 304, Pls. 24, 26, 30.

<sup>9</sup> Now in the British Museum: Harden (1963), Pl. 24. Mention may here be made of a number of model tower-houses from Graeco-Roman Egypt: see R. Engelbach, *Annales du Service des Antiquités de l'Égypte* xxxvi (1931), pp. 129-31, Pl. III. For more or less similar but very much earlier models cf. *Annales* ii (1901), p. 31 (c. 1850 B. C.); Flinders Petrie, *Memphis* i, Pl. XXXIII; N. de G. Davies, 'The town house in ancient Egypt', *Metropolitan Museum Studies* i (1929), pp. 233 ff., fig. 14 (a model in the British Museum); Christiane Desroches-Noblecourt, 'Un modèle de maison citadine du Nouvel Empire', *Revue d'Égyptologie* iii (1938), pp. 17-25, Pls. I, II. None of the Carthaginian or Egyptian models, however, appears actually to have served or been intended to serve as an altar: cf. A. Lézine, *Architecture Punique* (n.d.), pp. 35-41, Pls. III, IV. Grateful acknowledgment is due to Mr. A. F. Shore, Assistant Keeper of the Dept. of Egyptian Antiquities, for making the Egyptian model in the British Museum available for study, and also for the references to published Egyptian models.

<sup>10</sup> Brogan/Smith (1957), p. 184, Pl. V, 4.

<sup>11</sup> Cf. *Religions Afr.*, pp. 22-4, fig. 1.

<sup>12</sup> On offering-tables in votive as well as funerary contexts elsewhere cf. *Sat. Afr. Hist.*, p. 305.

<sup>13</sup> On cisterns and basins, and well as large and small altars, as essential elements of temples of Saturn and other Punic and oriental deities see *ibid.*, p. 290.

<sup>14</sup> *Religions Afr.*, pp. 158-60, fig. 18, Pl. V (opp. p. 152).

Cf. *Sat. Afr. Mon.* i, pp. 113-5, fig. 3 (Thuburbo Maius, Temple 'A'), pp. 208-12, fig. 4 (Dougga, temple of Saturn 'B'), p. 324, fig. 6 (Haidra, temple of Saturn), 431-4, fig. 8 (Hippono, temple of Ba'al Saturn), ii, 126-9, fig. 4 (Timgad, temple of Saturn); *Sat. Afr. Hist.*, pp. 81-4, 289. Cf. J. B. Ward-Perkins in *Libya in History*, pp. 108-9, figs. 6, 7. Cf. R. Rebuffat, G. Hallies, J. Marion, 'Thamusida...', *MÉFR* xxxii (1970), pp. 231-9.

<sup>15</sup> D. Schlumberger, *La Palmyrène du Nord-Ouest* (1951), pp. 13-22, 51-62, Pls. I-VII.

<sup>16</sup> *Ibid.*, pp. 21, 101-6.

<sup>17</sup> Cf. *Sat. Afr. Hist.*, pp. 357-8.

<sup>18</sup> *Ibid.*, p. 289.

<sup>19</sup> *Ibid.* Cf. Ward-Perkins, loc. cit. (above, n. 14); but also Harden (1963), pp. 93-4.

<sup>20</sup> Cf. *Sat. Afr. Hist.*, p. 291, notes 5-9; Harden (1963), fig. 19, Pl. 28, and notes 68-71.

<sup>21</sup> The enduring strength of Carthaginian culture in the interior of Tripolitania, as well as elsewhere in North Africa, is also illustrated by late Roman inscriptions from both the Gebel and the pre-desert which attest the survival - albeit in hybrid form - of Punic speech. These texts, which contain Latin words and are inscribed in Latin capitals generally assignable on stylistic grounds to the fourth or fifth century, were formerly described as 'Latino-Libyan'. But other words have since been recognized as evidence of a corrupt form of Punic, and accordingly the inscriptions are also called 'Latino-Punic.' See *IRT* 865, 866, 873, 877, 877a, 879, 889, 892, 893, 901 (from Ghirza), (?) 903 (Ghirza); Goodchild (1950c), (1954c). The Semitic element in certain Tripolitanian inscriptions appears to have been first recognized by Oates (1954), p. 115 but the definitive study of the series is that by G. Levi della Vida, 'Sulle iscrizioni "Latino-libiche" della Tripolitania', *Oriens Antiquus* ii (1963), pp. 65-94; cf. Di Vita (1964), pp. 78-9. On evidence for Libyan speech elsewhere as late as Byzantine times see Ch. Saumagne, 'La survivance du punique en Afrique aux Ve et VIe siècles après J.C.', *Karthago* iii (1952), pp. 171, 178.

<sup>22</sup> Cf. *Sat. Afr. Hist.*, p. 305.

<sup>23</sup> Cf. *ibid.*, p. 289.

<sup>24</sup> Cf. *ibid.*, p. 104 (citing St. Augustine, *De civ. Dei*, VII, 21), p. 359.

<sup>25</sup> Cf. *ibid.*, pp. 402-6: 'the cult of Saturn emerges as not only an African cult but above all the cult of the Africans. A specifically native divinity, especially rural.... he was elevated to the ranks of the great universal gods only within his Maghrebian domain.'

<sup>26</sup> Cf. *ibid.*, pp. 344, 351-6.

<sup>27</sup> Cf. Oates (1954), pp. 110-3.

<sup>28</sup> This is the letter 't' in both the Libyan and the modern Tifinagh alphabets: see, e.g., the comparative table of alphabets and short commentary by H. Duveyrier in *Recherches des Antiquités dans le Nord de l'Afrique* (Instructions adressées par le Comité des Travaux Historiques et Scientifiques aux correspondants du Ministère de l'Instruction Publique, 1929), pp. 45-62.

<sup>29</sup> Cf. Reynolds/Brogan/Smith (1958), pp. 112-5 (esp. 113), Pl. XIV, b,c.

<sup>30</sup> For a recent detailed résumé of knowledge of this important era in Libya see A. Hamdani, 'Some aspects of the history of Libya during the Fatimid period', in *Libya in History*, pp. 321-44.

<sup>31</sup> Grey plaster with 'Berber' ornament in relief has been noted as evidence for a post-Roman rehabilitation of the third-century *centenarium* of Gasr Duib: Goodchild/Ward Perkins (1949), p. 90, and Smith (1970), p. 300 and n. 3. The 'hard, grey, cement-like stucco' applied internally as a rendering for the walls and vault of the church of Chafagi Aamer is, on the other hand, almost certainly 'cistern' plaster, the surface of which weathers to a whitish grey patina: see Christ. Antiq., p. 52.

### (vi) The Middens

<sup>1</sup> In the western Gebel Nefusa and in the chain of settlements clustered around their respective *gsur* at Beni Ulid. Some of the middens of Beni Ulid can be seen as dark mounds in Goodchild (1950b), pl. opp. p. 164.

<sup>2</sup> For a recent exception see Brogan/Smith (1967), p. 142, Pl. XL, a.

<sup>3</sup> Cf. F.R. Wulsin, *The Prehistory of North-West Africa* (Papers of the Peabody Museum, University of Harvard, xxi, no. 1, 1941), fig. 35, nos. 8, 10; J. Forde-Johnston, *Neolithic Cultures of North Africa* (1959), p. 33.

<sup>4</sup> At 1400 hrs. on the last day of the expedition (8th June) a thermometer placed in the sun registered 141°F (60.55°C); when transferred to shade, but still exposed to the wind, it fell to 120°F (48.89°C). This wind had then been blowing from the south for ten days.

<sup>5</sup> The Manassala, a *cabila* (sept) of the Orfella, in whose territory Ghirza lies, are tent-dwellers who transhume seasonally between the cultivable wadis in this territory and their grazing grounds in the Gulf of Sirte.

#### (vii) Other Features associated with the Buildings

<sup>1</sup> Cf. Oates (1953), p. 99. But an ancient, formerly vaulted cistern in the bed of the Wadi Dinar, near Gasr Dabaman (a fortified farm) on the way from Weshtatah to Beni Ulid was estimated by the present writers to be nearly 10m. deep. This cistern is c. 30m. long, 4.0m. wide, lined with 'cistern' plaster, and has a shaft at one corner with handgrips recessed in opposite sides to facilitate descent for maintenance purposes. Round about lie sherds of polished red wares and fragments of querns of black lava.

<sup>2</sup> Internal cisterns are known in a number of fortified farms, e.g. Henshir Suffit (p. 60, n. 8), Henshir Salamat (p. 79, n. 16), the *gasr* beside el-Faschia (Wadi Zemzem), three *gasr* of Wadi Mimun (South), and, in addition to the great cistern nearby, at Gasr Dabaman (see preceding note).

<sup>3</sup> Cf. Rebuffat (1974a), Pl. XXXIV, d, e. These appear to be hearths of the Ghirza type.

#### (viii) The Cemeteries

<sup>1</sup> The cemetery of Bir ed-Dreder is known only through the discovery there of the series of tombstones inscribed in Latino-Punic: see Goodchild (1950c) and (1954c).

<sup>2</sup> A cemetery surrounds the surviving mausoleum, from which have come Neo-Punic inscriptions probably of the first century, in the Wadi el-Amud. But on exami-

nation by the present writers in 1967 it did not appear to include any tombs of the type normal at Ghirza. Nor are the offering-tables of this cemetery paralleled at Ghirza, though those of Ghirza must derive from the type of the Wadi el-Amud. For a brief account of this important site see Brogan (1964), pp. 48-50 (Site 3), Pls. XXIX, c, XXX, XXXIII, a. For a feature at Bu Ngem recalling certain tombs at Ghirza see Rebuffat (1974a), Pl. XXXIV, b; for another which appears to be either a tomb or a hearth, *ibid.*, Pl. XXXIV, c.

<sup>3</sup> At the head of the Wadi Shetaf, some 40 km. north of Ghirza.

<sup>4</sup> Cf. Petrie's cautionary observation on the variety of tombs in a modern cemetery in Sinai: W. M. Flinders Petrie, *Researches in Sinai* (1906), p. 53, fig. 64.

<sup>5</sup> This belief is indigenous. Cf. Diodorus Siculus, III, xxxiii; Strabo, XVI, iv, 17.

<sup>6</sup> There is, however, much truth in Woolley's remark that 'everything that has ever been made in the desert is kept for ever for all to see': *Zin*, p. 37.

<sup>7</sup> Cf. Reygasse (1950), pp. 45-6, 51-2, 56-62, figs. 44, 55-7, 64-72. Various arrangements of stones have also been observed in the Negev but these do not seem to be relevant to the 'features' of Ghirza: see *Zin*, pp. 38-45.

<sup>8</sup> It is interesting to note that one of these consisted only of a cranium: Reygasse, p. 46 and fig. 46.

<sup>9</sup> For the modern practice cf. Oates (1954), p. 115, para. 5, Pl. XVI, b.

<sup>10</sup> See preceding note. Mr. C. M. Daniels informs us that he has seen quernstones on graves in Fezzan. It seems, however, that any *useful* object deposited on a grave - even of a marabout - is liable to be removed: see Goodchild (1951), p. 63, n. 36.

<sup>11</sup> A. Piccioli, *The Magic Gate of the Sabara (La Porta Magica del Sabara)*; Eng. trans., 1935), pp. 63-4.

<sup>12</sup> Ward Perkins (1950).

<sup>13</sup> Photographed by C. M. Daniels in 1958. A Punic derivation for these is perhaps not out of the question.

<sup>14</sup> Cf. Reygasse (1950), p. 47, fig. 48.

<sup>15</sup> Brogan (1964), p. 50, Pl. XXIX, c.

<sup>16</sup> Now in Tripoli Museum. Cf. Goodchild (1951), p. 50, n. 20.

<sup>17</sup> Photographed by C. M. Daniels in 1958.

<sup>18</sup> For these, and the typical *mensae* with which they are invariably associated, and for other Garamantian funerary remains, see G. Caputo, *Il Sabara Italiano: Parte 1 - Fezzan e Oasi di Gat* (1937), and *ibid.* (with others), *Scavi Sabariani* (Monumenti Antichi XLI, 1951).

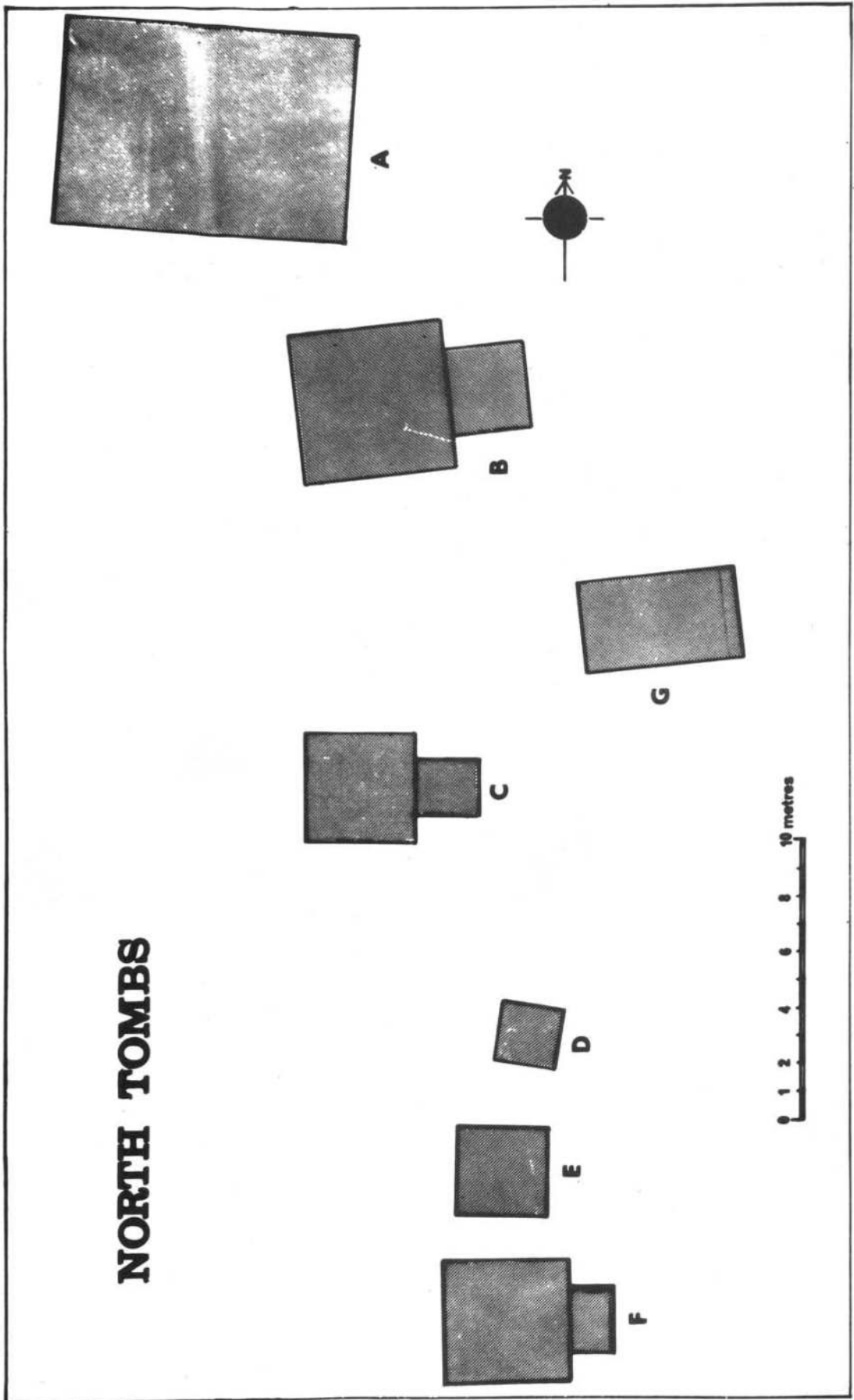


Fig. 36. The Monumental Tombs: North Group.



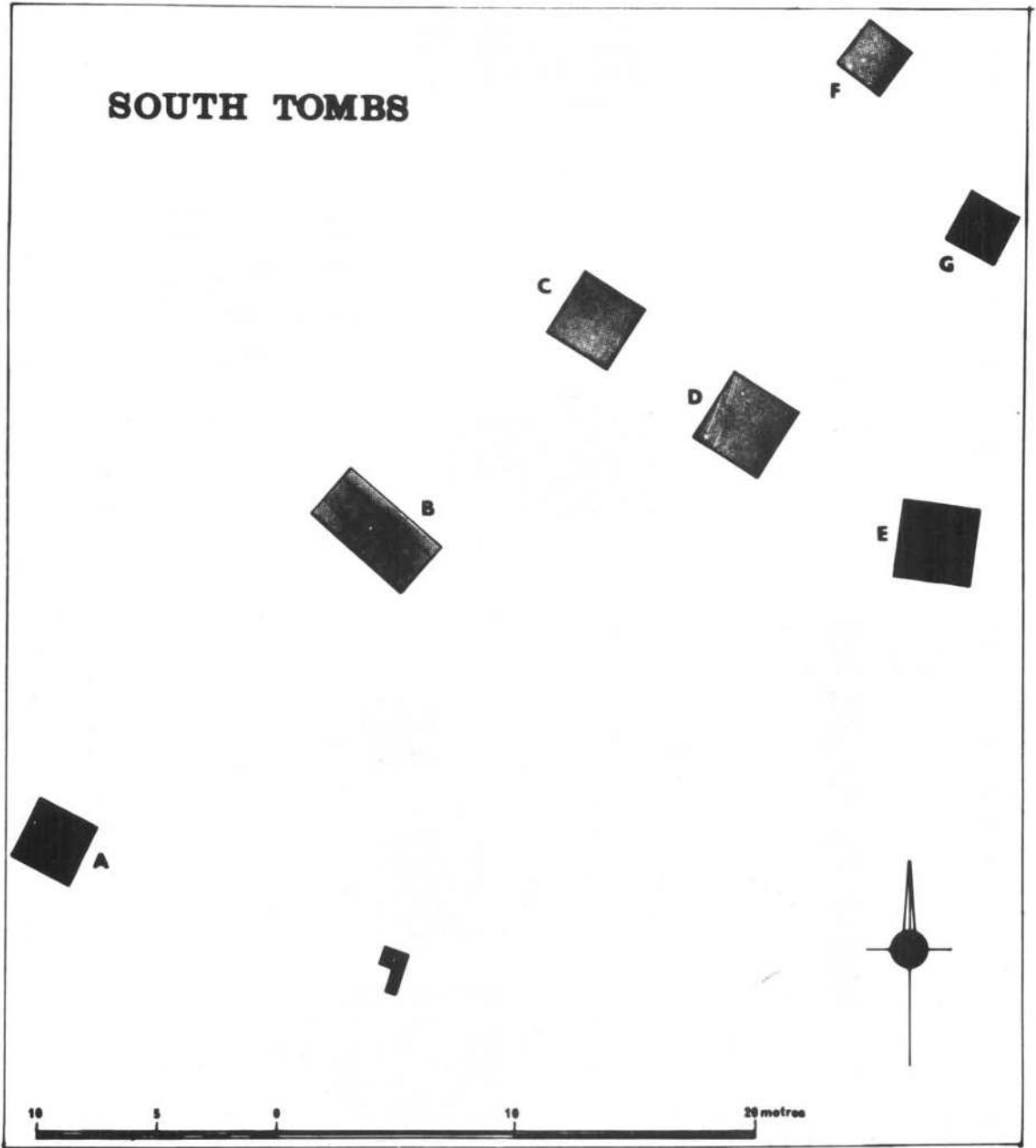


Fig. 37. The Monumental Tombs: South Group.

## CHAPTER III

### THE MONUMENTAL TOMBS

*For the notes see p. 204*

The two groups of mausolea, one close to the settlement, and the other three kilometres away up the Wadi Ghirza, constitute the most imposing Roman-Libyan cemeteries which remain in the pre-desert country of Tripolitania, and indeed are probably the most impressive that ever existed there. The mausolea at Nesma, Chanafes and Wadi el-Ageram, fine though they are, cannot, even in their palmy days, have surpassed or even equalled those of Ghirza. The splendour of the Ghirza tombs is, of course, a relative one; neither their structure nor their sculpture can be compared in quality with those of monuments nearer the centres of urban and civilized life, but they have their own semi-barbaric charm and a majesty which they gain from their lonely setting in the wilderness.

The Northern Group (fig. 36, Pls. 45a, 46) with its seven tombs lies on the right bank of the Shabet et-Tiswiyr, west of the settlement, and about three hundred and fifty metres from the nearest buildings. The six mausolea A-F are built roughly in a row, mounting a gentle slope from north to south. Each stands on a plinth and has, or had, an external colonnade. Tomb A differs from the others, being in the form of a small classical temple, with normal architraves. Tombs B, C and F, with their flights of steps and four or five columns a side, also resemble temples, but they, like the smaller tombs D and E, have monolithic arch-heads instead of the flat architrave. It may be conjectured that the earliest of the group was Tomb A, and that the next five followed in order up the hill. The most crudely decorated, Tomb F, is the southernmost, at the top of the slope. A seventh tomb, G, of a different type, lay a little to the south-east of Tomb B. North-west of the monumental tombs are a number of humbler graves (Cemetery 4; p. 107) and scattered to the north east are a few dressed stones which it has not been possible to assign to any of the existing tombs. Among them was part of an inscription (p. 262, 6).

The Southern Tomb Group (fig. 37, Pl. 45b) likewise consists of seven tombs, one of them, A, an 'obelisk' tomb of a type characteristic of Tripolitania. Three tombs, C, D, E, in a row from east to west and two others north of them, F and G, are of the arcaded type. Tomb G was dismantled and removed to Tripoli Castle in 1959 by Dr. E. Vergara-Caffarelli and there reconstructed in the museum. None of the tombs in the southern cemetery had flights of steps as had the larger tombs of the northern group. The seventh tomb, B, which has a certain resemblance to Tomb G of the northern group, lies between A and C. There is no indication of what it had in the way of superstructure. These two exceptional tombs are described together (p. 178). As in the case of the Northern group, there are a few stones, including small capitals, of unknown provenance.

None of the tombs of either group contained any pottery or other objects likely to have been deposited when the interments took place.

### THE NORTH GROUP

#### (i) Tomb North A:<sup>1</sup> figs. 38-41, Pls. 47-55

This, the largest of the Ghirza tombs, is built in the form of a small classical peripteral temple (4 x 5), but without the pediments, instead of which the roof had an edging of substantial palmettes and spirals. The order is mixed Doric and Ionic, with debased Ionic capitals. The tomb faces east and has a rectangular podium with cornice and base mouldings, prolonged eastward to form walls bordering the flight of steps which leads up to the cella doorway. The two lowest steps extend right across the space between the walls. The next five steps have risers (ht. 25-27cm.) on the front and sides. The eighth step extends across the podium and the ninth step is

the top of the podium. Under the south side of the building is the entrance to a funerary chamber. On the podium is a 'cella'<sup>2</sup> containing another funerary chamber. This has a doorway at the east end which had, we may assume, a plain or carved stone false door such as is commonly found on Hellenistic and Roman tombs and such as still remain on the adjacent tombs B and C. Above the doorway is an inscription.

There are many Arabic graffiti on the podium and elsewhere, on this as on the other tombs. Some are well worn and probably old, but most seem to be fairly recent. Some are camel marks, including that of the cabila Manassala which lives for part of each year in the wadi. Most are names.

(a) *The funerary chambers* (figs. 40, 41)

*The Lower Chamber* (Pl. 49)<sup>3</sup>

This is entered by a short passage (3.07m. long, 1.04m. high) under the base moulding course on the south side of the podium. The passage was originally blocked 2.70m. from the exterior by a slab of stone c. 15cm. thick slid into place down a vertical shaft. The slots for the slab end 24cm. above the floor so that if the stone reached the ground its bottom 24cm. must have been rebated. When the remains of the dead were being taken into the chamber this stone must have been held up by temporary wooden or stone supports, in which case the effective entrance to the chamber was even narrower than its present total width of 56cm.; but Punic tombs seem generally to have had small entrances, whatever the burial rite. The dimensions of the chamber, however, and the central pillar, would have made it difficult to bring in bodies.<sup>4</sup> The outer passage is less well finished than the chamber, the rock being left untrimmed in the lower part of the west side.

The chamber, almost square, is very well constructed, with a central pillar and plain square capital supporting an abacus and a slightly pitched ceiling with the ridge running east-west. In the centre of the north, east and west sides, 1.10m. above the floor, are rectangular niches.<sup>5</sup> There are no libation channels in this tomb. When cleared in 1955 the chamber was full of sand, the stone slab closing the doorway having long since vanished. Within the chamber, lying in the sand west of the pillar, was found the lower part of an inscribed columnar tombstone (p. 182), and in the passageway one of the victories that we believe belonged to Tomb B (p. 140).

The base-moulding of the podium above the entrance to the chamber is extremely worn (Pl. 47b), much more so than it is on either side, showing that the entrance must have been known at some period and kept open for a long time after sand had covered the moulding to its left and right.

*The Upper Chamber* (Pl. 50c, d)<sup>6</sup>

The reasons for considering the chamber in the cella a funerary one and not a chapel are, first, that the east doorway has no trace of slots or sockets for a real door and was instead blocked for about two-thirds of its height by packed stones making up the floor of the chamber, as is shown by traces of cement on the doorway and on the central column (Pl. 50c);<sup>7</sup> second, the existence of the real entrance high up on the south side (Pl. 47b). This is a rectangular, window-like aperture (50cm. wide, 75cm. high) which was once closed by a sliding stone slab, like that of the lower chamber, for which the grooves are preserved. The awkward position of this entrance just behind a column and high above the floor, and its small size, suggest that here at any rate cremation must have been the rite. No traces of any pieces that might have belonged to the false door in the east doorway have been found, and it is of course possible that the entrance was blocked by plain masonry.<sup>8</sup> Whatever its form, the blocked entrance has been entirely hacked away at some time and large portions of the original flooring have been removed by treasure-seekers or by squatters.

The chamber is something of an enigma. The lowest courses of its walls are rather irregularly bedded. The slightly pitched roof is made of stone slabs that show signs of weathering on their lower sides as if they had been used previously with these sides exposed. They rest on a beam, running north-south, formed of a trimmed stone and a column halved longitudinally. These are supported at their point of junction by a column bearing a broad, extremely weathered and seemingly unfinished Corinthian capital (ht. 28cm., Pl. 50d) which does not correspond to any of the capitals found elsewhere amongst the tombs. The stone beam and the half-column are of unequal length, so that the supporting column is not in the centre of the chamber. The irregularity in the upper chamber, so different from the meticulous work in the lower one, is surprising.

The simplest explanation seems to be that when the tomb was first built there was only one chamber, not two as in Gasr Banat (p. 264), and the cella at that time was given a solid fill of rubble against which the false door at the east end was set. Then, at a time we cannot determine, but perhaps not many years later, the tomb was seriously damaged, possibly in an earth tremor. There were cracks in the architraves and on the west side one of the capitals fell and its volutes were broken off. The descendants of Nasif and Mathlich set to work to repair the damage; at the same time they decided to take advantage of the situation and make a second funerary chamber in the cella. The colonnade on the west side was repaired and a new Corinthian capital acquired to be put in the place of the old damaged Ionic one: see below, para. (c). The roof was cleared and enough of the rubble beneath removed to leave space for a room. A rectangular opening was left in the south wall, with a flagstone to slide down to close it. A floor was levelled behind the upper part of the false door; its level, 0.47cm.

above the podium, is shown by cement marks on the doorway and on the column-end which was inserted into the floor. The roof was propped up, as already noticed, and rested on the makeshift beam supported by the column and the rough capital. Facing stones had already been brought in and the west wall of the chamber revetted. In the repair of the east wall a stone with a carving of a horse was inserted upside down. Finally the work was completed by covering the roof with a new layer of mortar and rubble.

(b) *The exterior of the cella* (figs. 38, 39)

(i) Doorway (Pl. 47a).<sup>9</sup>

The lintel was decorated with a line of eight rosettes, the eighth being now obliterated, with two more where the lintel turns down at right angles to meet the jambs. Above is an elaborate cornice with two rows of dentils. The outer dentils on each side of the lower row are carved into *ovolos*; above the dentils is a line of bead-and-reel pattern over which comes a *cyma recta* moulding consisting of a graceful row of leaves. Some of the leaves have been carved into acanthus form while others remain plain, the work having evidently not been completed. Above the leaves are two plain bands. The jambs are cut inwards, framing the doorway in a series of sharp narrow rebates.

(ii) Frieze of Cella Wall (Pls. 51-53)

The cella wall has a plain cornice. A sculptured frieze (ht. 45-46cm.) runs across the east wall above the doorway. The subjects, from l. to r. are:

1. *Sacrificial scene*. A man holds a bull by the tail and by a cord passed round its horns; the animal, r., is grasped by the left horn by another man in whose left hand a mallet is swung aloft ready to strike the animal down. Its body is in profile but its head faces the spectator. The head and body of the man on the left are frontal while the legs are turned three-quarters towards the right. The man on the right is depicted frontally but with legs in profile, and his head is turned in profile to the right. Both are wearing short tunics. This is the only conventional scene of animal sacrifice at Ghirza.<sup>10</sup>

2. *Patera*. Plain, with a small boss in the centre.

3. *Eagles<sup>11</sup> and Inscription*.<sup>12</sup> Above the door are two handsome spread eagles, with their feathers carefully rendered, on either side of an ansate panel. Each eagle holds a hare in its claws and turns its head towards the panel, on which is inscribed:

M(archii) Nasif et M(archiae)  
Mathlich m-  
atris M(archii) Nimir-  
a et Fydel fili(i)  
k(aris) p(arentibus) fecerunt

‘[The tomb] of Marchius Nasif and of Marcia Mathlich, [their] mother. Marchius Nimira and Fydel, their sons, made this for their beloved parents.’ See also p. 260

4. *Cantharus*: with a rudimentary vine tendril rising from its mouth and spreading to either side.

5. *Beasts*. A crude but impressive lion, with flowing mane indicated by a sort of cable-pattern, narrow flanks, tail and claws. The head is frontal but the animal is springing towards the right at an unidentifiable herbivore.

6. *Busts*. The frieze is continued, on one stone only, on the south side of the cella. Here there are busts of two personages, both of whom appear to be female, perhaps a mother and daughter. The one on the right has a row of tight curls round her forehead, and a veil above. Her hair is long and she wears large ear-rings. The bust on the left has the hair done in the long parallel waves, with ringlets hanging down to the shoulder, seen on portraits of the Severan period; the way the curls are brought down behind the ears is rather like the hair-style of Julia Mamaea.<sup>13</sup> The relief is high and the bodies are draped in heavy garments, of which one fold passes over the left shoulder. The curving folds are rendered by flowing grooved lines. The under-garments are gathered at the neck. These are the only ‘portrait’ busts found in the North Tomb Group, whereas busts occur on four of the South Tombs.

(c) *The portico and entablature* (figs. 38, 39, Pls. 47, 48, 54)

The portico has fourteen columns, four at each end, five on each side. The shafts are plain, the capitals of a debased Ionic form, except for one Corinthian capital on the west side. The intercolumniations (base to base) measure 1.63m. on the east side, 1.27m. on the south side.

The column shafts are monolithic, 2.02m. long, tapering slightly, with slight mouldings at top and bottom; diameter at base 30-35cm. There is an inscription in the Libyan alphabet lightly incised on the inner side of the north-west corner column (p. 252). The bases have double mouldings and rest on square plinths. The mouldings are not identical for every column, but the upper torus is generally somewhat rounded, with the

normal subsidiary smaller band below it; under that is a concave groove, then the two fillets, a smaller and a larger one, of the lower moulding, in which there has been little attempt at rounding the surfaces.

The capitals (ht. 42-45 cm.) are of a canted Ionic form. The echinus or bell, decorated with an egg and dart pattern, is much larger than is normal in Ionic capitals. The volutes are linked by a band swinging downwards from the spiral; above this sagging band is a rosette. The angles between the volutes are decorated with leaf and cable patterns and the abacus has the concave sides of the Corinthian type, and juts out over the volutes. No two capitals are exactly the same and the carving varies in proficiency. This is shown particularly on the echinus where the egg and dart pattern is generally only a very approximate imitation of the one shown in Pl. 54a, which may perhaps be regarded as the pattern. This has a much more recognizable egg-and-dart decoration and, above its bead-and-reel, another narrow convex moulding which is absent from most of the others. Above the band between the volutes it has on each side a bunch of grapes instead of a rosette. The Corinthian capital already mentioned is the second from the north end of the west side. It is of rather good quality, has two tiers of well curled-over acanthus leaves, two more leaves under the volutes (Pl. 50b, fig. 38), helices, but no cauliculi, and a small rosette over the helices.

The entablature is Doric, most of the triglyphs having the standard three vertical bands, but a few having two or four bands. Above the vertical bands are three, occasionally two, horizontal bands. Under the regulae, in line with the vertical bands, are three guttae. The metopes are decorated with floral rosettes and plainer roundels. Above the triglyphs and metopes is a row of dentils, an Ionic feature which appears on some Hellenistic buildings with Doric friezes.<sup>14</sup> The dentil at each corner is carved into an egg. The cornice, like that of the podium, is of simple type, good and well-moulded, giving a good shadow.

A narrow band runs along the top of the architrave, underlining the frieze; below the band come the guttae. There are no mutules. The soffits of all but two of the architrave blocks are decorated with countersunk carvings of rosettes or wreaths from which a palm leaf runs to either margin of the stone. The exceptions are the two stones at the east end of the north side, which have a scroll pattern.

Metopes:<sup>15</sup> in the main, plain shield-like roundels alternate with floral ones. The patterns of the floral roundels show great variety, no two being exactly the same, and the number of petals varies, i.e. 8, 4 + 4, 5 + 5, or 14, but there are no six-petalled flowers. Some of the plain roundels have cable or floral edgings.

On the south side the third metope from the west has an 8-petalled rosette and on its left a goat, standing on what may be a tree, and, on the right, a curious wavy object (Pl. 54a).

The northernmost metope on the west side is wider than the others, with two birds, probably doves, drinking out of a wine cup (Pl. 48a). The fourth metope, which lies above the odd Corinthian capital, has no decoration (Pl. 48a). On the right of the fourth triglyph is a small scroll or cord decoration. Several of the bands on this side are not vertical.

The sixth metope from the left along the north side, slightly wider than the normal ones, is occupied by a large head, carved in very high relief (Pl. 48b). Its beard, moustache and hair are indicated by vertical lines. Eyes and nose are incised and there is a gaping mouth through which water drained from the roof, to fall on the ground sloping down to the wadi. Drainage gargoyles at the level of the metopes instead of in the sima are a legacy of Egyptian architecture.<sup>16</sup>

#### (d) *The roof* (figs. 38, 39, Pl. 46)

The roof was flat. The slight ridge over the chamber is discernible now but will originally have been hidden by the covering layer of rubble and mortar. The method of building was to construct the cella and then erect the columns with architraves and frieze above. The beams of the frieze have a ledge in the back to take the slabs which span the gap between cella and frieze, resting on the inner side on the cornice of the cella. The external cornice was then added and acted as anchor to the roof slabs, and finally the ornamental roof edging, the sima, was set in position. The top of the cella and the roof were then filled with rubble and mortar. This was also the practice in building the other tombs of the group.

There is one roof slab missing on the north side of the east portico. No trace of pediments has been found; moreover, the flat roof, without a ridge requiring a gable end, does not suggest the presence of pediments.

Roof Ornaments. The roof was edged with palmettes and spiral rinceaux of which considerable portions were found on the ground around the tomb. There are two centre-pieces (0.68 x 0.50), each consisting of a palmette with a central leaf, and three leaves on either side. Along the edge of the roof were pairs of spiral rinceaux. One of these is nearly intact and is 1.10 m. long, 0.48 high; larger or smaller pieces of fourteen other scrolls remain. They are very big and heavy, as befits the size of the tomb.

#### (e) *Miscellaneous*

At three places on the tomb there are roughly-incised figures, two of which give the impression of having been cut by workmen for their own amusement before the stones were set in place.

1. On the soffit of the south-east corner of the portico, two very crude figures of men fighting one another with axes. Their heads and legs are in profile, their bodies and eyes frontal (Pl. 55a).

2. On the upper part of the east wall of the chamber inside the cella, a horse, upside down (see (d) above) (Pl. 55b).

3. On the outside of the north wall of the cella, a horse.<sup>17</sup> This could have been cut long after the erection of the building (Pl. 55c).

The incised figures show considerable verve. The fight on the corner of the colonnade ceiling is more in the vein of the sculptures on Tomb North B than of those on Tomb North A.

(f) *General comments on North A*

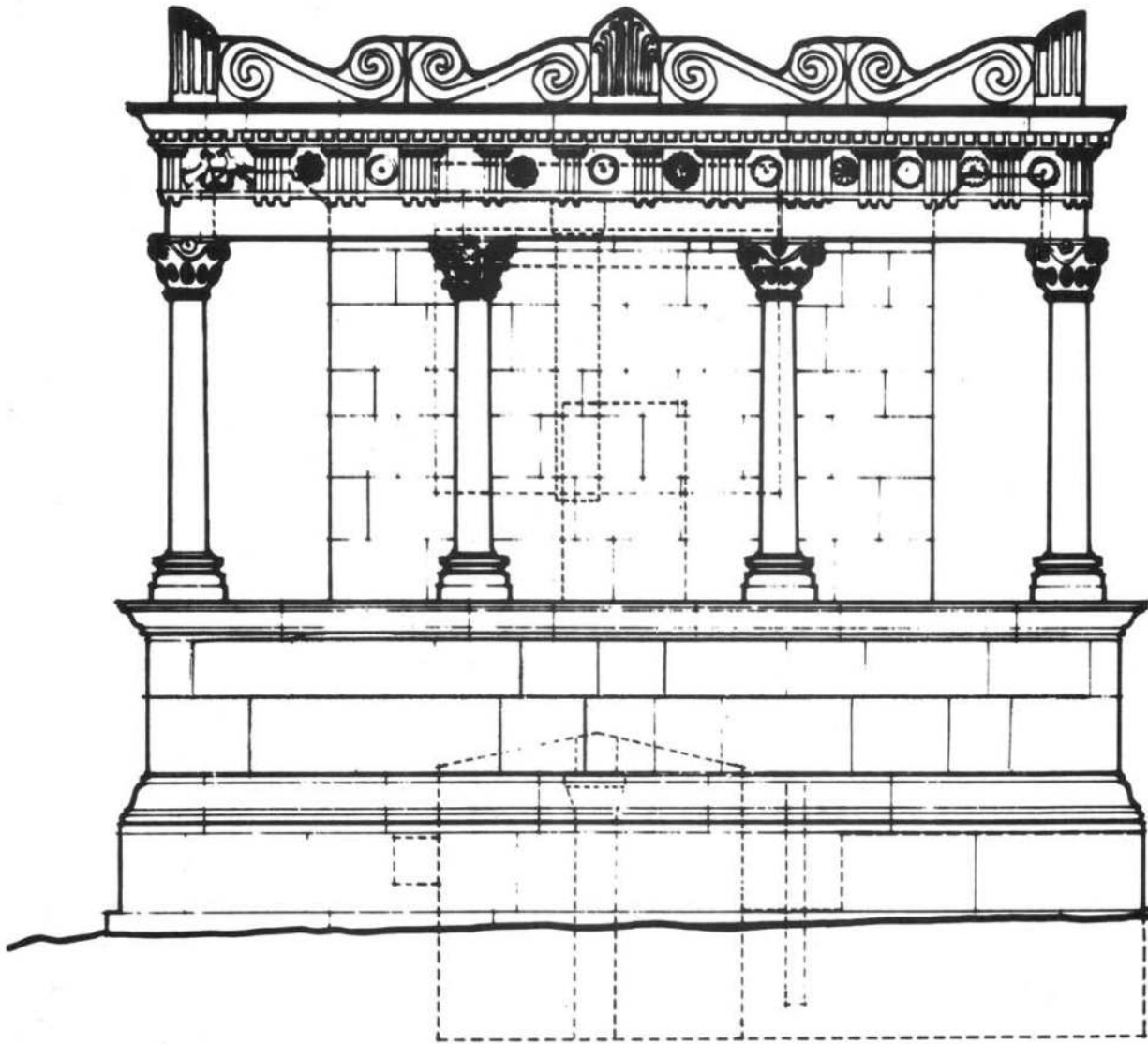
Tomb North A has certain unusual features. It is peripteral, whereas the more common type of Roman temple-tomb is pseudo-peripteral. No sign of pediments has been found and from the structure of its roof it seems unlikely that it ever had any. The similar but finer tomb, Gasr el-Banat (p. 264), had a surrounding portico, now lost, and it also has no sign of ever having had pediments.<sup>18</sup> The flat roof was normal in Carthage for temples as well as for houses, a practice which may still have influenced public buildings and even mausolea in the Roman period.<sup>19</sup> The mixed orders of North A recall the second-century temples of the Forum Vetus at Lepcis;<sup>20</sup> the mixture of Doric frieze and Ionic capitals also occurs in several temples at Gighthis. At Gighthis some of the Ionic capitals have the enlarged echinus we find in Tomb North A (p. 209). The Gighthis temples were dated by Constans to the second century or to the early third century,<sup>21</sup> but Lézine (fig. 67) regards these capitals as of an earlier date. The remarkable similarity between the Gighthis and North A capitals was noted by Constans but a satisfactory link between them has yet to be found (see p. 210).

All the rosettes on this tomb have eight petals or a multiple of four. On the other tombs at Ghirza, except South A, the rosettes are nearly all six-petalled. In addition to the more conventional decorative sculptures on the building there are a few embellishments, the solitary gargoyle in high relief on the north side, the small animal in a metope on the south side, the doves drinking out of the wine-cup on the north metope of the west side.

It is very difficult to date this tomb. It is the one nearest the wadi, the first in the row of mausolea, so it is reasonable to suppose that it is the earliest. There is also its style of architecture, with the regular classical architrave and with the features already noticed which recall the temples of the Forum Vetus and of Gighthis. It is risky to press dating parallels in a remote barbaric zone, but the dates of the Lepcis and Gighthis buildings are significant. Ionic capitals, too, are not common in southern Tripolitania and where they occur they give the impression of being relatively early, except for one group with Christian symbols. The Ionic capital went out of fashion at Lepcis before the coming of the florid Severan Corinthian capitals (p. 210). We can imagine it surviving for a time in the hinterland until there too it was swept away by the later forms.

The lettering of the inscription of Tomb North A is definitely better than that on the fourth-century inscriptions of Tombs B and C and could be of the third century. The names on Gasr Banat perhaps suggest that the latter may have been built towards the middle of the third century (p. 264). North A has so much in common with this tomb that one would not expect to place it more than a generation later.

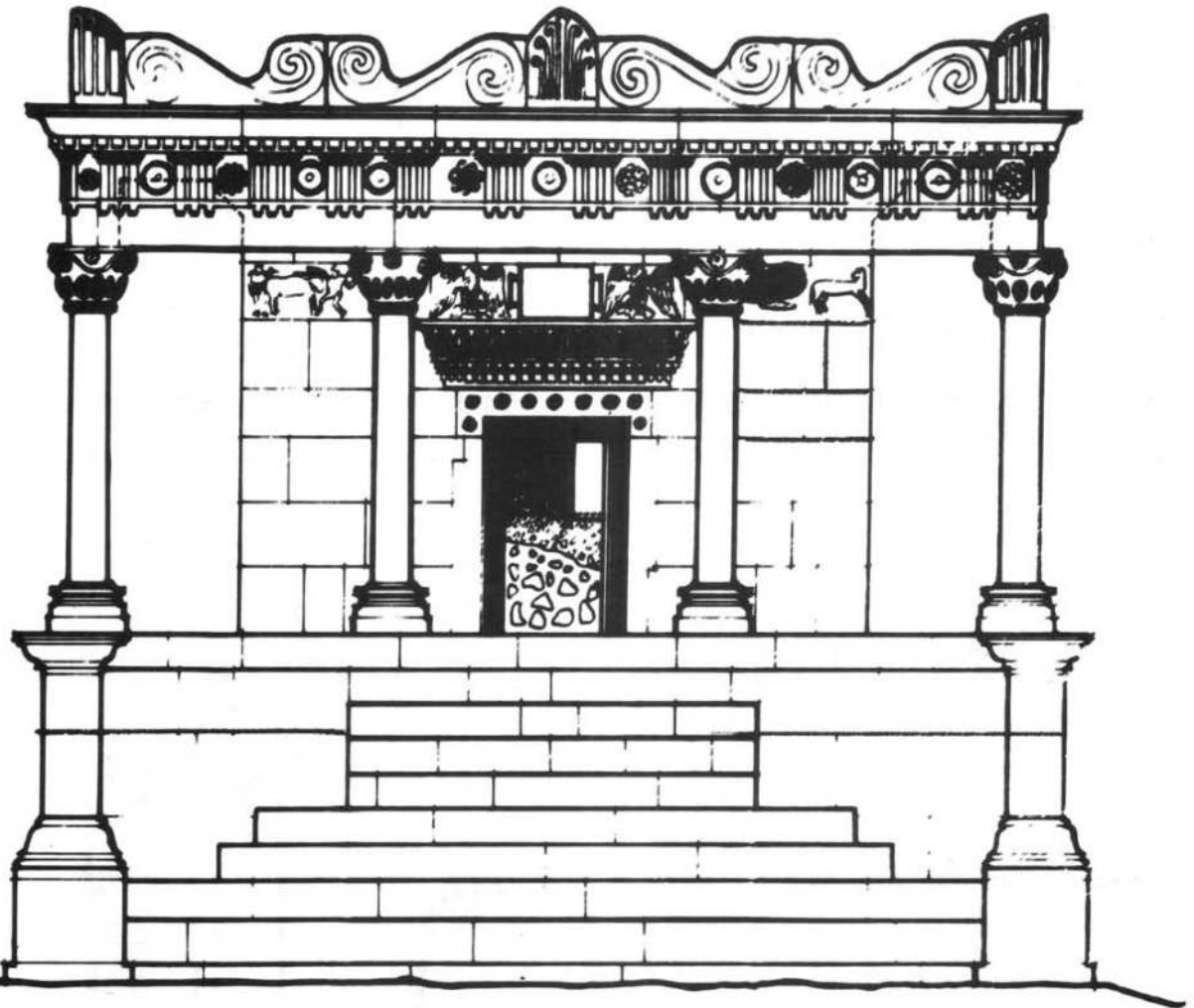
Our tombs, where they have inscriptions, are dedicated to parents, by dutiful children. One of the dedicators of Tomb A is a Marchius Fydel. Tomb B was built for a Marchius Fydel and his wife Thesylygum. This must be the same family. It could be the same Fydel, if he lived to a ripe old age (dying about AD 320-25) and had been fairly young when his father died. But another generation has to be accounted for between Tombs B and C, thus putting A well back into the third century.



RECONSTRUCTED WEST ELEVATION .  
 TOMB 'A' . . . . . NORTH GROUP .

CENTIMETRES 100 50 0 1 2 3 4 5 METRES.

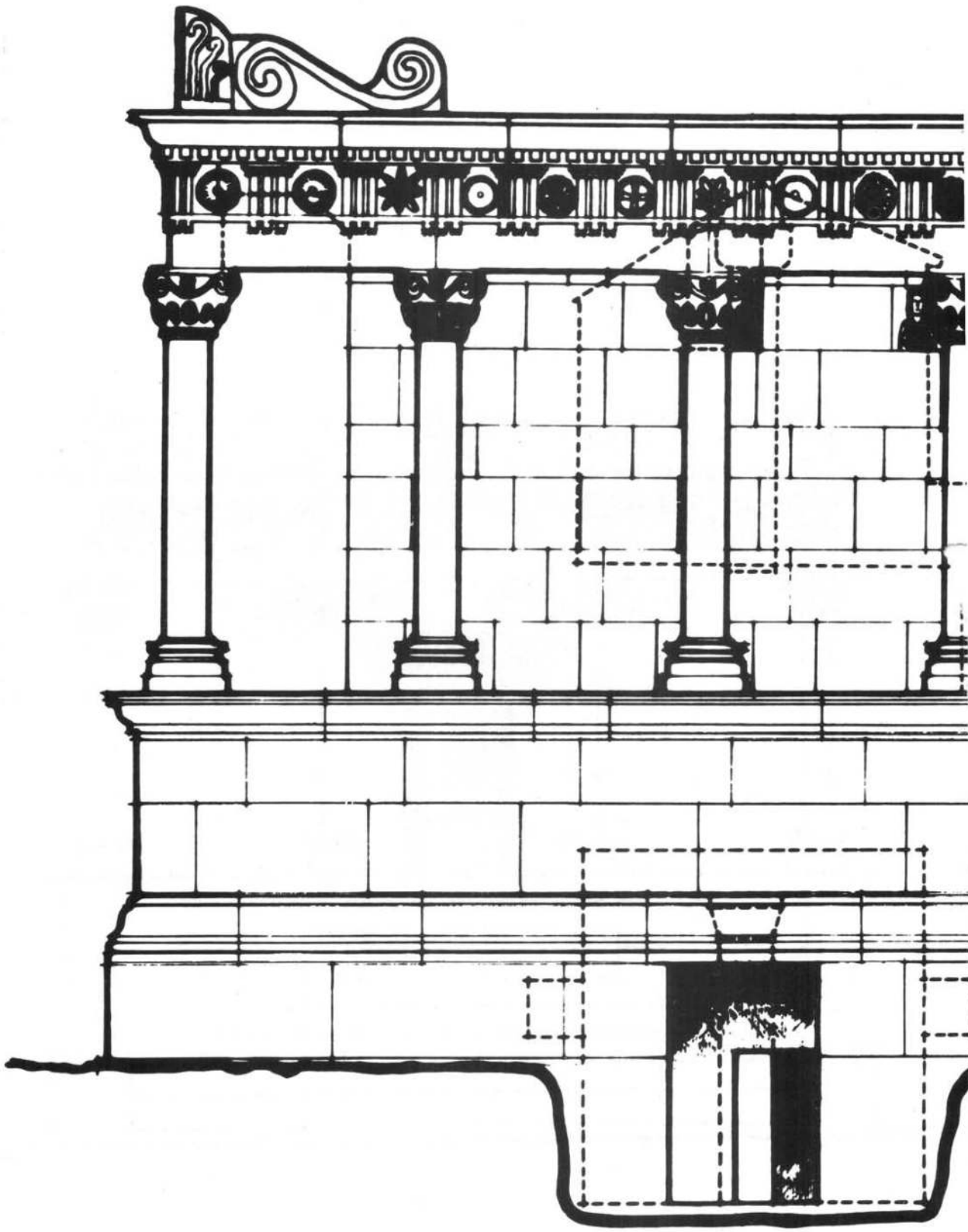
Fig. 38. Tomb North A: east and west elevations. Drawn by J. Keelan.



RECONSTRUCTED EAST ELEVATION .  
TOMB 'A' . . . . . NORTH GROUP .

CENTIMETRES 100 50 0 1 2 3 4 5 METRES .

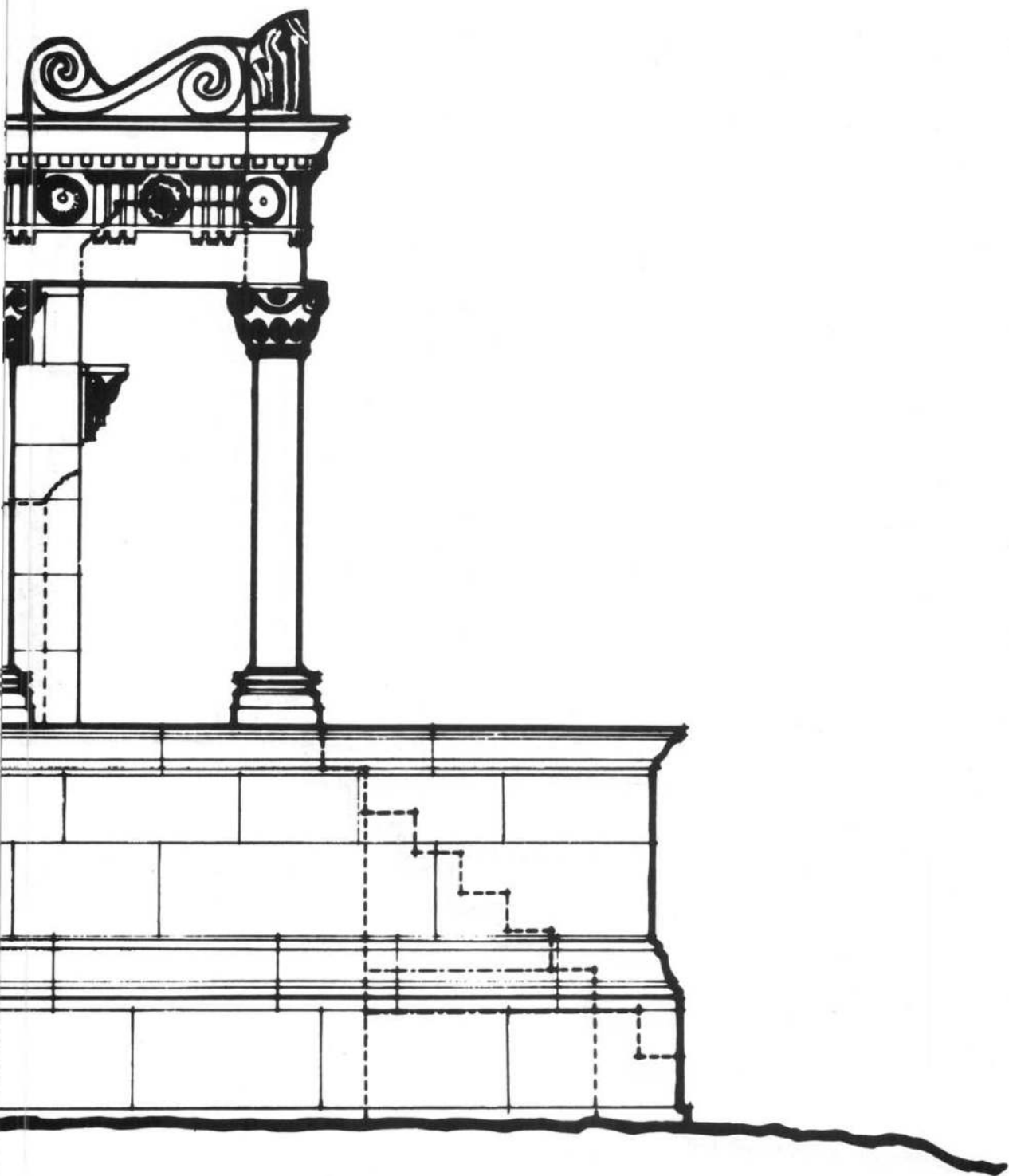




RECONSTRUCTED SOUTH ELEVATION  
 TOMB 'A' . . . . . NORTH 'C'

CENTIMETRES 100 50 0 1 2 3

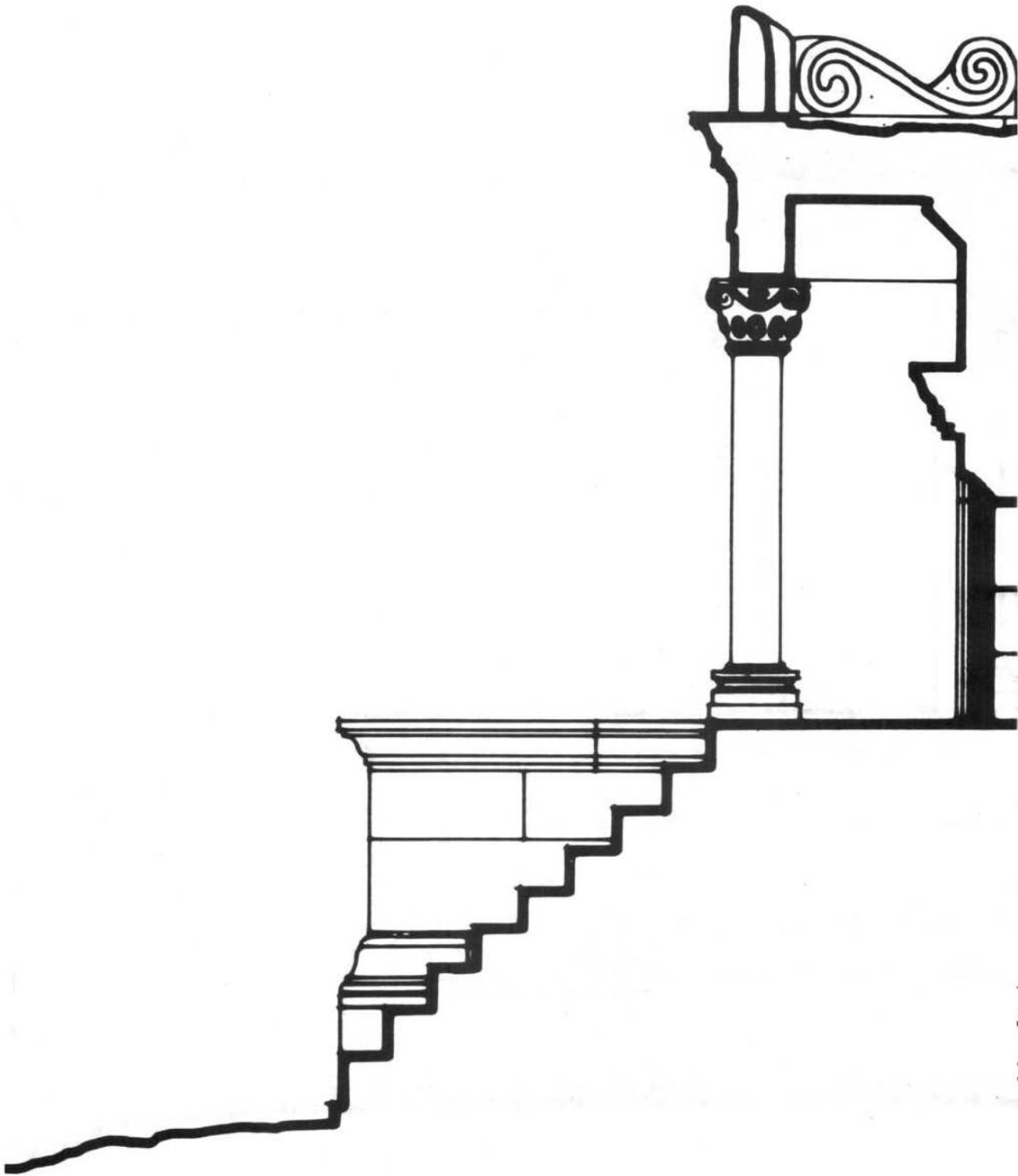
Fig. 39. Tomb North A: south elevation. Drawn by J. Keelan.



TION .  
ROUP .



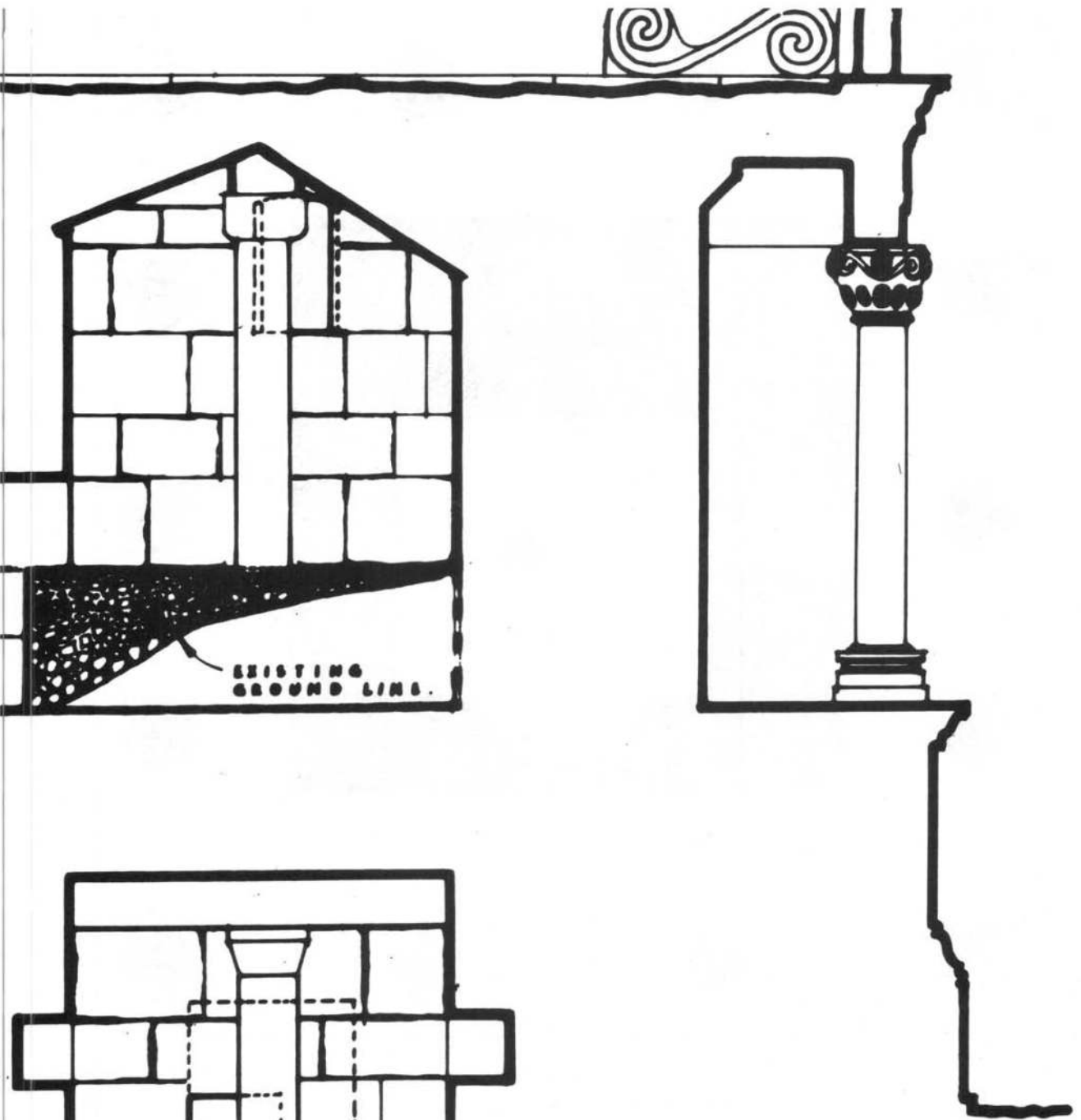
5 METERS.



**RECONSTRUCTED SECT  
TOMB 'A' . . . . . NO**

**CENTIMETRES .00 00 0 1**

Fig. 40. Tomb North A: cross-section. Drawn by J. Keelan.

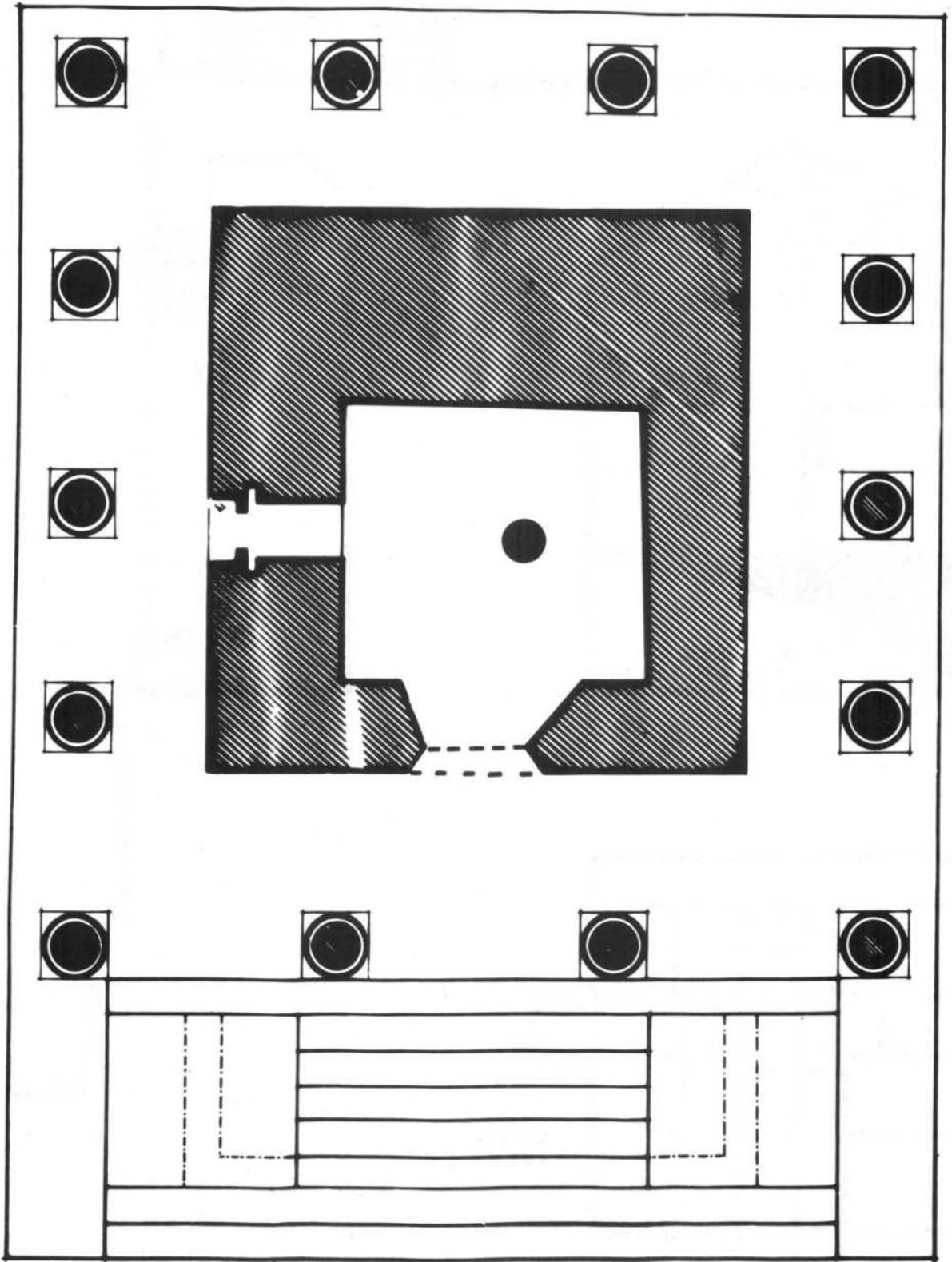


EXISTING  
GROUND LINE.

LOWER  
TOMB  
CHAMBER

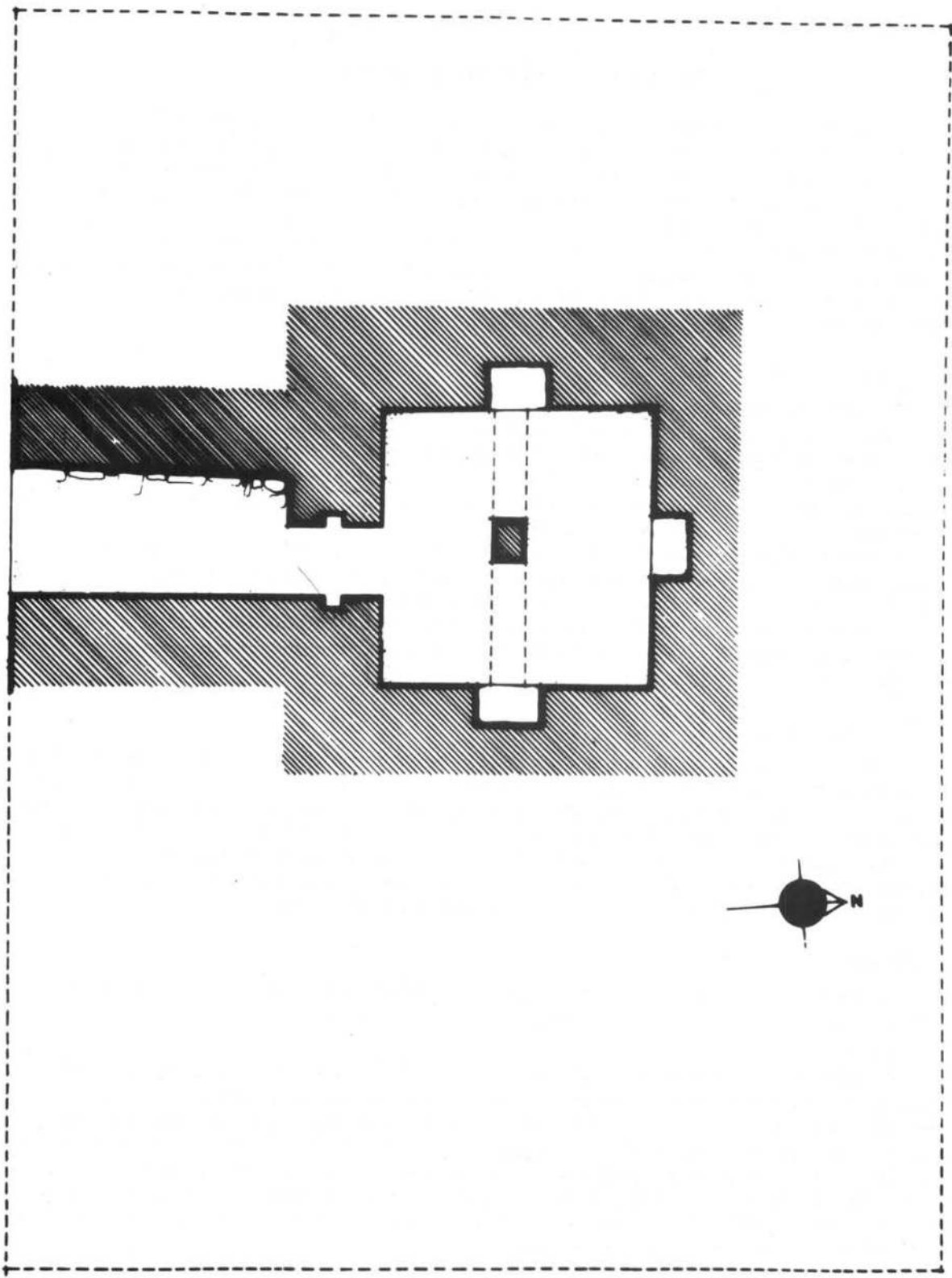
ION  
RTH · GROUP :

0 2 4 6 METERS.



CENTIMETERS 100 50 0 1 2 3 4 5 METERS.

Fig. 41. Tomb North A: the upper and lower chambers. Drawn by J. Keelan.



CENTIMETRES 100 50 0 1 2 3 4 5 METRES.

## (ii) Tomb North B:<sup>1</sup> figs. 42-46, Pls. 56-72

A temple-tomb on a high square podium, approached on the east side by a projecting flight of seven steps. In place of a cella there is a large central pier of masonry with a rubble and mortar core. On its east side is an ornamental false door originally surmounted by an inscription. The portico consisted of sixteen columns, 5 + 5, and two extra ones inserted on the west side behind the second and fourth columns (Pl. 56b, 57b). The columns, which had Corinthian capitals, carried, not architraves, but arcuate lintels, each consisting of a single stone, which in turn supported an external frieze. Of these sixteen arch-heads, as we shall call them, six are now in position, but all the frieze has fallen. Above was a cornice, and the roof was edged with *sima* decorations, of which many pieces were found on the ground round the tomb. It seems certain also that the corners of the roof were adorned by figures of victories.

### (a) *The funerary chamber* (fig. 44)<sup>2</sup>

The sepulchral chamber is entered under the podium from the south side by a short rock-cut passage 1.74m. long, leading to a door-sill (ht. 30cm.) where there is a socket for the blocking-stone (0.17cm. wide, 0.04 deep). The height of the doorway is 64cm; 18cm. beyond the doorway the passage opens into the chamber, which is constructed of fine masonry and has a barrel vault running north-south. The chamber is not absolutely symmetrical, but the error is only one of 4-6cm. The spring of the vault begins 1.44m. above floor level, and there are seven segments of stone in the vaulting.

In the east wall, at the base of the spring of the vault, 42cm. from the north-east corner, is the aperture (11 × 5cm.) of a libation duct which runs horizontally into the wall for 37cm. and originally communicated with the top of the podium in front of the false door. In front of the opening there appears to have been a small projecting slab, while below it a groove 11cm. long leads vertically down the wall (Pl. 58b). The external aperture of the duct could not be found as the stones of the platform have been torn up and the rubble and mortar fill is disturbed.

### (b) *The podium* (figs. 42, 43)

The podium has base mouldings and a cornice. The angle-pilasters have double, rather flat, base-mouldings and simple, somewhat flattened Corinthian capitals. Below the cornice is a frieze (ht. 42cm.) decorated with a vine scroll between flat bands above and below (Pl. 58a); the sections of the frieze are not fitted together to form a single continuous pattern. The vine stem is mostly grooved and square-cut, but on some of the blocks it is rounded. Tufts of stylised leaves, or sometimes of fruit and leaves, spring from the stem. Within the spirals are leaves, or fruits and leaves; some of the fruits are grapes, but most seem to be pomegranates, figs. or pears. The fifth scroll from the right on the west side has a figure of a horse.

### (c) *The central pier* (figs. 42, 43)

The central pier or 'cella' (ht. 3m.) has an offset round its base, except below the false door where it has disappeared, doubtless through treasure-seeking. There is a plain cornice.

#### (i) False door

The false door (Pl. 59) is elaborately carved in two leaves on each of which are ornamental panels. Round the door itself and round the inner section of each panel are frames of triangular, stylised leaves or petals. Within this main frame of the door is a moulding of cable-pattern. Along the top are six small bosses which perhaps represent nails. Each panel is framed by four decorated mouldings which are, passing from outside inwards, rudimentary bead-and-reel, cable, a garland of pointed leaves set longwise, and more triangular stylised leaves. In the centre of each panel is a rectangle with an ornament in it which resembles a curtain tied in the middle,<sup>3</sup> with the exception of the centre right hand one, larger than the others, which is unfortunately defaced by a hole. It had seemingly a flat centre with curving frame.

The lintel is in the form of a cornice. At the bottom is a row of dentils, like those bordering the main frieze; then an anthemion of alternately upright and reversed palmette-like leaves;<sup>4</sup> above that bead-and-reel;<sup>5</sup> then a narrow plain fillet, a line of cable-pattern, and the plain cornice edging.

#### (ii) The inscription (Pl. 60b)<sup>6</sup>

The inscription, on a *tabella ansata* (ht. 0.83cm.), was set above the doorway cornice. The right-hand part was found among the fallen stones on the south side of the tomb by Dr Vergara Caffarelli in 1952. The left, and larger, portion (in italics below) had been taken to Istanbul in the 19th century. Denham saw and copied the complete stone in 1825.

*M(archius) Fydel et F(lavia) Thesylgum<sup>7</sup>*  
*pater et mater M. Metusanis*  
*qui eis hec memoriam fecit*  
*Discussi ratiocinio ad ea erog-*  
*atum est sumptos mercedes*  
*in numo\*folliis n[onaginta]milia*  
*preter cibarias ope[rant]ibus*  
*feliciter legan [et] uissite-*  
*nt filios et nepotes meos*  
*et tales faciant<sup>8</sup>*

'Marchius Fydel and Flavia Thesylgum, father and mother of Marchius Metusan who made for them this memorial. I have calculated the expenditure exactly. There was disbursed in wages in coin ..... thousand<sup>9</sup> folles of *denarii simplices*, besides food for the workmen. May my sons and grandsons read and visit the monument in good fortune and may they make monuments like it.' See also p. 261.

(d) *The columns*

Ten columns are intact in position, set on square plinths. Eight more bases, two shafts and two battered capitals were also found. The bases are of Attic type, but the mouldings are broad, flat bands with angular edges, and vary in size from column to column; the upper moulding has two very narrow bands above and below the main element; there is a groove between the lower of these and a corresponding small fillet above the main lower moulding band. Some of the bases include also a few centimetres of the column shaft, the longest being 10cm. The bases, with plinth, measure 45 to 47cm. in height. The column shafts are plain with no edging at top or bottom; each, apart from the fragments on the bases noted above, is of a single piece, ht. 1.75m. It looks as though the two extra columns were inserted to give some extra stability to the west side. Over each a small beam is inserted, cut to fit the slope of the cornice of the central pier and to rest on the capital of the extra columns on one side and on the exterior column butting up against the arch-head (figs. 42, 43, Pl. 57b).

The capitals (Pls. 56, 57, ht. 42-44cm., top 47cm. across), are rather pleasing Corinthian types with one row of well but rather flatly cut acanthus leaves turning well over. In most the leaves are carried far up the bell, so that the helices (inner spirals) are very small; in others the leaves only reach a little more than halfway up the bell and the helices have long stems. No two capitals are identical; at the base of most of them is a band of cable-moulding. Not all of the bosses have the standard floral rosette. On the south side of the capital of the southern extra column is a mask; the easternmost capital on the south side has a six-petalled chip-carved rosette with six more petals forming chords round the edge; the middle capital on the south side has a palm-tree on one boss.

(e) *The arch-heads*

Tomb B had sixteen arcuate lintels consisting of single stones, 52-53cm. high 1.03-1.30 cm. long, 19-20cm. deep. Their measurements vary slightly. The span of the arch is 60-65cm., the bases of the spandrels still in position measure 21-24cm. across, except on the western arch on the south side, where the outer spandrel measures 34cm. across. The lower side of each stone, including the edge of the arch, is bordered by a rounded moulding with a narrow flat band on either side of it. Along the top of the stone projects a double band. The top of the stone is rebated behind (Pls. 61, 62).

*South side.* Two arch-heads in place. The west (outer) arch-head is assymetrical, being wider on its outer than its inner side to reach sufficiently across the supporting capital. Each block is decorated with a large rosette in each spandrel, all different.

*West side.* Three arch-heads are in place, the fourth, at the north end, has gone. These arch-heads have the double band along the top, already noted, but in the two on the right it is carried down the sides as well. The left (north) arch has no bands down the side. The variation was probably due to the fact that some of the edgings had to be sawn off to make the blocks fit. The rosettes in the spandrels and the moulding along the bottom of the stone are similar to those of the south side.

*North side.* One arch only is standing. It has two plain roundels and has moulding top and bottom but none on either side.

On the south, west and north sides, there are thus six arch-heads missing. Eight broken pieces of similar plain arch-heads with rosettes were found beside the tomb; four of them belong to left sides, four to right sides.

*East side.* All the arch-heads have fallen. A number of fragments of decorated ones were retrieved (mainly from debris at this end of the tomb) and taken to Tripoli. There are enough of these pieces to account for four arches and it is noteworthy that all of them were decorated with sculpture of a more elaborate character than the rosettes on the arches of the other sides. This would be appropriate to the most important side of the tomb, but as two of them have the wide-base left-hand spandrel one of these must be rejected and must presumably belong



to one of the corners on the north or the west side of the tomb. Before discussing their position it would be as well to describe them.

1. *Arch-Head with Victories* (length 1.30m., arch-span 65cm. Pl. 60a, 61a). Four pieces were found in the debris fallen round the east end of the tomb, and were reconstituted in Tripoli Museum. In the left spandrel is a victory, r., the face gone, except for the pointed chin; one large wing shows, with the feathers clearly marked; she wears a pleated tunic with overfold; her right leg, with knee bent, appears to be outside, though it may be intended to show through, the skirt of the tunic; her right hand holds a wreath; her left arm is raised, but its fore-part has been broken away, and the hand held a palm branch, much clipped to fit into the top of the arch. Her legs float out behind her. In the right spandrel is a second victory, l., also wearing a pleated tunic with overfold. She has a long narrow face rather like a half moon, a pointed chin, and her eye is askew; her wing seems to be shorter and less elegant than that of her fellow, but this may be because the stone is broken at this point. The right arm is raised and carries a palm branch which meets that of the other victory in the centre of the arch. The left arm hangs down and is carrying a wreath about twice the size of that on the left. The left return of the arch-head is decorated with a rosette. Unlike the other arches this one has only a single band along the top instead of a double one, but the projection, 5cm., is the same. The moulding framing the arch is identical with that on all the other arches, and lacks the added embellishment of the cable-pattern which is found on Nos. 2 and 3 below.

2. *Arch-Head with Ostrich and Huntsman* (Pl. 62a). The three broken pieces of this arch join together. In the left spandrel is an ostrich, l., pursued by a hound. In the right spandrel is a mounted huntsman, also l. The top of the stone has the standard double moulding; round the edge of the arch and the base is a moulding of the same type and dimensions as those of the other arches of the tomb, except that it is decorated with cabling. There is no moulding to frame the vertical sides.

3. *Arch-Head with Antelope, Hound and Date-Palm* (Pl. 62b). Two spandrels which do not join but which we for the present assume to belong to the same arch-head. In the left one is an antelope, running r. attacked from below by a hound which tears at its belly. In the right spandrel is a date-palm with fruit, the bunch on the left having been broken off. Mouldings as in No. 2, but the cabling only shows faintly.

4. *Arch-Head with Fight* (Pl. 61b). The fourth decorated arch-head, which was found lying to the north of the tomb, whereas the other pieces were near the east end, is the one which most probably belongs to another side. All that we have is the left spandrel with two figures (a Romano-Libyan and a barbarian?) fighting.<sup>10</sup> The victor has a circular shield and has thrust his spear through his foe, who wears his hair long and is naked.

It is not as simple as first appears to determine the position of these arches. The one with the victories presents three problems: 1. In the first place there is the single band of moulding along the upper edge, whereas every other arch-head known to belong to Tomb B has a double moulding. The work on all these tombs, however, varies so much, and is so full of inconsistencies, that this need not be regarded as an insuperable obstacle. On tomb B itself, two arch-heads on the west side have the moulding down the sides as well as along the top, while the rest have not. 2. The return is decorated with a rosette and is not rebated. 3. A more serious difficulty is the size of the spandrels (see figs. 42, 43) with bases 35cm. on the left, 30cm. on the right. This 35cm. on the left is appropriate, for the corresponding one on the west end of the south side measures 34cm. The arch on the south side, however, has a right hand spandrel measuring 21cm. across, and the right spandrel of its neighbour measures 19cm. Every other measurement of the victory arch fits; height, depth, height and span of arch, size of rebate at the back; the sculpture suits the tomb admirably, the rosette on the end being in keeping with the many other rosettes, the pointed chins of the victories being like the chins of the figures on the frieze, the choice of victories fitting in with the taste of the owner who chose victories for his corner statues. The crescent-moon-like face of the left-hand victory recalls the harvester of Pl. 67a.

The stone was also found lying among the debris on the east side of this very tomb. Signor Catanuso thought that it might have belonged to the vanished super-structure of the neighbouring Tomb G, but it would be surprising, to say the least, if this tomb, structurally so unlike Tombs B and C, should have arch-heads with so many of the identical features and measurements of those of Tomb B.

The chief difficulty is that of fitting the victory arch and its neighbour on to the top of a capital which measures 46-47cms. across. The left spandrel of our arch No. 2 measures 19cm. This placed beside the victory arch would give a width of 49cm. to be borne on the corresponding capital. There would thus have been a 2cm. overlap, or that particular capital might well have been a shade wider than its neighbours. Such small inaccuracies are not uncommon. The extra two centimetres may therefore be conceded and the victory arch be accepted as belonging to Tomb North B.

The warrior arch has a spandrel 40cm. across, which could be accommodated on one of the capitals. Its depth, mouldings, rebate, etc., otherwise fit. It must, if the victory arch belongs to the east side, belong to the north or west side and we are therefore at present without any trace of the fourth arch of the east side, unless the two pieces of our arch 3 which do not join belong to separate arch-heads.

#### (f) *The frieze*

The arcades supported a frieze that ran the whole way round the exterior of the tomb. The frieze and the

cornice above it had all fallen. Each frieze stone is bordered above and below by rows of dentils, the total height of frieze and dentils being 51 cm. Above each row of dentils is a plain narrow fillet. Between the dentils are scenes of hunting, agriculture, etc. crudely carved in relief. The fallen stones remaining round the tomb were collected and taken to Tripoli Museum; two or three others were recovered from Beni Ulid. Some, however, had been removed in the mid-nineteenth century to Istanbul, where they are now on view in the National Museum.<sup>11</sup> A description of the individual blocks follows, after which an attempt will be made to assign some of them to their places on the building.

(i) *Human Figures*

1. *Chieftain* (Pl. 63a)

(1.15 × 0.51 × 0.24m.) Four figures, all *r.* The first (from left to right) wears a long, three-quarter length, plain garment drawn in at the waist, and holds out a large object, which may be a basket; the head is defaced but appears to wear a tall cap; in front of this personage is a larger figure, wearing a long robe reaching to the ankles, with a cloak over it, and carrying in his extended left hand a sort of sceptre. His head has a fringe of curls possibly covered by a conical cap. The third figure, the chieftain, is seated on a folding chair with a high back; the bolt holding the legs of the chair together is shown. This person wears a garment drawn round the body in thick folds. His head is covered with tight curls (or this may be a sort of diadem), and his disproportionately large face, with its pointed chin, is apparently beardless. He leans forward holding a long, narrow object (sceptre, scroll, weapon or beaker). In front of him is a fourth figure, also turning *r.* Like the others he has a sharply-pointed chin; the lower part of his body and his legs have gone, but there are traces of a short tunic, and the arms, bent at the elbow, are thrust forward as if to take something. The whole scene seems to lean slightly to the right. The chief has his feet on the moulding below, but his chair is in mid-field. The small figure on the left is in mid-field, the larger figure stands on the moulding. There was evidently once somewhat more elaborate decoration, especially of the head carvings, which has weathered away. Stones 1 and 2 were found north-east of the tomb.

2. *Four figures* (Pl. 63b)

(0.97 × 0.51 × 0.23m.) Four figures, all standing on the line of beading above the lower dentils. The man on the left is turning *r.* and his left hand is brought across his body to hold the handle of a large wine-jar with a funnel-shaped neck and a wide body tapering down to a point from which a base springs sharply outwards. The figure's right arm appears to be extended over the jar, perhaps to grasp a second handle, but at this point the stone is broken away. The other three figures are part of one action. Figure no. 2, *r.*, holds no. 3 by the hair with his left hand, while in his uplifted right hand he waves a stick or other weapon. All three wear short, close-fitting tunics and a rounded belt is to be seen on no. 2. No. 3 stands frontally, his right elbow bent and the arm held in front of the body; his left arm is extended and grasped by the fourth figure's left hand; no. 4's right hand seems to grasp the head of no. 3. All their heads are badly mutilated. There is a rosette to the right of the head of figure no. 4. The feet of all the personages are firmly planted on the ground, which gives stability to the scene.

(ii) *Agricultural Scenes and Domestic Animals*

3. *Ploughing* (Pl. 64a)

(1.18 × 0.51 × 28m.) In two pieces. Ox ploughing left, the harness and the plough very carefully carved. Above the plough is a rosette; the ploughman has been almost entirely obliterated, but his short tunic, left knee, right foot, and the side of his head can be seen. Behind him another ploughman drives a plough drawn by a horse towards the right. He has a pointed chin, short belted tunic with short sleeve, and waves a stick in his right hand, guiding the plough with his left. Above the horse is another rosette.

4. *Ploughing (Istanbul 308)* (Pl. 64b)

(0.82 × 50 × 09m.) A ploughman in a short tunic, waving a stick, guides a plough, *r.*, drawn by a camel. The furrows are indicated by two extra stone bands. The ploughman stands in the furrows, but the camel's feet are in mid-air. The plough and the harness are shown, including the long rein going to the camel's head. The ploughman's face has gone. In front another man, *r.*, with pointed chin and large eye, wearing the plain short tunic which is characteristic of this tomb, hews down a small sturdy tree or shrub.<sup>12</sup> The lower dentils of the stone have been cut off, except for a few fragments.

5. *Ploughing and sowing (Istanbul 307)* (Pl. 65a)

(0.48 × 0.50 × 0.65m.) A broken stone. Ploughman, *l.*, striding forward on his right leg, the left leg in the air behind him. He wears a short plain tunic and round belt. The handle of the plough can just be made out. Behind him another man, *r.*, similarly clad, scatters with his right hand seed which he takes from a sack or basket held on his left arm. The edge of the hair is shown by a line which looks as if he is wearing a skull cap.

6. *Camel and young (Istanbul 309)* (Pl. 65b)

(0.375 × 0.47 × 0.08m.) Broken stone, lower dentils missing. A camel suckling its young. Traces of what may be harness can be seen and it is just possible that this camel too may be drawing a plough. An upright object

on the right looks as though it might be the stick in a ploughman's hand.

7. *Reaping*. (Pl. 66a)

(1.11 × 0.51 × 30m.) Two men in short plain tunics with belts are reaping with curved sickles, grasping a bunch of barley or bearded wheat with one hand and cutting it half-way up the stalk, their hands and fingers being carefully shown. The head of the man on the left is damaged. On the right a third man, *l.*, in the same kind of tunic, carries a loaded basket on his shoulder. In the left-hand upper corner is a rosette. The barley (or wheat?) spike is depicted with the grains lying right and left of the central stem, and with a beard at the top. There is a little mound round the roots of the barley plant on the left.

8. *Reaping*. (Pl. 66c)

(1.10 × P.51 × 0.22m.) Stone broken across the top. Two men in short belted tunics reaping with curved sickles. The hands again show up well. The lumps of earth and roots are again indicated by little mounds. Above the barley (or wheat) is a broken but fine rosette. A little of the cap (or hair?) of the man on the left has been preserved. On the left is a heap of cut ears of grain.

9. *Threshing and winnowing* (Pl. 67a)

(1.13 × 0.51 × 0.22m.) In two pieces, the left end very badly weathered and damaged. At this left end various almost unrecognizable animals, some of them cattle, are being driven round a threshing floor on which the ears of grain lie. A man on the left waves a stick aloft. On the right of the threshing-floor, is a man, *l.*, with a large head on which is set a pointed cap.<sup>13</sup> Behind him, on the upper part of the stone, are two oblong objects which look like the sacks for the grain. Next, two men face each other across a pile of straw which they appear to be winnowing with three-pronged forks. The bizarre face of the man on the right shows up clearly. It is like a crescent-moon with a row of tight curls, a large eye, pointed nose and chin and a small mouth. The men in this scene appear to be naked and their faces are clean shaven. This is a corner stone, with a rosette on the return edge, behind the man just described. In an old photograph taken by Bauer the winnowing scene lies by the south-east corner of the tomb, wedged under another stone.

10. *Camel caravan* (Pl. 67b)

(0.89 × 0.51 × 0.23m.) Two loaded camels being led by three persons towards the right. The leading figure, on the right, is badly damaged, but appears to be turning to face the oncoming camel whose leading-cord he holds; behind the first camel is a small figure with arms upraised; he may be hitting the animal's hindquarters with a stick; above and behind him is the second camel, behind which is a very large figure, *r.*, wearing the usual short plain tunic reaching to just above the knees and drawn in at the waist. The three men and the front camel are walking firmly along the bottom band; the second camel is in the middle of the field. This stone was at Ghirza, lying by the south side of the steps, when photographed by Bauer.<sup>14</sup>

(iii) *Wild Animals and Hunting*

11. *Lion Hunt* (Pl. 68a)

(1.15 × 0.51 × 0.24m.) On right a man, naked, *r.*, is fighting a maned lion standing on its hind legs. The man holds a club aloft which he is about to bring down on the beast's head, which is turned away from him. Behind him another man, naked, runs *l.*, bearing a small round shield, to meet another maned lion charging towards him in the upper part of the field. Below the charging lion another runs *l.* toward a falling naked man who has long wavy hair like that of the fallen combatant on the 'warrior' arch-head (p. 136). This lion's head has been mutilated and the tails of the second and third lions are missing. This block is a corner stone with a rosette on the right-hand return.

12. *Fights with Stag and Bull* (Pl. 68b)

(1.30 × 0.50 × 0.23m.) A long stone, broken into two pieces along the body of the bull-fighter. On the left a hook-nosed, curly headed, naked man, with protruding lower lip and pointed chin, kneels, *r.*, on the hind-quarters of a stag, which he holds by the antlers. Beyond the stag a second man, *r.*, with similar face and hair, holds a spear, the right hand in front of the left on the shaft, with which he is fighting an oncoming bull. His knees are bent as he thrusts the spear at the neck of the animal. There are four rosettes on the upper part of this stone.

13. *Cheetah or Leopard Hunt* (Pl. 68c)<sup>15</sup>

(1.48 × 0.51 × 0.29m.) Three animals fighting naked men. The beasts, with claws and long tails, appear to be felines and have lumps all over their hides which may be intended to indicate the spots of the leopard or, more likely, the cheetah, since the latter animals have long legs and necks. On the left a beast leaps up at a man who is falling; the next man, *r.*, holds a round shield and a spear and is attacking a beast which has its back to him but which is turning its head towards him; the next man, *l.*, also with a round shield, is turning to face an animal which is leaping at him from behind. The stone is broken across at the place where this man probably held a spear. There are two rosettes on this stone.

14. *Ostriches*. (*Istanbul 310*) (Pl. 69a)

(1.02 × 0.495 × 0.08m.) Ostrich with its head down; ostrich with its head up; gazelle or antelope; all *l.*; a rosette above each creature. This, and especially the birds, is some of the best work on the frieze. Lower dentils cut off.

15. *Horsemen*. (*Istanbul 306*) (Pl. 69b)

(0.62 × 0.49 × 0.075m.) Two horsemen, riding to the *r.* Both have pleated kilts, the one on the left has his pleats in two folds. The heads are badly mutilated, but it may be hazarded that the man on the right wears a leather jerkin or breastplate of some sort. The bridle and reins of the front horse still show clearly. Two rosettes above. The lower dentils are cut off.

16. *Hare Hunt*. (Pl. 70a)

(c. 1.12 × 0.50 × 21m.) Large block, much broken and with part of the centre completely gone. At its right end is a large and handsome floral rosette with 6 × 6 petals in its central part. Next comes a horseman, riding left. The horse has a long tail and well-marked mane. The man wears a close-fitting, perhaps sleeved upper garment and a short tunic. His left hand rests on a sword. In front of the horseman, at the same ground-level, is a hound running left in full cry after a hare. Above this hare is another, also running for its life. On the left, in front of the horseman's head, is a female animal (? lioness) with head missing, which seems to be springing down at something.

(iv) *Miscellaneous*

17. *Palm trees* (Pl. 70b)

(0.40 × 0.52m.) Two palm trees with large bunches of dates and, between them, a rosette. This stone is shown on the steps of Tomb B in a photograph taken by Bauer.<sup>16</sup> Round the roots of each tree is a mound of earth.

18. *Stone with rosette*. (Pl. 71a)

(0.25 × 0.51 × 0.24m.) Small complete stone for filling a space, with an elaborate rosette in its centre. 19-22. Fragments of dentil edging, and two rosettes, the original position of which is not known.

## THE ORDER OF THE FRIEZE

Any attempt to reconstitute this frieze is for the most part highly conjectural, but there are certain indications which help in assigning some of the stones to their positions. These are (1) the drawings of Denham, which help with parts of the south and east sides, (2) marks on the mortar backing on the west and south sides, (3) the fact that three of the stones come from right-hand corners, since they have rosettes on their right ends, (4) the position in which some of the stones were found, though it is unwise to place much reliance on this.

The Saharan explorer, Major Dixon Denham, published in 1826 the sketches he had made a year previously at Ghirza (fig. 46).<sup>17</sup> They confirm the provenance of several reliefs in the Istanbul Museum described by Mendel who ascribed them to Ghirza,<sup>18</sup> although some scholars had earlier doubted their place of origin. Mendel came to his conclusion because of their resemblance to the casts of Ghirza sculptures published by Mathuisieulx<sup>19</sup> and, most convincingly, because, says Mendel, the half-inscription (from Tomb North B) in the Ottoman Museum, 'certainly came from the same "lot" as our reliefs'. Denham's drawings show four, or perhaps five, of the twelve stones in question, still in position on the friezes, and he also copied the inscription, then complete. Further confirmation has now been provided by the discovery of its right half.

Among the sketches are some which Denham states are the friezes of the west, east and south sides of 'Tomb No. 1' and a drawing of the south elevation of what he says is the same tomb. A glance at the figures will show that he had mixed up his records of the tombs we call B and C, a thing all too easy to do after a hurried visit. His 'west' and 'east' friezes (fig. 46) belong to our Tomb C, but his 'south' frieze does not, as the south frieze of C is still *in situ* and quite different. On the other hand, there are stones belonging to Tomb B which are represented in his 'south' frieze (fig. 46). The centrepiece of ox and horse ploughing, with rosettes above, is our stone No. 3, which was found lying on the ground on the south side of Tomb B. The camel and young is evidently our stone No. 6 (*Istanbul 305*); it may be suggested that No. 5 (*Istanbul 307*) in fact joins on to No. 6. The man facing left in No. 6 would thus be accounted for on Denham's drawing as the man on the right of the camel, and the sower moving to the right would be the figure shown by Denham. We have conjectured that the first of these two is guiding a plough and if this is so Denham has omitted the plough here as he has in the group at the left end of the frieze, which consists of a camel and ploughman and a man using a hatchet. This is without doubt our stone 4 (*Istanbul 308*) with its camel ploughing and man chopping down a bush. The dentils of this frieze also assist in the identification of the stones.

In his elevation of the 'south face of building No. 1' Denham has drawn in the frieze just described, adding a rosette at the left end and a palm tree at the right end. The rosette corresponds to those of our corner-stones, while the palm tree recalls our stone 17 with its two palm trees, the only palms which we have found belonging to the frieze of Tomb B. He has, however, mixed up his tombs in this as in the other drawings, for he shows only four columns to the side, whereas Tomb B had five columns on its south side. It is probable that the right-hand (east) column of B had already collapsed before his visit, leaving only four standing, since he mentions the inscription of C as being *in situ*, but says that the others lay scattered about. His scroll along the podium is more like that of B than of C, but he makes the error of giving the podium a line of four half-columns, whereas in reality both tombs have pilasters only at the corners.

Denham has not drawn the east side of Tomb B, which had presumably already fallen, with the inscription. But we have his important drawing of that of Tomb C, which identifies the Istanbul stone of a chieftain seated on a folding chair with attendants behind him, as belonging to the latter tomb. The scene so closely resembles that of our stone No. 1, that we may allot our chieftain to the east side of B. On the right-hand end of the frieze on the east side of Tomb C are three small figures, of which the outer ones seem to be holding or punishing the middle one. This stone is analogous to stone No. 2 of B, with its execution scene, which may therefore be assigned to the east frieze, and with all the more probability since it and the chieftain stone were found on this side of the tomb. A photograph taken by Bauer shows the stone with the camel caravan (No. 10) on the ground south of the steps. Perhaps therefore this caravan stone also may be set on the east side, at the south end.

It is now that reconstruction becomes difficult. The winnowing and threshing stone was found in two pieces, the considerably damaged left end among the rubble and sand north of the tomb, the right end by its south-east corner. The stones have obviously been much dragged about by earlier visitors, from at least the time of the Turkish officers who took samples to Istanbul. It may therefore be not improbable that the winnowing stone, No. 9, went on the north-west corner and that near it were the two stones of reaping, Nos. 7 and 8, which were found in this neighbourhood. The hunting scenes lay on the west and north of the tomb, and it might be hazarded that the lion hunt (1.15 m. long) goes at the south side of the west frieze. There is here a gap in the cement backing to take a stone of up to 1.16 m. in length. It would seem logical to put the cheetah hunt (No. 15) next, but here there is another place for a stone, 1.04 m. long. The only stones which would go in here are Istanbul 310 and 306 (our Nos. 13 and 14), the ostriches and the horsemen. We may therefore suggest placing the ostrich stone here.

(g) *The cornice*

No part of the cornice remains in position, but many of the blocks lie on the ground below. They are of simple moulded form.

(h) *Roof decoration and other sculptures*

*Palmettes and spirals from roof.* Two rinceaux have been found, with combined palmette and spiral (ht. 42-45 cm.) appropriate for occupying the centres of the east and west sides. Five of the double spirals (88 × 44 × 22 cm.; also 84 × 45 cm.) which edged the roof are complete, and there are broken pieces of at least three others. Corner palmettes, such as are characteristic of tombs A, D, E, F, of the North group and of Tombs C to G of the South group, have not been found for either Tomb B or Tomb C of the North group.

*Victories.* It is therefore probable that the corners of the roof of Tomb B were occupied by statues of victory of which portions of three have been found beside or near the tomb. These victories have the usual pleated tunics and girdles round the waist; the heads have disappeared. They stand on bases 3-4 cm. in height, obtuse-angled in front, roughly curved behind.

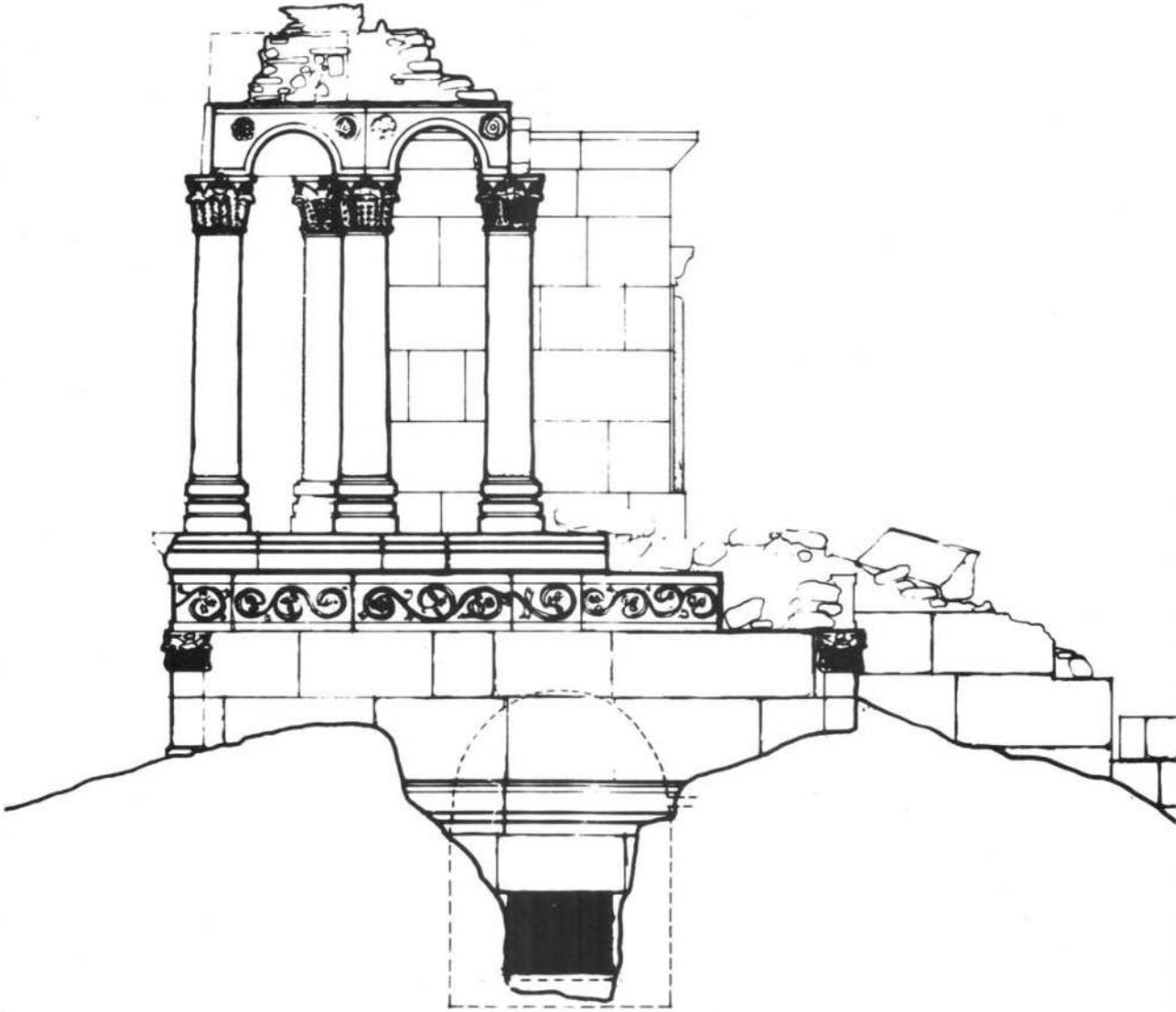
1. (Pl. 59c). Width 32-38 cm.; present height 87 cm., base 35 cm. across. In two pieces, broken at the waist. The left foot is visible in the centre below the skirt, the right one on the side.

2. (Pl. 71b). Present height, neck to bottom of base, 88 cm. The wings are rather fine, with remnants of the short feathers at the top, and with long feathers below. Her left wing spreads out in a line with her shoulder, sideways; her right wing runs out behind the body. The wings extend 16 cm. above the neckline. Both feet, very rudimentary, are visible. Base, c. 32 cm. wide. Found in two pieces.

3. Found in a single piece, ht. 90 cm. Base, 38 cm. Much weathered. A leg is visible, from the knee down, on the right side, and seems to be outside the draperies.

*Lions* (Pl. 72). A pair, lion and lioness, was found, one in the tomb chamber of North B, another in the ground when clearing the approach to the chamber. There is no indication of their position, but it seems probable that they belong to B, in which case they could have stood on small plinths on either side of the platform made by the top of the flight of steps. (The lion now measures 1.72 m. × 35 × 25 cm.) Eyes and nose are roughly incised on the flat face, and there is a deep wide groove below to indicate the open jaws. The mane is shown by ridges and grooves on the neck and shoulders and is carried down below in front and on the top of the head by a chevron-like pattern. The flanks and hindquarters are summarily moulded and the square-cut tail runs

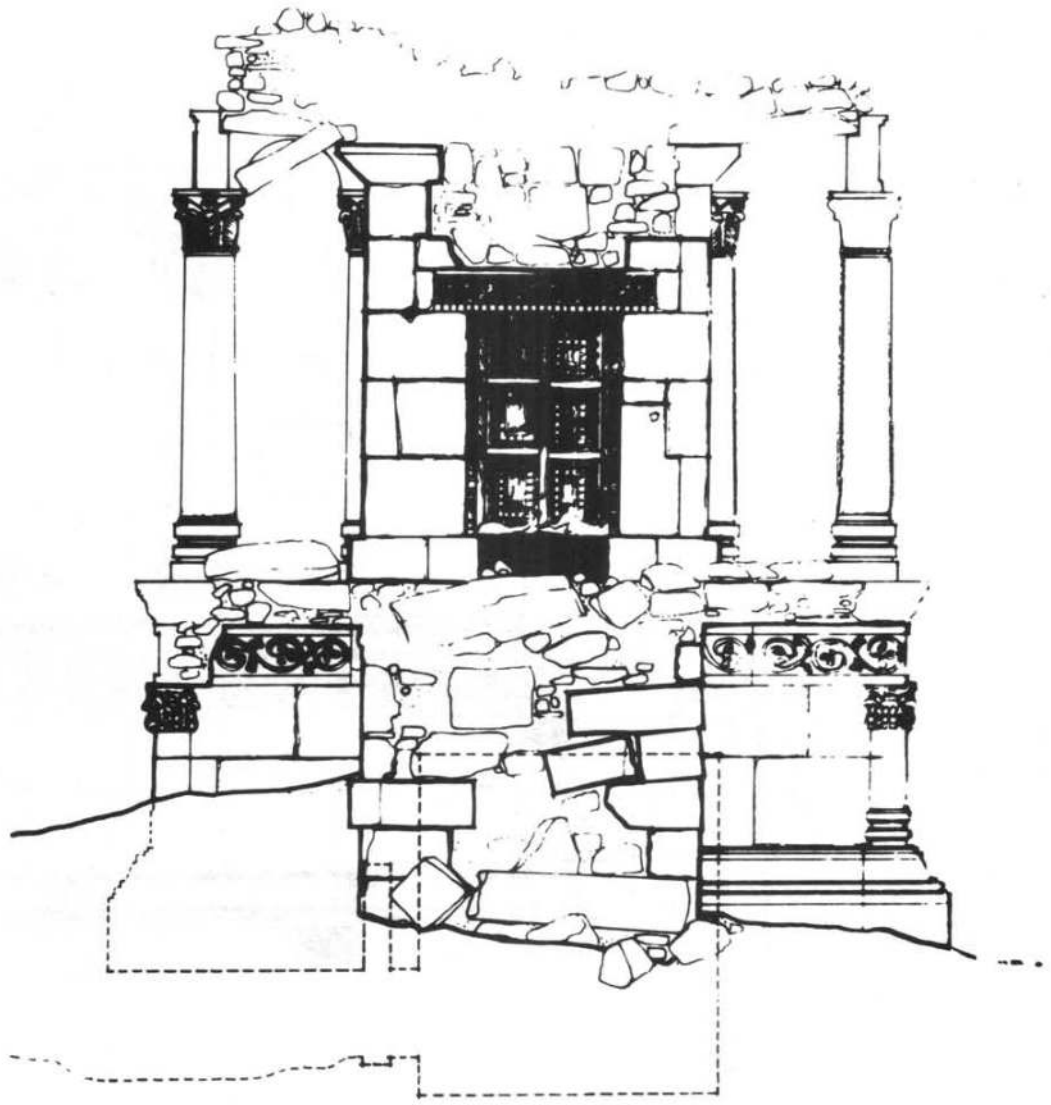
down the back. The legs are almost entirely missing, but the forelegs seem to have bent forward. The lioness (present length 61 cm., tail end worn away, ht. 30cm., width of face 21, width of body 27) has face, jaws and mane resembling those of the other beast, but there is a row of teats along the right side of the belly, so the lioness will have stood on the left (north) side of the steps, looking east.



EXISTING SOUTH ELEVATION .  
TOMB 'B' . NORTH GROUP . .

CENTIMETRES-100 50 0 1 2

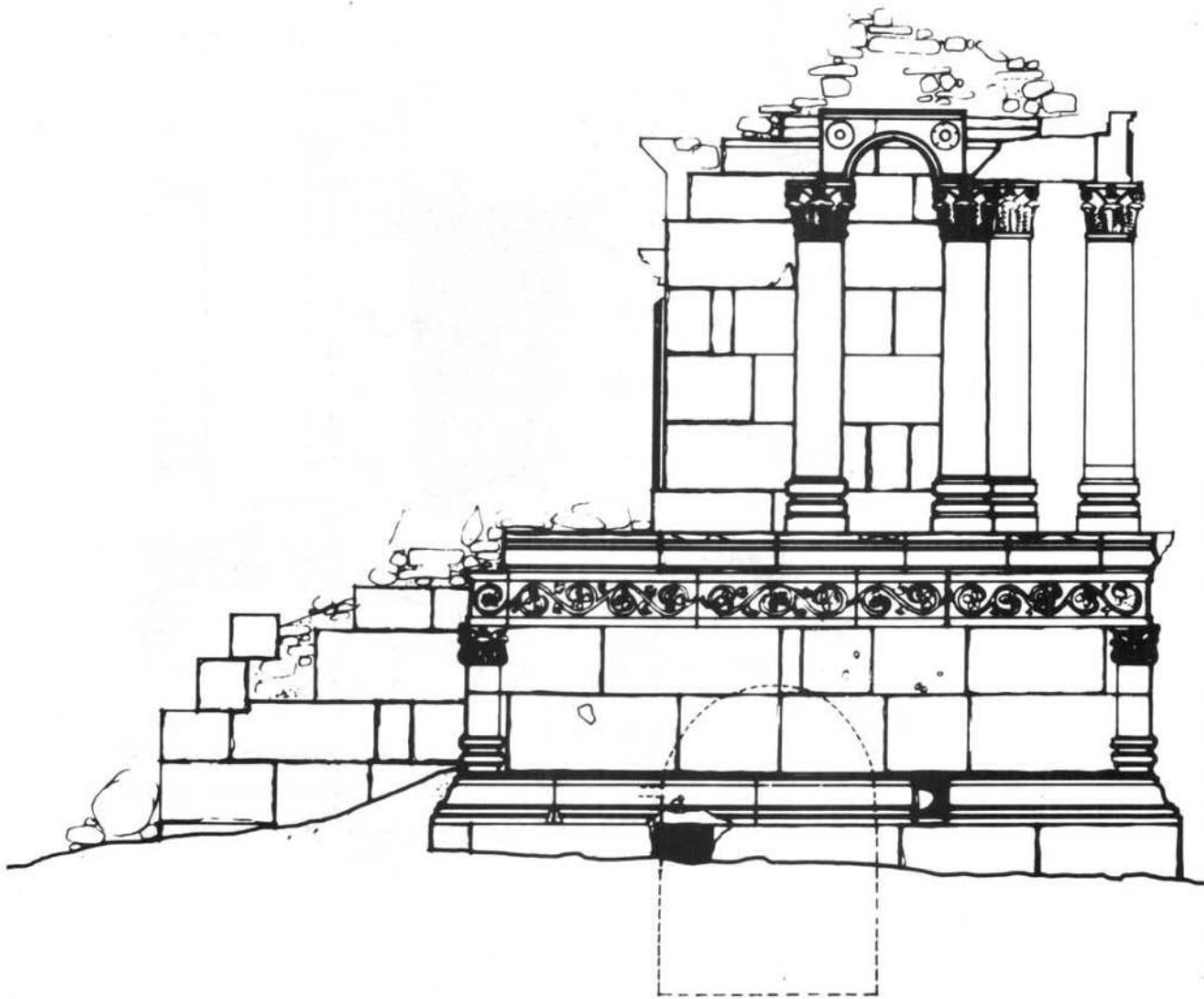
Fig. 42. Tomb North B: south and east elevations. Drawn by J. Keelan.



EXISTING EAST ELEVATION .  
TOMB 'B' . NORTH GROUP . . .

3 4 5 METRES

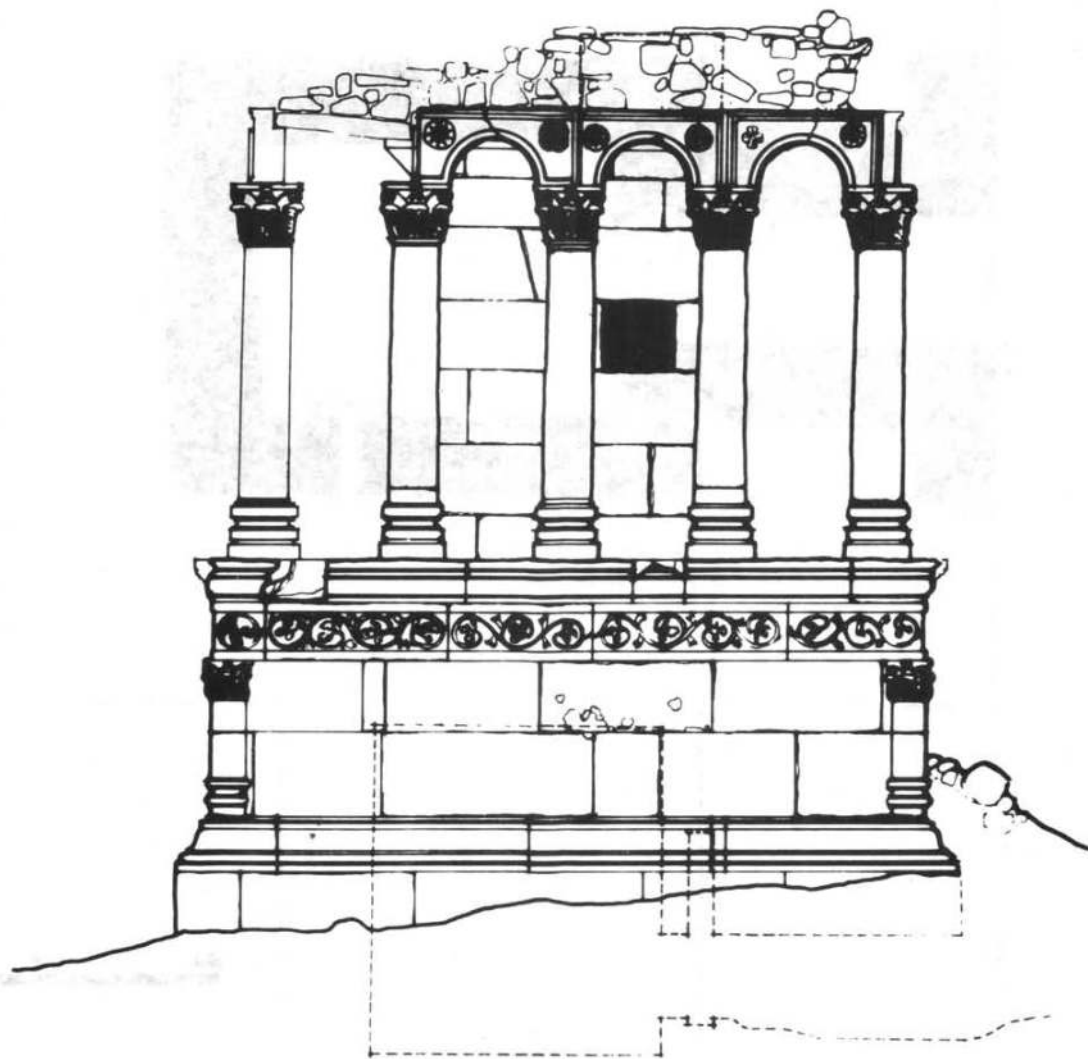




EXISTING NORTH ELEVATION .  
TOMB 'B' . NORTH GROUP . .

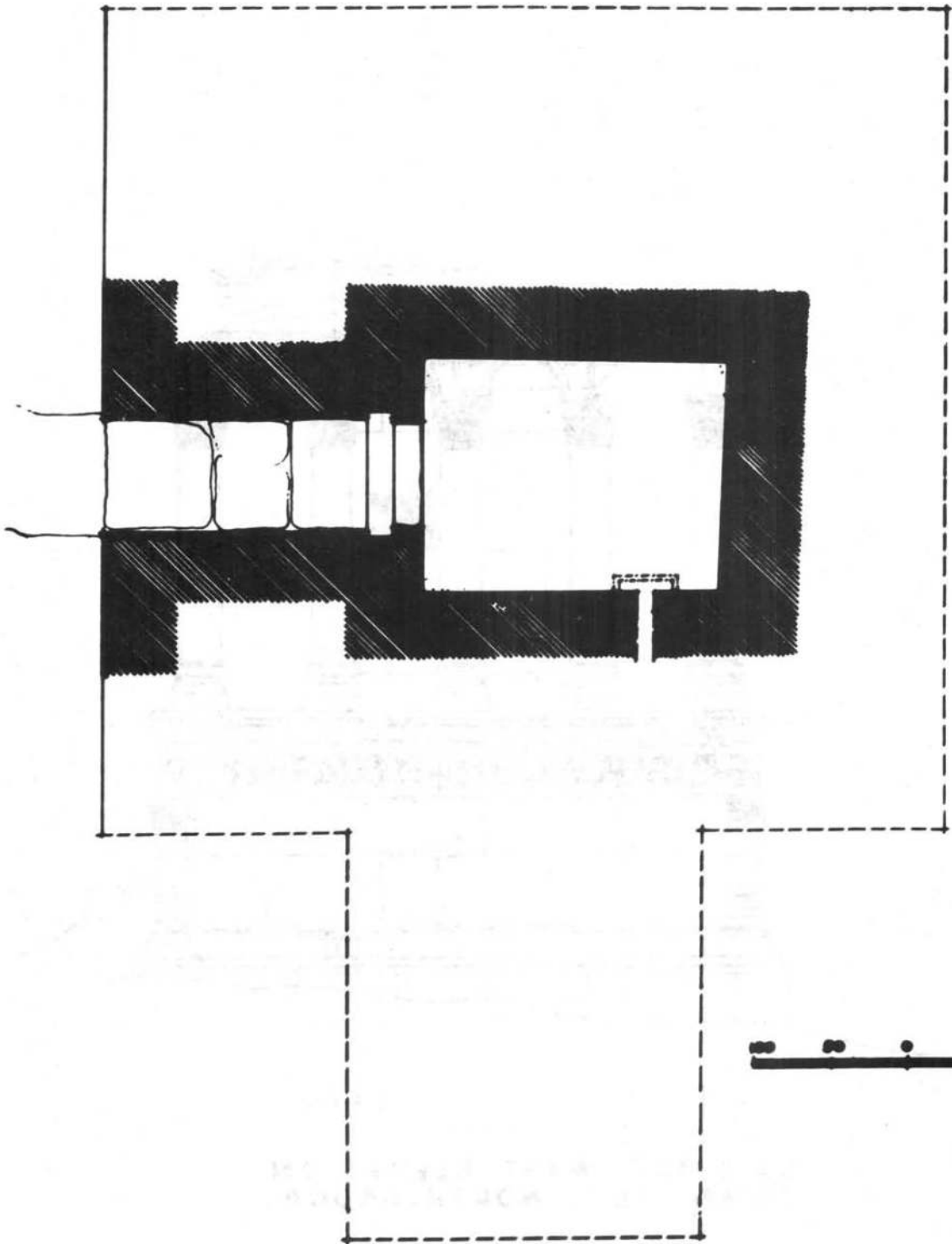
CENTIMETRES 100 50 0 1

Fig. 43. Tomb North B: north and west elevations. Drawn by J. Keelan.



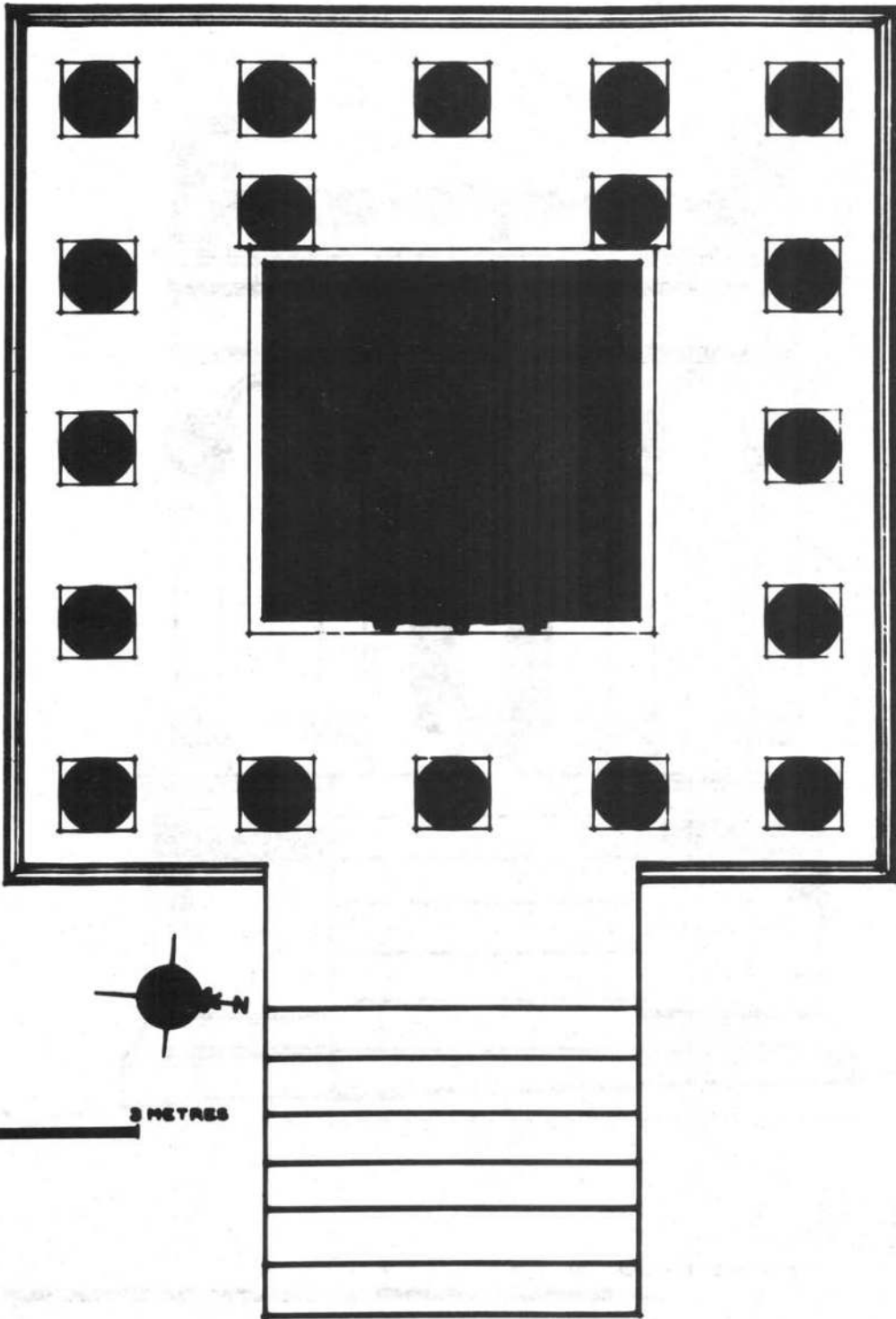
EXISTING WEST ELEVATION .  
TOMB . 'B' . NORTH GROUP . .

2 3 4 5 METRES

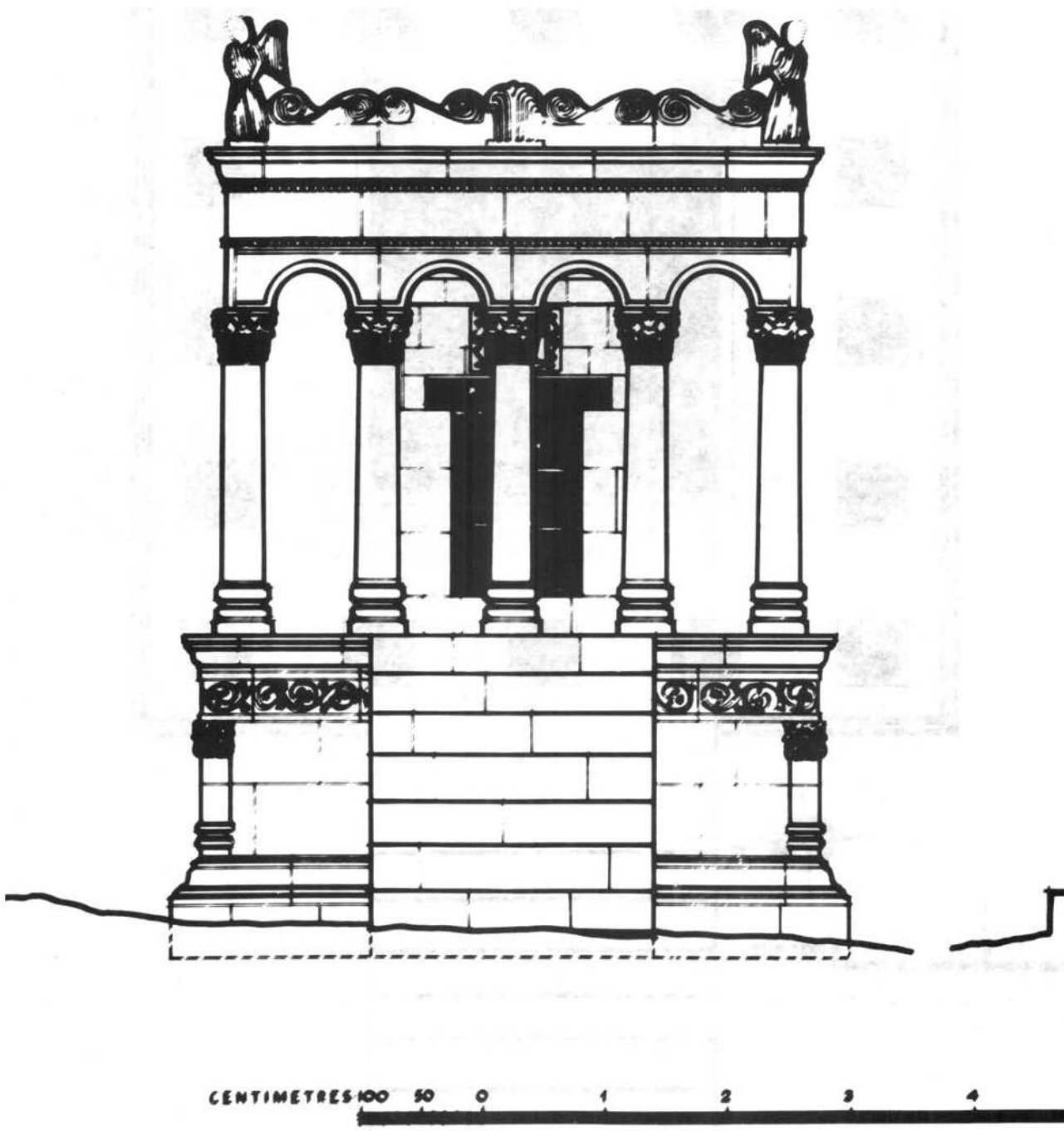


**EXISTING PLAN OF TOMB CHAMBER .  
TOMB . 'B' . NORTH GROUP . . . .**

Fig. 44. Tomb North B: plans of funerary chamber and podium. Drawn by J. Keelan.

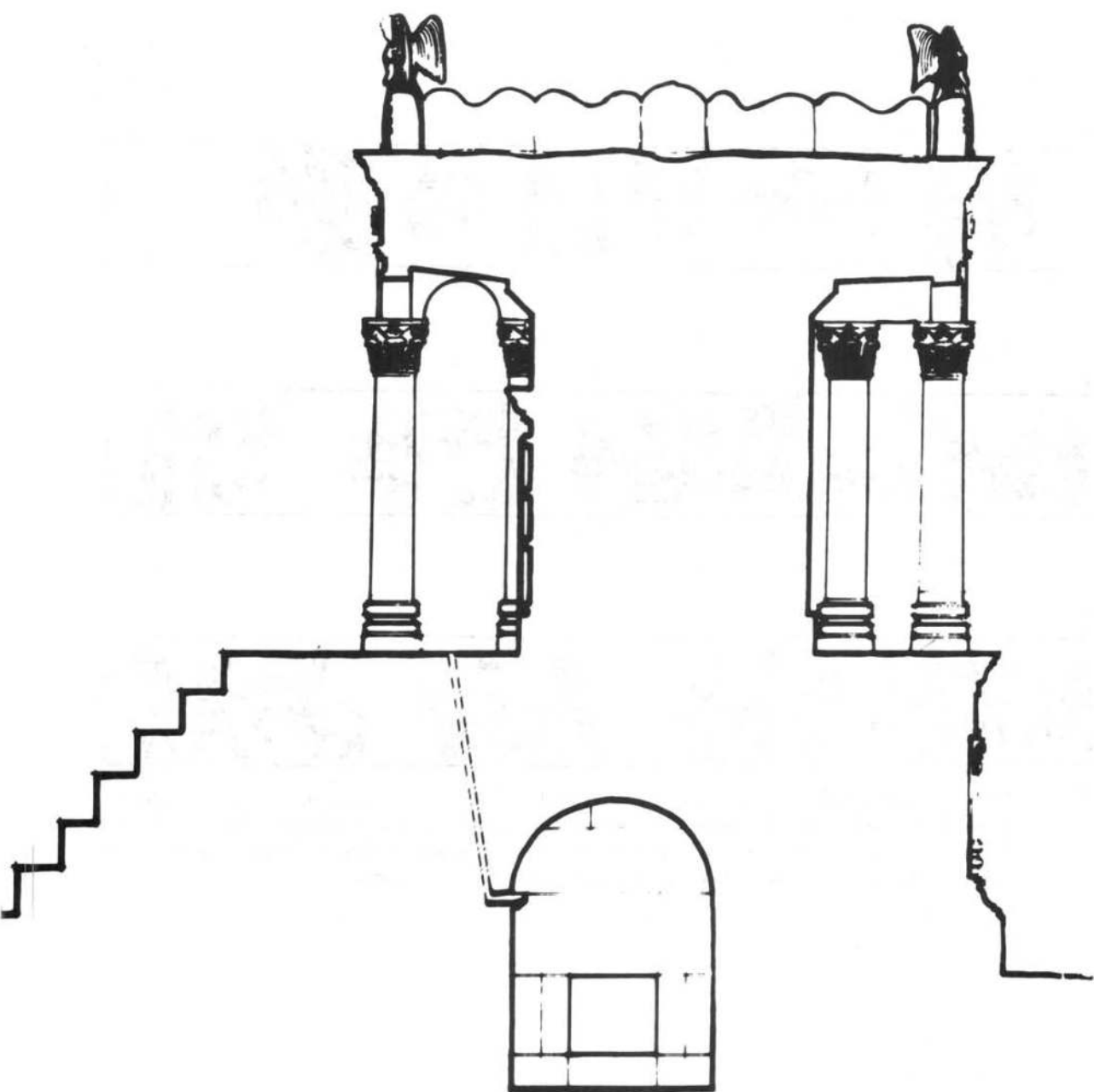


**RECONSTRUCTED PLAN (AT TOP OF PODIUM LEVEL)  
TOMB 'B' . NORTH GROUP . . .**



**RECONSTRUCTED EAST ELEVATION,  
TOMB 'B', NORTH GROUP . . . .**

Fig. 45. Tomb North B: east elevation and section reconstructed. Drawn by J. Keelan.



RECONSTRUCTED SECTION .  
TOMB 'B' . NORTH GROUP . .

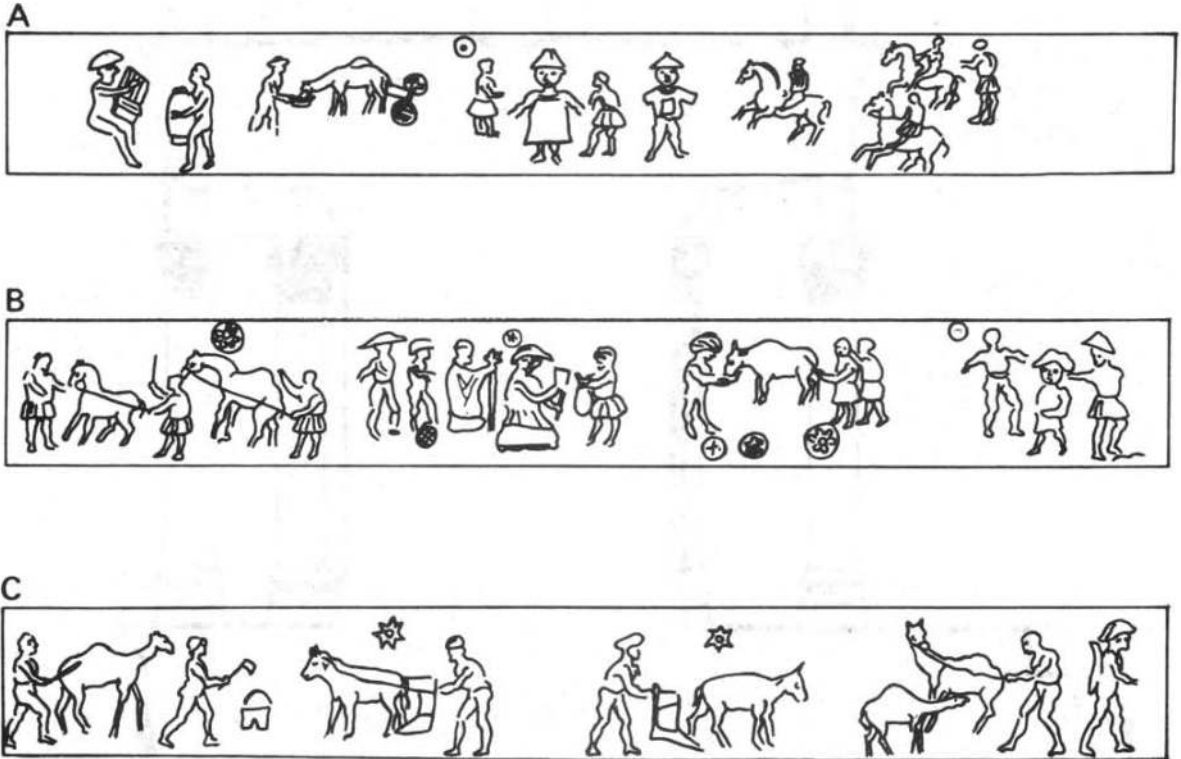


Fig. 46. Denham's sketches of friezes on Tombs North B and C: A, North C, west side; B, North C, east side; C, North B, south side. The engraving by E. Finden (Denham 1826) partly based on Denham's sketch C above, showing the south frieze of Tomb North B, is not reproduced here. It depicts the tomb with four columns a side whereas the north and south sides had five columns.

(iii) TOMB NORTH C:<sup>1</sup> fig. 47, 48, Pls. 73-83

Tomb North C, the best-preserved in the group, is of the same type as Tomb B, the temple-tomb with columns and an arcaded portico supporting an external frieze. It has a central pier with false door and inscription, on a high podium with a flight of eight steps on the east side. The twelve columns of the portico are still in place, precariously supporting three arches on each side. A large part of the frieze and cornice is still *in situ*, but the sima decorations have fallen off.

(a) *The funerary chamber*<sup>2</sup>

The funerary chamber is entered from the south by a short passage under the podium. This passage was blocked after 1.02m. by a sliding stone slab, now gone, and 50cm. farther on it opens into the chamber,<sup>3</sup> the doorway being 85 cm. high and 56 cm. wide. The entrance is thus 21 cm. higher than that in Tomb B. The barrel-vault of the chamber (ht. 2.20m.) runs east-west. In the east side, level with the junction of the wall and the spring of the vault, are triple libation channels (centre 61 cm. long, sides 48 cm.) fed from a single hole in the platform above in front of the false door (Pl. 77c). There is a fragment of a decorated stone above them.

(b) *The podium*

The podium is square in plan, the measurements of the sides varying as little as two centimetres. The corner-pilasters have Corinthian capitals with a single tier of rather flat acanthus leaves. The north-west capital has a face on its west boss and on the shaft below is an acanthus leaf; below the south-east capital on its south side are two bunches of grapes. The bases of the pilasters have double mouldings like those of B, but slightly less clean cut. The podium frieze (ht. 42 cm.) has a handsome pattern of scrolls in shallow relief forming circles in which there is a large variety of decoration. The stems forming the circles are nearly all grooved and in the angles between the circles are leaves, except for one bunch of grapes on the south side. The circles are mostly filled with fruit and leaves, grapes predominating, the others being pomegranates, figs or pears. In circles on the south side are a bird and grapes, cucumbers, a horse and rider with a palm branch above. In a circle on the west side there are a *phallus* and a pomegranate. Objects on the north and west sides include a kind of basket-work pattern which may represent sacred cakes.<sup>4</sup> There are also plain roundels and some handsome daisy-like rosettes with eight petals.

(c) *The central pier*

The 'cella' or central pier of the little temple (ht. 1.18 m.) is a solid block of rubble and cement encased in masonry, with no offset round its base. It has a false door on the east side surmounted by an ansate panel (55 × 48 cm.) and an inscription recording that this is the tomb of Marchius Chullam and Varnychsin (Pl. 76a)<sup>5</sup>.

M(archius) Chullam [et] Varnychsi  
n pater et ma[te]r Marchi  
Nimmire et[?]M]accurasa-  
sic n qui eis hec memori-  
5 am feceru[nt d]iscussi-  
mus rati[oci]nio ad  
ea eroga[tu]m est sum-  
tos merc[e]dibus in n-  
ummo\*fol[li] [is] singula-  
10 res numero quadragi-  
nta quinque [milia] sesce-  
ntos preter c[i]b[aria] op-  
era[nt]ibus felic[iter]  
uisistent filii et n[ep]ot[es]

'Marchius Chullam and Varnychsin, father and mother of Marchius Nimmire and Maccurasan, who made for them this memorial. We have calculated the expenditure exactly. There was paid out in Wages in coin 45,600 *folles* of *denarii simplices*, besides food for the workmen. May our sons and grandsons visit the tomb in good fortune.' See also p. 261.

False Door (Pl. 76b)

The false door is an inferior version of the door of Tomb B. The lintel is very simple, a *cyma recta*, with one band of cable pattern above it. The door itself is divided into four panels, separated by a framework of chip-carving something like that on the outer frame of the door of North E. The carving of the door is flatter than



that of the door of B. The top left panel has a row of leaf-garland and below that a frame of leaves or blossoms round a rectangular moulding; within this are two more rectangles. The first two mouldings are partially serrated. In the centre is a four-petalled flower. The theme of rectangles of various shapes surrounded by leaf frames is repeated in the right-hand upper panel which is itself divided into two longitudinally. The leaves preponderate in the two lower panels. The lower panel on the left has in addition a curious pattern of two half-scrolls back to back, with a band cutting across them. In the right-hand part of the right lower panel the leaves spring out from either side of a long vertical band of cable pattern.

(d) *The columns*

There are four columns to a side. The shafts (ht. 1.81m.) are each of a single stone and have double, rounded base-mouldings (ht. c. 30cm.) standing on square plinths. The column-bases are more regular than those of Tomb B. The capitals (ht. 40-42cm.) are Corinthian, with regular and careful carving which is, however, flatter than that on the capitals of B; there are single acanthus leaves turning over at the top, and spirals and rosettes in the upper part. Several of the capitals have small heads on them,<sup>8</sup> viz.

*South-west corner capital*: two bearded masks. *North-west corner capital*: mask (probably) on north side. *Second capital from right on north-west side*: mask on east side. *South-east corner capital*: cat-mask on east side.

Some of the bosses have been broken off, so we cannot be sure that this is a complete list. In addition to the masks on bosses, the second capital from the left on the east side has a beardless head in place of a south-east volute.<sup>9</sup>

(e) *The arch-heads*

There are twelve, all in place. The span of the arches varies slightly, as can be seen clearly in the photographs of the north and west sides. The arch-heads are edged with plain bands along the arches and the tops of the blocks, and are crammed with decoration. In the corner of each spandrel, right and left, is a large rosette. Some of these rosettes (e.g. on the north side) are cut across, which shows that the arch-heads, already decorated, were trimmed to make them fit into their places. Other decorations are palm leaves, flattened scrolls, miscellaneous ornaments and smaller rosettes; as an edging to the frame of the arch there are leaf-garlands or, on the east side right and left of the steps, cable pattern. Some of the arches, including all three on the east side, have a third moulding above the garland.

*East side*: across the centre of the top of each arch is a pair of very stylised palm leaves. In the corner of the left-hand spandrel of the left arch is a peculiar geometrical pattern in a rectangular frame; the lower part of the right spandrel of the right arch has a long plain object (cf. left arch of south side). The other spandrels have leaf-like ornaments or rosettes.

*North side*: various garlands and scrolls. There is an indeterminate object, on the left of the right arch, conceivably a very stylised palm tree.

*West side*: each arch has a leaf-garland frame, the left arch a cable-pattern also, and the arches are decorated with leaves, scrolls, etc.

*South side*: the left arch-head has a rectangle with a geometrical pattern (a kind of guilloche) on the left, below which are two long objects with horizontal bands incised across their middle; they and the geometrical ornament resemble objects already noted on the east side. The top of the right arch-head has two fish, tail to tail, and under its two rosettes are, respectively, a pomegranate and a palm leaf. The spandrels of the middle arch-head have decorative flowers, probably the lotus.<sup>10</sup> All three arches have leaf-garland frames.

(f) *The frieze* (Pls. 77-83)

A considerable part of the frieze is still *in situ*. It is very different from that of Tomb B. Its height is 58cm. and it is bordered by flanges at top and bottom, so that the height of the decorated part is 47cm. Denham's drawings (fig. 46)<sup>11</sup> show the arrangement of the east and west sides; the south is intact, and half the north. Some of the stones (Nos. 1a, 2, 6 and perhaps 3a), found their way to Istanbul.<sup>12</sup> These still have some or all of their upper flanges, but the lower flanges have been broken or cut off, except on the Isiguar stone 1a below (p. 153) in which the upper flange is damaged. The scenes, except the two principal ones (stones 2 and 8), are more crowded and the figures very much smaller than those of Tomb B.

(i) *East side* (fig. 46)

Denham drew four scenes: ploughing with horse and camel; a ceremonial scene with a chieftain on a cross-legged seat; three men and an animal (? sacrificial bull or the chief's horse), with three rosettes below; a group of three male figures.

1. *Ploughing* (Pl. 77a);<sup>13</sup> 1a. 'Isiguar' (*Istanbul 305*) (Pl. 77b) 0.83 × 0.54 × 0.18m.). The ploughing scene was removed from Ghirza during the Italian regime and set up on the portico of the then Commissioner's office at Beni Ulid. It was taken to Tripoli in 1952. It had lost the figure on the left which, it seems probable, is Stone No.

305 of the Istanbul collection ( $0.26 \times 0.53 \times 0.18\text{m}$ ). This stone bears a figure, *r.*, wearing a short pleated tunic with a thick belt. The upper part of the tunic is decorated with chipcarving like that on the garments on Stone 8. The figure holds an object at shoulder height in his left hand; his right hand is raised behind him. Above him is inscribed the name ISIGUAR.<sup>14</sup> Mendel thought that the right hand was raised to touch the end of a quiver, and that traces of the bow could be seen along the edge of the stone. We are inclined to identify him as the familiar sower found with other ploughing scenes (p. 220). The stone from Beni Ulid has a horse (forepart missing) and camel ploughing *l.*, each driven by a man in a short pleated tunic, with stick uplifted in his right hand. In the upper part of the stone above the neck of the camel is a small roundel, and between the hump of the camel and the ploughman is a figure chopping down a bush. If Isiguar belongs here and Mendel was right, the carving on this stone might be interpreted somewhat romantically as a scene of ploughing with an armed guard on the watch, but the sower seems to be a simpler idea. The return of this large block fits the gap in the south side (p. 155). For the inscription see p. 261.

2. *Chieftain (Istanbul 303)*<sup>15</sup> (Pl. 78)

( $0.85 \times 0.49 \times 0.08\text{m}$ .) This, sketched while still on the tomb by Denham, was afterwards removed to Istanbul. It shows a bearded man seated on a throne resembling a curule chair, the legs of which are covered with vertical lines. The throne stands on a dais, framed in the side of which is a band of cable pattern. The figure is grotesquely out of proportion, with extremely short legs, and his feet seem to rest on the front legs of the chair. His hair and beard are shown by small circular curls. He has a large, sharp-pointed nose and a large eye set obliquely in his head. He wears a rich robe, indicated by lines of chip-carving. In his right hand he holds aloft a cup; in his left he holds an object which looks very like a *volumen* though it might be a sceptre. The lower flange of the stone seems to have been sawn off.

From the right a servitor approaches holding out a wine-jar with his right hand and bearing a bow-and-arrow case (*gorytus*) in his left hand. He wears a short pleated tunic, fastened at the waist by a thick girdle. Three figures approach the seated man from behind. The first stands on a plinth similar to that on which the chair rests. He holds with both hands a long object which is perhaps a ceremonial mace or baton with knobs at the top and bottom. He wears a long-sleeved (?) fringed tunic and a mantle above that which is shorter than the tunic. He has curly hair and an elaborate bonnet and appears to be wearing shoes. The next, much smaller, figure is also standing on a plinth. He has a tunic of medium length with pleats, and decorations round the hem. He has either long hair or a turban with a fold or tassel hanging down the back. He holds high in front of him an object which Mendel calls 'a large crater or a basket'. The hindmost figure probably also stood on a plinth, although most of this, and his right leg, have disappeared. His hair or turban is like that of the man in front of him; he does not appear to be carrying anything. In the field above the three rear figures are three rosettes. Mendel suggested that the scene shows the chief taking refreshment before setting out for the hunt, or it could be a judgement scene (see p. 223).

3. *Rosettes. 3a.? Men and animals (Istanbul 299)*<sup>16</sup> (Pl. 79a, b)

The three fine rosettes are still *in situ*. Perhaps part of the vanished relief from above them could be Istanbul 299 ( $0.38 \times 0.29 \times 0.8\text{m}$ .) which still has its upper flange. This consists of the figures of two men in short tunics with the usual thick belt. Mendel thinks that they had two animals in front of them 'dont il ne reste que les queues et une partie très érodée d'une jambe'.

4. *Three figures* (Pl. 79a)

At the top of this stone are two roundels, one plain, one a six-petalled flower. The three figures recall stone 2 of Tomb B. All wear short tunics, that on the left figure being heavily embroidered on body and hem. The person on the left faces *r.* with right hand uplifted (? holding weapon), grasping the smaller central figure with his left hand. The man on the right turns left and holds the left arm of the middle figure who looks at him. (There are two cracks in the stone above the head of the small figure). Is this an execution scene, or is it death carrying off the deceased, or is it some kind of ritual scene such as a simulated, vicarious death? The small figure does not, however, look important enough to represent the dead chieftain. Perhaps the scene is intended to show the temporal power of the chief as a magistrate and the whole east side of the frieze recalls his activities in agriculture, hunting, religion and justice.

This relief is on the return of the elaborately-sculptured stone on the east end of the north frieze and we accordingly continue the description by the north side.

(ii) *North side*

4a. *Agriculture and hunting* (Pl. 79c)

On the left are three men in short tunics, the one at the bottom reaping, with a curved sickle, tall stalks of barley or wheat which tower above him. The two above with a large circular object (a heap of ears and husks) between them are winnowing, like the man on stone 9 of Tomb B. A fourth on the right, above, carries on his shoulder a basket exactly like that on Tomb B stone 7. Behind this man is a rosette and then, in the upper part of the field, a large antelope, *l.*, half sheltered by a bushy tree (? *talba*), turns its head to the *r.*,<sup>17</sup> from which side come two hounds running *l.*; below, a hound chases an antelope or stag. Next, top and bottom, come two

ostriches followed by two hunters on horseback. This stone is one of the best on the tomb, with its admirable and lively animals.

Dotted about the field are five miscellaneous rosettes.

5. *Ploughing* (Pl. 80a)

(0.74 × 0.58 × 0.21m.) The next two stones have fallen, and there are places in the cement packing behind for stones of 75 and 62 centimetres in length. The gap of 75 centimetres will take the stone here numbered 5 which was found fallen beside the tomb, and which is now in Tripoli. On its right side are a camel and horse ploughing, the camel below, the horse above, driven by men in tunics carrying uplifted sticks, all *l.* In the centre, above, is a man in tunic, *r.*, sowing. He has a pleated kilt with a fancy top and belt; the basket is in his left hand; his right hand scatters the seed. Behind him another man in a pleated tunic, *l.*, is chopping down a bush. Below him is another camel ploughing, *r.* On the top is the rough inscription MACHIK AII NA←NC<sup>18</sup> (p. 262).

6. *Two figures (Istanbul 304)*<sup>19</sup> (Pl. 80b)

(0.65 × 0.53 × 0.08m.) We suggest that the second of the fallen stones may be the Istanbul stone 304 which has the flanged border characteristic of Tomb C. It shows two frontal figures wearing conical caps (the one on the right with a zigzag decoration) under which their curly hair shows. They have long tunics which fall to the ankles and which have chip-carved decoration on the breast and are pleated below, the decoration being typical of this tomb. Each holds a circular shield in front of his left side, the shield on the right being concave with petals like a rosette. Each figure brings his right arm across his body. They may be meant to be holding short swords, though Mendel states that they are unarmed and thinks that they may represent the Dioscuri.

*Rosettes* (Pl. 74b)

At the west end of the north side, still *in situ*, the return end of the block on the north end of the west side. It has two rosettes, between which, lying horizontally, is an object, probably an acanthus leaf, tied in the middle.

(iii) *West side*

7. *Garden scene, in situ* (Pl. 82a)

The main side of stone 7 has on the top, at the left, two pomegranates, below them an elegant rosette. Under this is an openwork circular object and to right of it a semicircular object, both of the same basket-like pattern. A man in a short cloak is seated, *r.*, playing a lyre.<sup>20</sup> (He is in the position of sitting, but no seat is shown). Another man approaches him, carrying a large amphora. Above them is a rosette. Behind the second man, facing *r.*, is a smaller personage holding out a dish of food to a camel laden with a pair of amphorae,<sup>21</sup> and drawing a two-wheeled cart. Above is an archway (to indicate the doorway of a house?) and, in the top right-hand corner, another pomegranate.

8. *Standing figures and horsemen* (Pl. 81)

(1.60 × 0.58 × 0.27m.) Fallen, in two pieces, now in Tripoli. The main composition, from left to right, consists of: a small figure in long, pleated robe with a girdle low on its hips. Above is a rosette or bud and to its right a large pomegranate hangs down. This personage looks up towards its neighbour, a large figure with pointed hat, curls, and a long closely-pleated tunic hanging down straight and with a fringe at the bottom. The pleats on the shoulders are horizontal and could be part of a cloak hanging down behind. The hair is in small tight curls like those of the chieftain on stone 2. The right hand is stretched towards the figure just described; the left is across the body. Next, a very large bunch of grapes hangs down above a small figure in a short pleated tunic with tight belt, which leans towards the large figure with both arms upraised, the left one touching the tip of the bunch of grapes. A second large figure, appreciably taller than the one in the pointed hat, faces front and seems to be wearing a short, plain garment. Its arms are hanging down and it has curly hair without a covering. Next, a third small figure with plain short tunic, seen from the side, looks *l.* towards the large figure. Above him is a bow-and-arrow case, which he seems to support with his raised left arm. On the right a horseman gallops left, followed, on the portion of the stone which has been broken off, by two more horsemen, *l.*, one above the other. They wear pleated tunics. Lastly, behind the horsemen, comes a small figure in short pleated tunic and thick belt, turning *l.* Below him is a rosette. All three horses are very solidly carved.

(iv) *South side*

8a. *Standing figure* (Pl. 82b)

(0.27 × 0.58m.) The end of the stone just described. A standing man wearing a long tunic facing front but with feet turning left. His hair, like that of the largest of the figures on the east side, is done in a series of waves and a small beard fringes his chin. His mouth is a slight incision in the stone.

9. *Agricultural scene, in situ* (Pl. 82c)

Man, *l.* This may be the figure chopping down a bush, found on other tombs, or he may be hoeing. Behind him are two cattle, *l.*, drawing a two-wheeled cart. All eight legs of the animals are shown. On right, palm tree with bunches of dates. Five floral rosettes in the field.

10. *Hunting scene, in situ* (Pl. 82c)

Left, date palm with fruit; at bottom, hound chasing a (?) lion, *l.* Above, rosette; animal leaping at a fallen

man; another animal (a calf?) runs towards a man in a short tunic holding a spear. On the right a man, *l.*, spears a bull. There are other beasts above and below, the one at the bottom looking like a jackal or fox.

11. *Huntsman and hounds (Istanbul 305)* (Pl. 83a)

(0.26 × 0.53m.) Return of the Isiguar stone if that has been correctly placed (p. 152). Horseman, galloping *r.*; below him two hounds.

(g) *Roof ornaments*

Two centre-pieces were found, one (ht. 43cm., length 58cm.) with nine straight stems with simple spirals at the top, the other with seven stems made in the same block with the contiguous spirals. There are also double-spirals (81 × 49 × 20cm.) of the standard type, but this tomb, like Tomb B, does not seem to have had corner palmettes. A headless winged figure in the round, which we think must be a siren with woman's body and bird's wings, was found in the debris north of the tomb, and it seems probable that one of these formerly stood on each of the four corners of the roof (width across wings, c. 54cm.; present height 54cm.) (Pl. 83b).

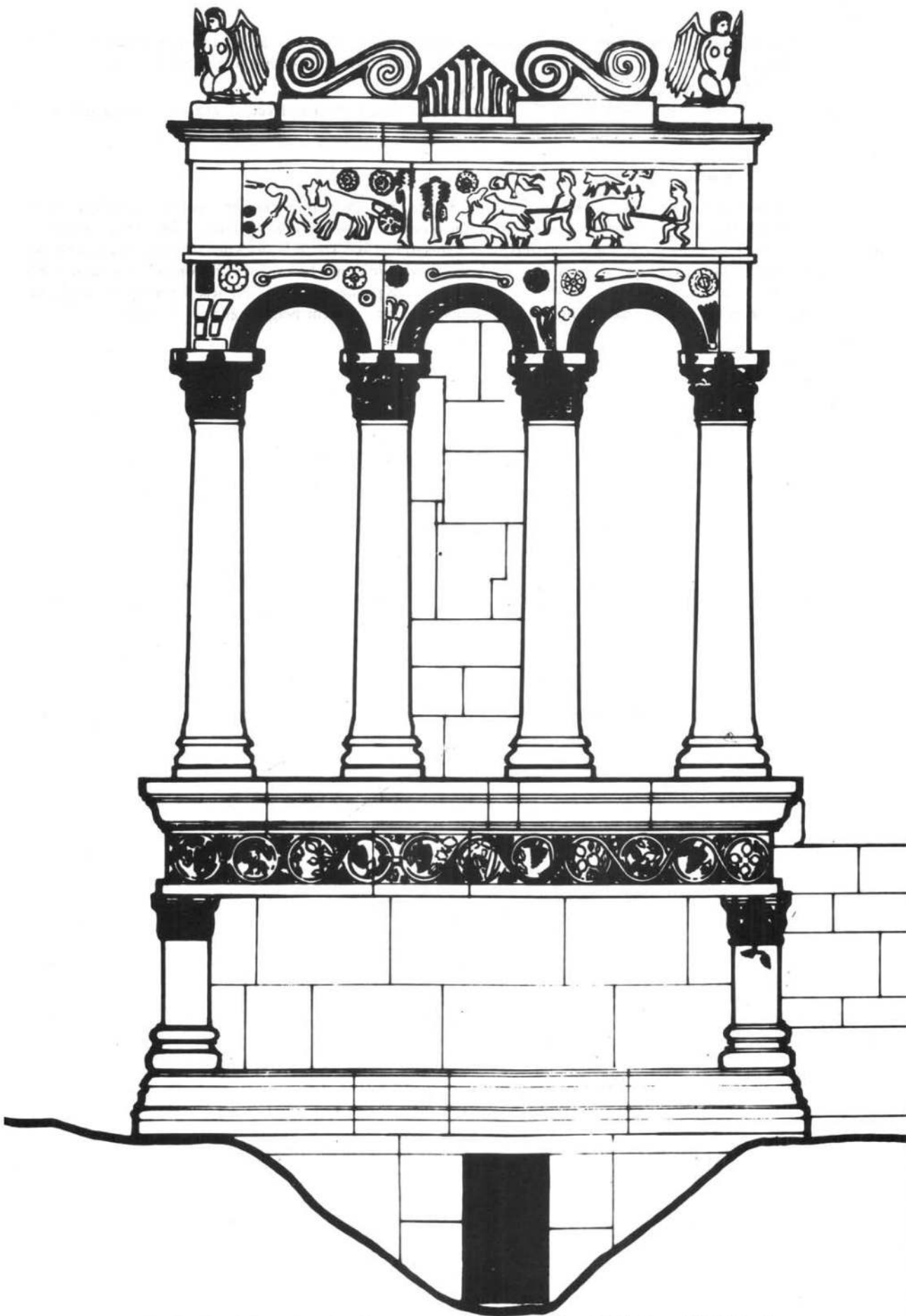


Fig. 47. Tomb North C: south elevation reconstructed. Drawn by G. Clarke and N. Wood.

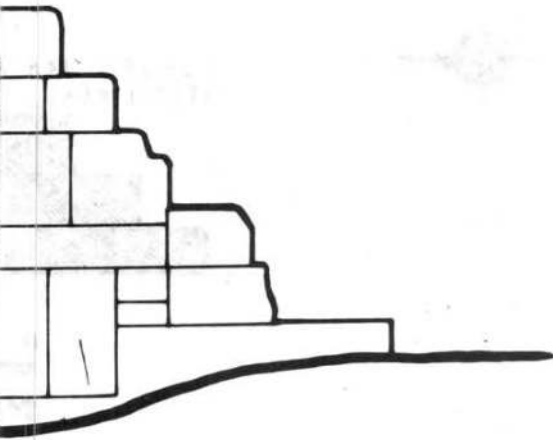
# TOMB C

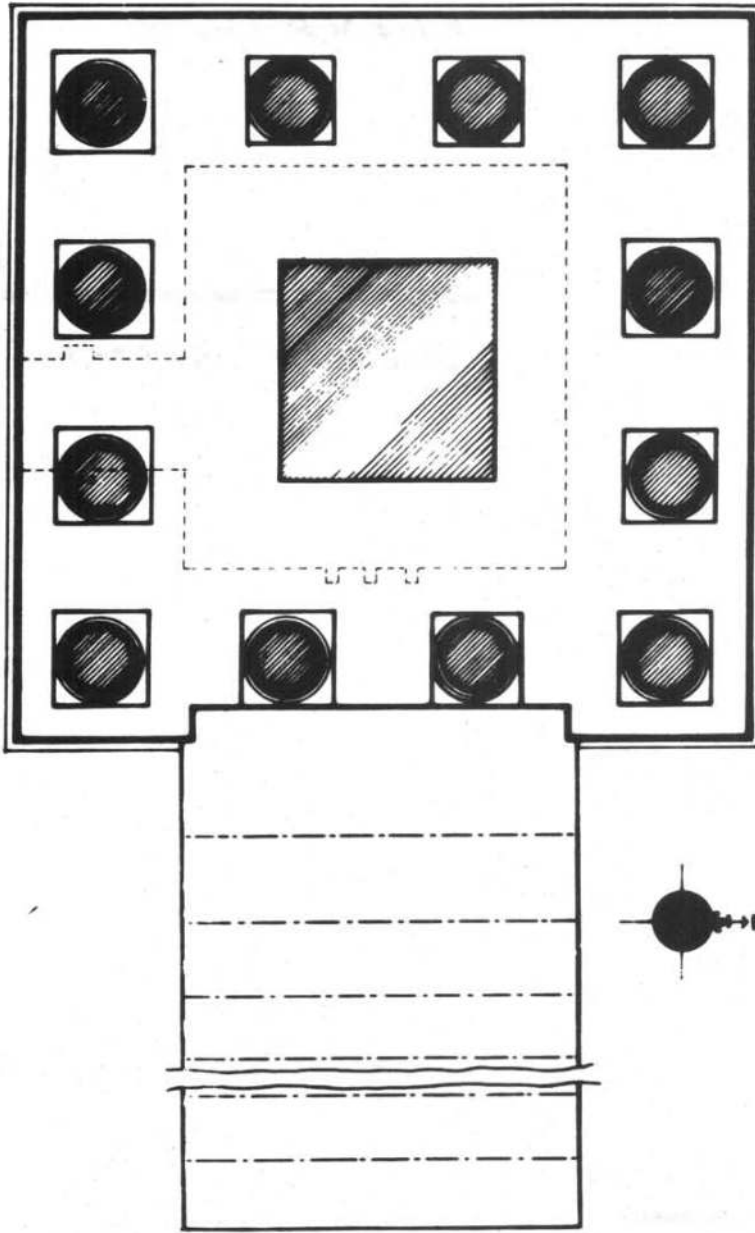
N. NECROPOLIS

*RESTORED SOUTH  
ELEVATION*



SCALE OF METRES



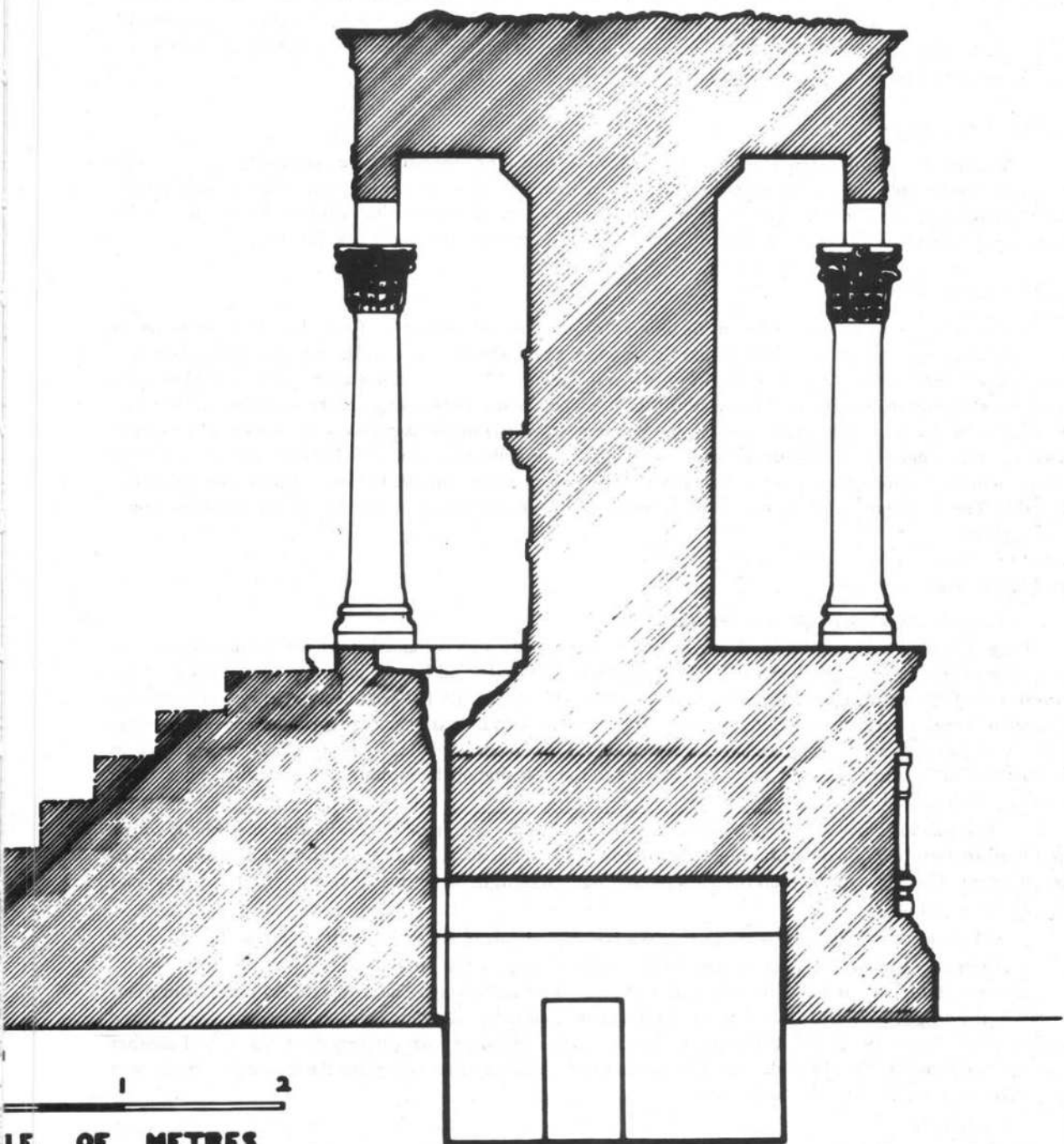


CONJECTURAL  
STEP-LINE

o  
SC

**TOMB C** NORTH NECROPOLIS  
PLAN AND SECTION SHOWING C

Fig. 48. Tomb North C: plan and section. Drawn by G. Clarke.



**NORTH ELEVATION**

**CHAMBER AND LIBATION TUBE**



(iv) TOMB NORTH D:<sup>1</sup> figs. 49, 50, Pls. 84-86

D is the smallest tomb of the group. Its podium originally bore four columns supporting arches above which were a frieze, cornice and sima edgings, and there was a central pier with rubble and mortar core. The whole of the upper structure has collapsed, except part of the podium. The podium had a cornice, now fallen, base mouldings and, at the corners and middle of each side, projecting panels. Among fallen stones around this monument are seven pieces with shallow arched recesses which formed the upper part of the podium, and fit above the recesses between the projecting panels. The masonry of this tomb is distinctive and of particularly fine quality, finished with a four-or five-claw chisel (Pl. 85b).

(a) *The funerary chamber*<sup>2</sup>

The chamber is small, entered from the south side by a passage of the usual type 64cm. long, with a slot in the centre for the sliding block (0.63 × 0.48m.). It has a pitched roof of stone slabs, the ridge running north-south. An offering-channel which can be traced some way up through the plinth opens into the chamber at the junction of roof and wall on the centre of the east side, 59cm. from the south side (Pl. 85a).

(b) *The columns*

Three distinctive capitals found on the ground nearby can be allotted to Tomb D. They are 42cm. in height, as against the 52cm. capitals of Tomb E; the width of the abacus is 42cm. Another very badly damaged capital photographed in 1952 is probably the fourth of the group. They have four acanthus leaves, flattened and rather coarsely cut; the volute scrolls are rudimentary and the helices are missing. There are bosses in the usual position in the centres of the sides, and on one of these (now in Tripoli) is carved a palm-tree. The capitals belong to the category called 'Four-leaf capitals' (Vierblattkapitelle) by Kautzsch.<sup>3</sup> He dates an example from Salona, which resembles these closely, to the mid-fifth century at the earliest; but our capitals must be earlier than this. The shafts are 1.38m. high, 0.30m. in diameter. The bases have two simple rounded mouldings on a square plinth.

(c) *The arch-heads*

1. *Large arch-head with palm trees* (Pl. 84b)

(1.48 × 0.58 × 0.22m.; ht. of arch 0.41m., diam. 0.78m.) The arch is framed by a narrow fillet; above it, in the centre of the arch-head, is a small five-petalled rosette. To right and left are palm trees bearing dates; the lowest part of the trunk on the left has been obliterated; that on the right has criss-cross markings and is being climbed by a man wearing a cap. The palm branches are indicated summarily and are grooved down the centre. There is a rebate in the top of the block. This arch-head was found on the ground beneath a lot of other stones on the east side of the tomb and may fairly be assigned to the east side of the monument, especially as it is more elaborate than the others.

2. *Arch-head with roundels* (1.23 × 0.58 × 0.25m.; ht. of arch 0.41, diam. 0.79) The arch and the top of the arch-head are framed by fillets continuing as broad bands down the sides. There are roundels in the spandrels to left and right. This arch-head would fill one side, adding to its length of 1.23m. the depth (22cm.) of arch-head No. 1 (i.e. = 1.45m.).

3. *Arch-head with roundels* (1.02 × 0.58m) An arch-head with fillets and roundels, as No. 2.

4. There are portions of a fourth arch-head, which belong to the same tomb.

The arch-heads 1, 2 and 3 are respectively 1.48, 1.23 and 1.02m. long. The large one, with the palm trees, would thus go right across the east side; its depth (22cm.), added to 1.23m. of No. 2, gives us 1.45m. for the adjoining side (south or north). The depth of No. 2 (25cm.) added to 1.02, the length of No. 3, and another 22cm. for the stone on the opposite side, gives us 1.49 cm., which we may accept for the west side. The broken arch-head, 4, could go on the north side.

(d) *The frieze*

The height of this frieze is 48cm.

1. *Vine and grapes* (0.90 × 0.48 × 0.18m.)

Zigzag angular vine-stalk with three pendant bunches of grapes and, in the centre, probably the bottom of a vase or basket. This is badly defaced, but the tooling is like that of the date-palm arch-head. The left-hand return of this stone is decorated with a rosette.

2. *Vine and grapes* (Pl. 86b) (0.67 × 0.48 × 0.18m)

Similar stone with partly-obliterated vine-stem and four bunches of grapes. At its right end a rosette like that on No. 1.

3. *Ostriches* (Pl. 86a) (0.78 × 0.48 × 0.21m.)

Very badly defaced relief of two ostriches, *r.*, being pursued by a horseman. Tooling as on No. 1. Rosette on right hand end.

4. *Lattice-work* (0.77 × 0.48 × 0.18m.)

Lattice-work stone, in two panels, separated by a plain band. The first panel has sunken squares (3 × 3cm.); the next has smaller cut-out squares (1 × 1cm.).

The return at this end has a rosette.

5. *Lattice-work* (0.36 × 0.48 × 0.18m.)

Lattice-work stone, the holes measuring 2cm. across. Only one panel of this survives.

6. *Lattice-work* (0.77 × 0.48 × 0.22m.)

Lattice-work stone, sunken squares with sides of 1.50 to 2cm. There are two sections of the lattice, separated by a plain band 5cm. wide.

7. *Fish* (Pl. 86d) (0.32 × 0.48 × 0.18m.)

Possibly, but not certainly, from Tomb D. Stone with moulding round the edge and two fish, the upper swimming *r.*, the lower swimming *l.* The block is incomplete.

8. *Rosette* (0.22 × 0.48m.)

Small stone; fillet top and bottom, good rosette in middle. Found walled into a modern hut.

(e) *Roof ornaments*

There were corner palmettes (ht. 33 × 18cm.) and small triple-curved pairs of spirals (0.49 × 0.28 × 0.20m.) between them. The palmettes are formed of vertical leaves with small tight curls at the top. The bases of two palmettes and two spiral-stones = 1.34m., leaving a gap of 10-12cm. which is at present unaccounted for.

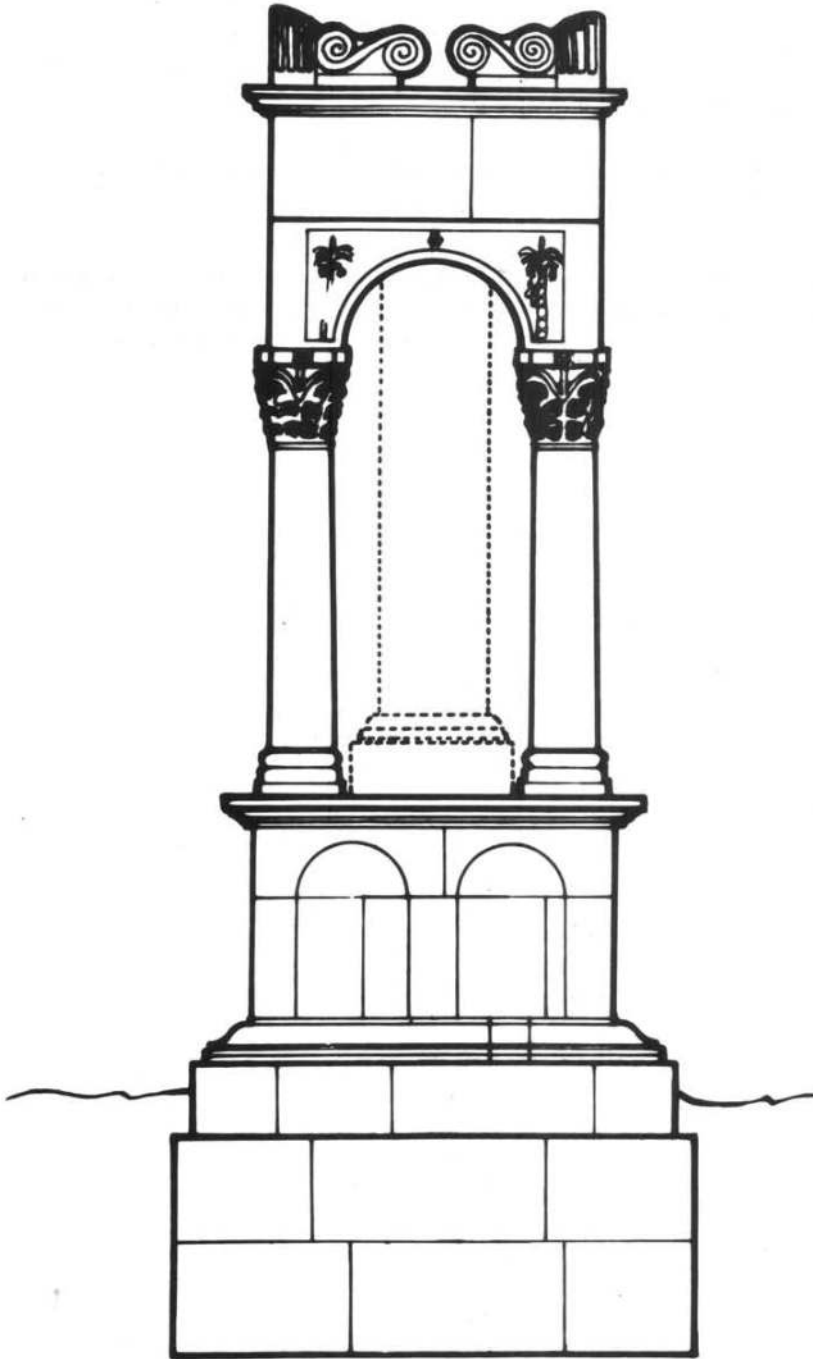
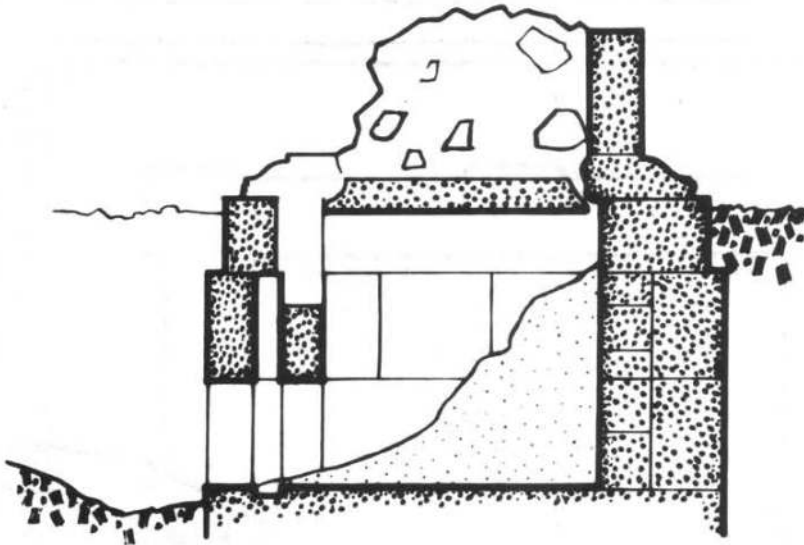
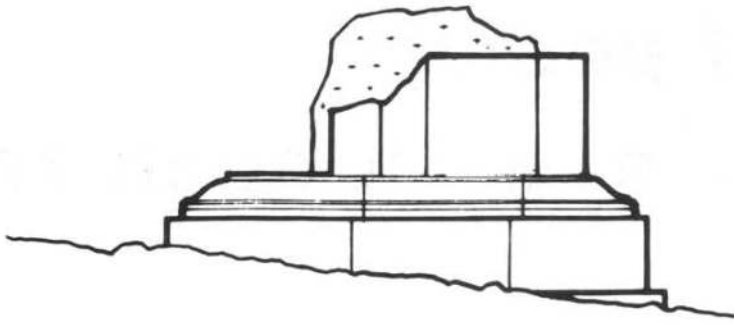


Fig. 49. Tomb North D: east elevation and section. Drawn by N. Wood.



**TOMB D** NORTH NECROPOLIS  
**RESTORED E. ELEVATION**  
**EXISTING E. ELEVATION &**  
**SECTION SHOWING CHAMBER.**

2m

# TOMB NORTH D

plan of podium

section e-w through tomb chamber

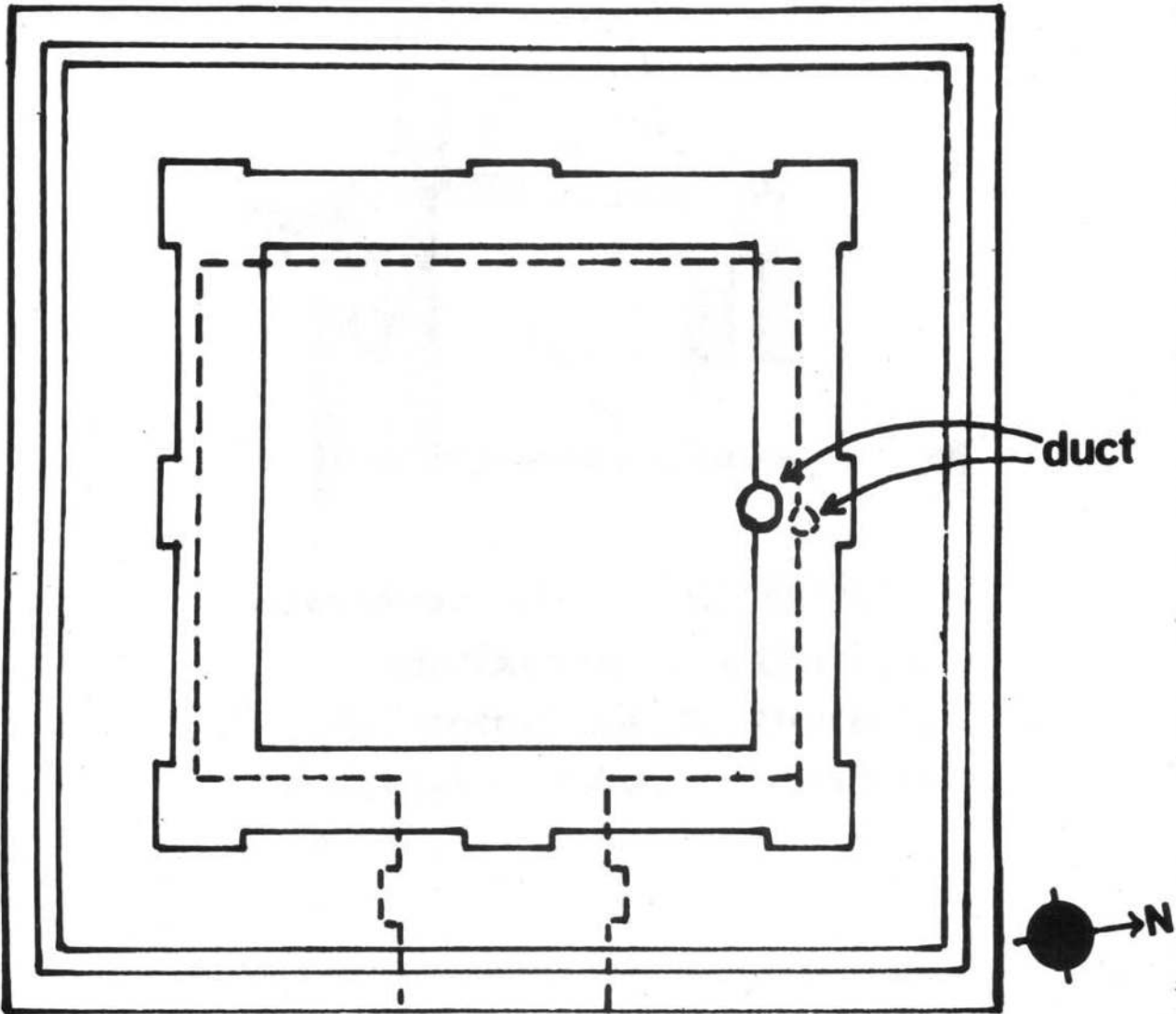
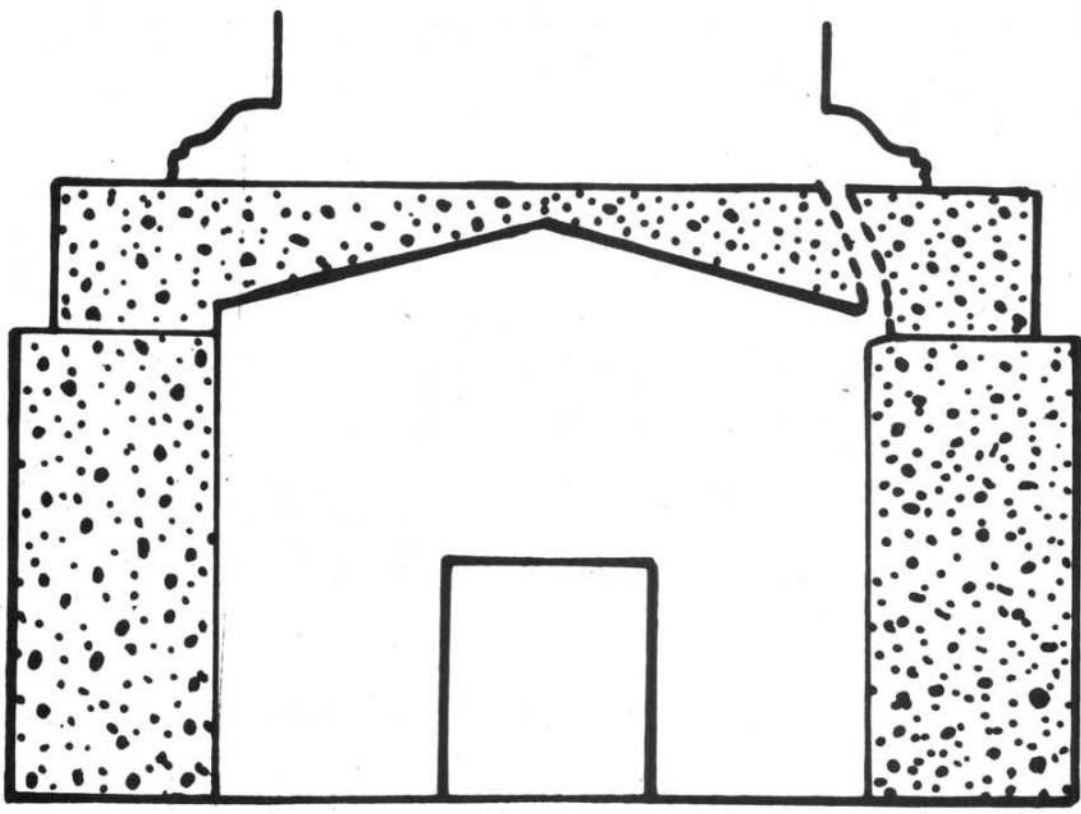


Fig. 50. Tomb North D: plan and section. Drawn by N. Wood.

number



(v) TOMB NORTH E:<sup>1</sup> fig. 51, Pls. 84a, 87-91

This tomb is of the same type as Tombs B and C, but smaller, with three columns, and thus two arches, a side. There is no flight of steps. It is much damaged, all that remains in place being the plinth and a portion of the central pier of masonry round a core of rubble and mortar. The mouldings of the base and cornice are flattened and greatly inferior to those of the tombs already discussed. A few pieces of the debased cornice are still in place on the south-west side. In the centre of the east side the base-moulding is interrupted and in its place there projects a plain stone with a hollow in its upper side and a groove behind which communicates with a libation-channel leading into the chamber. Into this groove mourners could pour liquid offerings for the dead.

(a) *The funerary chamber*<sup>2</sup>

The entrance is on the south side, and the east side of the passage (0.73m. long) is slightly worn. On entering the chamber there is a pilaster on the left which, with another opposite it, supports a beam made of a column-shaft. The roofing is partly a barrel vault, partly pitched. The builders may have started to build a vault; the fine cutting of the end walls east and west suggest that this was intended, but that it was then found necessary to insert a beam and pilasters for greater strength. The offering channel leads to a projecting stone, 15 cm. below the ceiling, through which it passes in two ducts.

(b) *The central pier*

(1.06 × 58 × 0.20m.) A stone door (Pl. 89d) found among the Arab huts built in recent years to the south-east of the tombs may be assigned with confidence to Tomb E. It is quite different from those of B, C and F. The border is countersunk chip-carved, which corresponds to the chip-carved arch-heads. This decoration may be regarded as a series of six-pointed rosettes, the spaces between the petals being sharply triangular. The main part of the door is divided into four panels, the presumed lower two decorated with four large four-pointed stars, the upper ones with two rectangular recesses crossed by bars broken in the middle from which something may have disappeared. The central pier is too badly damaged for us to know what its upper part was like, but there would have been room over the door for an inscription, and this could very well have been the one noted by Denham but now lost (p. 181).<sup>3</sup>

(c) *The columns*

Fragments of the shafts (ht. 1.21m.) lie about the ruins. Seven capitals have been found, of which two are now in Tripoli (Pl. 88).<sup>4</sup> They are 52 cm. in height, 51 cm. at maximum width, 30 cm. at minimum width. There is a single row of flattened acanthus leaves except on one capital which has two rows. The centre rib of each leaf is marked by two deep grooves, rather wide apart. The abacus is large and is deeply incised in parallel horizontal lines. It has square ends and sides cut out into deep semicircles. The square ends (a late feature, also found on North C), are decorated with vertical grooves, chip-carved rosettes, or incised crosses. There are vestigial volutes and leaves between the acanthus and the abacus. One capital (Pl. 89) has an elongated cross here on all four sides, but this looks like a debasement of the usual decorations, rather than a symbol. Below its centre point there are quarter-segments of a circle.

On a second capital the acanthus is the same. The tops of the leaves once bent over, but have been much knocked about. Above the leaves are rudimentary flattened scrolls, and, in the centres of the four curves are: (a) a chipped-out, irregular basket pattern; (b) a kind of palmette with horizontal, or nearly horizontal leaves; (c) leaf; (d) palmette, like (b). The upper part of the capital is ornamented with horizontal grooves and ridges, and eight-pointed crosses, chip-carved.

(d) *The arch-heads*

There were eight arch-heads on this tomb and five of rather striking character have been identified. The span of the arches is c. 77 cm., their height 38 cm.

1. (Pl. 87a) (0.98 × 0.56 × 0.25m.) A fine bold arch-head, its arch framed by well-executed cable-pattern. In the corners are two good rosettes connected by a band of chip-carving consisting of eight four-leafed flowers.

2, 3. (Pl. 86c, 87b) (1.02 × 0.55 × 0.22m; 1.08 × 0.56 × 0.20m.) A pair with cable-pattern round the arch, rosettes in each corner. In No. 2 the rosettes are enclosed in squares. A band of toothed carving runs along the top of each stone between the rosettes.

4. (1.07 × 0.55 × 0.20m.) Arch-head with cable-pattern frame to arch; the upper edge of the stone has a tooth pattern, as in Nos. 2 and 3, but it continues above the plain roundels.

5. (1.16 × 0.55 × 0.23m.) Arch-head with cable-pattern and roundels.

There are pieces of other arch-heads, plain except for rosettes in the corners, which may belong to this tomb.

(e) *The frieze*

The frieze is 48cm. in height, the stones being mostly carved in two registers, each 22cm. high. Its total length was about 8.80 metres.

1. *Peacock, etc.* (Pl. 90a) (0.64 × 0.48 × 0.24m.) *upper register*: a peacock *l.*, with its head up, pecks at a little box; behind it are two hounds, running *l.*, one above the other.

*lower register*: a clumsy and obese bird with thick short legs and very small wings is moving *l.*, followed by a man in a pleated tunic. The man carries two spears in his right hand; with his left hand he leads a camel with a peaked saddle.

2. *Bird and Man* (Pl. 91d) (0.19 × 0.48 × 0.19m.) A narrow stone. Above is a bird, *r.*, with large outstretched wing; below is a man in a short, belted tunic, his arms raised and holding some object in his right hand. This is the return of a stone with roundels and vertical bars.

3. *Animals and Birds* (Pl. 90b) (0.80 × 0.48 × 0.16m.) Much broken. *Upper*: hare, antelope, hound, ostrich, ? small bird, all *l.* *Lower*: hare, horse, (gap), springing lion, all *l.*

4. *Animals, Ostrich hunt* (Pl. 90c) (0.54 × 0.48 × 0.14m.)

*Upper*: antelope or gazelle, two camels, *l.* *Lower*: hound, ostrich, horseman.

5, 6, 7 (Pl. 91a)

Three stones with a distinctive ornamental pattern of leaves and a kind of egg-and-dart, each zone separated by a line of chip-carving. (They measure respectively c. 0.20 × 0.48 × c. 0.12; 0.63 × 0.48 × 0.12; 0.66 × 0.47 × 0.22m. and go together to make a handsome slab 1.50m. long).

8 (Pl. 91b) Stone resembling nos. 5-6-7 above but with a bead-and-reel moulding instead of a band of chipcarving between the two registers. The upper register has the same row of ornamental leaves alternating like an anthemion pattern; the lower has a debased pattern of eggs which have become circular alternating with darts. A plaited band winds among the leaves.

9, 10, 11 (Pl. 91c)

Stones from the Arab huts which resemble some of the stones of the frieze of F, but because of their height, their two registers, and the chip-carving on three of them, can be assigned with strong probability to Tomb E. They have roundels and vertical bars reminiscent of triglyphs.

(f) *Roof ornaments*

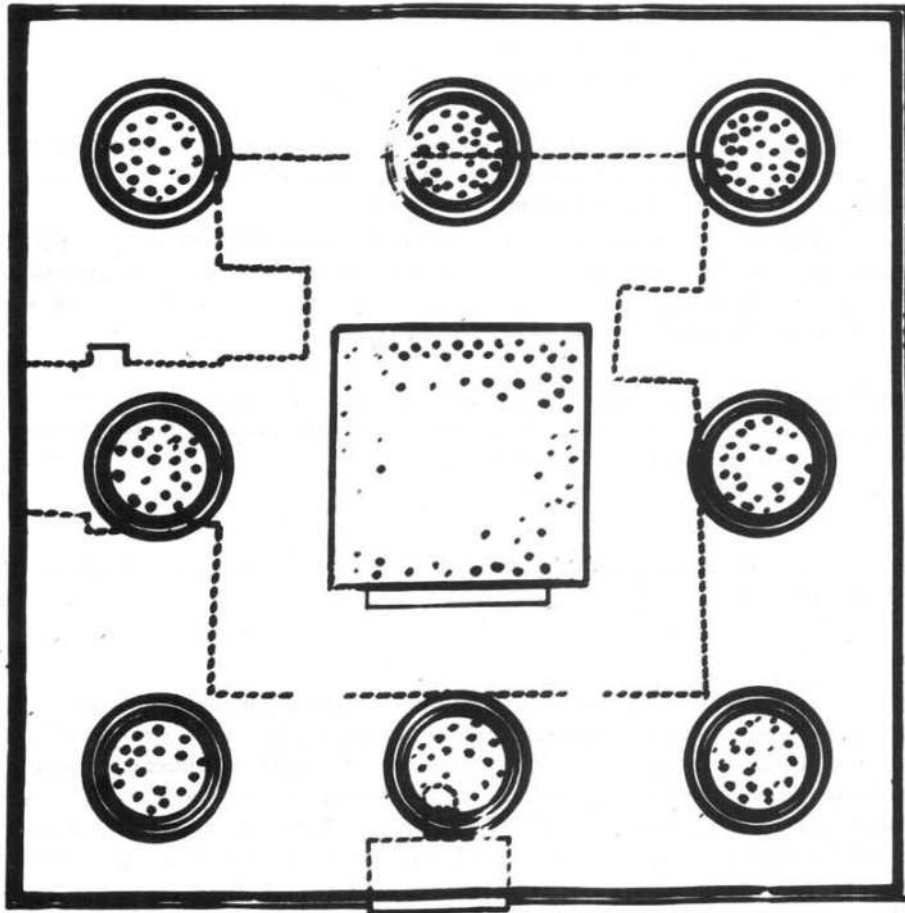
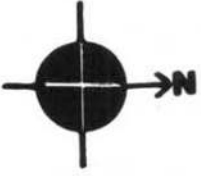
A rudimentary palmette with vertical grooves and no curves (ht. 0.48, side 0.23m.) was found lying on the west side of Tomb E. There were also some double spirals (0.73 × 0.38m.).

(g) *General comments*

The finish of Tomb E is markedly inferior to that of Tombs C and D, especially in the mouldings, yet it is one of the most individual of the whole series and has certain new and interesting features: the chip-carving of its decoration, now prominent instead of an occasional minor variation as on Tomb C; its unusual capitals; and the double register of its frieze which also has the peculiar leaf-and-egg decorations of stones 5 and 6. Its most interesting sculpture is on the stone with the peacock. The bird is pecking at a box which probably holds food - the grains of eternal life. The two hounds in full cry seem to have been separated from the peacock by a vertical line: they may represent the hounds of death. The figures below are among the most crude on our tombs, but the camel's two-peaked saddle and the man's two spears are objects of familiar use.

The capitals with their thick abacuses are late, a development of the tendency already present in those of Tomb C. Some of the chip-carving resembles very closely that on stones from the church at Breviglieri (El-Khadra), especially the four-petalled flowers of arch-head No. 1 which are like the decoration on some of the Breviglieri brackets.<sup>3</sup> The church is ascribed to the late fourth or early fifth century, and Tomb E belongs in all likelihood to the same period.

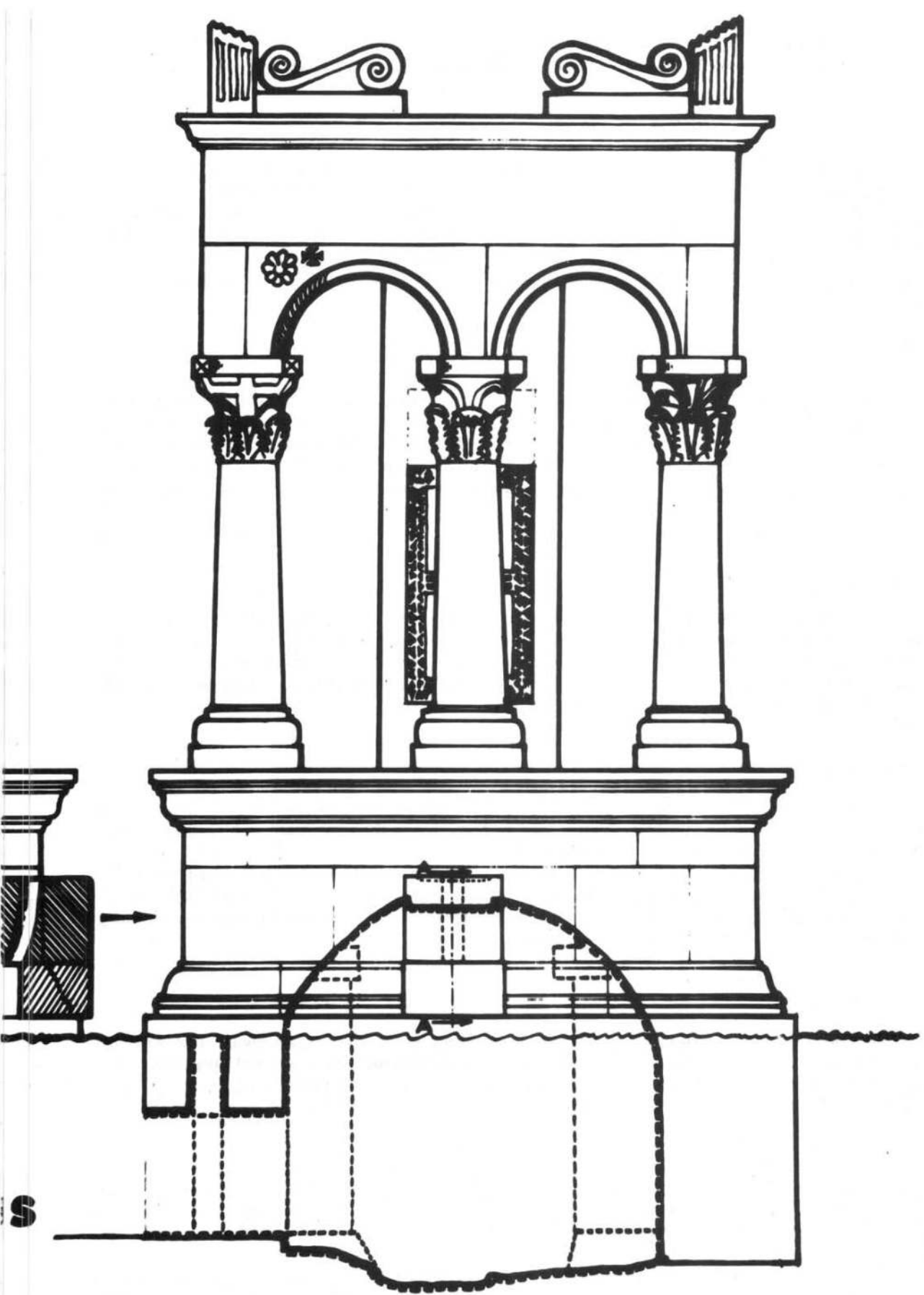




**TOMB E** **N. NECROPOLIS**  
**PLAN & RESTORED E. ELEVATION**

Fig. 51. Tomb North E: east elevation and plan. Drawn by N. Wood.





(vi) TOMB NORTH F:<sup>1</sup> figs. 52-54, Pls. 84, 92, 93

Another tomb of the type of Tombs B to E, but much debased, though not without an attempt to outdo its immediate neighbours. Being at the end of the row it seems likely that it is the latest of the series A-F. Most of its central pier remains, with the false door on the east side, and the south, west and north sides of the podium are largely intact. It had a flight of five steps on its east side. The columns, which were five to a side, the arch-heads and the frieze have all fallen. The moulding round the lower part of the podium is rudimentary, the mason evidently being unequal to the task of carving proper curves. The cornice of the podium is little more than a projecting block.

(a) *The funerary chamber*<sup>2</sup>

This is entered from the south. Like the chamber of E, it has pilasters on the right of the doorway, and a barrel vault over the eastern, larger, part of the chamber, while west of the pilasters the ceiling is flat. The chamber, however, is somewhat better made than that of E. It has an offering channel in the east side, and a hollow in the filling above, just left of the false door, connecting with the duct, has been found. The entry passage (0.67m. long, 0.52m. wide, 0.60m. high) is nearer the west side than the east, to leave room for the pilasters.

(b) *The central pier*

The central pier is substantial, with a plain cornice. It is of masonry round the usual rubble and mortar core. The door is a barbaric imitation of the doors of B and C, with gouged-out carving in four panels of unequal size. The frames of the panels are in a rough version of cable-pattern; there is an eight-petalled rosette in the top left-hand panel. Above the door is a projecting rectangular lintel carved in evident imitation of the lintel of Tomb B. There is no place for an inscription.

(c) *The columns*

A number of shafts were lying near the tomb. Some had been incorporated into the neighbouring Arab winter huts. They are not perfectly circular in section. Some are in the same piece with their crude base mouldings, two rough flat bands, and a square plinth.

The capitals (Pl. 93c; ht. 38cm.) are extremely rough work, with incised leaves on them which look like an attempted imitation of the capitals of Tomb D, and circles which may be in imitation of the *ovolo* on the capitals of Tomb A (Pl. 54). The columns and the arch-heads are together higher than the cella and therefore the ceiling must have sloped upwards from the cella to the portico.

(d) *The arch-heads*

These were four a side. A complete arch-head which probably belongs to F is 51cm. high, 1.10m. wide, the arch being 38 × 83cm. There is a plain band right round the arch-head, arch and edges, and a plain roundel in each of the upper corners. Pieces of seven or eight of these exist, but not all with the edging.

(e) *The frieze* (Pls. 93b)

The frieze may be looked upon as a debased imitation of the Doric type of Tomb A, the *reductio ad absurdum* of triglyphs and metopes. Many fragments were found in the Arab huts. The 'triglyphs' are reduced to parallel bands, not always quite vertical, and there may be three or four of them. Most of the roundels are simple discs, but they are well-cut compass-traced circles.

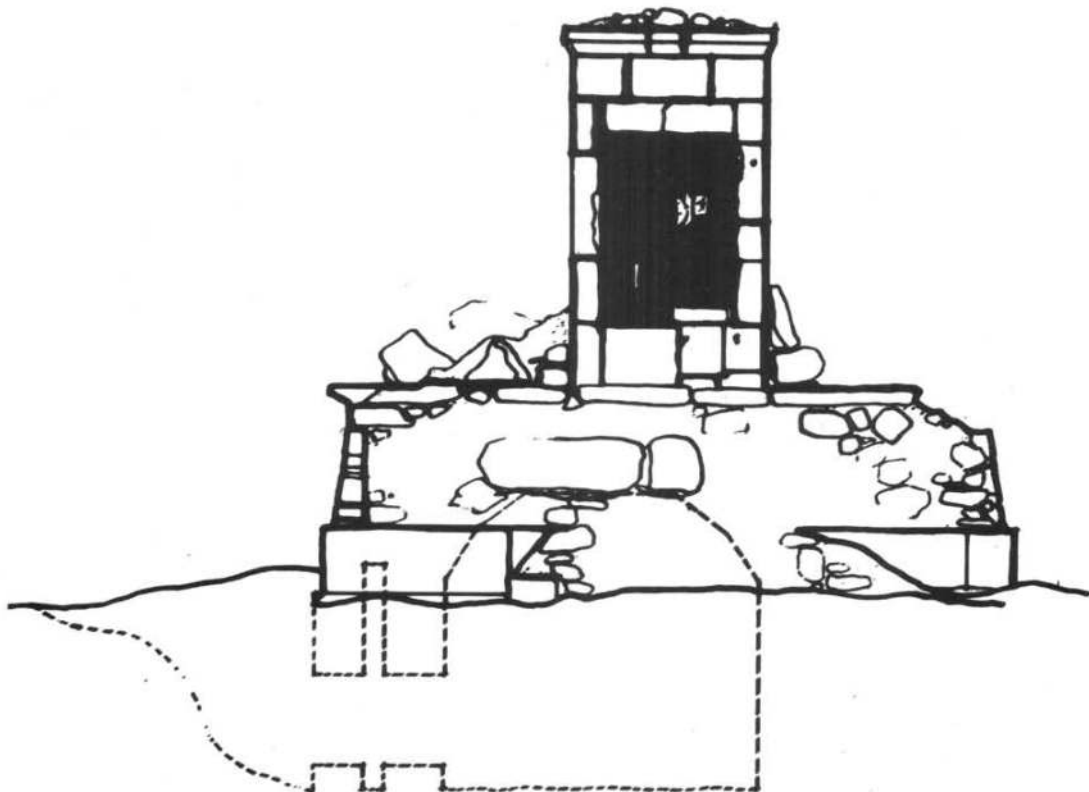
There remain fourteen of these frieze stones, two being corner stones, and one having a palm tree between two discs. They vary in height from 33 to 40cm. so one supposes that small blocks c. 7cm. high were inserted from time to time to even the height.

Another stone (ht. 40cm.) with two roundels and a fish, probably belongs to this frieze, as does one with two roundels and a date palm. No sculptures with human or animal figures have survived from this tomb.

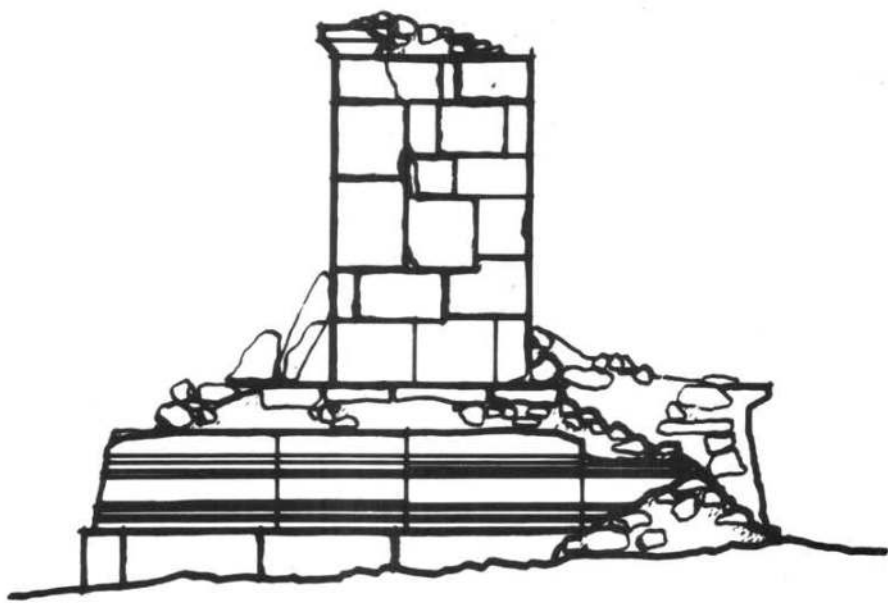
(f) *Roof ornaments*

The corner palmettes ( $0.46 \times 0.33 \times 0.22$ ) have respectively three and two scrolls on either side in the form of question-marks. Between them were large double-spirals.

Tomb F shows the determination - and failure - of the Ghirza community to maintain its former state. It could perhaps belong to the early sixth century.

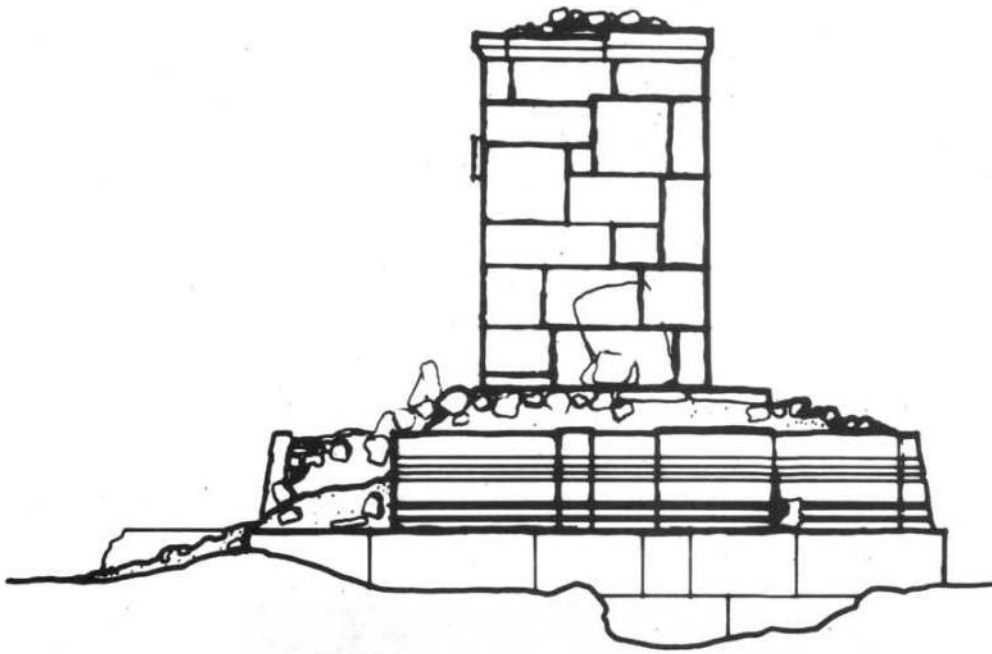


**EXISTING EAST ELEVATION .  
TOMB 'F' . NORTH GROUP . .**

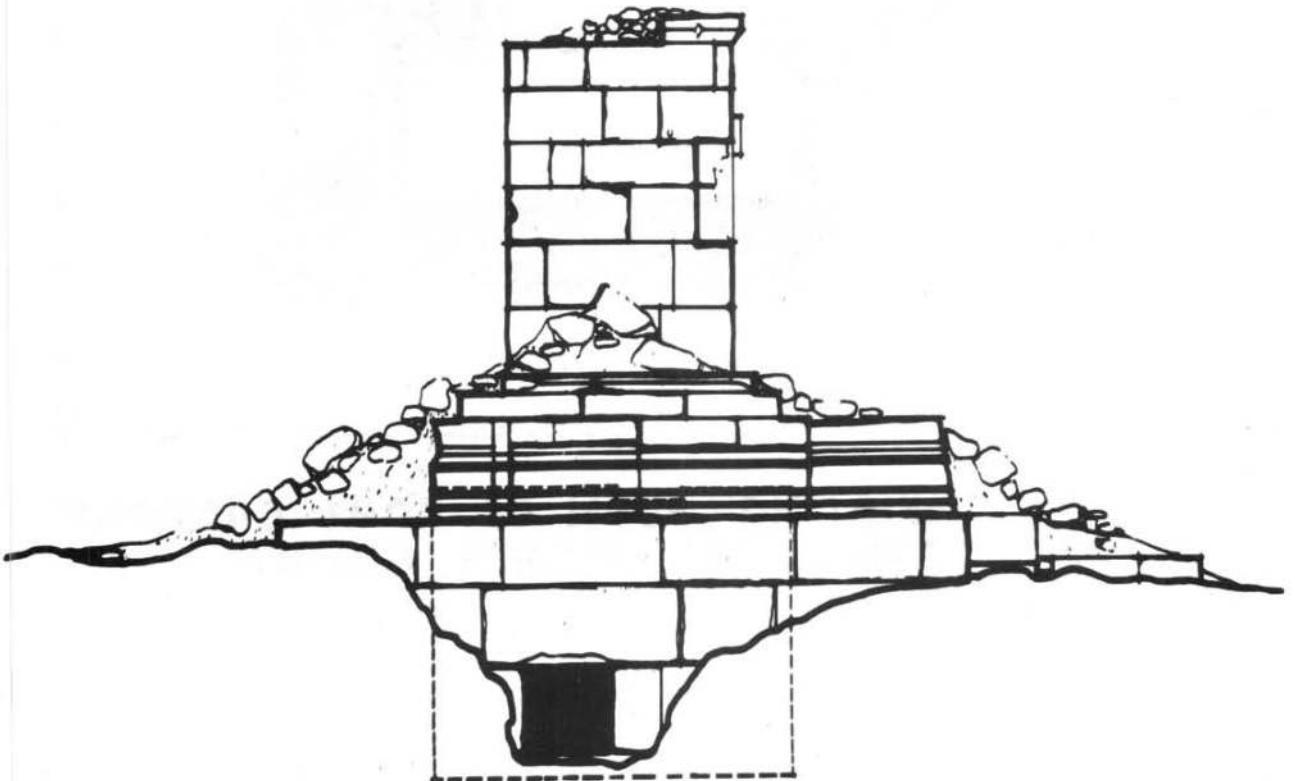


**EXISTING WEST ELEVATION .  
TOMB 'F' . NORTH GROUP . .**

Fig. 52. Tomb North F: elevations. Drawn by J. Keelan.

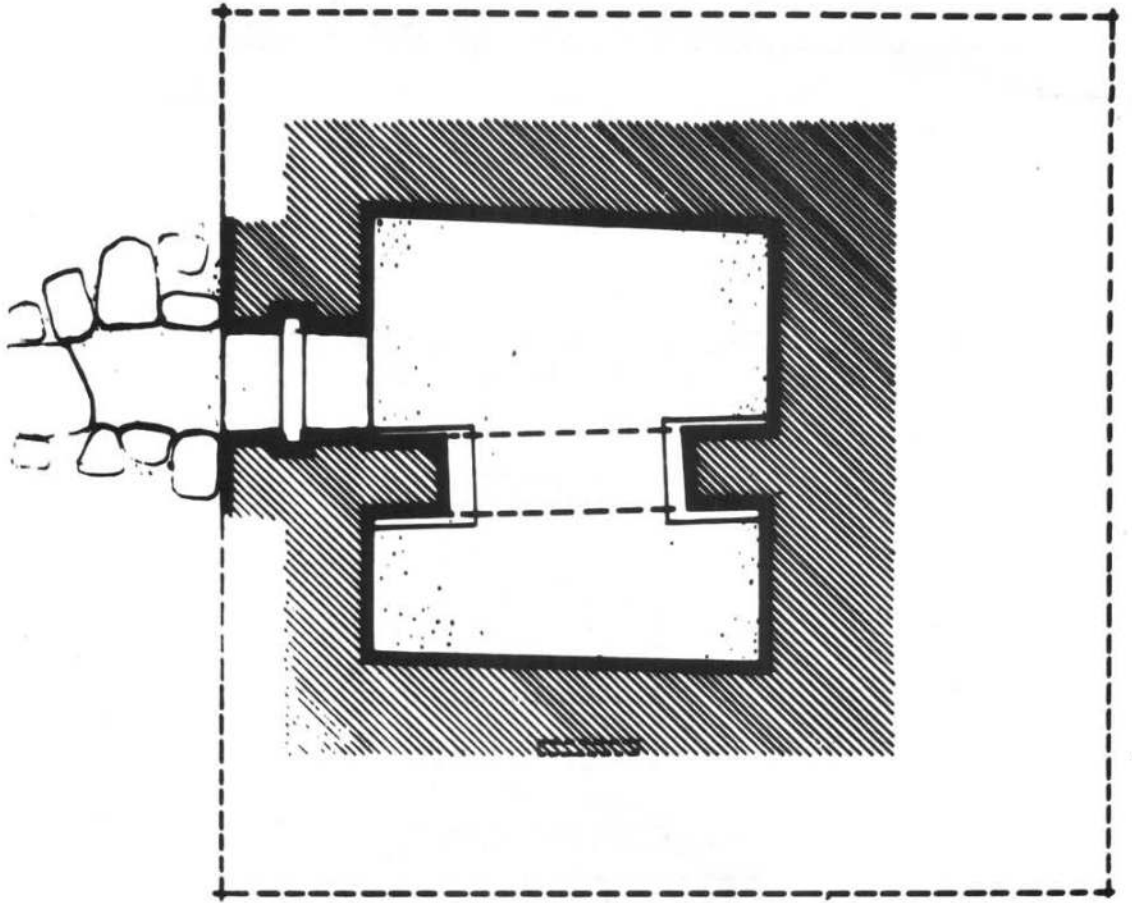


EXISTING NORTH ELEVATION .  
TOMB 'F' NORTH GROUP . .



EXISTING SOUTH ELEVATION .  
TOMB 'F' NORTH GROUP . . .

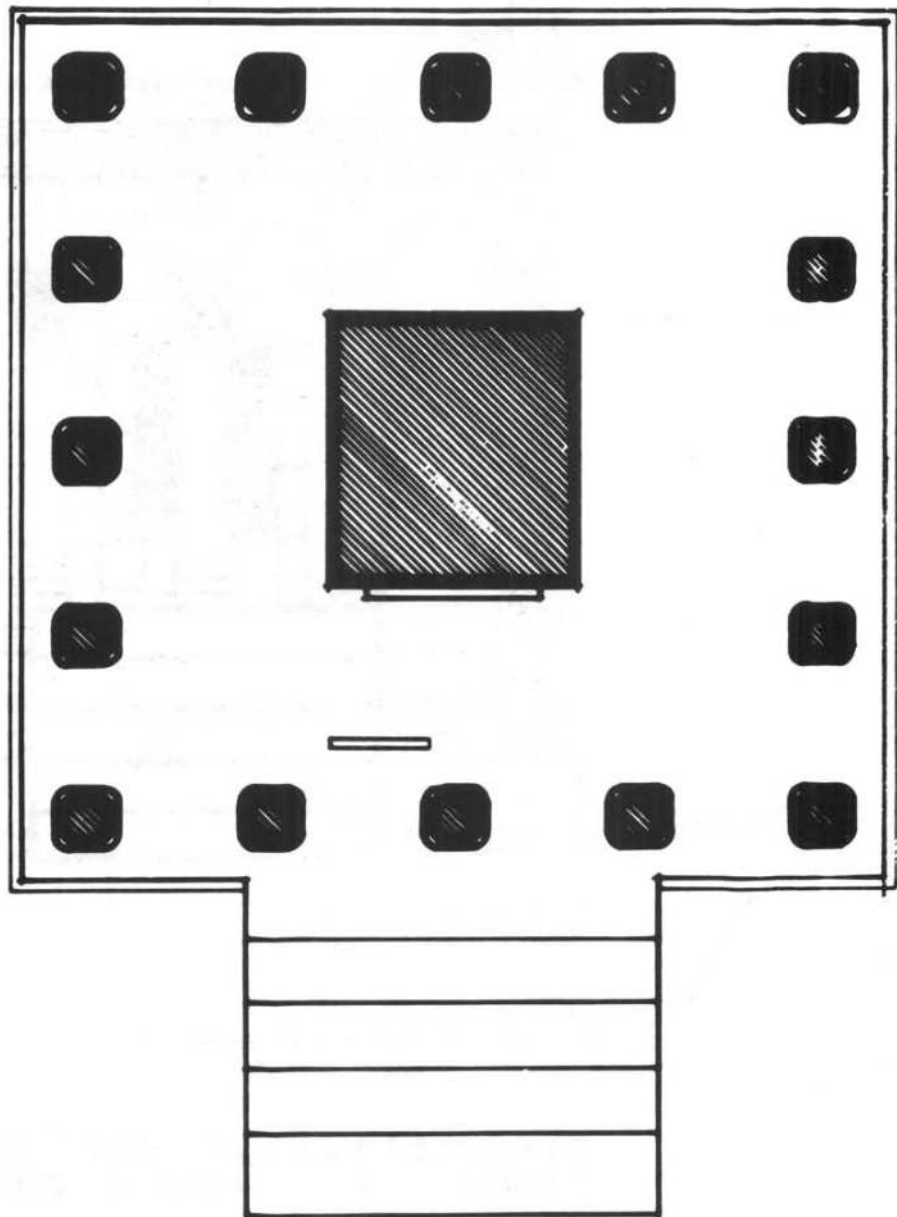
CENTIMETRES 100 50 0 1 2 3 4 5 METRES



EXISTING PLAN OF TOMB CHAMBER.  
TOMB . 'F' . NORTH GROUP . . . .



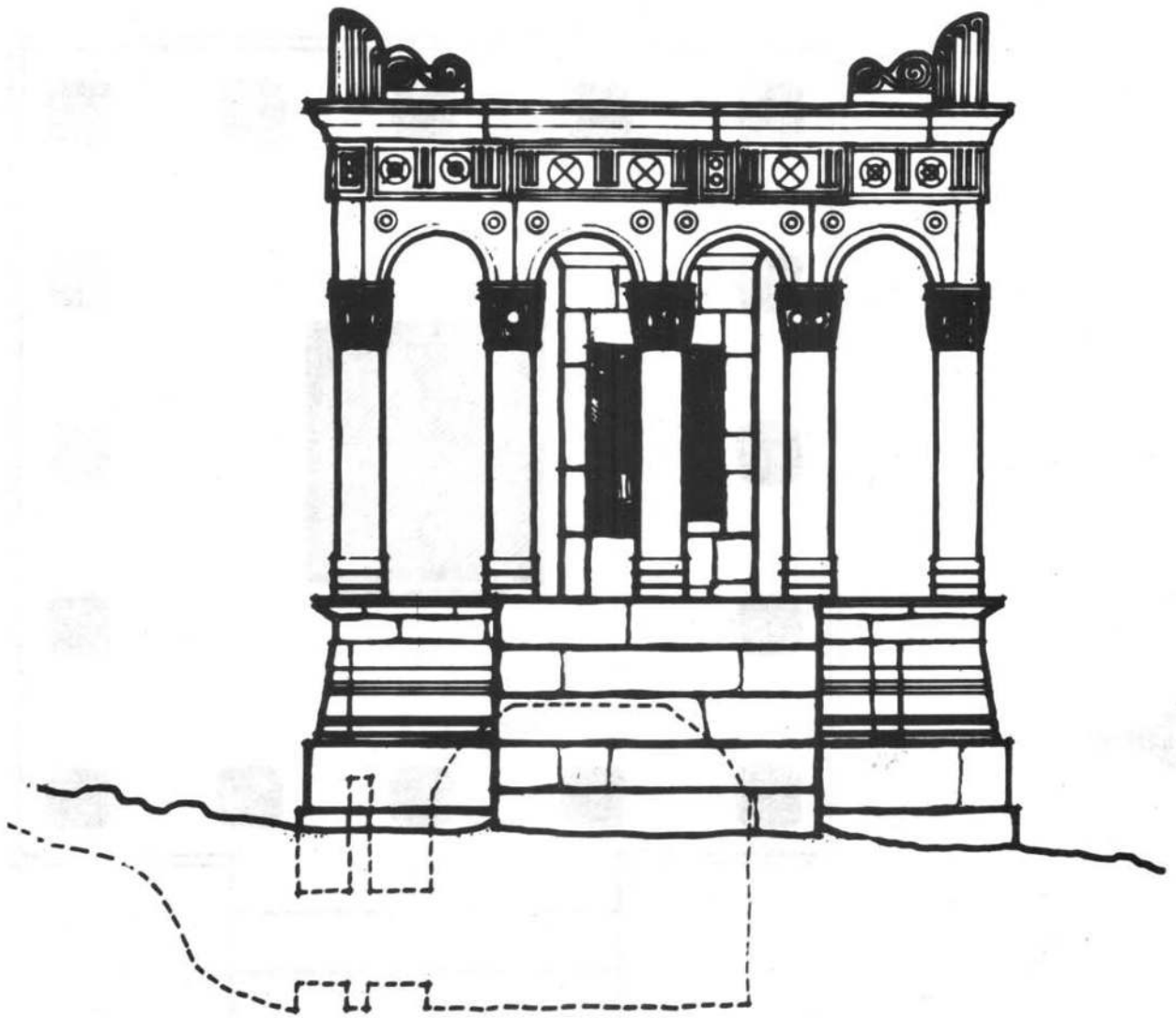
Fig. 53. Tomb North F: plan of podium and funerary chamber. Drawn by J. Keelan.



5 METRES

RECONSTRUCTED PLAN OF  
TOMB . ' F ' . NORTH GROUP .

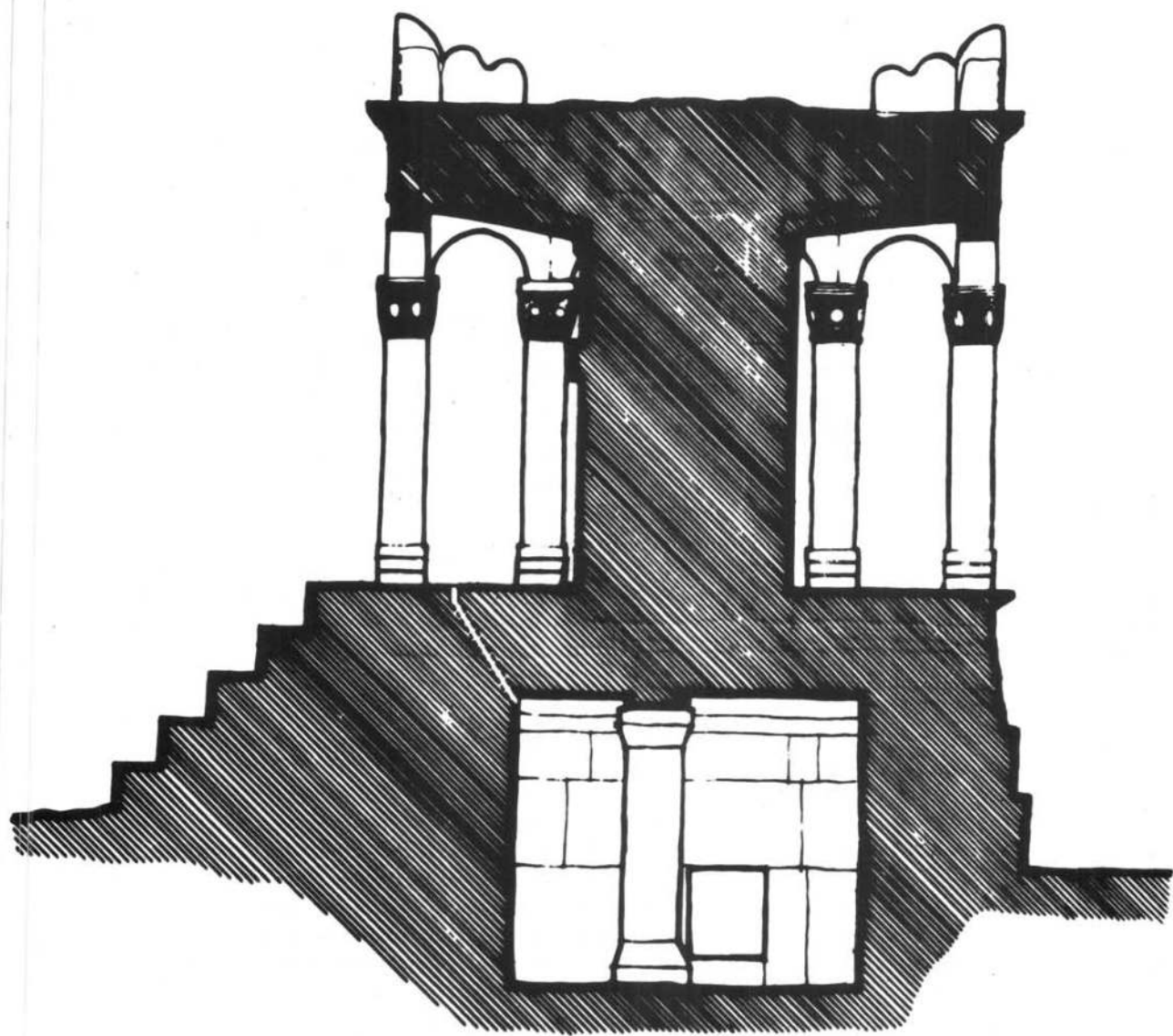




**RECONSTRUCTED EAST ELEVATION .  
TOMB . 'F' . NORTH GROUP . . . .**

**CENTIMETRES-100 50 0 4**

Fig. 54. Tomb North F: section and east elevation reconstructed. Drawn by J. Keelan.



RECONSTRUCTED CROSS-SECTION  
TOMB 'F'. NORTH GROUP . . .

2 3 4 5 METRES

(vii) TOMBS NORTH G AND SOUTH B figs. 55, 56, Pls. 94, 95

These two tombs are so different from the others, but are so similar to one another, that they can best be considered together.

*Tomb North G* (fig. 55)

A short distance to the north-east of Tomb North C and south-east of Tomb B there was a low heap of fallen stones. A photograph taken of this many years ago by an Italian officer (Pl. 94) and now in the collection of the Department of Antiquities shows the remains of a facing-wall of large dressed stones on the northern and eastern sides of the heap, but only a few of these stones remained in place when the tomb was investigated by Dr. Vergara in 1955. On clearance a rectangular structure about 3m. × 5.80m., with walls still standing about 50cm. above ground was found. The wall on the south was of small trimmed blocks, like those of the *gaur*, and was 52cm. thick. The inside of the walls throughout was of the same small blocks and was carried down a further 1.75m. to the rock floor of the two chambers.

What we have is, in effect, a tomb chamber at the normal level, its lower part cut into the rock, its upper part within the structure of the building above as in the case of tombs A - F. What stood above is obscure. The wall along the south side is of the small masonry throughout and within and outside the entrance bears remains of 'cistern' plaster. There was no provision for a door.

The eastern, outer chamber is entered by an opening 50cm. wide through the south wall. From this there is a step of 0.70m. down into a vestibule measuring 1.50 (east-west) by 2.08m. On its east side is a stone shelf or seat, 0.20m. wide, with a shallow recess behind it. In its west wall is the entrance to the tomb chamber (ht. 0.51m., width 0.40m.) at floor level. It has no place for a normal blocking-stone sliding into place from above. The floor of the entry has a slight groove and it is probable that a large stone was placed in position here and left standing at this point.

The funerary chamber differs from those of the other tombs of the group by being walled with small rough masonry instead of the large ashlar blocks normally found. Its walls are, in their present condition, 2.15m. high, and the chamber measures 2.06 × 2.11m. On its east wall, 1.39m. above the ground, a bracket projects in which two grooves are carved, recalling the brackets at the end of the libation ducts in Tombs B, C and E, especially the last, but there was no channel through the wall behind the bracket. It seems possible that this was a re-used stone put into the tomb as a shelf on which offerings could be left at the time of the burial. The east face of the east wall contains one or two larger, dressed stones, and there is another dressed stone in the wall of the vestibule above the bench.

There was found in the tomb chamber a quern of unusual type, made in three parts (Pl. 95c).

Apart from the few dressed stones of the outer walls already mentioned there are no indications of how the exterior was constructed. There is one piece of an arch-head which was found near at hand and which does not fit any of the other tombs, being exceptionally thick and squat, but it seems improbable that Tomb G could have been one of the regular arched type of tomb and have left no trace of its superstructure.

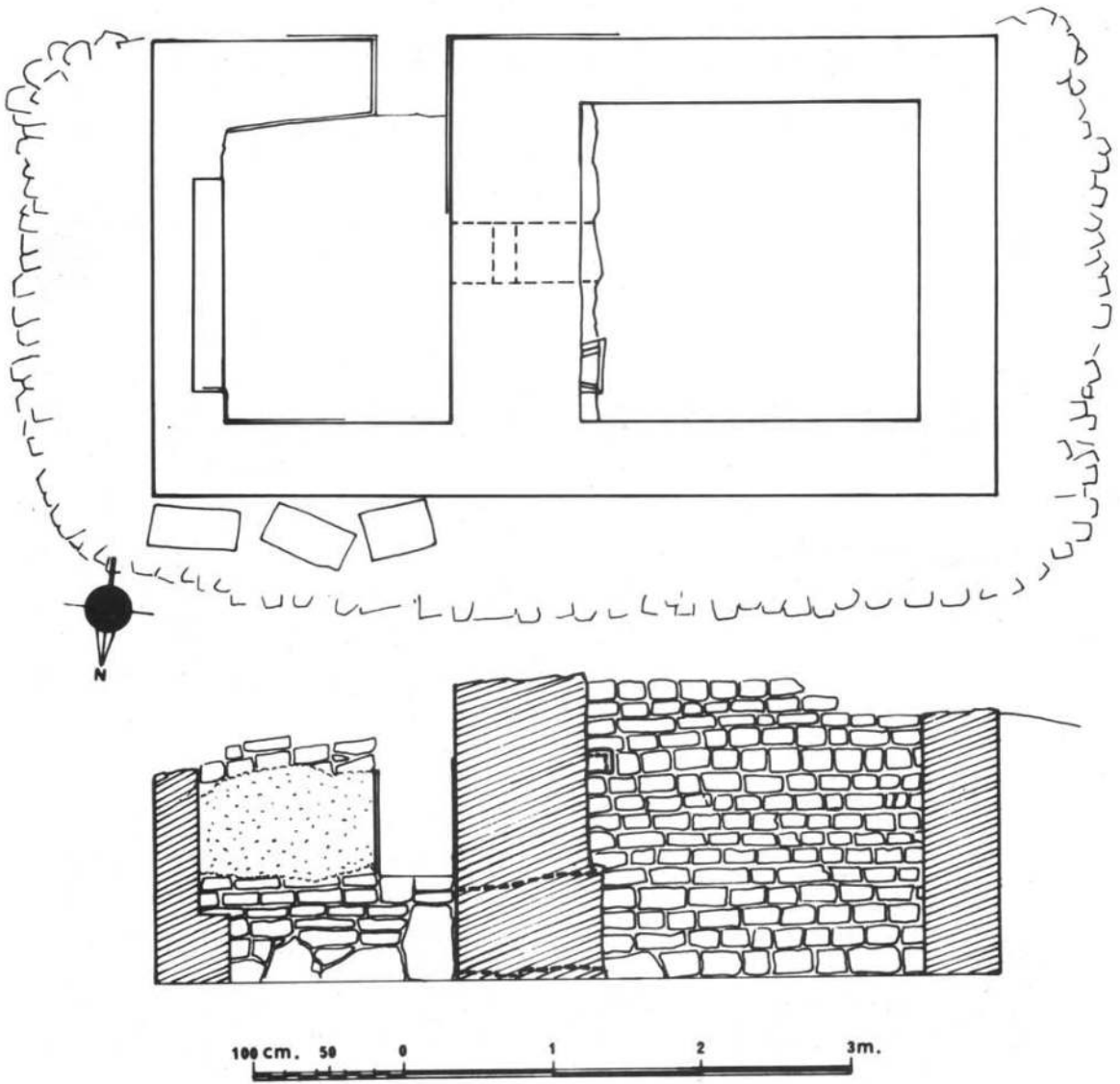
*Tomb South B* (fig. 56)

Between Tomb South A and the other tombs, but a little to the west side, we observed a low heap of stones like that which covered Tomb G in the northern group, and this also was cleared in 1955, revealing the lower part of a tomb having a good deal in common with North G.

On the south side there is a ground-level entrance to a sunken vestibule (1.50 × 1.10m., floor 0.70m. below entrance). This is narrower than that of North G, but its bench or shelf of masonry on the right is wider (0.80m). The 'bench' consists of two stones, the larger of which is a rejected, unfinished arch-head, with the incision for the arch itself only partly cut through. Opposite the 'bench' is the doorway to the sepulchral chamber, finely built of large blocks of masonry and thus very different from the corresponding doorway of North G. There is a very large lintel (1.05 × 0.61 × 0.45m.) supported by two monolithic jambs and masking the slot down which the blocking-stone slid into position. The blocking-stone is still in place, for the tomb was demolished from above. The tomb chamber (1.83 × 1.13m.) is built like that of North G, of small roughly-squared blocks of stone, like the walls of the *gaur*. No signs of roofing-slabs or of any superstructure were observed. The walls of the chamber survive to 50 or 60 centimetres above ground level, and parts of an external facing of 'cistern' plaster, like that of North G, remain here and there. A few pieces of small columns and capitals in the cemetery may conceivably have belonged to this tomb.

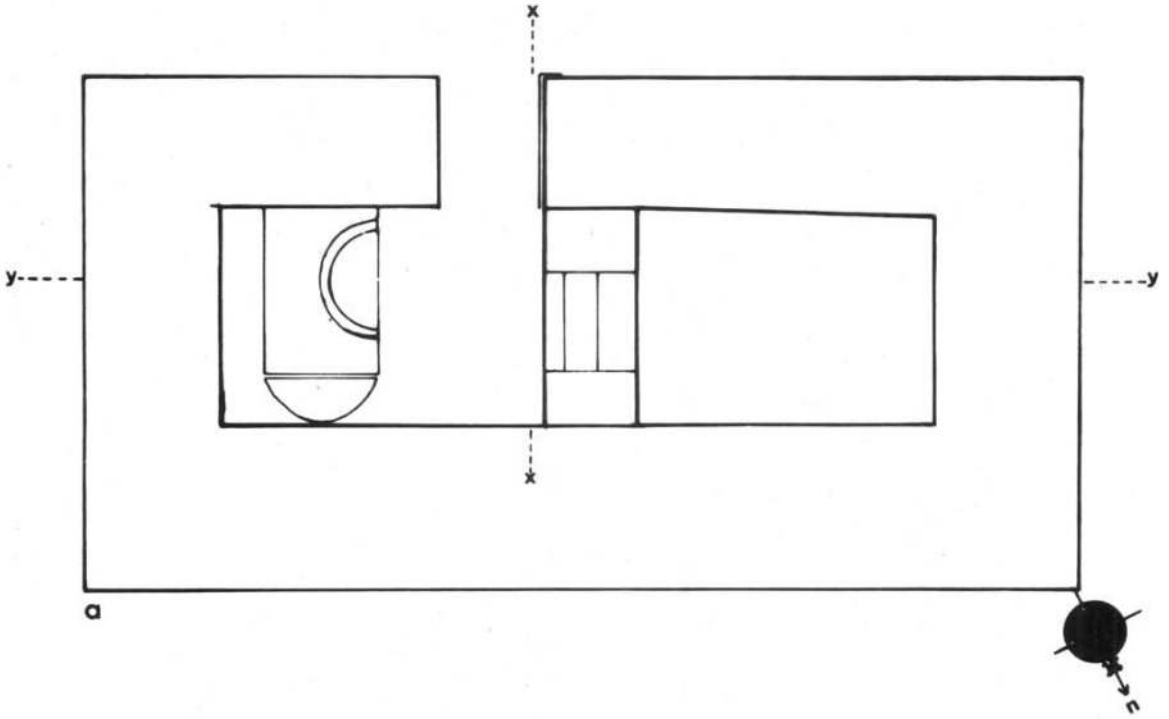
These two tombs are a puzzle. Judging by the mounds of fallen stones covering them they must have been fairly substantial and it may be guessed that they were simply rectangular structures in the *gaur* masonry, with a coating of 'cistern' plaster, and were thus nearer to some of the medieval and modern holy mens' tombs than to the Roman mausolea.<sup>1</sup> The construction with a vestibule or shaft off which the inner, funerary, chamber leads is common in Punic tombs, but this is not perhaps relevant since these tombs appear to be late in the series. The use of the roughed-out arch-head as a bench in South B must be posterior to, if not contemporary with the arch-head tombs. The use of *gaur* masonry and not the fine cut masonry for the general structure shows that the

builders had not the resources in money or skill available to the builders of the neighbouring tombs. The poor entrance of the North G chamber is palpably inferior to the entrances of all the other tombs, South B included. With the double chambers, however, the plans of these two are larger than those of most of the other tombs.



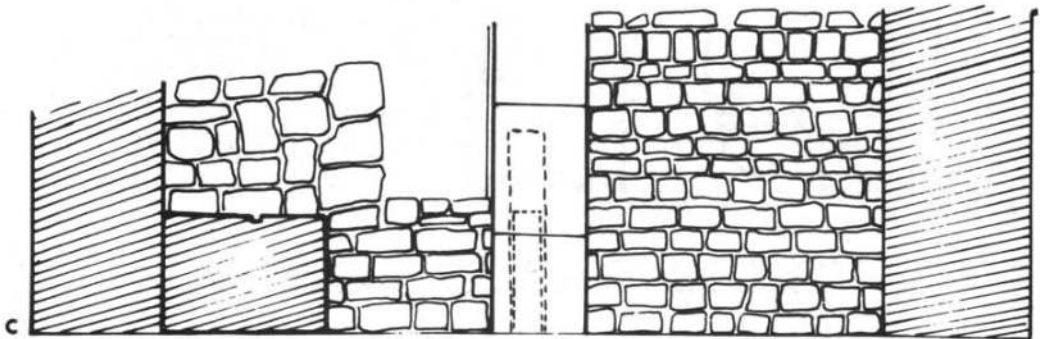
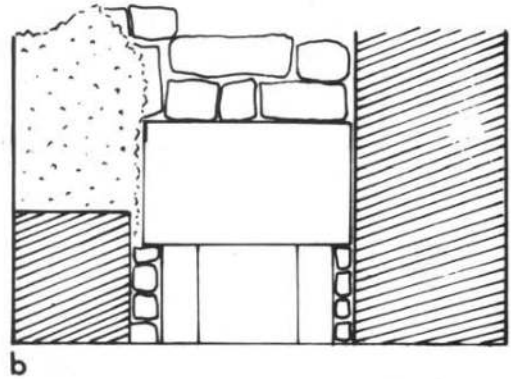
## TOMB NORTH G

Fig. 55. Tomb North G: plan and section.



## TOMB SOUTH B

- a. plan
- b. section x - x
- c. section y - y



cm. 100 50 0 1 2 3 m.

Fig. 56. Tomb South B: plan and sections.

**(viii) STONES AND INSCRIPTIONS IN THE NORTH TOMB GROUP  
AND OF UNCERTAIN PROVENANCE**

On the hillside between ten and twenty metres east of Tomb G several dressed stones (Pl. 94b, c) were found:

1. Large truncated piece of pyramidal shape (ht. 37cm.) hollowed out at the top, the hollow being lined with very good grey mortar 3cm. thick.
2. Similar object (ht. 32m., base 66cm.), but hollowed out top and bottom and with a hole going right through.
3. Stone with projections top and bottom to fit into other stones.

These three stones recall those fallen from the apex of the obelisk tomb in the southern group, though the socket of No. 1 is too shallow for use on a high structure, unless it held something quite light and very securely cemented into place. There are no other fallen stones near at hand which could come from a large obelisk tomb, and no other tomb chamber or base which could have belonged to a typical obelisk tomb has so far been found. It is possible that the hollowed-out stones may have crowned a comparatively low tomb. One at Bu-Chemmasc (Pisida) with a cone crowning a low structure formed of three steps comes to mind.<sup>1</sup> The writer observed in 1960 a slotted stone like No. 2, and another stone with a projection to fit into the slot, lying together north of the road between Wadi Gan and Wadi Wif in the Gebel Garian. These are also presumably remains of a tomb, though there was no visible structure anywhere near them.

4. A piece of hollowed-out Corinthian capital.
5. Another unallotted stone is the arch-head mentioned above, p. 178.
6. A seated lion, with the head missing, which may have come from a tomb, was found in the wadi, near its confluence with the Shabet et-Tiswiyr.

Among the stones unaccounted for are the two inscriptions IRT 901 and 903, believed to have come from Ghirza.

7. IRT 901 is recorded in the CIL as having come from Ghirza and as being in Istanbul, where it cannot now be traced. It is incorrectly recorded in IRT as 'seen and described by Denham and Clapperton in 1824 at Ghirza'. IRT notes 'not seen' and records as in CIL VIII 10991:-

M MEM [O] RIAMV  
FELATHVAL  
ATH [?]BVCHN  
ASIFMVFEL  
LVRVTHIABILINEMA

For a variant reading, with facsimile, see CIL III 744. The inscription is in Latino-Libyan and contains the name 'Nasif', which also appears in the inscription of Tomb North A. See also p. 262, no. 9.

8. IRT 903 is the fourth transcribed by Denham in 1825, beside one of the monumental tombs, presumably of the North group (since Denham nowhere mentions the South group). Dimensions not given. It is unintelligible, and was taken to Istanbul where it is now lost. IRT (CIL VIII 22663) notes 'not seen' and reproduces Denham's drawing as below. See also pp. 166, 262, no. 7.

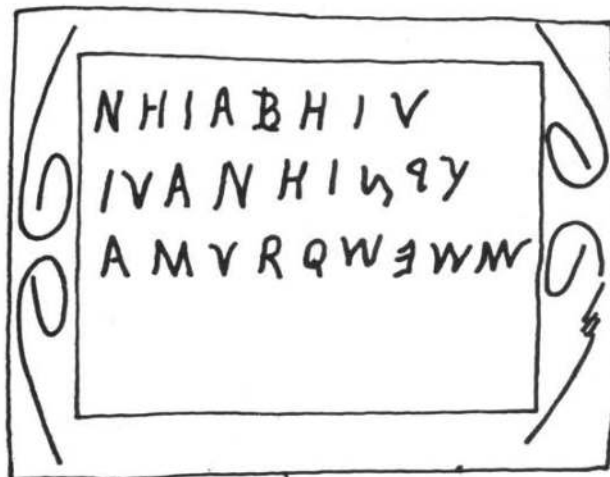


Fig. 57. Inscription recorded by Denham.

9. Lastly, there is the Latin funerary inscription described by Miss Reynolds as follows:<sup>2</sup> the upper part of a limestone column (diam. 0.34 at top × ht. 1.96m.) tapering slightly towards the top and terminating in an outward-curving flange; inscribed within a panel (0.30 × c. 1.82m.) defined by two lightly-incised lines, having an *ansa*, similarly defined at the top. The unfortunately incomplete inscription is in carefully cut, late capitals. It records the sacrifice of (? 51) bulls and (? 38) goats on the occasion of a celebration of the *parentalia* (p. 262).

It is in two pieces, the upper part having been found by Miss Reynolds in 1953 on the hillside east of Tomb North A and the lower part within the lower chamber of the same tomb. Its original position is unknown.<sup>3</sup>

	Seque[ns...]o[...].e[.]
	cis memorator M-
	[..]neorum est Mon-
	[.]san filius Voc-
5	lis omnibus par-
<i>sic</i>	rentibus pos[uit]
	quis et u[...c.7..]
	diem[...c.10..]
	uic[tor]iarum [s]u-
10	arum exhibuit
	sacrificia [p]arc-
	ntaliorum ta-
	uros n(umero) LI qu-
	inquaginta e[t]
15	[?unum] capros [n(umero)]
	[XX]XVIII tri[gi]-
	[nta o]et[o...]

## THE SOUTH GROUP

### (ix) TOMB SOUTH A:<sup>1</sup> figs. 58-60, Pls. 96-104

This fine obelisk tomb, the only one of its kind at Ghirza so far as is known, stood intact when seen by Italian officers in the nineteen-twenties but subsequently collapsed in an earth tremor.<sup>2</sup> Now only the lowest of its three storeys remains, but photographs taken in 1903 by Méhier de Mathuisieulx and some thirty years later by Colonel (then Lieutenant) Guido Bauer show how it appeared before it fell.<sup>3</sup> It is orientated north-north-east/south-south-west. This orientation is substantially that of all the tombs of the group and is thus different from the more closely north-south bearings of the tombs of the North Group. Tomb A, unlike the others in the group, was built throughout of large blocks of masonry without any rubble core. The fallen pieces almost all lie where they fell, and it would not be a very difficult or expensive task to re-erect the tomb.

In the description below, to avoid clumsiness, the sides of the tomb are referred to as 'north' or 'south' instead of north-north-east, south-south-west, etc.

#### (a) *The funerary chamber*<sup>4</sup>

The funerary chamber is deep and narrow and is entered from the north side through a doorway the top of which is 0.91m. below the moulding course of the base. Its ceiling is of flat slabs. The entrance was closed by the usual sliding stone, now gone, for which the grooves remain. A shallow libation-channel<sup>1</sup> (5cm. deep, 6cm. wide) (Pl. 102a) runs round the second offset below the moulding course, from the north side, round the corner and along the east side, where unfortunately the central stone, and thus part of the chamber wall, is missing, so that the further course of the channel could not be traced. It was probably here that it led into the chamber, the small size of which points to the practice of cremation.

#### (b) *The first storey*

A well-made moulding reposes on a base which has two offsets. Above the moulding are eight courses of masonry and then a frieze protected by a wide cornice. There are simple corner-pilasters with Corinthian capitals but no base-mouldings. In the north side is a false door, the best of those at Ghirza. It is divided into two long panels with inset rectangles, cleanly and firmly moulded round the edge, with rounded profiles. It has suffered a good deal of mutilation, but the panel on the right side retains, slightly to the right of centre, a lion-headed knob from which a stone ring, the door-knocker, hangs. The door stands on a threshold that juts out 15

cm. in front of the wall. The jambs also project slightly. The lintel is a finely-moulded undecorated cornice.

*Capitals of the corner-pilasters.* The north-west capital has a single tier of acanthus leaves, with volutes and helices springing from fluted cauliculi. The other capitals have two tiers of leaves and the place of the helices and rosettes, with one exception (5 below) is taken by small busts or heads. These are included in the great work of Dr. von Mercklin on figured capitals,<sup>6</sup> but as they have since been more fully photographed we give a full description of them here. They are the most varied in the Ghirza series, and their position is indicated on the accompanying diagram (fig. 58):

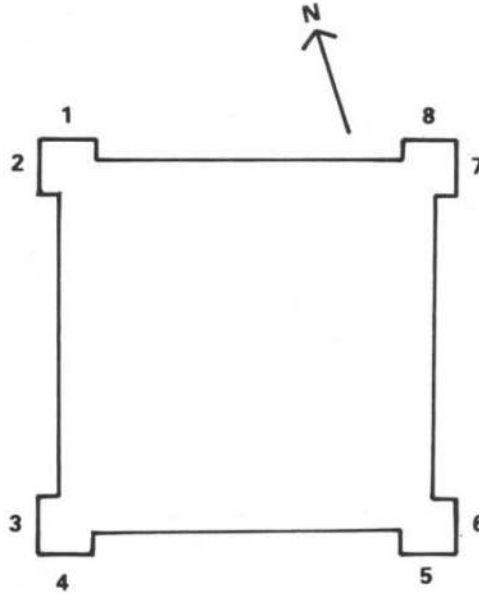


Fig. 58. Tomb South A: plan of the corner-pilasters.

- 1, 2. The bosses of this capital have been destroyed; no. 1 may have been a head; no. 2 was almost certainly a rosette.
3. A small male bust. The face is carved with a good deal of skill. It has a triple row of curls above the brow, the eyebrows are curved and heavily cut to cast an effective shadow; the eyes even give some impression of modelling. There are a small nose and a small mouth, and below the mouth a roughly scored beard. The body is clad in a tunic and seems to lean against the volutes which rise up behind the shoulders. The arms are hidden by the acanthus leaves on either side. There are no helices.
4. A larger head than 3. The eyes are large and outlined by two parallel lines forming pointed ovals. The head is covered by a wreath or cap, below which wavy hair protrudes. The lower part of the face is damaged but it is possible that the figure is intended to be a female as the folds in its garment may indicate breasts. The garment has a pronounced edging round the neck. The left arm wears a long, full sleeve and is bent upwards at the elbow; the hand shows clearly and is holding a circular object, probably a wreath. The right arm is hidden behind the acanthus, but the shoulder is in front of the volute which has possibly a roughly-indicated cauliculus. No helices.
5. This side of the pilaster has cauliculi, helices and volutes, with a neat central rosette.
6. Female figure leaning out above the acanthus leaves and in front of the volutes. The arms stretch widely out from the shoulders and rest on the edge of the leaves.<sup>7</sup> The top left of the head has gone. No helices.
7. Bizarre head resting on the upper part of the middle acanthus leaf; it seems to have its hair parted in the middle with locks of straight hair on either side, that is, if the carving has not been rubbed off in course of time. No helices.
8. Head above the middle acanthus leaf. The mouth gapes, probably because it has weathered. No helices.

The leaves on all these capitals are well-carved in the general style adopted for the tomb. Some of the thick median ribs are scored with grooves as noted on the engaged capital from the second storey (p. 184). The decoration on this tomb is ingenious and surprisingly competent the more one studies the details.



Frieze (ht. 0.46m.)

1. *North Side* (Pls. 97b, 99a)

There are two busts and two complete figures all with long pronounced noses and large eyes with deeply-scored outlines and with some attempt at indicating the pupils. They are carved in rounded relief, different from the angular edges of the frieze of Tomb South C, for example, but with less heavily-rounded forms than most of the figures on Tomb South E. Barbarous though the faces are, the draperies are carved with considerable delicacy and are better than those of any of the other tombs.

The figures, from left to right, are:

*Bust of a woman*, wearing a turban or swathed veil on her head.<sup>8</sup> Her garment, in several delicate folds, sweeps round her right shoulder and is gathered on the left shoulder from which another fold hangs down. The mouth is a small slit.

*Small figure*<sup>9</sup> The head, which is much too large for the body, has its hair in a fringe. The chin is damaged. The figure has a necklace and a long sleeved tunic reaching nearly to the ankles. The right hand holds what may be a purse or basket, the left a baton or curved stick.<sup>10</sup> One foot hangs lower than the other.

*Male bust* Not so well carved as the female above. The nostrils are strongly marked; there are two rows of tight curls round the head; a good deal of care seems to have been taken unsuccessfully to try to give the short, straggly beard a natural look. The folds of the garment pass over the left shoulder.

*Figure within frame* The figure on the right seems to be floating through the air and is marked off from the rest of the frieze by a kind of frame, curtain or garland. The face is beardless and the long hair is arranged in parallel waves on the top of the head recalling the busts of Tomb North A. The figure wears a long and flowing tunic with long sleeves; the folds are remarkably well executed for Ghirza. In its right hand it holds a wreath, in the left an object that might be a scroll. The head juts out beyond the edge. The legs and feet are mis-shapen and too small.

2. *West Side* (Pls. 97a, 99b)

In the left corner the head of the flying figure just described can be seen. Next to it is a small standing figure that wears an elaborately-folded cloak, has tight curls round the forehead and is clean-shaven. It holds in its right hand an object (basket or jar?), in its left hand perhaps a sickle. These small figures, like the flying figure, present a puzzle: are they members of the family, or could they represent the souls of the deceased going aloft?

The rest of the frieze on this side is carved on a single large stone which has a projecting flange with a scroll of leaves and spirals along the top. Below the flange are a female bust and two very large and beautiful rosettes; that on the right with an outer wreath of imbricated leaves not meeting at the top.<sup>11</sup> The rosettes of this tomb are far finer than those on any of the other tombs, in higher relief, and with more plasticity and under-cutting.

*Female bust* Prominent cheeks, the mouth a large crescent-like slit turned upwards. She wears a turban, necklace and a garment with numerous delicate folds.

3. *South Side* (Pl. 100c)

Four roundels under projecting bands of leaf scroll like that on the flange on the west side. Down the middle is a long vertical moulding dividing the roundels into pairs. The third from the left is hollowed slightly in the middle and is divided into eight segments so that it resembles a loaf of bread.<sup>12</sup> Each segment has one drill-hole. Superimposed on its right side, rather low down, is an ornament like a loop with its two ends at the top. The other three roundels, each different, are floral rosettes, with 8 + 8 + 8, 8 + 8 and 16 petals respectively.

4. *East Side* (Pl. 101a)

Four elaborate, deeply undercut floral rosettes, the first three below a row of four and a half small overhanging arched niches;<sup>13</sup> from the top of the rosette on the right there grows a loop (another arch?), the inner side of which is in cable-pattern, the outer side a tendril from which spirals turn right and left.

*Cornice*

The cornice above the frieze, like that of the lintel of the door, has more and better mouldings than the other Ghirza cornices, with a pronounced concave element in its upper part.

(c) *The second storey* (Pl. 101b)

Only the lowest course is complete; above this there remain three more stones in position on the west side and, at the north-west corner, the well moulded Attic base of the engaged three-quarter column. On the south side there are two stones *in situ*, while on the south-east corner the base of the column on the edge of the niche is preserved, again with a highly competent double moulding. The photographs show that there were free-standing columns on the east side framing a shallow flat niche, above which was an arch (Pl. 96a). This consisted of an arch-head of the usual type resting, not directly on the capital, but on two more stones. The sides of the stones were cut back and given an edging continuing that of the arch, which thus had a slightly elliptical appearance.<sup>14</sup> A fragment of the edging, consisting of two rebates, is preserved on one of the fallen stones. The spandrels of the arch were decorated at the top with two large rosettes, the left one with sixteen petals, the right

one star-shaped with five petals. On the left block below were the phallus and scorpion (Pl. 102c) found among the debris and immediately below them an eye.<sup>15</sup> On the right block were two smaller rosettes which show faintly in Bauer's photograph. The diameter of the columns beside the niche was 31cm.; the capitals were Corinthian (ht. 51cm.) with two rows of acanthus. The niche behind the columns was framed with narrow pilasters with anta-capitals one of which, lying by the tomb, is lightly attached to the edge of the large capital. The engaged columns in the rear also had Corinthian capitals with a single row of rather coarse leaves with thick midribs (Pl. 101c).

#### *Frieze*

Several pieces of beautiful spiral scrolls with petalled rosettes in their centres (ht. of stone 49cm.) must belong to the frieze of this storey. The first piece (0.75m. × 0.75m.) is a corner stone with scrolls on either side; the other pieces measure 0.74 × 0.62m. and 0.65m.; another stone has a large rosette with a scroll on the return (0.55 × 0.50m). The length of the frieze was about 6.00m. (each side 1.50m.), of which we thus have about 3.94m., and there are still other small fragments lying about (Pl. 102b).

#### *Niche and statues* (Pl. 103)

The niche faces approximately east. The width between the column-bases was 0.52m., between the shafts 0.74m., and there was space behind to take two narrow, flattened statues.<sup>16</sup> The torso of a female statue was found in the ground below this side of the tomb by Dr. Vergara-Caffarelli in 1955, after he had already found the head and feet near Tomb E in 1953.<sup>17</sup> The head wears a turban-like veil similar to those on the heads of the frieze and not dissimilar to the headdresses worn to-day by married women among the desert tribes. The head is unduly large in proportion to the body and is much damaged. The eyes are deeply hollowed out and it is possible that some substance was set in the sockets to make them more lifelike. The body is clad in a long robe, falling in deep folds, one of which hangs down over the right shoulder; under the robe are shown disproportionately small breasts. A second pair of feet was dug out near this body, and also the greater part of a second, male figure, which wears a plain tunic reaching to between the knees and ankles. Above the tunic is displayed a graceful cloak in heavy, deeply-cut folds, looped up to the left shoulder. Down the middle of the front hangs a band of material, finishing below the cloak but above the hem of the tunic.

#### (d) *The pyramid* (Pl. 104)

The top storey of the tomb was a slender pyramid eleven courses high, surmounted by a large Corinthian capital with its centre cut out to provide a socket into which was fitted the square-cut base projecting from a sculptured apical pine-cone. The capital, finer than any of those in either tomb-group, though nearest to those of Tomb South E, is deeply carved with two rows of boldly curling acanthus leaves and it has volutes and helices that spring from plain much-reduced cauliculi. It was pinned in place by a stone projecting from the course below, cut to fit the lower part of the cavity in the capital.

#### (e) *The question of date* (Pl. 104d)

There are a number of obelisk tombs in Tripolitania (p. 207) some of which probably date from the second century A.D. at latest. The rich and abundant ornamentation of Tomb A, of a high standard, and the style of the capitals, especially the one at the apex of the pyramid (related to the Severan style at Lepcis), combine to suggest that the tomb comes late in the obelisk series, perhaps, like Tomb B in the Wadi el-Ageram, towards the middle of the third century. The quality of the construction is high, and the cornices are particularly fine, as are the mouldings and the bases of the engaged columns of the second storey. They are definitely finer than the work on North A and incline us to reckon South A as the earliest of the Ghirza monumental tombs.

For Tomb South B see above, p. 178

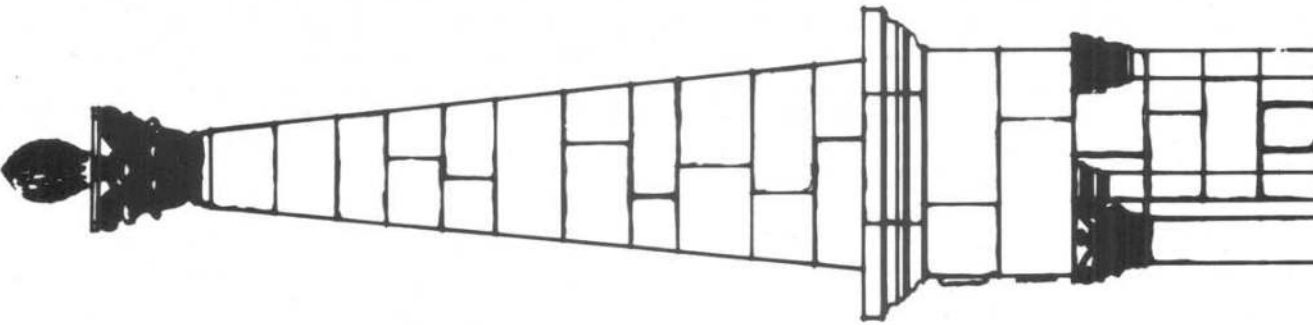
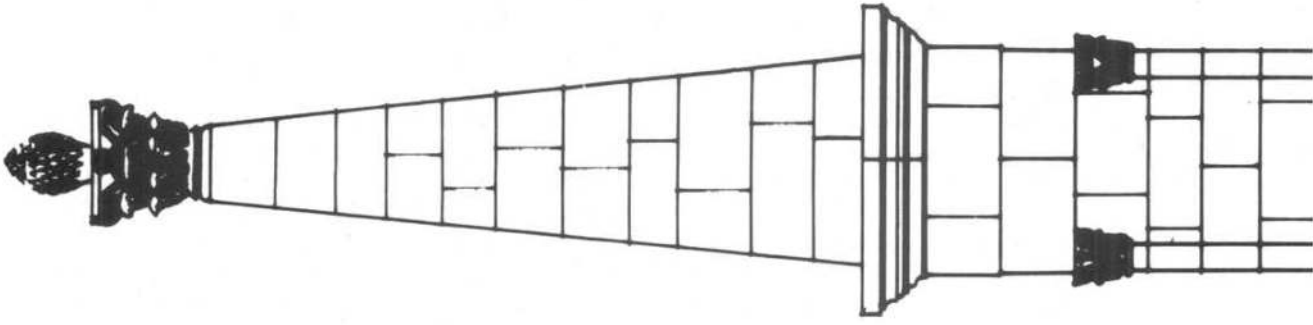
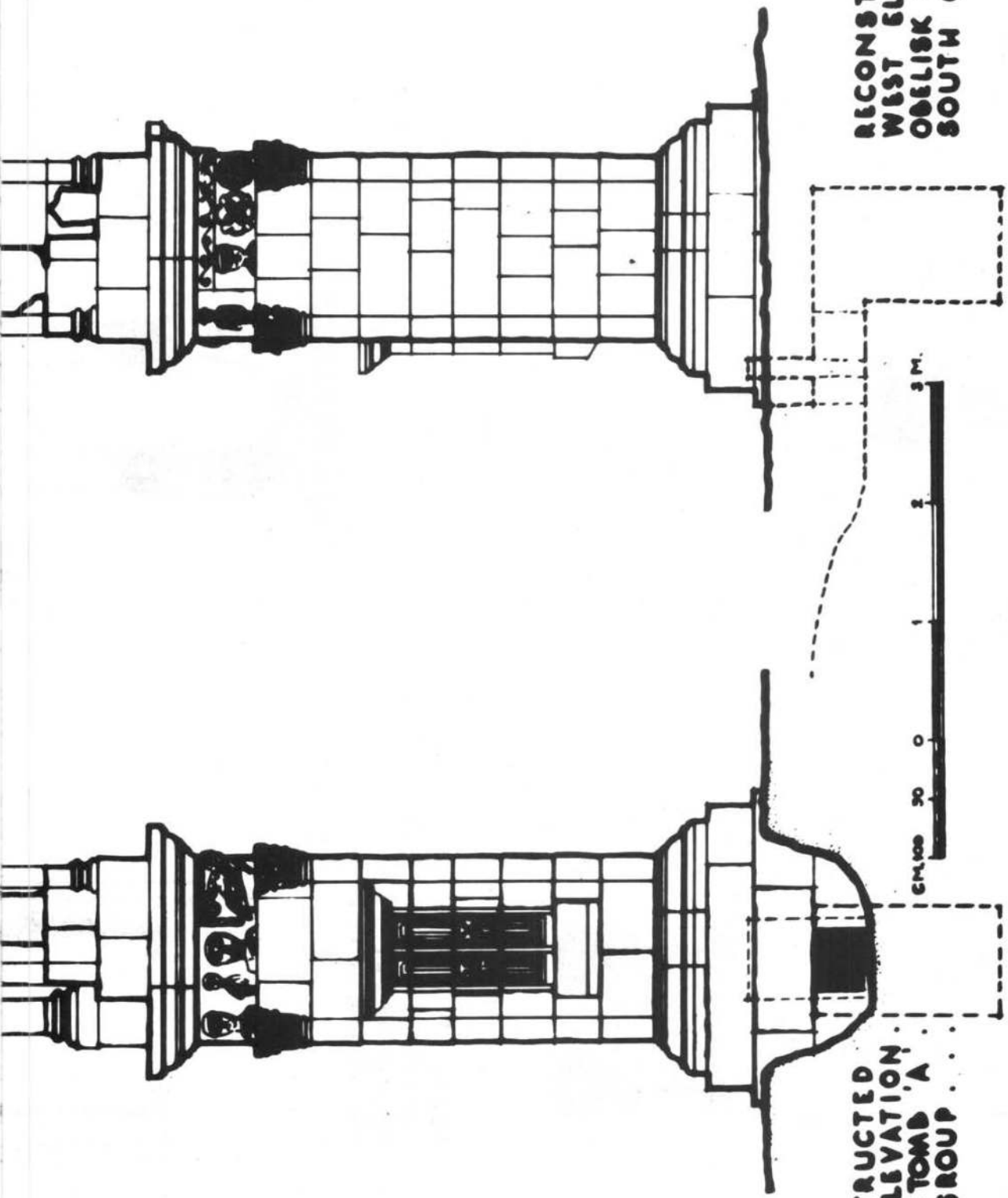
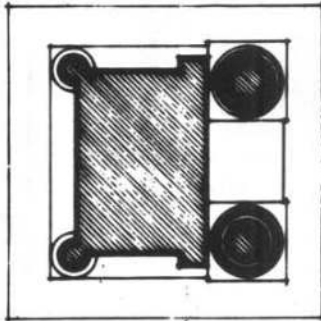
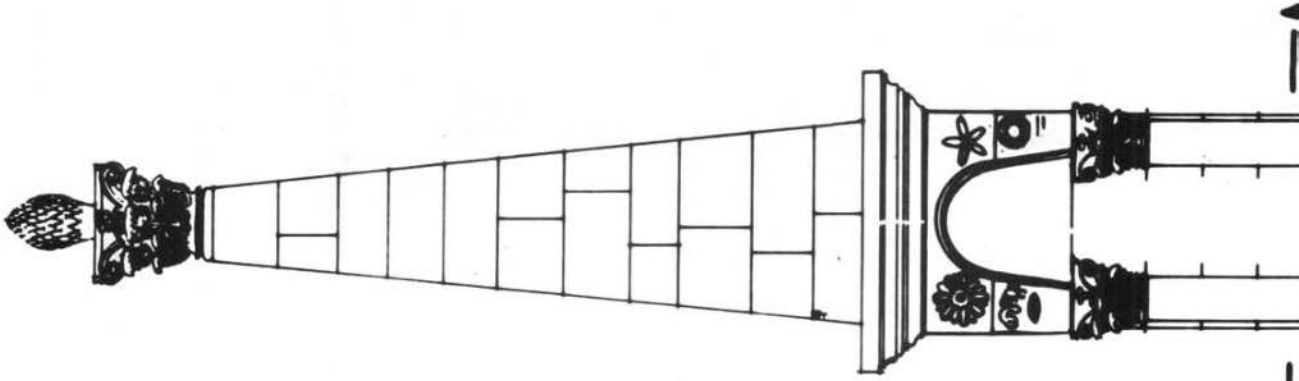


Fig. 59. Tomb South A: north and west elevations. Drawn by J. Keelan.



RECONSTRUCTED  
WEST ELEVATION.  
OBELISK - TOMB 'A'.  
SOUTH GROUP. . . .

RECONSTRUCTED  
NORTH ELEVATION.  
OBELISK - TOMB 'A'.  
SOUTH GROUP. . . .



PLAN AT A - A.  
 OBELISK TOMB 'A'.  
 SOUTH GROUP.  
 RECONSTRUCTED.

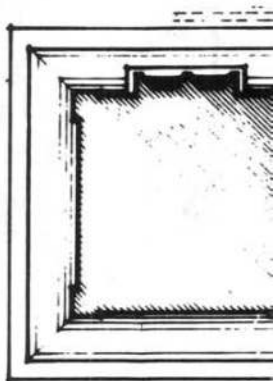
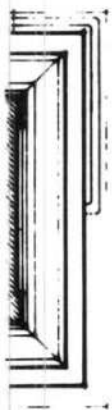
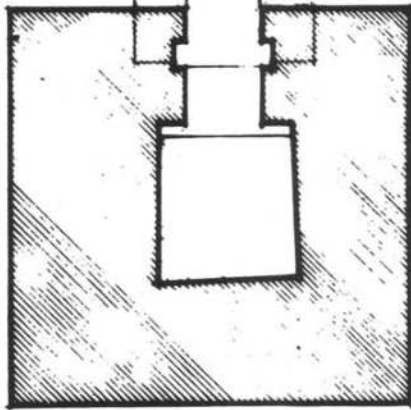


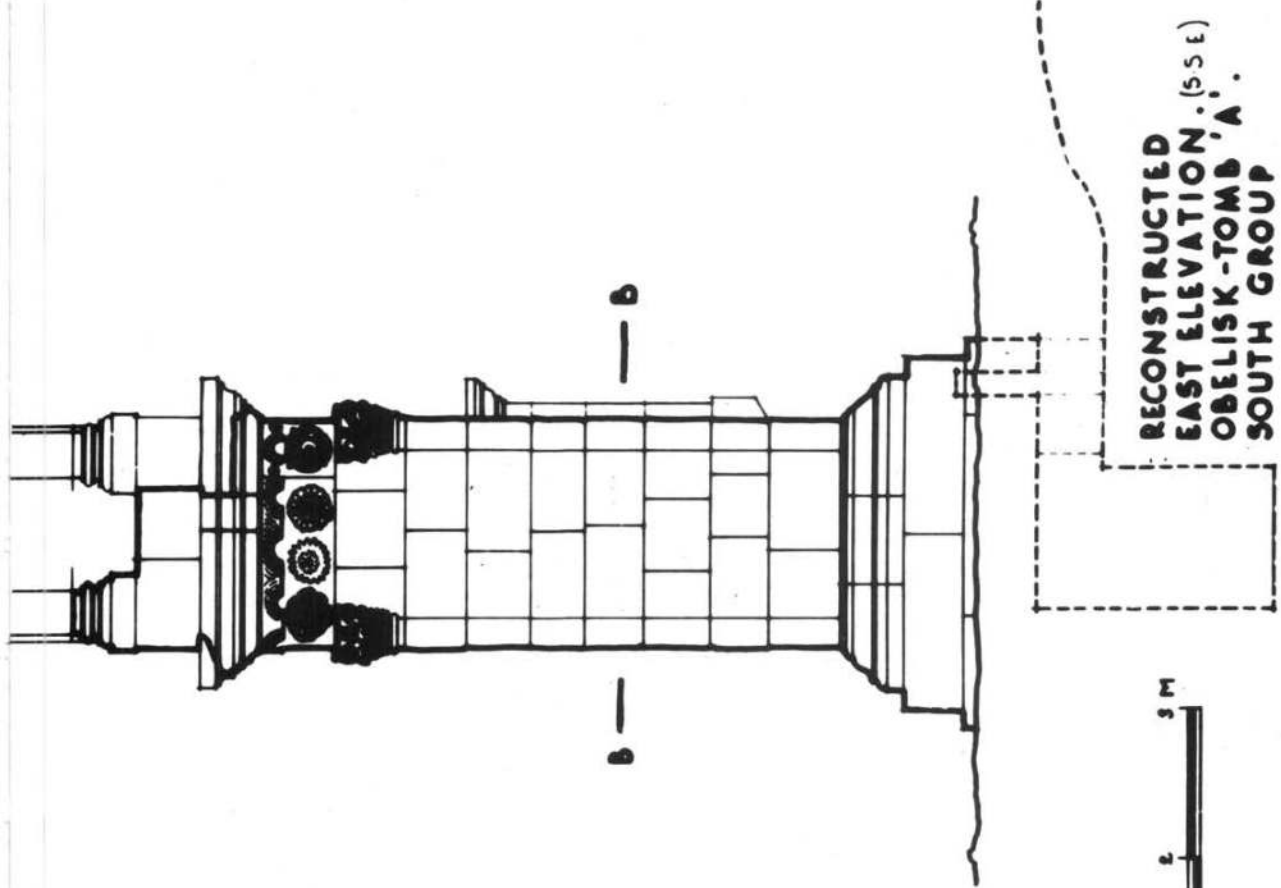
Fig. 60. Tomb South A: east elevation and plans. Drawn by J. Keelan.



PLAN AT B - B  
 OBELISK TOMB 'A'  
 SOUTH GROUP  
 EXISTING . . . . .



PLAN OF TOMB CHAMBER  
 OBELISK-TOMB 'A', SOUTH  
 GROUP . EXISTING . . . . .



RECONSTRUCTED  
 EAST ELEVATION . (SSE)  
 OBELISK-TOMB 'A'  
 SOUTH GROUP



(x) TOMB SOUTH C:<sup>1</sup> fig. 61, Pls. 105-110

A temple - or aedicula-type tomb, with three columns a side, supporting two arches, above which came in turn the usual frieze, cornice, and sima of double spirals and corner palmettes. The plinth has base-mouldings but no cornice.<sup>2</sup> This tomb was almost intact when visited by Bauer and its south-east and south-west sides are shown in his photographs, from which it can also be seen that the middle column on the north-east side and much of the north-west side had already fallen.<sup>3</sup> The central pier stood on a small plinth of its own, with a base moulding, and it had its own cornice. The whole of the upper part of the tomb has since collapsed on to or around the plinth, which appears to have been rather shoddily made and not properly bedded on the rock; nevertheless it stood for about fifteen hundred years.

(a) *The funerary chamber*<sup>4</sup> (Pl. 106)

The entrance is on the north-east side. The chamber has a square central pillar supporting a flat ceiling. There are niches 0.66 high at the northern ends of the sides, 0.54 above floor level. There is a libation channel like that of Tomb South A (p. 182) on the offset below the moulding course. It starts near the middle of the south-east side, at a point where the moulding has been cut back to allow the libations to be poured in conveniently, and it continues round to the north-east side where it leads into the chamber at its east corner, at the junction of roof and wall.

(b) *The columns*<sup>5</sup> (Pl. 107)

The shafts of the eight columns (1.35 × 0.24m.) and seven of the bases are accounted for, also the eight capitals (ht. 0.46m.). They are well cut, Corinthian with four acanthus leaves which turn well over at the top. The leaves are thick and deep-cut. There is a pronounced vertical rib (a central cauliculus) cut into segments running up the middle of each side. The volutes rise from the sides of this leaf and are heavy and pulled out at the centre. The bosses are large and are generally rosettes, but may be a head or other ornament. A large head, probably female, with well-marked eyes, eyebrows and nose, a curious small ridged mouth and flat nearly semi-circular ears, probably belongs to a capital of this tomb. The mouth and ears are just like those of the busts of frieze stone no. 1. Another capital has a bunch of grapes carved on a boss. The abacus has horizontal bands. An inscription in the Libyan alphabet was found inscribed on the shaft of the column on the east corner (p. 252); it is visible in Bauer's photograph, so was cut while the column was still *in situ*, but otherwise there is no indication of its date.

(c) *The arch-heads*<sup>6</sup>

The arch-heads are plain, except for a double bevel and cable-pattern round the curve of the arch. They vary in size on their outer sides, in order to fit the corners. They have rebates behind at the top.

(d) *The frieze*

1. *Busts*<sup>7</sup> (Pl. 108a)

(0.95m. × 0.52 × 0.14 + 0.06, depth of relief) Three busts, a bearded man in the centre, his wife on his left and presumably their daughter on his right. They all wear an under-tunic, plain with a round neck, and over this an upper garment in folds crossing over the breast, the upper folds coming over their left shoulders. The women wear necklaces and the mother's hair is gathered into a bun on the top of her head.<sup>8</sup> All have tight round curls, flat, protruding semi-circular ears, eyes deeply marked round the edge, with drill-holes to indicate the pupils. The mouths are small slits with ridges round them for the lips. This and stone no. 2 are assigned to this tomb because, as will be seen below, they are of the required dimensions. Also the fact that the stone with the busts lay on the surface when Bauer took his photograph suggests that it had fallen more recently than the buried stone with portraits which we assign to the long-collapsed Tomb D.

2. *Confronted lions* (Pl. 108b)

(1.19 × 0.50 × 0.18m. + relief, 0.04m.) The beasts are evidently lions. The one on the left has a broad mane indicated by three lines of waves; the one on the right has a narrow mane, shown by one line of waves; the claws are marked and the tails are coiled over the body. There are lines to show part of the manes falling over the foreheads. The eyes are incised round the edge and have drill-holes to show the pupils. The mouths are open, showing upper and lower fangs. The ears are pointed. In the centre of the relief is an ox-head supported by an upraised foot of each beast; the stone has been broken through the forelegs of the right-hand beast. Their bodies are in profile, but the heads are frontal. These confronted, heraldic beasts are a marked feature of the South Tomb Group and do not occur in the North Group.

3. *Fish* (Pl. 109b)

(0.63 × 0.52 × 0.18m.) Group of eight fish round a rosette (p. 218). At the top one swims *l.*; five of them

appear to be nibbling at the rosette; at *r.* and *l.* of the panel two fish swim upwards, their bellies *r.* The fish are well carved in the flat angular method used on this frieze, and have side and tail fins, eyes and a semi-circular line to show the edge of the head. The rosette has four segments and a central boss.

4. *Peacock and phallus* (Pl. 109a)

(0.56 × 0.52 × 0.13m.) Top right, *phallus*; across the centre of the stone are two spirals of a scroll, with eight-petalled rosettes at their centre and four leaves springing from their outer curves. Below the scroll a peacock, *l.*, turns its head upward towards one of the leaves above. Its crest, feathers and claws are carefully shown (though the claws do not look particularly like a bird's) even including the feathers on its neck and legs.

5. *Agricultural scene* (Pl. 110a)

(1.37 × 0.52 × 0.18m.) Top left: man in short pleated tunic with basket on his left arm; he scatters seed with his right hand; another man in a similar tunic ploughing *r.*, with camel with upturned tail; this man faces front waving a stick in his *l.* hand; horse and plough, *l.*; no ploughman.

Bottom left: man ploughing *r.*, with camel with its tail upturned; donkey or horse ploughing *l.*, man facing front with upraised left arm; he wears a long pleated tunic with a thick belt; another man in a belted tunic bends *l.* over a leafy bush which he seems to be chopping down.

6. *Caravan* (Pl. 110b)

(1.52m. × 0.52 × 0.15 + relief 0.03) On the left near the top a man carrying a pair of spears (or possibly a bowcase) in his left hand and, in his right hand, a stick with which he strikes a camel in front of him. This camel is the rear one of three roped together. The front one has a headstall from which a rope goes back over its hump to the headstall of the second camel, from which a similar rope runs to the third animal. The tail of the third camel is curled upwards like those of the camels in scene no. 5 above; the other camels on this stone have downturned tails. Above the string of camels is a single one led by a man carrying a spear in his left hand. In front of him a gazelle, or antelope runs *r.*

7 and 8. *Lattice-work*<sup>9</sup>

(each section 1.14m × 0.52 × 0.18).

*Reconstruction of Frieze*

Bauer's photographs show the east and west sides of the frieze and thus confirm the positions of stones 4, 5, and 8. Reasons for the assignment of stones 1 and 2 to Tomb C have already been given; the carving of stone 6 is so close to that of stone 5 that they seem to be a pair; stone 3, the fish, is of the dimensions required to fill the available space, and its workmanship and character seem to be appropriate.

The arrangement of the sides would therefore seem to be:

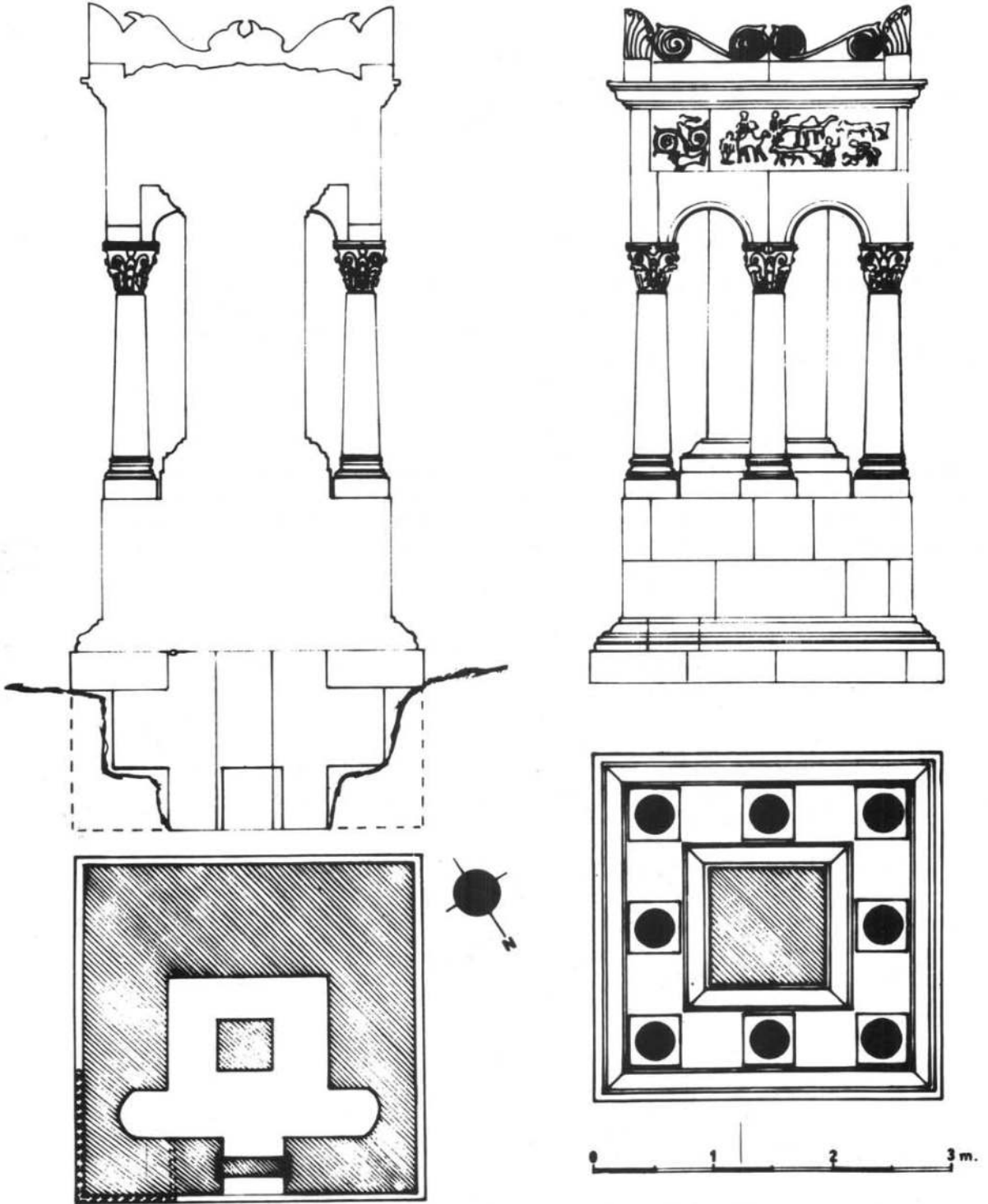
East:	1. Peacock and phallus	0.56
	2. Agricultural scene	1.37
	3. End of lattice-work slab	0.18
	4. End of stone on north-east side	0.18
		2.29m.
South:	Bauer's photograph shows four squares of lattice-work with plain stone-work between. One of the two slabs was found intact and one broken. The two together give a side of 2.28m.	
North:	It may be suggested that the busts and the heraldic creatures went on the side over the entrance to the tomb.	
	1. Busts	0.95
	2. Heraldic beasts	1.18
	3. End of stone	0.18
		2.31m.
West:	1. End of stone on south-west	0.18
	2. Caravan	1.52
	3. Fish	0.63
		2.33m.

The four sides of the frieze would thus fit nicely, with the very small error of 5 cm.



(c) *Roof ornaments*

The corners of the sima are decorated with wavy palmette-like scrolls, four or five on each side (ht. 42-45 cm., sides 23-26 cm.). They were set on plinth stones (see Bauer's photograph). Each side of the monument had two double spirals with a short leaf projecting from the top of each spiral. The spirals are well cut, with four twists in each. Six of these blocks are complete (0.97 × 0.43 m.) and parts of the two others were found.



**TOMB SOUTH C**

Fig. 61. Tomb South C: east elevation, plans, and section. Drawn by R. Tood and N. Wood.

(xi) TOMB SOUTH D:<sup>1</sup> fig. 62, Pls. 111, 112

This tomb, which was already a ruined stump when the site was visited by Bauer, evidently formed a pair with Tomb C, with three columns and two arches on each side, but was very slightly larger. Like C, it was rather shoddily built and not properly bedded in.

(a) *The funerary chamber*

The entrance was found under the north-east side, but the chamber had collapsed, and once the ceiling blocks had given way the loosened rubble from the core of the monument had fallen in and blocked the chamber. We decided not to attempt to clear it. The doorway was 50cm. wide, the blocking-stone 20cm. thick and the entrance passage 53cm. long. Seventy-two centimetres of a libation channel similar to that of Tomb C can be seen on the south-east side, on the offset below the moulding-course.

(b) *The columns*

(Ht. of capitals 0.44m.) About seven capitals have survived, though it is not possible to be quite sure that all of these belong to D and not to C. Like the capitals of C they have four acanthus leaves with a vestigial central leaf on each side forming a ridge cut into sections (cf. Pl. 107). The abacus, as in C, has parallel bands.

(c) *The arch-heads*

(c. 1.23 × 0.61 × 0.21m., span of arch, 0.81) All eight are accounted for. They are distinguished from those of Tomb C by their lack of the rebate cut in the back which is a feature of the latter tomb. They have cable-moulding round the arch and two have the additional ornament of large rosettes in each spandrel. These two perhaps belonged to the side over the entrance to the tomb chamber.

(d) *The frieze<sup>2</sup>*

(Ht. 0.52-0.53m.) Five stones found in the debris round the tomb probably belong to D, and it may be regarded as likely that the stones 1 and 2, the busts and confronted beasts, are to be assigned to the north-east side.

1. *Busts* (Pl. 111a)

(1.05 × 0.52 × 0.18m. + depth of relief 0.03) The busts of a man on the right and a woman on the left and, between them, a small figure with a horse. The busts are very like those thought to belong to Tomb C. The top of the man's head has been destroyed, but his ears, eyes with small holes for the pupils and well-marked eyebrows, his tightly-curved beard and small mouth can all be seen; unlike the man on C he has no moustache. There is a ridge round his neck, punched on the lower side by a row of triangular holes - to indicate the frill at the top of his garment, and he has the crossed draperies already noticed on Tomb C. The woman's head has been destroyed but she does not appear to have had a veil; her necklace, and her garments with plain neck and crossed bands, are preserved. The small figure likewise has lost its head. It wears a short pleated tunic ornamented between the shoulders by a row of triangular incisions. It has an extremely long, thin left arm and rather short fat legs. The right arm, now gone, was raised, probably to lead the horse which stands behind it. The horse, *l.*, is fairly well carved, compared with the other animals on this tomb, with a long tail and slender legs with a suggestion of the joints. There are roundels to right and left of the busts, that on the left made up of three concentric circles, that on the right being an eight-petalled floral rosette.

2. *Confronted beasts* (Pl. 111b)

(1.34 × 0.54<sup>2</sup> × 0.20m.) Crude lions, like those of C, with an ox-head between them. The beast on the left has a narrow mane, that on the right a broad mane. The stone is broken through the ox-head.

3. *Ostrich hunt<sup>3</sup>* (Pl. 111c)

(1.18 × 0.52 × 0.20m.) A very rough carving of an ostrich, *r.*, followed by two hounds and (disproportionately small) a man on horseback. The horse has its forelegs up in the air and is evidently going at full gallop; the ostrich strolls along. The man wears a pleated tunic and waves a weapon.

4. *Stag Hunt* (Pl. 112a)

(0.63 × 0.53 × 0.10m.) A naked man waves a club in his right hand while with his left he seizes a stag by an antler. The stag is running *r.* with its forelegs waving in the air, and is meeting a sharp-nosed hound coming *l.* in the same attitude. The man has a beard but, like the man of the bust, no moustache. His face and shoulders are frontal, his legs sideways. This stone is like a distant copy of the stag hunt on Tomb North B (p. 138).

5. *Tree* (Pl. 112b)

(1.50 × 0.52 × 0.16 plus 0.02 relief) Upper left, a man stands wearing a short pleated tunic. The main part of the stone is occupied by a tree with a thick trunk and wide-spreading branches with pinnate leaves. Its species

is not clear; its thick, split trunk tempts one to identify it as an olive-tree, but its leaves look more like those of the *talha* (acacia) of the wadis.<sup>4</sup> From the left a hound with pointed nose chases a curious-looking animal towards the tree; on the right another peculiar animal approaches with its forelegs in the air. Another follows this one and above it on the right is yet another, *r*. On the lower right-hand corner is a small man at right-angles to the rest of the scene, seemingly walking up towards the top of the stone, his left arm held above his head. Above him are two more male animals with short up-turned tails, standing on their hind legs facing one another, muzzles nearly touching. They look rather like two goats and the other animals may also be goats. The scene is perhaps intended to represent the flocks of the deceased with their shepherds in the wadi.

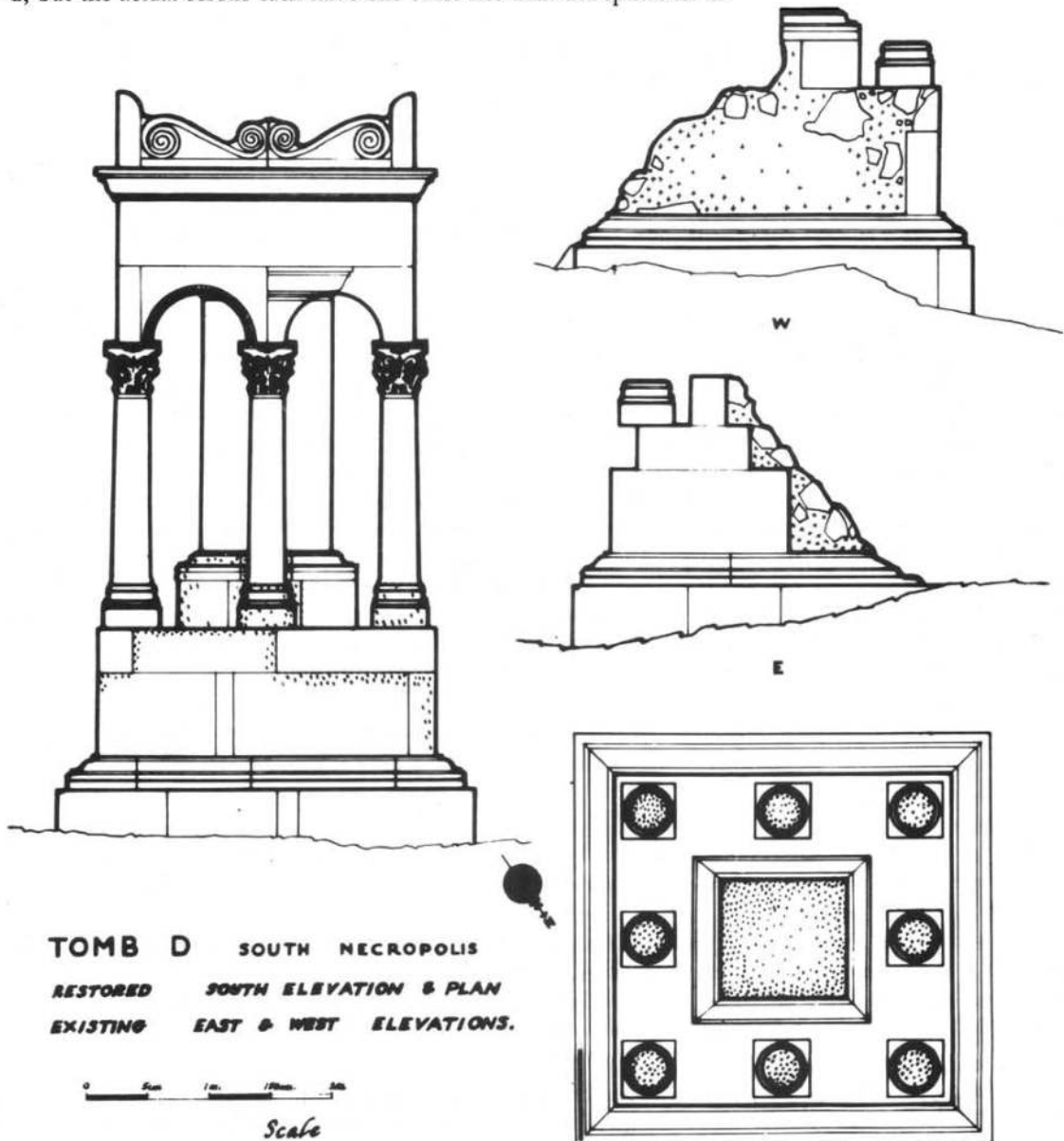
6. *Sphinx* (Pl. 112c)

(0.80m. + 0.52) A sphinx, *r*., with a fringe of hair around its neck. The head is frontal, the body sideways, the relief angular.

According to its technique and appearance (especially of its ears) this animal should belong to Tomb C or Tomb D. There is not room for it on C, unless our reconstruction is altogether wrong, so we are thrown back on D. One hesitates to allot the stone to D, as there is already a pair of heraldic beasts, and one would expect this beast to come from a kindred pair; but perhaps the proprietor of this tomb had a predilection for the mythological (witness the 'Hercules' of stone 4) and therefore had this sphinx carved on the frieze.

(e) *Roof ornaments*

The palmettes are higher than those of Tomb C, measuring 0.62 × 0.17m. They have a thick base which is part of the stone, whereas C had separate plinths. The double-spirals (c. 1.00 × 0.45) have projecting leaves, as in C, but the actual scrolls each have one twist less than the spirals of C.



## (xii) TOMB SOUTH E:<sup>1</sup> figs. 63,64, Pls. 113-119

The largest of the southern temple-tombs. It must have been one of the most regular and best built of all the Ghirza tombs and had three columns each side bearing two arches and a frieze but it had collapsed before the time of Bauer's visit.<sup>2</sup> The superstructure rested on a solidly built plinth with the usual rubble core. The plinth had a cornice, still in position on the south side, but instead of the usual base-moulding it had a simple, slightly-rounded offset.

### (a) *The funerary chamber*<sup>3</sup>

This is entered under the plinth from the east side. The entrance passageway is 1.24 metres long (0.73m. of this under the tomb wall) and 0.97m. high, and was originally blocked by a slab of stone let down in grooves.<sup>4</sup> The chamber, unlike those of the other southern tombs, but like those of Tombs North B and C, has a barrel vault running east - west, and is walled with large blocks of finely cut masonry between which a little mortar has been run. The total height of the chamber is 1.89m., and it is almost square in plan (1.60m.). The width of the doorway is 51cm. The size of the chamber is such that no body over 5ft. 6in. long could be laid in it - and this allows no space for any kind of coffin. It would indeed have been somewhat difficult to introduce a coffin into the tomb because of the narrowness of the opening and the steep step down to the entrance, and it seems easier to postulate for this, as for the other tombs, the practice of cremation. No libation duct was found.

### (b) *The central pier*

The 'cella' was a solid pier, with a false door which we assume to have stood on the north side, because the very heavy door was found fallen on this side of the plinth.

The door (Pl. 113a) (1.26 × 0.69 × 0.22m.) is divided into two panels, each of which is recessed with three offsets. The left-hand panel has in addition three parallel incised horizontal lines across its middle, and an incised panel above them. On the right-hand panel is a sculptured keyhole, in a lock set in with rivets.<sup>5</sup> From the lock protrudes a staple from which hangs a chain of which five rectangular links are still to be seen. A hole in the stone below the bottom of the chain marks, one is tempted to suppose, the place where there was once carved a key. No fragments of the lintel of the doorway have been found.

The 'cella' pier had corner-pilasters with Corinthian capitals with a simple flat acanthus. Three of these, one with a mask on it and another with a stylised palm in the place of a boss, were found intact, and pieces of the fourth. If our restoration is correct, this pier is the only one so decorated among the Ghirza tombs.

### (c) *The columns*

There are eight column bases, rather like those of Tomb North B, and seven well made Corinthian capitals, 0.48m. high. The capitals have two tiers of acanthus leaves and volutes and helices without cauliculi, the volutes resting on two more leaves. In the centre of each side is the normal small rosette. They constitute perhaps the best made series of capitals among our tombs (p. 210) (Pl. 114).

### (d) *The arch-heads* (Pl. 113b)

(1.12 × 0.62 × 0.26m.; ht. of arch 0.29, span, 0.67m.) These are fine solid stones with rounded mouldings framing the arch<sup>6</sup> and double, squared-off bands round the edges. There is normally a large roundel in each spandrel and a small one above the centre of the arch. Of the two large roundels, one is usually plain, one a floral rosette. The central roundel is usually a floral rosette, but three are masks, one of these a cat-head, the other two human, with short hair, pointed chin and downward-turning mouth. One arch-head has a wreath.

### (e) *The frieze*

(Ht. 0.52 - 0.56m.) The chiselling of the stone in long, shallow wavy lines,<sup>7</sup> and the heavy rounded moulding of the reliefs, which contrast with the much more angular carvings on the other tombs of the South group, helps the identification of the pieces of the frieze.

#### 1. *Busts*<sup>8</sup> (Pl. 115)

(0.72 × 0.53 × 0.19m.) On the right is a bust of a man wearing a pleated garment the folds of which are brought over his right shoulder. He has a tightly-curved beard and a moustache and his mouth is a down-turned semicircle. His hair also is tightly curled in regular waves. There is a double line round the eyes but the pupils are not indicated. The woman on the left side of the stone wears a garment like her husband's but with more numerous pleats, with the upper fold coming over her left shoulder. The column-like, rounded neck seems to be standard for all these busts. Her almond-shaped eyes have one deep groove round them and no ridge. No pupils are shown. Her mouth is a down-turned, semicircular slit. Her nose, like the man's, is a flattened wedge. She has

tight curls on the top of her head and a veil (?or two long tresses) flying out on either side. Between the heads is a wreath.

2, 2a. *Eagle and ostriches* (Pl. 116)

(0.75 × 0.52 × 0.36m.) Corner stone with spread eagle (2) on the longer side, ostrich and young on the shorter side. The feathers of the eagle's wings are shown by parallel lines, alternately incisions and ridges. Its body and legs, like those of the ostriches, are rounded. It carries an animal, perhaps a hare, in its claws (p. 217). The ostriches (2a) move left across the stone, the mother turning her head back, the young one running below her.

3. *Man and palm tree* (Pls. 117a, 118c)

(0.82 × 0.56 × 0.16m.) This stone is broken off on the right. A naked man with very rounded body and limbs faces front with outstretched arms. In his left hand is a long thick staff or spear, in his right he brandishes a club (?). His legs are shown in profile. On the left, below the man's arm, is a hound running up the stone; on the right is a palm tree with bunches of dates.

4. *Man*

(0.37 × 0.54 × c. 0.10m.) A much broken stone showing a naked man with a staff or spear in his left hand. His attitude is like that of the man in stone 3, but the object in his left hand is shorter than that on stone 3. Top of head, right hand, gone; round chin and cheeks.

5. *Man and lion* (Pl. 118a, b)

(0.50 × 0.54 × 0.19m.) (0.60 × 0.52 × 0.14m.) What were at first thought to be separate stones were afterwards found to go together,<sup>9</sup> their combined length being about ninety centimetres. The man, very crudely carved, has his head turned right and his left arm extended across his chest, so that both hands are grasping the spear on the left on which he leans. His legs are small and, unlike those of the men in the other stones, do not support him properly. A very large eye is incised on his face. The beast, with the same rounded body and limbs, is a lion in rather high relief. The very roughly carved face is frontal, like the faces of the lions of Tombs C and D, with open mouth and teeth showing. The eyes are shown by a single deep groove, and the pupils are not shown. The body is in profile, with the right foreleg thrust forward towards the man. The tail makes an upward curve above the back.

6, 7. *Horses* (Pl. 117b)

(0.57 × 0.53 × 0.21; cx. 0.75 × 0.56 × c. 0.18m.) Parts of two rather fine horses, both stones badly broken. Both are moving *r.*, with the left foreleg in the air, the right just leaving the ground. The first horse is broken across the middle; it has a long, thin, well cut tail. The second horse has lost its hindquarters. It has a bridle and traces of the hooves can be seen. The first had no rider, but there appears to have been a rider on the second.

8, 9. *Rosettes and fish* (Pl. 119a)

(0.35 × 0.52 × 0.18; 0.35 × 0.53 × 0.18m.) Two small blocks both broken along the top, each with a roundel and below the roundel, a fish. The fish have open mouths showing a semicircle of teeth; they have narrow dorsal ridges and their side and tail fins are well cut. One roundel is plain with a cable edging; the other has a plain centre and eleven petals round the edge.

The blocks have been found to join.<sup>10</sup>

10. *Rosettes*

(0.52 × 0.52 × 0.23m.) Corner stone with four roundels on the longer side, two large, two small, one of the large ones being plain, the other a four-petalled flower, the smaller ones being flowers. There are two roundels on the short side.

11. *Vine stems and rosettes*.

(0.70 × 0.52 × 0.26m.) Corner stone. The longer side, much defaced, has an angular zigzag stem along the top from which hang alternately bunches of grapes and leaves. Below are two small round objects (?masks) and two large rosettes, the one on the left with whorled petals, the one on the right with an edging of petals. The zigzag stem continues round the corner with two pendant bunches of grapes and, below them, two heads and what may be a dog.

12. *Vine stems and rosettes* (Pl. 119b)

(0.64 × 0.52 × 0.34m.) Corner stone. The long side has a zigzag stem with three leaves and two bunches of grapes hanging from it. Below in the centre is a small object which may be a mask and below that, on the left, a four-petalled rosette and, on the right, a plain roundel. The short end, to the left, has the stem with grapes and leaf, and, below that, a floral rosette like the one on the front of the stone.

13. *Vine stems and rosettes*

(0.79 × 0.53 × 0.18m.) Zigzag stem, three leaves alternating with two bunches of grapes; two plain shield-like roundels below.

Each side of the frieze must have measured c. 2.50m. The stones which we have, counting the returns of the four corner stones, add up to about 9.40m.; therefore only some sixty centimetres are missing.

(f) *Roof ornaments*

One pair only of the sima scrolls was found intact (1.40 × 0.43m.) and one of the corner palmettes. The scroll has projecting leaves like those of Tombs C and D; the palmette is a very high one, measuring 0.876m. in height × 0.25 × 0.22.

(g) *The question of date*

Tomb South E differs from the others in various respects. It, North A and perhaps South F, are the only ones of the large tombs in which no offering ducts have been discovered. The roundels of South E resemble some of those of North A. The figures of the frieze are naked, as are many of those of North B; they are large and very crude, but there is some attempt at modelling the limbs. Again as in North B, the ornamentation is relatively sparse and there are plain undecorated bands round the opening of the arches. The capitals look earlier than those of North B, so it may be guessed that South E precedes North B and is thus the first of the arcaded temple tombs to be built at Ghirza, early in the fourth century.

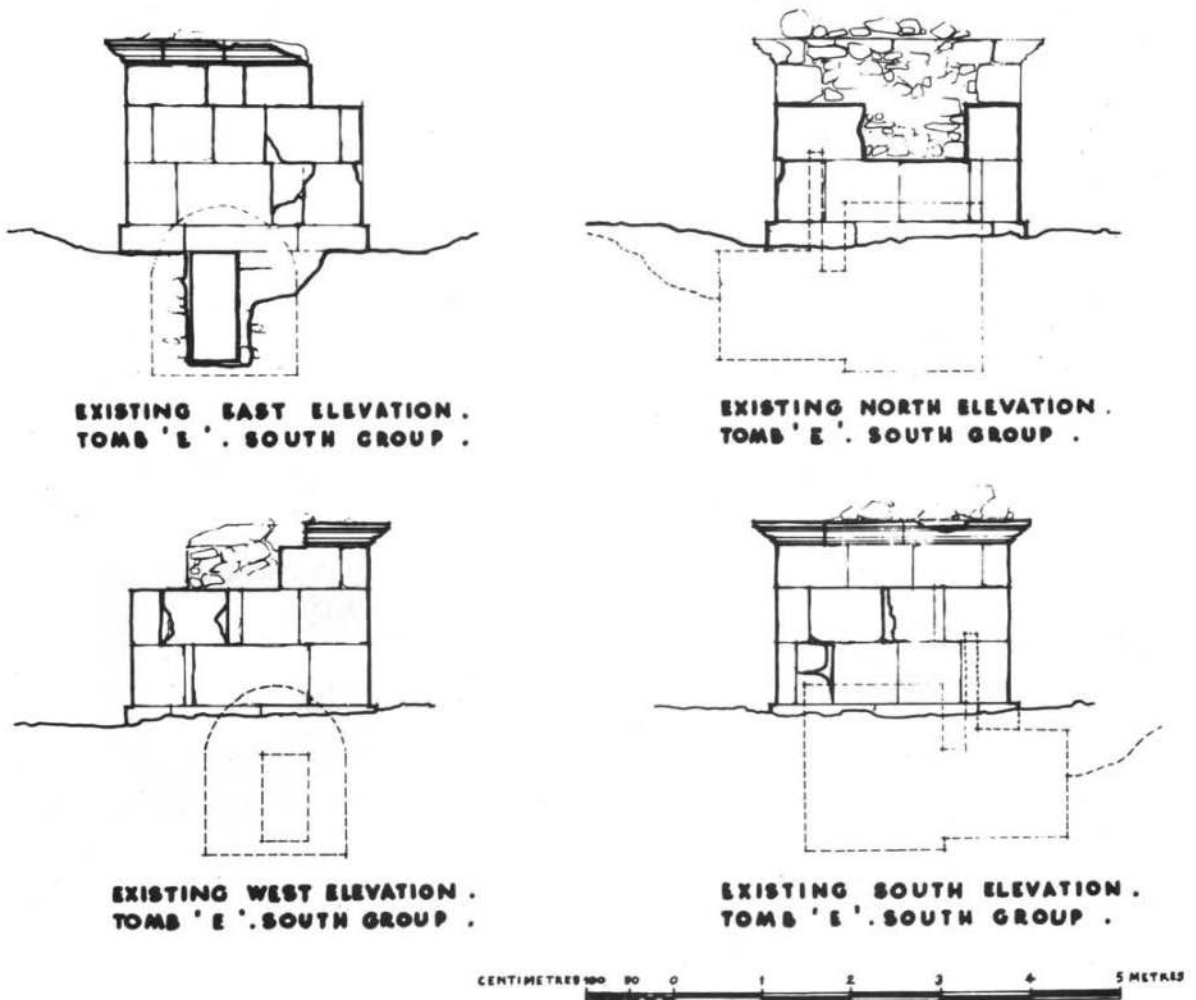


Fig. 63. Tomb South E: elevations. Drawn by J. Keelan.

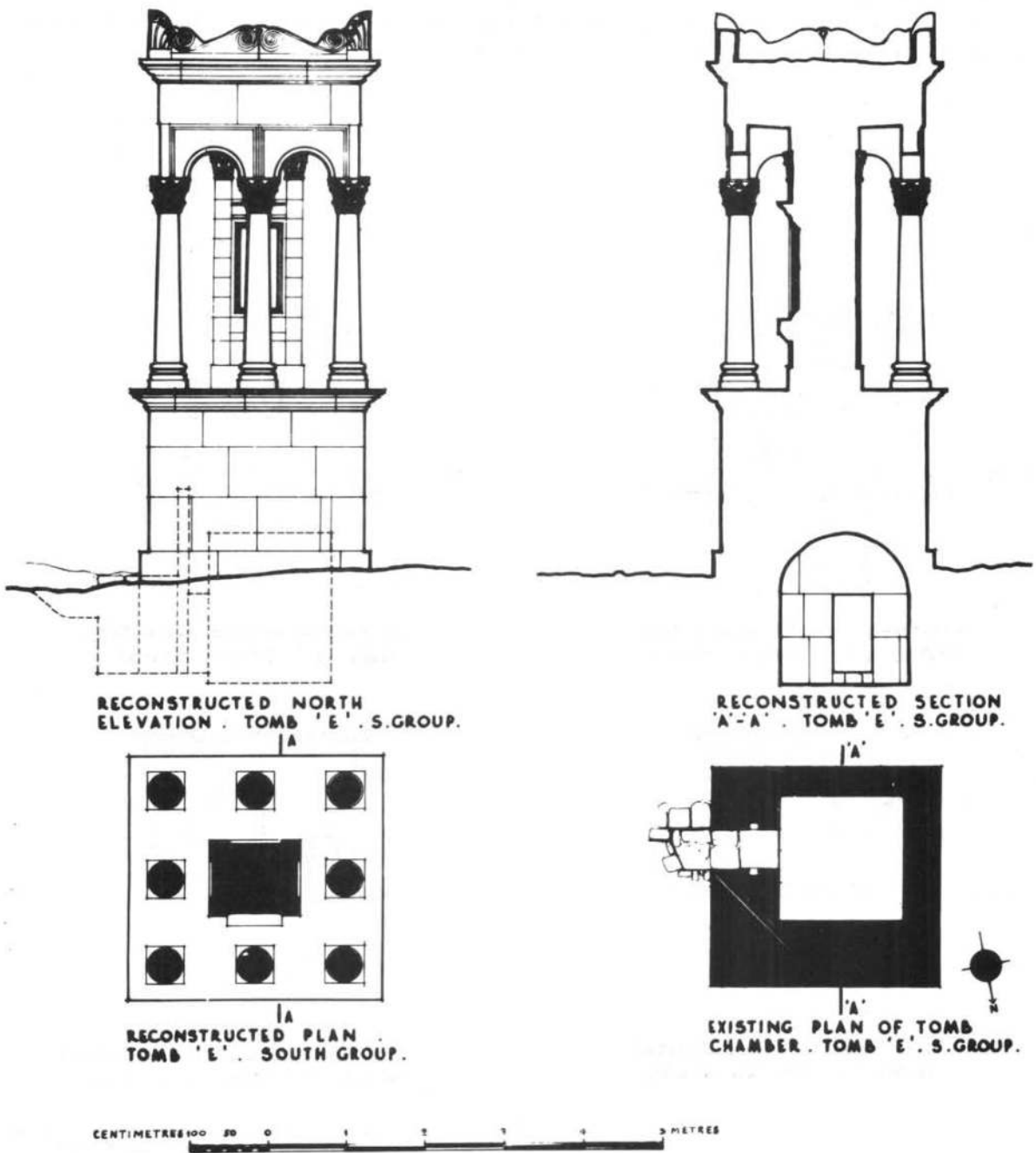


Fig. 64. Tomb South E: north elevation, plans and section. Drawn by J. Keelan.

(xiii) TOMB SOUTH F:<sup>1</sup> fig. 65, Pls. 120-126

The best-preserved of the tombs of the south cemetery are the small ones, F and G, which formed a pair, each being a high, small monument with four columns, orientated approximately north-north-east/south-south-west. They stood north of the row formed by Tombs C, D and E. Tomb F has two arch-heads *in situ*. Its plinth has a cornice and base moulding with offsets below. The central pier is made of large blocks of ashlar, has a moulded base and bears a slightly moulded cornice. The core for the backing of the frieze is of the usual rubble and mortar.

(a) *The funerary chamber*

This is entered under the south-east side. The internal height of the entrance is only 47cm. and its width also is 47cm. The effective height of the door slot above the lintel edge is 62cm. The south side of the doorway has gone. The chamber is 1.23m. high, has a flat roof, is walled with masonry and measures 1.07 × 1.07 × 1.88 × 1.05m., the longest side being the one with the doorway. A rough hole in the top of the north-north-east wall may be an offering channel, though this is not certain.

(b) *The columns* (Pl. 120)

Three were found standing; the fourth was put back and cemented in position. The capitals have four rather flat but cleanly cut acanthus leaves curled well over at the top. There is a vertical ridge between each pair of leaves, from which the stalks of the volutes branch, forming a V. This central ridge is common to the capitals of Tombs C, D, F and G, but the volute-stalks on C and D do not form Vs. The V on the F capitals is somewhat shallower than that on the G capitals. The volutes on all these tombs are heavy and solid, those of F being the smallest. The abacus has horizontal grooves and square-headed ends. Each capital has the usual rosette at the top of two or more sides, but the other bosses may be masks or other decorations. The bosses on the fallen capital afterwards put back on the tomb are: (i) two small fish, head to tail; (ii) a palm tree; (iii) a mask; (v) obliterated.

(c) *The arch-heads*

There is a simple fillet right round the front of the stone and the arch is in addition framed with a band of cable-pattern and above it another fillet. There is also sculpture in the spandrels. These stones have rebates on top which distinguish them from the arch-heads of Tomb G, which are flat on top.

1. *North-east* (Pl. 120b) (1.35 × 0.66m.; span of arch 0.75m.)

In the left spandrel is a vine with tendrils, two large bunches of grapes hanging from it and four well carved leaves; next comes a four-petalled rosette and then a bird, flying *r.*; in the right spandrel is a palm tree with two bunches of dates, leaves, trunk with the bark indicated by lines, sometimes criss-cross, and half-way up the left side of the trunk a small climbing figure (cf. arch-head No. 1 of Tomb North D).

2. *South-east* (Pl. 121a) (1.24 × 0.68m.; span of arch 0.76m.)

Above the frame of cable-pattern is a plain band and then another decorated with laurel garland; in each spandrel is a twelve-petalled rosette and below each of these is a smaller rosette. Facing one another in the centre above the arch are two fish. This arch-head is noteworthy for its symmetrical design.

The two other arch-heads were found on the ground:

3. *South-west* (Pl. 121b) (1.26 × 0.69 × 0.27m.; span of arch 0.80m.)

This arch-head is asymmetrical, being broader on the left than on the right. The additional plain band of stone on the left side could thus fit across the capital right up to the front of the next arch-head. The arch is framed by plain bands and cable-pattern, like arch 1. In the spandrels are large roundels, the left-hand one very plain with a simple edging and incisions dividing it into eight with a small hollow in the centre. The right-hand one is a sixteen-petalled flower. Below the roundels are rudimentary palm and olive branches. In the centre, facing *l.*, is a fish with well marked head, fin and tail, and its mouth shut.

4. *North-west* (Pl. 122a) (1.25 × 0.69 × 0.27m.; span of arch 0.75m.)

Fallen and broken into two pieces. The arch has a cable-pattern frame. It has a central roundel (petals 4 + 4), to the right of which is a vine with two large bunches of grapes and three leaves. In the left spandrel is a bird, *r.*; below the bird, jumping upwards, a hound. The bird seems to have something in its beak, but the break comes just at this point.

(d) *The frieze*<sup>2</sup>

(Ht. 38cm.) This has all fallen. Its height was 38cm. as against 28cm. for the frieze of G.

1. *Head with calathus and grapes* (Pl. 122b)

(0.51 × 0.40 × c. 0.17) In the lower centre is a bust with a garment with folds coming across the left



shoulder. Standing on the head is what seems to be a *calathus* (p. 219) or a fluted jar from which vine stems spread right and left, with leaves and two bunches of grapes each side. The nose, eyes and eyebrows of the head are well marked, the mouth is broken across, the hair frames the forehead in a fringe, above which comes a plain skull-cap, and then the calathus.

2. *Fight* (Pl. 123a)

(0.58 × 0.38 × 0.10 + 2m.) On the left a man in a short pleated tunic with belt holds a shield in his left hand and a sword in his right hand, pointing to the ground on which lies an armed man holding a spear; beside him on the ground is a cylindrical object. Next comes another small figure, holding a cylindrical shield on his left arm. Next is a much larger figure wearing a long garment - seemingly a cloak over a long pleated tunic (cf. the garment of the figure in Istanbul 301). The top of the head is gone. The left arm is raised, the right extended towards the smaller warrior.

3. *Three figures* (Pl. 123b)

(0.52 × 0.38 × 0.18m.) A figure on the left with bearded face has been destroyed.

The middle one is human and the face and head have gone, but it seems to have been wearing a conical hat (p. 222). It wears a long garment with oblique folds and holds out its right arm, over which hangs an object which has two tassels. The left arm is gone, but there is something hanging from the extreme edge of the cloak to the ground (? the bottom of a staff or spear). The third man has a conical cap and wears a pleated tunic<sup>3</sup> caught in at the waist. His right arm is half extended outwards.

4. *Two warriors fighting* (Pl. 124a)

(0.53 × 0.38 × 0.22m.) Each has a circular shield framed by a band. They wear short pleated tunics and fight with spears. The man on the right seems to have a spear in each hand and perhaps has a pointed beard.

5. *Horseman and bound* (Pl. 124b)

(0.76 × 0.38 × 0.16m.) The figures face *l.*, they are badly proportioned, the body of the horse being unduly elongated, like many of the horses on the other tombs, but it has a very fine tail.

6, 7, 8. *Fragments with figures* (Pl. 125, b-d)

There are three odd pieces which were found among the debris by the tomb. One has the upper part of a figure, *l.*, with a well cut head in profile and a frontal eye, deep-scored, folds in the garment and a thin arm holding an object. The second shows a body and legs wearing a short pleated tunic with belt (these both belong to the right-hand edges of their respective stones). The third (from the left end of a stone) is a body in a pleated, belted tunic, carrying a vessel by the handle in its right hand.

9. *Scroll* (Pl. 124c)

(0.64 × 0.38 × 0.18m.) Stem in double scroll. There are leaves round the outside of the scrolls and bunches of pomegranates in the left one and of figs in the right ones. Above, between the two scrolls, perches a bird.

10. *Vine*

Piece of vine, with two large pendant bunches of grapes and well cut leaves like those on the arch-heads.

(e) *Roof ornaments*

(Corner palmettes: 0.42 × 0.24 × 0.21m.) Four palmettes from the corners, with vertical stems with simple curves at the top have been found; also four of the intermediate double spirals.

(f) *Stones in Istanbul museum<sup>4</sup>*

Of the stones from Tripolitania in Istanbul, there are three, Nos. 300, 301 and 302, which are 38cm. in height, with plain edges. These would fit our Tomb F very well, and the identification is almost certainly correct. None of the stones is complete.

*Istanbul 300* (Pl. 125a) (0.36 × 0.38m.) Three heads (betyles?) on a table, below which is a brazier (? incense-burner) (p. 224). A goat is tethered to one leg of the table. To its right is a 'camillus', *r.*, holding out patera and ewer and Mendel suggested that a small object beside the jug is in fact part of the hand of the sacrificer.

*Istanbul 301* (Pl. 126a) (0.46 × 0.38m.)

A bearded figure in a long tunic with cloak draped over the left shoulder. He holds a goblet in his right hand and from the left appears the hand of another person, now broken away, holding out a jug. The bearded man holds what may be a bow and quiver in his left hand and there is another figure on the right which Mendel suggested may be a woman.

*Istanbul 302* (Pl. 126b) (0.32 × 0.38m.) Stone broken on the left. Grape-vine with large bunch of grapes:<sup>5</sup> to right of it a man in a short pleated tunic holds a pruning hook in his right hand. Mendel suggested that the object in the left hand might be a small basket.

The frieze of this tomb was about 6.10m. in length. Of this we found on the site, allowing something for the small fragments, about 4.0m. This plus the Istanbul stones, which add up to 1.14m., would leave less than

one metre required to complete the frieze. It is not clear how they could be fitted in, unless perhaps the broken figures (no. 6 above) might supply the missing elements in Istanbul stones 300 or 301. A comparison of their garments with those of the man in I.300 shows a strong resemblance.

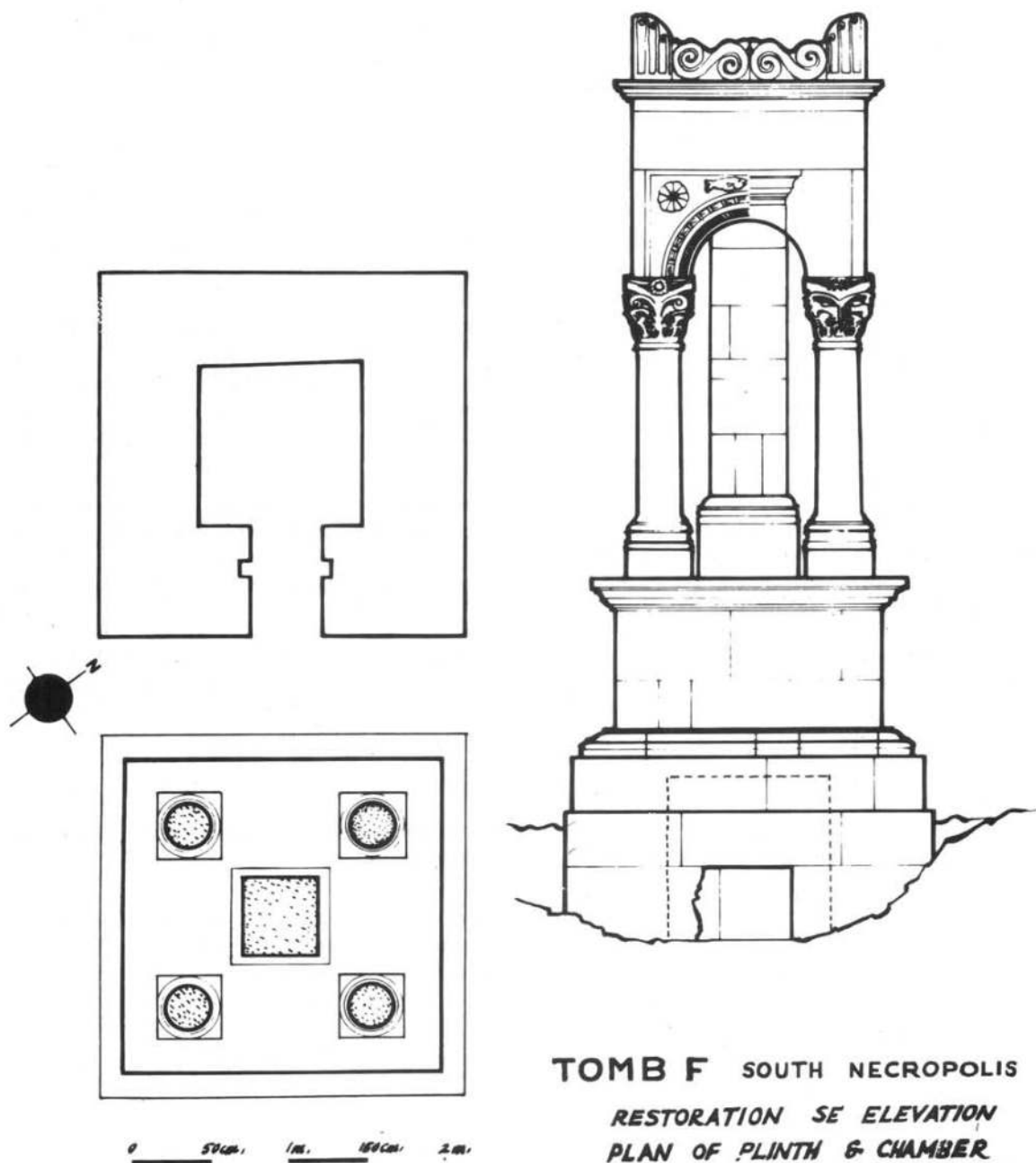


Fig. 65. Tomb South F: south-east elevation and plans. Drawn by N. Wood.

(xiv) TOMB SOUTH G:<sup>1</sup> fig. 66, Pls. 120, 127-129

Tomb South G closely resembles South F, with its four columns and four arch-heads. Part of the frieze, that on the north-east and south-east, was found *in situ*, and also the cornice of the north-east side. Tomb G was dismantled and taken to Tripoli in January-February, 1958, and there re-erected in the Museum.

The podium has cornice and base-mouldings. The central pier has a moulded plinth and a cornice, as has that of Tomb F.

(a) *The funerary chamber*

This was more regular than that of Tomb F, measuring 1.26 × 1.02m. Its roof (ht. 1.54m.) was flat, and at the junction of roof and north-east wall was a shallow slot and channel for offerings. The doorway was under the podium on the south-east side (ht. 59cm., width 99cm.). The slot for the blocking-stone ran through the masonry for 65cm. above the top of the doorway.

(b) *The columns*

Three of the columns and the base and part of the shaft of the fourth were *in situ*. The capitals (ht. 43cm.) are of the four-leaf type and closely resemble those of Tomb F. Each of those still in position had a mask on one of its bosses. The bosses on the fallen capital were: (1) leaf spray; (2) rosette; (3) ? palm; (4) missing, but probably a mask.

(c) *The arch-heads*

1. *South-east, Camel and Hunt* (Pl. 127a) (1.20 × 0.64m.; span 0.80m.) The arch is framed in cable pattern and there is a narrow fillet round the whole arch-head. In the upper part of the left spandrel is a camel, *l.*, which seems to be eating out of a basket; in the right spandrel a horseman, *l.*, follows a hound chasing an antelope. In the bottom of the spandrels are rosettes of unequal sizes, the one on the left with eight petals, that on the right a flower with two circles round its edge.

2. *South-west, Lion and Vine* (Pl. 128a) (1.30 × 0.64m.; span 0.80m.) Cable pattern frame to arch, and fillet all round the edge of the arch-head. The left spandrel has an elaborate floral rosette with outer ring of fourteen petals, inner of seven; another rosette below it, with interlacing circles. To the right of the large rosette is a lion, *r.*, then, in the centre, another rosette. The whole of the spandrel is occupied by a large vine with leaves and tendrils and three very large bunches of grapes. A small man, in a pleated tunic with belt, is climbing the vine, sickle in hand, about to cut a bunch of grapes (cf. p. 218).

3. *Fallen arch, Fish* (Pl. 127b) (1.30 × 0.66 × 0.27m.) Arch-head with cable pattern, fillet all round. Left, palm tree with criss-cross markings on trunk and bunches of dates; large rosette with eight slightly-twisted petals. Right spandrel: large fish, *r.*, with spiny back and fins on side and underneath, double tail-fin, seizing a smaller fish with its mouth; the small fish hangs vertically downwards; six-petaled rosette in right corner and another composite one below it.

4. *Fallen arch, Birds and Hare* (Pl. 128b) (1.13 × 0.63m.) Arch-head with cable pattern, fillet all round. At the top of each spandrel a bird faces inwards, its feathers elaborately incised. Between the birds, a hare, *l.* Below the bird on the right a rosette; below the one on the left a wreath.

(d) *The frieze* (ht. 28cm.)

*North-east side* (Pl. 127a)

Rosette; plain stone; two small figures (? seated) with voluminous skirts; two rosettes (12 × 12 and 8 × 8) and between them a man in a conical cap and long tunic holds a sceptre.

*South-east side* (Pl. 128a)

Rosette; narrow dividing stone; beasts facing each other, supporting an ox-head between them, bodies sideways, heads frontal. The animal on the right is a lion, with mane round head and neck; the beast on the left has udders all along the underside of its body and is presumably a lioness.

*Fallen*

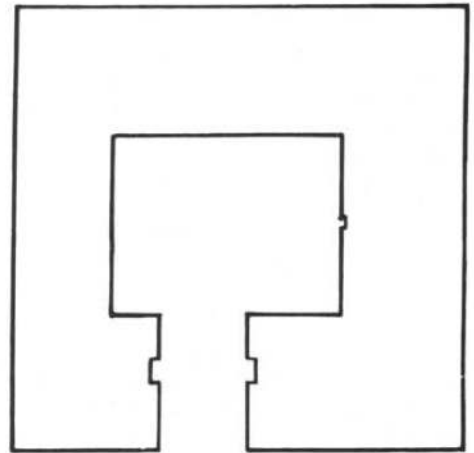
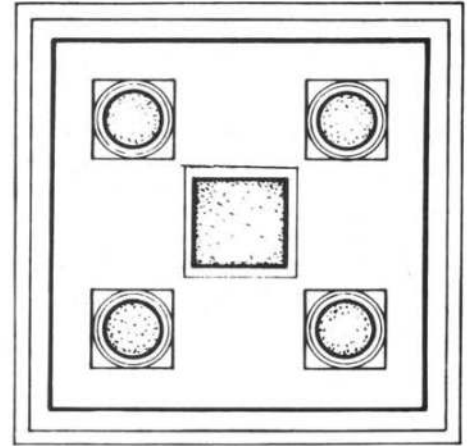
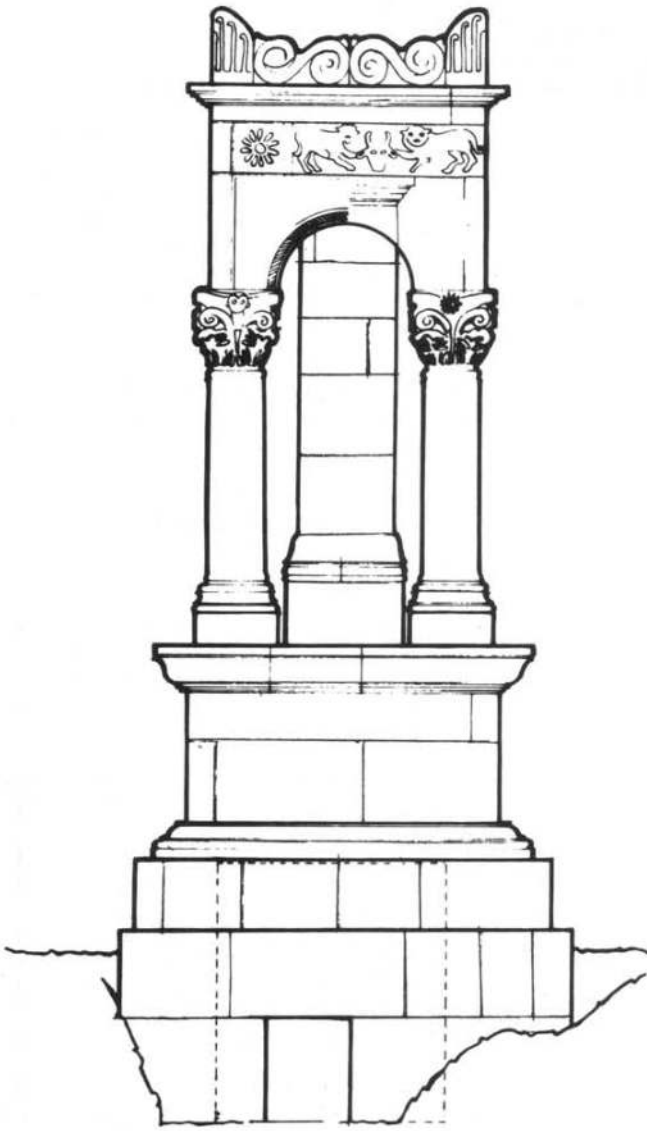
1. (Pl. 129a) (0.46 × 0.28 × 0.24m.)

A vine spreads across the stone from the right. It bears leaves, tendrils, and below it on the right is a cantharus.

2. (Pl. 129b) (1.19 × 0.28 × 0.29m.)

Rather formalized vines, hanging down; four bunches of grapes; two rosettes. A handsome stone. It has a rebate behind at the right side and must have come at a corner, (cf. p. 218).

3. Another portion of stone with vine frieze.



0 50cm. 1m. 150cm. 2m.

Scale

**TOMB G** S. NECROPOLIS  
**RESTORATION OF SE. ELEVATION**  
**PLAN OF PLINTH & CHAMBER**

Fig. 66. Tomb South G: south-east elevation and plans. Drawn by N. Wood.

## (xv) STONES IN THE SOUTH TOMB GROUP OF UNCERTAIN PROVENANCE

There are several fragments lying about which we have not as yet been able to assign to any tomb.

1. Two small capitals, ht. 0.25 m., width at top, 0.26-0.27 m. Four simple leaves; the volute stalks form a deep V between the leaves; small bosses between the volutes.

2. Piece of column-base, diameter c. 22 cm.

3. Piece of column-shaft, diameter, 23-19 cm.

The above fragments were found in the area south of Tombs C and D.

4. A piece of much weathered Corinthian capital was found north of Tomb G. Diameter 24 cm.

In addition there stand to the east of Tomb A two large stones (fig. 37), at right-angles, as if they formed part of the base of a tomb. They show with three or four more in Bauer's photographs so are not fallen from Tomb A. They look as if they had been set there, but we were unable to find any other parts of whatever structure there may have been.

### NOTES

#### CH. III. THE MONUMENTAL TOMBS

##### (i) Tomb North A

<sup>1</sup> The general measurements of this tomb are: ht. above offset (including roof palmettes), 6.80 m.; length (including flanking walls of steps), 10.20 m.; breadth, 7.40 m.; cella 4.78 × 4.10 m.; ht. of cella with its cornice, 3.25 m.; ht. of podium, 1.90 m.

<sup>2</sup> 'The term "cella" is applied either to the whole of a temple except its surrounding outer colonnade, or, more narrowly, to its principal room.' (D.S. Robertson, *Handbook of Greek and Roman Architecture*, 2nd edn., 1954, p. 39). The first, more general meaning, is adopted here.

<sup>3</sup> 2.25 × 2.18 m.; max. ht. 2.40 m.; entrance 1.04 × 0.56 m.; central pillar, ht. 1.90 × 0.28 × 0.35 m.

<sup>4</sup> Cf. S. Aurigemma, 'Un Sepolcreto Punico-Romano in Tripoli', *RMT* 4 (1958), pp. 22-23 (sections of tombs showing entrances); pp. 21, 29 (tombs used for both rites). See also tomb found near Porta Azizia, four inhumations, probably late third century. Ent. 52 cm. wide 72 cm. high: *Afric. It.* i, p. 238.

<sup>5</sup> 0.36 (ht.) × 0.50 × 0.30 m.

<sup>6</sup> 2.55 × 2.30 m., max. ht. 2.20 m.; ht. of blocking above podium, 0.47 m.

<sup>7</sup> This packing, however, is secondary.

<sup>8</sup> The joints in the stones of the architrave and frieze immediately above the Corinthian capital show traces of damage.

<sup>9</sup> Ht. 1.59, width 1.04 m.

<sup>10</sup> Cf. the Istanbul stone 300, p. 200.

<sup>11</sup> Cf. Wadi el-Amud, *LA* i, Pl. XXIII, c.

<sup>12</sup> *IRT* 899; *PBSR* xxiii (1955), p. 140. *CIL* VIII, 22662. The letters are 0.05 to 0.06 in ht. The *nomen* is probably Marchius (on the analogy of the Marchius written in full on Tomb C, p. 151; cf. pp. 260-1).

<sup>13</sup> Cf. coins of Julia Domna, Julia Maesa and Julia Mamaea.

<sup>14</sup> On Hellenistic Doric, with its introduction of Ionic features, see Robertson, *op. cit.*, p. 159.

<sup>15</sup> The arrangement of the metopes may be summarized as follows, taking each side from left to right (R = plain roundel, F = floral rosette):

East side: 13 metopes: F, R, F, R, R, F, R, R, F, R, R, F, R.

South side: 13 metopes: R, R, F, R, F, R, F, R, F, F, R, F, R.

West side: 12 metopes: birds, F, R, plain, F, R, F, R, F, R, F, R.

North side: 13 metopes: R, F, F, F, R, head, R, F, R, F, R, F, R.

<sup>16</sup> We owe this information to Dr. Hugh Plommer, who referred us to the Medinet Habu temple. Prof. A. di Vita found a gargoyle fallen from Gasr el-Banat, p. 264.

<sup>17</sup> Cf. the red ochre horses in Building 32, p. 91

<sup>18</sup> The apparent lack of pediments must be regarded with caution, though it seems real enough at Ghirza and Gasr Banat. Pediments have not been found at the little

temple at Tinai (*IRT* 888; Merighi, ii, p. 152, fig. 23; *Afric. It.*, v, 1933, p. 185), or at Gasr el-Gezira (*PBSR* xxi, 1953, Pls. xxi, xxii) or at the 'temple of Minerva' at Tebessa. The facade of a tomb at Araq el-Emir in Palestine (c. 175 B.C.) recalls our Tomb North A.

<sup>19</sup> A. Lézine, 'Architecture Punique, recueil de documents', *Univ. de Tunis, Archéologie, Histoire, vol. V* (1960), p. 28.

<sup>20</sup> Strong, D. Verbally to author.

<sup>21</sup> L.A. Constans, 'Gighis, étude d'histoire et d'archéologie sur un emporium de la Petite Syrte', *NAM* xiv (1916); Lézine, *op. cit.*, p. 76 and fig. 39; for mixed orders cf. footnote 14 above.

##### (ii) Tomb North B

<sup>1</sup> Ht. 7.0 m.; podium 5.40 m. square at base, ht. 2.62 m.

<sup>2</sup> 2.00 (E and W) × 1.55 m.; ht. 2.24 m.

<sup>3</sup> David Smith points out the resemblance to the curtains in the mosaics at S. Apollinare in Classe, Ravenna.

<sup>4</sup> Cf. the borders of the pilasters in the Severan basilica at Lepcis (*PBSR* xvii (1950), Pls. XXIV, 2 and XXV, 2).

<sup>5</sup> The bead-and-reel is poor; cf. the far better one of Tomb North A (Pl. 54).

<sup>6</sup> *IRT* 900; *PBSR* xxiii (1955), p. 140; Denham (1826), p. 307 (Hakluyt edn. p. 508); *CIL* VIII, 22661. Ht. of letters, 0.03 - 0.025 m.

<sup>7</sup> Thesylgum is a Libyan name, as are Fydel and Metusan. F. is probably Flavia (or Flabia); cf. the Flavia Stidden of *IRT* 875.

<sup>8</sup> This inscription and that of Tomb North C are discussed by J.-P. Callu, 'Follis Singularis' (à propos d'une inscription de Ghirza, Tripolitania), *MEFR* lxxi (1959), pp. 321-337.

<sup>9</sup> It has been suggested that the missing word may be *nonaginta*.

<sup>10</sup> Described as a *limitaneus* and a barbarian by Goodchild/Ward-Perkins (1949), p. 94. Other scenes of combat are to be found on the frieze of Tomb South F, p. 200.

<sup>11</sup> These stones are nos. 4, 5, 6, 13, and 14 of the catalogue below, the descriptions being taken from photographs and from Mendel, i (1912), nos. 299-310, pp. 58-75 and afterwards checked in the Museum. It will be noticed that they are only about 9 cm. thick, whereas the frieze stones on the site were generally about 24 cm. thick. Mendel states that they had probably been sawn through longitudinally to lighten their weight.

<sup>12</sup> This stone has much in common with one in Istanbul from Tomb North C (see below, p. 153).

<sup>13</sup> The conical cap is frequently found on North African sculptures, worn by both men and women (eg. on a tomb near Bir Shedewa).

<sup>14</sup> The stone is shown in a photograph of the tomb taken by Bauer before the second World War. It was later removed to Beni Ulid and set up on the porch of the Commissioner's office whence it was taken to Tripoli Museum by us in 1952. It is discussed in *PBSR* xxii (1954), pp. 129-130.

<sup>15</sup> Such lumps are more often shown on thick-coated animals like sheep (eg. Leglay, *Sat. Afr. Mon.* (1961), Pl. XXXI, 1 and 2). It is possible that here they are meant for lions' manes, but the lions on stone 11 are differently shown: we therefore fall back on the idea of leopards or cheetahs.

<sup>16</sup> Later found at Beni Ulid; now at Tripoli Castle.

<sup>17</sup> Denham (1826), pp. 305ff.

<sup>18</sup> Mendel, ii, pp. 58-73, nos. 299-310.

<sup>19</sup> *NAM* xii (1904), pp. 23-27, Pls. VIII-XIV.

### (iii) Tomb North C

<sup>1</sup> Ht. to top of cornice, 6.50m.; ht. of podium (offset to top of podium) 2.10m.; podium base 3.87 × 3.87m.; frieze 3.51 × 3.51m.; cornice 3.82 × 3.82m.

<sup>2</sup> Max. ht. 2.20m.; floor 2.10 (north and south) × 1.98m. (east and west). Ent. 0.85 high, 0.56m. wide.

<sup>3</sup> Mr. Geoffrey Clarke, who measured this tomb, said that it was very well built, better than Tomb North B, and he considered that the stonework in the chamber was more accurate.

<sup>4</sup> Cf. *Sat. Afr. Mon.* i, Pl. VI, 4.

<sup>5</sup> *IRT* 898; Denham (1826), p. 306 (Hakluyt edn. p. 507); *NAM* xii (1904), Pls. VIII, IX; *CIL* VIII, 22660.

<sup>6</sup> The stone was already pitted when inscribed (*IRT* 898, no. 2) as can be seen in our Pl. 76a. The large hole in line 3 after *et* is one such pit and it may be suggested that there was no letter between the *t* of *et* and the *M* of *Maccurasan*.

<sup>7</sup> J.-P. Callu, *MEFR* lxxi (1959), pp. 321-337.

<sup>8</sup> Von Mercklin (1962), p. 114.

<sup>9</sup> *Ibid.*, *Abb.* 578.

<sup>10</sup> *Sat. Afr. Mon.* ii, Pl. XXXIII, 4, 5.

<sup>11</sup> Denham (1826), p. 305 (Hakluyt edn. Pl. XXX).

<sup>12</sup> Mendel, p. 68.

<sup>13</sup> *NAM* (1903-05), Pls. X, L; *SEHRE*, Pl. XLV; Romanelli, *Afric. Ital.* (1930), fig.

<sup>14</sup> *CIL* VIII, 10972 (= III 745); wrongly read 'Isicua [r]' in *IRT* 902.

<sup>15</sup> Mendel, p. 65; *ILN*, Jan. 29; 1955, p. 185, fig. 18.

<sup>16</sup> Mendel, p. 61.

<sup>17</sup> This animal has a long neck and is the only source I can suggest for Méhier de Mathuisieulx's 'giraffe' (it is to be remembered that this is the north side of the tomb and rarely has good light on it). He stated that on this tomb: 'On y voit des gladiateurs, des laboureurs, des nourrices, tout cela mêlé à des palmiers, à des autruches, à des gazelles, à des giraffes', *NAM* (1903-5), p. 25; nor do I know where his 'nourrices' are, save in 18th-century tales of Ras Sem (above p. 36 and Shaw, *Travels and Observations relating to Several Parts of Barbary and the Levant* (2nd edn. 1757, p. 156).

<sup>18</sup> J.M. Reynolds (1955), p. 139, no. S 21, notes that the *M* and *A* are ligatured, that the first *C* could be a *G*, and that the *K* may be *Y*.

<sup>19</sup> Mendel, p. 67; C. Tissot, *Géographie Comparée de la Province romaine d'Afrique* (1884), i, p. 495.

<sup>20</sup> This may be the 'femme qui absorbe le contenu d'une gourde', *NAM* (1903-05), p. 25 - or perhaps it is the 'nourrice', see note 17 above, who had already appeared in Shaw's stories.

<sup>21</sup> A stone with a camel carrying two amphorae carved on it was found among the ruins of a tomb between Garian and Mizda in 1960. A second-century lamp from a tomb at Lepcis has the same motif. Cf. *SEHRE*, Pl. XLII, 6 (terracotta camel from Egypt).

### (iv) Tomb North D

<sup>1</sup> Estimated original height 5.10m.; base 2.15 × 2.15m.; podium 1.60 × 1.60m.; height of podium 1.52m.

<sup>2</sup> 1.24m. (east and west sides) × 1.43 (north and south); max. height 1.25; height of wall 1.06m.

<sup>3</sup> R. Kautzsch, *Kapitellstudien* (Berlin, 1936), p. 11.

### (v) Tomb North E

<sup>1</sup> Estimated height: 4.80; base 3.18; ht. of podium 1.20.

<sup>2</sup> 1.70m. (east and west sides). The north (1.83m.) and south (1.88m.) sides, with the pilasters, are slightly irregular. Max. ht. 1.69. The floor is only roughly levelled.

<sup>3</sup> *IRT* 903.

<sup>4</sup> See discussion on capitals, below p. 209

<sup>5</sup> *Christ. Antiq.*, Pl. XVIII, c and d.

### (vi) Tomb North F

<sup>1</sup> Estimated height: 5.15m.; base 4.50 × 4.50m.; ht. of podium 95cm.

<sup>2</sup> 2.02m. (east and west sides); 2.18m. (north and south); ht. 1.78m.

### (vii) Tombs North G and South B

<sup>1</sup> A tomb of this kind of masonry was found in the Wadi Mimun in 1971: see *Annual Report of the Society for Libyan Studies*, IV (1972-3), p. 9, no. 9.

### (viii) Stones and inscriptions in the North Tomb Group of uncertain provenance

<sup>1</sup> Merighi, ii, p. 143, fig. 20.

<sup>2</sup> Reynolds (1955), p. 139, no. S.22.

<sup>3</sup> Both pieces are now in Tripoli Castle.

### (ix) Tomb South A

<sup>1</sup> Base: 2.65 × 2.62m; first offset below moulding course 2.12 × 2.12m. Total estimated height: 15m.; lower storey 5.10m., between base moulding and cornice 3.08m., second storey (estimated) 4.50m., pyramid, with capital and cone (estimated) 5.60m. For obelisk tombs in general see pp. 207-8

<sup>2</sup> T. Lipparini, 'Tettonica e Geomorfologia della Tripolitania', *Boll. della Società Italiana* lix., 2 (1940), pp. 251f. refers to seismic activity in eastern Tripolitania. An earthquake demolished the fort at Gheddahia in 1914. He was at Bu Ngem, about 50 km. from Ghirza, at the time of another shock of considerable force in the winter of 1937-38 (we owe this reference to Dr. Claudio Vita-Finzi).

<sup>3</sup> *NAM* xii, Pl. XIV; Bauer (1935), fig. 14; also reproduced in Merighi ii, 167.

<sup>4</sup> Side 0.90 × 0.96; ht. 1.52; entrance 0.51 wide, 0.42 wide, slot above for blocking stone 1.00m. high.

<sup>5</sup> Tombs South C and D have similar channels.

<sup>6</sup> Von Mercklin (1962), pp. 114-15, cat. nos. 576-582, figs. 578-590.

<sup>7</sup> A similar bust with outstretched arm is carved on a capital of Senam Mesueggi.

<sup>8</sup> The only female heads with turbans at Ghirza are the three on this tomb, two being on the frieze, the other on the statue. There are three turbaned heads on the frieze of Senam Mesueggi (p. 222).

<sup>9</sup> The Wadi el-Ageram Tomb B also has one of these small figures.

<sup>10</sup> The nature of the object held in the left hand is obscure. At first sight it looks like a scroll, but it has longitudinal lines.

<sup>11</sup> The petals of the left one are arranged 4+4+4.

<sup>12</sup> This roundel, cut into segments, occurs elsewhere, so cannot be regarded as accidental or unfinished, especially on so well built a tomb as South A.

<sup>13</sup> 4+4; 7+16; 8+16; 8+4+4. Similar small arched niches are to be found on the Wadi el-Ageram Tomb B.

<sup>14</sup> The consequent heightening of the arch was discussed by Saladin (1906) who saw in it a predecessor of the elliptical Islamic arch, but this seems rather fanciful. It is more likely that the builders found that they had to fill a gap between the arch-head and the capitals and so inserted the two extra blocks.

<sup>15</sup> *Phallus* also on tombs North C, South C and Building 34. The eye makes it clear that the *phallus* and scorpion are there as charms against the evil eye.

<sup>16</sup> Dimensions of the statues: *Female statue*, total present height 1.69+9cm. base; width of body 0.32; breadth of headband, 0.26; height of head, 0.32. *Male Statue*, height of fragments, 1.28+9cm. base; width of body 0.40.

<sup>17</sup> Vergara (1960), p. 864-9.

#### (x) Tomb South C

<sup>1</sup> Base (top offset) 2.95 × 2.95m.; plinth 2.80 × 2.80.; estimated height, 5.40m. The bearing of the tomb is c. 330° and for convenience the sides are referred to as north-east, south-west, etc.

<sup>2</sup> This tomb and the neighbouring Tomb D are the only two among all the tombs we have examined which lack a cornice on the podium.

<sup>3</sup> *Afric. It.* vi (1935), p. 65, figs. 9-11; Merighi, ii (1940), p. 172, figs. 27, 28 and 30. The collapse on the north-west can be clearly seen in his fig. 27 (fig. 10 of Bauer's article). See also the earlier photograph by Mathuisieulx *NAM*, Pl. XII.

<sup>4</sup> 1.34 × 1.34m.; ht. 1.50m.

<sup>5</sup> The capitals of C and D are of identical pattern and are of the same height, 44cm., so that it is not possible to be absolutely certain that, of the fifteen found, we have assigned the correct eight to Tomb C.

<sup>6</sup> Span of arch, 0.66m.; a typical arch-head measures 1.13 × 0.60 × 0.22m. Ht. of arch 0.33m. Rebate 0.10m. deep, 0.08m. wide. The rebates distinguish the arch-heads of Tomb C from those of Tomb D.

<sup>7</sup> Cf. the busts of Tombs South D and E. A stone with a pair of similar busts was found beside a tomb in Wadi el-Ageram.

<sup>8</sup> The bun top-knot is to be seen on many mosaics, especially worn by goddesses, as on the head of Dido in the Low Ham mosaic (post A.D. 350) J.M.C. Toynebee, *Art in Roman Britain* (1963), Pl. 235.

<sup>9</sup> Cf. the lattice-work of Tomb North D.

<sup>10</sup> Cf. the leaves springing from scrolls of Tomb South A (p. 184) and from the roof ornaments of Tomb C itself.

#### (xi) Tomb South D

<sup>1</sup> Base 3.25 × 3.35m.

<sup>2</sup> If the sides measured c. 2.30m. as in Tomb C, a total of 9.20m. is required for the frieze. Of this we have 5.50m. + the four ends of the stones at the corners, each c. 18cm., i.e. 5.50m. + 0.72 = 6.22m. in all. This would leave 2.98m. to be accounted for.

<sup>3</sup> This attractive and amusing stone unfortunately disappeared in 1954, in transit between Ghirza and Tripoli.

<sup>4</sup> We perhaps too hastily claimed it as an olive tree in *JRS* (1975), p. 175. The goats on this stone recall the much earlier stelae (probably second century) from Khenchela showing goats browsing illustrated by Leglay (*Sat. Afr. Mon.* ii, Pl. XXIX, 1, 4, 5). They are feeding at the tree of life, a palm tree in the ancient oriental tradition.

#### (xii) Tomb South E

<sup>1</sup> Plinth, 2.62 × 2.64m.; estimated height of tomb above offset, 6.85m.

<sup>2</sup> *Afric. It.* (1935), 65, fig. 9; Merighi, ii, 170.

<sup>3</sup> 1.60 × 1.60m.; ht. 1.89m.; ht. of wall below vault, 1.12m.

<sup>4</sup> The groove at present runs 65cm. above the doorway.

<sup>5</sup> Cf. the lock on the door of the Wadi el-Ageram tomb, on which rivets are shown.

<sup>6</sup> Recalling that of the arches of North B (Pl. 61).

<sup>7</sup> The chiselling resembles that on Tomb North B.

<sup>8</sup> Commented on by Di Vita, *LA* i, 77-8.

<sup>9</sup> Observed and restored by Signor Catanuso, formerly of the Tripoli Museum.

<sup>10</sup> These stones have been plastered together back to back in Tripoli Museum, but I am inclined to question this restoration. It looks distinctly odd even among the many oddities of our tombs, although fish are shown tail to tail on Tomb North C.

#### (xiii) Tomb South F

<sup>1</sup> Ht. 5.20m.; base 2.38 × 2.38m.

<sup>2</sup> The frieze must have been about 6.10m. in length. Of this we have, allowing something for the fragments, about 4.0m. This plus the Istanbul stones which come to c. 1.14 (see pp. 200-1) gives us a little more than 5.0m.

<sup>3</sup> The carving of the folds in the tunics of these figures is like that on a 1st-century stela at Guelma 'still in Neo-Punic tradition': *Sat. Afr. Mon.*, pl. XIV, 5. The resemblance probably adduces the same limitations of skill rather than anything more profound.

<sup>4</sup> Mendel, pp. 62-65.

<sup>5</sup> Cf. the large bunches of grapes on arch-heads 1 and 4 above.

#### (xiv) Tomb South G

<sup>1</sup> Ht. second offset to top of roof spirals) 5.15m. Top of plinth 2.10 × 2.10m. Base (lower offset) 2.50 × 2.50m.

## CHAPTER IV

### THE ARCHITECTURE OF THE TOMBS

*For the notes see p. 212.*

The two principal categories of monumental tombs in southern Tripolitania are Tower Tombs and Temple Tombs.<sup>1</sup> At Ghirza there is one Tower Tomb, and the others are Temple Tombs.

#### (i) TOWER TOMBS

Tomb South A (pp. 182) is the only example at Ghirza of a type of monument which was once widely distributed in Tripolitania, of which region it seems to be particularly characteristic. It was a tall, slender tower of solid masonry, three storeys in height, the third storey being in the form of a slim, obelisk-like pyramid which might be crowned with a capital bearing a pine-cone. The funerary chamber was entirely or partly below ground-level. Eighteen of these tombs are certainly known, fifteen in the pre-desert, the sixteenth near Lepcis Magna; and two other tower-tombs with pyramids are now known at Sabratha (see p. 208 below). Of these, five remain standing with all or part of the pyramid intact,<sup>2</sup> while three more are recorded in drawings<sup>3</sup> and the Ghirza example by photographs, made or taken while they were still almost intact. The one at Lepcis drawn by Rae has since utterly disappeared; probably others near the coastal cities have suffered a like fate. The Ghirza tomb, South A, had a shallow niche for statues in its second storey, but this is exceptional in the Tripolitanian group. There are related tombs with pyramidal roofs and *aediculae*, such as Henshir Suffit near Yefren and the Wadi Migdal tower-tomb, but these are altogether heavier structures than the obelisk-tombs.<sup>4</sup>

There are many similar examples in Tunisia and Algeria, though none now surviving seems to have been so slender as the finest Tripolitanian tombs; also, they almost invariably have a deep *aedicula* in the second storey. There are two good examples side by side at Sidi Aich north of Gafsa.<sup>5</sup> The old Numidian town of Maktar has two more, one of which is in an excellent state of preservation and shows the chief features of the obelisk-tomb, with six courses of its relatively slim pyramid in position.<sup>6</sup> Unlike the Tripolitanian tombs it has a high funerary chamber within its lower storey, with seventeen *loculi*. The second storey has a niche, the top of which is lightly curved.

The obelisk-tomb is thus simply a variety of the tower tomb with pyramidal roof. The most complete prototype of the latter, as far as the Maghreb is concerned, may be seen in the mausoleum at Dougga, ancient Thugga.<sup>7</sup> This fine Hellenistic tomb, in blue-grey limestone, is 21m. in height, and dates from the mid-second century B.C. The corner-pilasters of the bottom storey had Aeolic capitals, while on the two upper storeys the engaged columns and pilasters had Ionic capitals. On the sides of the third storey were sculptured reliefs of four-horse chariots in which rode two personages. The cornices were of cavetto form. A horse and rider stood at each corner above the second storey; sirens stood at the corners of the third storey; finally came the low pyramid with a lion at its apex. The position of the sepulchral chamber has long been uncertain, but the discovery of the papers of Count Camillo Borgia who travelled in Tunisia in 1815 has added a great deal to our knowledge of the tomb.<sup>8</sup> He states that there were ten small rooms within the structure, two superimposed groups of four each within the lower storey (the one with Aeolic capitals on its pilasters) and two more with chambers with small niches in the storey above. The entrances were closed by sliding stones and part of one of these was still present in 1815.

The tomb at Dougga is one of the few survivors of what was evidently once a well-established form.<sup>9</sup> Painted on the walls of an underground Carthaginian tomb near Cape Bon are pictures of two more unmistakable pyramid-crowned tombs or shrines of the Dougga type.<sup>10</sup> The monumental tomb was thus not



brought to Africa by the Romans, but was already to be found among both the Carthaginians and the Numidians. North Africa was in touch with the Hellenistic world and in particular with Sicily, further east was Greek Cyrenaica and, of more importance, Alexandria whence, we may suspect, had come the cavetto cornice. The mausoleum topped with a pyramid derives from an oriental type, itself descended ultimately from the Egyptian pyramid.

The obelisk is a favorite form for the stelae in the tophet of Carthage,<sup>12</sup> and the obelisks at Byblos testify to the very ancient place they held in the ancestral Canaanite religion.<sup>13</sup> It is not surprising that the obelisk and pyramid came to be regarded as of particular sanctity or magical power in North Africa.

A remarkable mausoleum of related type was discovered at Sabratha in the course of excavations which had been initiated by Dr. Vergara-Caffarelli in the south-west corner of the town. Its study was undertaken by Professor A. Di Vita in 1962 and subsequent years.<sup>14</sup> It had been shattered by earthquakes in antiquity and its fragments, left where they had fallen, became covered by the ruins of later buildings of the Roman period.

It was possible to recover enough of the remains for the monument to be restored, with the greater part of its damaged but recognizable decorations. It stood on a triangular base, consisting of a plinth with about six steps. Above that came the main structure with its three gently incurved sides and engaged fluted columns supporting lavishly carved Corinthian capitals. There was a false door with an elaborate lintel. The cornice was of cavetto type (as at Dougga) and on the slender second storey were carvings of the Egyptian god Bes, shown as the slayer of lions. There were other figures of lions, and above, colossal human statues. The various Egyptian features draw attention to the close relations which existed between Tripolitania and Alexandria. The height of the monument is estimated as 23 metres and it was built of the local sandstone and covered with stucco. It is now known as Mausoleum B and it dates from the late third or the early second century B.C.

The remains of another Mausoleum, A, can be seen close by. It had been partially excavated by R. Bartoccini before 1927. This was another tower perhaps higher than B, and is thought to have been built a few decades earlier than B.

We have thus from Sabratha two impressive tower-tombs, of about the second century B.C., related to what we call obelisk-tombs which show what a long tradition of this type of architecture existed within Tripolitania before the erection of our Ghirza Tomb South A.

## (ii) TEMPLE TOMBS

Tombs built to resemble small temples are widespread in the Hellenistic world. Ghirza has two types of temple tombs, both surrounded by colonnades, the 'Doric' Tomb North A, and the Tomb with Arcaded Portico.

### (a) *The Doric temple tomb*

The 'Doric' temple tombs Ghirza North A (p. 121) and Gasr el-Banat in the Wadi Nfed (p. 264) furnish a distinct type among the Tripolitanian tombs, and one for which close parallels elsewhere have so far eluded us. Their order is mixed Doric-Ionic, but they appear to have lacked the pediments of the normal classical temple. With their peripteral colonnade they belong more nearly to the Hellenistic tradition than to the Roman, which preferred the pseudo-peripteral temple and the temple-tomb,<sup>15</sup> but, like the Roman temples, they have a high podium, an obvious advantage where a funerary chamber has to be constructed. The lack of pediments also recalls Egyptian-Hellenistic temples, like one at Elephantine destroyed in the 19th century.<sup>16</sup> In both North A and Gasr el-Banat the upper as well as the lower chambers were used for sepulchral purposes, whereas the more normal practice with such large tombs seems to have been to use the cella as a chapel.<sup>17</sup> The choice of the combination of Doric frieze and Ionic capitals at Ghirza may have been made in imitation of the first-century temples of the Forum Vetus at Lepcis - the temples of Rome and Augustus, of Bacchus, and the North Temple.<sup>18</sup>

### (b) *The temple tomb with arcaded portico*

Most of the Ghirza tombs were surrounded by colonnades with arches resting directly on the capitals. The arches invariably consist of a single block of stone. Some of the tombs have an odd number of columns along a side. Thus Tomb North B has five columns each side, bringing a shaft in front of the elaborate false door, which is thus obscured. There are ten of these arcaded tombs at Ghirza, with five, four, three and two columns a side; similar tombs have been found at Nesma (Wadi Sofeggin) and Chanafes (Wadi Shetaf).<sup>19</sup> The three largest examples, Ghirza North Tombs, B, C and F, have a flight of steps leading up to the podium.

These unusual tombs are called by Merighi 'aedícula-tombs' and he regards them as an original if decadent attempt at a new form of funerary architecture.<sup>20</sup> Saladin, after examining the photographs of Mathuisieulx, remarked on the resemblance of the four-column tombs to the ciborium of early Christian architecture.<sup>21</sup>

Neither throws light on how they came to Ghirza. The arcade with arches resting directly upon the columns is an important feature of early Christian and Byzantine architecture, whence it passed into Islamic architecture. It had been used, if to a limited extent, at Pompeii, at Hadrian's Villa at Tivoli, and was already quite common by then in the east.<sup>22</sup> In the third century, in Severan Lepcis, it became of great importance, being used in the new imperial forum and in the colonnaded street, the latter derived from the eastern provinces. Our tomb arcades may perhaps be regarded as a humble development from these metropolitan splendours.

The monolithic arch-head has also to be explained. It is not a functional arch but an arcuate lintel; a plain block of stone, without the semi-circle of the arch cut out, would have served as well, though the cutting of the arch reduced weight. There are normally-constructed arches in some of the settlement buildings at Ghirza (e.g. p. 73) so the builders could have made them for the tombs had they wished. But the gaps to be spanned were small and the simple arch-head, with which they were already familiar, suited their purpose very well.<sup>23</sup> Arch-heads were already used for miscellaneous purposes, such as the fronts of *aediculae* large or small, or for window heads,<sup>24</sup> Single arcuate stones of the type are found in other provinces, as door-heads at sites on Hadrian's Wall (e.g. Birdoswald, Housesteads), on tombs, such as one from Bierbach (Saar) and on *aediculae* of various sizes, such as one at Sercy (Saône-et-Loire).<sup>25</sup>

The arcades were appropriate supports for the decorated external frieze which is one of the chief features of these tombs. The simple external Doric frieze with a few roundels or scrolls or sometimes masks had given way to the more highly-decorated friezes of the later obelisk-tombs like those of Ghirza (Pl. 96) and Wadi Mesueggi,<sup>26</sup> and this growing appetite for sculptured reliefs found its best expression in the use of the space available in the frieze on the temple tomb.

These tombs have no signs of a pyramidal roof, which is not surprising since they are developments of the temple-tomb rather than of the tower-tomb. They can be regarded as marking the introduction of the more strongly Hellenistic-Roman form of architecture into a hinterland hitherto dominated by the Punic influences expressed by the obelisk-tomb. There are remains of the ornamental roof edgings of all the arcaded tombs of Ghirza, the same type that we find on the earlier temple-tomb, North A. Rinceaux of this kind, however, were used early on pre-desert tombs, and there are even some beside the first-century tomb of Wadi el-Amud.<sup>27</sup>

An important feature of nearly all these tombs and in particular of the arcaded ones is the libation-duct leading down into the funerary chamber from the top of the steps in the larger types, or from a special stone projecting slightly from one side of the podium as in North E, or from a channel cut in one of the steps of the plinth, as in South C and D. Yet the Ghirza obelisk-tomb, South A, is also among those with offering-ducts.

### (iii) NOTES ON THE CAPITALS OF GHIRZA

An examination of the Ghirza capitals and of others found in the Tripolitanian hinterland has provided a number of points of interest which suggest a certain sequence. There is so little precise evidence for dating the Ghirza tombs, that one eagerly grasps at any possible stylistic indications, though it always has to be remembered how risky it is to draw conclusions on this basis from the barbarous art of the frontier. Fashions in architecture and sculpture made their way into the Gebel and beyond, carried one supposes by itinerant masons from the coast who decorated the tombs of the local notables, and whose presence at Ghirza may be inferred from the inscriptions of Tombs North B and C. What has to be guessed is how long these influences took to travel out to the frontier districts and, having got there, how long a particular building feature or technique would remain in favour.

#### (a) *Ionic capitals*

The only Ionic capitals at Ghirza are those of Tomb North A (p. 124, Pl. 54a, b). These have diagonal or canted volutes which are also found on some at Lepcis. The closest resemblance to the Ghirza capitals however is found on a group at Gigthis, of which L. Constans, the excavator, published drawings.<sup>28</sup> They have the deep bell so marked at Ghirza and some of them (e.g. nos. 1, 4, and 5) have canted volutes with loops between them, very like those on the capitals of Tomb North A. A few of them have a decorative reef knot joining the two sides of the loop (e.g. no. 4) but this is not found at Ghirza.

Capital no. 5 at Gigthis with the deep bell and canted volutes comes from the temple of Liber Pater which Constans ascribed to the time of Marcus Aurelius. Another (no. 6) with the reef knot and a shallower bell and with pulvini comes from the temple of Mercury, and he dated it to the late second or early third century A.D.

Lézine has shown that the Gigthis capitals, particularly no. 1 which is so close to the North A capital, are of Punic tradition and he believes that Constans' dating of the 2nd century is too late.<sup>29</sup> Whether or not he is right on this point he has made a most interesting demonstration of the long persistence of Punic forms. One expects that the link between Gigthis and Ghirza is to be sought in Lepcis, but capitals of this precise form have yet to be found there. Constans thought that his series of capitals showed the development of a local or regional school during the second half of the second century.<sup>30</sup> In one building he found fragments of a Doric entablature,

associated with Ionic columns, and remarked that this union of Doric and Ionic was also found 'in the region of the Lesser Syrtis', 'at the mausoleum (sic) of Ghirza'.<sup>31</sup> The same conjunction is found in the early temples of the Forum Vetus at Lepcis.

The decoration between the volutes on a capital from the North Temple of the Forum Vetus (Pl. 114c) is also worth noticing. Here the top leaves of the lower palmettes form a continuous curving line above which is a large palmette and rosettes. In the corresponding space on the Ghirza capitals the curving line has become a clear loop, and above, instead of a palmette and two rosettes, there is a single rosette. Lézine illustrates capitals of Punic character where room is left for a decorative motif under the abacus and he gives examples of similar types from Syria and Spain.<sup>32</sup> The Ghirza capitals are the latest in the series. With the above predecessors in mind it is difficult to think that Tomb North A can be as late as the fourth century.

A few other Ionic capitals, several early in character, have been found at other hinterland sites,<sup>33</sup> but those of North A remain unique. One wonders what the capitals of Gasr Banat were like since the tomb (p. 264) has so many features in common with North A. But it looks at present as if North A had no successors (except for the manifest imitation shown on the late Tomb North F). No Composite capitals have been found at Ghirza.<sup>34</sup>

### (b) *Corinthian Capitals*

#### 1. Capitals of pre-Severan or Severan derivation

The Corinthian capitals at Ghirza showing the earliest derivation are those of Tomb South A, the obelisk tomb, but earlier forms are known from other pre-desert sites. The pre-Severan capital at Lepcis and Sabratha, as elsewhere in the Roman Empire, has a stalk, the cauliculus, from which spring the volutes and helices. It is often fluted and generally, though not invariably, a leafy calyx rises from it and surrounds the lower part of the volutes and helices (Pl. 114c). In Severan examples (e.g. on the Severan arch and the basilica at Lepcis) the cauliculus is reduced to a small triangle, or goes altogether (Pls. 114d, 114e). The crowning capital of Ghirza South A has these reduced cauliculi without fluting (Pl. 104b). A fallen capital from the obelisk-tomb B at the Wadi el-Ageram, with leaf-carving rather like that of South A, has similar vestigial cauliculi. The helices and the stems of the volutes in both cases are firmly and well cut, though the calyx of leaves still present on the Lepcis capital is missing.

The capital of the north-west corner pilaster of Tomb South A (Pl. 99a) has retained the fluted cauliculi. If Lepcis provided the inspiration for this capital the sculptor was probably working from a pre-Severan type, whereas the leaf-carving of the crowning capital with its bushy naturalistic forms is closely related to the type introduced into Lepcis in Severan times. Well-marked helices and volutes are found on the capitals of Tomb South E (Pl. 114b) though the cauliculus has disappeared. These capitals with their well-developed leaves can be classed near those of Tomb South A, and thus as distinct in character from the other tombs of the same cemetery. Tomb E also brings a new architectural style, the arcade with arcuate lintels, to Ghirza, which was to be followed in both cemeteries.

#### 2. Capitals with reduced central cauliculi

The capitals of Ghirza South C and D have four thick, deep-cut leaves at the corners, a central stalk on the side, cut with two or three horizontal grooves. The volutes rise from the side of this cauliculus but there are no helices. Professor Strong remarked that these capitals have two early, that is pre-Severan, features, the horny forms of the volutes and the lined abacus, but he regarded the leaf-carving as of post-Severan type. Volutes of related character to those of C and D are known from the north exedra of the Lepcis palaestra (mid-second century) and are also to be found on the Severan nymphaeum. The tombs C and D themselves have much in common with the fourth-century arcaded tombs with elaborately carved friezes, North B and C.

The next pair of tombs, South F and G, have capitals with four acanthus leaves strongly turned over at the top and vertically grooved at the turnover. The leaves have a broad, flat midrib and the lobes are sharply pointed and concave. The volutes spring from a tall ribbed feature extending the whole height between the acanthus leaves and dividing into a very flat V. On some of the capitals the scroll is extremely small, on others quite thick. The abacus is high in proportion to the rest of the capital and is surrounded by a series of ridges which are survivals of the traditional profiling. Both tombs have a great variety of rosettes with geometric patterns, leaves or heads. There is a tendency for the canted end of the abacus to be brought round into a square-headed knob with a square face on all sides, an element which becomes decorated on Tomb North E.

#### 3. Fourth-century capitals

Tombs North B and C are firmly dated by their inscriptions to the fourth century. North B has two kinds of capitals with long and short leaves respectively (Pls. 56, 57). The leaves are much flatter than those of the previous groups, but are still quite naturalistic. There are volutes and helices. All the capitals of North C have a single row of acanthus leaves, and helices and volutes (Pl. 74). In some cases (Pl. 57) there is a twisted rope motif at the corner of the volute (cf. the angle of the canted Ionic capitals of Tomb North A). The abacus is roughly carved and usually has a rosette in the centre, but in one or two, heads take the place of the rosette and in another a head appears at the angle of the capital, replacing the volute. Several of these capitals have a decorated necking

moulding. The acanthus leaves have a narrow midrib with a deep central groove. The top of the leaf overhangs sharply and the overhang is grooved. The points of the adjacent leaves touch one another, creating a series of lozenge-shaped cavities between them. The most obvious feature is the three tiers of lobes with marked horizontal accentuation of the main divisions.

#### 4. Capitals of the fourth century or later

Tomb North D has four-leafed capitals with much-flattened acanthus and greatly reduced volutes. The bell has grown at the expense of the area originally given to the volutes, the stalks of which still make a pronounced V, though the central cauliculus has disappeared (Pl. 88). A capital from Chanafes closely resembles this one, but has a large head in place of the boss, reminiscent of two on capitals of South C or D. The horizontal cutting of the leaves is exaggerated and even more characteristic is the profiling of the abacus which has now become a series of four narrow flat bands separated by grooves. The flattened debased acanthus of the Breviglieri church<sup>35</sup> in the Eastern Gebel has much in common with that of North D and its pulled-out volutes and its midribs are distantly related to those on South F and G, but it has more leaves.

The capitals of North E stand apart (Pls. 88, 89), the volutes very greatly reduced or lost in a meaningless band. The lower half of the bell has a row of flat vertical-sided acanthus leaves joined to one another, with a long wide midrib and a strong overhang at the top. The upper centre is decorated with vestigial palmettes or with a vertical band forming a cross with the volute-branches. Two large objects, meant for leaves, underly the volutes or bands. The abacus has a series of horizontal lines, is semi-circular on each of the four sides, with large square ends at the corner, ornamented with crosses or vertical lines or six-pointed flowers, chip-carved. A large cross on one side seems to be ornamental and different in purpose from the regular-armed Christian crosses. The grouping of the leaves is like that on the Breviglieri capital. The character of the capitals, like that of the other ornamentation on this tomb (p. 166) has thus much in common with the church, which Ward-Perkins and Goodchild dated to the early fifth century.

The capitals of North F, like the tomb, are the most debased of the series (Pl. 93), with their attempts to imitate the *ovolo* of North A with the addition of scratchings to do duty for the acanthus leaves of its more immediate neighbours.

#### 5. Heads on Capitals<sup>36</sup>

Many of the Ghirza capitals are decorated with small heads, which in all cases except one replace the bosses on the sides of capitals of Corinthian type. The exception is a head, probably female, on the corner of a capital on Tomb North C. The heads are generally mask-like, sometimes human, sometimes feline, though some, on Tombs South A and C, are roundly and much more realistically carved (e.g. Pl. 107). Capitals with heads have also been observed on tombs at Wadis Chanafes and Mesueggi.

In the North tomb group only Tomb C has heads (Pl. 74).

*S.W. capital:* two masks with pointed beards, on the S. and W sides respectively.

*S.E. capital:* cat head (?) on E. side.

*Second capital from left on E. side:* a clean-shaven, well-moulded face on its S.E. corner.

*S.E. capital:* mask on S. side.

*Second capital from right on N. side:* mask on E. side.

*N.W. capital:* mask, with beard on E. side.

*N.W. podium pilaster capital:* mask on W. side. Some of the other pilaster bosses have gone, so there may have been other masks.

In the South tomb group masks have been observed on capitals belonging to Tombs A, C, F and G.

*Tomb A.* There are five masks on the pilaster capitals of the part still standing. See Fig. 58, and Pls. 99 and 100.

1. Mask with tight curls.
- 2, 3. Both bosses gone; there may well have been a head here.
4. A small bust; bearded head, upper part of body clad in tunic; spirals in place of arms.
5. Head with tight curls and originally (?) a pointed beard; body clad in tunic, arms stretched out and bent upwards at elbow. The left arm holds up a circular object.
6. Rosette.
7. Bust with necklace, tunic and belt. The face seems to be clean-shaven. The arms are bent out and up.
8. Bearded mask, hair parted in middle.

#### (c) Conclusions

The capitals of Ghirza provide a considerable range of types from which, studied in conjunction with capitals on the coast and elsewhere in the interior, a rough chronological sequence appears to emerge.

The Ionic capitals of Tomb North A show ultimate Punic ancestry, and similar ones are known from Gigthis (fig. 67). The Gigthis capitals are regarded by Lézine as earlier than the mid-second century to which Constans dated them, which makes it difficult to assign Tomb North A to a point too late in the third century. Going through the Corinthian series their probable sequence seems to be: South A, which shows certain relationships with Ageram B, South E, South C and D whose capitals show some features which could put them into the third century, but the seeming relationship between their friezes and those of Tombs North B and C suggests the fourth century. South F and G should go into the fourth century. North D comes later than they do, and we finally arrive at the distinctive capitals of North E with their heavy square-ended abacuses. This tomb, as already shown, has many points in common with the church of Breviglieri (El Khadra) in the Eastern Gebel which can be set in the early fifth century. Last of all comes Ghirza North F, which has the most debased capitals of the series.

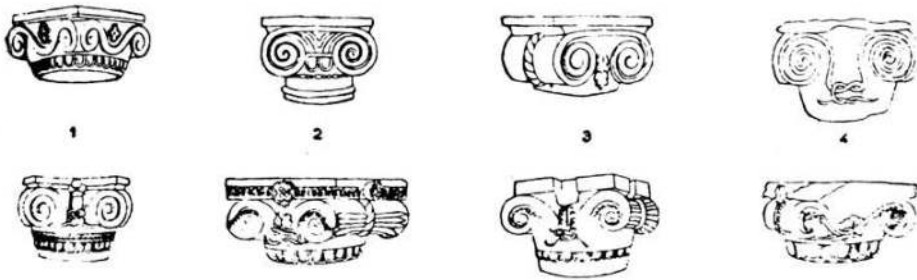


Fig. 67. Eight capitals from Gigthis, Tunisia. After Constans (1916), p. 76.

#### NOTES CH. IV. THE ARCHITECTURE OF THE TOMBS

<sup>1</sup> A descriptive catalogue of the tombs of Southern Tripolitania will, it is hoped, be published as a supplement to *LA*.

General discussion of Roman tombs, with some reference to those in our area are to be found in *Enciclopedia Classica*, xii, I (1959), *Archeologia e Storia dell'Arte Classica: Architettura Romana*, L. Crema; and *Enc. dell'Arte Antica*, v (1963), p. 170;

*Monumenti funerarie*, G.S. Mansuelli; Merighi ii (1940), 'Il culto dei Morti'; J.M.C. Toynebee (1971), pp. 164-204; Bauer (1935).

<sup>2</sup> Bir Gebira and Mselletin A and B in Wadi Merdum; Senam Mesueggi; Gasr el-Amud in Wadi Nfed; see Bauer, fig. 29, pp. 15-19, 26, 27.

<sup>3</sup> In Wadis Taghigga and Tabunia, Barth (1857) i, pp. 117, 124; at Lepcis, E. Rae, *The Country of the Moors* (1877), pp. 35, 37.

<sup>4</sup> Hr. Suffit; Merighi (1940) ii, p. 148, fig. 21; Barth (1857), pp. 34-5; Wadi Migdal; Bauer (1935), fig. 20.

<sup>5</sup> Crema, *op. cit.*, p. 503.

<sup>6</sup> *Ibid.*, p. 503, fig. 652.

<sup>7</sup> Playfair, R.L. (1877), p. 285; HAAN vi, pp. 251-256; C. Poinssot, *Les Ruines de Dougga* (1958), pp. 58-61; Harden (1963), Pl. 115. (See also n. 9)

<sup>8</sup> C. Poinssot and J.W. Salomonson, 'Le Mausolée punique de Dougga et les Papiers du Comte Borgia', *CRAl* (1959), pp. 14ff.

<sup>9</sup> C. Poinssot and J.W. Salomonson, 'Un Monument punique inconnu: le Mausolée d'Henchir Djaouf, d'après les papiers inédit du Comte C. Borgia', *Oudbeed. Med. Rijksmus. Leiden, XLIV* (1963), pp. 57-88, contains a discussion of several tombs, including that of Dougga, for which Poinssot states that he now accepts a mid-second century B. C. date.

<sup>10</sup> Harden (1963), p. 109, fig. 31a.

<sup>11</sup> HAAN vi, pp. 257-265.

<sup>12</sup> Harden (1963), Pl. 35 and fig. 25, especially a-e.

<sup>13</sup> *Ibid.*, Pl. 101, temple of Byblos on coin of Macrinus; M. Dunand, *Fouilles de Byblos* i, ii (1939, 1954); P. Montet, *Byblos et l'Égypte* (1928), 2 vols.

<sup>14</sup> A. Di Vita, *LA* i (1964), pp. 133-4, 'Influences grecques et le tradition orientale dans l'art punique de Tripolitaine', *MEFR* Lxxx (1968), pp. 7-80; *ibid.*, 'Il mausoleo punico-ellenistico B di Sabratha', *Röm. Mitt.* 83 (1976), pp. 274-285.

<sup>15</sup> Pseudoperipteral tombs are found in North Africa, e.g. Henchir ez Zaatli in Central Tunisia (R. Cagnat, *Carthage, Timgad, Tébessa* (1909), p. 123); Gasr el-Gebab in the Gebel Garian; Gasr Shadat at Lepcis Magna (Romanelli, 1925).

<sup>16</sup> G. Perrot and C. Chipiez, *Histoire de l'Art dans l'Antiquité* I (1882), pp. 404ff., figs. 229-231.

<sup>17</sup> J. de C. Serra Rafols, *Le Vida en España en la Epoca Romana* (Barcelona, 1944), Tomb at Fabara, prov. of Zaragoza; *Germania Romana*<sup>2</sup> ii, Pl. XXXVI, 1, 2 tomb near Trier.

<sup>18</sup> The late Prof. D. E. Strong first drew our attention to these temples. The mixed order was popular along the Syrtic coast, cf. Constans p. 92.

<sup>19</sup> Nesma: Gentilucci, *Afric. It.* v (1933), p. 180, figs. 12, 13; Chanafes, visited by the authors; it is also possible that some of the *asnam* of Ghadames were of this type (visited by O. Brogan in 1957).

<sup>20</sup> Merighi ii, p. 172.

<sup>21</sup> Saladin (1906), p. 87ff.

<sup>22</sup> Ward Perkins (1948), p. 41.

<sup>23</sup> S. Aurigemma, *Afric. It.* vii (1940), 82ff., figs. 17, 18; SEHRE<sup>2</sup>, Pl. LXVI, 2; Haynes (1956), 92; there are the remains of an *aedicula* in the passage along the north-east of the Severan Basilica.

<sup>24</sup> Christ. Antiq., Pl. XIXd.

<sup>25</sup> Housesteads and Birdoswald: J.C. Bruce, *Handbook to*

*the Roman Wall*, 2nd edn., pp. 138, 187; Bierbach: H. Klumbach, 'Zum Aufbau des Grabmals von Bierbach', *Bonner Jahrbücher*, 138 (1958), pp. 183-91. Sercy: L. Armand-Calliat, 'Sculptures romaines trouvés à Sercy', *Saône-et-Loire, RAE* vi (1955), 396-401, a small ciborium-like structure only 70 cms. wide, with four columns supporting a cupola. The author alludes to a number of similar *aediculae* in Aeduan territory.

<sup>26</sup> *LA* i, Pl. XXXVIII B.

<sup>27</sup> Seen by O. Brogan in 1962.

<sup>28</sup> Constans (1916), p. 76.

<sup>29</sup> A. Lézine, *Architecture punique, Université de Tunis, Série Archéologie, Histoire V* (1960), p. 76.

<sup>30</sup> Constans, *op.cit.*

<sup>31</sup> *Ibid.*

<sup>32</sup> Lézine, *op. cit.*

<sup>33</sup> Four, which came from the Beni Ulid area (two are in Tripoli) have a deep bell, but the sagging band of the Punic type is absent.

<sup>34</sup> The only example known to us in the pre-desert is an elegant but badly damaged capital at Tabunia, though there are some in south Tunisia from Telmine and near Fom Tatahouine. The mausoleum at Germa, Fezzan, dated by Caputo to the late first century A.D., has composite pilaster-capitals.

<sup>35</sup> *Christ Antiq.*, Pl. XIXd.

<sup>36</sup> Von Mercklin (1962), pp. 114-5.



## CHAPTER V

### THE SCULPTURES OF THE TOMBS

*For the notes see p. 224.*

The sculptures on the tombs of Ghirza, other than the architectural decoration, fall into two groups, which merge into one another. There is in the first place the sculpture expressing the funerary symbolism which Africa shared with other parts of the classical world; secondly, they also represent something of the ordinary life of the community in which the dead had had their being. The bulk of this work is in relief. The exceptions are the two statues, male and female, which stood in the niche of Tomb South A, the victories and a lion and lioness from Tomb North B, the siren from North C, and the seated lion, probably also from the tombs, found in the wadi (p. 181) (Pls. 103, 59c, 71b, 72, 83b).

#### (i) SYMBOLIC SCULPTURES

There is a wealth of funerary symbolism, some of it going back to the motifs beloved of Punic Carthage. Many of the standard pagan symbols of the Hellenistic and Roman worlds are present, the siren, the winged victory, the peacock, the vine of Dionysus, but they reached Ghirza through Punicized channels. In stelae of the third century B.C. Carthaginian deities had been shown surrounded by numerous sacred symbols.<sup>1</sup> These are found in even greater abandon and profusion on Neo-Punic stelae of the first two centuries of our era<sup>2</sup> and they recur especially on those of Saturnus, the old god Baal Hammon under his Latin name.

M. Leglay notes the curious fact that no stelae of Saturnus have as yet been found anywhere in Roman Tripolitania.<sup>3</sup> This makes the finds in the temple and its style of architecture (pp. 85-88), and the use on the tombs of so many symbols closely associated with the worship of Saturnus, all the more intriguing. The exploration of Tripolitanian sites has still far to go. We cannot exclude the possibility that high places of the god may still come to light. There are already a number of instances of the use of the so-called symbol of Tanit,<sup>4</sup> which elsewhere in North Africa is used in association with either the god Baal (Saturnus) or his consort Tanit (Caelestis) or both. It may be, however, that the influence of other Punic gods, Melkart-Hercules and Shadrappa-Liber Pater, the patron deities of Lepcis, overshadowed the power of Baal Hammon in the region of the Emporia.<sup>5</sup> Or perhaps still more important was the powerful *numen* of Zeus Ammon, spreading west from the oasis of Siwa, so that there may have been a certain overlapping of the two Ammons.<sup>6</sup>

The symbols found at Ghirza and throughout the province never disappeared from the religious art of pagan and even Christian North Africa, but persisted into the background of Islamic Barbary,<sup>7</sup> just as old magical practices lingered on in Europe. The fertility symbols, palm trees, leaves, pomegranates, fish, though in time they lost their sacred value and became mere lucky signs, are still to be found in common use.

The chief symbolic themes and devices on the tombs of Ghirza and elsewhere in the Tripolitanian frontier zone are:—

##### (a) *Rosettes and Roundels*

In the main these are the traditional ornaments of classical architecture as on Tomb North A, but some of them are less orthodox. Those scattered in the field of the friezes of Tombs North B and C and on arch-heads, for example, may not be purely decorative. They recall the array of astral symbols found on Punic and Neo-Punic stelae in Tunisia and Algeria and present also on the stelae which are so marked a feature of the sanctuaries of Saturnus.<sup>8</sup> Six or eight-pointed rosettes are often used to indicate stars on North African stelae; on one from Mactar there is a group of three six-pointed stars round a crescent moon;<sup>9</sup> a head of Luna on a *cippus* from Sicca



Veneria is accompanied by eight-pointed stars.<sup>10</sup> The six-petalled flower became the favourite and is found on innumerable tombstones, often as the sole ornament. Among Tripolitanian examples are those from Lepcis, from the Gebel, and from the cemetery of Bir ed-Dreder as well as those on our monumental tombs.<sup>11</sup> It was also carved on Christian monuments.<sup>12</sup> Its use may have become conventional in the late Empire, but its astral significance was perhaps not entirely lost. One wonders, for instance, whether the roundels above the three figures on the east side of Tomb North C (Pl. 79a) are meant for the sun and moon, or the moon and a star. In no case, however, have we a crescent moon on our Ghirza tombs, or anything very obviously intended for the sun. For an undoubted sun and moon we must go to the third-century tomb of Gasr Duierat near Lepcis,<sup>13</sup> or for the crescent, to the Wadi Antar<sup>14</sup> tomb.

The floral rosette, besides being decorative, was probably regarded as bringing luck. It had a great vogue in the Berber art that flourished in the Numidian hinterland in the fourth and fifth centuries A.D.<sup>15</sup> and it persisted with unabated popularity into early Islamic art and so down to our own times.<sup>16</sup>

Many of the roundels are shield-like or patera-like discs, another common feature of classical decoration; but one rather distinctive group may be noticed, the segmented discs. The best of these is the large one on Tomb South A, with eight segments, each pierced in the middle with a shallow drill-hole (Pl. 100c). There is a similar one, with the same drill-holes, but with six segments, on the obelisk-tomb of Wadi Mesueggi, and another (also with drill-holes) on a tombstone at Lepcis. These objects, very like some modern Arab loaves, may perhaps represent the sacred cake which figures in so much ancient ritual.<sup>17</sup> A circle with eight segments on a Saturn stela at Thala is so interpreted by Leglay,<sup>18</sup> as a six-segmented example from Henchir es-Srira, but he prefers to interpret examples in the celestial register of the stelae as stars.<sup>19</sup> Our quartered roundel about which the eight fish of Tomb South C swim (Pl. 109b) must belong to the 'cake' category and is so regarded by Toynbee.<sup>20</sup>

The segmented cake of Tomb South A has a curious knot-like decoration on one side. Though much smaller, it closely resembles objects on stelae of Baal, Tanit and Saturnus, which are accepted as cakes in the form of wreaths (*couronne-gâteaux*).<sup>21</sup>

#### (b) *The Lion*

The lion, the protector of the dead, was the symbolic guardian of the tomb throughout antiquity, and, in common with the rest of the Empire, Africans carved lions on their tombs. Cumont discusses the belief that the lion was full of fire, or of the immortal ether, but it may be doubted whether desert-dwellers were acquainted with such refinements.<sup>22</sup> In Africa it had special importance as the sacred animal of Caelestis (Tanit), a goddess who protects the dead; it was also associated with Saturnus.<sup>23</sup> Moreover, the king of beasts had a special meaning to the people of a land where he dwelt himself. The tomb at Dougga was crowned by one, there were others on the royal tomb of Kbor Rumia (the Tomb of the Christian) near Tipasa, and on another tomb, seemingly pre-Roman, at Mactar.<sup>24</sup> As king of all the beasts the lion reigned with the gods and thus represented the sky.

At Ghirza, there is the pair, lion and lioness (Pl. 72), of Tomb North B; there also is the lower part of a seated lion found in the wadi, resembling four lions found by a tomb at Wadi Chanafes. There were lions on Tombs North A, B, C, E, South C, D, E, G, in various aspects, hunting or being hunted, or as the confronted pairs (Pl. 108b, 111b, 128a) on Tombs South C, D, and G. These beasts, holding ox-heads between them, constitute one of the special features of the South Group. They are decidedly oriental in character, with the body sideways and the head turned sharply to face the beholder, and they go back to Mesopotamian art.<sup>25</sup> Pairs of rams, bulls and goats in the same attitude occur on some of the Saturnus stelae.<sup>26</sup> The bucranium too is frequently found on the stelae, though not with pairs of animals.<sup>27</sup> The ox-heads on the South Tombs are the only ones at Ghirza, but single examples occur on other sites, e.g. on the tombs in the Wadis Mesueggi and Maretula.

With the lion-headed door-knocker of Tomb South A the symbolic theme is merged into a widespread decorative function.

#### (c) *Feline Masks* (Pl. 129c)

One of the most curious minor features of the Tripolitanian tombs is the large number of cat faces. At Ghirza they appear on Tombs South C, F, and G, Tomb North C, and on arch-heads of Tomb South E. They have feline ears and grinning mouths showing their teeth, and look more like cats than lions. A more impressive variant is found in the frieze of Tomb B at Wadi Umm-el-Ageram and at Beni Ulid — masks which are leonine, with hanging legs, thus perhaps meant for the lion — pelt of Hercules. These decorative and rather alarming masks must surely have had some apotropaic function; here, clearly, the lion is once again the protector of the tomb.<sup>28</sup>

#### (d) *Victory over Death*

An obvious symbol is the ancient Nike, or Victory, bearing her palm branch and a wreath with which to

crown the victor. Such figures were the common personification of the idea of triumph over death as well as over human enemies, and they were, of course, employed in many contexts besides tombs.<sup>29</sup> Victories are found in the pre-desert, though not very frequently, both on tombs and in reliefs on *gsur*. At Ghirza they only occur on Tomb North B, but they appealed to the proprietor of this monument so strongly that not only did he use them to decorate the spandrels of an arch-head, facing one another and carrying the conventional palm-branches and wreaths, but he had victories in the round on the corners of his roof. The finest victories known to the Romano-Libyans of Tripolitania were the lovely creatures on the spandrels of the arches of Marcus Aurelius at Tripoli and of Septimius Severus at Lepcis,<sup>30</sup> and the victories in the spandrels of Tomb B look very like caricatures of these. Elsewhere there were victories on the north gate of el-Gheria el-Gharbia fort, on the obelisk-tomb in the Wadi Taghiggia, and over a *gasr* door somewhere near Shemek in the Wadi Sofeggin.<sup>31</sup> The victories on the third-century 'Stèle Boglio' from near Siliiana in Tunisia belong to the same cultural family.<sup>32</sup> The theme of victory over death is further illustrated in the inscription from an unidentified tomb in the northern group at Ghirza which ordains the sacrifices to be offered for the dead on the *dies victoriarum suarum* (p. 262).

(c) *The Rape of the Soul from the Body*

This is represented by the presence of the eagle, the bird which traditionally carries the soul, and especially the souls of the great, aloft.<sup>33</sup> This power is also yet another possessed by the lion.<sup>34</sup> The siren, a mythological being associated with the upper air, was for long shown on tombs, having the function of bearing souls through the atmosphere.<sup>35</sup> Eagles are found on Tombs North A and South E (Pls. 52, 116), and we think that Tomb North C had sirens at the corners of the roof (Pl. 83b). The tombs with lions have already been enumerated (p. 216). An extension of the theme of the rape is expressed when the ravaging death, a bird or beast of prey, carries off or tears in pieces its victim. On Tomb North A a lion leaps upon a herbivore (Pl. 52d), while on either side of the inscription a majestic eagle carries off a hare in its claws; the eagle of Tomb South E also carries a hare. Here perhaps the hare, symbol of the frailty of human life, is being borne to the celestial home of the soul by the eagle, bird of Jupiter and of Saturnus.<sup>36</sup> The ravening character of the bird of prey and of death is expressed more fiercely on the tombs of Wadi Mesueggi<sup>37</sup> and Senam Gharghar, where the bird is shown tearing out the entrails of the hare, which can also be interpreted as liberating the soul from its earthly dwelling. The many hunting scenes on the tombs also hark back to the same theme, though at the same time they show a familiar side of earthly life.

The bird of prey carrying off its victim is not, however, confined to tombs in the desert wadis. It occurs, from time to time, over the doorways of *gsur*. So, on Gasr Isawi, in a tributary of Wadi Migdal, the inscription over the entrance has on either side a bird of prey, the one on the left carrying a goat (or gazelle), the one on the right carrying a dove; on the elaborate doorway of Gasr Naggazza (Wadi Sofeggin) is an eagle carrying off a hare; in the Wadi el-Amud an inscription fallen from the doorway of the largest of the *gsur* has eagles and hares which resemble very closely the eagles and hare of Tomb North A.<sup>38</sup>

There are also reliefs of eagle and hare over the doorways of the *gasr* in the Wadi Moraffeda, north of the Wadi Sofeggin and Wadi Talha, south of Mizda. One is disposed to ask whether the eagle and hare group was not also regarded as having apotropaic value which would protect the dwellings of the living as well as the abode of the dead.

It may also be that in this frontier region, with large Roman forts on its borders, the eagle enjoyed special prestige, even after the garrisons had been withdrawn. Many of the desert inhabitants must have known that over each of the gates of Bu Ngem there was carved an eagle, while the north gate of el-Gheria el-Gharbia had a pair of eagles crowned by Victories.<sup>39</sup>

The sphinx is another of the mythical creatures to be seen on tombstones for, like the siren, it is a being of the celestial regions and carries the soul thither.<sup>40</sup> The only example at Ghirza is the winged female beast found in the southern cemetery and perhaps coming from Tomb D (Pl. 112c). More orthodox, seated sphinxes have been found at Tigi in the western Gefara, belonging to a tomb which may be as early as the second century.<sup>41</sup>

(f) *The Cock*

This familiar symbol of watchfulness, herald of the dawn, is found on many tombs, Greek and Roman.<sup>42</sup> It drives away the powers of darkness, and is an emblem of fertility, but it is also a celestial spirit and symbol of resurrection. It does not occur at Ghirza but has been found on other hinterland tombs.<sup>43</sup>

(g) *The Peacock*<sup>44</sup>

The bird of Juno and hence of Caelestis is another guardian of the tomb, whose tail symbolized, in addition, the starry heavens. It appears on Tombs North E and South C (Pls. 90a, 109a). On the former it is seen pecking at a small box which presumably contains food; on the latter it appears below a rinceau above which is a *phallus*.

(h) *The Fish*<sup>45</sup>

The fish had an especial sanctity in both Punic and Roman Africa. Throughout Syria and Phoenicia there are records of fish cults and this veneration of the fish appears to have come with the Phoenicians to Africa. The fish was associated with the goddess Atargatis,<sup>46</sup> of whom Tanit was the Carthaginian equivalent, and this connection would doubtless add to its sanctity. Dolphins and fish are common on both Punic and Neo-Punic stelae, and are thought to be associated with the celestial ocean, the waters above the firmament, of Babylonian and Canaanitish belief.<sup>47</sup> They came also to represent victory over death. The frequency with which the fish appears on the Ghirza monuments affords strong evidence of the links of the Tripolitanian hinterland with the Punic background. The sacred and magical qualities of the fish made it an appropriate subject for funerary monuments, where it may represent the ocean which the soul has to cross, or the means of conveying the soul on its journey, or indeed may symbolize the souls of the departed themselves. Fish are found on Tombs North C, D and F, and South C, F and G. The group of eight fish encircling a central roundel which may represent a cake, from the frieze of Tomb South C, is one of the most curious of the Ghirza stones (Pl. 109b). There is a comparable group on a sherd from Antioch, probably of the fifth-sixth century A.D., where seven fish surround a rosette;<sup>48</sup> on a capital in a small Christian basilica at Henchir el-Begueur (region of Tébessa) a small child seems to support, on two curving sticks, a circular cake, towards which four hungry fish leap, and above which is a palm tree;<sup>49</sup> a stone from another at Oued Rhezel in central Numidia has five fish;<sup>50</sup> the most striking parallel, however, comes from a mosaic of the Djemila baptistery (fifth century), where eight fish grouped like those of Ghirza swim round a rosette or cake which is in this case ornamented with a swastika.<sup>51</sup>

The fish, however, are more generally found in pairs. On a boss of a capital belonging to Tomb South G two fish are shown side by side, head to tail, and we found the same pairs carved on funerary *mensae* at Tabunia and El-Gheria esh-Sherghia, laid on small dishes as if for a meal. Similar fish on a platter were found on another *mensa* at Henscir Bu Guerba, near Matmata in Tunisia.<sup>52</sup> Another variant is the large fish on an arch-head of Tomb South G, from the mouth of which hangs a smaller fish (Pl. 127b). To this day the fish is a good luck symbol highly favoured in Tunisia, where it is regarded as of special efficacy against the evil eye, and where small decorated velvet fish of local manufacture are sold in great numbers in the *souqs*. Sometimes a second, small fish hangs from the mouth of the larger one, exactly like the fish on Tomb South F.<sup>53</sup>

(i) *Symbols of Fertility and Abundance*

Many of the symbols and decorations on the tombs are those associated throughout the ancient world with fertility; of these, perhaps the most widespread, and certainly the longest-lived, is the vine-scroll. Scrolls of vine, and in a lesser degree, acanthus or ivy, form one of the basic sculptural decorations of antiquity and were handed on to the medieval world both of Christendom and Islam. As Toynbee and Ward-Perkins wrote, 'Many, perhaps the majority, of the pagan vine-scrolls are the tangible expression of the complex of ritual observance and after-life speculation which constituted the Dionysiac cults; and just as these cults had borrowed and re-interpreted much that was older, so the vine-scroll passed naturally and easily into the symbolic language of the early Christian Church.'<sup>54</sup> The influence of the Dionysiac cults was very great in Tripolitania, as elsewhere, especially since Dionysus, as Bacchus or Liber Pater, was equated with the old Punic god Shadrappa, the patron of Sabratha. The symbolism of vine, grapes and ivy, however, was already well-established in Punic religion.

Decorative scrolls appeared on innumerable buildings in the coastal cities, so there was no shortage of patterns for the hinterland to imitate; the richly-carved pilasters of the Severan basilica at Lepcis come to mind as an ideal, however unattainable. As with the rosettes, so with the scrolls, we are on the borderline between pure ornament and symbolism, and we should not exaggerate the symbolic character of these decorations. Sculptured pilasters do not appear at Ghirza but 'inhabited' scrolls are found on the podium frieze of Tomb North C. This elaborate but flat double scroll, with circular spaces filled with symbolic fruits and flowers and an occasional bird or animal, recalls the more deeply carved and finer scroll of the destroyed obelisk-tomb of Gasr Ben Emdan in the Wadi Nfed.<sup>65</sup>

Grapes and the grape-vine are found on the majority of the Ghirza tombs, sometimes apparently as little more than decoration, elsewhere of more importance such as the fine vines on the north-east arch of Tomb South F. The cantharus or two-handled cup is especially associated with Dionysus, and out of it frequently springs a vine or ivy tendril. The cantharus with vine is to be seen on the friezes of Tomb North A and it is not uncommon to find two doves perched on either side of a cup partaking of its life-giving contents, and two such birds are to be seen with the cup on a metope of the west side of Tomb North A (Pl. 48a).<sup>56</sup>

Bunches of grapes of very large size are presumably of special significance. The most interesting of these is on the west side of the frieze of Tomb North C (Pl. 81) where a bunch hangs down between two of the personages, matched by a pomegranate between the next two. The pomegranate and grape are found together on many of the votive stelae of Tunisia, where they appear among the divinities and divine symbols and sometimes spring from cornucopiae held by the central Tanit-figure.<sup>57</sup> The large bunch of grapes is regarded as representing the male generative force, while the pomegranate, with its many seeds, the fruit of Juno and Ceres,

represents the female. Both the bunch of grapes and the pomegranate are extremely common on Tripolitanian tombs.<sup>58</sup> Another symbol of fertility is the lotus flower, found on stelae of Saturnus,<sup>59</sup> and perhaps represented by the flower-like decoration in some of the spandrels on Tomb North C (Pl. 82c).

The cantharus, fish, grapes and pomegranate had obviously been of great significance and popularity in the Neo-Punic world. Consequently, in the partially Punicized Libyan society of the Tripolitanian interior, where we find names like Annobal in the third-century Latino-Punic inscriptions of the Wadi el-Ageram and where similar inscriptions have been observed in widely-separated localities, it seems unnecessary to go further afield to explain the occurrence of these symbols at Ghirza.<sup>60</sup>

The *phallus* represents the fertility of the community and its herds and crops. Cumont suggested that on tombs it symbolized the new life which would be reborn from death, and also the belief that tombs had a magical regenerative force, the dead passing on their strength to the living.<sup>61</sup> In addition, the *phallus* has always been one of the chief prophylactic means of combating the evil eye.<sup>62</sup> It occurs on Tombs North C, South A, South C, and on the keystone of an arch in Building 34 in the settlement. Leglay records instances on the doors of shrines of Saturnus.<sup>63</sup>

Another link with fertility cults is the *calathus*, the sacred basket of the mysteries which seems to be the object borne on the head of the personage on stone 1 of the frieze of Tomb South F (Pl. 122b). The calathus is worn by a number of deities, especially of eastern origin, but also sometimes by Caelestis.<sup>64</sup>

#### (j) *The Date Palm*<sup>65</sup>

It is not beyond the bounds of possibility that a few date-palms were cultivated at Ghirza (see p. 309), but these trees, sometimes with a figure climbing up them to gather the fruit, are one of the standard funerary decorations. The palm tree is found on Tombs North B, C, D, and F and on South E, F, and G. Certain capitals, on Tombs South F and G, have small trees carved on their bosses. The palm branch is the familiar symbol of victory, and the tree, with its abundant fruit, is yet another symbol of fertility, especially in Africa, where it was used by Baal-Hammon. As the tree of life of Babylonian imagery, its religious significance went back to far earlier ages.

#### (k) *The Pine Cone*

The pine cone appears constantly on monuments all over the Empire. The pine tree is evergreen and so in a sense immortal; its cone becomes thus a symbol of resurrection.<sup>66</sup> It was especially associated with Attis whose spirit had entered into the pine tree at the foot of which he died. As Attis had come to life again in the tree, so might the believer hope to be reborn after death. It has been remarked that the pine cone appears almost as constantly on pagan tombstones in areas where Mithraism and the worship of Cybele took hold, as does the cross on Christian graves.<sup>67</sup>

In Africa, however, Mithraism appears to be comparatively rare though the worship of Cybele, the Great Mother so like Tanit, was not uncommon, and the prevalence of the pine-cone is to be ascribed to its association from an early date with the god Baal-Saturnus.<sup>68</sup> It is frequently shown as an attribute of the god Saturnus and sometimes represents the god himself.<sup>69</sup>

The triumphant hope of immortality with which the pine-cone is associated is appropriately expressed by using it as the crowning adornment of tall monuments, and nowhere was this carried out with more elegance than on the slender aspiring pinnacles of the Tripolitanian obelisk-tombs. Pine-cones have been found lying beside the obelisk-tombs of Ghirza, Mselletin and Wadi el-Ageram, and capitals which may have held cones have been observed at Tabunia and Chanafes. Most of these examples belong to the early third century when the mystery religions appeared to be sweeping the Roman Empire. The latest obelisk-tombs belong to this period or just a little later. The pine-cone crowns tombs in many other parts of the Graeco-Roman world; one such example is on the Hellenistic 'Tomb of Absalom' at Jerusalem.<sup>70</sup>

Pine-cones were also used as finials for smaller monuments, or these tombs might simply have a plain conical top: the cone whether purely geometric in form, or whether shown as the fruit of the pine, is the same basic fertility symbol, phallic in character. A cone-topped tomb, regarded as Punic, was found near Pisida, in western Tripolitania.<sup>71</sup> It may be suspected that the stones in the form of a truncated pyramid, with sockets in them to take the base of another stone, which have been noticed near the North Tombs at Ghirza and at a place in the Gebel Garian, may belong to low tombs of analogous character, bearing pine cones or similar features (p. 181).

#### (l) *Mythological Themes*

Representations of mythological stories are frequent on tombs of the Roman period, but they are rare at Ghirza. Stone no. 12 from Tomb North B may, as noted above, be intended to represent the Labours of Hercules, as may stone 4 from South D. Occasional mythological figures, like the sphinx and the siren, are to be found, used as symbols, but that is all.

## (ii) SCENES OF DAILY LIFE

We now come to the scenes of daily life, most of which are concerned with agriculture and hunting. They show the occupations over which the men in the tombs had once presided and reflect the pride of the owners of these acres and animals and other worldly goods. The scenes are likely to be intended to depict life in this world as well as to represent some mythical tilling in the after-world, and their message may be the assertion of the moral value of honest work well done, whereby the worker qualifies for a place in the hereafter.<sup>72</sup> Another aspect that must not be forgotten, however, is the symbolic allusion to the fertility of Nature and the very ancient belief that fertility and power could be obtained by the living from the dead. The sculptures thus acted as magic charms to help the growth of future crops, for the continued life on earth was believed to derive strength from the magical force stored up in the dead.<sup>73</sup>

### (a) *Agriculture and Domesticated Animals*

Ploughing scenes occur on tombs North B and C and South C and are known to the writer at other sites in Tripolitania.<sup>74</sup> The animals represented are the horse (or on Tomb South C, possibly the mule), the ox or cow, and the camel. Such ploughing scenes with these animals drawing the simple wooden plough have not yet completely disappeared from the rural life of present-day Tripolitania, even including the uplifted stick which is rarely missing from our sculptures (the exception being the Tigi scene).

When the wadis come down in spate and the land is ready for sowing, all available animals are pressed into service, or so it was until the recent arrival of the tractor. The Wadi Nfed, after rain in October 1957, presented a scene very like that on Tomb South C. Looking down from the height on which a Roman obelisk-tomb (Gasr Amud) stands, our party saw the white figures of the ploughmen in their short garments, and watched horses, donkeys and camels at work as far as the eye could reach. Only cattle were missing, but they are not often seen in the southern wadis.<sup>75</sup>

Along with the ploughman there is sometimes shown a figure scattering seed and another chopping down a small tree or bush with a mattock or hatchet. The sower is found on Tombs North B and C and on South C (Pls. 65a, 80a, 110a), also on one of the Antar stones.<sup>76</sup> He again has his modern counterpart, and it is to be observed that he goes before the plough, because there is only one ploughing to work the seed into the ground and it has to be done in haste before the ground dries. The figure with the bush (Pls. 64a, 110a) appears to be clearing the way for the plough, showing how the pioneers at work in the wadi had to prepare their fields. It also has rather a sinister implication, for necessary though it doubtless was to clear space for the crops, it shows the beginning of man's destruction of the natural vegetation of the country which was to reach such proportions with the unchecked spread of pastoralism in the middle ages. In the nineteen-fifties it plumbed new depths with the coming of the charcoal-dealer's motor-truck, but the process had certainly started by the Roman period.

Reaping is shown on Tombs North B and C (Pls. 66, 79c).<sup>77</sup> On North B there was, in addition, now badly defaced, threshing with a number of animals including cattle being driven round a floor (Pl. 67a). The reaping scenes show the usual curved sickle, with the plant being cut high up the stalk. The heap of cut-off ears is also familiar, and so is the threshing scene. Where a wadi is in a deep valley the barley is often carried up on to the plateau above, to threshing areas made by clearing the loose rocks away, so that threshing and winnowing can be carried on in the fresher breeze up there, as still happens at Ghirza.

It is not easy to determine what cereal is being reaped on the Ghirza sculptures - barley or bearded wheat. The more drought-resistant barley is the usual grain grown in the southern wadis today, though a considerable amount of wheat is also raised in certain areas like the Wadi Sofeggin. The crop of the Wadi Ghirza in the 1950's was barley, though sometimes there were small patches of wheat. The third-century 'Stèle Boglio' in honour of Saturnus,<sup>78</sup> from the less arid country of Siliana, Tunisia, shows reaping and also a pair of oxen ploughing. In the Tripolitanian scenes the barley is carried off in baskets, whereas the Siliana stela shows the crop piled up on horse-drawn wagons.

The camels on the Ghirza tombs were carved in the fourth century. These animals had been gradually coming into use in Tripolitania and the more arid parts of North Africa in general from the end of the Republican period and were plentiful by the fourth century since the governor Romanus could demand four thousand from the city of Lepcis for the proposed campaign against the Austuriani in 365.<sup>79</sup> A second-century mosaic from Djemila shows a camel, and a ploughing scene with camel and oxen from Tigi in the Tripolitanian Gefara may perhaps also be dated to the second century or the early third.<sup>80</sup>

Two of the Ghirza reliefs (on Tombs North B and South C; Pls. 67b, 110b) show camels in a *kefila* or caravan. These are the only camel caravan scenes so far found on Libyan reliefs, and it is not entirely far-fetched to see in them representations of the desert caravan trade, whether local or long-distance. The camels strung together on Tomb South C recall travellers' accounts of the Tuareg caravans. But it has to be admitted that the camels of South C are not shown bearing loads.

The date palm has been discussed briefly above (p. 219). It requires a good deal of irrigation and a popular saying runs that it must have its feet in the water and its head in the *ghibli* (the south wind). Whether the Roman

wells at Ghirza provided enough water for this remains an open question. Likewise, it is not certain that the man with a knife in his hand approaching a grape-vine on arch-head 2 of Tomb South G (Pl. 128a) shows a contemporary scene of vintage. It is doubtful, in view of the extreme heat and aridity of the pre-desert. It may be assumed, in view of the oil-press of Building 31, that olives were grown in the wadi. This strong, drought-resistant tree will usually survive even through several dry seasons when no fruit has been formed. See, however, p. 308

The only domesticated animals represented in any numbers on the Ghirza sculptures are camels, as we have seen, horses and dogs. The dogs are mostly of Seluki type and they appear in the hunting scenes. One of the inscriptions (p. 262) provides for the sacrifice of large numbers of bulls and goats. There are a few cattle on Tomb North B and C, ploughing and being driven round the threshing-floor (Pl. 64b, 67a) and there is the sacrificial bull on Tomb North A (Pl. 52c). There are a few more instances of goats but none of sheep or asses.

#### (b) *Hunting*

The hunting scenes were evidently the favourites, and they represented something very close to the experience of the people on the frontier. From the time of Herodotus ancient literature is full of accounts of Africa as a home of wild beasts, and from the second century B.C. to the end of the fourth century A.D. we hear of beasts being exported from Africa to be shown in the Roman arenas.<sup>81</sup> Hunting was one of the chief pleasures of the African land-owners, and is shown in mosaics from all the African provinces. Young nobles of Lepcis took pleasure in being depicted on a mosaic taking part in a lion hunt, and a number of Libyan animals appear in the well-known mosaic of the *bestiarii* from Dar Buk Ammera. But in the country hunting was a stern necessity, for there were flocks and herds and crops to protect; it was also a profitable occupation, for the amphitheatres of the coastal cities, as well as of Italy, had to be kept supplied. In the Ghirza hunting scenes, mythology, the sports of the amphitheatre, and the actual wild life of the countryside seem to meet. Both the mythological scenes, in this case the Labours of Hercules, and the amphitheatre scenes, such as the bull-fights, would be part of the repertory of the travelling masons.

Lion hunts are shown on Tombs North B and C and, perhaps, on South E (Pls. 68a, 82c, 118a). The scene from North B, with a man strangling a lion, may represent the story of Hercules and the Nemean lion, which is also found on Neo-Punic stelae from La Ghorfa.<sup>83</sup> The Labours of Hercules were favourite themes on tombs. At Speyer in Germany, for instance, there is a similar scene with a lion.<sup>84</sup> Our Ghirza stone, however, depicts a fight involving several lions, not simply the hero and his lion, and gives the impression that there is a mixture here of the conventional Nemean lion and of the lion-hunts that must have been a familiar part of frontier life. Lions and lion-hunts occur on numerous African mosaics, the most notable of which is the great battue on the fourth-century mosaic found in a house at Hippo Regius (Annaba).<sup>85</sup> The hunting of these beasts for their display at the games was one of the major causes of their decimation, but they were still plentiful in the fourth century and were found all over North Africa until quite recently. The last-recorded lion in Algeria was killed in 1891, but they did not disappear from Morocco until the early twentieth century;<sup>86</sup> they had vanished earlier from the more arid Tripolitania, but there are place-names in which the word *Asad*, Arabic for lion, occurs, and shrines where holy men are venerated who are reputed to have driven the last lions from the country.<sup>87</sup>

The stag hunt from the same monument (North B) and the similar but far less skilled carving from South D (Pls. 68b, 112a), with a hunter posed with his knee on the back of a stag while he seizes its antlers, is frequent in ancient art, the subject being Hercules and the Cerynean hind. The deer is one of the European animals in the North African fauna, and still existed in Algeria and parts of Tunisia when Gsell wrote the first volume of his History.<sup>88</sup> Many stag hunts are to be seen on African mosaics in the Bardo and elsewhere and the animals are mentioned by a number of ancient authors as existing in Africa.<sup>89</sup> Whether they still existed in southern Tripolitania even in Roman times is not certainly known, though they may have survived in the better-wooded Gebel.

The existence of wild cattle in ancient times in North Africa has not been proved.<sup>90</sup> The bull fight on Tomb North B on the same stone as the Cerynean deer (Pl. 68b) disposes one to think that here again is a labour of Hercules, but the conventional representations of Hercules and the Cretan bull show him overcoming the animal with his bare hands. This fight, in which the man attacks the bull with a spear, looks much more like a scene from the amphitheatre - like the bull-fight on the Dar Buk Ammera mosaic for instance.<sup>91</sup> Possibly the people of Ghirza themselves staged bull-fights for local entertainment. It may be suggested that herds of half-wild cattle like the black bulls of the Camargue today were kept in some of the wadis in the cooler months, and that the finest of them were selected to appear in the games of the coastal amphitheatres. Our inscription (p. 262), to mention it yet again, provides evidence that the lords of Ghirza owned large herds.

The hare is common in North Africa and hunting it was always popular (Pl. 70a, 128b). The ostrich, which is so frequent on Ghirza tombs and on African mosaics, and which Smyth saw in the Wadi Ghirza on his visit in 1817, has disappeared within the last hundred years.<sup>92</sup> Ostriches appear on Tombs North B, C, D, E, and on South D and E. Antelope and gazelle were plentiful. Wild herbivorous animals must have been a serious problem for the frontiersmen to contend with while the crops were growing, and it is in this context that we may

set St. Augustine's reference to the admission of crop-watchers into the settled zone.<sup>93</sup> The larger antelopes and the Barbary sheep have virtually disappeared from Tripolitania, though not from Fezzan, but there are still many gazelle, whose continued existence has been threatened by the coming of the Land Rover. The beast on North C (Pl. 79c), on the north side, seems to be an antelope rather than a gazelle, though the sizes of the various animals are never very trustworthy. The little creature beside the camel caravan of South C is perhaps a gazelle. An animal with a bushy tail on the south side of Tomb North C (Pl. 82c) must be a jackal, or perhaps a fox, both of which are still found locally.

The curious beasts on Tomb North B with lumps all over their bodies appear, judging by their paws, to be members of the cat tribe (Pl. 68c). It may be suggested that the lumps are meant to show spots, so that the creatures are leopards, or, as their legs are so long, cheetahs. To the Romans the leopard was the 'African beast' *par excellence*, and there are many on the mosaics. There is a good leopard on the tomb in the Wadi Mesueggi,<sup>94</sup> on which the spots are shown by holes drilled in the stone. The leopard has not yet quite disappeared from Barbary, being found in Morocco. Cheetahs, the swiftest of all beasts, still occur sporadically in Libya. One was shot in Cyrenaica in about 1949;<sup>95</sup> the Natural History Museum in Tripoli has among its stuffed animals on exhibition a couple shot in southern Tripolitania and presented to the museum in 1938 by Marshal Balbo, and another shot in the same area south of Bir Dufan in 1959.

We have twice seen cheetah skins at Ghirza, in 1954 and in 1959. One animal had been caught in a trap;<sup>96</sup> the other was shot by the Shaikh who said it had been molesting the flocks.

Strabo gives the highly-coloured popular view of this wild west of the classical world when he writes, 'the whole country from Carthage to the Pillars is fertile, though full of wild beasts, as is also the whole of the interior of Libya. So it is not unlikely that some of the people were also called Nomads (the Numidians) for the reason that in early times they were not able to cultivate the soil on account of the multitude of wild animals. But the Nomads of today not only excel in the skill of hunting (and the Romans take a hand in this with them because of their fondness for fights with wild animals) but they have mastered farming as well as the chase.'<sup>97</sup> Ancient writers have a lot to say about the hunting of wild animals in Africa and elsewhere. Oppian gives a vivid description of how lions were captured in Syria by being driven towards a curving line of nets by horsemen and beaters with flaming torches and rattling shields.<sup>98</sup> The identical scene is spread before us on the mosaic at Annaba already referred to, where the cages in the centre of the half-moon of netting, towards which the animals are being driven, are also shown.<sup>99</sup> It may be that one of the most profitable activities of the people of Ghirza, which would help to account for their remarkable degree of prosperity, was this big game hunting.

#### (c) *Portraits of the Deceased*

It seems fairly clear that when possible the richer men of the pre-desert, like their brethren in the cities, liked to have on their tombs statues or busts of the occupants - not necessarily likenesses, but figures to represent them. The two busts on Tomb North A and, as far as we can judge from the remains, the statues of Tomb South A, are the best attempts at portraits that we have (Pls. 53a, 103). There are no signs of other portraits among the remains of the North Tombs, which makes it all the more probable that the 'chieftain' scenes on B and C represent the deceased. In the South group, however, the urge for portraiture is strong. Tomb South A had its two statues, also the busts of a man and a woman on the north-east frieze and of a woman on the north-west frieze (Pl. 99). Tombs C, D, and E have their naively-sculptured busts, a man and a woman on the stones from D and E, a family group of father, mother and child from Tomb C (Pls. 111a, 115, 108a). The statues of South A were not unique, for the *aedicula* of Senam Migdal is clearly designed to hold one or more statues, and in 1959 the remains of a seated statue were found by a collapsed tomb in Wadi Antar and what may be a piece of a statue at the Asnam Gharghar. 'Portrait' busts, like those on the frieze of South A, are carved on the friezes of the obelisk tombs of Wadi el-Ageram and Wadi Mesueggi, on a destroyed tomb near Bir Shedewa and in the niches of the monument of Gusbat Lella.<sup>100</sup>

#### (d) *Domestic Scenes*

Domestic scenes are scarce, and women, except in the busts and statues of the departed, are rarely shown. The women suckling infants of whom we hear in early accounts are definitely not to be found and probably existed only in the imagination of the storytellers.<sup>101</sup> It is possible that the second figure from the left on stone 8 of Tomb North C (Pl. 81) may be a woman, because the long garment worn is rather different from the garments worn by the men, and the conical cap though usually regarded as male headgear is sometimes worn by women (p. 154). The face is so pock-marked with the action of the wind and sand that it cannot be said for certain that it is beardless. The pomegranate, symbol of female fertility, above and a little to the left of this figure, is an argument in favour of its being a woman, in which case perhaps the small figure on the left is her child. On the right of the supposed woman is another child, looking at her, but touching a bunch of grapes close to which is the father, beyond whom comes yet another child. The bunch of grapes, as already noted, is essentially a mark of male fertility.<sup>102</sup>

Stone 7 on the same tomb (p. 154, Pl. 82a) is an attractive and unusual one, with a personage playing a musical instrument (a cithara of some sort), while another carries towards him a heavy, long amphora, and a third holds out a dish of food to a camel, but none of the figures appear to be women.

The figures on nearly all the tombs wear ample clothes; the climate of Ghirza, flaming hot and sometimes as desperately cold, is not one that lends itself to nudity. The deceased are generally shown in all the dignity of flowing robes, the women with garments draped around them and wearing a variety of turbans, though some have their heads uncovered. The constant winds and blowing sand of the desert render head coverings normally essential. Sometimes their jewellery is shown; one of the women on Tomb North A (Pl. 53) has large ear-rings; a woman on the Mesueggi tomb has two elaborate necklaces. The figures engaged in farming or hunting are mostly clad in short tunics, generally pleated and with belts. It is to be observed that whereas the tunics on Tomb North C are very fully pleated, those on North B are nearly all quite plain. Naked figures occur, such as some of the hunters and the defeated warrior on Tomb North B, but they seem to be rare, save on Tomb South E where all but the deceased are nude.

(e) *Ceremonial Scenes*

Some of the reliefs seem to show the public life of the leading men of the settlement. The two seated chieftains, on their cross-legged chairs, on Tombs North B and C respectively, are among the most interesting of the Ghirza sculptures (pp. 137, 153, Pls. 63a, 78). The more elaborate scene is the one from Tomb C, now in Istanbul. Each chieftain is accompanied by a group of attendants, one holding a sceptre of some sort, and each chief holds in his left hand an object which looks like a *volumen* or bookroll; the one from C has a cup in his right hand, and in front of him an attendant stands holding a wine-jar towards him with his right hand and holding a bow-case with his left. The corresponding personage from B is turning to the right and unfortunately the lower part of his figure is lost.

These reliefs, like others that we have discussed, are probably a mixture of the symbolic and the actual. Despite its crudity the central figure seems to be invested with a certain dignity. A settlement of the size of Ghirza, right out on the frontier as it was, would have a chief of some importance at its head, and here we see him, seated on a dais, on his version of the curule chair,<sup>103</sup> accompanied by an attendant carrying the sceptre of authority, and exercising full powers of judgement if we may so interpret the three figures further to the right. Despite the barbarous character of the sculptures, these fourth-century chiefs regarded themselves as Romans. Their *cognomina* were Libyan, but the family name was the Latin *nomen* Marcius or Marchius. The Latin of their long inscriptions is good as pre-desert Latin goes, while conditions were still peaceful enough for craftsmen to come and go freely, and there was money to pay them.



Fig. 68. Duveyrier's drawing of a stone at Ghadames.



It is possible that the series of sculptures showing seated chiefs can be extended. Duveyrier found a curious stone in Ghadames in 1860 and made a drawing of it (fig. 67). A figure is seated, facing right, on a folding chair, with its feet on a stool.<sup>104</sup> It stretches out its arm, holding a palm branch. There was another personage in a frame or booth in front of it, but only the arm shows, extended towards the seated figure. Behind the seated figure is a small attendant. Both of them wear head-dresses with feathers or cloths hanging down behind, like the head-dresses of the attendants from Tomb C (Pl. 78). Duveyrier, followed by Oric Bates, thought that the figure on the seat was a goddess, but it might possibly be another of our chieftains. It is much to be regretted that this stone has disappeared.

A further problem is presented by the group of three figures which occurs on the same two tombs as the seated chiefs. It seems likely that on the right of the chieftain stone 1 of Tomb North B came the stone 2 (Pl. 63b) with four figures in which the first person, carrying a wine-jar, corresponds to the man carrying a jar on the chieftain stone of Tomb C. Next comes a group of three men, the one in the centre gripped by the two outer men, while the man on the left swings a sword or club over his head as if about to execute him. To the right of them is a rosette. A strikingly similar group, though smaller, is carved at the right-hand end of the east frieze of Tomb C (Pl. 79a), with two roundels above it, one plain, one a six-petalled flower. In this scene likewise the smallest, central figure, appears to be undergoing punishment. It must be admitted that the upraised right arm of the man on the left does not hold a weapon as far as we can see, but this arm is clearly poised as if he were about to strike. The presumed juxtaposition of the chieftain and the three-figure group in Tomb B suggests that this may be a case of the chief exercising his powers as a judge. On tomb C there is a gap between the two scenes filled by three large rosettes and a damaged scene above them. Too logical an arrangement of the subjects, however, must not be expected on these tombs. The scene may therefore be the execution of a criminal or of a prisoner-of-war, unless it represents a mythical or actual sacrifice, which seems less likely.<sup>105</sup>

#### (f) *Fighting*

Scenes of fighting are infrequent. There is a combat on an arch-head of Tomb North B (Pl. 61b). Stones 2 and 4 of Tomb South F also show fights between warriors armed (Pls. 123a, 124a) as is the victor on the arch of North B, with round shields and spears. They can be thought of as reflecting the watchfulness against intruders from outside or bandits from within, or even local feuds. The camel caravan of Tomb South C is accompanied by an armed guard (Pl. 110b) who would be needed against wild animals as much as against wild men.

### (iii) RELIGIOUS SCENES

Two reliefs represent sacrifices, the first being the orthodox sacrifice of a bull shown on the frieze of Tomb North A (Pl. 52c). The second is now at Istanbul (Pl. 125a) among the group of reliefs from Libya and, by its dimensions and style, very likely belonged to Tomb South F, though this, it must again be insisted, is not certain. On the stone is what appears to be a sacrificial scene, with a goat ready to be offered up and an attendant carrying the sacrificial vessels. The right side of the stone has gone, but there seems to be the hand of another person visible. The goat is tethered to a bench below which is a brazier (?); on the bench are set three strange, neckless heads. These heads, Mendel suggests, may be the deities to which the offering is to be made and are to be equated with the ancient Canaanitic baetyl.<sup>106</sup> The baetyl stone, the *beth-el* or house of the god, is a well known feature of Canaanitic and Punic religion. Sacred stones are known from Punic sites, including the tophet of Tanit at Carthage. One from Sousse is beautifully carved with ears of wheat.<sup>107</sup> A curious group of smoothly-rounded, head-like objects, slightly flattened on one side to make the semblance of a face on which features are faintly indicated, was found in the Sahara at Tabelbalet, between Ghadames and In Salah, and is now in the Musée du Bardo of Algiers. The Istanbul heads also bear a strong resemblance to the strange head found in the Ghirza temple (p. 87, Pl. 27), except that the head in the temple has a rudimentary neck. It may be that in the Istanbul relief we have a representation of the kind of ceremony that went on at such desert shrines.

#### NOTES

#### CH. V. THE SCULPTURES OF THE TOMBS

<sup>1</sup> E. g. *Cat. Mus. Alaoui* (1955), i, Pls. LXXXII, LXXXIII.

<sup>2</sup> *Ibid.*, Pls. CII - CVIII.

<sup>3</sup> *Sat. Afr. Mon.* i, p. 6.

<sup>4</sup> Oates (1953), p. 14, Pl. XXIX, d; R. Bartoccini, 'Le antichità della Tripolitania', *Aegyptus* (1926), p. 23f., figs. 14 (Zliten), 15 and 16 (Gargareth). A presumed god and goddess are shown on door-jambs of a *gasp* by the Wadi Marsit, and above the head of the male figure is a 'sign of

Tanit': Brogan/Smith (1967), Pl. XXXIX, d; cf. *Sat. Afr. Hist.*, p. 222.

<sup>5</sup> Merighi (1940), ii, pp. 96-100; Dio Cass., LXXVI, 16; L. Müller, *Numismatique de l'ancienne Afrique* ii (Copenhagen, 1860-62), p. 3ff.

<sup>6</sup> Goodchild (1951), pp. 56 and 57; cf. IRT 920, *Iovi Hammoni* at Bu Ngem, a kilometre north of the fort. At this point there is a small hill on which are ruins of buildings examined by Rebuffat and identified as two temples: Rebuffat (1974a), p. 135. A stone inscribed *Domino Ammoni et Abretuptae* was found in the former Italian village of Garibaldi (now Dafinia, between Zliten

and Misurata) by Father Coradazzi, O.F.M. (see the Franciscan magazine *Africana* ii, 1955).

<sup>7</sup> H. Basset, 'Les influences puniques chez les Berbères', *Rev. Afr.* lxii (1921), pp. 340-374.

<sup>8</sup> *Symb. Fun.*, pp. 208-10; Picard, *Rel. Afr.*, pp. 112-13; *Cat. Mus. Alaoui* (1897), nos. 656-740 (Mactar); N.S. i (1955), Cb 974, Pl. CVIII (La Ghorfa); *Sat. Afr. Mon.* (1966), *Index*, s.v. 'Astre', 'Rosace', Pls. V, 2, VIII, 2, XI, 2, 3, XXI, 2, XXXIX, 6, etc. and *Sat. Afr. Hist.*, pp. 171, 175 ff.

<sup>9</sup> *Cat. Mus. Alaoui* (1955), Cb 989 (Pl. CXI).

<sup>10</sup> *Cat. Mus. Alaoui* (1897), no. 172.

<sup>11</sup> Many are in the museum garden at Lepcis. For Bir ed-Dreder (stones in Tripoli) see Goodchild (1954c), p. 97.

<sup>12</sup> E.g. *BAC* (1895), pp. 76-77, Ain Beida.

<sup>13</sup> Romanelli (1925), figs. 95, 96.

<sup>14</sup> In the region south-west of Tinina.

<sup>15</sup> W.H.C. Friend, 'The Revival of Berber Art', *Antiquity* vi (1942), pp. 346-7.

<sup>16</sup> Islamic period, e.g. at Sedrata. See also G. Marçais, *L'Architecture Musulman d'Occident* (1954), pp. 43, 54. On the widespread magical use of rosettes see G. Watzinger, *Denkmäler Palästinas* ii, p. 75. The rosette is still a favourite ornament on Tripolitanian lintels.

<sup>17</sup> *Dict. Ant.*, s.v. *Mola, Libum*.

<sup>18</sup> *Sat. Afr. Mon.* (1961), pp. 305-6. Pl. X, 1, p. 309, Pl. X, 4 (here the cake is placed in a basket with other offerings).

<sup>19</sup> *Sat. Afr. Mon.* (1961), p. 164, Pl. V, 5.

<sup>20</sup> Toynbee (1971), p. 178.

<sup>21</sup> *Ibid.*, Pls. XIV, 4, 5, XV, 6, XVII, 4, 5, 6, etc.; Picard, *Rel. Afr.*, p. 113.

<sup>22</sup> *Symb. Fun.*, p. 158.

<sup>23</sup> Picard, *Rel. Afr.*, p. 119; *Sat. Afr. Mon.* i, p. 349, Pl. XIII, 4.

<sup>24</sup> Picard, *Rel. Afr.*, pp. 11, 91; C. Poinssot, *Ruines de Dougga* (1958), p. 24. M. Christofle, *Le Tombeau de la Chrétienne* (1951), p. 124, Pl. 102.

<sup>25</sup> The part-frontal, part-profile representation is also to be seen in the lion on the frieze of North A, as well as in the lions of South E and the sphinx that may belong to South D. A beast, probably one of a pair, was found near Ajdabiyah about 1925. It is a lion in the same attitude as ours and its triangular-shaped head is reminiscent of the lion of Tomb South E. See Abdulhamid Abdussaid, 'Early Islamic Monuments at Ajdabiyah', *LA* i, p. 117, Pl. LVII, b. These ancient oriental motifs have been loved by all peoples, in all ages, so it is unnecessary to read too much significance into their appearance on the South Tombs at Ghirza, beyond the strong liking for them shown by the family that owned these tombs.

<sup>26</sup> A group of stelae with confronted beasts, sheep, goats and cattle, was found in an important pastoral area of Numidia, *Sat. Afr. Mon.* (1966), Pl. XXIX, especially no. 4 which shows goats facing each other on either side of a palm tree, clearly the old Mesopotamian Tree of Life. Pairs of rams facing each other on either side of (1) a column, and (2) a tree, were found at the El-Khadra (Breviglieri) church. *Christ. Antiq.*, Pl. XVII, b and e.e.

<sup>27</sup> *Sat. Afr. Hist.*, p. 175; *Sat. Afr. Mon.* (1961), p. 424, Ksiba, nos. 6, 7, 9, 11; Pl. XVI, 3, ox head used to symbolize the god.

<sup>28</sup> One of the cat-face capitals is in the Ghirza room in Tripoli Museum; one of the masks from Beni Ulid is also in the Museum.

<sup>29</sup> *Symb. Fun.*, p. 464, fig. 99, and p. 466 (cf. his *Etudes Syriens*, p. 64ff.). The victory, the palm and the wreath were also carried by the devotees: *Sat. Afr. Hist.*, pp. 395-396.

<sup>30</sup> R. M. Wood and R. E. M. Wheeler, *Roman Africa in Colour* (1966), Pl. 20. Lepcis: Haynes (1955), Pl. 4.

<sup>31</sup> El-Gheria el-Gharbia: Goodchild (1954b), p. 66,

fig. 4; Tagije (Taghiggia) tomb: Barth (1857), p. 117; Shemek: *IRT* 889, and *Ant. J.* xxx (1950), p. 141, Pl. XVI, a, now in Tripoli Museum.

<sup>32</sup> Picard, *Rel. Afr.*, p. 121, fig. 11; *Sat. Afr. Mon.* (1961), Pl. IX, 4.

<sup>33</sup> *Symb. Fun.*, p. 232; E. Strong, *Apotheosis and After Life*, pp. 182, 271.

<sup>34</sup> E. Strong, *op. cit.*, p. 151.

<sup>35</sup> *Ibid.*, pp. 115, 146, 150-4; Picard, *Rel. Afr.*, p. 90f.; *Symb. Fun.*, p. 318-323, Pl. XXXV; *CRAI* (1941), p. 107.

<sup>36</sup> The eagle sometimes represents or accompanies Saturnus (*Sat. Afr. Mon.* (1961), Pls. IX, 4, X, 5) and marks the fusion of Saturnus and Jupiter that took place in Africa. Eagles, however, had already been in use on purely Punic stelae, e.g. at Souss: P. Cintas, *Rev. Afr.* (1947), p. 54, fig. 790. A fine earlier example of the theme of the eagle bearing off a hare is found on the coins of Akragas, well illustrated in C.M. Kraay, *Greek Coins* (1966), Pl. 60, nos. 173, O, 175, O, and Pl. 61, nos. 177, R, and 178.

<sup>37</sup> Mesueggi: G. Bauer, *Afric. It.* (1935), p. 69, fig. 19; Gharghar: seen by the writer.

<sup>38</sup> *PBSR* xxxvii (1959), p. 53, Pl. XIX (Gasr Isawi); Haynes (1955), Pl. 26 (Gasr Nagazza; there is a second, similar, relief inside the *gasr*); *LA* i, Pl. XXXIII, c (Wadi el-Amud, Site 10). The motif was very long-lived. The British Museum has a tenth-century Byzantine relief with eagles carrying hares: D. Talbot-Rice, *Byzantine Art* (Pelican edn., 1954), Pl. 38, a.

<sup>39</sup> G.F. Lyon, *Travels in North Africa* (1821); Goodchild (1954b), p. 66, El-Gheria el-Gharbia, and Pl. XI, a, Bu Ngen, from Lyon. An eagle is carved on one of the tombstones at Bir ed-Dreder, *Quad. Arch. Lib.*, p. 3.

<sup>40</sup> There is a sphinx on a capital from Mselletin, now in Tripoli Museum.

<sup>41</sup> Brogan (1965), Pl. XVa.

<sup>42</sup> Strong, *op. cit.*, pp. 131, 145, 214-5.

<sup>43</sup> E.g. Nesma, F. Gentilucci, 'Resti di antichi edifici lungo l'Uadi Soffegin', *Afric. It.* v (1939), p. 181, fig. 13; Tagije, stone in Tripoli Museum.

<sup>44</sup> Picard, *Rel. Afr.*, pp. 240-1.

<sup>45</sup> O. Keller, *Die Antike Tierwelt* ii (1909), pp. 341-353; *Cat. Mus. Alaoui*, pp. 712, 732, 734; L. Leschi, 'La Basilique chrétienne en Afrique', *Etudes* (1959), p. 92. Picard, *Rel. Afr.*, pp. 12, 113-4, 239. The god Dagon had a fish tail: Harden (1962), p. 86.

<sup>46</sup> The goddess Atargatis had sacred fish in a pool at Hieropolis, where she was the goddess of the life-giving waters: D. Sourdel, *Les Cultes du Hauran à l'Époque romaine* (1952), ch. 4; *Rel. Orient.* (4th edn., 1929), pp. 108, 255, n. 51, mentions lakes at mosques and elsewhere in modern Syria and Turkey where it is forbidden to catch or eat fish; L. Goossens, *Hieropolis de Syrie* (1944), p. 36; Lucian, *de Dea Syriae*, 14.

<sup>47</sup> Picard, *Rel. Afr.*, p. 145.

<sup>48</sup> *Princeton Univ. Expedition, Antioch-on-the-Orontes* iv, pt. 1, Ceramics (1948), fig. 35, pp. 53-54.

<sup>49</sup> Cabrol - Leclerc, s.v. *Ikehus*, fig. 6093; *NAM* XVII (1909), p. 183.

<sup>50</sup> A. Berthier, *Les Vestiges du Christianisme antique dans la Numidie Centrale* (1942), p. 52, Pl. XXVII.

<sup>51</sup> A. Berthier, *L'Algérie et son passé* (1951), fig. 62.

<sup>52</sup> *BAC* (1902), pp. 405-11. When we visited the site in 1960 we did not see this stone.

<sup>53</sup> Picard, *Rel. Afr.*, p. 239, fish symbolism in ancient and modern Tunisia; fish charms are common throughout the Middle East.

<sup>54</sup> *PBSR* xviii (1950), p. 2.

<sup>55</sup> G. Bauer, *Afric. It.* (1935), p. 74, fig. 28.

<sup>56</sup> *Sat. Afr. Hist.*, pp. 352-6; stelae with doves: *Sat. Afr. Mon.* (1966), Pls. XXIX, 13, XXXVIII, 3, XXXIX, 1.

<sup>57</sup> Picard, *Rel. Afr.*, p. 112, fig. 10; *Cat. Mus. Alaoui* (1897), pp. 746-8; *ibid.*, N.S. i, Pls. CII-CVIII; the British

Museum has a few of these stelae.

<sup>58</sup> And also other buildings, e.g. the doorway of Gasr Nagazza near Nesma (Wadi Sofeggin) has a row of pomegranates among its ornaments: Haynes (1955), Pl. XXVI.

<sup>59</sup> *Sat. Afr. Mon.* (1966), Pl. XXVIII, 6, 4.

<sup>60</sup> G. Levi della Vida, *Oriens Antiquus* ii (1963), pp. 65-94, discusses Punic influence in this region; *LA* i, pp. 49, 57-63, iii-iv, pp. 139-42.

<sup>61</sup> Cumont (1949), p. 251.

<sup>62</sup> Picard, *Rel. Afr.*, p. 157, states that the *phallus* is rare on votive or funerary stelae in Roman Africa, though common on other monuments, where it seems simply to have prophylactic value. The *phalli* at Ghirza are the only ones we have noticed on Tripolitanian tombs, whereas they are frequent on street corners in Lepcis and on olive-farms in the Eastern Gebel. There is one on a stone with the inscription *Mercurio* fallen beside the doorway of one of the Gsur Chanafes: *IRT* 905.

<sup>63</sup> *Sat. Afr. Hist.*, pp. 187-8.

<sup>64</sup> *Symb. Fun.*, p. 420, n. 5 refers to the dead 'coiffé du boisseau de Serapis avec lequel il s'est identifié' (the god Serapis is a development of the Hellenistic epoch); *ibid.*, p. 208, a Palmyrene god, probably Aglibol, wears the calathus, *Rel. Orient.*, p. 75; for Dea Syria and Caelestis, see R. Cagnat and V. Chapot, *Manuel d'Archéologie romaine* i (1916), pp. 432, 438; *Cat. Mus. Alaoui*, Suppl., p. 63, no. 107, b, on a Neo-Punic stela.

<sup>65</sup> *Sat. Afr. Hist.*, pp. 146-50; for a Punic context see the votive stelae in A. Berthier and R. Charlier, *La Sanctuaire punique d'El Hofra* (1955), pp. 186-7, and Pls. XX, a, XXII, c; and Harden (1962), p. 98, fig. 25, n, o, p.

<sup>66</sup> Cumont (1949), p. 261.

<sup>67</sup> Strong, *Apotheosis and After Life*, p. 195.

<sup>68</sup> *Sat. Afr. Hist.*, pp. 198-203.

<sup>69</sup> *Sat. Afr. Mon.* (1961), Pl. X, 1, XI, 5.

<sup>70</sup> The Hellenistic 'Tomb of Absalom' at Jerusalem: G. Watzinger, *Denkmäler Palästinas* ii (1935), p. 72, fig. 5. Apical capitals may support other devices. A cock stands on the apex of the Kasrin tomb. The Igel monument near Trier has an elaborate capital upholding a group of the eagle carrying Ganymede up to heaven.

<sup>71</sup> Merighi (1940), p. 144, fig. 20 (we have been unable to find this tomb); cf. Harden (1962), p. 108, n. 87.

<sup>72</sup> *Symb. Fun.*, pp. 422, 431-32, a place in the hereafter being earned by such things as the toils of agriculture and the dangerous life of the soldier and the hunter.

<sup>73</sup> E. Strong, *op. cit.*, pp. 199, 122.

<sup>74</sup> Gasr Duierat, near Lepcis (Romanelli, *Lepcis Magna*); Mezgura, Gebel Nefusa (Romanelli, 'La vita agricola nella tripolitania', *Afric. It.*, pp. 53-75, figs. 13, 14); Tigi, western Gefara: F. Corò, *Vestigie di Colonie Agricole Romane, Gebel Nefusa* (1929), pp. 107-118; Brogan (1965), Pl. XIV, c.

<sup>75</sup> There used to be a few cattle in the Wadi Nfed, but a series of rainless years removed them. Now, however, Libya is importing good breeds of cattle and many small herds are developing in places south of the Gebel.

<sup>76</sup> Above, footnote 74.

<sup>77</sup> Cf. also Gasr Duierat (n. 74), Tabunia (seen by the writers). Reapers are also shown on a stone from Ghadames in Tripoli Museum.

<sup>78</sup> *Sat. Afr. Mon.* i, pp. 227-8, Pl. IX, 4; Picard, *Rel. Afr.*, p. 121.

<sup>79</sup> Ammianus Marcellinus, 6, 5.

<sup>80</sup> Brogan (1965), Pl. XIV, and also (1980), p. 126-31; E. Démangeot, 'Le Chameau et l'Afrique du Nord romaine', *Annales* xv (1960), pp. 209-247.

<sup>81</sup> Livy, xlv, 18, 8 (169 B.C.); Claudian, *De Consul. Stilichonis* iii, p. 333; G. Jennison, *Animals for Show and Pleasure in Ancient Rome* (1937).

<sup>82</sup> S. Aurigemma, *I mosaici di Zliten* (1926), ch. 5; *Tripoli-*

*tania, i mosaici* (coll. *L'Italia in Africa, I monumenti d'arte decorativa* I, i, 1960), p. 56.

<sup>83</sup> *Cat. Mus. Alaoui* (1955), Cb 971, Pl. CVI.

<sup>84</sup> *Germania Romana*, 2nd edn. (1926), iii, p. 54, 'Herculesabenteuer', Pl. XLIII, 3.

<sup>85</sup> Jennison, p. 145; De Pachtère, *MEFR* xxxi (1911).

<sup>86</sup> *HAAN* i, p. 111.

<sup>87</sup> A. Cesarò, *Santuari Islamiche nel secolo xvii in Tripolitania*. Sheikh Abd Er Rahman Abu Shaifa, whose shrine is on a hill a few km. south of Gasr Chiar (E. Gefara), is said to have chased the lions from the country, as did Abd El Krim and Junes Abu Graia from Garian.

<sup>88</sup> *HAAN* i, p. 117.

<sup>89</sup> Dunbabin, Pls. K, XVIII, no. 41, XIX, no. 45, XX, no. 47, XXII, no. 54, XXV, no. 60.

<sup>90</sup> *HAAN* i, p. 127.

<sup>91</sup> Aurigemma, *I mosaici di Zliten*.

<sup>92</sup> W. H. Smyth, in Beechey (1828), p. 510.

<sup>93</sup> Aug., *Epist.* 46-47.

<sup>94</sup> Di Vita (1964), Pl. XXXVIII, b.

<sup>95</sup> Information from Professor C. B. M. McBurney.

<sup>96</sup> Skin now in the collection of the British Museum (Natural History) at S. Kensington. Further notes on Cheetahs in Libya are given by E. Hufnagl, *Libyan Mammals* (1972), pp. 43-44.

<sup>97</sup> Strabo, 2. 5. 33 (Loeb edn. i, p. 503).

<sup>98</sup> Jennison, p. 144; Oppian, *Cynegetica*, 1, iv, pp. 112-46.

<sup>99</sup> N. 85, above.

<sup>100</sup> Di Vita (1964), Pl. XXXVIII, b.; the other tombs are shown by Bauer and Gentilucci, but the busts are not illustrated.

<sup>101</sup> Beechey (1828), pp. 502-3, 507-8; T. Shaw, *Travels or observations relating to several parts of Barbary and the Levant* (1st edn., 1738), footnote 2 on p. 383; the petrifications are discussed at great length in the 2nd edn. (1757), pp. 155ff. One of Dr. Shaw's informants had apparently been Cassem Aga, the Ambassador from Tripoli, who had also discussed them with Stukely; see also *NAM* xii (1904), p. 25. The seated figure with a cithara on Tomb North C, stone 7, could perhaps be taken for a woman with a child.

<sup>102</sup> *Cat. Mus. Alaoui* (1955), Cb 967, 968, Pl. CIV. Stelae from La Ghorfa on which Dionysus and Venus flank a figure of Eros, and above this a genius of Caelestis holds two cornucopiae from one of which a great bunch of grapes hangs over Dionysus, and from the other a pomegranate hangs over Venus.

<sup>103</sup> These chiefs are being presented with cups, probably containing wine, and the scene might be described as a version of the familiar funerary banquet, but the effort made by the sculptor to express the power and state of the deceased seems to be the essence of the scene. The scenes call to mind the description in Procopius of the old custom whereby the native chiefs of the African frontier were invested by the Emperor's representative with regalia of office which included a diadem, an ivory chair and a sceptre (p. 231, nn. 61, 62). Here are two such chiefs with their insignia.

<sup>104</sup> J. Duveyrier, *Les Tonareg du Nord* (1864), p. 250, Pl. X, fig. I; Oric Bates, *The Eastern Libyans* (1914), p. 128.

<sup>105</sup> No parallels have yet been found elsewhere, but at Nesma, in the Wadi Sofeggin, there is a stone fallen from a tomb, showing two figures, one of which seizes the other with his left arm, while he swings a weapon aloft with his right, exactly as do the men in the Ghirza reliefs (see *Society for Libyan Studies, Annual Report* (1969), Pl. IV, b. A capital from Vézeley (Yonne), la Basilique de la Madeleine, has a scene of the execution of Saul's murderer in which the executioner seizes the man's hair as he lifts his sword to strike, while King David presides seated on a cross-legged stool (11th-12th century A. D.).

<sup>106</sup> Mendel, p. 62, no. 300.

<sup>107</sup> *SEHRE*, p. 272, Pl. XLIII, 2.

## CHAPTER VI

### GHIRZA AND THE PRE-DESERT FROM ROMAN TO BYZANTINE TIMES

*For the notes see p. 232.*

#### (i) To c. A.D. 300

##### (a) *The first two centuries A.D.*

Evidence of Punic influence has been found at many sites in the pre-desert, and it is justifiable to believe that the development of agriculture (including cultivation of the olive) owed much to Libyphoenician farmers moving south from the coast and the Gebel.<sup>1</sup> Even more interesting is the discovery of a form of Libycized Punic written in the Latin alphabet that was used in the pre-desert at least until the fourth century (p. 262).

At Ghirza a few small sherds of Italian terra sigillata of c. A.D. 50-150 were found near Buildings 24 (p. 236), and 26 (p. 236), on the site of Building 32 (p. 235), and with two cremation burials near the South Tombs in Cemetery 3 (p. 114). These suggest contemporary habitation in one or more places in the Wadi Ghirza, as elsewhere in the pre-desert.<sup>2</sup> So far, however, no certain structural remains of such early settlement have been found at or in the vicinity of Ghirza itself.

The inhabitants of the Zemzem basin apparently had an established trade with merchants importing Italian and Gallic goods; this had perhaps been stimulated by the growth of intercourse along the tracks leading to the Garamantes of Fezzan after the campaign of Valerius Festus in 69.<sup>4</sup> A tribe called the Gamphazantes is placed by some scholars between the Gebel Nefusa, the Hamada el-Hamra and Cydamus (Ghadames).<sup>3</sup> Desanges also sets the Gadabitani of Procopius here, with their town called Gadabis which he identifies with Cydamis, concluding that Gamphazantes and Gadabitani may be the same people. Another unidentified tribe is the Nathabres which Orosius<sup>6</sup> believed lived between the Tripolis and the Garamantes. There is also the *Regio Arzugum*, the territory of the Arzuges, which seems to have been that part of the province of Tripolitania which lay inland behind the coastal area of Subventana.<sup>7</sup>

##### (b) *The Roman outpost forts*

Any early settlement at Ghirza and in the neighbouring areas may have suffered in the disturbances in the late second century when the Roman army was called upon to deal with warlike and savage tribes (*gentes bellicosissimi et feroces*).<sup>8</sup> The ensuing establishment in 201 of detachments of the African Legion, III Augusta, at Bu Ngem, El-Gheria el-Gharbia and Ghadames, brought the pre-desert firmly within the Empire.<sup>9</sup> A significant effect of this would be that the tribes would now have become subject to taxation, including the *annona*, or provision of supplies for the army.<sup>10</sup> For this must have greatly stimulated the pre-desert economy of stockraising and, in favoured spots, agriculture. It may perhaps be recalled that for corn alone every legionary required annually the produce of about 0.5 ha.<sup>11</sup> Ghirza lies 100 km. in a straight line from Bu Ngem, 130 from the Gheriat, the route to Bu Ngem being fairly direct, that to the Gheriat, whether by the Wadi Ghirza or by the Wadi Zemzem, more winding and difficult.<sup>12</sup>

Bu Ngem was garrisoned until 238 by legionaries (with at some time a *numerus*), then until 253 by auxiliaries, and then again by legionaries or other troops until at least 259,<sup>13</sup> while the associated *vicus* apparently survived into the fifth century.<sup>14</sup> Doubtless the third-century history of the other two outpost forts was similar to that of Bu Ngem.

(c) *The Limes Tripolitanus*

Elsewhere the road through the Gebel which started from Lepcis Magna in A.D. 14-18,<sup>15</sup> and subsequently joined its counterpart coming from the Tunisian Djerid, was completed and garrisoned in the time of Septimius Severus.<sup>16</sup> Possibly then, or more probably after the disbandment of the Legion in 238, Tripolitania was divided into twelve *limites* or military zones between Turris Tamalleni and Macomades in the Greater Syrtis.<sup>17</sup> In one of these, the Limes Tentheitanus, the *centenarium* or blockhouse of Gasr Duib was either erected or rebuilt in 244-6 to close the military route in the Upper Sofeggin to hostile tribes.<sup>18</sup>

It was these widespread defensive arrangements of the third century which ultimately constituted the *limes Tripolitanus* or Tripolitanian frontier. It is perhaps still necessary to add that it is no longer possible to describe the Severan *limes* as a system of defence in depth based on a militia of *limitanei* holding land in return for armed service in emergencies and housed in 'fortified farms' similar in construction to Gasr Duib. This view of the *limitanei*, found already in Cagnat,<sup>19</sup> was still generally accepted until quite recently<sup>20</sup>. The concept of an organization of soldier-farmers to defend the frontier would provide a satisfactory answer to many questions, especially in Tripolitania where the great number of strongly built farmhouses of a fairly regular pattern appeared to support certain passages in the *Life of Severus Alexander*<sup>21</sup> and the Theodosian Code.<sup>22</sup> But the reliability of the *Life of Severus Alexander* had already been questioned by eminent Roman historians,<sup>23</sup> and the work is now generally regarded as a fabrication composed for the edification of a fourth-century ruler and quite invalid as a source for the organization of the frontier in the third century.

(d) *The limitanei*<sup>24</sup>

The *limitanei* have accordingly come under scrutiny, and from re-examination of the sources it is now clear that they are first mentioned in the fourth century and were regular troops, stationed on the frontiers and accommodated in barracks or forts. They were not farmers producing their own food, but received rations. When retired they were entitled to an allotment of land or a cash bonus, as had been the regular practice since the early empire. Land was allotted to the *limitanei* in the fifth century, but this was for the use of units, not of individuals, and not surprisingly is recorded only in the Eastern Empire.

(e) *Frontier guards*

It seems reasonable to suppose that up to 238 and probably also later in the third century the garrisons of smaller posts were provided by legionary and auxiliary detachments stationed along the Turris Tamalleni - Lepcis road.<sup>25</sup> By then the troops of the frontier must have developed close ties with the localities in which they were stationed, especially since at least from the early third century many were actually of African origin.<sup>26</sup>

(f) *The later years of Bu Ngem (Gholaia)*

There is as yet no unequivocal evidence later than 259, the year of the latest dated *ostrakon* from Bu Ngem, for any garrison in the pre-desert of southern Tripolitania.<sup>27</sup> Nor is there any information from El-Gheria el-Gharbia.<sup>28</sup>

## (ii) c.A.D. 300-400

(a) *Diocletian and Tripolitania*

Diocletian reorganized the empire at the end of the third century, and among the new provinces that he created was that of Tripolitania, which had already for some time been tacitly recognized as having a special unity of its own.<sup>29</sup> Courtois, however, has contended that most of the region was abandoned by Diocletian, and that the Empire retained only the north-west corner of the Tunisian sector, that is, from the Shott el-Djerid to Tacape, Gighthis and then south to Talalati (Ras el-Ain), with only a narrow coastal strip along the 1000 km. road to the Cyrenaican frontier.<sup>30</sup> But this would have deprived the new province of its very profitable territory, the Tripolitanian Gebel. The hypothesis of Courtois, based on the undeniable scarcity of evidence and doubtless influenced by Carcopino's views on Mauretania, has not been welcomed by scholars familiar with Tripolitania.<sup>31</sup>

(b) *South Tunisia*

The recent study of Remada (Tillibari) by Euzennat and Troussset makes the theory of the abandonment of the south Tunisian frontier more than doubtful.<sup>32</sup> Tillibari was a Hadrianic fort built and garrisoned by the Cohors II Flavia Afrorum. Anicius Faustus restored a temple and other buildings here in 197. The excavator of the fort in 1914, Donau, observed evidence for repairs or alterations in antiquity. Some of these may be attributable to Gallienus or, according to Euzennat and Troussset, more probably to the *praeses* Archontius Nilus

(355-360; v. infra). Furthermore all twelve zones of the *Limes Tripolitanus* still appear in the early fifth-century recension of the *Notitia Dignitatum*, which mentions the *praepositus limitis* in charge of the *castra Tillibarenses* and its garrison of the *Secunda(ni)*.<sup>33</sup>

Trousset describes four barriers (*fossata* or *clausurae*)<sup>34</sup> in the Tunisian sector of the frontier east of the Shott el-Djerid, the most remarkable being the wall 17 km. in length in the Djebel Tebaga. The southernmost is the short barrier of one to two km. across the Oued Chenini near Foum Tatahouine. His view is that these features, which seem designed for regulation of the passage of transhumants into or out of Roman territory, are probably datable to the mid-fourth century and that they may include the *propugnacula* credited to Archontius Nilus.<sup>35</sup> If so, this must invalidate the theory of Courtois. There is even a *clausura* in the Tripolitanian Gebel about 29 km. south of El-Asabaa.<sup>36</sup> The few sherds of Roman pottery found in and near its watch-towers seem to be of the fourth century.

### (c) Tripolitania

The frontier monument of the Tetrarchy at the Arae Philaenorum near Ras Lanuf suggests that the authorities took a certain interest in the new province whose frontier here was also that of the Diocese of Africa.<sup>37</sup> Admittedly, there is as yet not much evidence from the southern fringes of Tripolitania. But the plan of Gasr Bularkan, apparently a fortlet with bastions, in the Wadi Merdum, suggests a period as early as Diocletianic or Constantinian and looks like that of a small guard-post.<sup>38</sup> Two virtually identical buildings in the Tunisian sector show that in plan and size Gasr Bularkan is not unique.<sup>39</sup>

A series of tombstones from the cemetery at Bir ed-Dreder in the Middle Sofeggin preserves, in the local Libyco-Punic dialect but in Latin capitals of late character, epitaphs of Libyans bearing forms of Roman as well as Libyan names and in seven instances also the Roman word *tribunus*.<sup>40</sup> Goodchild observed that the Roman names Flavius (Flabius) and Iulius Constantius are those of the Roman emperors who reigned jointly, 340-350, and that '*Tribunus* is ... the Roman military rank applied, during the later empire, to the leaders of barbarian *numeri* serving with the Roman army'.<sup>41</sup> He added, rightly, that 'one might therefore expect it to be followed by the native name of a military detachment.' But it is impossible to recognize the name of a military unit in any of these inscriptions; and it may perhaps be worth remembering that the word *tribunus* has another meaning, literal and older, as 'chief of a tribe'. Whatever the meaning, however, it is noteworthy that the names of three of these *tribuni* - Nasif, Nimir, and Isiguar - also appear in the Latin inscriptions from the fourth-century North Tombs B and C at Ghirza, suggesting perhaps a connection with one of the leading families there. And it may be that the *tribuni* were, in fact, native commanders of tribal levies or irregulars in Roman service.

### (d) The law of 409

It is now necessary to return to the law of Honorius promulgated in 409<sup>42</sup> which is the second of the documents regarding frontier organization referred to above. Addressed to the Vicar of Africa (which included Tripolitania), it refers to 'areas of land in the diocese of Africa which had been by the humane provision of antiquity conceded to the barbarians [*gentiles*] in consideration of the care and maintenance of the frontier and its fortifications [*munitionemque limitis atque fossati*]. These lands shall not be granted to outsiders who do not fulfil these obligations, but should be reserved for barbarians or, if these fail, for veterans'.<sup>43</sup>

This passage constitutes the real evidence for a soldier-farmer organization in the later period of the *limes*; but it is an organization of *gentiles*, not of *limitanei*. *Gentiles* here is a term denoting barbarians living along, and frequently also within, the frontiers of the Empire.<sup>44</sup> They ranged from large tribes (such as the Baquates of the Moroccan border) to small and scattered groups. In fact, the large groups were often federates (*foederati*) allied by treaty with the Empire. The law of 409 indicates that *gentiles* were to be found on the African frontiers, while a well-known letter of St. Augustine (late fourth century) reveals that they were admitted into the Tripolitanian *Regio Arzugum* as crop-watchers and porters.<sup>45</sup> The settlement of *gentiles* had clearly been in existence for some time before it was reinforced by the law of 409, though the term 'antiquity' should doubtless be interpreted with caution. But apparently the old law had lapsed by the early fifth century, allowing squatters to occupy without obligation some of the lands in question; hence the necessity for its revival.

### (e) The *gsur*

*Gsur* or 'fortified farms' remain in great numbers in Tripolitania, but there is no certain evidence that any were actually erected by the Roman authorities for veteran soldiers (p. 228).<sup>46</sup> At least one hilltop *gsur* appears to have originated before the late third century.<sup>47</sup> They multiplied in the fourth, a necessary development for the security of property in so large and remote an area which had nothing to do initially with any official policy but could have been extended by the Roman authorities to include *gentiles* allotted to farms.<sup>48</sup> For example, there are *gsur* in and about the Wadi Tesa, a left-bank tributary of the Zemzem opposite the Wadi Ghirza, which are well built but late in aspect. Pottery around one of these, Gasr Saiad, ranges from the first century to the fifth.<sup>49</sup> It could have been worthwhile to maintain at least a semblance of frontier organization in this area with its northbound tracks and proximity to the nodal point of Ghirza.

Inscriptions from some *gsur* actually record them as having been erected by landowners to guard their estates. Instances are known in Tripolitania as well as in territories to the west. One example, Henchir Gueciret in the Gebel Matmata (Tunisia), dating from the (? early) fourth century and of the same type as those just mentioned, suffices to show the risk in attempting to generalize.<sup>50</sup> *Gasr Sames* in the Tripolitanian Gebel, between Tarhuna and Ain Wif, was constructed by its owner Urbentius specifically to protect his land against *gentiles* as well as barbarians, suggesting 'that the natives settled in the *limes* zone may have shown some tendency to make common cause with the invaders from whom they should, in theory, have protected the province'.<sup>51</sup>

(f) *Ghirza*

The great number of large farmhouses, and the plentiful fine red pottery of the fourth and fifth centuries associated with them, clearly indicate that in the period of the late Empire the pre-desert prospered as never before; and of this prosperity Ghirza evidently enjoyed a more than ample share. Grain from the wadis would always have found markets on the coast, and probably was especially needed after the Austurian raids which devastated the coastlands and the Gebel during the later fourth century and the early fifth.<sup>52</sup>

At all times, strangers in the pre-desert will have been closely watched, whether by soldiers, veterans, or *gentiles*, but particularly by farmers and shepherds of whichever category. Some strangers would be traders, among them Garamantes;<sup>53</sup> and it may have been traders who introduced the Libyan alphabet (p. 250). Libyan inscriptions have recently been found in the *vicus* at Bu Ngem<sup>54</sup>, but most of them are recorded in the provinces west of Tripolitania, whence the alphabet must have reached Fezzan. It seems obvious that it will have come to Ghirza along the tracks from Numidia and Byzacena.

Traders, and semi-nomads, would be familiar figures; but from time to time more ambitious and less trustworthy travellers will have passed through the pre-desert, now making full use of the camels which had been increasingly employed during the earlier Roman period.<sup>55</sup>

Ghirza enjoyed its greatest prosperity in the first half of the fourth century. This is evident from the monumental Tombs B and C of the North Group, the Latin inscriptions of which refer to the masons brought to erect and decorate the tombs and to the handsome payment that they received (p. 261). The presence of such masons implies that the leading families of the settlement were then in contact with the civilization of the coast. Moreover, the interesting inscribed column recording the celebration of the *parentalia* (p. 262) reveals a high degree of assimilation of Roman funerary customs. Tombs D and E, though still lavishly decorated, betray a decline in standards if not also in wealth. The decoration of Tomb E (p. 167) is most closely paralleled in that of the fifth-century church at El-Khadra in the Eastern Gebel, and in both cases the affinities are with the characteristically Berber decorative carvings found in churches in Numidia and Mauretania Caesariensis. The standard of Tomb F, at the end of the row of tombs and evidently the latest, suggests that travelling masons were either no longer employed or no longer available. Contact with the coast was apparently by now being lost.

One is disposed to see in the pre-desert chiefs descendants of the Libyphoenicians (p. 227), mentioned by classical writers, who sprang from a fusion of Libyans (or Numidians) and Phoenicians on the coast and in the Gebel during the last few centuries B.C. and later. Many of these had moved southward, inevitably becoming more Libyanized as time went on, though inscriptions show that they long preserved their Libyco-Punic speech. (p. 117 n. 21).

Two such inscriptions have been recorded at Ghirza (p. 181). Two others come from third-century tombs in the Wadi el-Ageram, 30 km. to the north.<sup>56</sup> At Ghirza, again, the temple - Building 32 - affords striking evidence of the survival of Punic religion. Here the adherents of an ancient Semitic cult, presumably that of Baal-Saturn (p. 87-88), established what must have been a focus of vigorous resistance to the advance of Christianity from the north.<sup>57</sup>

The Roman and Punic aspects of Ghirza do not, however, obscure the essentially Libyan character of its community; and it seems possible to see here, during the long period of perhaps two centuries from c. 300/350, the acknowledged political and religious centre of a shadowy Libyan hegemony embracing the whole of the pre-desert south of the Sofeggin.

If so, such a development is paralleled by the growth of tribal kingdoms in Mauretania Caesariensis, which often loosely maintained their old connections with the increasingly ineffective Roman government, in the fourth and fifth centuries.<sup>58</sup>

Ghirza was fortunate in lying far from the main routes which would have been taken by the Austurian raiders in and after 363;<sup>59</sup> for it is 180 km. from the point where the western coast of the Syrtic Gulf turns northward, and raiders from the east making for the Tripolitanian cities and the Gebel would therefore have had to follow a north-westerly direction.

### (iii) c. A.D. 400-550

#### (a) *The Moors*

There had long before been Moorish tribes in Numidia, and especially in Mauretania Caesariensis, which the Roman authorities had left in enclaves under native chiefs. These *praefecti* or *principes* enjoyed considerable independence; and Desanges has suggested that the Romans furnished them with insignia of office in recognition of their status.<sup>60</sup> Certainly official insignia of chieftainship were introduced in Tripolitania, perhaps as early as the fourth century or even the later third.

The only detailed description of these insignia dates, however, from the period of the Byzantine conquest (533), and in an account which presumably alludes to the chiefs of Moorish tribes on the borders of the present-day Tunisia and Algeria. It is preserved by Procopius, who records that: 'There were some [Moors] also who even furnished their children as hostages and requested that the symbols of office be sent them from him [Belisarius] according to the ancient custom. For it was a law among the Moors that no one should be a ruler over them, even if he was hostile to the Romans, until the emperor of the Romans should give him the tokens of the office. And though they had already received them from the Vandals, they did not consider that the Vandals held the imperial office securely. Now these symbols are a staff of silver covered with gold, and a silver cap, not covering the whole head, but like a crown and held in place on all sides by bands of silver, a kind of white cloak gathered by a golden brooch on the right shoulder in the form of a Thessalian cape, and a white tunic with embroidery, and a gilded boot. And Belisarius sent these things to them, and presented each one of them with much money.'<sup>61</sup>

It is in a passage relating the events of 543-4 that Procopius refers to these insignia in Tripolitania, when 'The Moors who are called Leuathae came to Sergius [then the Byzantine governor] with a great army at the city of Leptimagna, spreading the report that the reason why they had come was this, that Sergius might give them the gifts and insignia of office which were customary and so make the peace secure.'<sup>62</sup>

It is clear from the remarkable first passage of Procopius that the Moorish chiefs claimed their traditional gifts and insignia under an arrangement antedating the Vandal invasion of Roman Africa in 429; and in Tripolitania it seems more than probable that the arrangement dated from before the Austurian raids on the coast which began in 363<sup>63</sup> and undoubtedly hastened the end of effective Roman control over the interior. It is interesting to recall here the portrayal of a chief from the fourth-century Tomb North C (p. 153, Pl. 78), seated on a stool reminiscent of the *sedia curulis* of Roman magistrates, attired in an embroidered cloak and elaborate cap, and extending a baton (? sceptre). He is clearly a figure of authority.

#### (b) *The Vandals and the Moors*

In 455 the Vandals captured the Tripolitanian coastlands. Later in the same century they came into conflict with Libyan tribes, now commonly called Mauri whether they came from the east or the west. Those from the east seem to have originated in the same part of Syrtica as their predecessors the Austuriani. They can have differed hardly at all from the inhabitants of Ghirza and the surrounding country. Both groups were pagan, though there are indications of the worship of Ammon of Siwah rather than of the Punic Baal-Hammon in the religion of the newcomers.<sup>64</sup>

The most important single tribe of the fifth century and the early sixth was undoubtedly the Leuathae of Procopius. These were presumably the descendants of the Ilasguas against whom Maximian had campaigned in 298 and are to be equated with the Ilaguas, Ilaguatan, and Laguatan of the African poet Corippus<sup>65</sup> and with the Lawata or Louata of the medieval Arab chroniclers.<sup>66</sup> The Leuathae must have been known at Ghirza.

One group of Leuathae seems to have travelled across Tripolitania to the area of the Tunisian shotts where the Vandals attempted to halt them.<sup>67</sup> In the reign of Thrasamund (496-522) the powerful Moorish chief Cabaon, head of a tribe with great herds of camels, dominated the hinterland of Oea.<sup>68</sup> Moving west he was defeated by the Vandals in southern Tunisia. Other Leuathae installed themselves near Lepcis.<sup>69</sup> Ghirza, however, apparently survived until about the mid-sixth century, and it may be that the older inhabitants and the Leuathae lived peacefully together.<sup>70</sup> Finally, there were Leuathae who established themselves at Barka, Cyrenaica, where they were found by the Arabs about 640.

#### (c) *The Byzantines and the Moors*

After the Byzantines had overthrown the Vandals (533) there was peace with the Moors in Tripolitania for about ten years. Then came the visit to Sergius in Lepcis of eighty chiefs of the Leuathae (see above): 'when they came into conference they called up many charges against the Romans, and in particular said that their crops had been plundered wrongfully.'<sup>71</sup> This charge, it has been suggested, may imply that the Byzantine tax-gatherers had encroached on territory around Leptis which the Leuathae had occupied and considered to be their property.<sup>72</sup> The Vandals had lacked the financial organization of the Romans, and after nearly a century the return of a highly sophisticated bureaucracy with the Byzantines came as a rude surprise to the African



provincials who had so gladly welcomed the army of Belisarius, and also to the Moors on their borders. Indeed, Corippus relates that with the overthrow of the Vandals there faded away the happiness that Africa had known during their rule.<sup>73</sup>

The conference with Sergius ended abruptly and bloodily with the massacre of seventy-nine of the eighty Leuathan chiefs. The incident at once provoked war, and the whole of the pre-desert massed together against the Byzantines. Corippus gives a resounding list of tribes from the Shotts to the Syrtica who hastened to respond to the call to arms; and it includes names, such as Tillibarenses and Talalatenses, of contingents from places where Roman garrisons of the *Limes Tripolitanus* had been stationed in the third century.<sup>74</sup> Perhaps a band also went forth from Ghirza.

So far as the dating evidence goes it does suggest that about 550 the temple at Ghirza went up in flames (p. 85) and that the settlement as a whole suffered a fatal setback (p. 238). This might well be connected with the events of 544-7. The Byzantines had found it necessary to send to Africa the leading general of the day, John Troglita,<sup>75</sup> and in 547 he so decisively crushed the tribes that peace ensued for a century until the advent of the Arabs. Among the Moors killed in that final conflict was Ierna, the chief and high priest of the Leuathae;<sup>76</sup> and he had carried into battle the image of a bull which was said to be the son of Ammon and bore the name of Gurzil,<sup>77</sup> suggestive, at least, of the name of Ghirza.

## NOTES

### CH. VI. GHIRZA AND THE PRE-DESERT FROM ROMAN TO BYZANTINE TIMES

<sup>1</sup> O. Brogan, 'First and second century settlement in the Tripolitanian pre-desert', *Libya in History*, pp. 121-30, Fig. 1; *ibid.*, (1965b), pp. 57-64; Brogan/Smith (1967), pp. 141-144; cf. Rebuffat (1977), pp. 396-9.

<sup>2</sup> Goodchild (1950); G. Levi della Vida, *Oriens Antiquus* ii (1962), pp. 65ff., iv (1965), pp. 59-61; F. Beguinot, 'De alcune iscrizioni in caratteri Latini e in lingua sconosciuta trovate in Tripolitania', *Riv. degli Studi Orientali* xxiv (1949), pp. 14-19.

<sup>3</sup> Pliny, *Nat. Hist.* (Loeb ed.), v, 5, 38; Solinus, 29, 6-7.

<sup>4</sup> C.M. Daniels, *The Garamantes of Southern Libya* (1970), pp. 14-15.

<sup>5</sup> J. Desanges, *Catalogue des Tribus africaines de l'Antiquité à l'ouest du Nil* (1962), pp. 16, 91-2.

<sup>6</sup> Orosius, i, 2, 90; Daniels, *op. cit.*, pp. 15-16.

<sup>7</sup> Goodchild (1950a), pp. 30-31; Desanges, *op. cit.*, p. 78.

<sup>8</sup> *SHA, Vita Sept. Sev.*, 18, 3; Aurel. Victor, *De Caes.*, 20, 19.

<sup>9</sup> Bu Ngem: *IRT* 914-6; Rebuffat (1967), *ibid.* (1977), pp. 404-10; Goodchild (1954b). El-Gheria el-Gharbia: *LA* ii (1965), p. 136, Pl. LXIV, b; Goodchild, *loc. cit.* Ghadames: *IRT* 907, 909.

<sup>10</sup> D. van Berchem, 'L'annonce militaire dans l'Empire romain du IIIe siècle', *Mém. Soc. Ant. France* xxx (1937), pp. 117-202.

<sup>11</sup> A.L.F. Rivet, citing Polybius, *Hist.* (Loeb ed.), vi, 39, 13, in *The Roman Villa in Britain* (ed. A.L.F. Rivet, 1969), pp. 195-8.

<sup>12</sup> For records at Bu Ngem of asses and camels for transport see Rebuffat/Marichal (1974), pp. 285-6. But the *bastagas* of the *regio Arzugum* (St. Augustine, *Epist.*, 47) have been interpreted as waggons: Cagnat, *Armée*, p. 745.

<sup>13</sup> Rebuffat (1967), p. 93, (1976+), pp. 2, 10, (1977), pp. 407, 410; Rebuffat/Marichal (1974), p. 286.

<sup>14</sup> Rebuffat (1967), esp. p. 93, (1969-70), pp. 27-29, (1976+), p. 10.

<sup>15</sup> *IRT* 930.

<sup>16</sup> Goodchild/Ward Perkins (1949), pp. 81-88; cf. Rebuffat (1977), p. 403.

<sup>17</sup> Goodchild/Ward Perkins (1949), pp. 81-84; Rebuffat (1977), p. 406.

<sup>18</sup> Goodchild/Ward Perkins (1949), pp. 88-92; Smith (1970), pp. 299-301.

<sup>19</sup> Cagnat, *Armée*, pp. 741-6.

<sup>20</sup> *ILN*, Jan 22nd 1955, pp. 138-142, Jan 29th 1955, pp. 182-5; Brogan/Smith (1957), p. 174.

<sup>21</sup> *SHA, Vita Sev. Alex.*, lviii, 2.

<sup>22</sup> *Cod. Theod.* vii, 15, 1.

<sup>23</sup> *CAH* xii (1939), pp. 58, 598-9, 710; Jones (1964), ii, pp. 649-52.

<sup>24</sup> Jones (1964), ii, pp. 631-2.

<sup>25</sup> On the *Limes* road in (modern) Tripolitania a legionary vexillation and a *Cobors Hamiorum* (probably II) are known at Ain Wif, and a legionary vexillation and a *Cobors Sagittariorum Syrorum* at el-Auenia: *PBSR* xxvii (1960), p. 51ff., *LA* iii-iv (1966-7), pp. 45ff. In southern Tunisia (n. 32 below) Tillibari long retained its cohort.

<sup>26</sup> Cf. Rebuffat (1977), pp. 406-7. The legionary *praepositus* at Bu Ngem in 222 bore a Libyan *cognomen*, Iasucthan (Iasuctan in *CIL* viii 2638, from Lambaesis). An *ostrakon* from Bu Ngem records a native camelman also named Iasucthan; Rebuffat/Marichal (1974), p. 286. At el-Auenia there was a legionary called Migin: *PBSR* xxvii (1960), p. 52.

<sup>27</sup> Rebuffat/Marichal (1974), p. 286; Rebuffat (1976+), p. 10.

<sup>28</sup> The latest dated inscription from el-Gheria el-Gharbia is of the period of Gordian III (238-244): Rebuffat (1977), p. 407, referring to X. Lorient, 'Une dédicace à Gordien III provenant de Gheria el Gharbia', *Bull. Soc. Nat. des Antiquaires de France*, 1971, pp. 342-6.

<sup>29</sup> The earliest known epigraphic reference to the *provincia Tripolitana* is from Tibubuci (*CIL* viii, 22763). Cf. A. Chastagnol, 'Les gouverneurs de Byzacène et de Tripolitaine', *Antiquités Africaines* i (1967), pp. 119-22.

<sup>30</sup> Courtois (1955), pp. 70ff., 93ff.

<sup>31</sup> M. Euzenat, 'Recherches récentes sur la frontière d'Afrique (1964-74)', *Limeskongress* 10 (1977), p. 51; Di Vita (1964), pp. 65ff. Troussel (1974: nn. 32, 35, below); P. Romanelli, *Storia delle Provincie romane dell'Africa* (1959), remarked on the difficulties but preferred to remain non-committal.

<sup>32</sup> Troussel (1974), pp. 114-8, 153; Euzennat and Troussel, 'Le camp de Remada', *Africa* v-vi (1978-9), pp. 111-189.

<sup>33</sup> *Notitia Dignitatum* (ed. O. Seeck, 1876), pp. 186-7 (Occ. xxxi); cf. Goodchild/Ward Perkins (1949), p. 82.

<sup>34</sup> Troussset (1974), p. 139.

<sup>35</sup> *Ibid.*, p. 141.

<sup>36</sup> O. Brogan, *Second Annual Report of the Society for Libyan Studies* (1970-1), p. 11; *ibid.*, *Third Annual Report* (1971-2), p. 6, Pl. VIII, *Eleventh Annual Report* (1979-80), pp. 45-52.

<sup>37</sup> R.G. Goodchild, 'Aræ Philænorum and Automalax', *PBSR* xx (1952), pp. 70ff.

<sup>38</sup> Goodchild (1950), pp. 33-34. It is, however, impossible to explain in military terms either its location or its isolation. For the strikingly contrasting defensive situation further west cf. Troussset (1974), *passim*, and J. Baradez, *Fossatum Africae* (1949), *passim*.

<sup>39</sup> Troussset (1974), p. 134, fig. 15, 3 and 4.

<sup>40</sup> Goodchild (1950a), p. 32, (1954c).

<sup>41</sup> *Ibid.* (1950c), p. 139.

<sup>42</sup> *Cod. Theod.*, vii, 15, 1.

<sup>43</sup> Trans. Jones (1964), i, p. 651.

<sup>44</sup> Cf. Cagnat, *Armée*, pp. 744-5.

<sup>45</sup> St. Augustine, *Epist.*, 46, 47. For the Arzunan Christian community see *Epist.* 93.

<sup>46</sup> See notes 20-23.

<sup>47</sup> Wadi el-Amud, Site 10: Brogan (1964), pp. 52-3. Some of the large *gsur* along the Sofeggin, particularly between Mizda and Nesma, may possibly date from the third century; also the badly ruined *gsur* on the left bank near Ras Signah: Brogan/Smith (1967), p. 142.

<sup>48</sup> *Gsur* with richly ornamented entrances, the carvings on which recall some of those on tombs at Ghirza, may date from the fourth century. One is Gasr Isawi, in a tributary of Wadi Migdal: *PBSR* xxviii (1960), p. 53. Another is Gasr No. 1 at Gasr es-Suq el-Oti (or Lhoti): Ward Perkins (1950), p. 27. A third is at Gasr el-Bab, on the Wadi el-Bab in the mountains south of Ain Wif. Troussset (1974), pp. 136-7, remarks on the similarity of the plans of many of the smaller *gsur* in Tunisia and on their close resemblance to those of typical Tripolitanian *gsur*: cf. Goodchild (1950), fig. 10, Types II-IV. These, he considers, might have housed the *gentiles* and their predecessors.

<sup>49</sup> Brogan/Smith (1967), pp. 143-4, fig. 2, Pl. XL, b, c.

<sup>50</sup> *CIL* viii, 22774; Troussset (1974), pp. 85-6, 136-8, fig. 16, no. 8.

<sup>51</sup> *LS*, pp. 111-2.

<sup>52</sup> Amm. Marc. (Loeb ed., 1972), xxviii, 6, 10ff.; *IRT* 480 (A.D. 408-23).

<sup>53</sup> Daniels, *op. cit.*, p. 53; Rebuffat/Marichal (1974), p. 286: meeting Garamantes with four asses.

<sup>54</sup> R. Rebuffat, 'Graffiti en "Libyque" de Bu Njem', *LA* xi-xii (1974-5), pp. 165-187.

<sup>55</sup> As Roman control and prestige dwindled, wandering tribes passed through Tripolitania; such were the Louata who are found in the Djerid. Whether these crossed the Gefara, or made their way through the southern wadis, cannot be known; but they would have been less liable to obstruction in the south.

<sup>56</sup> Reynolds (1955), p. 141.

<sup>57</sup> Cf. *Christ. Antiq.*, p. 3, fig. 1. The two nearest churches known are those of Chafagi Aamer, south-east of Mizda, and at Gasr es-Suq el-Oti (or Lhoti) in the Wadi Busra south of Beni Ulid. The distribution of the churches perhaps reflects the sphere of influence of imperial authority in late Roman and again Byzantine times.

<sup>58</sup> In Altava in 508 a local chief, Masuna, described

himself as *rex gentium et Romanorum*: *CIL* viii, 9835; cf. Courtois (1955), p. 92ff. Titles of certain of the old Roman magistracies, e.g. *decurio*, *praefectus*, were still employed in the mid-fifth century in this part of Mauretania Caesariensis.

<sup>59</sup> Cf. P. Romanelli, *op. cit.*, p. 565f. But for a new hypothesis concerning the Roman road west of the Sebkhâ Tauorga see R. Rebuffat, 'Gholaia', *LA* ix-x (1972-3), pp. 139-44.

<sup>60</sup> *Op. cit.*, p. 20.

<sup>61</sup> Procopius, *History of the Wars* (Loeb ed., 1968): *The Vandalic War*, III, xxv, 4-9. Dr. John Peter Wild has kindly permitted us to quote as follows from his comments, in a letter of 11/7/79, on the items of costume: 'His terminology for the symbols does not sound at all official to me, nor does it echo, except very distantly, official Roman dress. The silver cap is a *pilos*, a felt fez, with the flat top missing to make it like a crown. I don't think from the phrase used that it was solid silver, but was behung with silver bands or ornaments like a turban. The cloak (*tribonion*) is like a Thessalian riding cloak, small and light, fastened with a fibula on the right shoulder in the official Roman manner. That at least has a whiff of officialdom. *Tribonion* is a very odd word, a worn out, i.e. very thin, cloak. The white tunic *chiton* is neutral and betrays nothing of its form. *Chiton* might mean anything - it is the most colourless word he could have chosen. But its "embroidery" may be patches of tapestry-woven ornament on cuffs and shoulders, as on the Piazza Armerina mosaics. If so, it might be court dress. But Procopius does not use the right terminology, curiously, if that is what he had in mind. He could have been avoiding something too specific when he wasn't sure himself what it looked like. The boot (*arbule*) is a mystery - it's a classical Greek word for a riding boot. I don't know of its use in late antiquity.'

<sup>62</sup> *Op. cit.*, IV, xxi, 2-3.

<sup>63</sup> See n. 52.

<sup>64</sup> Corippus, *Johannidos* (ed. J. Diggle and F. R. D. Goodyear, 1970), ii, 110, iii, 81, vi, 116, 147, 179, 190, 556, viii, 515, 519, 534, vii, 252, 304. A shrine of Ammon of Siwah is known at Bu Ngem but it was built for the Roman garrison of the third century: *IRT* 920; Rebuffat (1974a), pp. 135-6, fig. 5.

<sup>65</sup> Corippus, i, 478-81: *Ilagnus cuius iam Maximianus in armis antiquos persensit auos*; v, 153: *terror Ilaguatan impellit Martius hostem*.

<sup>66</sup> Ibn Khaldoun, *Hist. des Berbères* (trans. M. de Slane).

<sup>67</sup> Cf. Courtois (1955), p. 350.

<sup>68</sup> Procopius, *op. cit.*, III, viii, 15-27, IV, xi, 17-18.

<sup>69</sup> Procopius, *op. cit.*, IV, xxi, 2-3.

<sup>70</sup> On the other hand, a hill village 32 km. up the Zemzem by the Wadis Magrusa and Mdhawab perhaps suggests that others in the vicinity were not disposed to welcome intruders: Brogan (1970), fig. 1, site 17. Particulars of its later pottery will be published by Prof. G. D. B. Jones.

<sup>71</sup> Procopius, *op. cit.*, IV, xxi, 5-6.

<sup>72</sup> Courtois (1955), p. 103.

<sup>73</sup> Corippus, iii, 195-6.

<sup>74</sup> *Ibid.* ii, *passim*.

<sup>75</sup> Procopius, *op. cit.*, IV, xxviii, 43ff.; Corippus, *op. cit.*

<sup>76</sup> Corippus, v, 519; cf., iv, 597, 631, v, 23, 369, 511.

<sup>77</sup> *Ibid.*, ii, 109, v, 22-26, 494-5; cf. ii, 405, v, 39, vi, 116, viii, 304, 619.

## ROMAN POTTERY AND LAMPS

By J. W. Hayes, M.A., Ph. D.

*Introduction*

The pieces here published represent all the finer Roman wares and lamps and a selection of the more distinctive coarse wares collected from the site. Only the examples from the excavation in Midden 1 (p. 92) were stratified; the rest, except for a small tomb-group (Cemetery 1, Tomb 1; p. 113), are surface gleanings and should for the most part reflect the final period of the middens, etc., from which they come (but see p. 238). The majority of the pieces to which any date can be assigned fall between the 4th and the 6th century, though two sherds of Italian terra sigillata found near Buildings 24 and 26 (p. 236) suggest occupation of the site as early as the 1st century A.D. The most precise dating-evidence is that provided by the few fragments of African Red Slip Ware<sup>1</sup> (= *Late Roman A/B* = *Terra sigillata chiara*) of Tunisian origin which, thanks primarily to the many well documented examples from the Agora excavations in Athens,<sup>2</sup> can now be closely dated. The period of each example cited as a parallel is stated in the Catalogue which follows. The majority of the finer pieces are, however, of a fabric which predominates in late Roman groups elsewhere in Tripolitania - e.g. in the Serapeum at Lepcis Magna<sup>3</sup> - and which I term 'Tripolitanian Red Slip Ware' even though it may not, in fact, have been made in Tripolitania.<sup>4</sup> As yet this can only be dated through loose associations with examples of the Tunisian ware on certain sites and through its imitation of Tunisian vessel-forms and decorative motifs. Taken together these indicate that the main period of production extended from the beginning of the 4th century to late in the 5th. A distinctive series of lamps, well represented at Ghirza, may be associated with this ware.<sup>5</sup>

Turning to individual specimens, the main series of dishes (p. 235, nos. 5-8, 10-14, 25-31) belong to forms which bear stamped decoration and may be dated roughly A.D. 350-450. No. 19, and perhaps also no. 32, come from the corresponding series of bowls. No. 17 may be a little earlier, perhaps early to mid-4th century; stamped decoration is not attested on this form. All the types mentioned so far are very common at Lepcis Magna.<sup>6</sup> The plate no. 34 and the small rouletted bowls 22-23, 36 are copies of mid-late 5th century Tunisian types; it is perhaps significant that these types did not occur in the Serapeum at Lepcis, where almost all the finds seem to date from before 450.

Nos. 18, 33 and 47 present a problem. They could be imitations of the typical stamped dishes of the 6th century (Waagé, shapes 802-805), but correspond more closely in form to a dish from a late 3rd-century context at Barrafrance in Sicily.<sup>7</sup> This dish, published as 'terra sigillata chiara', does not correspond in detail to any known vessel-type in the Tunisian series and may well belong to our 'Tripolitanian' class, although the latter does not appear to have been exported very often. If so, the pieces from Ghirza may belong to an early and poorly attested phase of the ware.

Also early, it seems, are the bowl and lamp from Tomb 1 in Cemetery 1 (p. 236, figs. 70, 73, Pl. 131a, c). The lamp is of a type which, stylistically, may be regarded as the forerunner of the standard 'Tripolitanian' type noted below. As for the bowl, the only parallels in form that I can cite are a few sherds from the Lepcis Serapeum; these may well be of earlier date than the bulk of the material there, which comprises mid-4th to mid-5th century types. In other words, this tomb group may go back to the end of the 3rd century.

The catalogued lamps from the site span a period of at least four centuries. The earliest, no. 1 (from Building 32) is a common African type of the 2nd century, bearing the stamp of a well known lamp-maker (p. 236, fig. 73, Pl. 132, centre). Nos. 6 and 7 are poor examples of the common African Red Slip Ware lamps of Broneer Type XXXI current in early Christian times; the Ghirza specimens probably date from after A.D. 500. No. 5 is an unusual variant of this type, probably rather earlier in date; I assume that it comes from a minor African workshop. No. 9 may be a local product; it appears to be a copy of a 'Tripolitanian' type (cf. Pl. 134, 135a) and presumably dates from the 5th or 6th century.

With three exceptions the fragments of lamps from various provenances fall into two distinct groups. The first, para. B (c) 3 below, which corresponds in fabric to Tripolitanian Red Slip Ware, includes examples with the normal Roman circular discus and also imitations of the North African (Tunisian) type (Broneer XXXI) with an open channel along the nozzle. These may be dated to the 4th and 5th centuries: similar lamps are common throughout the region.<sup>8</sup> The other group, para. B (c) 4, consists of normal African pieces (Broneer type XXXI), all of a devolved type with blurred, poorly-impressed relief decoration. Their stylistic content (jewelled crosses and the like) and poor quality suggest a date late in the series, hardly earlier than the beginning of the 6th century. Their presence presumably indicates the disappearance from the scene of the 'Tripolitanian' products.

Virtually nothing can be said at present about the coarser wares beyond the fact that, from their contexts here, they are Roman and probably for the most part fairly late Roman. I consider it sufficient to record only the most distinctive pieces (p. 237).

## CATALOGUE

### A. Fine wares

#### (a) *Midden 1* (p. 96): fig. 69

*Tunisian Red Slip Ware*: 4 fragments.

1. Rim of flat-based dish, Antioch<sup>9</sup> shape 831. Diam. 29 cm. First half of 5th cent. Surface.
2. Floor frag. of flat-based dish, with decor. of stamped palm-branches. Late 4th-early 5th cent. Surface. Pl. 131b
3. Rim of footed dish, Antioch shape 802. Diam. 28cm. Late 6th to mid-7th cent. Surface.
4. Rim of large dish or bowl, probably related to Antioch shape 804/5. Diam. c. 35cm. Unusual form: (?) 6th cent. Surface.

*Tripolitanian Red Slip Ware* (p. 97): 45 fragments

- 5-6. Frags. of large flat-based dishes with broad flat rim; groove at lip. Diam. 36cm. (no. 5), c. 30cm. (no. 6). No. 5 from spit 2 of the excavation (p. 97), no. 6 from spit 1. Three similar rims from the surface, two from spit 1, one from spit 2, one from spit 7, one from spit 9.
7. Same, without groove at lip. Diam. 36cm. From spit 7. Four similar rims from the surface.
8. Same, with hooked lip. Diam. 35cm. Surface.
9. Rim, either of a dish (as no. 7) or, more probably, a bowl (cf. no. 19). Diam. 33cm. Surface.
10. Frag. of large dish with thickened rim of triangular section and base as either no. 5 or no. 15. Diam. 31cm. Spit 1. Two similar rims from the surface.
11. Same, with incurved rim. Diam. 31cm. Spits 3/4. One similar rim from the surface.
12. Same, with plain thickened rim. Diam. 27 cm. Surface. One similar rim from spit 7, two from the surface.
13. Frag. of dish with thickened rim bearing fine grooves on top. Diam. uncertain, fairly large. Spit 3.
14. Frag. of dish as nos. 5-12; stamped decoration of palm-branches between two sets of grooves. Surface. Pl. 131b.
15. Floor frag. of (?) dish with rouletted band. Surface.
16. Base frag. of dish, probably as nos. 10-11. Diam. of base 17cm. Surface.
17. Frag. of large flat-based dish with short out-curved rim. Diam. 26cm. Surface, together with four similar rims.
18. Frag. of (?) plate, with heavy vertical rim. Diam. 24cm. Spits 4/5.
19. Frag. of large bowl with 'stepped' rim. Diam. 32cm. Surface.
20. Frag. of large bowl, type uncertain. Diam. of base 8cm. Spit 7.
21. Frag. of small carinated dish. Diam. 17.5cm. Surface.
- 22-23. Frags. of small bowls with high foot and rouletting on outside; for rim-form see no. 36. No. 22 from spit 7, no. 23 from spit 10.

#### (b) *Middens 3 and 4* (p. 93): fig. 69

*Tunisian Red Slip Ware*: 1 fragment.

24. Rim of flat-based dish as Antioch shape 818. Diam. 34 cm. (to lip). Mid to late 4th cent. Midden 3.

*Tripolitanian Red Slip Ware*: 17 fragments.

25. Frag. of dish as nos. 5-6. Diam. 35cm. Midden 3, together with one similar rim.
- 26-27. Frags. of dishes as nos. 10-11. Diam. 35cm. (no. 26), 32cm. (no. 27). No. 26 from Midden 4, no. 27 from Midden 3. Another rim as no. 26 from Midden 3.
28. Frag. of large dish with thickened rim, grooved on top. Diam. 31cm. Midden 3.
30. Floor frag. of flat-based dish as nos. 5-12, bearing stamped decoration and multiple grooves. Midden 3. Pl. 131b.
31. Floor frag. of a similar dish, bearing groups of grooves. Midden 3. Pl. 131b.
32. Frag. of bowl as no. (?) 19. Diam. 26cm. Midden 3.
33. Frag. of large dish with knobbed rim; cf. no. 18. Diam. 36cm. Midden 3.
34. Part of large footed plate, with knobbed rim and rouletted on underside. Diam. 36cm. Midden 4.
35. Frag. of small bowl with short flattened rim bearing faint grooves. Diam. 16cm. Midden 3, together with one similar rim.
36. Frag. of small bowl with curved wall covered with rouletting: rim thickened on inside. For the foot see nos. 22-23. Diam. 11.6cm. Midden 4.

#### (c) *Building 32* (p. 85): fig. 70

*African Red Slip Ware*

37. Frag. of base and floor of dish, Lamboglia<sup>10</sup> type 5. Diam. of base 8cm. Early to mid-2nd cent.
38. Rim of flat-based dish, as Lamboglia type 2/9. Diam. 36cm. Late 4th-early 5th cent. From debris near north side of north courtyard (p. 82).
39. Rim of footed dish, Antioch shape 802. Cf. no. 3. Diam. 30cm. Late 6th to mid-7th cent.

*Tripolitanian Red Slip Ware*

40. Frag. of dish as nos. 10, 12. Diam. 32cm. From debris of late 10th-early 11th cent. occupation.
  41. Base frag. of dish as nos. 5-12. Diam. of base c. 16cm.
  42. Base frag. of dish, probably as no. 16. Diam. of base c. 18cm.
- Also rims of dishes as nos. 5-6, 12 and 16; unstratified.

(d) *Various provenances: fig. 70*

*Italian Terra sigillata*

Two small frags. of indeterminate form were found near Buildings 24 (p. 58) and 26 (p. 60).

*African Red Slip Ware*

43. Rim frags. of bowl, Lamboglia type 2 a, Antioch shape 897. Diam. c. 17.4cm. Late 1st to mid-2nd cent. Found by monumental tomb A of the south group, i.e. in Cemetery 3 (p. 114).

*Tripolitanian Red Slip Ware*

44. Frag. of large dish with thickened, slightly hooked rim. Diam. 31cm. Cemetery 1.
45. Frag. of dish as no. 7. Diam. 40cm. Monumental tomb G of the north group (p. 178); see also no. 46.
46. Base frag. of large dish, type uncertain. Diam. of base 21cm. Faint rouletting (probably paring-marks) on underside to outside of foot. Provenance as no. 45.
47. Base frag. of (?) dish. Diam. of base 13.5cm. High, sharply cut foot; two groups of fine grooves preserved on floor. Building 36 (p. 60).  
Frag. of dishes as nos. 5-6. Building 31 (p. 62) and Cemetery 2 (p. 106).  
Frag. of dish as no. 17. Building 1 (p. 60).

(e) *Tomb, 1 Cemetery 1: grave group (p. 113)*

*Tripolitanian Red Slip Ware*

1. Fig. 70, Pl. 131c. Bowl, almost complete. Diam. 28.6cm. Pinkish-red fabric, fairly clean-breaking; thin dull slip of similar colour covering whole of vessel. Carinated form, with high vertical rim bearing two lines of rouletting; low foot. Hayes, *op. cit.*, p. 305, Form 1, fig. 60,1.
2. Fig. 73, Pl. 131a. Lamp, intact. Length 12.1cm. diam. 7.9cm. Flat-topped form, with stub-handle and abnormally large nozzle-opening; hollowed base, linked by a slight ridge to handle. Relief decoration on rim, consisting of line flanked by dots (? degenerate wreath). Early type.

B. Lamps

(a) *Building 6 (p. 58): fig. 72*

Fig. Frag. Pale brownish fabric, worn sepia slip. Small clay 'bubbles' on discus and rim, from use of plaster moulds. Discus: plain, concave, raised round filling-hole. Rim: wreath of lanceolate leaves with midrib, arranged in threes, two of each three being splayed and overlapping the third, the tip of which is flanked by two small knobs. Ponsich type III C.<sup>11</sup> End of 2nd to 3rd cent.

(b) *Building 32 (p. 80)*

1. Fig. 73, Pl. 132, centre. Length 10.9cm., diam. 7.6cm. Pale, brownish fabric, worn sepia slip. Small clay 'bubbles' on discus, etc., from use of plaster moulds. Tondo: crescent-shaped motif in relief. Rim plain. Handle (broken) pierced and grooved. Plain nozzle with small knobs at junction with rim. On bottom, an indistinct stamp, probably C]IVNDRAC. Ponsich type III B 1.<sup>12</sup> About first half of 2nd cent. From southern half of room south of *sacellum*, partitioned in Period 1B, north-west corner (p. 85); found with no. 9 below.
2. Handle of a similar lamp. From the debris.
3. Pl. 133a, l. Part of top of a lamp of Tripolitanian Red Slip Ware. Flat-topped, with stub-handle; edge of a central filling-hole preserved in discus. Pattern of small raised rings on rim. c.A.D. 350-450.
4. Rim frag. of similar lamp, burnt. Pattern of dots on rim. From the debris.
5. Pl. 133a, r. Diam. 8.3cm. Part of top of a two-nozzled version of Bronceer Type XXXI, in an abnormal African red-slip fabric. Handle broken off; made separately from body and luted on, incorporating a stub-handle moulded together with top half of body, part of which remains. Relief decoration of small crude running animals on rim and discus. Probably 5th cent. From northern half of room south of *sacellum*,

partitioned in Period 1B (p. 85).

6. Pl. 132, top r. Length preserved 8.6cm. Part of top of a lamp of African Red Slip Ware, Broneer Type XXXI. Thick gritty fabric, with blurred relief decoration. Discus: large cross monogram, decorated with vine-scrolls, small cross, etc. Rim: various floral motifs. c. A.D. 500-550.
7. Pl. 132, top l. Length preserved 9.5cm. Part of top of a lamp as no. 6, but of poorer quality, Thin schematic linear decoration; cross monogram on discus. 6th cent. Found at the south end of the porch of Period 2 (p. 90), near the window and below window level, near the objects of Periods 1 and 2 (p. 90) in a layer of ash c.60cm. thick, above which was a layer of burnt datestones.
8. Base of a lamp, as no. 6 and in similar fabric. Low base-ring. From the occupation layer of Period 2 in the former antechapel (p. 90).
9. Fig. 73, Pl. 132, bottom l. Diam. c.8.0cm. Fragmentary. Pale orange ware, very flaky, with traces of burning, no slip. Flat-topped type, with slightly hollowed base; thin linear relief decoration in discus and on rim (leaf-sprays). About 5th cent. Found inverted and crushed on top of no. 1, above.

(c) *Various provenances*

1. Discus frag. of 2nd-cent. type. Cf. no. 1, above.
2. Two rim frags. of 3rd to 4th-cent. types. Both from Midden 1.
3. Tripolitanian Red Slip Ware: 21 frags. Fabric as in the lamp from Tomb 1, Cemetery 1 (see above). Most appear to be of the type with open channel from discus to nozzle; all those from Middens 3 and 4 and two of those from Midden 1 are of this type. Mostly (?) 5th cent. Four from Midden 1, three from Midden 3, four from Midden 4, the rest of unrecorded provenance.
4. African Red Slip Ware: 14 frags. In type and fabric as nos. 6-8 above, with a variety of rim and discus motifs. c.A.D. (?) 500-550. Three from Midden 1, two from Midden 4, the rest of unrecorded provenance.

C. Coarse wares: fig. 71

(a) *Thin granular red ware with impurities; partially slipped or smoothed surface; exteriors or rims often black owing to irregular firing (indicated on profiles).*

- 1-2. Dish frags. Thin slip on inside. Diam c.25cm. (no. 1), c. 30cm. (no. 2). No. 1 from Midden 1, no. 2 from Midden 3.
- 3-7. Lid (? or dish) frags. Generally smoothed on outside. Diam. 23cm., 24cm., 24cm., 23cm., 25cm. respectively. Nos. 3-4 from Midden 1, nos. 5-7 from Midden 3.

(b) *Fine-grained red ware, with thin red wash on surface; basically the same as Tripolitanian Red Slip Ware.*

8. Neck frag. of flagon, with stump of one handle preserved; originally probably two-handled. From Midden 1, spit 1. A similar frag. from Midden 1.
- 9-10. Handles from similar flagons. No. 9 from Midden 1, spit 1, and one similar from Midden 1; no. 10 also from Midden 1.
11. Jar frag. Clay less pure; wash on outside only. Midden 1.
12. Jar frag.: normal ware. Midden 1. Several similar frags. from Middens 1 and 3, some lacking the wash.

(c) *Plain orange ware, sometimes containing lime and other particles. Firing often irregular, with partial reduction.*

13. Rim of dish; orange with purplish core. Diam. 30cm. Midden 1.
- 14-16. Bowl frags. Diam 16cm., 15cm., 12cm. respectively. No. 14 from Midden 3, no. 15 from Midden 1, no. 16 from Midden 1, spit 1. One similar frag. from Midden 1.
17. Bowl or lid frag. Rather coarse orange fabric, partially reduced to grey. Diam. 19cm. Midden 1.
18. Jar frag.: orange ware, grey core. Diam. 30cm. Midden 3.
19. Rim of jar with slight seating for a lid; gritty orange to grey ware. Diam. 26.5 cm. Midden 3.
20. Jar Frag.: orange ware, grey core; some large lime and black impurities. Diam. 26cm. Midden 1.
21. Jar frag.: seating for lid. Grey ware. Diam. 17cm. Midden 1.
- 22-23. Rims of (?) jugs or flagons. Orange ware. Diam. 13cm. (no. 22), c. 13.4cm. (no.23). No. 22 from Midden 3, no. 23 from Midden 1.
24. Rim of cooking-pot. Coarse and gritty, with much lime (possibly added as tempering); brown, with grey surfaces. Diam. 23cm. Midden 1, spit 7.

(d) *Amphorae.*

25. Base; type uncertain.
26. Two frags. probably from cylindrical amphorae as *Athenian Agora*, V, M 333 (the type known as Class B ii on Celtic sites in Britain; see C. Thomas, *Medieval Archaeology* iii, 1959, 92). 5th cent. or later. Midden 1 and Midden 3.

## Conclusion

On the basis of the fine wares and lamps listed above one may conclude that Midden 1 (p. 96) accumulated during the period c. 350-450. The pottery from the excavation in this midden does not differ significantly from spit to spit (cf., for instance, the fine-ware pieces nos. 5 and 6 and similar pieces). The only objects of later date from Midden 1, a few scraps of 6th-century lamps, are surface finds. Middens 3 and 4 belong, as far as can be judged from surface material, to rather later periods respectively. The former may date primarily from the 5th century, though it may have begun to accumulate earlier; the latter seems to belong mainly to the century 450-550. The very fragmentary material from Building 32 may suggest that its initial period of occupation came to an end in the earlier part of the 5th century; this, however, lacks confirmation.

The two fragments of Italian terra sigillata, the fine-ware pieces nos. 37 and 43, and lamp no. 1 from Building 32 together attest occupation of the site in the 1st and early 2nd centuries A.D.; and there is evidence of occupation at least as late as the latter part of the 6th century. But there appears to have been no intensive settlement before the end of the 3rd century, and the centuries most frequently represented are the 4th and 5th.

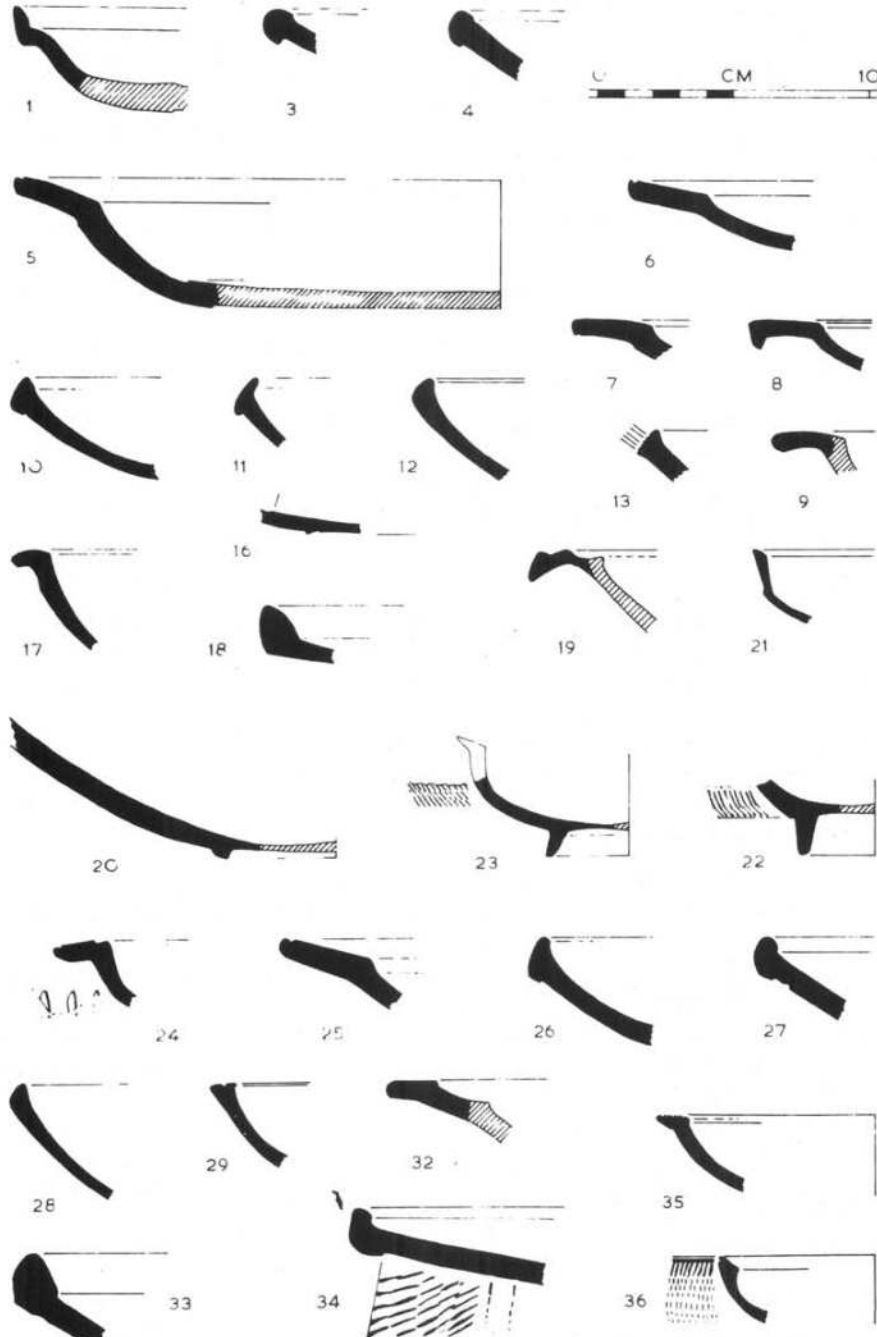


Fig. 69. Roman pottery: fine ware, 2:5.

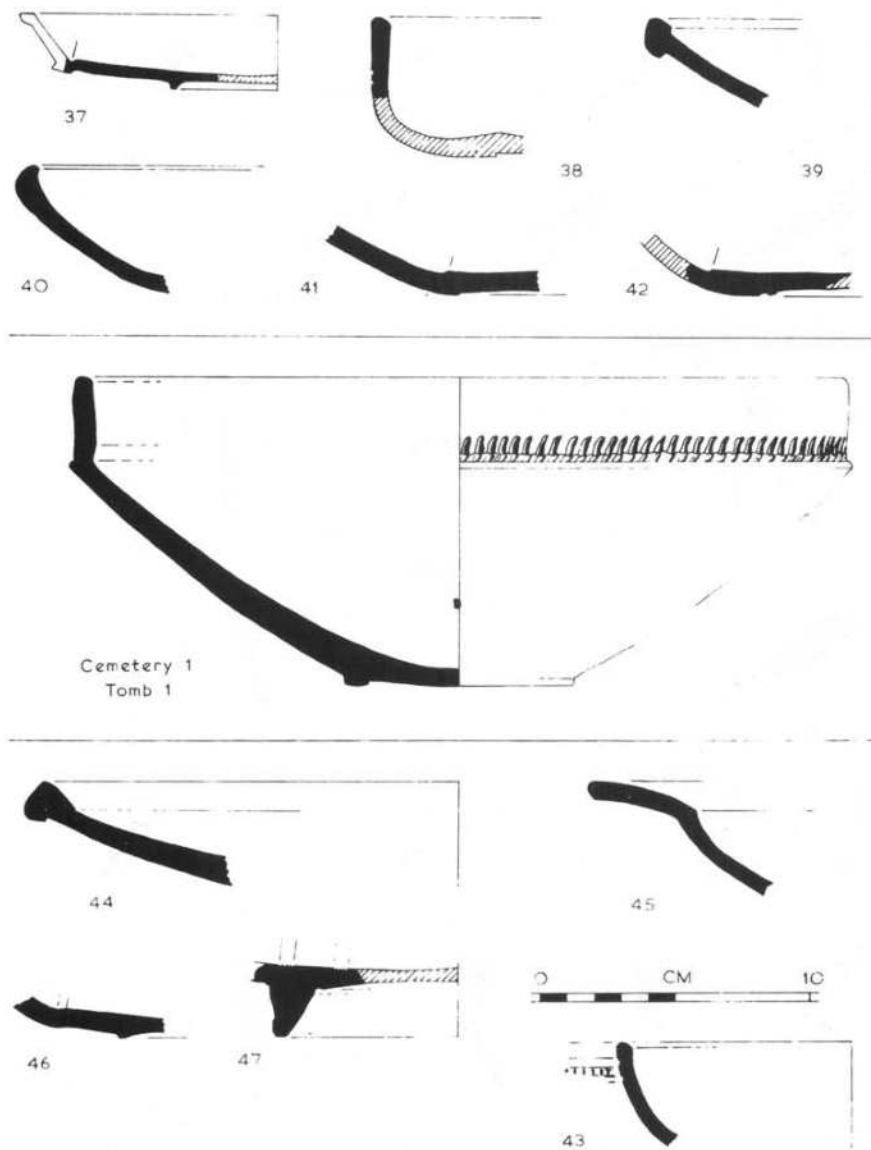


Fig. 70. Roman pottery: fine ware, 2:5.

#### APPENDIX 1: NOTES

- <sup>1</sup> See now J.W. Hayes, *Late Roman Pottery* (1972), pp. 15-299.
- <sup>2</sup> *Ibid.*, *passim*.
- <sup>3</sup> Report forthcoming. Meanwhile, on selected pottery see *ibid.*, *passim*.
- <sup>4</sup> See now *ibid.*, pp. 304-9.
- <sup>5</sup> *Ibid.*, pp. 314-5.
- <sup>6</sup> On the pottery heaps on the site.
- <sup>7</sup> *Notizie degli Scavi* (1956), p. 167, fig. 2 b; cf. Hayes, *op. cit.*, p. 309.
- <sup>8</sup> There is a large collection in Tripoli Museum.
- <sup>9</sup> See F.O. Waagø, *Antioch-on-the-Orantes IV*, part 1, p.

43ff.

<sup>10</sup> N. Lamboglia, 'Nuove osservazioni sulla "terra sigillata chiara" (Tipi A e B)', *Rivista di Studi Liguri* xxiv (1958), pp. 257-330. The earlier African Red Slip Ware series constitutes Lamboglia's ware A.

<sup>11</sup> M. Ponsich, *Les Lampes Romaines en Terre Cuite de la Maurétanie Tingitane* (Publications du Service des Antiquités du Maroc, 15, 1961). For the motif cf. nos. 324, 344; these are unslipped but nevertheless, I think, valid parallels. Cf. J.W. Salomonson, 'Etudes sur la céramique romaine d'Afrique', *Bulletin ... Antieke Beschaving (B.A.Besch)* xlii (1968), pp. 86-7, fig. 5, 1.

<sup>12</sup> Ponsich, *op. cit.*, esp. no. 264 (similar crescent motif).



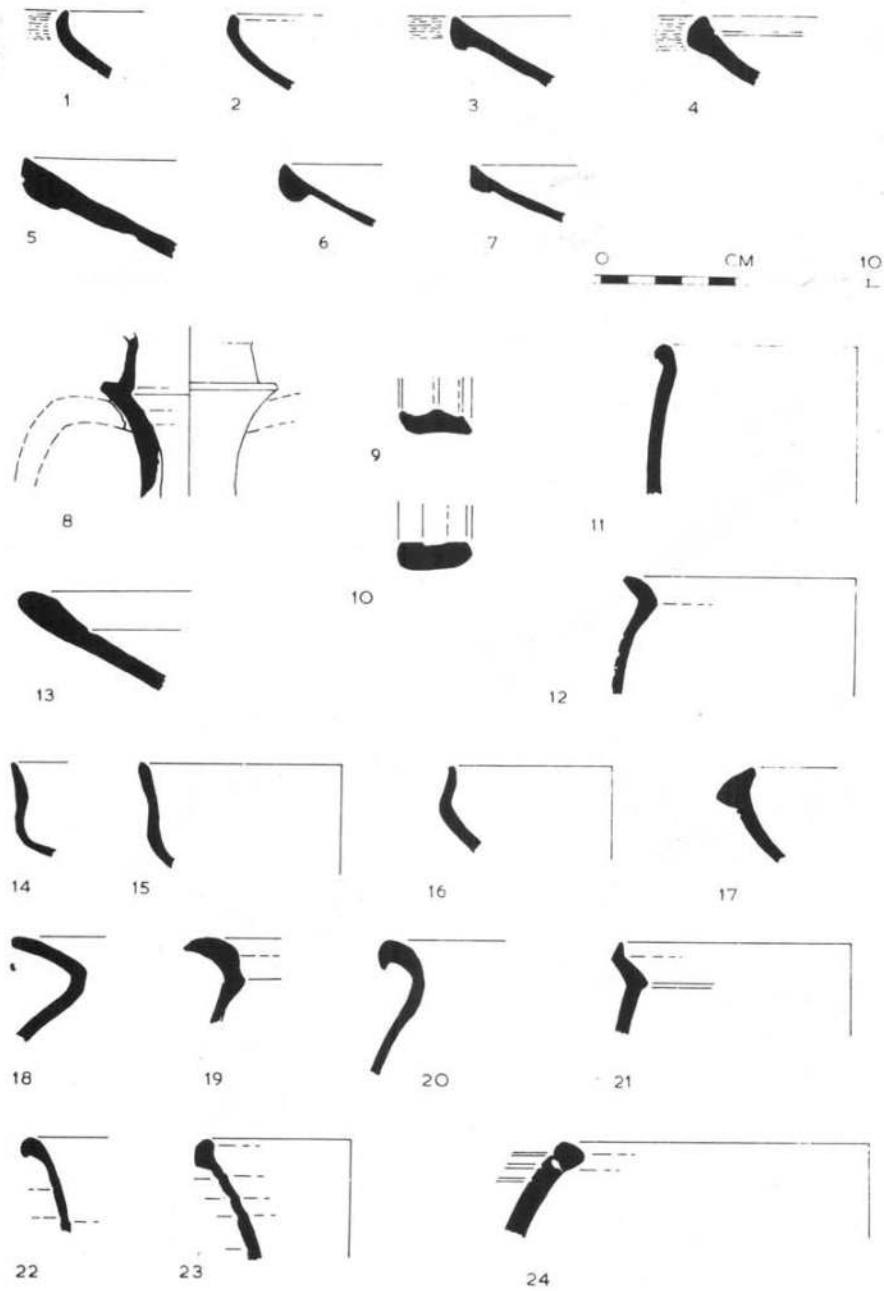


Fig. 71. Roman pottery: coarse ware, 2:5.



Fig. 72. Fragment of a lamp from Building 6, 1:1. Drawn by Mary M. Hurrell.

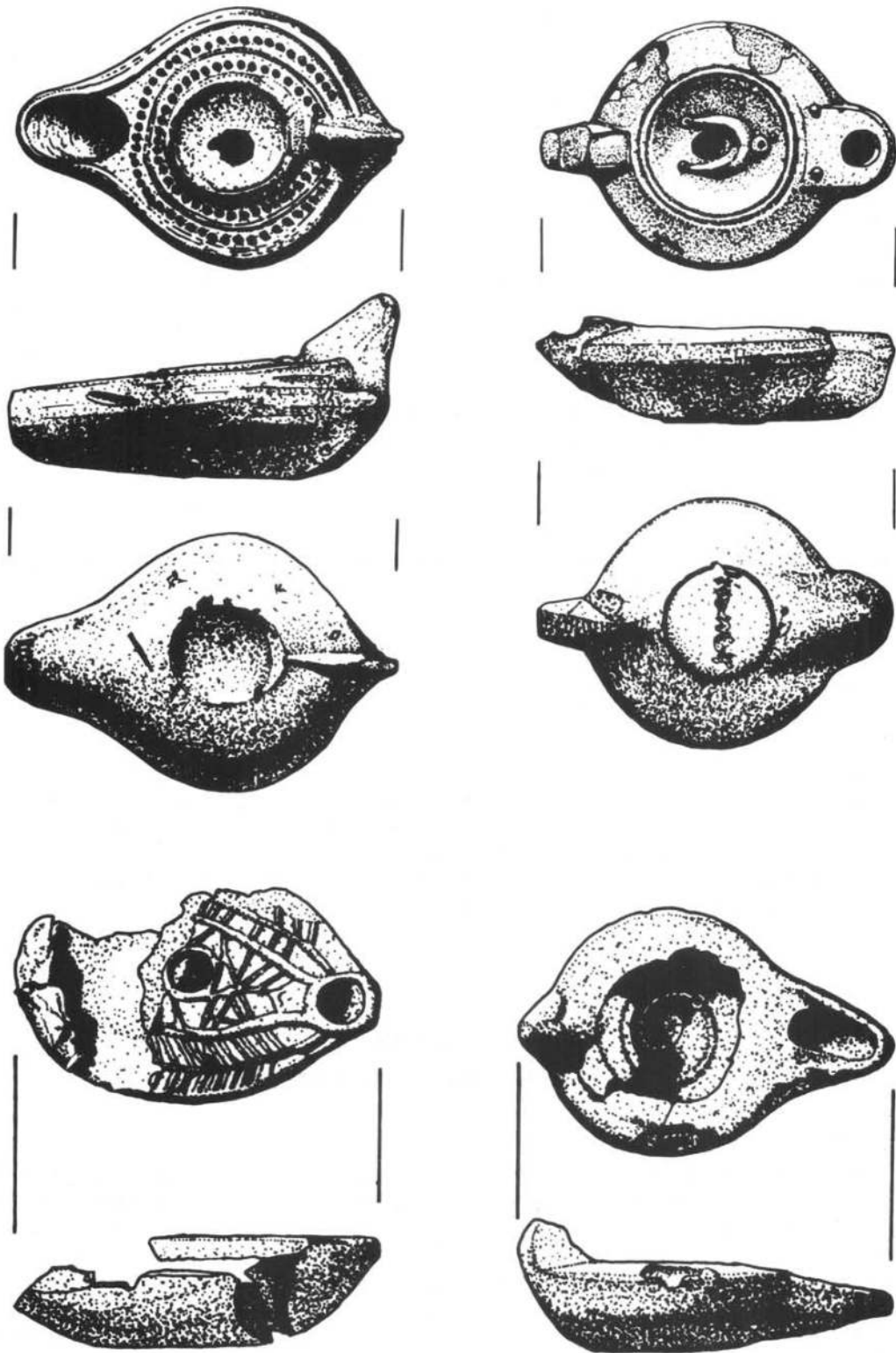


Fig. 73. Roman lamps: A (c) 2 (upper left); B (b) 1 (upper right); B (b) 9 (lower left); pov. unknown, uncatalogued (lower right), 1:2. Drawn by Mary M. Hurrell.

## APPENDIX 2

### ROMAN COINS

The following coins, except the last two, were examined by the late Dr. John Walker, Keeper of the Department of Coins and Medals, British Museum, but their extremely corroded condition would not admit of more than summary identification. All are AE.

- (a) *Building 31 (p. 62)*  
 Illegible but possibly Roman; if so, not earlier than 3rd cent. Found during excavation of the olive-press room (p. 64).
- (b) *Building 32 (p. 80)*
- (1) Lucilla, wife of L. Verus, A.D. 161-9. AE I. *Rev.*: standing (?) female figure. Found in the debris during excavation.
  - (2) Tetricus I, A.D. 270-4. AE. *Obv.*: head radiate. *Rev.* illeg. Found while clearing the North Chapel (p. 84).
  - (3) Illeg. (?) 3rd cent. *Rev.*: female figure. Found in the south-west corner of the Antechapel (p. 84), in ash and sand on the floor.
  - (4) Illeg. (?) 3rd cent. From the debris.
  - (5) Illeg. (?) Roman. Found with the ligula and spatula (p. 283; Appendix 13) in sand above ash at the north end of the medieval porch (p. 90).
  - (6) Illeg., large and heavy. (?) Roman.
- (c) *Cistern 2 (p. 98)*  
 Faustina I, died A.D. 140. *Obv.* head r. *Rev.* SC. Found by Shaikh Kilani Baba of the Cabila Manassala (p. 12) when clearing out the cistern in 1959. Cf. (e), (1), below.
- (d) *Midden 1 (p. 96)*
- (1) Illeg. but presumably Roman. Surface (p. 96).
  - (2) Illeg. but presumably Roman. Spit 3 (p. 97).
- (e) *Provenance unknown*
- (1) Faustina I, died A.D. 140. Brought to Lieut. W. H. Smyth, R. N., in March 1817 and reported to have been found in the immediate vicinity of the settlement: Smyth (1854), 482 ff. (letter dated Tripoli, 27th March 1817, quoted verbatim in Beechey (1828), 504-12) (p. 37).
  - (2) Quintillus, A.D. 270. *Obv.*: head of Claudius II: [DIVO CLA]VDI[O. *Rev.*: (?) eagle: [CONSAC]-RATI[O. Identified by Mr. P. E. Curnow, F.S.A.

## APPENDIX 3

### GLASS

**By D. B. Harden, C.B.E., Ph.D., F.S.A.**

- (a) *Building 32 (p. 80): all from the debris*
- (1) Frag. of base-ring of shallow bowl (diam. of ring c. 14 cm.); pale green, dulled and with incipient brownish pitting. From a shallow bowl with true base-ring, not a pad base (for the difference see D. B. Harden, *Roman Glass from Karanis*, 1936, 15 f.) and with slanting impressions, or fashioning marks, on exterior. Type as *Karanis*, Class II, A, nos. 83 ff., p. 70f. 4th cent. A.D.
  - (2) Frag. of rim of deep bowl, green, dulled and some iridescence; rim rounded and thickened. Type as *Karanis*, Class III, A, iii c, no. 286, p. 113. 3rd-4th cent. A.D.
  - (3) Frags. of a convex circular mirror (see Appendix 12, p. 282). Small mirrors of this type were common in Egypt in Coptic times and were usually, I think, mounted in plaster frames. Elsewhere, contemporaneously, they occur in wooden or metal (often lead) frames. Cf. *Dacia* (1959), p. 415ff.; R.C.H.M., *Eburacum - Roman York* (1962), pp. 73, 141, fig. 58.

- (4) Large bead, 4.2 cm.; opaque glass (probably dark green or deep wine-coloured, but colour not visible), with marvered spiral trail of opaque white combed into a festoon in the middle, plain at the ends. Early Islamic rather than Roman? Fig. 91.
- (5) Other beads and frags. of glass of Roman/Islamic date.

(b) *Midden 1 (p. 96)*

- (1) Frag. of rim of lamp-glass, greenish yellow, no weathering; rim outspayed and unworked. For the type cf. *Karanis*, pp. 155 ff., nos. 436 ff., where it is dated 4th cent. A.D. From the surface.
- (2) Edge frag. from the foot of a stemmed cup of a type not found at *Karanis* but paralleled elsewhere, e.g. Harden in Sir Robert Mond and O. H. Myers, *Temples of Armant* (Egypt Expl. Soc., 1940), p. 121 f., nos. 14, 15 and 20, Pl. LXXXV; there this type is dated 4th-5th cent. A.D. but in view of its absence from *Karanis* (which ended c. 450) I am now doubtful whether it occurs as early as the 4th cent., and it certainly lasted into the 6th cent. Spit 1 (p. 97).
- (3) Frag. of rim of cup, buff-colourless, lip thickened and rounded in flame, brown, pitting, weathering, esp. on exterior; diam. of rim c. 6.4 cm. From a stemmed cup, type in general as *Karanis*, Class VII, A, pp. 167 ff. Dating comment as for (2). Spit 1 (p. 97).
- (4) Frag. of stem and foot of cup, buff-colourless, the foot with tubular ring formed by pushing in from below; cf. *Karanis*, p. 172, no. 489, a type which occurred only once there and not at all at *Armant* yet is very frequent elsewhere in 5th-cent. and later contexts in the central and eastern Mediterranean. Spit 1 (p. 97).
- (5) Frag. of rim of cup or deep bowl, pale green, lip thickened and rounded in flame, sides tapered slightly downwards; diam. c. 8.3 cm. Probably another example of a stemmed cup, but if so of rather large diam.; cf., however, *Karanis*, p. 172, no. 486, diam. 8.3 cm. 4th cent. Spit 8 (p. 97).
- (6) Also half of a cornelian bead and indeterminate frag. of a vessel from spit 1 and three indeterminate frags. from spit 3 all generally early 4th to c. mid-5th cent. or a little later (p. 97).

(c) *Tomb in Outlying Group A (pp. 107, 112, 113, fig. 34)*

Frag. of a bowl or cup of very thin glass, buff-colourless, with dark enamel-like weathering all over the surface. One shows the rim, which stands vertically and is slightly thickened and rounded in the flame; the rest are indeterminate. This could be 4th-5th cent. or a little later.

(d) *Provenances unrecorded*

- (1) Edge of foot of stemmed cup, type as *Armant*, no. 14, diam. 4.4 cm.; for ref. see para. (b), (2). Probably 4th-5th cent. A.D.
- (2) Rim frag. of shallow bowl, rim folded outward and downward, diam. c. 21.6 cm. Probably 4th-5th cent. A.D.

#### APPENDIX 4

### ALTARS AND OTHER DECORATED STONES FROM BUILDING 32

By **Olwen Brogan, F.S.A.** and **D. J. Smith, F.S.A.**

For Libyan inscriptions on altars see Appendix 5, nos. 2-6.

(a) *Altars*

- (1) Ht. 16cm., front and back 16 × 12cm., sides 16 × 9cm. (tapering from top to bottom). Roughly square *focus* c. 1.5cm. deep with channels from two opposite sides and at the corners four small knobs 2cm. high for support of a thurible. Large diagonal cross with traces of red paint incised on all four sides and a small diagonal cross on top on one of the knobs. Uninscribed. Pl. 25c.
- (2) 12 × 10 × 22cm. Part of top missing, leaving half or less of the *focus*, which is blackened. On front and back are pairs of oblong vertical niches, each with a Libyan inscription picked out in red paint: Libyan inscription 2, p. 250. Sides decorated with simple incised patterns of lines and diagonal crosses. Found in the north side-chapel, near the south wall and c. 65cm. from the south-west corner. Fig. 77, Pl. 136.
- (3) 13.8 × 8 × 22cm. Decorated with incised lines and, on two opposite sides, Libyan inscription 3 p. 250. Decoration and inscriptions picked out in red paint. Many of the characters of the inscription covered with a deposit of indeterminate nature. Fig. 77, Pl. 137.
- (4) 13 × 13 × 23cm. *Focus*. On one side a crude representation, in low relief, of a human figure with arms raised (cf. 6 below), above a panel of incised linear pattern. On another side four columns of Libyan characters:

- Libyan inscription 4, p. 250. Re-used in the paving of the south arcade (p. 89). Fig. 77, Pl. 138, 139a.
- (5) 19 × 9 × 7cm. Three sides decorated with simple patterns of incised lines, which on one side include a pointed ellipse containing two short, parallel, vertical incisions: Libyan inscription 5, p. 251. Traces of red paint on the body of the altar. Fig. 74.
  - (6) Damaged, about 25cm. high; probably an altar (cf. no. 4). On three sides incised crosses. On the fourth a crude representation in low relief of a human figure, apparently nude, facing the spectator with arms raised (? *orans*). Beneath the right arm is inscribed the Libyan character  $\ddagger$ ; Libyan inscription 6, p. 251. Above the head a frieze of incised crosses. Found on the slope south of Building 32. Pl. 139b.
  - (7) 30 × 24 × 35cm. Frag. of altar base/pilaster with rectangular base and shaft tapering upwards. On the left side of the shaft is Libyan inscription 7, p. 251. Found in north courtyard. Fig. 78.
  - (8) Small altar with *focus* and knobs at the corners, with a slightly arched niche on each side. Incised rectangular grid patterns above the niches and diagonal crosses in rectangles below. Uninscribed. Pl. 24b.
  - (9) 10 × 10 × 18cm. Top damaged but *focus* preserved. Decorated on one side with an incised pattern of four oblongs containing crosses and on another with diagonal crosses in an oblong, all in double line. Uninscribed. Pl. 24a.
  - (10) 12 × 12 × 20cm. Slight *focus*. Capital decorated round edges with a zigzag line above a cable moulding. Shaft and base plain, back flat. Uninscribed. Fig. 74.
  - (11) 9 × 6.5 × 15cm. Tapering from top to bottom. Top with knobs at corners and square *focus*. Front and sides incised with horizontal and vertical zigzags, the front having in addition a large diagonal cross in low relief. Found in the room on the south side of the antechapel. Uninscribed. Fig. 74.
  - (12) 15 × 10cm. Roughly cylindrical in section with knobs on the corners on top. One face decorated with an incised oblong containing an elaborate diagonal cross picked out in red. Found near the bottom of the debris in the western half of the north side-chapel. Uninscribed. Fig. 74.
  - (13) 18 (bottom, 14 top) × 26cm. Both ends and three sides plain except for a rough hollow in the back. The fourth side, evidently the front, is decorated with roughly incised crosses in two registers and has in the upper register two small parallel niches. At the top is a narrow band of vertical incisions. Found between the antechapel and the south arcade. Uninscribed. Fig. 75.
  - (14) 13 × 13 × 26cm. Tripartite form. Central part cylindrical in section, with four raised vertical ribs, of square section, spaced equidistantly at the centre of each side. Upper and lower parts square in section. Top has no *focus*, but is discoloured by heat; one of four square knobs at angles survives. Sides of upper part decorated with incised zigzags picked out in red paint. Base broken. Found outside the north wall of the north side-chapel, near the opening at the north end of the porch. Uninscribed. Fig. 75.
  - (15) 14 × 9.5 × 33cm. *Focus*. Back and sides undecorated. On the front a pair of vertical oblong niches 5cm. high beneath two horizontal incised lines and above a large incised rectangle containing a diagonal cross. Incisions picked out in red paint. Uninscribed. Fig. 75.
  - (16) 12 × 12 × 18cm. Very crudely made. *Focus* discoloured by heat. Found in the north courtyard. Uninscribed.
  - (17) 10 × 10 × 21cm. Bottom broken off. Top slightly enlarged, suggesting a rudimentary capital, with a hollow presumably serving as *focus*. Uninscribed. Fig. 75.
  - (18) 10 × 10 (top, bottom 8 × 8) × 19cm. Top slightly hollowed out for the *focus*. On one side (? front), two pairs of grooves from top to bottom. Uninscribed. Fig. 75.
  - (19) 10 × 10 × 17cm. Roughly shaped, with raised plain moulding near top and two pairs of grooves down one side (? front) from top to bottom. Uninscribed. Fig. 75.
  - (20) 9.5 × 9.5 × 10.5cm. Tapers slightly towards bottom. Slight *focus*. Diagonal cross incised on two sides. Uninscribed.
  - (21) 19 × 23cm. Probably an altar with top missing. Back plain, front divided into two panels by a horizontal row of 'bird's eye' motifs. Little remains of the decoration in the upper panel. The lower has in the centre a curious device consisting of a pair of short parallel lines terminating in reverted spirals and in each angle of the containing square a number of concentric quarter circles. The right side, 18cm. wide, is divided into four oblong panels, of which the upper two contain diagonal crosses. The left side is similarly decorated, except that the two lower panels contain pendant triangles, the sides of which are prolonged and terminate in angular, barbed hooks. Found in the antechapel. Uninscribed. Pl. 24d.
  - (22) Small, roughly rectangular altar, plain at one end (the bottom), hollowed out (*focus* ?) at the other, decorated on one side (the front) with grooves forming three sides of an oblong containing a cross. Uninscribed.
  - (23) 18 × 18 × 30cm. Top damaged. Each side decorated with incised zigzags, the front having in addition a vertical palm branch between two projecting roundels incised with concentric circles and, at the bottom, two arched niches. Found in the antechapel, in the occupation layer of Period 2. Uninscribed. Pls. 22a, 24c.
  - (24) 19 × 19 × 39cm., with projecting 'cornice' 5cm., at the front. Rear half of top occupied by large *focus*, 12cm. square, originally with a knob at each corner. Front edge of 'cornice' decorated with an incised zigzag line. Back plain, but other three sides all decorated. On the front, under the 'cornice' another zigzag, in double

lines, then, centrally in a rectilinear grid pattern, an arched niche framed by a double band of small squares. Beneath this a pair of arched niches framed and separated by a raised moulding with continuous incised pattern of rectangles containing diagonal crosses. Right side similarly divided into two registers, with similar pair of niches in lower registers, with similar pair of niches in lower register and a large diagonal cross in the upper. Left side, another pair of arched niches and, above, a large, cup-like hollow. Found lying on the threshold of the opening at the north end of the porch. Uninscribed. Pl. 23a-c.

- (25) 12 × 12 × 19cm. Broken in two. Top in form of rudimentary capital, 14 × 14cm. and deeply hollowed out. Found in the north courtyard. Uninscribed.
- (26) Small altar; dimensions not recorded. Top broken off, greater part of a pair of oblong vertical niches remains. Incised patterns on one of the niches, the partition between them, and the face of the shaft below. Reused in the paving of the south arcade. Uninscribed. Pl. 25b, d.

(b) *Other decorated stones*

- (1) Frag. from one angle of a stone (? possibly an altar) incised on both faces with a pattern of chevrons picked out in red paint. Found amongst plaster and stones in the north courtyard. Pl. 22a.
- (2) 33 × 14 × 21cm. On one face a cable moulding frames three incised concave-sided oblongs containing diagonal crosses, all picked out in red. Decoration plastered over. In the debris of the porch (p. 90). Pl. 22a.
- (3) 24 × 16 × 9cm. Frag. with two parallel bands of incised cable pattern and a band of chevrons, painted alternately red and green. South end of porch. Fig. 74.
- (4) 35 × 27 × 30cm. One long face decorated with an incised pattern of small squares containing diagonal crosses. Traces of red paint. Fig. 76, Pl. 22b.
- (5) 40 × 25 × 15cm. One long face decorated with an incised pattern consisting of two rows, together 12cm. wide, of small squares containing diagonal crosses, and a parallel band, 13cm. wide, of intersecting circles and segments of circles. Fig. 75.
- (6) Frag. of an arcuate windowhead. Traces of cable moulding round the opening. Much worn. cf. no. (14). Fig. 75.
- (7) 19 × 18 × 33cm. In two pieces. Slight rebate at one end. One long side plain, the other three decorated with incised oblongs containing diagonal crosses. Pl. 22b.
- (8) 37 × 19 × 18cm. On two opposite sides an incised vertical cable pattern, on the other two a vertical moulding. Pl. 21f, g.
- (9) 32 × 15cm. Tethering-stone with rounded end, the edge of which is ornamented with a cable moulding between bands of incised crosses. Traces of red paint. Found about the centre of the north courtyard. Fig. 75.
- (10) 18 × 23 × 18cm. Frag. decorated with a scroll in low relief between narrow bands of small 'bird's eye' motifs. A smear of plaster or mortar over the scroll. Found in the porch. Pl. 22d.
- (11) Frag. decorated on one face with a cluster of grapes, part of a vine-scroll, in low relief; partly obliterated by plaster or mortar. Found in the porch. Pl. 22d.
- (12) 17 × 10cm. (tapering to 14 × 10cm.) × 17cm. (?) Voussoir. Larger face roughly decorated with incised crosses and squares picked out in red. Fig. 74.
- (13) 26 × 17 × 9cm. One large face with incised lines near the edges.
- (14) Frag. of small arcuate windowhead, tapered towards the top which is 26cm. wide; cf. no. (6). Fig. 76.
- (15) 10 × 10 × 4cm. Frag. decorated with compass-traced six-petalled flowers. Fig. 74.
- (16) 18 × 9cm. Frag. with simple incised decoration. Fig. 74.
- (17) 21 × 12 × 9cm. (?) Voussoir decorated with three incised grid patterns, that in the centre being set lozenge-wise. Found at the top of the debris in the antechapel. Fig. 76.
- (18) 24 × 10 × 16cm. (?) Voussoir decorated with three incised squares, that in the centre containing four small crosses, the other two, diagonal crosses; cf. no. (2). Found with 17. Fig. 76.
- (19) 19 × 19 × 15cm. Frag. of an approximately rectangular block. Back plain, other three faces decorated in incised lines, exceptionally wide and well cut. On the front a circular boss, decorated with a cross encircled by a cable moulding, projects 0.5cm. from an oblong panel. Right side decorated with hatched chevrons, vertical strokes and a lozenge or triangle in double lines, left side with a band of horizontal chevrons and a panel of cross-hatching. Found at the north end of the porch. Pls. 22a, 24e.
- (20) Moulded circular base of soft, white limestone; diam. 48cm., ht. 16cm. Found near the top of the debris in the north side-chapel.
- (21) Rope-scored stone from the head of a well or cistern. Found at the north end of the porch.
- (22) 35 × 9 × 6cm. Frag. with band of rough chip-carving on one face above what may have been the head of an arcuate niche. Found at the north end of the porch. Fig. 76.
- (23) Frag. of rectangular stone with semi-circular (?) windowhead. Near west end of south arcade (p. 82). Fig. 76.
- (24) 46 × 23 × 19cm. Frag. with incised decoration forming a band of lozenges bisected horizontally and a row

of small circles, compass-drawn and subdivided by four arcs drawn from *foci* on the perimeter. Found high up in the debris of the antechapel (p. 90). Fig. 76.

- (25)  $28 \times 15 \times 8$  cm. Small slab decorated on one face with an incised pattern of rectangles suggesting the plan of a building, the central part being picked out in red and those on either side of it in black. From the north courtyard. Pl. 24f.
- (26) Frag., 15 cm. across, showing part of a compass-traced, incised circle painted red, within which are two elongated elliptical motifs, one in red, the other in green, with a 'bird's eye' motif between this and a thin cable moulding painted red near the edge of the stone. A small rebate on the back. Fig. 74.
- (27)  $16 \times 11 \times 3$  cm. Frag. decorated with incised lines forming a grid and zigzags, etc., picked out in red. Fig. 74.
- (28) Frag. with two parallel grooves and incised band of squares containing diagonal crosses.
- (29) Frag. decorated with incised lines forming a band of cable pattern and 'bird's eye' motifs in rectangles and triangles. Built into the wall of Period 2 fallen *en masse* in the north courtyard (p. 89). Pl. 22c.
- (30)  $15 \times 10$  cm. Frag. with incised decoration built into the south face of the wall above the opening at the north end of the porch. Fig. 76, Pl. 4e.
- (31)  $18 \times 15 \times c. 13$  cm. (?) Corbel, broken. Part rebated and plain, the rest decorated on one face in incised lines forming an oblong containing a diagonal cross in double lines. Fig. 76.
- (32)  $14 \times 10 \times 30$  cm. (?) Corbel. Half plain, half decorated in incised lines forming squares and oblongs containing diagonal crosses. Fig. 76.
- (33)  $17 \times 17 \times 37$  cm. Frag. of small pillar with plain base, above which on alternate sides are vertical bands of mouldings and cable pattern. Fig. 76.
- (34)  $13 \times 10 \times 14$  cm. Frag. of small (?) pillar decorated on one side with two vertical bands of incised cable pattern. Fig. 76, Pl. 22b.
- (35) As no (7) but with crosses in single lines. Pl. 22b.
- (36) Triangular fragment with parallel zigzag bands in relief. Pl. 22a.

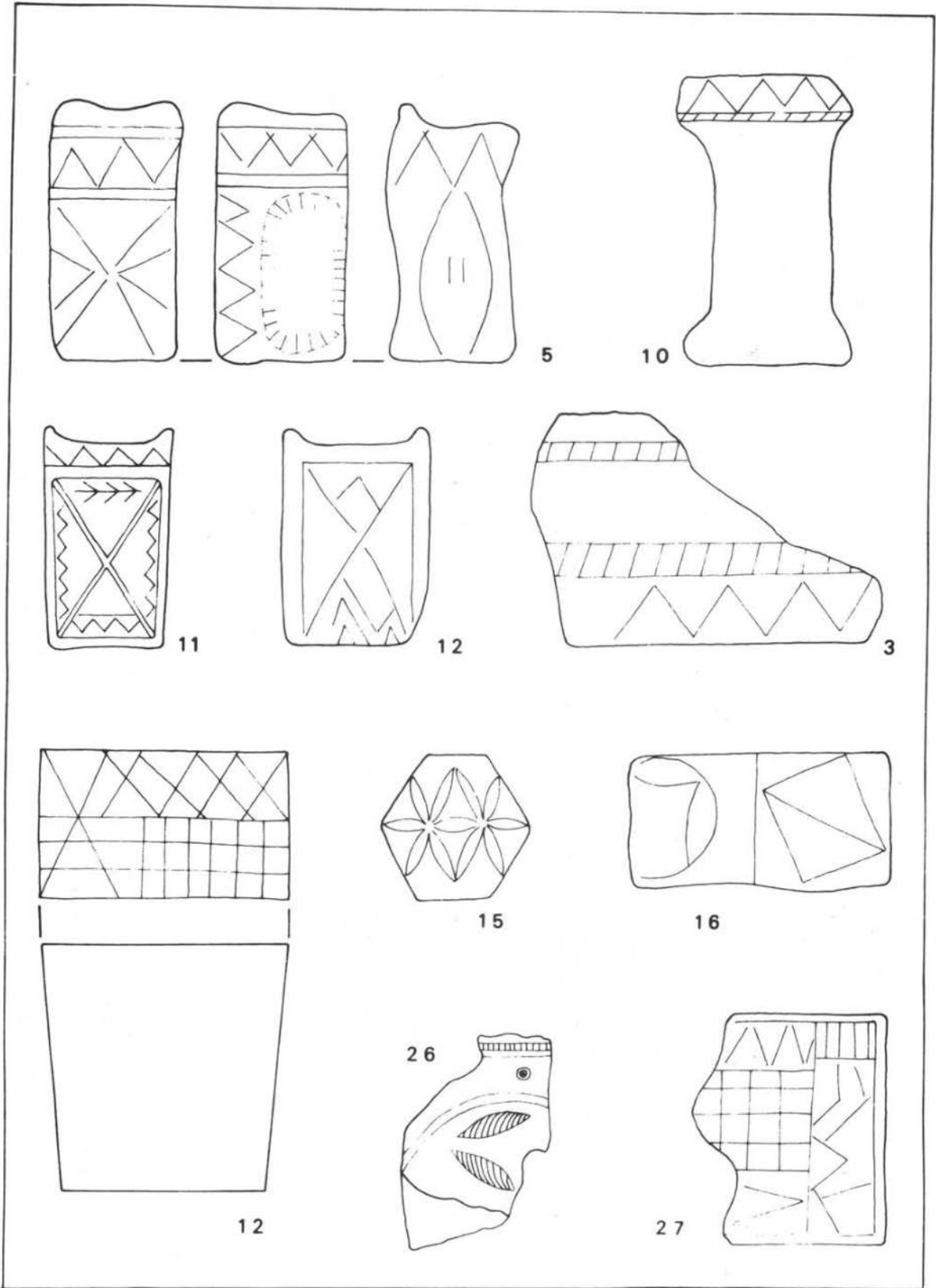


Fig. 74. Altars and decorated stones: Building 32.



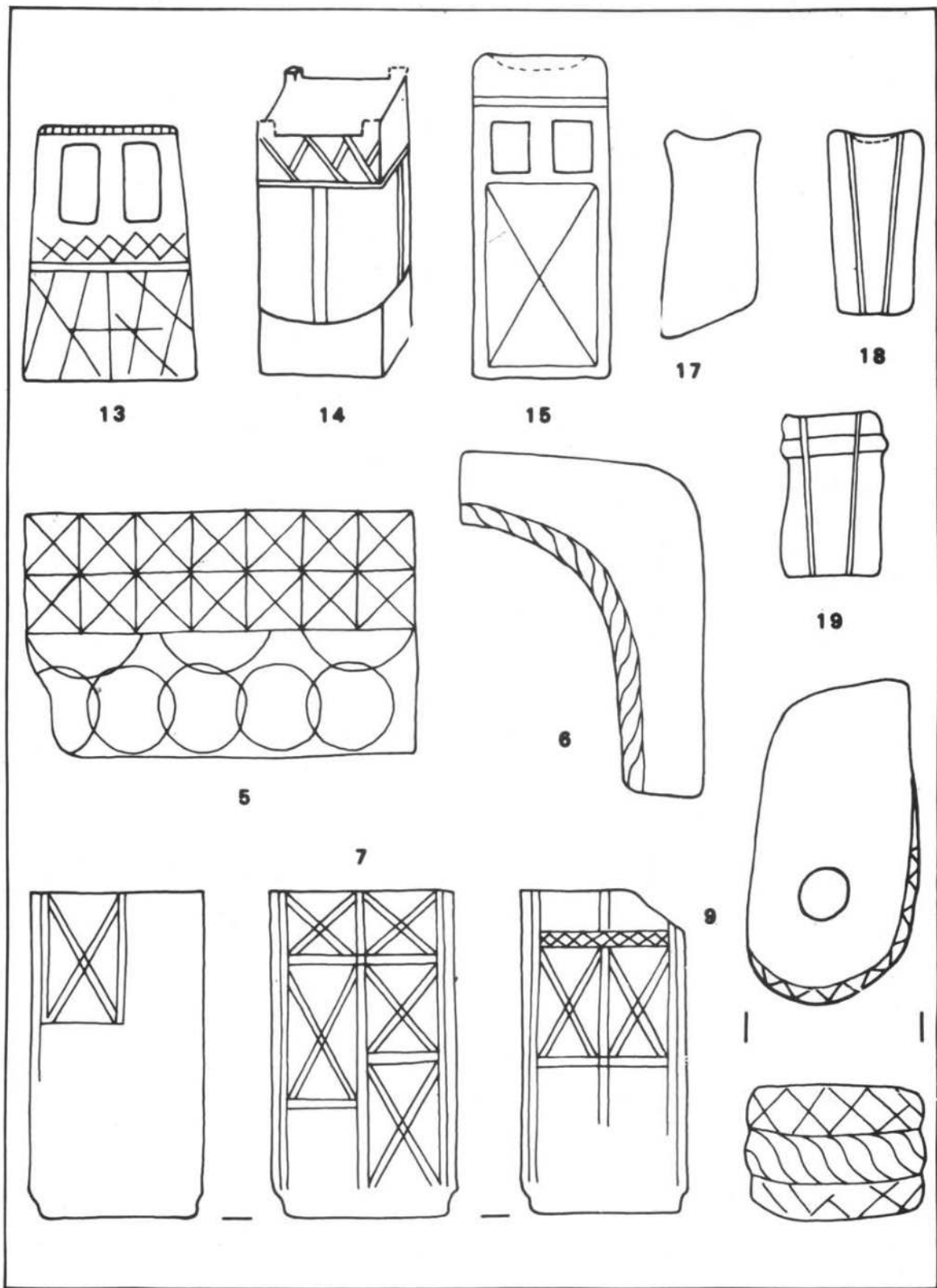


Fig. 75. Altars and decorated stones: Building 32.

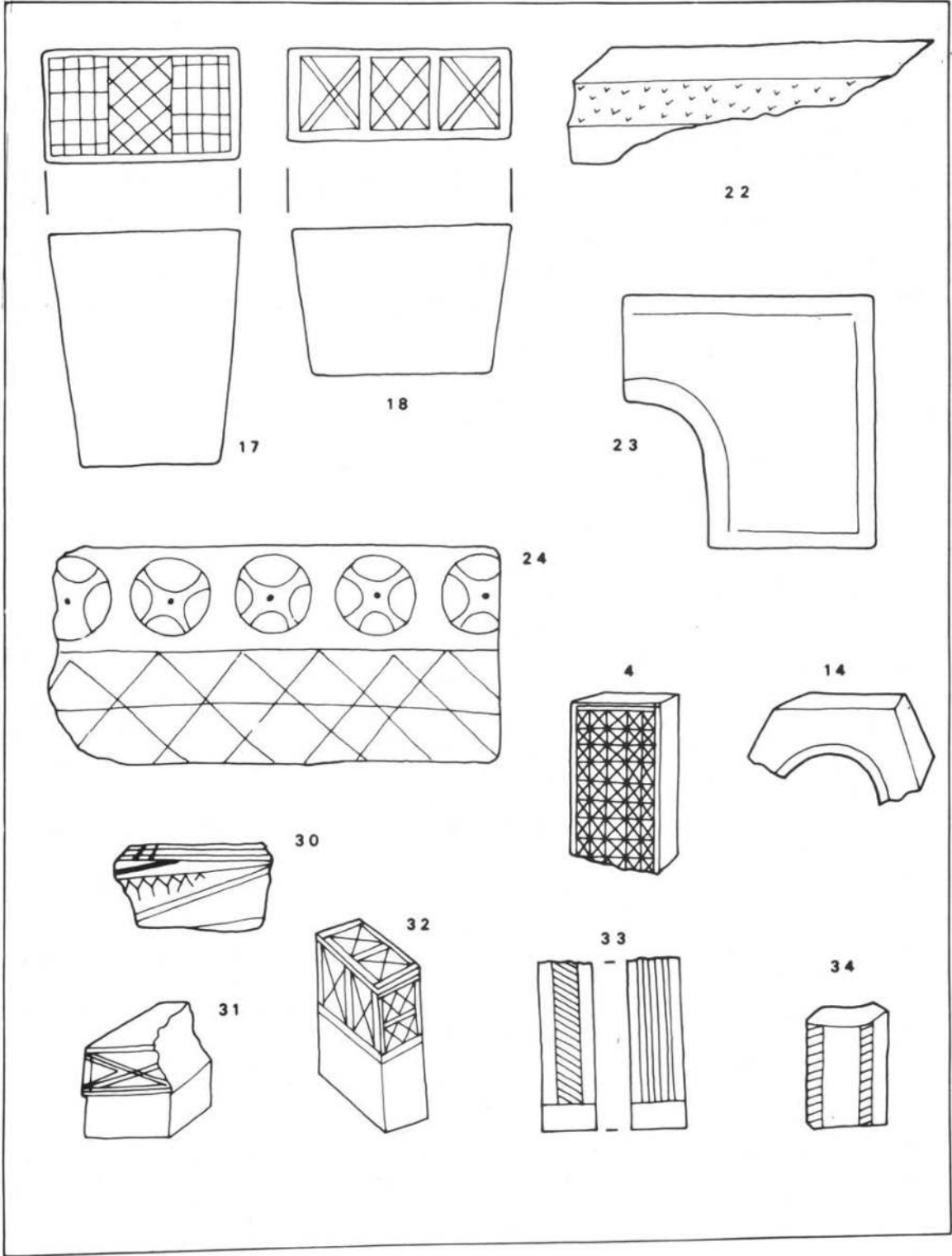


Fig. 76. Decorated stones: Building 32.

**INSCRIPTIONS AND GRAFFITI IN THE LIBYAN ALPHABET FROM  
GHIRZA AND ELSEWHERE IN TRIPOLITANIA**

by **Olwen Brogan, F.S.A.**

Nos. 1-36 below were found by members of the Ghirza expeditions in the years 1955-1958. They include the first indubitable inscriptions and graffiti in the Libyan alphabet to be recorded in Tripolitania,<sup>1</sup> and nos. 1-27 from Ghirza itself constitute the largest group of such inscriptions at present known from any single site in that country. Moreover, a number of those from Ghirza are additionally important in that some of them certainly date from the Roman period and others from the tenth-eleventh century.

No. 37 was found later by M. Fabbri, Edward Larabee, and Olwen Brogan. Nos. 38-40 were discovered by Dr. F. Sattin and M. Fabbri in 1964.<sup>2</sup> Dr. Sattin subsequently found three more in the Wadi Fruten.

Photographs are preserved in the Department of Antiquities in Tripoli.

The Libyan alphabet is believed to have developed in the Numidian Kingdom of Massinissa in the period between the second and third Punic Wars. The alphabet remained in use in rural areas of Tunisia and Algeria under the Roman Empire and a corpus of inscriptions in its characters was published by J. B. Chabot.<sup>3</sup> A few more inscriptions have been found on sites in Morocco.<sup>4</sup> Its medieval and modern descendant is *tefinagh*, the writing of many of the Tuareg tribes, which was first studied by the French explorer Duveyrier.<sup>5</sup> The *Tefinagh* are still in use, to a much diminished extent, in Fezzan. In 1958 the writers found examples scratched on the wall of the former Italian fort at Brak. Oil geologist working in the region have sometimes had local employees who wrote their names on the work-sheets in *tefinagh*.<sup>6</sup>

The inscriptions and graffiti below fall into six groups:

- A. nos. 1-6, on cult objects in the temple at Ghirza. These are certainly deliberate inscriptions and there can be no doubt that they are ancient and probably of the fourth to sixth century A.D. (pp. 85-88).
- B. nos. 7-8, 10, 11, miscellaneous graffiti from Building 32.
- C. nos. 9, on plaster in the medieval house in Building 32.
- D. nos. 12-24, on buildings of the settlement.
- E. nos. 25-27, on Roman tombs at Ghirza.
- F. nos. 28-37, in the Tripolitanian pre-desert elsewhere than at Ghirza.
- G. nos. 38-40, finds of Dr. Sattin and M. Fabbri near the road north of Bir Bu Gherab (Wadi Zemzem).

**GROUP A, CULT OBJECTS IN THE TEMPLE (BUILDING 32)**

- 1a. A fragment of a stone bowl, with an inscription cut on the surviving part of the rim, a flat edge 3.5 cm. wide. Found in the debris of the temple court. Length of surviving text 14 cm. Fig. 77, Pl. 133b. There is also a solitary letter resembling P on the outside of the bowl just below the rim.
- 1b. Another piece of inscribed rim which probably belongs to the same stone bowl, though the two pieces do not join. Length of surviving text 16 cm. There is another group of nine letters on the outside of the piece of bowl. Fig. 77. It is suggested that these fragments of rim may be part of the very large stone basin of which the lower part was found in the temple (p. 90). Pl. 25a.
2. Altar (22 × 12 × 10 cm.) with *focus* for offerings, inscribed on the front and back with vertical texts cut within two recessed panels set side by side; the lettering and the incised lines elsewhere on the stone forming squares, crosses, triangles etc., are picked out in red paint, which resemble many of the decorations on other uninscribed altars in the temple. Found in the debris of the north chapel by the south wall, 65 cm. from the doorway. See no. (2) (p. 243). Fig. 77, Pl. 136.
  - a) On the front: ht. of left-hand text 6 cm. *Antiquity* xxxii (1958), p. 114f., fig. 3 and Pl. XIVb.
  - b) On the back: ht. of left-hand text c. 6 cm.; the surface of the panel on the right is damaged and some letters may have been lost from the upper end.
3. Altar (22 × 13.8 × 8 cm.) with *focus*. On the front and the back the texts are cut within the angles of a diagonal cross set in a rectangle. The ornamentation and lettering are painted red. Found in the debris in the court, behind a wall of re-used masonry. See no. (3) (p. 243). Fig. 77, Pl. 137.
  - a) On the front: The surface of the stone is partially covered by a deposit and a number of letters may be lost or misread.
  - b) On the back: most of the letters have been obscured by a deposit.
4. Altar (23 × 13 × 13 cm.) with *focus*. Simply moulded at the base; incised on the front with four vertical lines, the first three with eight letters each and the fourth with eleven, within a roughly incised rectangle; the borders on either side are ornamented with zigzags and the space below it with a more elaborate but very rough pattern based on zigzags (Pl. 138, left); there are similar patterns on the reverse face within the angles of a diagonal cross set in a rectangle (Pl. 138, right). On the left side is a naked figure with arms upraised (cf. no. 6), perhaps the dedicant (Pl. 139a). On the decorated space below, cut immediately below the figure, is a

small cross. The incisions of the decorations, the figure and the inscriptions are painted red. Found re-used as a paving stone, inscribed side downwards, in the portico along the S. side of the courtyard. This re-use is part of the reconstruction of the building as a house which was occupied during the tenth century A.D. (p. 89). Ht. of text c. 10cm. Most of the letters are about 0.75 cm. high. See no. (4) (p. 243). Fig. 77, Pl. 138, 139a.

5. Altar (19 × 9 × 7cm.) with *focus*. One side damaged. There is a single letter of two vertical strokes on the middle of one face within an oval, resembling the sign of 8c below. Decorated with zigzag incisions, and traces of red paint on body of stone. Found in the debris of the courtyard. See no. (5) (p. 243). Fig. 74.
6. Altar (ht. c. 25cm.) with *focus*. Incised crosses on three sides. On the front is a crude naked figure with raised arms (? dedicant, cf. the figure on the side of no. 4), and under the arm on the left a single Libyan letter (cf. the cross below the figure on no. 4). Found on the slope below Building 32. See no. (6) (p. 244). Pl. 139b. Two other figures similar to those on the stones 4 and 6 have since been found in 1978 by O. Brogan and Paul Arthur at the ruined tombs by Muagen Ngorta at the head of the Wadi Shetaf. They are roughly, but deeply incised on the tops of two fallen capitals and we presume that they were cut before or when the tomb was built. They show naked figures with outstretched arms raised high in the same ritual gesture.

#### GROUP B, MISCELLANEOUS GRAFFITI FROM BUILDING 32

7. Pilaster or altar base with a rough moulding below, inscribed vertically on one face with very light irregular letters. Found in the debris in the courtyard of Building 32. Ht. of surviving text 11cm.; illegible traces of more letters both above and below. See no. (7) (p. 244). Fig. 78.
8. Single signs: Fig. 78.
  - a. Several on N. and S. jambs of doorway into the room S. of *sacellum*. P. 82, Pl. 18b.
  - b. One on N. jamb above doorway (cf. the sign on bowl 1a). P. 82.
  - c. On a fallen slab in the building (cf. no. 5).
10. Low down on the E. side of the doorway at the N. end of the medieval porch. P. 90, fig. 78, Pl. 28.
11. On the S. side of the E. jamb of the above doorway, 1m. from the floor, 15cm. from N.E. internal angle of the porch. Ht. of text c. 5cm. P. 90, fig. 78, Pl. 28.

#### GROUP C, ON PLASTER OF MEDIEVAL HOUSE IN BUILDING 32

9. On the plaster around a window inserted in a wall of the former temple when it was rebuilt as a Berber house occupied during the tenth century. A series of thirteen irregular columns, the longest being 24cm. Letters c. 1.5cm. Above them are two incised figures of ostriches, one incomplete. P. 90, fig. 78, Pl. 140.

#### GROUP D, ON BUILDINGS OF THE SETTLEMENT

##### *Building 1 (p. 60)*

12. On the underside of a voussoir (the seventh counting upwards from the S. side) of the entrance arch. This may be meant to be read horizontally. Ht. (or length) of text 30cm. Fig. 79.
13. Inscribed vertically on the underside of a voussoir (the second counting upwards from the N. side) of the entrance arch. cf. no. 17 below. Ht. of text 16cm. Fig. 79.
14. Three columns on a block of the N. doorjamb. The stone has been cut off at the top and the left-hand column appears to have continued upwards. There are a few additional letters on the right of the third column. Ht. of text: first column 14.5cm., third column 4cm. Fig. 79, Pl. 141a.
15. Inscribed partly obliquely, partly vertically, on the S. wall of the entrance corridor (eighth course, fourth stone from door). Ht. of text 23cm. Fig. 79.
16. On a block of the N. wall of the entrance corridor (1.30m. from door). Ht. of text 6cm. Fig. 79.
17. On a fallen block probably from the right of the text is a second column of letters which appear to be in the nature of doodles. Ht. of text 12cm. Letters 1.5cm. Fig. 79, Pl. 141b. Cf. no. 13 above.
18. In entrance passage. Ht. of text c. 16cm. Fig. 79.
19. On the eighth stone up, on the S. wall of the entrance corridor (fourth stone from the door). Fig. 79.

##### *Building 22 (69)*

20. On a block re-used in a doorway. The text is interrupted by the edge of the stone which must therefore have been inscribed when in its original position. Ht. of text 22cm. Letters 3cm. Fig. 79, Pl. 142a.

##### *Building 26 (60)*

21. Painted in red, apparently horizontally, on the underside of a flat stone behind the arch of the entrance doorway. The text was quite long, but the letters are much faded and only a small number can be deciphered. Length of text 34.5cm. Letters 2cm. P. 61, fig. 79, Pl. 142c.
22. Inscribed vertically on the external face of a voussoir (second on the N. side counting down from the keystone of the entrance doorway). Ht. of text 15cm. P. 61, fig. 79, Pl. 11a.

23. On the block forming the E. side of a small niche in the inner face of the N. wall of outhouse S. of Building 26. Ht. of text 14.5cm. Letters 1.1 - 1.3cm. P. 62, fig. 79, Pl. 142b.

*Building 34 (p. 67)*

24. Inscribed apparently horizontally, on the underside of a lintel in the range of buildings along the external face of the W. wall of Building 34. Length of text 31.7cm. Letters 5cm. P. 68, fig. 79, Pl. 144a.

### GROUP E, ON ROMAN TOMBS AT GHIRZA

*Tomb North A (p. 121)*

25. Inscribed vertically on the N-W corner of column. The letters are lightly incised and unobtrusive, and may easily have been cut long after the building was erected. Ht. of text 22cm. Letters 5cm. Fig. 79, Pl. 143.  
26. On the top step between the two centre columns on the E. side. Length of text 25cm. Letters 9.5cm. Fig. 78.

*Tomb South C (p. 190)*

27. Inscribed vertically on a column fallen from this tomb, which collapsed in 1940. The letters are of unusually large size, but they are much more weathered than other, recent, marks on the column. Ht. of text 1.36m. Letters average 3cm. Fig. 80, Pl. 144b.

### GROUP F, INSCRIPTIONS IN THE TRIPOLITANIAN PRE-DESERT ELSEWHERE THAN AT GHIRZA

*Gasr Chanafes South (Wadi Shetaf)*

28. Inscribed vertically on the underside of a voussoir (the second counting upwards from the E. side), in entrance doorway of Gasr 3. Six columns and one odd letter. Ht. of right-hand column 15cm. Fig. 79, Pl. 145b.  
29. Inscribed vertically on the underside of a voussoir (the second counting upwards from the W. side), in entrance doorway of the same gasr. Ht. of text 10cm. Fig. 79.

*Wadi Umm el Ageram*

30. Inscribed vertically and very roughly on the E. side of Tomb E., S. of the false door. Two columns. Fig. 79, Pl. 145a.

*Gasr el Gra'a, Gasr 2 (Wadi Gheslan)*

31. a) On the W. jamb of the door. Figure of a camel near the bottom on the right. Ht. of text 50cm. Letters 1.25-2cm. Fig. 80.  
b) A second inscription is incised on the stone to the W. of the W. jamb. Fig. 80.

*Temple - Wadi Tininai*

32. Inscribed vertically on the underside of the arch of the doorway in the S. side of the temple. The building is probably of the 3rd century A.D. (for the Latin inscription see IRT 888), and was perhaps dedicated to Jupiter. It stands on high ground, overlooking the broad valley of the wadi from the S. Fig. 80.

*Wadi Sofeggim*

33. *Gasr Shedewa D.* On the jamb of the entrance doorway. Ht. of text 15cm. Fig. 80.  
34. *Gasr Shedewa.* Very roughly cut inscription on the lintel. Fig. 80.  
35. *Gasr Naggaza (east).* Inscribed vertically on the right jamb of the entrance doorway. Ht. of text 30cm. Fig. 80.  
36. *El Gheria el Gharbia.* On the cement of a Roman cistern S-E. of the Roman fort. Fig. 80, Pl. 145c.

*Gebel, E. of Garian-Mizda road*

37. *Gasr el Gebab.* On the inside of the rear wall of the *cella*.  
a) Inscription in four columns, noticeably patinated. Ht. c. 55cm. Fig. 80.  
b) Also appears old, but has been more disturbed by later scratchings. Fig. 80.

### GROUP G, INSCRIPTIONS FOUND NORTH OF BIR BU GHERAB ON THE ROAD TO MIZDA

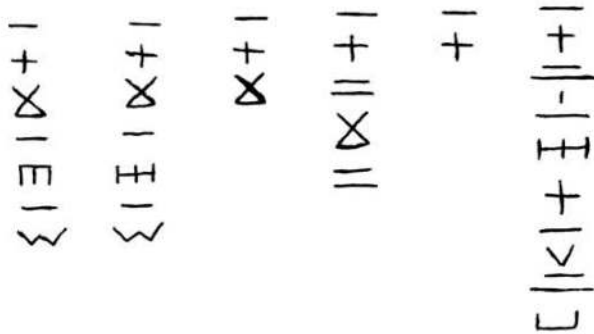
Found by F. Sattin and M. Fabbri on blocks of limestone masonry re-used in a building estimated to be not later than the third century on the road from Mizda to El Gheria el Gharbia, a short distance N. of the Wadi Zemzem.

38. 1.50 x .39 (height) x .53 (depth)m. Ht. of letters 4-6cm. Fig. 80.  
39. 53 x 32 x 53cm. There are seven short columns of letters. Ht. of letters 3-4.5cm. Fig. 80.  
40. 53 x 45 x 41cm. Perhaps eight columns of letters. Ht. of letters 3-5.5cm. Fig. 80.  
The late Professor Levi Della Vida, who saw the photographs, was unable to decipher the inscriptions but he drew attention to the fact that two of the signs V and O, are not found in Chabot's *Recueil*.

In Algeria and Tunisia many of the inscriptions in the Libyan alphabet can be read, but so far our unskilled attempts have failed to decipher the Tripolitanian inscriptions. Two or three sequences occur more than once

and we therefore summarize our findings in case they some day help towards a solution.

- a.  $\begin{array}{|c|} \hline \text{I} \\ \hline \text{I} \\ \hline \text{I} \\ \hline \end{array}$  occurs on altars 3 (once) and 4 (twice).
- b. The plaster in Building 32 (no. 9) has some intriguing repetition which includes:



- c. Finally, two short inscriptions, both on or close to the gateway of Building 1, seem to be identical. Nos. 13 on a voussoir and 17 probably on a door jamb. See fig. 79.

The frequent occurrence of these graffiti on or near doorways seems to hint at certain underlying customs. Perhaps some of them may express wishes of good luck or may be intended to ward off the evil eye. We have about eighteen inscriptions associated with doorways of houses and two or three on tombs. We cannot as yet offer any convincing suggestions as to the dates of graffiti in this alphabet found on ruins in the pre-desert. Some are probably modern, but which, it is hard to tell.

#### APPENDIX 5 : NOTES

<sup>1</sup> Reynolds, Brogan, Smith §1958). See also now R. Rebuffat, 'Graffiti en "Libyque" de Bu Ngem', *LA* xi-xii, 1974-5 (1979), pp. 165-87.

<sup>2</sup> A. di Vita, *LA* i (1964), pp. 141-2.

<sup>3</sup> J.B. Chabot, *Recueil des Inscriptions Libyques*, (1940).

<sup>4</sup> Some are in the Museum at Rabat.

<sup>5</sup> H. Duveyrier, *Les Touareg du Nord* (1864), pp. 386-90.

<sup>6</sup> In a letter to the writer from Dr. Alan Wells of Shell (1960).

<b>1A</b> on rim	+ I O S + . + = ∨ + .	<b>ⲡ</b> on outside of bowl	<b>2A</b> = I ∞ I + S + + = O +	<b>4</b>  ∧ ∨ + ∨ ∨ ∨ ∨ = ∨ ∨ ∨ ∨ ∨ ∨ ∨ = ∞ ∞ ∞ ∞ ∞ ∞ S = ∞ = ∞ ∞ ∞ = ∞ ∞ ∞ ∞ ∞ ∞ ∞ ∞
<b>1B</b> on rim	∧ ∨ ∨ ∨ ∨ ∨ ∨ ∨ ∨ ∨ ∨ ∨ ∨ ∨ ∨ ∞		on outside of bowl	
<b>3A</b>	 ∞	 ∧ ∞ ∞ ∞	<b>3B</b>	

Fig. 77. Libyan inscriptions.

<p>7</p>	<p>8A</p> <p>8B</p> <p>8C</p>	<p>10</p>	<p>11</p> <p>or</p>
<p>9 left side</p>		<p>above window</p> <p>right side</p>	

Fig. 78. Libyan inscriptions.





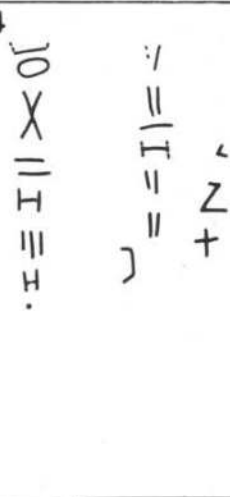
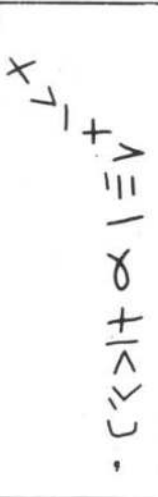


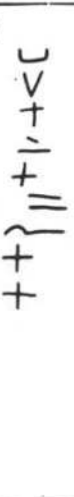

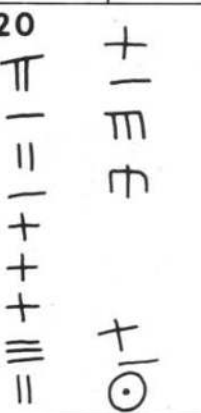
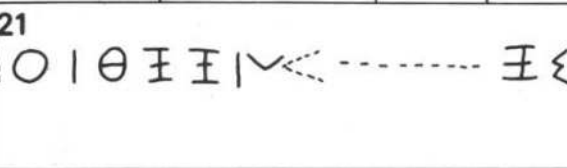
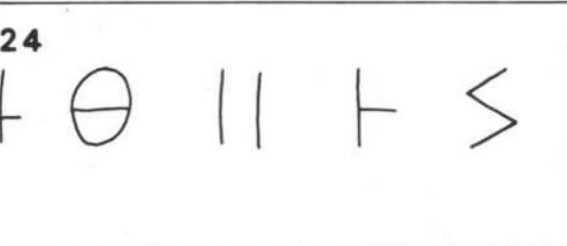
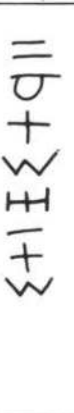


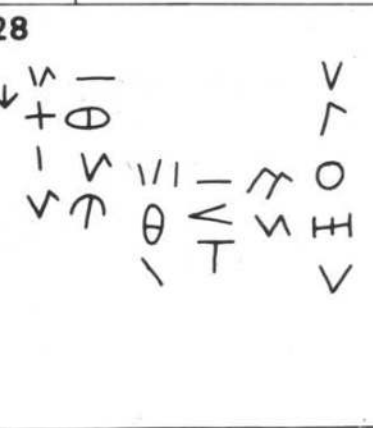
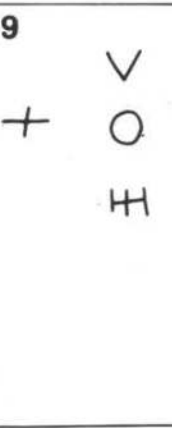
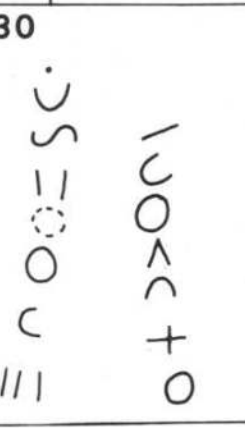
<p>12  </p>	<p>13  </p>	<p>14  </p>	<p>15  </p>	<p>16  </p>	<p>17  </p>	<p>18  </p>
<p>19  </p>	<p>20  </p>	<p>21    </p>	<p>22  </p>			
<p>23  </p>	<p>25  </p>	<p>28  </p>	<p>29  </p>	<p>30  </p>		

Fig. 79. Libyan inscriptions.



## SKELETAL REMAINS FROM THE CEMETERIES

By **R.A.S. Cowper, L.D.S., R.C.S. (Edin.), F.S.A. Scot.** in collaboration with **Dr. W.B. Cowper, L.R.C.S., L.R.C.P. (Edin.), L.R.C.P. & S. (Glas.)**.

(a) *Cemetery 1 (p. 106)*

*Tomb 3: p. 113, fig. 31.*

Parts of two lumbar vertebrae.

Two articular surfaces of the heads of left and right femurs.

Left calcaneum and some metatarsals from the left foot.

Other fragments of bone.

All the bones are fully ossified and therefore belonged to an adult person, i.e. 18+ years.

(b) *Cemetery 2 (p. 106)*

*Tomb 1: p. 112, fig. 32.*

Part of the head of the right radius. It is fully ossified and therefore belonged to an adult person, i.e. 18+ years.

Other fragments of bone.

One tooth. This is an upper left canine showing second degree attrition. The amount of attrition suggests that the deceased was between 30 and 40 years of age. The tooth had been fractured vertically, which is usually attributable to a severe fall or blow.

*Tomb 2: fig. 32.*

Fragments of long bones from which nothing can be ascertained.

*Tomb 3: p. 112, fig. 32.*

Fragments of bone. Amongst them can be recognized three foot bones and a terminal phalange of a (?) little toe. There are also two pieces of wood, of which one is charred, but the fragments of bone do not suggest cremation.

One tooth. Part of a crown of a lower molar tooth which shows gross second degree attrition. The attrition suggests an age of  $\pm$  40 years.

*Tomb 4: p. 100, fig. 32.*

The second cervical vertebra, intact.

Spine of a cervical vertebra and part of two transverse processes of cervical vertebrae.

First thoracic vertebra. This exhibits lipping which suggests that the deceased had an arthritic condition.

The body of the vertebra is slightly wedge-shaped from right to left so that there would have been a curvature of the spine to the right side. Part of the right clavicle with no great muscle attachments.

Incomplete right femur with muscle origins well marked. Tibias, left and right. Both have been reconstructed. They exhibit considerable arthritic lipping on the condular articular surface which is grossly enlarged due to this arthritis. The left measured 36.7cm. indicating a height of 1.754m.; the right 36cm. = height 1.730m. The right fibula was reconstructed and its measurements indicate a height of approximately 1.727m. The left fibula is incomplete.

Both calcanea show arthritic lipping.

Left and right talus.

Left and part of right navicula.

Left and right cuboids.

Right intermediate lateral and medial cuneiform bones. Metatarsals, first and third left. Second left proximal and middle phalange.

Right patella and various other fragments of bone. Measuring the greatest diameter of the articular surface of the tibia and excluding the arthritic lipping one would suggest that this skeleton was that of a male.

*Tomb 5: p. 112, fig. 33.*

Skull. Right mastoid process suggests a female. Various pieces of parietal and occipital bone. Right body of mandible containing the roots of 3456. Left maxilla contains roots 3456. The calcification of the roots of the second molar teeth is not complete, indicating a child of about 12 years, but as the crown of the third molar has just been completed the age can be put at between 11 and 12 years.

All the erupted teeth have been fractured vertically. Clinically this may be found after a person has had a severe blow or has fallen from a considerable height. As the long bones have not been fractured, one is led to believe that the child received a blow before death.

Teeth present All have been reconstructed. Numbers with a dot below indicate roots of teeth for which no crowns were found.

Vertebrae: cervical, incomplete.

three thoracic, complete.

five lumbar, one incomplete.

These vertebrae show by their ossification that the child was under 16 years of age.

Ribs: first left is the only complete rib.

Right clavicle suggests a female.

Lower third of right humerus; right ulna.

Left femur reconstructed measures 28.75cm. This measurement would suggest that the child was 8 to 12 years old.

Left tibia measuring 23.15cm. would suggest an age of 8 to 12 years and height of approximately 1.09m.

Fibula, left upper third.

Calcaneum, talus, two cuneiform bones, five metatarsals, four phalanges and one terminal all from the right foot.

Part of the right half of the pelvis.

Some fractured pieces of long bone and numerous other fragments.

(c) *Cemetery 3 (p. 107)*

*Tomb 2: p. 105, fig. 34.*

Cremated bones including part of the right parietal bone of the skull. This piece of bone incorporates part of the lambdoidal suture which has not been obliterated, indicating an age at death of under 50 years. Part of the pelvis was found which exhibits the great sciatic notch, suggesting that the deceased may have been a female, but twisting and warping of the bone during cremation is a possibility rendering the suggestion open to doubt.

*Tomb 3: p. 105*

Part of the lateral condyle of the right femur. Part of a proximal phalange of either the first or second right toe.

Other fragments of charred bone from which nothing can be ascertained.

(d) *Outlying tombs (p. 107)*

*Tomb in Group A: p. 112, fig. 34.*

Fragments of a femur. Amongst them is part of the medial condyle of the left femur which exhibits a little arthritic deposit.

There is a fragment of a calcaneum together with general fragments of bone from which nothing can be deduced.

(e) *Summary*

*Cemetery 1, Tomb 3.* Adult aged 18+ years.

*Cemetery 2, Tomb 1.* Adult aged 30-40 years, A tooth fractured vertically suggests a severe blow or fall before death, but as no long bone can be reconstructed it is impossible to say which is the more probable cause of the fracture.

*Cemetery 2, Tomb 2.* No conclusion possible.

*Cemetery 2, Tomb 3.* Adult aged 30-40 years.

*Cemetery 2, Tomb 4.* Adult male, age indeterminate but height approximately 1.727m. to 1.754m. This individual had a limp, the left leg being approximately 1.27cm. longer than the right. This is borne out by the abnormal shape of the body of the thoracic vertebrae which would have given rise to a curvature of the spine. The remains also show arthritic lipping.

*Cemetery 2, Tomb 5.* A female aged approximately 12 years, height 1.09m. The child's teeth were all fractured vertically. As the breaks in the long bones are all post mortem fractures this is attributable to a blow rather than to a fall.

*Cemetery 3, Tomb 2.* Adult, under 50 years.

*Cemetery 3, Tomb 3.* No conclusion possible.

*Outlying Tomb A.* No conclusion possible except that the individual had arthritis.

## WOOD AND CHARCOAL

The following specimens were identified at the Royal Botanic Gardens, Kew, by courtesy of the Director. The species found all occur in Libya at the present day; some are widespread in North Africa. See, further, p. 308.

*Building 8*

*Rhus* sp., of *R. albida* type: charcoal from the hearth in the north room (p. 50).

*Building 26*

*Acacia* sp., either *A. tortilis* or *A. seyal*: stump of a beam (p. 62); also *JRS* xlvii (1957), 180, note 27.

*Building 32*

*Nerium oleander* L. 'oleander': mirror-boxes of Period 2 (p. 282, Pl. 150).

*Midden 1*

Charcoal of *Acacia* sp.; similar to *A. tortilis* Hayne; wood of *Tamarix* sp. and *Rhus* sp. of *R. Albida* type: from spits 3 and 4 (p. 97).

*Tamarix* sp.: charcoal from spits 7 and 9 (p. 97).

Also material from a member of the Leguminosae, similar in structure to *Genista* sp.; fruit stone of *Prunus* sp., probably *P. amygdalus* Stokes 'almond': fragment of decorated material, probably from a gourd (Cucurbitaceae) (p. 97, fig. 93).

Another fragment from a decorated gourd was found on Midden 3 (p. 93, fig. 93).

*Cemetery 3*

Probably *Acacia* sp.: charcoal from Tomb 2 (p. 105).

*Acacia* sp.; similar to *A. tortilis* Hayne: charcoal from Tomb 3 (p. 105).

## APPENDIX 8

## LATIN INSCRIPTIONS

**(This appendix and the notes on the inscriptions in the text of the report are by Olwen Brogan and J. M. Reynolds, M.A., F.B.A., F.S.A.)**

The inscriptions have been transcribed with comments, and where possible translations, at the appropriate places in the main text. For convenience they are repeated here so that they can be easily consulted together.

Nine inscriptions are attributed to Ghirza. Of these, nos. 1 and 4 remain *in situ*, nos. 2, 5, and probably 3, were found among the ruins of the tombs to which they belong, no. 6 was found near Tombs A and B, and no. 7 near an unspecified tomb, while no. 9, although not specifically attributable to Ghirza, almost certainly also came from the area of the North Tombs. Only no. 8 is known to have been found outside this area - in fact in the Wadi Ghirza, below the north-easternmost building (Building 1) of the settlement.

Nos. 1, 2, 3 and 7 were copied by Denham in 1825. No. 3, probably no. 9, and the dexter part of no. 2 were taken to Istanbul where they formed part of a group of stones recorded by Dumont in 1868 as in the Museum of S. Irene,<sup>1</sup> but he wrongly ascribed them to an origin in Istanbul itself. Copies of the texts were later transmitted to the editors of *CIL* III and *CIL* VIII, at first with an ascription to Cyrenaica (by Mordtmann and Dethier), subsequently, on the basis of the place-name *Darfur* on a museum label, to the Fezzan;<sup>2</sup> and only after the expedition of Mathuisieulx, to Tripolitania, and then by Mendel, to Ghirza.<sup>3</sup>

1. *Tomb North A.*

*In situ* above the doorway of the cella (p. 123, Pl. 51b), inscribed within an ansate panel (die, 0.47 × 0.36) flanked by two eagles bearing hares in their claws. The lettering (ht. 0.05-0.06) is much better than that of other inscriptions from Ghirza mausolea and strongly suggests that this is the earliest inscribed tomb in the group.

First copied in 1825 by Denham (for the date of the transcription see the itinerary for 1824-5 by Bovill),<sup>4</sup> and published in Denham and Clapperton as no. 3.<sup>5</sup> Copied again by Mathuisieulx, with whom Toutain made a squeeze,<sup>6</sup> and photographed by Bauer.<sup>7</sup> Republished after examination of the stone, and a new photograph taken by M. Ballance.<sup>8</sup>

M(archii) Nasif et M(archiae)

Mathlich m-  
atris M(archii) Nimir-  
a et Fydel fili(i)

5 k(aris) p(arentibus) fecerunt

Ll. 1, 3, the abbreviation M is resolved on the model of the *nomen* written in full in no. 4, line 2.

2. *Tomb North B.*

Block carrying an anstate panel with inscription, originally set above the false door of the cella (p. 134, Pl. 60b), but found fallen and later broken. The dexter part (wrongly described in *IRT* on p. 222, although correctly on p. 223, fn. 2) had been taken to Istanbul by 1868 (see above) but is not now traceable. The sinister part was rediscovered on the south side of the tomb and taken to Tripoli Castle in 1952 (Pl. 60b).

First copied by Denham and published in Denham and Clapperton as no. 2.<sup>9</sup> The dexter part only was cited in *CIL* from copies made in Istanbul by Mordtmann and Dethier.<sup>10</sup> The whole inscription was published from a copy of the dexter part by Messerschmidt, put together with Denham's transcription,<sup>11</sup> and then republished by Reynolds after examination of the sinister part.<sup>12</sup> Italicized letters are printed from the version in *CIL* VIII, 22661.

*M(archius) Fydel et F(lavia) Thestylgum*  
*pater et mater M(archi) Metusanis*  
*sic qui eis hec memoriam fecit*  
*Discussi ratiocinio ad ea ero-*  
*5 atum est sumptos mercedes*  
*sic in numo\*follis n[onaginta] milia*  
*sic preter cibarias ope[rant]ibus*  
*sic feliciter legant [et] uissite-*  
*sic nt filios et nepotes meos*  
*10 et tales faciant*

Ll. 1, 2, for the resolution of the abbreviation M cf. the *nomen* in no. 4, line 2. In the mother's name S could be F but is probably S, ligatured ST.<sup>13</sup>

L. 6, Denham drew N but Dessau followed the copies from Istanbul and printed M, although he suggested the possibility of *nonaginta* which must be right.

Ll. 8f., from no. 4, lines 13 and 14 it appears that it was the sons and grandsons who were to read and visit; there is other evidence in the present text for its draughtsman's weaknesses in Latin grammar.

3. *Tomb North C.*

Angle-block from a sculptured frieze (0.18 × 0.53 × 0.265), probably the south return of the east frieze (p. 152, stone no. 1a, Pl. 77b), sculptured on two faces, one of which also carries an inscription roughly cut above the figure of a man (for a description of the sculpture see p. 153). It had been taken to Istanbul by 1868 (see above) but is not now traceable.

First copied by Dumont,<sup>14</sup> and later, again by Dethier,<sup>15</sup> then by Tissot,<sup>16</sup> and finally by Mendel.<sup>17</sup>

Isiguar

It has been commonly assumed that the final letter was seen by Dethier who drew it as complete, but in fact the earlier transcription by Dumont already shows it as lost and Mendel's drawing indicated that only the *hasta* was there. The letter can be completed with confidence on the basis of the names in *IRT* 867, 886h, and k.

4. *Tomb North C.*

*In situ* above the false door on the east wall of the cella (p. 151, Pl. 76a), inscribed within an ansate panel flanked by volutes (die, 0.52 × 0.45). The letters are roughly cut (ht. 0.02 - 0.03).

First copied in 1825 by Denham and published in Denham and Clapperton, as no. 1,<sup>18</sup> copied again (and photographed) by Mathuisieulx, with whom Toutain made a squeeze,<sup>19</sup> photographed by Bauer,<sup>20</sup> and subsequently examined on the stone by Reynolds.

*M(archius) Chullam [et] Varnychsi-*  
*n pater et ma[te]r Marchi*  
*Nimmire et [?M]accurasa-*  
*sic n qui eis hec memori-*  
*5 am feceru[nt d]iscussi-*  
*mus rati[oci]nio ad*  
*ea eroga[tu]m est sum-*  
*ptos merc[e]dibus in n-*  
*ummo\*foll[is] singula-*  
*10 res numero quadragi-*  
*nta quinque [milia] sesce-*

ntos preter c[i]b[aria] op-  
era[nt]ibus felic[iter]  
uisitent fili et n[ep]o[es]

Italicized letters were read by Denham and/or Mathuisieulx. The abbreviation M is resolved in accordance with the spelling of the name in line 2. It is proposed to restore M in line 3 on the model of the name Maccuras in Corippus, *Iohann.* v, 311. For the final formula cf. no. 2, lines 8-10.

5. *Tomb North C.*

Sculptured block with inscription above a relief of men ploughing with camels and oxen, found by O. Brogan, fallen from the frieze on the north side (p. 154, stone no. 5, Pl. 80a), and taken to Tripoli Castle in 1955. The letters are very rough and irregular (ht. 0.02 - 0.07).<sup>21</sup>

MAÇHIK̄ AIĪ NAΘNC [...]

MA ligatured; the first C might be G; K might be Y.

6. *North Tombs (p. 182).*

Two adjoining pieces of a limestone column (diam. 0.34 × 1.96), broken away below, inscribed on the drum within a rectangular area defined by incised lines with an *ansa* at the top. The upper piece was found on the slope near Tomb North A and the lower in the lower tomb chamber of the same tomb. The letters (ht. c. 0.035) are quite well cut and regular. First copied by Reynolds.<sup>22</sup>

Seque[ns ...]o[.]e[.]  
çis memorator M-  
[.]neorum est Mοη-  
[.]san filius Voc-  
5     lis omnibus par-  
sic    rentibus pos[uit]  
      quis et u[.]c.7[.]  
      diem[.]c.10[.]  
      uic[tor]iarum [s]u-  
10     arum exhibit  
      sacrificia [p]are-  
      ntaliorum ta-  
      uros n(umero) LI qu-  
      inquaginta e[t]  
15     [unum] capros [n(umero)]  
      [XX]XVIII t̄ri[gi]-  
      [nta] o[.]et [o...]

L. 5, of the first letter only an upright is visible - possibly L or T.

Ll. 11-12, for the form of the genitive plural cf. *ILS* 8370; the word is clearly the name of the festival *Parentalia* and the formula refers to the sacrificial victims of the *Parentalia*.

Ll. 13f., the numbers are given both in numerals and in words and one is restored from the other according to which has survived better.

7. *North Tombs.*

Lost block seen and drawn by Denham beside an unspecified mausoleum; his drawing shows the inscription cut in a rectangular panel flanked by volutes and the letters as occupying its upper half only, with lines 1 and 2 stopping well short of the end of the line (fig. 57). First copied by Denham and published in Denham and Clapperton as no. 4.<sup>23</sup> (See pp. 166, 181, no. 8).

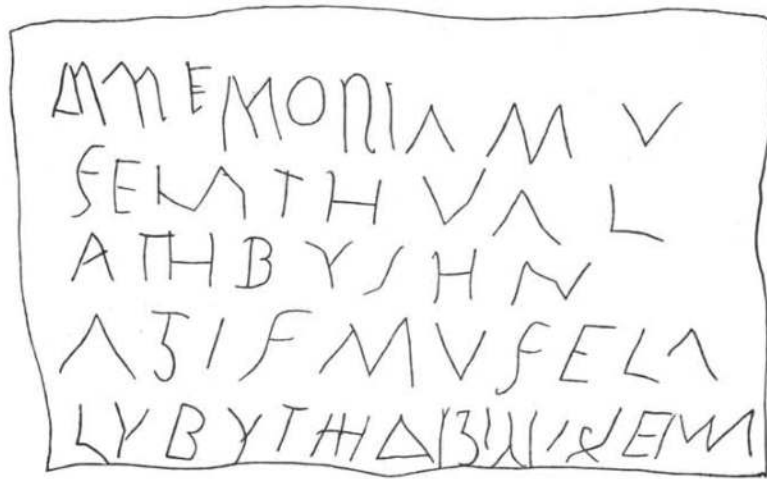
8. *Wadi Ghirza.*

Waterworn fragment of inscribed white marble (0.06 × 0.09 × 0.045), found by J. Lush and O. Brogan in 1954 in the Wadi Ghirza, near the foot of its left bank between Shabet el-Gsur and Building 1; removed to Tripoli Castle. First copied by Brogan and, after examination of the piece, published by Reynolds.<sup>24</sup>

...]VAM[...  
...]VI[...  
...]ÇCEV[...]

9. *Probably from Ghirza.*

Inscribed block not now traceable, copied by Dethier in Istanbul before 1873 (where it was probably with the Ghirza group of stones, see above), and again by Tissot, and photographed by Reinach.<sup>25</sup>



L. 1, perhaps *in memoriam*.

Ll. 3-4, the name Nasif seems to be clear. Latino-Libyan.<sup>26</sup>

(See p. 181, no. 7)

#### APPENDIX 8: NOTES

<sup>1</sup> A. Dumont, *RA* XVII (1868), p. 257ff., section xxxii.

<sup>2</sup> TISSOT.

<sup>3</sup> *NAM*, p. 1ff.; Mendel, p. 58f.

<sup>4</sup> E.W. Bovill (ed.), *Missions to the Niger, III, The Bornu Mission 1822-5*, part 2, pp. 313-4.

<sup>5</sup> Denham (1826), p. 307, no. 3; Denham's rough sketch, reproduced by Bovill p. 508, and C. Tagart, *Libyan Studies X* (1978-9), p. 15, does not do justice to the quality of the lettering.

<sup>6</sup> *NAM*, p. 24 (without illustration); and subsequently *AE* (1904), no. 214; *CIL* VIII, 22662.

<sup>7</sup> Bauer (1935), fig. 1; *IRT* 899.

<sup>8</sup> Reynolds (1955), p. 140.

<sup>9</sup> Denham (1826), no. 2, p. 308; reproduced by Bovill as no. 1, p. 508.

<sup>10</sup> *CIL* III, 743 and again (from a copy by Tissot) in *CIL* VIII, 10970.

<sup>11</sup> *CIL* VIII, 22661; whence *IRT* 900.

<sup>12</sup> Reynolds (1955), p. 140f.

<sup>13</sup> *Ibid.*, p. 128, no. 58.

<sup>14</sup> Dumont, *RA* 22 (1868), p. 257.

<sup>15</sup> *CIL* III, 744.

<sup>16</sup> *CIL* VIII, 10972.

<sup>17</sup> Mendel ii (1914), p. 68, no. 305; whence *IRT* 902.

<sup>18</sup> Denham (1826), p. 307, no. 1; reproduced by Bovill as no. 1, p. 507.

<sup>19</sup> *NAM*, p. 25; and subsequently *AE* (1904), no. 215; and *CIL* VIII, 22660.

<sup>20</sup> Bauer (1935), cit. as no. 1, fig. 5; whence *IRT* 898.

<sup>21</sup> Reynolds (1955), p. 139, no. S.21.

<sup>22</sup> *Ibid.*, p. 139, no. S.22, Pl. XXXVIb.

<sup>23</sup> Denham (1826), p. 308, no. 4; reproduced by Bovill as no. 1, p. 509; whence *CIL* VIII, 22663 and *IRT* 903.

<sup>24</sup> Reynolds (1955), p. 140, no. S.23.

<sup>25</sup> *CIL* III, 744; *CIL* VIII 10971; *CIL* VIII; 10991, and thus *IRT* 901 where it is wrongly attributed to a copy made by Denham, as noted by C. Tagart, *Libyan Studies X* (1978-79), p. 15.

<sup>26</sup> See p. 177, n. 21; cf. Reynolds (1955).



**GASR BANAT****By Olwen Brogan, F.S.A.***Figs. 81-84, Pl. 146b*

Gasr Banat (the Castle of the Maidens) stands on the left bank of the Wadi Nfed 15 km. south of its confluence with the Wadi Sofeggin.<sup>1</sup>

We illustrate it here because it has much in common with Tomb North A. Both resemble the classical Doric temple, with peripteral colonnade, a cella with a chamber within and the standard horizontal architraves. But, so far as we have been able to discover, neither had a pediment. Each has a high podium incorporating a burial chamber, and in each tomb the sides of the podium are carried forward to flank the steps leading up to the entrance. Gasr Banat faces south-west, unusual in Roman mausolea but here doubtless due to the lie of the land, since the tomb stands on the east side of a small bay in the side of the wadi. The podium (including the walls flanking the steps) measures 9.50 × 7.52 m.

**Funerary Chambers**

*The lower chamber* (3.68 × 3.12 m; ht. 2.05 m) is entered by a passage sloping gently downwards, a little to the left of centre, under the flight of steps. The passage is 3.18 m. long and at 1.80 m. from the exterior it was blocked by a sliding stone. The entrance to the chamber is 1.30 m. high × 1.00 m. wide. The chamber has a square central pillar (0.46 × 0.46 m.) with a plain capital which supports a stone beam 0.44 m. high crossing the chamber from above the doorway. There are no niches in the walls.

*The upper chamber* (3.07 × 3.15 m; ht. 3.46 m), like the lower one, is funerary, since its entrance was closed by the usual stone slab which slid down from a cavity behind the lintel. The two chambers are almost identical in size. The upper chamber is well finished, in marked contrast to the upper chamber of the Ghirza tomb. There are seven brackets, four of which are corbels set in the side walls to bear the stone beams supporting the ceiling. The three lower brackets could have held urns or lamps. The first on the left of the entrance is decorated with a fish in relief; the others have rosettes. The soffits of the beams are decorated respectively with a tight laurel garland, with ribbons at the end, and with a pattern of leaves.

**The Superstructure**

The doorway to the cella (ht. 1.57 m; external width 1.36 m; internal width 0.33 m) is set in a handsome frame and above the lintel are dentils and a cornice. The exterior of the cella is plain, except for a small object in relief, now defaced, above the doorway. The cornice is plain and supported the roofing slabs of the portico. The flanking wall of the steps on the south was continued as a wall round the edge of the podium and on it were set the bases of the columns. Part of its upper moulding is preserved.

The surviving elements of the colonnade are a column base (0.58 × 0.58 m, ht. 0.38 m) with mouldings above, and several pieces of column shaft (diameter of shaft at base 0.40 m); but unfortunately no capital has survived. There are, however, two pieces of the architrave. One is complete (2.15 × 0.30 m, ht. 0.42 m) and carries the left-hand part of the inscription *IRT* 891, which is calculated to have occupied three blocks. Under the projecting band at the top are three regulae, each with four guttae. The soffit is decorated with a garland and ribbons, like one of those within the upper tomb chamber. There is a fragment of Doric frieze (ht. 0.38 m) with part of a triglyph, and there are two pieces of cornice, 0.65 m high, one of them 1.20 × 0.25 m, the other 0.97 × 0.25 m.

There were no remains of sima decorations such as those of the Ghirza tomb. Di Vita, in 1963, found among the rubble a piece of stone (ht. 17 cm) with half of a curious, extremely primitive-looking human mask with a gaping mouth, which appears to be a gargoyle.<sup>2</sup> The only other gargoyle which we have from these tombs is the head on the north side of the Ghirza tomb — a head which looks more human than this one. It is odd to find such a very rough-looking carving seemingly belonging to so sophisticated a building as Gasr el-Banat.

Measurements of the exterior show that there must have been four columns on the front and back and five along each side, as in the case of North A.

According to the editors of *IRT* the inscription is in third-century capitals. It reads:

Aurellio Nazmuri parenti et[...ma]tri Aurelli Maior  
et Magnus et Arcadius fil[i...parentibus] piissimis fecerunt

The occupants of the tomb were therefore a Libyan, Aurellius Nazmur, and his wife. In Tripolitania he might

be presumed to have received the Roman citizenship in the time of the emperor Caracalla or some other member of his house, and his sons all have Roman names.

About 100 metres further up the Wadi Nfed is the exceptionally fine *gasr*, Gasr Isawi, built of large dressed stones like those used for the tomb.<sup>3</sup> From its proximity to Gasr Banat it must have belonged to the family who built the tomb.

If Nazmur indeed received the citizenship under Caracalla we may guess that the tomb can hardly have been built later than 230. This raises the problems as to when it may reasonably be supposed that the Ghirza tomb, so obviously imitative of Gasr Banat, was erected. The Ghirza masons dressed and laid their stones carefully, and the lower chamber and basic superstructure are skilled work, but the sculpture on this tomb shows that it belongs to a period when there were new fashions in the decoration of tombs. If we have to link the two tombs it is difficult to date North A later than the middle or late third century. Yet evidence of third-century occupation is almost non-existent at Ghirza.

#### APPENDIX 9: NOTES

<sup>1</sup> Bauer, *Afr. It.*, p. 73, figs. 25f.; De Mathuisieulx, *NAM* xii (1904), by whom the tomb is called Gasr Lachadié, *IRT* 891.

<sup>2</sup> *LA* i (1964), p. 140, Pl. LXIX.

<sup>3</sup> Goodchild/Ward-Perkins (1949), call the *gasr* 'Gasr Banat'; in the 1950s the local inhabitants called the *gasr* 'Gasr Isawi' and the tomb 'Gasr Banat.'

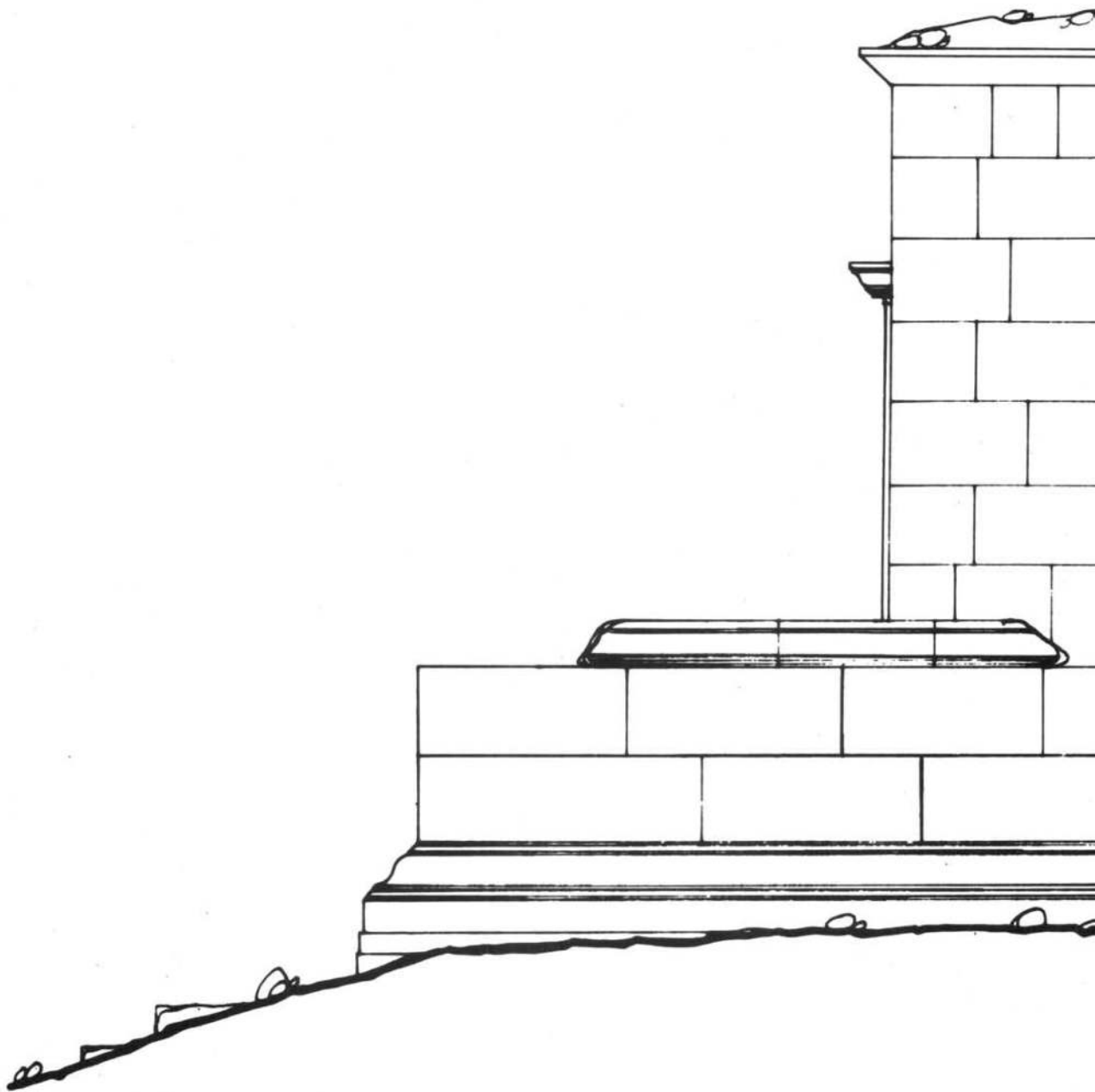
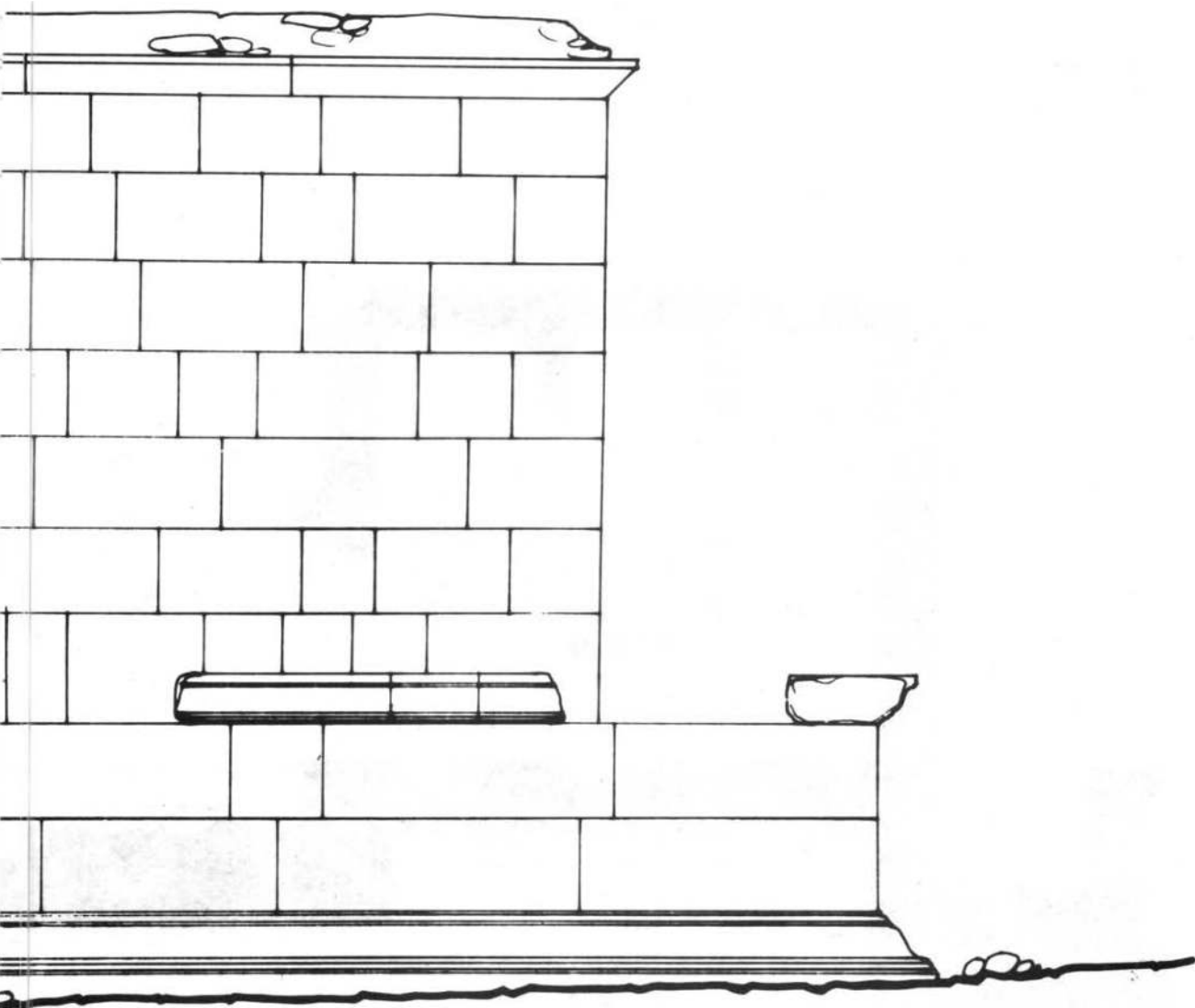


Fig. 81. Gasr el-Banat, Wadi Nfed: south elevation. Drawn by G. Goer.





1 2 3m

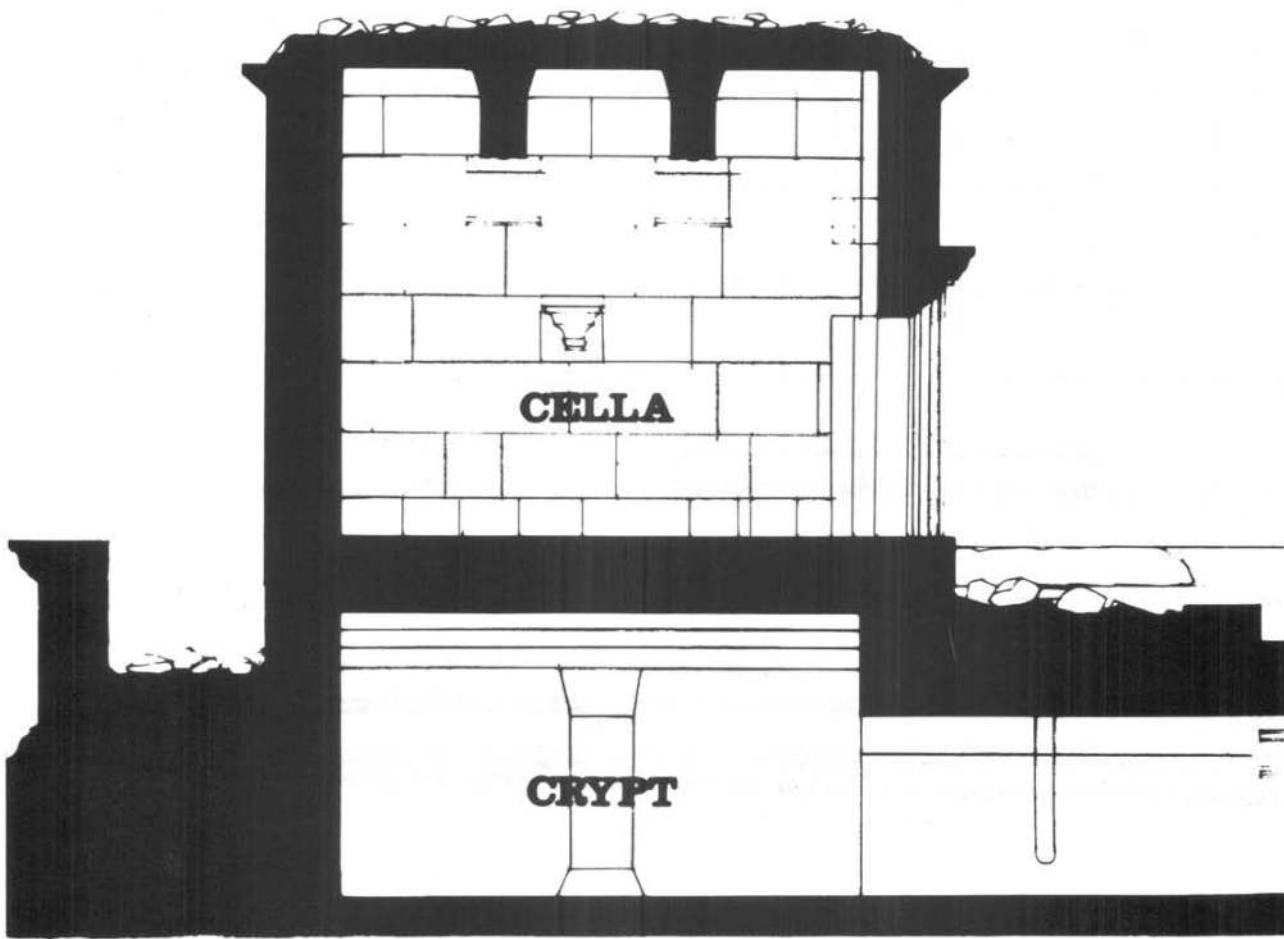
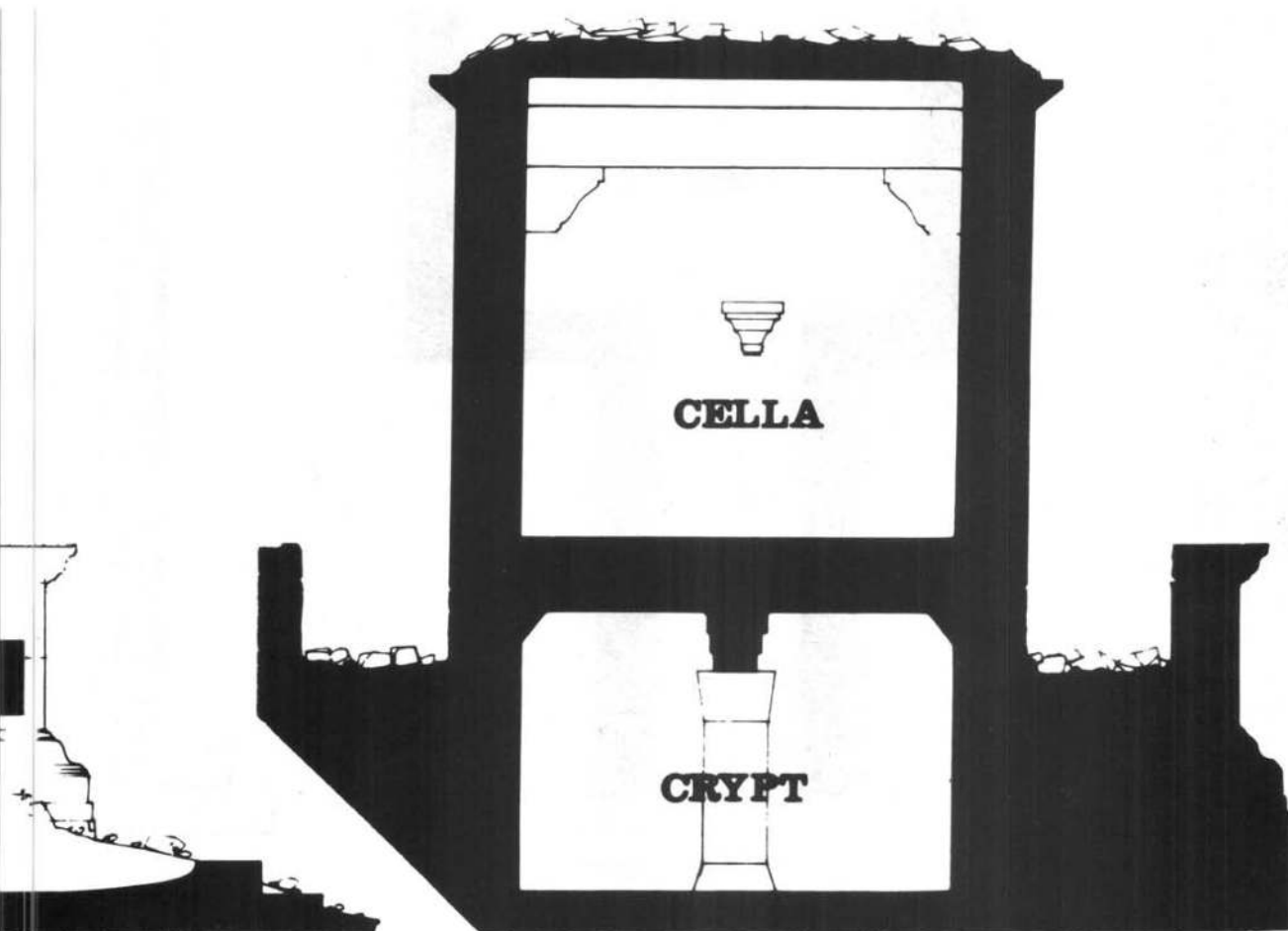


Fig. 82. Gasr el-Banat, Wadi Nfed: sections. Drawn by G. Goer.



**CELLA**

**CRYPT**

2 3m

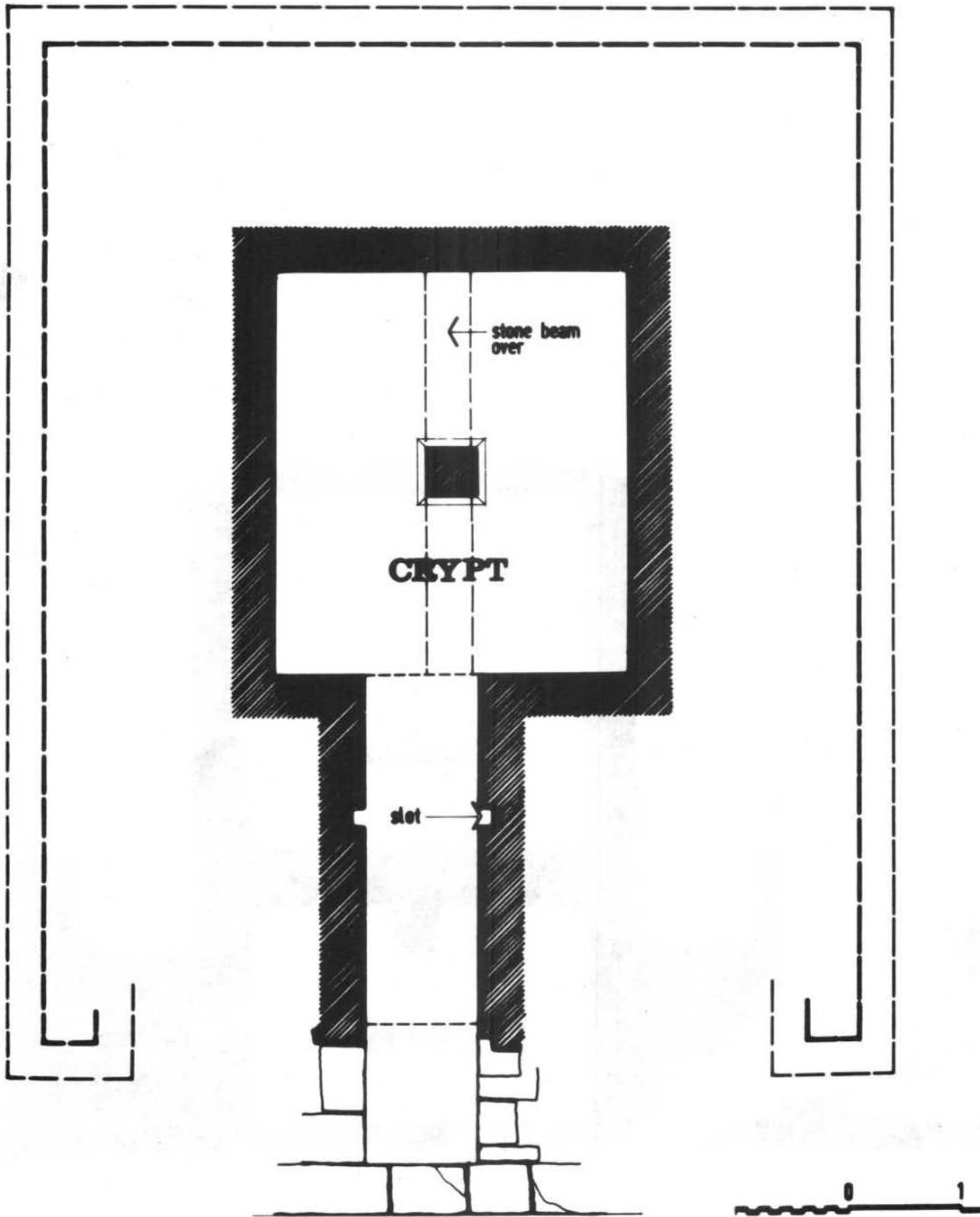
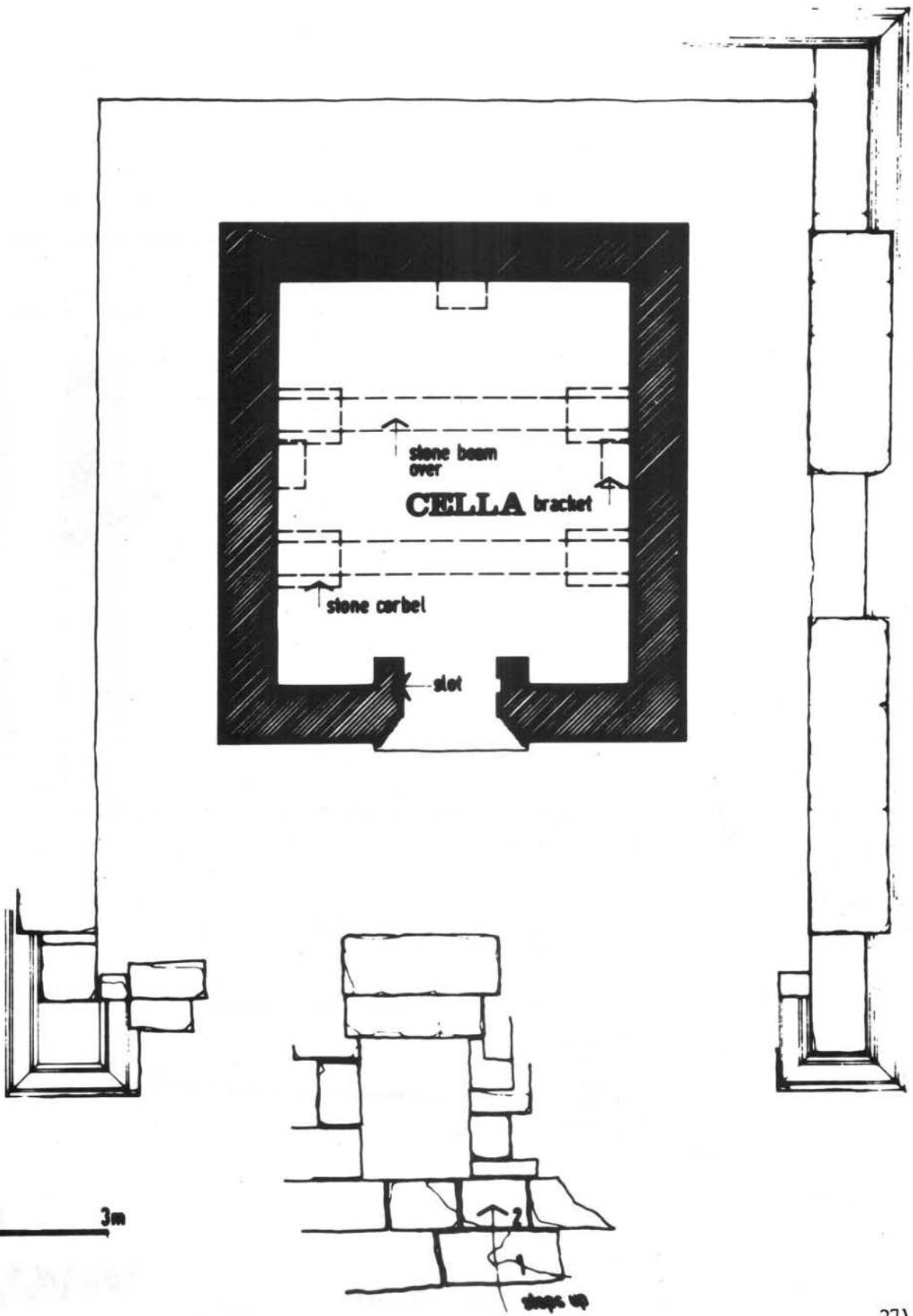


Fig. 83. Gasr el-Banat, Wadi Nfed: plans. Drawn by G. Goer.





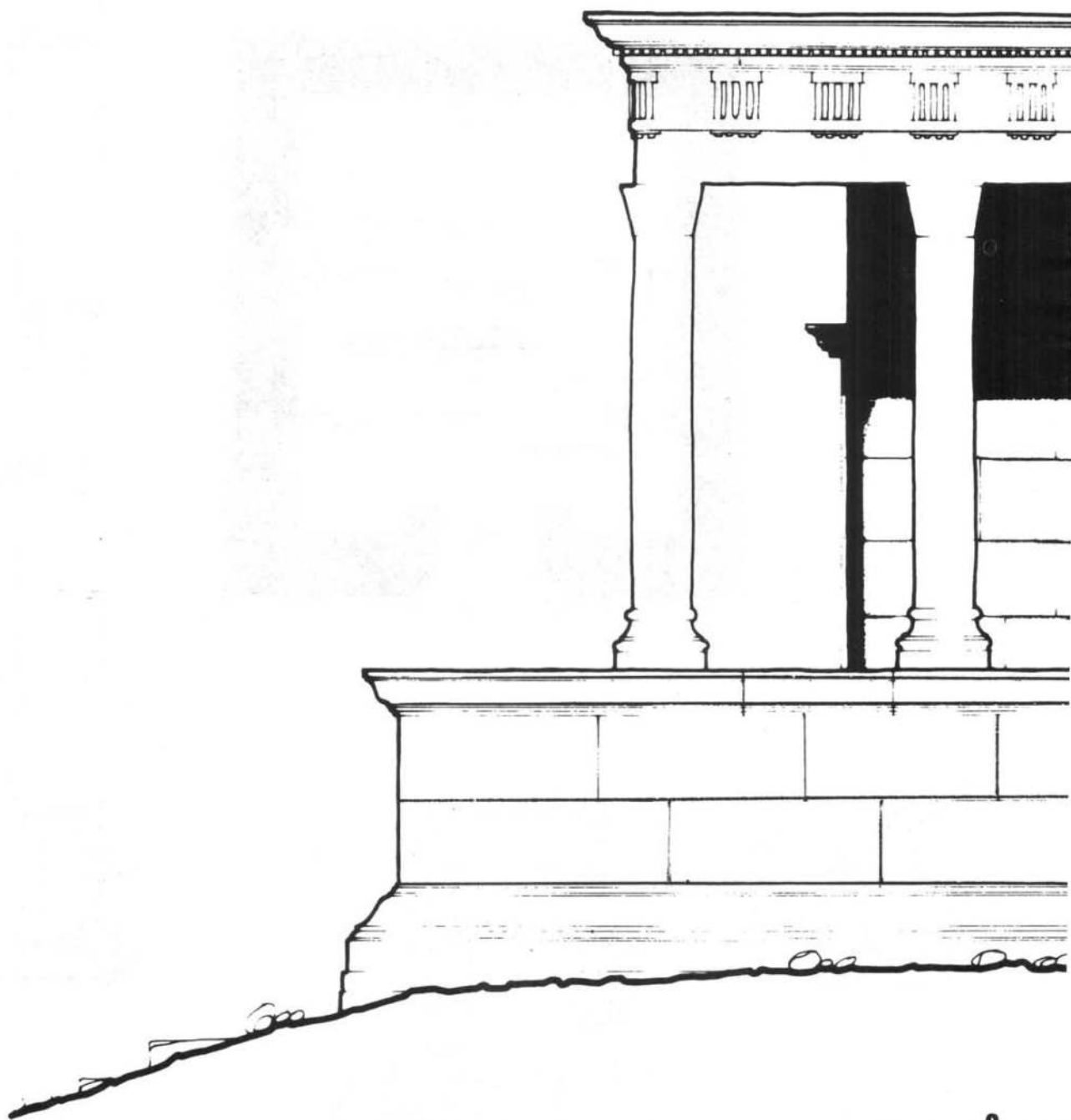
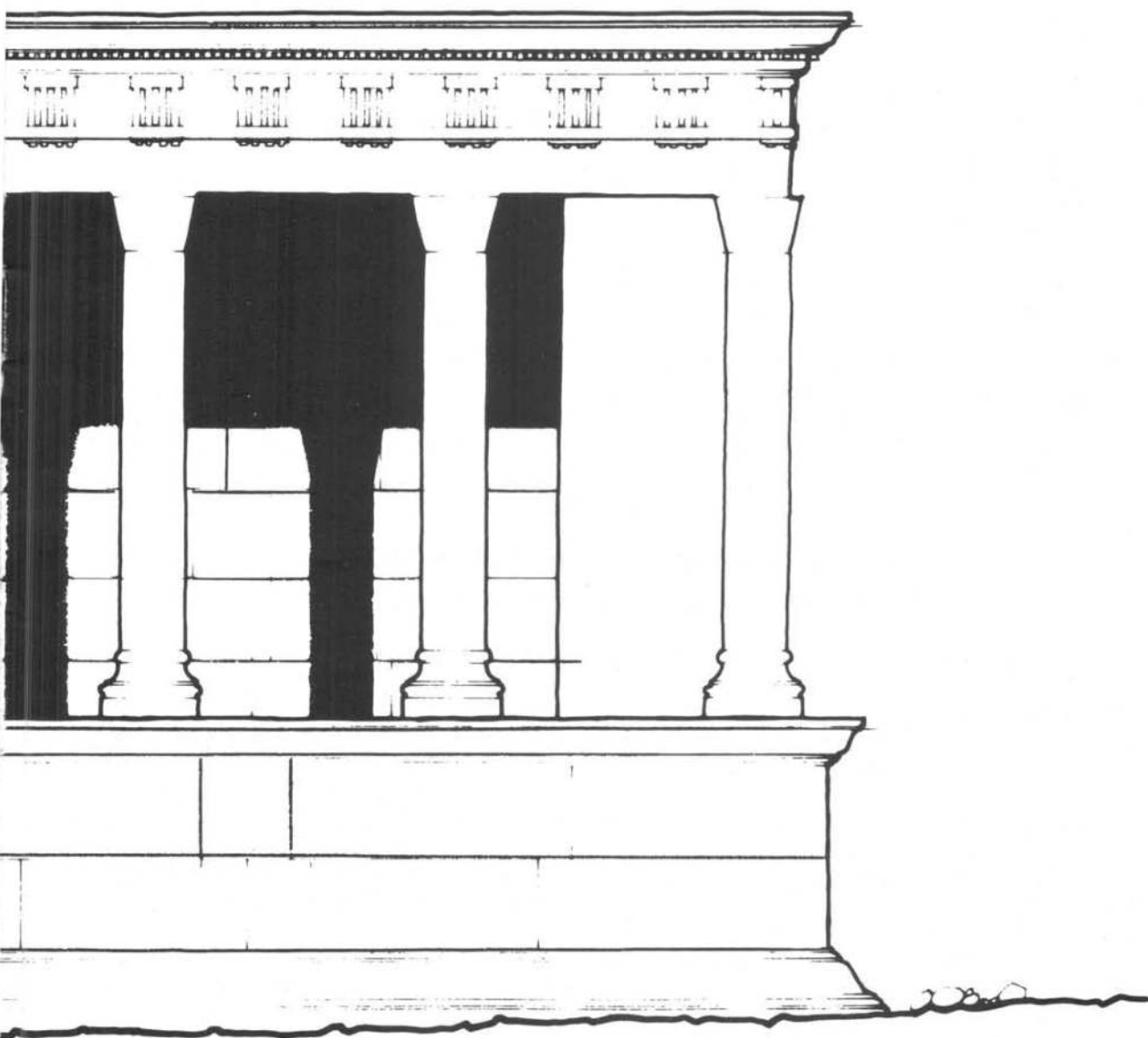


Fig. 84. Gasr el-Banat, Wadi Nfed: south elevation reconstructed. Drawn by G. Goer.



1 2 3m

## ISLAMIC COINS FROM BUILDING 32

## Pl. 147.

The following coins, all of silver, were identified by the late Dr. John Walker, Keeper of the Department of Coins and Medals of the British Museum.

Nos. (2) and (3) were found towards the south end of the porch, below the level of the window (p. 90). Nos. (4), and (6)-(12) were found in debris near the same end of the porch but at the level of the top of the window (p. 90).

- (1) Dirham of the Abbasid Caliph Harun al-Rashid (A.D. 786-809). Minted at Madinat-al-Salam (Baghdad). Date obliterated but probably c. A.D. 800. Found in the north-east corner of the *sacellum* (p. 91).
- (2) Al-Mahdi Ubaidallah. A.H. 311 (the first year of his reign) = A.D. 923-924.
- (3) As (2) but A.H. 313 = A.D. 925-926.
- (4) Dirham of the Fatimid Caliph al-Muizz (A.D. 952-975). Minted at al-Mansuriyah, near Kairouan, (?) A.H. 356 = A.D. 966-967.
- (5) As (4), but minted at al-Mahdiya (Mahdia, Tunisia), A.H. 361 = A.D. 971-972. Found at the west end of the south arcade (p. 89).
- (6) As (4), but (?) A.H. 364 = A.D. 975-976.
- (7) As (4), but mint uncertain and date illegible.
- (8) Dirham of (?) al-Muizz. Worn, cut, and pierced.
- (9) Dirham of the Fatimid Caliph al-Aziz (A.D. 975-996), A.H. 365-386 = A.D. 975-996.
- (10) As (9).
- (11) Dirham of al-Aziz. Minted at al-Mansuriyah, A.H. 377 = A.D. 987-988.
- (12) As (11), but A.H. 379 = A.D. 989-990.
- (13) Al-Hakim (A.D. 996-1020). Found with a lamp (p. 277, Appendix 11, D, no. 2) in the north end of porch.
- (14) Dirham of al-Hakim. Cut down. Found near the north wall of the building, in sand above a black layer.

## APPENDIX 11

## ISLAMIC POTTERY AND LAMPS FROM BUILDING 32

By D. J. Smith, Ph. D., F.S.A. and C. Tagart, B.A.

## Glazed Pottery and Lamps

The pottery and lamps catalogued below were taken from the porch, antechapel, and north chapel. They represent the period 2 occupation of Building 32 and, though unstratified, are securely dated by coins (see above, and pp. 90-91) to the period c. A.D. 950-1050.

Amongst the pottery the most noteworthy fragments are from decorated vessels identifiable as products of the Qalaa of the Beni Hammad in Algeria. The Qalaa (fortified settlement) was founded in A.D. 1007-8 and abandoned c. A.D. 1150. Beni Hammad Ware was widely traded; to date it has been found in Libya at Medina Sultan in the Gulf of Sirte,<sup>1</sup> otherwise El-Medeinah, medieval Sort.<sup>2</sup> We are indebted to Mr. R.H. Pinder-Wilson, formerly Deputy Keeper of the Department of Oriental Antiquities, British Museum, for kindly examining and confirming the identification of the Beni Hammad sherds.

The glazed lamps have a certain homogeneity in their lack of decoration, painted (cf. the glazed pottery) or moulded on (cf. the Roman lamps, pp. 234). Although none can be closely dated stylistically within the Islamic period it is worth noting those lamps that came from the south end of the porch, and the datable evidence (coins) that was found in close association with some of them.

Of the three lamps recovered from the south end of the porch, lamp (4) was found at the deepest level; it was close to a sherd from a sixth-century Christian lamp (p. 237, probably survival) and also an incomplete Islamic cooking pot (p. 217, no. (10)). Next, from a higher layer in the same corner came one of the two fragments of lamp (1), immediately above two coins of c. A.D. 925 (above). The third lamp, (2), was found at the same level as seven late tenth-century coins (above). This level also yielded other objects of period 2 (p. 276, no. (3), p. 277, no. (2)), amongst which was a small bulbous glazed pot, (17), similar in form to the third lamp.

Lamp (1) merits particular attention as the two large fragments were found at opposite ends of the porch. This lamp is a heavy, sturdy example and the break that split it into two almost even pieces is relatively clean. The possibility of a fall from an upper storey seems likely in the present context (cf. p. 90).

The import of pottery is evident from the presence of the Beni Hammad sherds. From the similarity of fabric and form it seems that the other glazed pottery and the finer coarse wares were also imported (see below, p. 276).

The restoration of glazed lamp (4) with mortar suggests that at some point there was a scarcity of wheelmade pottery. The relatively finer imported pottery may therefore have been treasured for a long time.

d. diameter  
h. height  
l. length  
w. width

### A. Glazed Pottery

- (1) Ten frags., some joining, from bowl, d. 21.5cm Smooth whitish-brown fabric; internally and externally pale green, decorated in dark brown and blotchy emerald green, showing figure of a stag internally, and leaf pattern on both surfaces around rim. Beni Hammad Ware. From the destruction layer in the antechapel. Fig.85, Pl.148.
- (2) Frag. from neck of two-handled flagon. Smooth whitish-brown fabric; externally pale yellowy-green with dark green smudges and thin brown vertical lines. Beni Hammad Ware. Unstrat. Pl.148.
- (3) Frag. from lower part of bowl, with internal groove corresponding to slight external carination. Smooth whitish-brown fabric; internally and externally pale yellowy-green, with leaf pattern decoration in green and dark brown internally. Beni Hammad Ware. Unstrat.
- (4) Three frags. (one base, one with stump of handle), from globular vessel. Smooth whitish fabric; internally and externally pale muddy green, with dark green vertical stripes bordered by dark brown lines externally. Base frag. heavily burnt internally, slightly burnt externally. Unstrat. Pl.148.
- (5) Base frag., d. 4.4cm. Smooth whitish-yellow fabric; internally and externally very pale grey-green. Wheelmarks internally. Unstrat. Fig. 85.
- (6) Wall frag. Smooth whitish-brown fabric; externally pale yellowy-green with two dark brown stripes. Unstrat.
- (7) Rim frag. (too small to measure d.), from straight-sided vessel with flat-topped rim. Smooth whitish-brown fabric; internally horizontal bands of pale green and pale brown, externally whitish with edge of dark green smudge. Unstrat.
- (8) Wall frag. Smooth whitish fabric; externally pale green with brown lines. Wheelmarks internally. Unstrat.
- (9) Two rim frags., not joining, d. c. 20cm. Smooth whitish fabric; internally dark green to light green, externally vertical bands of pale green and dark brown, glassy surface. One frag. heavily burnt. Unstrat. Fig. 85.
- (10) Rim frag., d. 16cm., plain rim from round-bodied bowl. Smooth whitish fabric; internally traces of green, externally pale lavender-white. Unstrat.
- (11) Wall frag., from lower part of vertical-sided vessel, slight carination near base. Smooth whitish-brown fabric; externally grey-green with brownish vertical bands, cf. (9). Unglazed and wheelmarked internally. Unstrat.
- (12) Base frag., d. 8.9cm. Smooth whitish-yellow fabric; internally light yellowy-green, externally dark emerald green. Unstrat. Fig. 85.
- (13) Base frag. Smooth whitish-brown fabric; externally yellowy-green. Wheelmarks internally. Unstrat. Fig.85.
- (14) Base frag. Smooth whitish-brown fabric; internally dark grey (burnt?), externally yellowy-green. Unstrat. Fig.85.
- (15) Base frag., d. 6.5cm. Smooth yellowy-brown fabric; internally and externally emerald green; n. Unstrat. Fig.85.
- (16) Six frags. (two from handles). Smooth whitish-yellow fabric; handle frags. yellow-green; three frags. internally pale yellowy-green externally dark green; one frag. internally yellowy-green, externally greyish-green. All unstrat.
- (17) Pot, rim broken. maximum d. 4.7, base d. 3.0, and maximum h. 3.8cm. Smooth creamy-yellow fabric; internally and externally dark green. From the same location, a green-glazed lamp (below no. (2), fig. 85), and seven coins (p. 274). Fig. 85.
- (18) Neck frag. of flagon, referred to by Sheikh Kilani Baba as a 'kus', top of rim broken. Smooth whitish fabric; externally pale muddy-green with brown horizontal dashes. From top layers of rubble on north side of main court. Fig. 85.

Three fragments of glazed pottery found elsewhere than in Building 32 may be noted here:

- (a) Frag., (? rim). Smooth orange-red fabric, internally and externally bright yellow with painted dark grey lines. Two horizontal lines of rouletting externally. Unprovenanced.
- (b) Wall frag. Smooth whitish-yellow fabric, internally pale green, externally dark green. External groove, wheelmarks internally. Unprov.
- (c) Wall frag. Smooth whitish-pale orange fabric, externally whitish with decoration in dark blue, yellow, pale green and pale brown. Unprov. Pl. 148.

### B. Glazed Lamps

- (1) Two joining frags, d. 6.2, h. 3.8cm. Smooth whitish-yellowish fabric; internally and externally bright green. One piece from south end of porch in a layer of rubble just above level of windowsill, and immediately above two coins of c. A.D. 925 (p. 274); the other amongst rubble at north end of porch. Fig. 85.
- (2) Lamp (?), broken d. 7.5, h. 5.0cm. Slight oval unglazed stump on one side. Fairly smooth, whitish-yellow fabric; internally and externally dull whitish-green. From south end of porch in layer of sand level with top of window near seven late tenth-century coins and Coarse Pottery (2), and (17) above. Fig. 85.
- (3) Two frags.; base with part of wick-channel, and nozzle. Overall length 12-13cm. Smooth whitish-brown fabric; internally and externally traces of green. Base burnt. Base prov. as (2); nozzle found in porch.
- (4) Extensively repaired with white mortar, broken top and nozzle, estimated d. 6.0, h. 3.8, l. 9.5cm. Whitish-grey fabric; internally and externally a thin coating of pale yellowy-green. From south end of porch below level of window, in layer of ash 60cm. thick; from same location see Coarse Pottery (10). Pl. 149.
- (5) Broken, d. 6.0, h. 2.7cm. Smooth whitish-yellow fabric; internally and externally faint traces of bright green, two concentric moulded rings on rim, very worn surface. From the antechapel. Fig. 85.
- (6) Fabric and glaze as in no. (5). Fluted moulding around side. Also very worn. From the antechapel. Pl. 149, bottom r.

### Coarse Pottery and Lamps

The coarse pottery and lamps were taken from the same areas in Building 32 as the glazed wares. Two pieces are associated with Islamic coins; part of no. (2) came from the same level as seven coins dated to the second half of the tenth century (p. 274), and lamp (2) was found with a coin of the period A.D. 996-1020 (p. 274).

The material represents a range of fabrics and skills, and the threefold classification offered here simply differentiates between roughly handmade, skilfully handmade, and wheelmade/moulded pottery. We are indebted to Mr. J. P. Gillam of the Department of Archaeology, University of Newcastle upon Tyne, for kindly examining and giving his opinion on certain pieces.

For both classes of handmade pottery the clay is coarse with a variety of angular inclusions, probably from debris of the Roman period: amongst these red grog and crushed oyster shell (?)<sup>5</sup> are clearly visible. The quantity and size of the inclusions vary; they are finely crushed and comparatively few in rim frag. (5), while the fabric of pot (12) contains a large number of coarse inclusions.

The skilfully handmade pottery consists of rim frags. (4), (5) and (6) which use the least gritty fabrics. These pieces come from relatively large, almost straight-sided vessels with the only examples of lug handles and decoration in the handmade group. They show expertise in making pottery by hand, and what little remains of their form suggests that the coarser handmade pieces were imitating these superior vessels.

The roughest handmade pottery is characterized by flat bases and slightly bulging walls. The various surface colours and textures indicate that the pottery has not all been fired to the same degree. The coarseness of the clay would require only low firing temperatures such as could be obtained from a domestic oven. The exact nature of this group is uncertain. The smallest of the cooking pots has been labelled 'toy'<sup>4</sup> and this term can probably be applied to (7) and possibly to (8). There is a query as to whether the semicircular feature in base fragment (13) is deliberate or not. The blackened exterior suggests that this vessel was used over a fire, but this is inconsistent with the most likely interpretation of the feature as a drainage hole.

Finally it should be noted that the term 'Lampfiller/Lamp?' is used with some reservation. Nos. (6), (7) and (8) are grouped together because of their similarity in form. They may not be altogether unparalleled as it is noticeable, and perhaps not due to mere accident, that the rims on some of the wheelmade/moulded lamps appear to have been deliberately chipped away (viz. glazed lamps (1), (5) and (6); coarse lamp (2)). No. (8) shows signs of burning, but on the exterior generally rather than concentrated around the spout. This may indicate that they were used for more than one purpose, or alternatively, that they were not all the same type of vessel.

The small group of wheelmade/moulded pottery requires less comment. Some of it contrasts sharply with the rough handmade wares and represents a more sophisticated form of coarse pottery. There are certain parallels with the glazed wares. The smooth creamy-coloured fabrics are common to both groups, and the link is strengthened by the similarity in form between lamps (1) and (4) and the glazed lamps.

It is not clear whether the three groups of coarse pottery are contemporary. Most of the wheelmade pieces were probably imported over the same period as the glazed wares. The fragments of high quality handmade pottery may represent the work of a few potters making and selling their goods locally (cf. the pottery found in the cemeteries, p. 111). The rough pots are almost certainly the products of the inhabitants of Building 32 who were relatively inexperienced in the art of potting by hand. However, it is unlikely that they would be made (except as toys) while there were still reliable alternative supplies of imported pottery.

### C. Coarse Pottery

- (1) Four joining frags., from cooking pot, with lower stump of one handle, maximum d. 15.5, base d. 7.8cm. Fine, dull orange-red fabric, with a very small, white inclusions. Wheelmarks internally. Patches of burning on both surfaces. From porch in front of north chapel. Fig. 86.
- (2) Three frags. (two join), from flagon, estimated h. 23cm. Smooth, fine creamy-green fabric. Wheelmarks internally. Base frags. from south end of porch in same layer as glazed lamp (2) (p. 276), (17) above, and seven coins (p. 274). Neck frag. from antechapel. Fig. 86. Also a base frag. in similar fabric from a more globular vessel.
- (3) Rim frag. with handle, too small to measured. Fine, creamy-green fabric, similar to (2). Unstrat. Fig. 86.
- (4) Rim. frag. from bowl, d. 20cm., slight stump of lug handle. Handmade in fairly coarse dark grey fabric, with a very few black inclusions. Incized wavy line below rim. Uneven fettled surfaces. From the porch. Fig. 86.
- (5) Rim. frag. with part of lug handle, from jar (?), d. 18cm. Handmade in sandy, fairly coarse fabric; pinkish interior, grey exterior, with a few dark red, and slightly larger black, inclusions. Uneven fettled external surface. From the porch. Fig. 86.
- (6) Two frags. (one rim), d. 28cm. Handmade in coarse gritty fabric; dark grey paste and orange-pink surfaces, with dark grey and off-white inclusions. Uneven, fettled external surface. Unstrat. Fig. 86.
- (7) Incomplete. d. 4.5cm. (uneven). Roughly handmade in coarse, very black fabric, with a few white inclusions. Unstrat. Fig. 87.
- (8) Frag. d. 10cm. (uneven). Roughly handmade in gritty fabric with dark grey paste and light brown external surface; large and small white inclusions (? shell) and a few large black flakey inclusions. From the porch. Fig. 87.
- (9) Toy (?) cooking pot, two handles (one broken) asymmetrically placed, d. 4-4.5cm. Roughly handmade in coarse, sandy, grey-brown fabric. Patches of burning on exterior of base. From the antechapel. Fig. 87.<sup>4</sup>
- (10) Almost complete, broken stump of narrow handle, d. 7.7 - 8.7cm. Roughly handmade in coarse, sandy, grey-brown fabric with small, white and dark grey inclusions. From corner at south end of porch below level of window, in layer of ash 60cm. thick. Fig. 87. From the same location as glazed lamp (4) (p. 276).
- (11) Six joining frags. similar to (10) and (12); no handle. Internal d. 5.3 × 5.7cm., ht. 5cm. Roughly handmade in coarse, reddish fabric. Patches of burning on exterior of base. From south end of porch, high up in rubble (1.60 m. above floor level).
- (12) Seven joining frags. similar to (10) and (11); no handle. Internal d. 7.3 × 8cm., ht. 5.2cm. Roughly handmade in coarse, dark grey fabric, with a large number of red inclusions. Patches of burning on exterior of base. Prov. as (11).
- (13) Large frag. d. 9cm., with remains of centrally placed hole, d. 1.7cm., uneven but possibly intentional. Roughly handmade in coarse creamy-brown fabric with red and dark grey inclusions. Prov. as (11). Fig. 87.

### D. Lamps

- (1) Chipped spout, d. 6.1, h. 2.5, l. estimated 10cm. Smooth. sandy, creamy-yellow fabric. From north end of porch in front of north chapel. Pl. 149.
- (2) Broken, d. 5.5, h. 2.5cm. Smooth, dull orange fabric; very worn. From north end of porch in front of north chapel. Found with a coin of A.D. 996-1020 (p. 274, no. 13). Fig. 87.
- (3) Frag. with raised broken rim, d. 9.0, h. 3.8cm. Smooth, light grey fabric with reddish tinge in paste. Unstrat. Fig. 87. Also a base frag. of similar lamp with shallower body and edge of flat-topped discus; identical fabric. Unstrat.

- (4) No visible sign of handle, chipped spout, d. 5.5, h. 3.5, l. estimated 9.5 cm. Smooth, creamy-brown fabric with extensive patches of burning on interior and exterior. From north end of porch in front of north chapel. Fig. 87, Pl. 149, centre l. Also a spout of similar fabric and type, blackened at tip. Unstrat.
- (5) Lower part of double-nozzled lamp (one nozzle missing), w. c. 8.0, h. 3.5, l. estimated 16 cm. Smooth, dull reddish fabric; very rough internal surface (unfinished?). Unstrat. Fig. 87.
- (6) Lampfiller/Lamp?, w. c. 5.0, h. 4.2, l. 9.2 cm. Roughly handmade in coarse brown-grey fabric with light brown slip; fettled external surface. Unstrat. Fig. 87, Pl. 149, top l.
- (7) Lampfiller/Lamp? w. 4.0, h. 3.3, l. 7.0 cm. Roughly handmade in coarse orange-grey fabric with small red and dark grey inclusions. Unstrat. Fig. 87, Pl. 149, top r.
- (8) Frag. Lampfiller/Lamp? Similar in form to (7) but slightly larger; rim slopes upwards to spout. Roughly handmade in orange-grey fabric with small red and dark grey inclusions. Extensive burning externally. Unstrat.

#### APPENDIX II: NOTES

<sup>1</sup> R.G. Goodchild, 'Medina Sultan', *LAI* (1964), pp. 99-109. Sherds were also picked up by D.J. Smith in 1950; these are now in the British Museum.

<sup>2</sup> Soc. for Libyan Studies, Ninth Annual Report (1978), p. 18.

<sup>3</sup> In 1955 Olwen Brogan was told by a Libyan driver at

Ghirza that oyster shells came from the desert, were common in the Ghadames region, and that they were powdered down and used in making coarse pottery and also cement.

<sup>4</sup> When this was uncovered, the workmen said that such miniature pots were still common as childrens' toys.

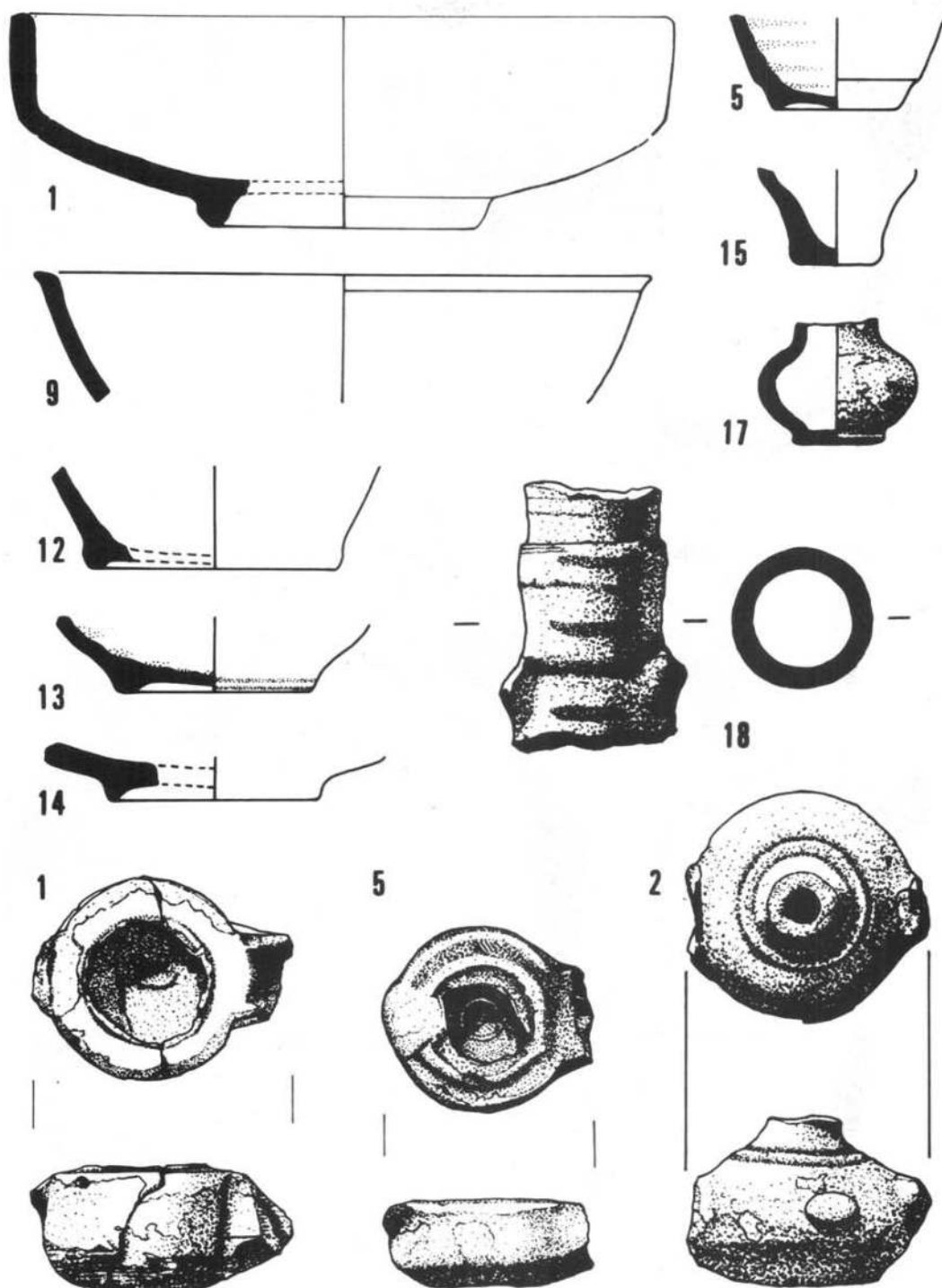


Fig. 85. Islamic glazed pottery and lamps, 1:2. Drawn by Mary M. Hurrell.



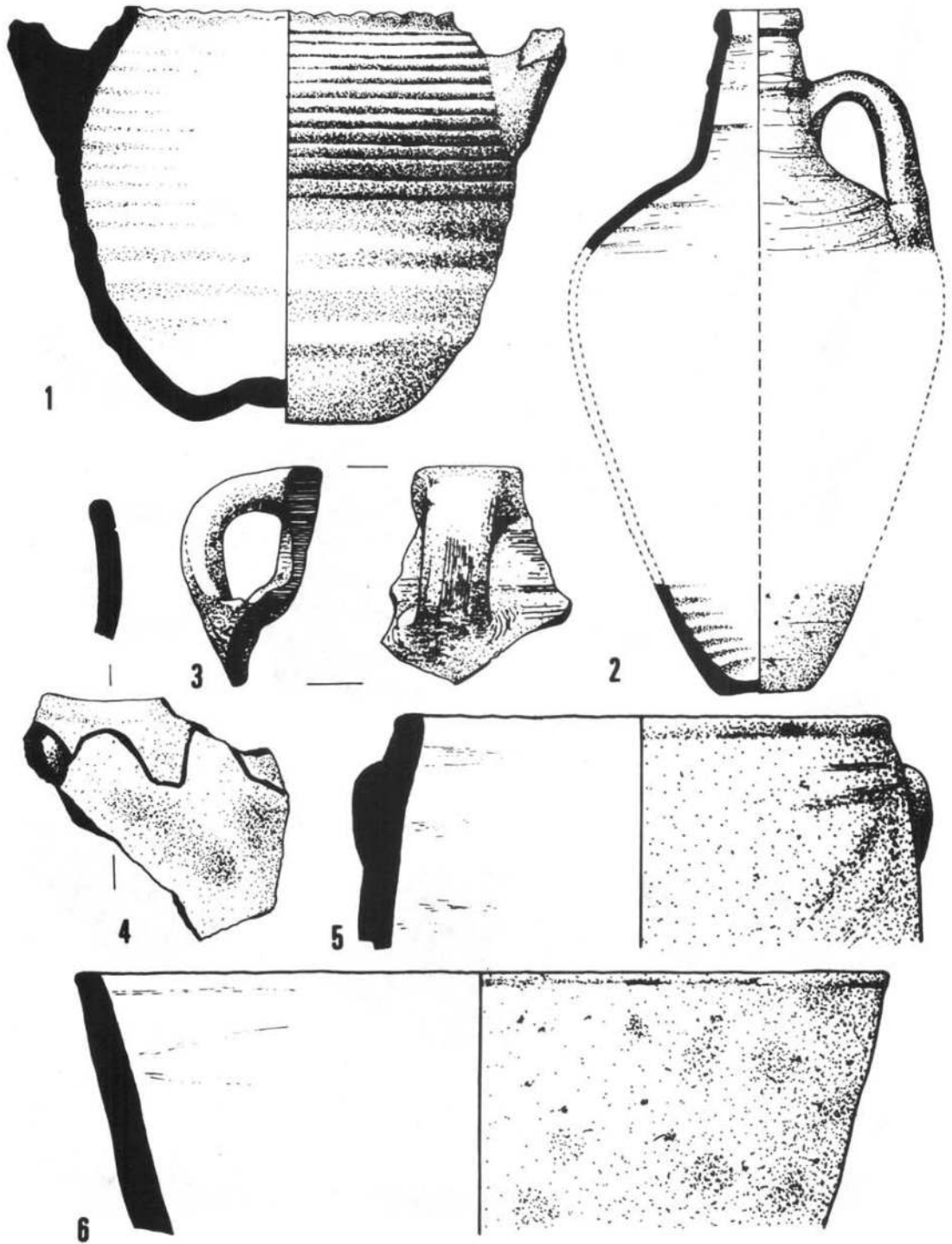


Fig. 86. Islamic coarse pottery, 1:2. Drawn by Mary M. Hurrell.

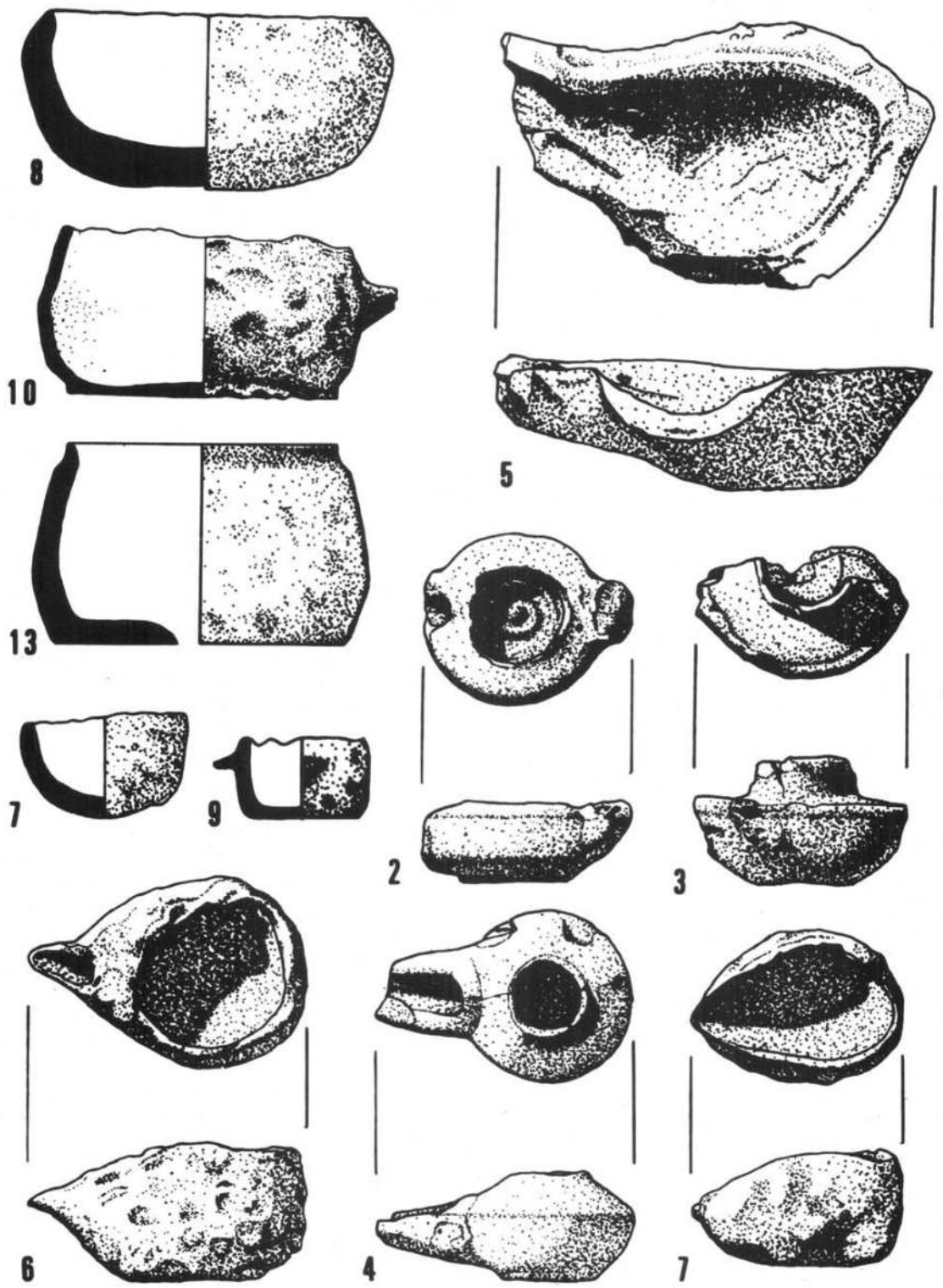


Fig. 87. Islamic coarse pottery, lamps, and lamps/lampfillers, 1:2. Drawn by Mary M. Hurrell.

## THE MIRROR BOXES FROM BUILDING 32

by G. Lloyd-Morgan, Ph.D., F.S.A., and Charlotte Tagart, B.A.

Lids, bases and fragments of a number of circular wooden boxes were found in the antechapel and porch of Building 32. One complete and apparently typical box survives (Pl. 150). This is of oleander wood and lathe-turned. The base, 6.8 cm. in diameter and 0.9 cm. thick, is slightly conical on the underside and the upper surface slopes gently towards a central circular depression, 3.2 cm. in diameter and 0.3 cm. deep. The fractionally larger lid 7.0 cm. in diameter and 0.5 cm. thick is slightly conical on top. A knob-headed wooden peg near the circumference of the box attaches the lid to the base and allows a swivelling movement to reveal the otherwise protected mirror recess.

Five identifiable bases have a range of 6.1 - 8.9 cm. in diameter and are c. 0.8 cm. thick with one exception which is 1.7 cm. thick. In shape they conform to that of the complete example. The mirror recess is between 2.5 - 4.5 cm. in diameter and occupies between  $\frac{1}{3}$  -  $\frac{1}{2}$  of the total diameter of the base. It is up to 0.4 cm. deep and traces of adhesive have been identified as vegetable gum mixed with clay. Although no mirrors were found in place, fragments of very thin, convex glass were found in Building 32, the largest of which is an irregular polygon 3.5 cm. across at the widest. The fragments, 0.05 - 0.08 cm. thick, are silvered on the underside. The mirrors may be re-used pieces of glass (see Appendix 3), or alternatively large glass vessels may have been blown and broken down to the required size.

Unfortunately none of the remaining lids (at least twenty-one), complete or fragmentary, can be matched to the bases with any certainty (Pl. 150). They range in diameter from 5.2 - 11 cm. although the majority are 7-8 cm. Three of the larger and flatter examples have a shallow, double-stepped recess in the underside, with a total depth of 0.5 cm., but otherwise the only variation in shape is the degree of concavity of the underside.

Another three anomalous fragments cannot be described with any certainty as either lids or bases. These are noticeably flat on both surfaces, and the lower surface has been hand-sawn rather than machine-finished. One of heavier wood has been identified as olive.<sup>1</sup> Their rough appearance suggests that perhaps they were practise pieces, or alternatively that they served some other purpose altogether.

Two have been painted black and red on the upper surface. The inner black zone is delineated by ring-grooves of approximately the same diameter as the mirror recess of the bases and the red zone is likewise bordered by ring-grooves. One of the two has simple leaf-like sgraffito motifs at intervals around the red band revealing the natural wood colour underneath. There are no traces of paint on the third fragment but from slight staining of the wood, and similarly placed ring-grooves, it can be inferred that this too was once painted red and black in the same manner. Ring-grooves around the edge are not a feature of the lids and of the characteristic yellow paint there is no trace. Not one of the bases has sgraffito decoration as such, although one example has a ring-groove. These three pieces remain outside the otherwise homogeneous group.

The boxes are coloured with black, yellow and reddy-brown paints, thinly and evenly applied. The underside of both lids and bases is plain and the bases only are black around the side. One base has a black upper surface with a ring-groove around the mirror recess while the remainder are red with no ring-grooves. The lids display uniformity in style and method of decoration. On these the paint is applied in three separate stages and results in up to four concentric zones of colour sometimes separated by single or double ring-grooves. First a relatively thick, bright yellow coat of paint is applied over the whole area. This is followed by a band of black around the central point and on one or two by a second, narrower one close to the outer edge. A final almost slip-like coat of dark reddy-brown is applied to the remaining yellow area. These red zones are then further decorated using the sgraffito technique in which simple motifs have been repeatedly applied revealing the bright yellow paint below. The apparently abstract designs are characterized by pairs of curved lines and elliptical shapes (cf. Appendix 5, p. 250). Chemical analysis of the paints showed that the black consist mainly of organic matter with a little iron and is most probably lamp black, the yellow is a form of arsenic sulphide otherwise known as orpiment or sandarach, while the red is iron oxide mixed with lime or plaster which would serve the dual purpose of lightening the colour and providing adhesion.<sup>2</sup>

The degree of deterioration among the boxes is extremely varied. Many are broken and/or damaged by insects and little paint is left. Expert examination of the insect activity<sup>3</sup> showed that it was mostly the work of white ants (*Isoptera*) with secondary damage by *Ternebrionid* beetles, and that it appears to have occurred after the objects were buried. Two lids are exceptionally well preserved and even now look almost new, but neither has pegs *in situ* (in contrast to a fragment of worn lid still with a peg), nor do they match any of the bases. The overall total, the ratio of lids to bases, and the possibly incomplete pieces suggest a workshop in Building 32 (cf. p. 91), or at any rate that there was a considerable market for such luxury goods. They are paralleled in quantity only by the vast collection of lead mirrors from Sucidava in Romania.<sup>4</sup>

Several types of mirror box are known from the Roman and Medieval world, but none uses a peg to attach the lid to the base. Two boxes similar in shape and size to those of Ghirza come from a first-century Romano-

Egyptian girl's grave at Hawara,<sup>5</sup> but these are for silvered copper rather than glass mirrors. Three wood-framed Roman glass mirrors (two in boxes) are recorded from Gheyta in Egypt,<sup>6</sup> but not one is noted by Zoudhi<sup>7</sup> in the Damascus collection or in van Buchem's survey of glass mirrors.<sup>8</sup> The Ghirza mirror boxes are especially noteworthy as a closely dated large collection, at present somewhat isolated in time and place.

#### APPENDIX 12: NOTES

<sup>1</sup> The Jodrell Laboratory, Royal Botanic Gardens, Kew, kindly identified the wood as *Olea* sp. (olive).

<sup>2</sup> Mr. W. A. Campbell of the Department of Inorganic Chemistry, University of Newcastle upon Tyne, kindly undertook the analysis of the residual adhesive and the paint. He drew attention to the wide distribution of iron in the red and black paint, and to the yellow being a form of arsenic sulphide and not an ochre. The red form of arsenic sulphide (realgar) is not used. Cf. Pliny the Elder, *Nat. Hist.* XXXV, xiiff.

<sup>3</sup> Dr. B. J. Selman of the Department of Agricultural Biology, University of Newcastle upon Tyne, and Mr. E. A. Duffy of the Department of Natural History, The

British Museum, kindly examined the evidence of insect activity in the mirror boxes.

<sup>4</sup> D. Tudor, 'Le Dépôt de miroirs de verre doublé de plomb trouvé à Sucidava', *Dacia* 3 (1959), pp. 415-32.

<sup>5</sup> W. Flinders Petrie, *Roman Portraits and Memphis* (1911), p. 20, Pl. XIV.

<sup>6</sup> W. Flinders Petrie, *Objects of Daily Use* (1927), p. 32, nos. 58-60, Pl. XXIX.

<sup>7</sup> Zoudhi, *Annales du 1<sup>er</sup> Congrès de l'Association Internationale pour l'Histoire du Verre* (1970), pp. 59-69.

<sup>8</sup> Van Buchem, 'Convexe Spiegeltesjes', *Numaga* 23, i (1976), pp. 1-22.

#### APPENDIX 13

### MISCELLANEOUS FINDS FROM BUILDING 32

By Olwen Brogan, F.S.A., and D. J. Smith, F.S.A.

For Roman pottery and lamps see pp. 235-6, 236-7.

For Roman coins see p. 242.

For glass and beads see pp. 242-3.

For aediculae, altars and architectural fragments see p. 243.

For Islamic coins see p. 274.

For Islamic pottery and lamps see p. 274.

For the mirror-boxes see p. 282.

For Islamic textiles see p. 291.

#### Period 1

##### (a) *Alabaster*

- (1) Two joining fragments of a large, shallow bowl of white alabaster, the rim having a slight seating for a lid. Diam. c. 36cm. Found in the north half of the room south of the *sacellum*, partitioned in Period 1b (p. 85).
- (2) Circular lid of white alabaster, with small central knob, decorated between the edge and an incised line concentric with it, forming a zone 1.5cm. wide, with ten incised circles. Diam. 7.5cm. Found with a blue bead in fallen plaster and sand outside the porch of Period 2 (p. 87) See also para. (d), no. (2).

##### (b) *Bone*

Handle of a (?) fork or (?) weaving comb, the teeth broken off, crudely decorated on one side with scratched lines. Length 9.6 cm. (?) Period 1. Fig. 92, G.

##### (c) *Bronze*

- (1) *Ligula*, with small bowl, the stem being spiral towards the bowl. Length 13cm. Found with the following (2) and a small illegible coin in sand above the layer of burnt material at the north end of the porch (p. 242). Fig. 88, A.
- (2) Spatula, with flat circular end, diam. 1.3cm. Length 10.7cm. Found with the preceding. Fig. 88, B.
- (3) Finger-ring, with large bezel. Found near the preceding. Fig. 88, K.
- (4) Pin, with knob-head, length 3.2cm., and piece of another, length 2.5cm. North courtyard. Fig. 88, C.
- (5) Part of a bracelet, circular section, with one reverted terminal, the other missing. (?) Period 1. Fig. 88, F.
- (6) Small ear-ring of thin wire. (?) Period 1. Fig. 88, E.

(d) *Marble*

- (1) Part of a leg of a well made statuette of white marble, discoloured by heat. Length 10.4cm., thickness 4.5cm. Found in a thick, black layer 1.13m. above ground level at the north end of the porch, near its west side (p. 87).
- (2) Frag. of a circular (?) lid of white marble with grey veins, scalloped round the edge.

(e) *Shell*

Four fragments of ostrich shell. Found with a lamp and two frags. of a yellow glass dish.

(f) *Stone: see also Appendix 4 (p. 243)*

*Aediculae*

- (1) Three frags. of a small *aedicula* with arched niches framed by conventionalized (?) palm leaves, a horizontal band of cable moulding above and flat top raised at the corners in two small steps. Width of larger frag. 9cm. Found beside a large stone in the south opening of the porch (p. 87). Pl. 23d.
- (2) Two joining frags. of an *aedicula* similar to the preceding, with at least two arched niches framed by simple relief ornament of indeterminate character and flat top with knobs at the angles and above the division(s) between the niche(s). Found near the westernmost pier of the south arcade (p. 87).

*Bowls*

- (1) Frag. of a bowl, diam. uncertain but hardly less than 30 cm., sides 2 cm. thick with incised decoration near the rim in the form of a row of hatched, pendant triangles, a vertical line descending from the lowest point of each triangle. Antechapel, near the top of the debris.
- (2) Two joining frags. from the rim of a large bowl, 3.5cm. thick. Larger frag. shows small smear of plaster, is inscribed internally with a character, symbol or monogram, and on the rim with nine Libyan characters; see p. 250, no. (1). Possibly part of no. (5), below. Found in the north courtyard (p. 87). Pl. 133b.
- (3) Frag. with incised decoration similar to that of no. (1). Found in the north side-chapel.
- (4) Frag. 10 × 13cm., 3cm. thick, decorated externally with incised lines.
- (5) Base, diam. 85cm., and two joining frags. of a large basin with sides tapering toward the rim. Repaired with grey mortar characteristic of Period 2 and hollowed internally as if having been used as a mortar. Found in the porch (p. 90), but most probably stood originally in the antechapel (p. 84). Pl. 25a.
- (6) Frag. of a large bowl or basin (? no. 5), roughly inscribed externally with a symbol. See p. 250, no. (1).
- (7) Several other bowls. Pl. 26a.

*Offering-tables*

- (1) Oblong, 68 × 27 × 23cm., with row of seven cup-like hollows, the centremost being larger than the others. Found among fallen masonry between the ante-chapel and the south arcade. Pl. 26b, nearer row, second from right.
- (2) Oblong, with three roughly square hollows enclosed by a channel which runs from two corners of the central hollow and has branches connecting it with the other two. Pl. 26b, further row, second from right.
- (3) Several other offering-tables, including one of irregular shape with five cup-like hollows re-used as a paving stone in the south arcade (p. 89). Fig. 26b.

*Sculpture; see also para. (d) (1)*

- (1) Torso and upper part of legs of a battered limestone statuette, almost certainly male, wearing a short tunic with straps passing over the shoulders and under the arms, crossing on the chest. Height 30cm., width 19cm. Found a little above ground level in the north courtyard, near the south opening of the porch (p. 87). Pl. 27c.
- (2) Battered limestone head, ovoid, on a disproportionately thin neck. Face flat. The surviving eye simply an incised ellipse pointed at both ends, the nose a thin, vertical ridge, the mouth seemingly not indicated at all (the small pock-mark where it should appear being only a result of damage). Around the top of the head is a roughly cut groove. A low ridge descends vertically from the crown of the head to the nape of the neck. Height 26 cm., width at eye-level 20cm., thickness from front to back 15cm. Found while clearing along the inner face of the north wall of the north side chapel (p. 87, Pl. 27a, b)

*Troughs*

- (1) Two frags. of a rectangular trough or troughs, sides 5 to 5.5cm. thick.
- (2) Part of a rectangular trough, badly broken, deeply hollowed. Width perhaps 40cm., depth 33cm.
- (3) Rectangular trough, 36 × 28cm. × 36cm. high externally, 11cm. deep.

(g) *Stucco*

Frag. of stucco, one with cable moulding, another perhaps from a cornice. North courtyard. Fig. 89.

Period 2

(a) *Bone*

- (1) (?) Mouthpieces of musical instruments. Fig. 92, A, H, I.
- (2) Bead, 4.2cm. long. Found with a lamp-filler (p. 278, no. 6).

(b) *Feathers*

Ostrich feathers: perhaps used as stuffing for cushions. Found with horsehair in the secondary room of Period 1B on the south side of the ante-chapel (p. 85)

(c) *Glass*

Frag. of a very thin, convex mirror (p. 242, para. 3).

(d) *Hair*

Horsehair. Found with the ostrich feathers (above, b) and likewise perhaps used as stuffing for cushions.

(e) *Stone*

- (1) Four loom weights, one with a brown thread through the hole. Roughly triangular, width at base 3.5cm., height 7cm. Found at the bottom of the 'pit' at the west end of the north-side chapel (p. 91).
- (2) Two spindle whorls. Fig. 91.

(f) *Wood*

- (1) Piece shaped for attachment to a leather strap or a rope. Length 14cm. (?) Period 2. Fig. 92, D.
- (2) Piece carved in the form of a curved dagger. Length 19.6cm. P. 91, fig. 92, E.
- (3) Several combs, all broken (p. 91). Fig. 90.

(g) *Gourd*

Fragments from three vessels, decorated with lightly incised geometric patterns, one partially painted black. Fig. 93.

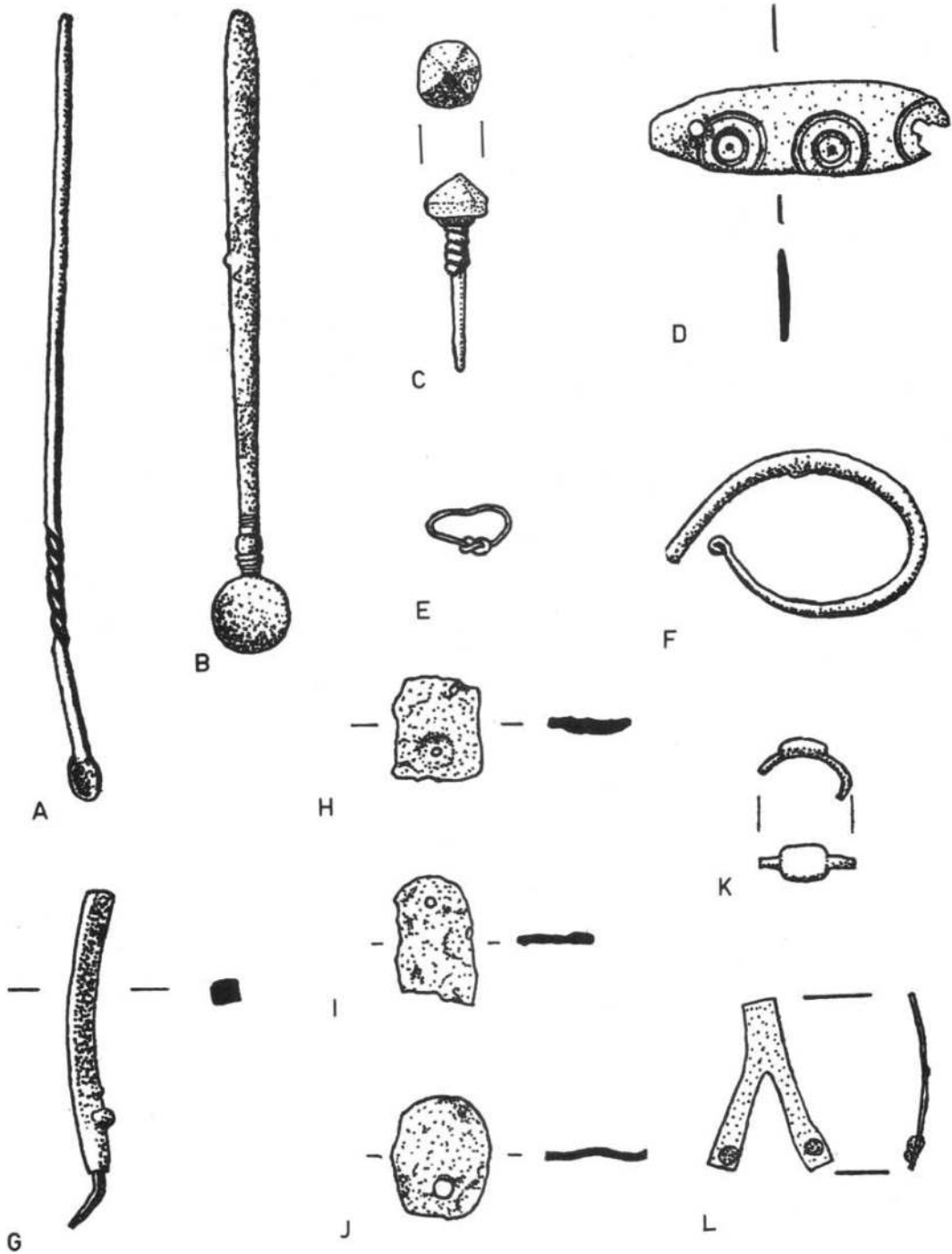


Fig. 88. Bronze objects; A-F, Building 32; G-K Midden 1; L, Cemetery 2, Tomb 3; 1:1. Drawn by Mary M. Hurrell.

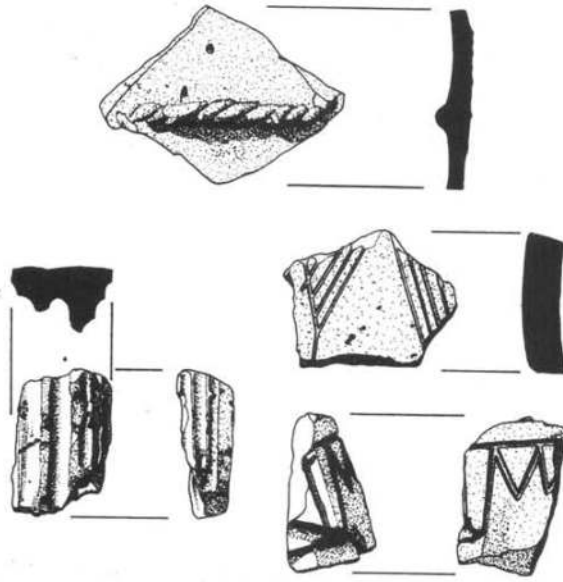


Fig. 89. Stucco, incised and painted stones:  
Building 32. Drawn by Mary M. Hurrell.

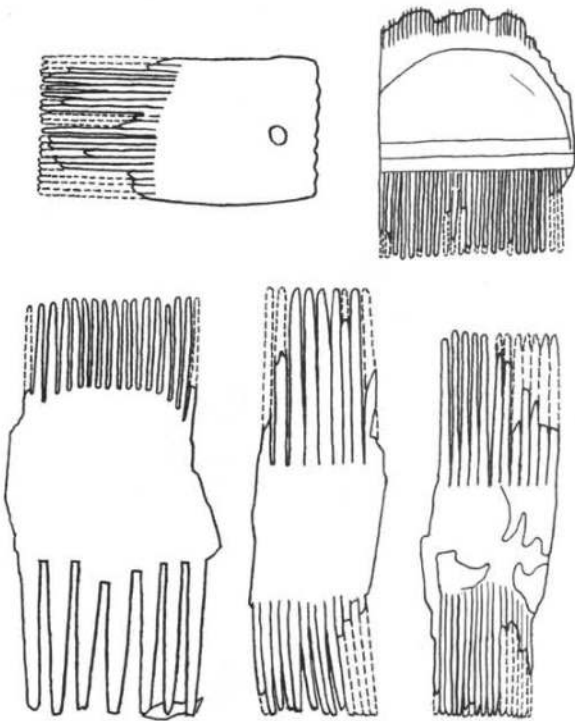


Fig. 90. Wooden combs: Building 32, 1:2.  
Drawn by Mary M. Hurrell.

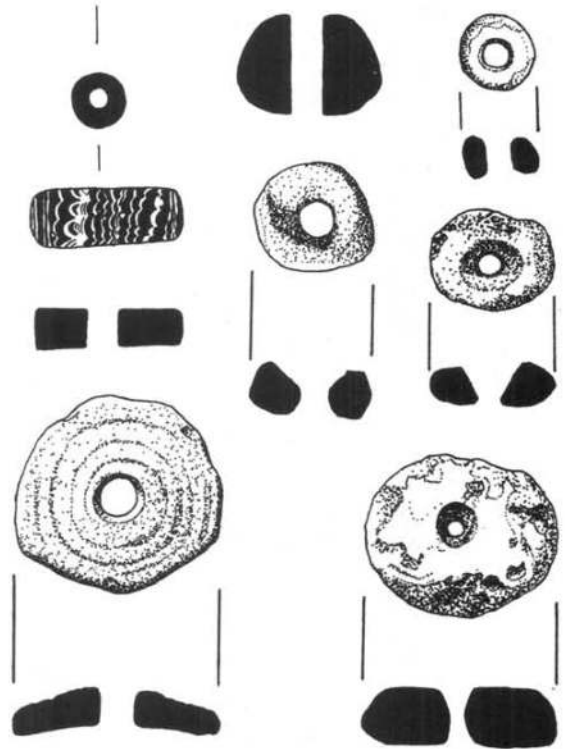


Fig. 91. Bead and whorls/loomweights: Building  
32, 1:2. Drawn by Mary M. Hurrell.



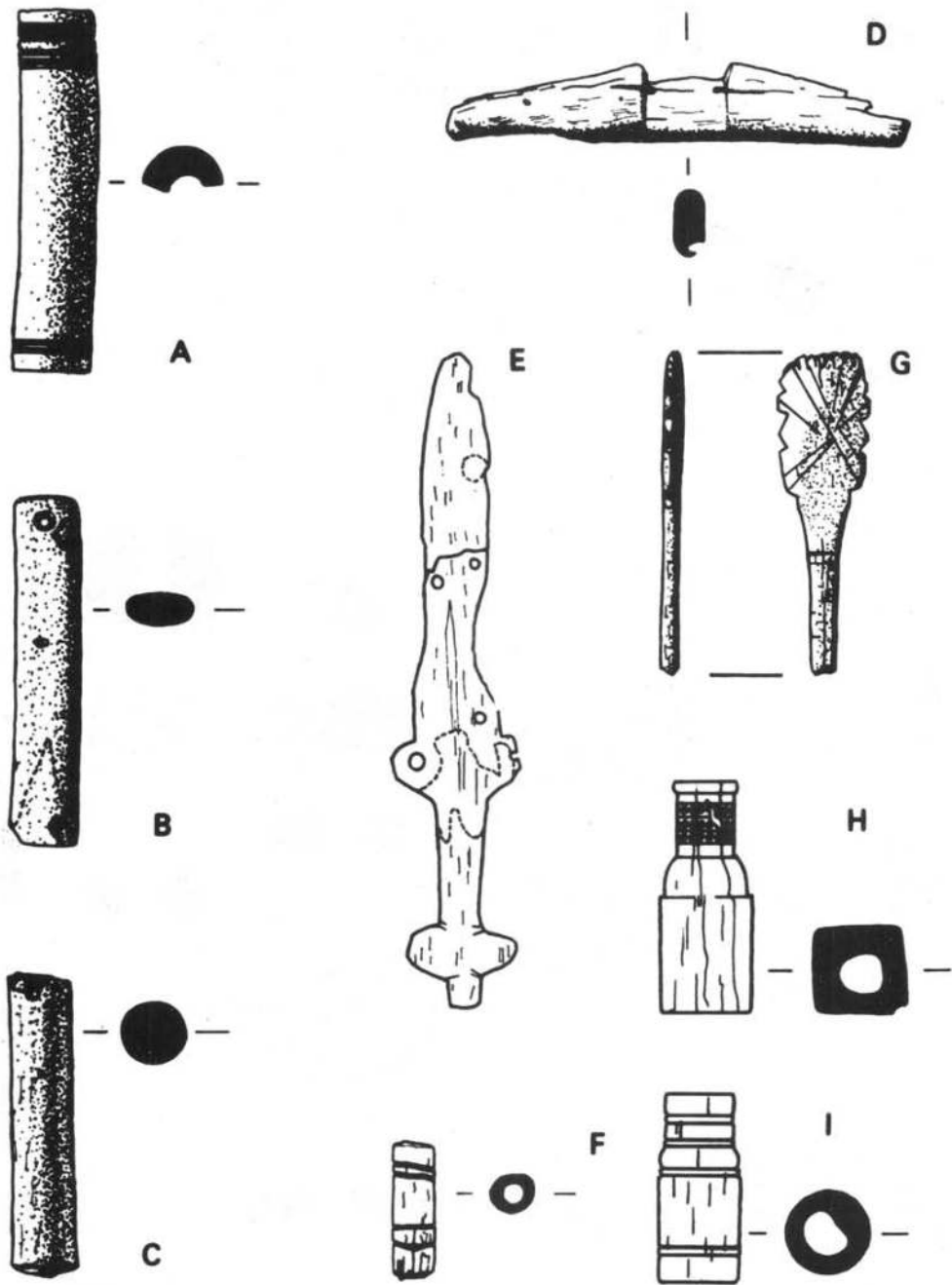


Fig. 92. Bone and wooden objects: Building 32, 1:2. Drawn by Mary M. Hurrell.

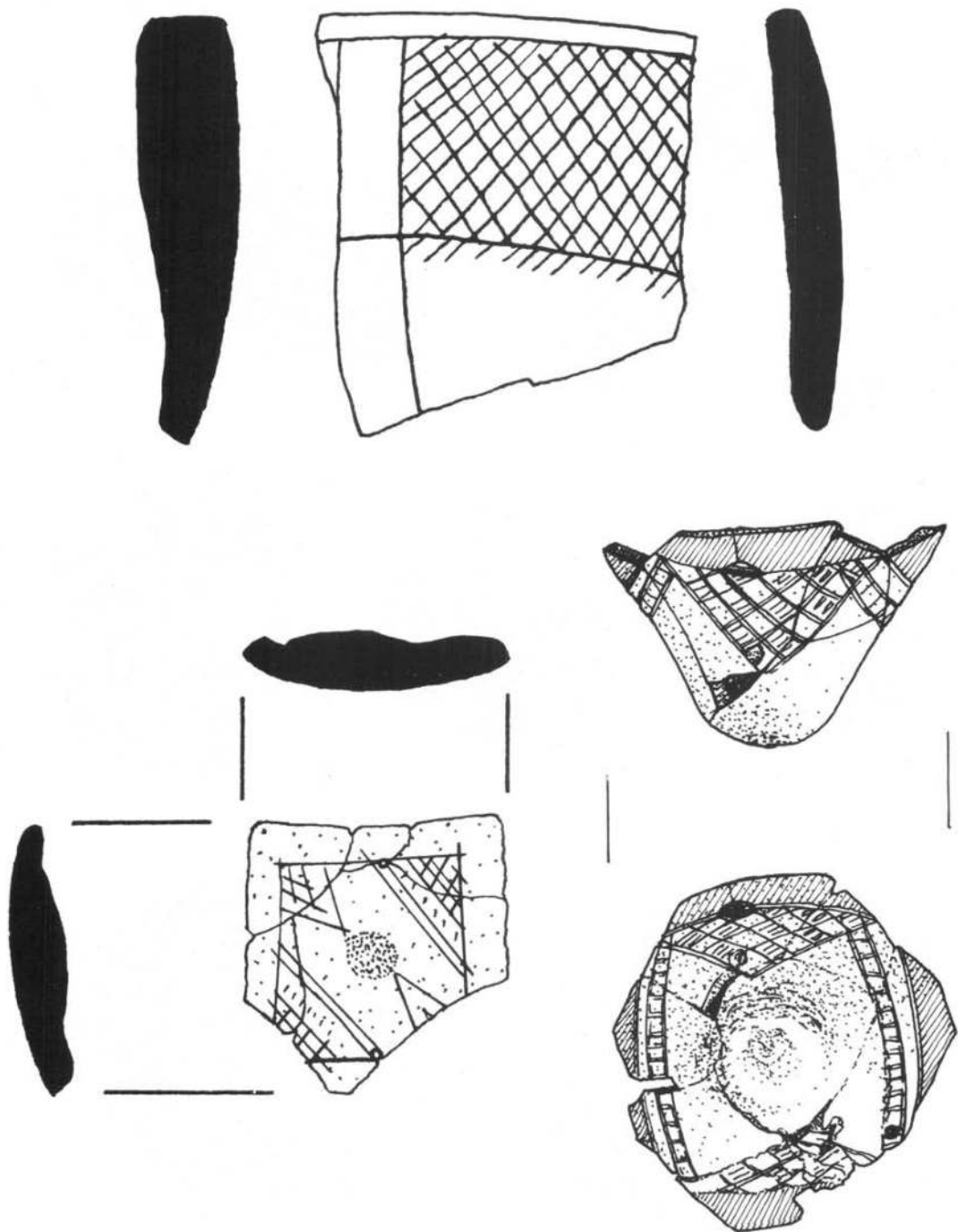


Fig. 93. Fragments of decorated gourds: Midden 3 (Top); Midden 1 (left); Building 32 (right); 1:1. Drawn by Mary M. Hurrell.

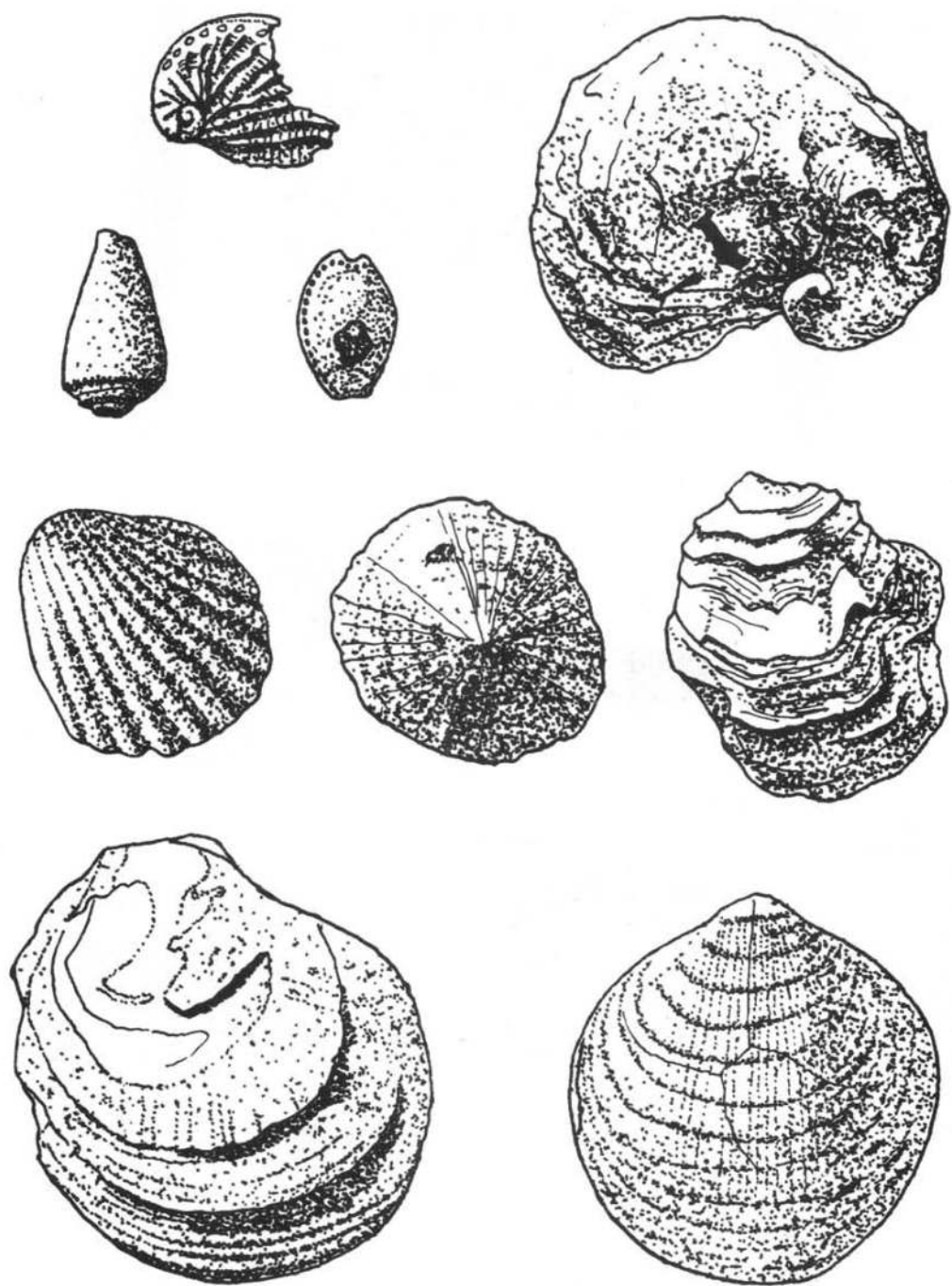


Fig. 94. Marine shells, 1:1.. Drawn by Mary M. Hurrell.

**THE TEXTILES FROM BUILDING 32****By John Peter Wild, D. Phil., F.S.A.***Introduction*

The textiles listed and discussed below are classified according to their weave, beginning with the simplest and concluding with the most complicated pieces. Examples of plaited fabrics and cords are described at the end of the list of woven fabrics. Details of selvages, sewing and embroidery are given under the heading of the cloth fragment with which they are associated. The yarn employed (unless otherwise stated) is fawn in colour (undyed). Dr. M. L. Ryder of the Animal Breeding Research Organization kindly undertook to analyse the fibres in a representative selection of the textiles. His observations have been inserted into the descriptions of the textiles concerned. The drawings, Figs. 95-115, are by the writer.

*Notes on reading the list*

The provenance of the fragments, unless otherwise stated is Ghirza, Building 32, Period 2 (p. 88).

No original selvages survive unless explicitly mentioned.

Facts are given in the following order:

system (1) or (2) (warp and weft identified if it is possible),

spin of the yarn (left (S) or right (Z)),

count of the threads per cm.,

maximum length (max. l.) of the system as preserved,

any other details or observations, e.g. quality of the yarns, faults in the weave.

**The Catalogue of Textiles****Plain Weave***A. Cloth in which the warp- and weft-counts are approximately equal*

1. Fragment of a soft, extremely coarse, fabric.  
System (1) doubles, Z-spun, 2 pairs per cm., max. l. 22cm.  
System (2) singles, S-plyed from 4 strands of Z-spun yarn, 2 per cm., max. l. 10cm.  
Both yarns are blended from light and dark brown fibre
2. Two fragments of pale fawn fabric (Pl. 151).  
Fragment A (Pl. 151b).  
System (1) Z-spun, 10-11 per cm. (wide spaced), max. l. 22cm.  
System (2) Z-spun, c.10 per cm., max. l. 13cm.  
Fragment B.  
System (1) Z-spun, 10-11 per cm., max. l. 5.5cm.  
System (2) Z-spun, c.10 per cm., max. l. 8.5cm.

*Faults*

In each piece there is one case where 2 threads of system (2) are taken together instead of one.

3. Fragment, probably from preceding textile (Pl. 151a).  
System (1) Z-spun, c.10 per cm., max. l. 16cm.  
System (2) Z-spun, c.10 per cm., max. l. 7cm.  
Both yarns are very unevenly spun.
4. Pale fawn fabric with one selvedge.  
System (1) warp (?), Z-spun, 10-11 per cm., max. l. 9cm.  
System (2) weft (?), weak Z-spun, 18-20 per cm., max. l. 3cm.

*Selvedge*

Weft-threads twined round two pairs of extra warp-threads (see fig. 95).

5. Pale fawn fragment.  
System (1) Z-spun, 11-12 per cm., max. l. 7.5cm.  
System (2) Z-spun, 16-18 per cm., max. l. 15cm.  
Dr. M. L. Ryder reports that the fibre is flax.
6. Four fawn fragments.  
System (1) Z-spun, c.12 per cm., max. l. 5cm.  
System (2) Z-spun, c.12 per cm., max. l. 5cm.

7. Pale fawn fabric.

System (1) warp (?), Z-spun,  $c.12$  per cm., max. l. 14.5cm.

System (2) weft (?), Z-spun,  $c.12$  per cm. (but count varies), max. l. 9cm.

Yarns are very unevenly spun.

*Faults*

Three times at varying intervals a thread of system (2) is eliminated in the centre of the fabric. The threads on either side of it then follow the same course across the rest of the cloth as if they formed a pair. The feature was evidently caused during the weaving, and may be due to a weft-thread breaking in mid-throw.

8. Pale fawn fragment.

System (1) Z-spun,  $c.13$  per cm., max. l. 2cm.

System (2) Z-spun,  $c.13$  per cm., max. l. 9cm.

Poorly spun yarns.

9. Pale fawn fragment.

System (1) Z-spun,  $c.14$  per cm., max. l. 5cm.

System (2) Z-spun,  $c.11$  per cm., max. l. 1.5cm.

10. Pale fawn fragment.

System (1) warp, strong Z-spun, 14-15 per cm., max. l. 4cm.

System (2) weft, weak Z-spun, 14-15 per cm., max. l. 5.5cm.

*Selvedge*

Plain selvedge over a single group of three warp-threads.

*Hem*

The raw edge adjacent to the selvedge is rolled and hemmed in plain overcast stitching; no yarn survives.

11. Pale fawn fragment.

System (1) Z-spun,  $c.16$  per cm., max. l. 12cm.

System (2) Z-spun,  $c.12$  per cm., max. l. 10cm.

Both yarns are unevenly spun.

*Hem*

Two straight raw edges at right-angles to one another have been turned back and sewn down; no sewing-thread survives.

12. Four fragments of pale fawn fabric.

System (1) Z-spun, 15-16 per cm., max. l. 9cm.

System (2) Z-spun, 14-15 per cm., max. l. 6cm.

Both yarns are unevenly spun. About 50 sq.cm. of the cloth survive.

*Fault*

A pair of threads instead of a single thread runs across the fabric in system (1).

*Hem*

The raw-cut edge is rolled and hemmed in overcast stitching ( $c.2$ cm. long). Yarn Z-spun, S-ply, 2-ply.

13. Pale fawn fragment.

System (1) warp, Z-spun, 15-16 per cm., max. l. 5cm.

System (2) weft, Z-spun, 12 per cm., max. l. 6.5cm.

*Selvedge*

Plain round one warp-thread.

*Hem*

Raw edge adjacent to the selvedge is rolled and hemmed in overcast stitching; no yarn survives.

Dr. M. L. Ryder reports that the fibre is fine flax.

14. Pale fawn fragment.

System (1) Z-spun, 16-17 per cm., max. l. 11cm.

System (2) Z-spun, 12 per cm., max. l. 12cm.

Both yarns are unevenly spun.

15. Pale fawn fragment.

System (1) Z-spun,  $c.18$  per cm., max. l. 5.5cm.

System (2) Z-spun,  $c.16$  per cm., max. l. 3cm.

Both yarns are unevenly spun.

16. Two fragments of pale fawn fabric.

System (1) Z-spun,  $c.20$  per cm., max. l. 12cm.

System (2) Z-spun,  $c.15$  per cm., max. l. 5cm.

Yarns unevenly spun.

*Selvedge*

Plain over one warp-thread.

17. Two pale fawn fragments.  
System (1), fairly weak S-spun, 18 per cm., max. l. 7cm.  
System (2), fairly weak S-spun, 20 per cm., max. l. 8cm.  
Yarns both unevenly spun.
18. Pale fawn fragment (Pl. 152).  
System (1) Z-spun, 18 per cm., max. l. 25cm.  
System (2) Z-spun, 20 per cm., max. l. 16cm.  
Yarns unevenly spun and fabric loosely woven. One raw edge is cut straight. From this edge projects a cord made of 2 groups of adjacent threads from system (1), S-plied together; max. l. 3cm.
19. Fragment of plain-weave gauze attached to the remains of a pitch-coated skin bottle (?) (Pl. 153).  
System (1) Z-spun, c.15 per cm., max. l. 13cm.  
System (2) Z-spun, 14-15 per cm., max. l. 23cm.
20. Fragment of plain-weave gauze.  
System (1) Z-spun, c.11 per cm., max. l. c.4cm.  
System (2) Z-spun, c.14 per cm., max. l. c.8cm.  
Yarn (1) is finer than (2).
21. Numerous tiny fragments of a tattered gauze fabric.  
System (1) Z-spun, 12-13 per cm., max. l. c.6cm. (largest fragment).  
System (2) Z-spun, c.16 per cm., max. l. c.27cm.

B. *Plain tapestry (weft-faced plain-weave fabrics)*

22. Five fragments of pale fawn fabric.  
System (1) warp (?), strong Z-spun, 5 per cm., max. l. 4cm.  
System (2) weft (?), weak Z-spun; count varies 25-60 per cm. according to fineness of yarn; max. l. 5cm.  
*Hem*  
Two adjacent raw edges are rolled and hemmed in overcast stitching. The sewing-thread is 3-ply, S-plied from Z-spun yarn; only small fragments survive.
23. Two fragments of pale fawn fabric.  
System (21) warp (?), Z-spun, 6 per cm., max. l. of Frag.A 11cm., of Frag.B 6cm.  
System (2) weft (?), Z-spun, c.25 per cm., max. l. of Frag.A 12 cm., of Frag.B 14cm.  
System (2) is unevenly beaten-up.  
*Hem*  
Rolled raw edge of Frag.A (now c.3cm. long) is sewn fast with overcast stitches. The sewing-thread is 2-ply, S-plied, Z-spun.
24. Light brown fabric.  
System (1) warp (?), strong Z-spun, 6 per cm., max. l. 5cm.  
System (2) weft (?), weak Z-spun, c.30 per cm., max. l. c.5cm.  
System (2) is closely beaten-up.
25. Pale fawn fabric (Pl. 154).  
System (1) warp (?), strong Z-spun, 7 per cm., max. l. 14cm.  
System (2) weft (?), weak Z-spun, 25-30 per cm., max. l. 10cm.  
The quality of yarn (2) is variable.  
One raw edge, cut diagonally to the weave.
26. Pale fawn fabric.  
System (1) warp (?), strong Z-spun, 7 per cm., max. l. 16cm.  
System (2) weft (?), weak Z-spun; count varies 25-33 per cm.; max. l. 6cm.
27. A badly damaged, pale fawn, fragment.  
System (1) warp (?), strong Z-spun, 8-9 per cm., max. l. 25cm.  
System (2) weft (?), weak Z-spun, 21-24 per cm., max. l. 10cm.  
Both yarns are of good quality, evenly spun.  
Total surface area of piece c.200 sq.cm.  
*Hem*  
The raw edge of the cloth in one case (c.3cm. long) has been rolled back and hemmed in overcast stitching. The holes are c.0.3cm. apart; no yarn survives.  
Dr. Ryder reports that both yarns are cotton.
28. Pale fawn fragment.  
System (1) warp (?), Z-spun, 8 per cm., max. l. 11.5cm.

- System (2) weft (?), weak Z-spun,  $\epsilon$ .28 per cm., max. l. 2.3cm.  
 Parallel to system (1) two edges of the cloth were cut straight to form a band.
29. Four fragments of pale fawn fabric, which seem to have belonged to a rectangular piece of cloth (patch ?). The latter was once secured on all four sides to a larger textile item. (Pl. 155).  
 System (1) strong Z-spun, 10 per cm., max. l. of largest fragment 12cm.  
 System (2) weak Z-spun,  $\epsilon$ .20 per cm., max. l. 6cm.  
 The yarns are evenly spun. The original measurements of the patch (?) were at least 16cm. by 14cm.

*Seam*

- The raw edges were folded over once and tacked in plain running stitch to the now vanished main textile.
30. Pale fawn fragment with a badly abraded surface (Pl. 156).  
 System (1) warp (?), strong Z-spun, 10-11 per cm., max. l. 11.5cm.  
 System (2) weft (?), weak Z-spun, 20-22 per cm., max. l. 5.5cm.  
 Two adjacent edges of the cloth were cut straight and left raw.
31. Pale fawn fragment.  
 System (1) warp (?), Z-spun,  $\epsilon$ .10 per cm., max. l. 13cm.  
 System (2) weft (?), weak Z-spun, 25-26 per cm., max. l. 10.5cm.  
 Three edges are raw cut.
32. Four pale fawn fragments.  
 System (1) warp (?), Z-spun, 9-10 per cm., max. l. of largest fragment 16cm.  
 System (2) weft (?), weak Z-spun, 25 per cm., max. l. of largest fragment  $\epsilon$ .10 cm.

*Hem*

On the largest fragment a segment, roughly square, has been cut out of the edge of the cloth. The raw edges were turned back and sewn down; no sewing-thread survives.

*Seam*

Two of the smaller fragments have been sewn together by the method shown in fig. 96.

33. Pale fawn fragment.  
 System (1) Z-spun, 9-10 per cm., max. l. 6cm.  
 System (2) weak Z-spun, 25-27 per cm., max. l. 5cm.

*Selvedge*

Twined as in fig. 97. It is now  $\epsilon$ .3cm. long. The weft-threads are twined round four groups of extra warp-threads; the two outer groups (A and B in fig. 97) contain four individual threads, the two inner (C and D) three threads. The extra warp-threads were perhaps manipulated independently of the main warp.

34. Pale fawn fragment.  
 System (1) warp (?), Z-spun, 10 per cm., max. l. 2cm.  
 System (2) weft (?), weak Z-spun,  $\epsilon$ .30 per cm., max. l.  $\epsilon$ .4cm.
35. Pale fawn fragment.  
 System (1) warp, Z-spun, 10 per cm., max. l. 10cm.  
 System (2) weft, weak Z-spun,  $\epsilon$ .34 per cm., max. l. 11cm.  
 The yarns are evenly spun.

*Selvedge*

One selvedge ( $\epsilon$ .8cm. long in fragments) survives. It is plain-woven over two groups of four warp-threads.

A minute piece of similar cloth has been sewn to the selvedge in running stitch. The sewing-thread is Z-spun, single.

36. Pale fawn fragment.  
 System (1) warp (?), Z-spun, 8 per cm., max. l. 4cm.  
 System (2) weft (?), weak Z-spun,  $\epsilon$ .40 per cm., max. l. 2.5cm.
37. Pale fawn fragment.  
 System (1) Z-spun,  $\epsilon$ .17 per cm., max. l. 5.5cm.  
 System (2) Z-spun, 45 per cm., max. l. 2.5cm.  
 Dr. Ryder reports that both yarns are flax.

C. *Dyed cloth in plain weave*

38. Pale pink fabric.  
 System (1) Z-spun, 10 per cm., max. l. 5cm.  
 System (2) Z-spun,  $\epsilon$ .20 per cm., max. l. 3cm.  
 System (2) partly covers system (1).

39. Deep pink fabric.  
System (1) Z-spun, *c.*25 per cm., max. l. 6cm.  
System (2) weak Z-spun, *c.*20 per cm., max. l. 11cm.  
The dye seems to have taken patchily, particularly on the yarn of system (1).
40. Dull orange-brown gauze.  
System (1) Z-spun, *c.*11 per cm. (wide spaced), max. l. 6.5cm.  
System (2) Z-spun, 8 per cm., max. l. 5cm.
41. Deep yellow fabric, possibly undyed.  
System (1) Z-spun, 15 per cm., max. l. 7cm.  
System (2) Z-spun, 13-14 per cm., max. l. 6cm.
42. Five fragments of dark-blue gauze.  
System (1) Z-spun, *c.*14 per cm., max. l. *c.*4cm.  
System (2) strong Z-spun, *c.*14 per cm., max. l. *c.*12cm.  
Both yarns are evenly spun.
43. Green fabric.  
System (1) Z-spun, exceedingly fine yarn at 40 per cm., max. l. 4cm.  
System (1) almost unspun, fine yarn, *c.*21 per cm., max. l. *c.*12 cm.  
Yarn (1) is dark green, (2) is pale yellow-green. Dr. Ryder reports that both yarns are flax.
44. Two large, two small fragments of fine green cloth; only one piece now retains its bottle-green hue.  
System (1) warp, weak Z-spun, 30 per cm., very fine yarn, max. l. *c.*7cm.  
System (2) weft, weak Z-spun, *c.*20 per cm., max. l. 8cm.  
System (2) covers system (1).  
*Selvedge*  
Plain over one warp-thread (*c.*4cm. long).  
*Stitching*  
The small fragment bearing the above selvedge is attached in running stitch to another minute fragment without a selvedge. The sewing-yarn is very fine 2-ply, S-ply, Z-spun. One large fragment has a seam on two edges parallel to the warp, *c.*8cm. apart. The seam is held with two rows of running stitches in double green Z-spun yarn (see fig. 96).
45. A ball of weft from a textile resembling the foregoing; both warp and weft appear to be similar to textile no. 44, but the colour is bluish-green.
46. Two fragments of fawn fabric (undyed?).  
System (1) warp (?), Z-spun, 12 per cm., very fine yarn, max. l. 4cm.  
System (2) weft (?), weak Z-spun, *c.*22 per cm., max. l. 8cm.  
In structure the fabric resembles no. 44.
47. Fragment of brown woollen (?) cloth.  
System (1) warp (?), coarse fawn yarn, Z-spun, 5 per cm., max. l. 7cm.  
System (2) weft (?), light brown, weak Z-spun, *c.*22 per cm., max. l. 5cm.
48. Large fragment of brown cloth, probably naturally pigmented wool.  
System (1) warp (?), light fawn yarn with admixture of dark brown fibres, Z-spun, 5 per cm., max. l. 16cm.  
System (2) weft (?), dark brown yarn, very weak Z-spun, *c.*30 per cm., max. l. *c.*12 cm.  
*Hem*  
One raw edge is rolled and roughly oversewn with two strands of light fawn Z-spun yarn resembling the warp.

D. *Tapestry-woven cloth in colour bearing embroidered and woven decoration*

49. Three large and three small pieces of embroidered tapestry bearing red, yellow, blue and brown bands.  
System (1) warp, 2-ply, S-ply from Z-spun yarn (one dark brown, one light brown strand), 9 per cm., max. l. of largest fragment 17cm. (Frag. A) (Pls. 157, 158).  
Both yarns are naturally pigmented wool according to Dr. Ryder.  
System (2) weft, singles, yarns identical in type, weak Z-spun, 22 per cm. (yellow) to 50 per cm. (blue yarn), max. l. of Frag. A 30cm.  
*Selvedges*  
Frag.A. Plain over one warp-thread.  
Frag.B. Plain over two groups of warp-threads, outer group of 4, inner of 2 threads.  
*The tapestry bands*  
The bands were planned to be symmetrical. The axis is a red band (*c.*5.5 cm. wide) bearing embroidery. The measurements of the surviving bands in order are:



)red 0.5cm./brown 3cm./red 0.5cm./yellow 3cm./red 0.5cm./brown 2.5cm./red 0.5cm./blue with embroidery 1.7cm./red 0.4cm./brown 0.4cm./yellow 0.4cm./red with embroidery 5.5cm./yellow 0.5cm./brown 0.5cm./red 0.5cm./blue with embroidery 1.5cm./red 0.5cm./brown 2.5cm./red 0.5cm./yellow 3cm./red 0.5cm./brown 0.5cm.(

*Embroidery on the blue bands*

A zig-zag line in red (see fig. 98) is darned on the blue ground. Each leg of the zig-zag is 0.8cm. long, that is, 6-7 stitches. The gaps between the lines are filled with darning, alternately in orange and fawn yarns. The yarns are 2-ply, S-ply from Z-spun strands.

*Embroidery on the red axial band*

The design (see fig. 99) is based on two interlocking rows of diamonds outlined in blue yarn in Slanting Slav stitch. The stitches have been carefully worked, but not counted exactly over the threads of the red ground. (Each diamond measures 3.3cm. by 2.8cm.) The space within the diamonds is filled by four smaller diamonds in orange and yellow yarns. Occasional pairs of green and blue diamonds appear to creep in at irregular intervals.

50. Small fragment of embroidered tapestry (Pl. 159).

System (1) warp, 2-ply, S-ply, Z-spun, 9 per cm., max. l. 7cm.

System (2) weft, weak Z-spun, c.35 per cm., max. l. 9cm.

*Embroidery*

The embroidered decoration of the bands, both in the large lozenges and in the narrow zig-zags, closely resembles that of textile no. 49, the foregoing. The dimensions, however, are somewhat less. The same colours are used for the work, and the lozenges are grouped in the same way (see figs. 98, 99).

*The bands*

The tapestry bands are woven in yarns of pastel shades in contrast to the bold colours of textile no. 49.

The order of bands is:

)blue with zig-zag lines 1cm./red 0.4cm./brown (?) c.0.4cm./yellow 0.4cm./red with lozenges 3.5cm./yellow 0.4cm./brown (?) c.0.4cm./red c.0.3cm./blue with zig-zags 1cm.(

51. Three fragments of embroidered tapestry bearing red, yellow, brown and blue bands. The decoration of the blue bands is precisely similar to that of textile no. 50, but the thread counts are different.

System (1) warp, singles, Z-spun, 5 per cm., max. l. 20cm.

System (2) weft, Z-spun, 26-28 per cm., max. l. 11cm.

In all c.130 sq.cm. of this textile survive.

*Decoration*

The colour of the central red band is uneven, possibly through contact with materials in the midden. It does not appear to have been embroidered. The pieces seem to be a coarse imitation of textile no. 50.

*Selvages*

One side, plain over two groups of two warp-threads. Two fragments, probably of the same selvedge, are tacked together in overcast stitch, edge to edge. The sewing-thread is 2-ply, S-ply from Z-spun brown yarn.

52. Two large, three small pieces of tapestry bearing bands in red, yellow, blue and orange with additional woven ornament (Pls. 160, 161).

System (1) warp, 2-ply, S-ply from Z-spun yarns, 7 per cm., max. l. 20cm.

System (2) weft singles, weak Z-spun, 14-15 per cm., max. l. of Frag.A 28cm., of Frag.B 27cm.

*Selvages*

One edge on Frag.A (18cm. long) and one on Frag.B (12cm. long). It is uncertain whether they represent a single selvedge or two. Both pieces have a plain selvedge over two groups of two warp-threads.

*The bands (figs. 100-2)*

The scheme of the decoration is symmetrical. The axis is a red band bearing in Frag.A brocaded chevrons, in Frag.B lines and crosses. The order of the bands in both of the major fragments is:

)red 0.5cm./yellow 0.7cm./red 0.8cm./blue 5cm./red 0.4cm./yellow 0.7cm./red 0.5cm./blue 0.5cm./orange with diamonds c.1cm./blue 0.5cm./red 0.6cm./yellow 0.5cm./axial red band with chevrons etc. 1.5cm./yellow 0.6cm./red 0.6cm./blue 0.4cm./orange with diamonds c.1cm./blue 0.4cm./red 0.6cm./yellow 0.5cm./red. 0.7cm./blue ? (

One of the orange bands is in two shades of orange. Probably one ball or spool of weft ran out and another was employed.

*Woven (brocaded) decoration of the axial red bands*

*The chevrons*

A simple pattern of yellow chevrons on a red ground was achieved by introducing after each shot of red weft in the centre of the band an extra, yellow, weft-thread (see fig. 100).

The latter was only brought to the front of the cloth after every third warp-thread instead of after

alternate warp-threads. It replaced the red weft-thread at this point, with the result that on the front of the cloth the regular pattern of the plain-weave is not interrupted. On the reverse, however, both red and yellow weft-threads float when they are not required. After every two shots of yellow weft, the shed is changed to create a chevron effect. The yellow yarn, Z-spun, is worked in pairs of threads taken as one.

*The lines and crosses*

The same technique was used to weave a pattern of lines and crosses on the axial red band (see fig. 101). The yarn is paired, orange, Z-spun.

*Woven decoration of the orange bands.*

The technique is identical to that used for the chevrons and lines and crosses described above. The design is a row of diamonds (fig. 102). Red weft-threads replaced the weft-threads of the orange ground. The latter float over a maximum of seven warp-threads on the reverse of the cloth. The Z-spun red yarn is worked double.

*Context*

A small fragment of the blue pattern-woven cloth no. 58 is sewn to one of the above fragments.

53. Two fragments of embroidered tapestry (Pl. 162).

System (1) warp, 2-ply, S-ply from a dark and a light brown Z-spun strand, 7 per cm., max. l. 7.6cm. System (2) weft, singles, weak Z-spun, 35-45 per cm., max. l. 22cm.

*The bands*

Colours employed are blue, red, brown and yellow. The order of bands is:

)red 0.5cm./blue with embroidery 0.7cm./red 0.3cm.//brown 0.3cm./yellow 0.4cm./red with embroidery 3.5cm./yellow 0.5cm./brown 0.3cm./red 0.3cm./blue with embroidery 6.0.8cm.(

*Embroidery on the red band* (fig. 103)

The design consists of six rows of lozenges outlined in green yarn on a red ground in Slanting Slav stitch (see fig. 103). Within each green lozenge (1.3cm. by 1.1cm.) lies another lozenge in orange yarn, and within that another in navy-blue yarn. The yarns are all 2-ply, S-ply from Z-spun strands. Where the embroidery ends there is a device in blue and yellow yarns to frame the lozenges.

*Embroidery on the blue bands*

A zig-zag picked out with red yarn in Slanting Slav stitch is worked on both blue bands (each leg 1.0.7cm. long). The spaces are filled with triangles alternately in fawn and orange yarn (see fig. 98).

54. One large, two small pieces of coarse embroidered tapestry (Pl. 163).

System (1) warp, singles, strong Z-spun, 5 per cm., dark brown yarn, max. l. 12cm.

System (2) weft, singles, weak Z-spun (all yarns), 1.25 per cm., max. l. 23cm.

Dr. Ryder reports that the yarn (1) is naturally pigmented wool, while yarns of the weft are non-pigmented wools.

*The bands*

Colours used are dull red, fawn, green, and light brown. The order of the bands is:

)red 1cm./fawn 0.2cm./green 0.5cm./red 0.5cm./brown 0.5cm./red 0.5cm./brown with embroidery 1cm./red 0.5cm./green 0.2cm./fawn 0.7cm./red 0.3cm./fawn 0.5cm./(axial ?) green band 2.8cm./fawn 0.5cm./red 0.4cm./brown 0.6cm./red 0.6cm./brown with embroidery 1cm./red 0.5cm./brown 0.5cm./red 1cm.(

*Embroidery on the brown bands*

Very little survives. The design may have been diamonds in running stitch, probably embroidered and not brocaded in. Yarn used was coarse green, weak Z-spun, worked in pairs.

55. Three fragments of embroidered tapestry.

System (1) warp, 2-ply, S-ply, Z-spun, 8 per cm., max. l. 6cm.

System (2) weft, singles, weak Z-spun, 60 per cm., max. l. 16cm.; all yarns fine except for yellow band on edge (?) of fabric with count of 20 per cm.

*The bands*

The fragments do not link up, so a full repeat pattern cannot be reconstructed.

*Order of bands in Frag.A:*

)yellow 0.3cm./red 0.3cm./yellow 1cm./red with decoration 1cm./yellow 1.1cm./red 0.3cm./yellow 0.8cm./red 0.4cm./fawn 0.4cm./yellow 0.4cm.(

*Order of bands in Frag.B:*

)yellow 1.5cm./fawn 0.2cm./red 0.3cm./yellow 0.7cm./red with decoration 1cm./fawn with decoration 1cm./red with decoration 1cm./yellow 1.5cm./fawn 0.4cm./red ?/fawn ?/yellow 0.4cm./red 0.4cm./yellow 1cm.(

*Order of bands in Frag.C:*

)edge ?/yellow 1.5cm./red 0.3cm./yellow 0.8cm./red 0.4cm./yellow 0.3cm./fawn 0.3cm./red 1.4cm./fawn 0.4cm./yellow 0.5cm.(

#### *Decoration on the bands*

The designs were darned over the warp perhaps during the weaving, but none of the ground-weft was displaced. The pattern of the red band on Frag.B can be reconstructed tentatively (fig. 104), but the other fragments are too badly preserved.

There are indications that the coarse yellow band on Frag.C was *hemmed* roughly.

56. Two small fragments of loosely woven embroidered tapestry.

System (1) warp, strong Z-spun, fawn yarn, 5 per cm., max. l. 6cm.

System (2) weft, weak Z-spun, max. l. 5cm.

Count: fawn yarn shot as pairs, c. 14 pairs per cm., blue, orange, green, brown and pink yarns single, c. 22 per cm.

Too little survives to allow measurement of the bands. There are remains of coarse dark blue embroidery on a fragmentary pink band. The order of the colours is: pink, fawn, blue, yellow, green, pink, brown.

57. Two small fragments of loosely woven tapestry.

System (1) warp, Z-spun, pale fawn, 8 per cm., max. l. 4.5cm.

System (2) weft, weak Z-spun, 8 per cm., max. l. 7cm. Yarns fawn, dark red, orange, brown, and yellow, all very coarse.

Yarn (1) is very unevenly spun.

The order of bands is: red, brown, red, fawn. No measurements are possible.

#### *Pattern-weaves*

58. Plain-weave fabric with a planned pattern (Pls. 164, 165).

System (1) warp, blue yarn Z-spun, fawn yarn Z-spun, c. 15 per cm.

System (2) weft, both yarns Z-spun, c. 15 per cm. Max.l. of system (1): Frag. A, 6cm., Frag. B, 19cm., Frag. C, 30cm.; Frag. D, 25cm., Frag. E, 11cm. Max.l. of system (2): Frag. A, 8.5cm., Frag. B, 9cm. to seam, 9 cm. beyond, Frag. C, 22cm., Frag. D, 20cm. Frag. E, 13cm.

In addition there are 45 smaller fragments. Both yarns are unevenly spun, giving the repeat-pattern an irregular effect. They are probably the same yarn, one dyed, the other undyed.

#### *The planned pattern*

In both warp and weft the planned repeat-pattern (see fig. 105) is as follows: 1 fawn thread, 1 blue thread, 1 fawn, 2 blue, then 1 fawn etc. This suggests that the two warp-systems (of odd and even threads respectively) which divide to form the shed each contained a mixture of colours.

#### *Hems*

In Frag. B the outer edges parallel to system (1) were sewn down with rough backstitches to prevent fraying. Yarn 2-ply, weak Z-spun, S-plyed.

#### *Selvages*

The weft-thread simply reverses round a double outer (blue) warp-thread. The weft-threads in one colour leapfrog over the weft-threads in the other colour, that is, the weaver leaves the one spool or ball of weft until the other has emerged and been shot back. One selvedge only on each fragment.

#### *Seams*

In Frag. B the seam consists of conjoined selvages, tacked together in rough backstitch. Yarn 2-ply, S-plyed from one Z-spun blue strand and one fawn strand, as in the body of the fabric.

59. Plain-weave fabric with a planned pattern.

System (1) warp, Z-spun, blue and fawn yarns, 12 per cm., max. l. 12 cm.

System (2) weft, 2-spun, blue and fawn yarns, c. 13 per cm., max. l. 10cm.

One large and three small fragments survive. Both yarns are fairly unevenly spun.

#### *Pattern*

In both warp and weft the repeat-pattern is: 1 blue thread, 1 fawn, 1 blue, 2 fawn, then 1 blue etc. It is therefore the exact reverse of textile no. 58.

#### *Selvedge*

One plain selvedge (10.5 cm. long) survives. Its technique is identical to that of the selvedge described in the previous entry under textile no. 58.

60. Plain-weave fabric with planned pattern. Four fragments. System (1) Z-spun, blue and fawn yarns, 12 per cm., max.l. 5cm.

System (2) Z-spun, same yarns, 20 per cm., max. l. 6cm.

The yarns are identical except in colour.

#### *Pattern*

The pattern resembles that planned in textile no. 58, but the repeat-pattern is slightly different. In

system (1) the repeated grouping of the threads is: 2 blue, 1 fawn, 1 blue, 1 fawn, 1 blue, 1 fawn, Then 2 blue etc.

In system (2) the repeat is: 2 blue, 1 fawn, 1 blue, 1 fawn, then 2 blue etc.

61. Plain-weave cloth with a planned pattern.

System (1) Z-spun, blue and fawn yarns, 13 per cm., max. l. 5cm.

System (2) Z-spun, same yarns, c.28 per cm., max.l. 8cm.

#### *Pattern*

The pattern planned is a cross between that of textile no. 58, with its succession of fawn and blue yarns in both systems, and the striped cloths to be described below. The repeat-pattern in system (1) is: 4 fawn threads, 2 blue, 1 fawn, 1 blue, 1 fawn, 1 blue, 1 fawn, 2 blue, 1 fawn, 1 blue, 1 fawn, 1 blue, 1 fawn, 2 blue. The repeat-pattern in system (2) is: 2 blue threads, 1 fawn, 1 blue, 1 fawn.

62. Fragment of blue and fawn striped cloth.

System (1) Z-spun, 13 per cm., max. l. 5cm., fawn.

System (2) Z-spun, blue and fawn, c.17 per cm., max. l. 7.5cm.

Three blue followed by three fawn threads form the stripes in system (2).

63. Three fragments of blue and fawn striped textile.

System (1) S-spun, blue yarn, 16 per cm., max. l. 10 cm.

System (2) S-spun, blue and fawn yarns, 18 per cm., max. l. 8.5cm.

Three blue followed by two fawn threads form the stripes in system (2).

64. Fragment of blue and fawn striped cloth.

System (1) Z-spun, blue, c.13 per cm., max. l. 9cm.

System (2) blue yarn, S-spun, fawn, Z-spun, c.15 per cm., max. l. 7cm.

Three blue followed by three fawn threads form the stripes.

65. Small fragment of cloth with irregular (?) blue and fawn stripes.

System (1) Z-spun, blue, 17 per cm., max. l. 2.5cm.

System (2) Z-spun, blue and fawn c.26 per cm., max. l. 1.5cm.

Groups of two fawn threads are separated from one another in system (2) by three or four blue threads.

66. Two small fragments of plain-weave cloth decorated with two bands of floating red weft-threads (Pl. 166).

System (1) warp, S-spun, 14 per cm., max. l. 3cm.

System (2) weft, fawn and red both S-spun, fawn ground c.18 per cm., red weft c.8 per cm., max. l. 7cm.

#### *Decoration*

Only small fragments of the red pattern-weft survive, but there is enough to reconstruct the weaving-plan (fig. 106). The plain-weave ground, fawn in colour, is not displaced to make way for the red weft-threads. The regular 1/1 weft-shots continue regardless of the separate sheds opened for the pattern weft. Two red weft-threads are held down under every eighth warp-thread; between the binder-warp-threads the two red weft-threads part to enter different sheds. The width of the two decorative bands in this technique is at least 1.5cm. They are separated by a band of plain-weave 0.7cm. wide, the outer (upper and lower) weft-threads of which are red yarn. This suggests strongly that the floating red weft is woven rather than embroidered.

67. Five fragments of tapestry-woven veil (?) bearing narrow stripes in blue on a pale fawn ground (Pl. 167).

System (1) warp, Z-spun, extremely fine yarn, wide spaced c.18 per cm., max. l. 9cm.

System (2) weft, Z-spun, c.20 per cm., max. l. 8.5cm.

Dr. Ryder reports that the warp is fine flax, the weft cotton.

#### *The weaves*

The basic weave is plain, but another weave allowing more floating weft-threads was used at intervals for decorative effect (fig. 107). Where this weave was used, the front of the cloth bears the weft-floats, the reverse the corresponding warp-floats. The weave was based on four sheds, and was probably technically unsatisfactory in that it gave rise to an unstable fabric.

#### *The order of the plain-and pattern-woven bands*

)fawn plain-weave 0.7cm./blue 0.2cm./fawn 0.15cm./fawn floats 0.4cm. (10 threads)/blue and fawn floats 0.3cm./fawn floats 0.4cm./fawn plain-weave 0.2cm./blue plain-weave 0.2cm./fawn floats 0.5cm./fawn plain-weave 0.2cm./blue 0.3cm./fawn 1.2cm./blue 0.2cm./fawn 0.2cm./fawn floats 0.3cm./blue and fawn floats 0.3cm./fawn floats 0.3cm./fawn plain-weave 0.2cm./blue plain-weave 0.3cm.(

The two wider bands of fawn plain-weave (1cm. and 1.2cm. respectively) contain a central band of somewhat finer weft.

68. Plain-weave textile with tufts in red.

System (1) Z-spun, 15 per cm., max. l. 11 cm.  
System (2) weak Z-spun, 25-30 per cm., max. l. 6 cm.

#### *Decoration*

The tufts run in rows 17 cm. apart parallel to system (2). They were probably laid in with a needle during the weaving of the cloth. They are anchored by the method shown in fig. 108. Two strands of reddish Z-spun yarn were worked as a pair. The original length of the tufts was at least 0.7 cm.

69. Two small pieces of woven ornament from a bag (?).

System (1) strong Z-spun, 4.9 per cm.; fawn yarn, max. l. 1.5 cm.

System (2) blue yarn, weak Z-spun  
red yarn, weak Z-spun 40-50 per cm.,  
max. l. 3.5 cm.

#### *Weave*

The basic weave, relying on three distinct sheds, is closely similar, but not identical, to that of textile no. 67 (compare fig. 109 with fig. 107). It is unfortunately not possible to recover the entire weaving-plan in the weft direction, but it is clear that some weft-threads float over five warp-threads (fig. 109). The blue and red yarns are woven in such an order that a zig-zag pattern is created, blue on one side of the line, red on the other. This is achieved without changing the basic weave.

70. Fragment of coarse plain-weave carpet with green, red, orange and blue tufts (Pl. 172a).

System (1) warp (?), 4-ply, S-ply, Z-spun, 2 per cm. (each thread is 0.3 cm. wide), max. l. 5.5 cm.

System (2) weft (?), singles, strong Z-spun, 1.11 per cm., max. l. 4 cm..

Both systems are in fawn undyed yarn. It is moderately pigmented straight animal hair according to Dr. Ryder, possibly goats' hair.

#### *Pile*

The tufts which are now practically worn away appear to have been wound round individual threads of system (2). None are attached to system (1) (warp?). It is uncertain what type of knot was used; the tufts were wound twice round each thread to anchor them. The yarn used for the pile was weak Z-spun. The pattern is not clear, but 1.5 sq.cm. of green tufts survive while the other colours make up 1.3 sq.cm.

#### *Compound Twill Weave*

71. Ten small fragments of badly torn fabric in weft-faced compound twill weave (Pl. 168).

System (1) warp, Z-spun, 30 per cm. (wide spaced), max. l. of largest fragment 4 cm.

System (2) weft, both yarns, yellow and fawn, unspun, 1.70 per cm., max.l. 1.11 cm.

#### *Weave*

The weave is a compound twill. The yellow weft (see fig. 110) (viewed from the one side) is shot over 5 single warp-threads and under 1, while the fawn weft is shot under 3 warp-threads, over 1, under 1 and over 1. The two colours thus dominate opposite faces of the cloth, except where they change sides and weaves to form the pattern. The warp is totally invisible only on the side where the yellow weft forms the background; hence this is probably the side from which the textile was meant to be viewed.

#### *The design*

The repeat-pattern (fig. 111) is based on parallel interlocking rows of roundels. Each roundel is in the form of a rosette and contains a central circle surrounded by smaller circles. The nature of the weave renders the pattern almost identical on both faces of the cloth; only the colours differ.

## **Plaiting Techniques**

### *Sprang*

72. Two large and one small piece of band in Sprang (Pls. 169, 172b).

The yarn is coarse (cotton, according to Dr. Ryder), evenly spun, pink in colour. The strands are 1.5 mm. thick, 2-ply, S-ply, from weak Z-spun yarns.

#### *Technique*

Only one thread-system is required for Sprang fabrics. Adjacent threads are twined round one another with the aid of a needle, and the network which builds up at top and bottom of the warp is stitched across the centre to prevent the interlocking threads from unravelling. For the best modern account, see M. Hald, *Olddanske Tekstiler* (1950), 249ff., with diagrams.

In this particular case two bands, each consisting of 30 threads, were plaited side by side on the Sprang frame. They were joined together only at the top and (presumably) the bottom of the fabric. To make one single band out of them, the ends of the string round which the warp was looped at one end of the frame were tied together. The two portions of the band then fell into line, end to end. See M.Hald,

*Jernalderens Dragt* (1962), 77, fig. 70.

Both edges of both sections of the band survive (fig. 112). In each case one selvedge consists of two threads wound three times round each other between the points where they interlock with the adjacent warp-thread. These were the outer selvedges of the bands as they lay on the plaiting-frame. The other selvedge is a single thread which only twines round one adjacent thread. These were the inner selvedges of the bands in their original position. The centre of the fabric was sewn at one side to seal the interlocking of the warp-threads. The width of both sections of the band is c. 4cm. Total length is now c. 45cm. The point at which the two sections join is 24 cm. from the centre of the fabric where the lock was sewn up. Accordingly the original fabric was c. 50 cm. long, and the two sections end to end may have been c. 100 cm. in length.

73. Fragment of fine Sprang.

Warp is 2-strand, S-ply from weak Z-spun yarns, max. l. c. 5cm., pale in colour.

Width of the band (?) is at least 120 warp-threads.

Adjacent warp-threads are twined once round each other, but sections of the fabric are interlocked in a more complicated manner (see fig. 113). It is unfortunately not possible to reconstruct the plan of all the openwork sections.

74. Two small fragments of badly damaged Sprang.

The yarn is fine, black, single, strong S-spun, c. 0.5mm. thick.

Adjacent threads twine once round each other. The sole surviving edge is formed by three strands of yarn, S-ply; the function of one of the three is to lock round the adjacent warp-thread of the main fabric. The warp is now c. 5cm. long.

### *Herringbone Plaited Fabrics*

75. Two fragments of a strong plaited fabric with a prominent herringbone pattern (Pl. 170).

#### *Structure of the fabric*

The two thread-systems in the fabric lie at 60° to one another, and are in fact the *same* system, reversing obliquely at the edge of the cloth. They act alternately as 'warp' and 'weft' for one another. In one herringbone stripe, for example, the system acting as weft ascends obliquely from right to left, while the system acting as warp ascends from left to right, but is in fact concealed beneath the 'weft'. In the adjacent herringbone stripe the roles are changed and the 'weft' becomes the 'warp' continuing upward in the same direction (fig. 114). The basic threads in the fabric are plied cords. Each cord (Z-ply) is made up of four strands of yarn of the same colour. The strands themselves are 2-ply, S-ply from Z-spun yarns.

When a cord acts in a given stripe as warp, its four strands are plied to form a tight unit, c. 1mm. thick. When it acts as weft in the next stripe, the four strands divide above and below the cord which here acts as warp. Between warp cords the weft strands are turned together through 90° in a Z-direction (see fig. 115).

Each weft cord passes over 14 warp cords before it changes its function. The stripes, measured directly across, are 0.8cm. wide; 11 stripes survive on the larger fragment. There are 10 cords per cm. as weft, c. 7 as warp.

#### *Selvedge*

The selvedge may be here the side of the fabric or the starting edge. The 'weft' of the outer stripe simply reverses at 60° and re-enters the same stripe higher up as 'warp'. The angle between the selvedge and the cords is also c. 60°.

#### *Pattern*

It is not possible to recover the full repeat-pattern formed by the colours of the successive cords, but two blue cords are used after every 12 cords, regardless of colour. Intervening cords are predominantly red, but groups of yellow and green cords (6-8 in each group) occur at intervals.

Parallel to the selvedge and stripes the length of the larger fragment is 12cm.; across the stripes it is 10cm. wide. The smaller piece measures 8cm. by 6cm.

76. Large piece of plaited fabric with a herringbone pattern. The plaiting technique and the four-ply cords of this fabric are as described in the previous entry (textile no. 75). The decoration, however, is more regular (Pl. 171).

The repeat-pattern of the cords is: 1 dark-brown cord, 1 fawn, 1 dark brown, 2 pink, 1 green, 1 yellow, 2 pink, 1 blue, 2 pink. This order repeats itself six times on this fragment. The stripes are 1cm. wide; 10 of them survive.

The thread-count is: 7 cords per cm. as weft, 4 as warp.

The selvedge is identical to that described above.

A small fragment of leather is sewn to one side in backstitch. The coarse yarn is fawn S-ply from 5 Z-spun strands.

### Fragments of felt and string

77. Small fragment of felt, *c.* 5 sq.cm..  
The fibre appears to be hair.
78. Short length of fawn cord.  
4-ply, S-ply from weak Z-spun strands.
79. Remains of fine coloured cord (3-4mm. thick), possibly once a mat or bag.  
Two strands, one green, one dark brown, S-ply together; each is *c.* 2mm. thick.  
The dark strand consists of two finer virtually unspun strands, Z-ply together. The green strand consists of two finer strands, S-ply. Total length surviving is *c.* 50cm.  
In association with these were found four short lengths of two fine cords (*c.* 2mm. thick), one of blue, the other of brown yarn. Both cords are S-ply from two Z-spun yarns.  
From Building 32 near north side-chapel (p. 91).
80. Remains of coarse coloured cord from a bag (?), still attached to a fragment of patterned cloth (no. 69).  
Three cords, 1 red, 2 blue, each *c.* 1cm., in diameter. Each is S-ply from 8 weak Z-spun strands. They are roughly sewn together side by side with fawn yarn (*c.* 3mm. thick), which is S-ply from 4 Z-spun strands.
81. Length of coarse rope, *c.* 25cm. long, in three pieces. S-ply from 2 S-spun strands. It appears to be a woody vegetable fibre, perhaps a by-product of the date-palm (cf. p. 310).
82. Three fragments of fawn rope, *c.* 33cm. long and *c.* 4mm. thick.  
S-ply from 22 fine Z-spun strands.
83. Nine short lengths of simple plaited cord, *c.* 0.5cm. thick and *c.* 10cm. long.  
4 strands, dark brown, light brown, red, and green. Each strand consists of 2 finer Z-spun strands, S-ply together.
84. Two short lengths of simple plaited cord *c.* 10cm. long and *c.* 0.5cm. thick. One length has two knots in it; 4 strands, 2 green, 2 dark brown. One of the dark brown strands and two green strands are S-ply from 3 Z-spun yarns. The dark brown strand is S-ply from 6 Z-spun yarns (Pl. 172c).  
From the room on the south side of the former antechapel (p. 91) in Building 32.
85. A mass of spun yarn, mostly medium quality Z-spun, but a little fine Z-spun blue yarn is among it.

### CONCLUSION

The archaeological study of Islamic textiles has hardly begun. Art historians have paid some attention to silks that could be Islamic, attempting both to identify their production centres and to establish a chronological framework for them.<sup>1</sup> The so-called tiraz fabrics of fine linen and cotton, woven in state factories throughout the Islamic world, have aroused a similar degree of interest; for the inscriptions woven into them regularly offer dating evidence.<sup>2</sup> Unimpressive though they may seem in comparison, the textiles from Ghirza are of particular value, since they form a well dated closed group and give us some idea of the range of textile techniques with which the Berbers of Nearer Africa were familiar at the end of the first millennium A.D. Whether they should be regarded as Islamic, strictly speaking, is a moot point.

Analysis of a selection of yarns in the Ghirza cloth indicates that flax, cotton and wool were the principal fibres used.<sup>3</sup> Traditionally Egypt was famous for flax, while India, Persia, Iraq and Yemen were noted for their cottons, and trade in these two fibres outside their home territories appears to have been limited.<sup>4</sup> Nevertheless, Ibn Hauqal mentions cotton grown in the Maghreb near Tunis<sup>5</sup> and wool was often quoted by Arab writers as a product of North Africa.<sup>6</sup>

The quality of the spun yarn varies from the extremely fine warp of textile no. 43 to the coarse yarn of the carpet no. 70. Yarns were all right-spun (Z-spun) with five exceptions (nos. 17, 63, 64, 66, 74) - a surprising contrast to the preference for S-spinning in Fatimid Egypt.<sup>7</sup>

Leaving aside the compound twill (no. 71), the principal weave of the textiles is plain weave. Some of the plain-woven fabrics in cotton and linen have roughly the same thread-count in warp and weft, but the majority are weft-faced, with the weft packed so as to cover the warp. The woollen fragments which rely for their patterns on coloured bands (nos. 49-57) are all in this tapestry weave. The distinction between strong spun warp and weak spun weft is maintained in all pieces of this class.

The fabrics with tapestry-woven bands deserve special comment. The bands are all arranged symmetrically so that the colours repeat in the reverse order after a central band. The latter is usually embroidered and particularly eye-catching. The embroidered designs on all the major pieces show basic similarities and probably spring from the same limited repertoire.

Three types of simple pattern-weave are found in textiles from this group. Only one of them is an independent pattern-weave, unsupported by a plain-weave ground. This type is represented in two versions by textiles no. 67 (fig. 107) and no. 69 (fig. 109). No more than three sheds were opened to weave no. 69, and four to weave no. 67; no. 69 is the more sophisticated, since by altering the order in which the two coloured yarns were shot through the shed, a simple pattern was achieved akin to that of the late Roman compound cloths from Egypt.<sup>8</sup>

A second type of weave (no. 66, fig. 106) relies on floating weft-threads in a colour which contrasts with their background. The pattern-weft threads float over a plain-weave ground and do not displace any of the regular weft-threads. The third type of pattern-weave (no. 52, figs. 100-102) is used to create additional decoration on the tapestry-woven bands. The pattern-weft threads replace the weft of the ground weave and float on the back of the cloth when not required. Since none of these weaves needs more than four different sheds to be opened during the weaving, there is no need to assume the use of a complex loom.

The fabric in compound twill weave (no. 71, figs. 100, 111) is of special interest. The structure is Vogt's type 3, which may have been developed as early as the sixth century A.D.<sup>9</sup> and is found in the Viking graves at Birka which are roughly contemporary with the Ghirza deposit.<sup>10</sup> It has Z-spun silk warp, and very loosely spun, or unspun, silk weft in two colours. The textile is clearly an import into Ghirza, but its pattern gives little clue to its origin. A silk industry was established in Byzantine Italy by the tenth century; but Arab geographers reveal that silk was woven for the court in factories throughout the Islamic world.<sup>11</sup> The nearest factory to Ghirza was probably at Gabes where mulberry trees were grown to feed silkworms and silk was woven.<sup>12</sup>

Several types of reinforced selvedge are encountered in these textiles. In addition to plain selvedges round strengthened warp-threads (e.g. no. 10), there are two complicated twined selvedges (nos. 4, 33, figs. 95, 97), where the weft-thread was twined in and out of additional groups of warp-threads.<sup>13</sup> The latter were probably worked independently of the main warp.

The best known plaiting technique of Iron-Age Europe and Coptic Egypt, Sprang, is represented by fragments of three fabrics (nos. 72-74.). One of them at least was probably a hair-band. The other plaiting technique of which this group contains examples (nos. 75-76) is one which was apparently unknown to the Classical world.<sup>14</sup> Two interlocking thread-systems are the basis of a strong fabric with a bright herringbone pattern. Each thread acts successively as warp and weft (see fig. 114).

The sewing and embroidery at Ghirza was of the simplest kind, but effective. Overcast stitches were used to hem raw edges, and seams were carefully rolled before being sewn, usually in running stitch. For the decoration of the tapestry bands back-stitch and darning in double yarns were the basis of the work.

The impression gained from this group of textiles as a whole is that the manual dexterity of the people of Ghirza outstripped their knowledge of advanced textile mechanics. The complicated plaiting techniques, the fine quality of some of the spun thread, and the embroidery are all in marked contrast to the simplicity of the weaves and by inference to the simplicity of their looms.

It is relevant to note in this context that two woollen textiles dating to the Roman period found in the hill-town of Zincheera have points of resemblance to the Ghirza material. The yarns at Zincheera are Z-spun and two selvedges resemble those of Ghirza nos. 4 and 33. A potsherd from a Roman level at Germa has a clear imprint of what appears to be plain Sprang fabric (see nos. 72-4 above).<sup>15</sup> It is worth bearing in mind the distinct possibility that the tenth-century textiles from Ghirza are the product of a local tradition at least 1000 years old.

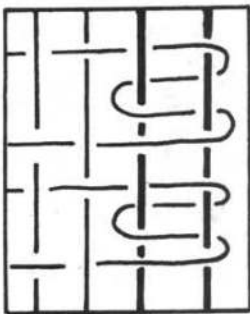


Fig. 95. Textile 4: selvedge.



Fig. 96. Textile 32: seam.



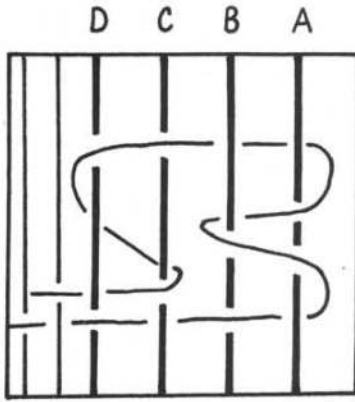


Fig. 97. Textile 33: selvedge.

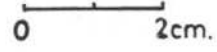


Fig. 98. Textile 49: embroidery on blue tapestry-band.

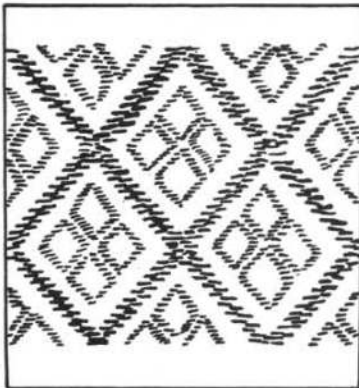


Fig. 99. Textile 49: embroidery on central band.

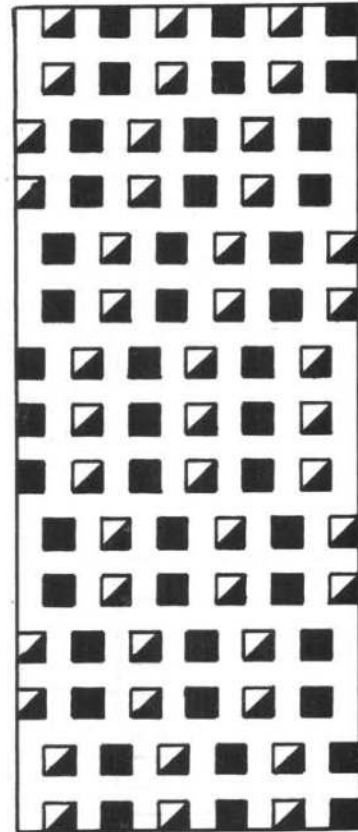


Fig. 100. Textile 52: weaving-plan of chevrons on red band.

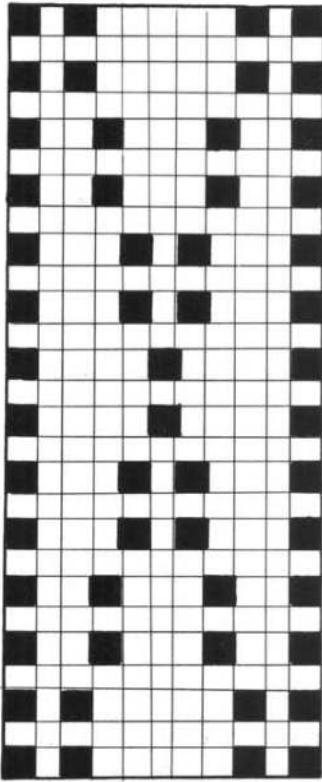


Fig. 101. Textile 52: repeat-pattern of lines and crosses.

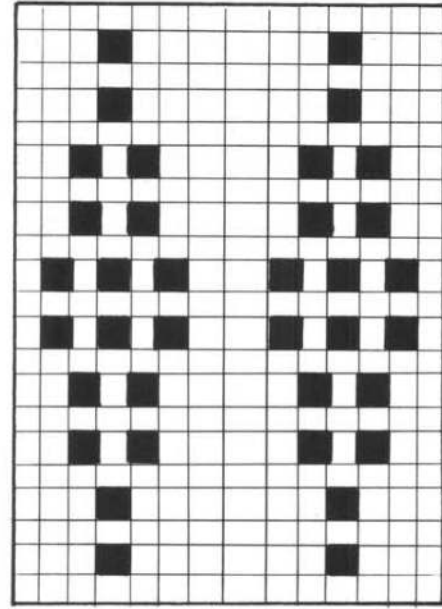
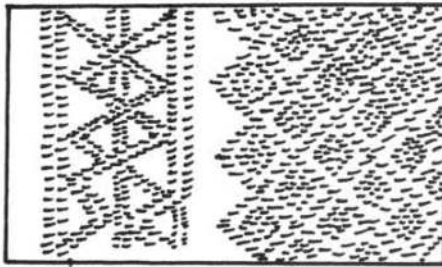
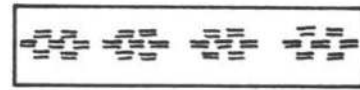


Fig. 102. Textile 52: weaving-plan of diamonds on orange bands.



0 2 cm

Fig. 103. Textile 53: main embroidered pattern.



0 2 cm.

Fig. 104. Textile 55; fragment B: pattern of embroidery.

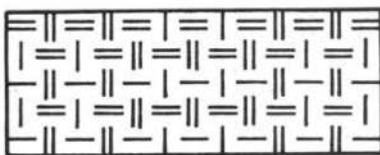


Fig. 105. Textile 58: planned-repeat-pattern.

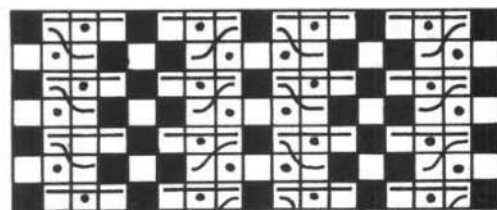


Fig. 106. Textile 66: weaving-plan of pattern-woven bands.

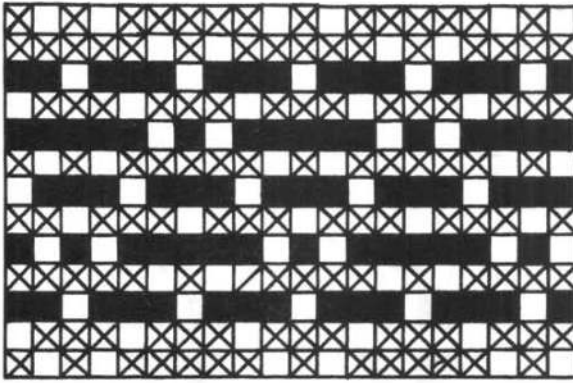


Fig. 107. Textile 67: weaving-plan of pattern-woven bands.



Fig. 108. Textile 68: section through system (1), showing method of anchoring the tufts.

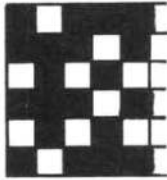


Fig. 109. Textile 69: weaving-plan, in warp direction.

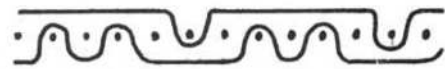
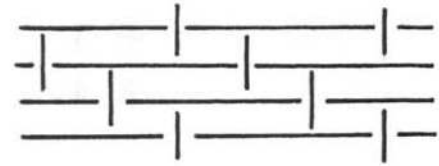


Fig. 110. Textile 71: the weave of the damask fabric.



0 2 cm.

Fig. 111. Textile 71: decorative repeat-pattern of the damask fabric.

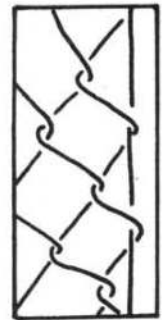
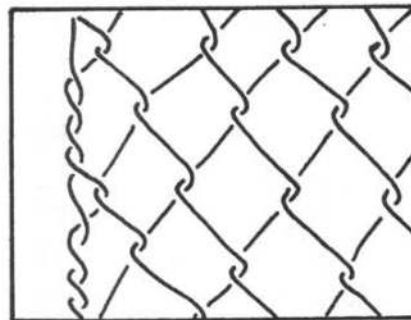


Fig. 112. Textile 72: structure of the edges of the Sprang band.

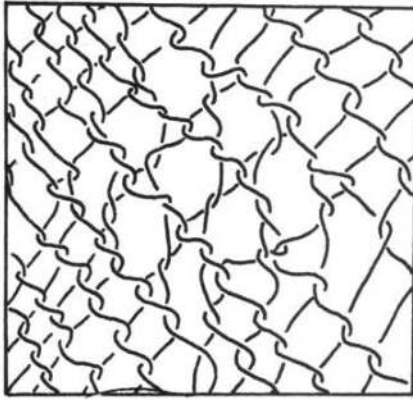


Fig. 113. Textile 73: openwork on Sprang fragment.

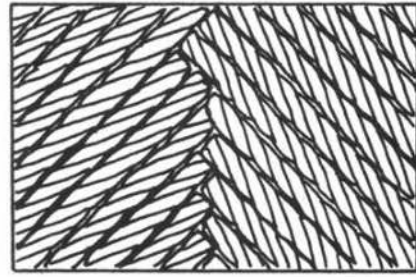


Fig. 114. Textile 75: detail of the herringbone stripes.

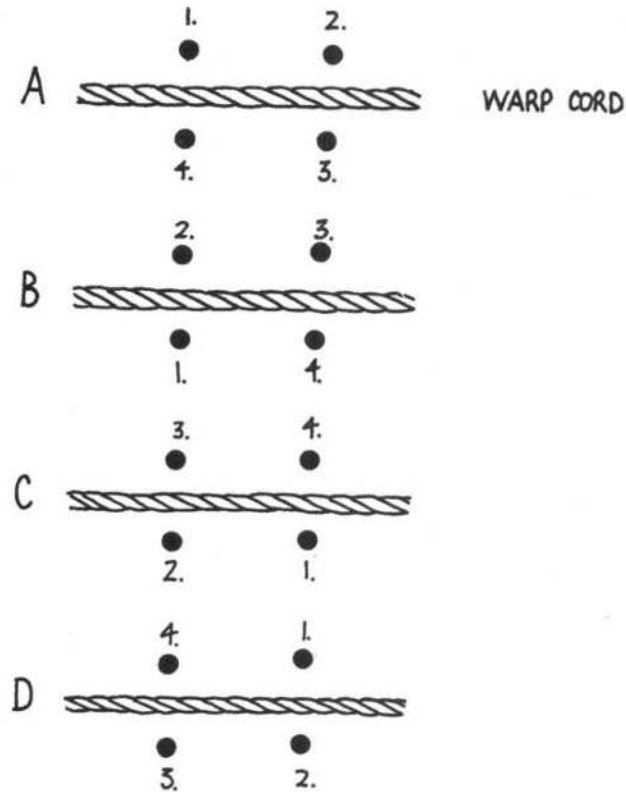


Fig. 115. Textile 75: section through the weft-strands as they pass over and under the warp-strands.

## APPENDIX 14: NOTES

<sup>1</sup> For an early attempt: O. von Falke, *Kunstgeschichte der Seidenweberei*, 1913; more recent study: E. Kühnel, D. Shepherd, 'Technical aspects of the Buyid silks' in A.U. Pope, P. Ackerman, *A Survey of Persian Art* XIV, 1967, 308off.; for embroidered silks: E. Kühnel, 'Abbasid silks of the ninth century', *Ars Orientalis* II, 1957, 367ff.

<sup>2</sup> L. Golombek, V. Gervers, 'Tiraz fabrics in the Royal Ontario Museum' in V. Gervers (ed.), *Studies in Textile History*, 1977, 82ff. (with bibliography); N.P. Britton, *A Study of some Early Islamic Textiles in the Museum of Fine Arts, Boston*, 1938; for the economic background of the industry: M. Lombard, *Les Textiles dans le Monde Musulman du VII<sup>e</sup> - XII<sup>e</sup> Siècle*, 1978 (with full bibliography).

<sup>3</sup> See Dr. M. L. Ryder's reports in the catalogue above. Identification of the fibres and dyestuffs in all the fabrics catalogued would be a valuable study, if resources could be found to undertake it.

<sup>4</sup> L. Golombek, V. Gervers, *op. cit.*, 83; S.D. Goitein, *Letters of Medieval Jewish Traders*, 1973, 107.

<sup>5</sup> Cited by R.B. Serjeant, *Islamic Textiles*, 1972, 184.

<sup>6</sup> Serjeant, *op. cit.*, 177ff.

<sup>7</sup> R. Pfister, *Nouveaux Textiles de Palmyre*, 1937, 40f.

<sup>8</sup> G.M. Crowfoot, J. Griffiths, 'Coptic Textiles in Two-faced Weave with Patterns in Reverse', *Journal of Egyptian Archaeology* XXV, 1939, 40ff.

<sup>9</sup> E. Vogt, 'Frühmittelalterliche Stoffe aus der Abtei St-Maurice', *Zeitschrift für schweizerische Archäologie und Kunstgeschichte* 18, 1958, 123, Abb. 10. An even earlier dating is proposed by A. Geijer in *Orientalia Suecana* XII, 1963, 34.

<sup>10</sup> A. Geijer, *Die Textilfunde aus den Gräbern, Birka* III, 1938, 58ff.

<sup>11</sup> A. Guillou, 'La Soie du Katépanate d'Italie', *Travaux et Mémoires (du Centre de Recherche d'Histoire et Civilisation de Byzance)* 6, 1976, 69ff.

<sup>12</sup> Serjeant, *op. cit.*, 180f.; Lombard, *op. cit.*, 94f.

<sup>13</sup> For similar but not identical selvedges see I. Bergman, *Late Nubian Textiles, The Scandinavian Joint Expedition to Sudanese Nubia* 8, 1975, 38.

<sup>14</sup> For a similar technique from Peru: R. d'Harcourt, *Textiles of Ancient Peru and their Techniques*, 1962, 75, figs. 44, 77, Pl. 55C.

<sup>15</sup> I am grateful to Mr C.M. Daniels for drawing my attention to this material and allowing me to mention it here in advance of publication.

## APPENDIX 15

### BOTANICAL REMAINS

by drs. Marijke van der Veen, M.A.

During the 1957 excavations a few samples were taken from the middens for botanical analysis: four samples from Midden 1 and one from Midden 3, all dated to the late 4th and 5th century A.D. Furthermore, some grains and fruits were recovered from Building 32, dating to the 11th century.

No form of sieving or water-flotation was used and the samples are also very small and originate from only one type of context in each chronological phase (i.e. the middens for the Roman period and a building (shop?) for the Medieval phase). Therefore, I want to stress here that these samples cannot in any way be regarded as fully representative of the site as a whole. No quantitative information concerning the relative importance of the different crop plants can be obtained from these samples. They do, however, give some qualitative information, and as such are valuable in understanding the level of agriculture practised at Ghirza in particular and at contemporary wadi settlements in the pre-desert zone of Tripolitania in general. In fact, it is striking how much information these small samples still yielded, perhaps due to the extremely good preservation conditions and the extreme richness of the middens.

In Table 1 the total number of the different crop plants is listed by chronological period. Very few seeds and grains were carbonized. Most of the material was dessicated, indicating the extreme aridity at the site.

**Table 1**

<i>Crop plants</i>	<i>Roman</i>	<i>Medieval</i>
<i>Hordeum vulgare</i> (barley), internode fragm.	80	6
<i>Hordeum vulgare</i> (barley), glume bases	6	—
<i>Hordeum vulgare</i> (barley), grains	2	9
<i>Triticum cf. durum</i> (wheat) internode fragm.	1	—
<i>Olea europea</i> (olive)	2	—
<i>Vitis vinifera</i> (grape)	3	—
<i>Ficus carica</i> (fig) whole fruit	—	12
<i>Ficus carica</i> (fig) pips	136	158
<i>Phoenix dactylifera</i> (date) whole fruit	—	1
<i>Phoenix dactylifera</i> (date) stones	9	14
<i>Prunus amygdalus</i> (almond)	—	1
<i>Lens culinaris</i> (lentil)	2	—
Leguminosae indet. (pulses)	1	—
<i>Citrullus lanatus</i> (water melon)	9	—

A total of 86 internode fragments, 6 glume bases and 11 grains of *barley* was found. The 6 still attached internode fragments and 9 kernels from Building 32 and one of the two grains from Midden 1 belong without any doubt to the six-row, hulled *Hordeum vulgare* or *hexastichum*. On the 10 grains the glumes were still firmly attached to the kernel, indicating the hulled variety, and seven of them showed the twisting of the grain characteristic of the lateral florets of six-row barley. All the other internode fragments and glume bases found in the middens probably belong to the same species, although at the moment the presence of two-row barley (*Hordeum distichum*) cannot be completely ruled out.

Because of its hardiness barley is an important cereal: 'it is a short season, early maturing grain with a high yield potential, and may be found on the fringes of agriculture because it can be grown where other crops are not adapted... (it) may be grown in desert oases where it is more salt tolerant than other cereals' (Harlan 1976, 93). Barley is nowadays not very popular for human consumption, and is mainly used for animal fodder and malting. It cannot be used for leavened bread, because of its low gluten content. For a long time, however, it has played an important part in human consumption, especially in the Near East and North Africa where the cultivation of wheat is more restricted. In classical times barley was regarded as the cereal for the poor, the soldier and the slave. It was mainly used for animal fodder, except in times of scarcity (André 1961, 52; Harlan 1976, 95). Twenty years ago the semi-nomads in the Gebel Tarhuna were recorded as supplementing their pastoralism by shifting cultivation of cereals. Again, the same pattern emerged: the barley was reserved for animal feed, whilst the limited wheat harvest provided the food for the family (Brehony 1960, 64).

Only one internode fragment of *wheat* was found, belonging to the free-threshing wheat *Triticum aestivum/durum* (bread/macaroni wheat). A distinction between these two species based on archaeological remains is thought to be impossible because of their close morphological similarities (Van Zeist 1976). We are, however, most probably dealing with *Triticum durum*, as *Triticum aestivum* became characteristic for north-western Europe, while *Triticum durum* became the most important wheat species of the Near East and the Mediterranean. From the single internode fragment recovered it is clearly impossible to say whether the cultivation of wheat was successful or not, or how important it was compared with barley.

Two *olive* stones were found, belonging to the cultivated *Olea europea*. Olives are one of the most important crops in the Mediterranean, mainly because of their oil. Three *grape* pips were found, which is remarkable as vines require a greater degree of tending and control of the environment than any other Mediterranean crop (White in Renfrew 1973, 130). Again, the presence of two olive stones or three grape pips unfortunately does not allow an assessment of the importance of the crops and the success of their cultivation.

Twelve whole, dried *figs* were found, in addition to 294 fruit pips (one fig can contain up to 2000 pips). Figs are important for their high sugar content. The spreading root system and small leaf area make the tree ideal for semi-arid conditions, where it can draw on moisture from a wide area without losing too much by evaporation from the leaves (White in Renfrew 1973, 136). A relatively large number of *date* stones were found, in addition to one whole fruit. The date palm is the characteristic oasis palm in the desert belt of North Africa and the Middle East. The chief nutritional value of dates is their high sugar content, up to 70% (Renfrew 1973, 152). Only one *almond* stone was found.

Two *lentils* and one other pulse were found. Lentils are the characteristic companion of wheat and barley cultivation throughout the Near East and the Mediterranean. They stand out as one of the more tasty and nutritious pulses, having a high protein content, and constitute an important meat substitute in many peasant communities (Zohary 1976, 163).

Nine pips of *water melon* were found. This sweet juicy fruit is a valuable alternative to drinking water in desert areas. The plant is fairly drought-resistant and will not stand waterlogging (Purseglove 1968, 102). It can even be grown during the hot summer months, without receiving a drop of rainfall from sowing to harvest, using the moisture stored in the soil during the winter months (Arnon 1972, 131).

#### *Discussion of the Roman period*

Ghirza is situated south of the present 25mm. rainfall isohyet, while the crop plants found in the samples require considerably more rainfall per year under a dry farming regime. The absolute minimum amount of rainfall for the cultivation of cereals lies between 300-200mm. per year; for the cultivation of olive trees at least 200mm. per annum is required. The optimum condition for fig trees is 800-120mm. per year. For the other crop plants no figures were available. To explain the presence of a large variety of crop plants at Roman Ghirza, while rainfall today is entirely inadequate for their cultivation, we can consider three possibilities: first, a drastic change in climate has occurred since Roman times; secondly, a very sophisticated level of water management was in operation; or thirdly, the food products are exotic to the site, and are the result of trade.

The third possibility, trade, can relatively easily be ruled out. In the case of cereals a fully threshed crop would have been transported, while in Ghirza, on the contrary, mainly threshing remains (internode fragments) have been found, indicating that the cereals were harvested locally. The most important product of the olive tree is the oil, and it is the oil that would have been traded, never the olives themselves. Furthermore, the presence of an olive press in Building 31 at Ghirza (p. 64) seems to confirm the local processing of olives. In the case of

grapes, similarly, it was not the fruit itself which was the most important product, but the wine. Besides, fresh grapes are very perishable and would not survive any length of journey. The presence of grape pips therefore probably indicates local production, although transport of dried grapes cannot be ruled out completely. Water melons are very bulky, perishable and difficult to transport without damaging the fruit. They are not a likely trade item. Dates and figs keep very well in dried condition and are known to have been transported over long distances. At the same time, they are more likely than the other crops to have been grown locally, especially the date palm, the characteristic tree of desert oases. Although the remains of these fruit trees cannot be proof of trade or its absence, they were most probably grown locally.

Cumulatively, therefore, it seems very likely that the different crop plants were cultivated locally at Ghirza. How successful their cultivation was, and to what extent trade in food had to supplement local production during bad years, are as yet unknown.

The possibility of a drastic change in climate since Roman times is equally not very probable. The nature of Roman land use and possible changes in climate since Roman times in the Tripolitanian pre-desert are at present being studied by the Unesco Libyan Valleys Survey, directed by Prof. G.D.B. Jones (University of Manchester) and Dr. G.W.W. Barker (University of Sheffield). Although more detailed studies still have to be carried out, the initial investigation of some wadi sediments has revealed no evidence for a marked change in climate (Barker *et al.*, 1980). Theoretically, however, it is possible that the area around Ghirza was slightly less arid in Roman times than it is now, as a result of the remnants of an earlier, richer vegetation, locally causing a slightly higher precipitation and better soil conditions.

The evidence at Ghirza for the attention paid to water-controlling mechanisms, for example wells, cisterns with catchment walls, and walls in and along the wadi, seems to indicate that the second possibility is the most likely explanation. The botanical remains combined with the archaeological evidence form conclusive evidence that the recovered crop plants were cultivated locally, owing to a highly sophisticated form of water management.

#### *Discussion of the Medieval phase*

From this phase barley, figs, dates and one almond stone were recovered from Building 32. The numerous other objects found in this building seem to indicate that we are dealing with a merchant's house or shop (p. 91). Unfortunately we have no information from other parts of the settlement. The botanical remains found are insufficient to assess the practice of agriculture at Ghirza in the eleventh century.

#### *Wild plants*

Some 188 seeds of wild plants were found in the samples from the middens; see Table 2.

**Table 2**

Emex spinosa	28
Zizyphus sp.	± 20
Medicago, pods	2
Small-seeded legumes	5
Chenopodium murale	10
Chenopodium sp.	2
Caryophyllaceae	7
Malva	9
Chrysanthemum cf. coronarium	2
Polygonum	3
cf. Galium	18
cf. Cruciferae	5
Asphodelus	1
Fumaria	2
Anchusa officinalis	1
cf. Compositae	1
Spergula cf. arvensis	1
Avena fatua	1
cf. Bromus	1
<i>indet.</i> (fragments of nuts or fruit stones and small weed seeds)	69

total 188

The identification of these seeds is as yet incomplete, but so far it seems that the most common species was *Emex spinosa*, a spiny shrub, characteristic of dry, sandy areas. Very common also were the relatively large fruit stones of *Zizyphus* sp., again a spiny shrub of dry habitats. The fruits of this plant are known to have been collected. The other identified weed species, like *Chenopodium*, *Malva*, *Medicago* and other legumes, *Polygonum*, *Galium*, *Fumaria*, *Anchusa*, *Caryophyllaceae*, *Asphodelus*, *Spergula* and *Bromus* all occur as weeds in fields or along tracks, and many prefer sandy habitats. No weed species indicating damp conditions were found.

#### Wood analysis

Five pieces of wood were collected at Ghirza in 1957 for wood analysis. The identification was kindly carried out by drs. E. Stuyts of the 'Biologisch-Archaeologisch Instituut' of the State University of Groningen, The Netherlands. A wooden comb clearly represented an imported piece, as it was made of *Buxus*-wood, a tree not present in Libya. The wood of *Buxis* is extremely hard, therefore very durable, as it is not easily affected by vermin. It is very difficult wood to work, but frequently found in Roman contexts, indicating the high level of Roman technology.

The other sample of worked wood consisted of very small, thin pieces of wood, decorated with white and red paint and incised linear patterns. The extreme fragmentation prevented an assessment of its former shape or function. The wood was identified as *Fagus*, beech. Although *Fagus* does occur in the Near East these pieces were probably imported.

The other three pieces were identified as *Tamarix*-wood, a species common in the Libyan pre-desert today. The pieces show no evidence of working; two of them still had part of the bark attached to them, and therefore probably represent locally grown wood.

See also Appendix 7 (p. 260).

#### Summary

The analysis of the botanical remains from Ghirza has shown that it was possible to grow a large variety of crops under very arid conditions by applying a high level of water management. It is assumed that the settlement was self-sufficient, only resorting to trade in food in periods of drought and scarcity. The samples on which these conclusions are based are very small and not representative of the site as a whole. To be able to assess the accuracy of the above conclusions and to be able to answer questions about the relative importance of the different crop plants, the success of their cultivation, and the economic differences between the various wadi settlements in the pre-desert zone of Tripolitania, a detailed sampling strategy integrated in future excavation programmes is essential.

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# INDICES

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- 2. Geographical index**
- 3. Personal names**
- 4. General index**

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 wool, 91, 93, 295, 297, 302-3  
 wreath, 136, 183-4, 195-6, 202, 216, 236, 264

*Zisypus lotos*, 34





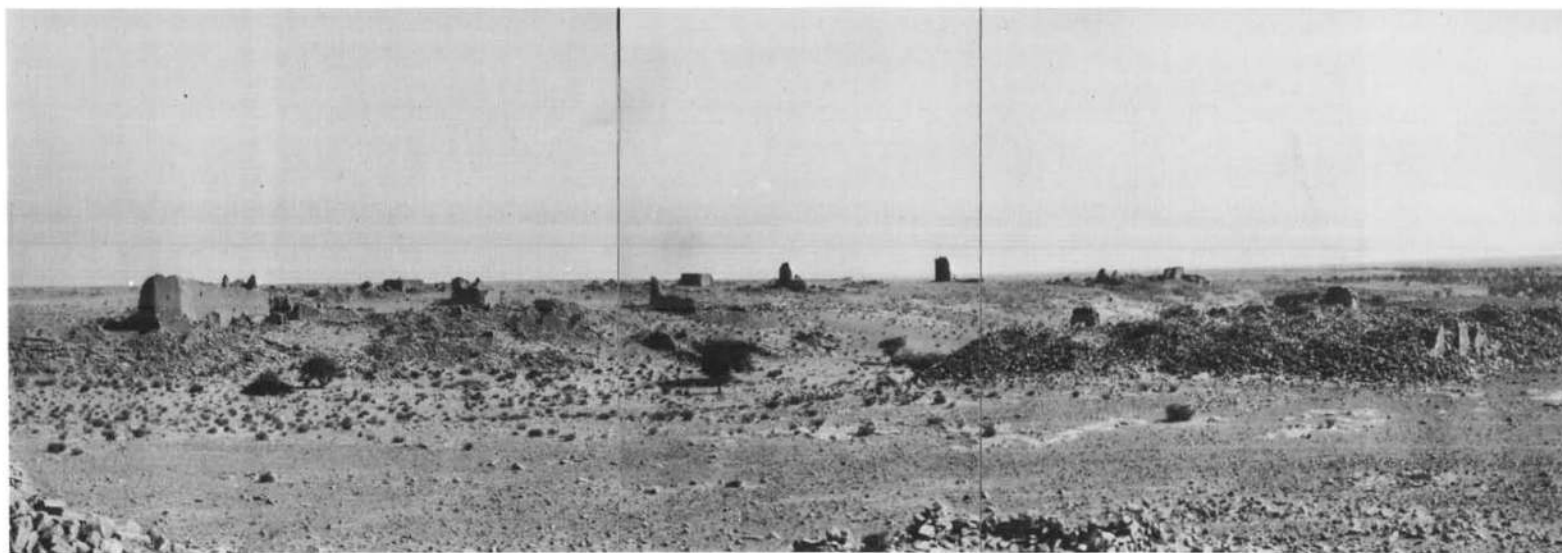
## **PLATES**

**LIST OF PLATES**  
**Abbreviations on captions**

D.A.T.	Department of Antiquities, Tripolitania.
D.J.S.	D.J. Smith.
E.S.	Eric Sicely.
O.B.	Olwen Brogan.
N. Del.	N. Deliberali.
M.H.B.	Michael Ballance.
C.M.D.	Charles Daniels.
Istanbul.	National Museum of Antiquities, Istanbul.
N.T.	Library Photographic Section, University of Newcastle upon Tyne.



1. Ghirza: the Wadi and settlement from N.E. (about 1960). Shell Oil Company. (p. 45)



2. View of the settlement on the N. side of the Shabet el-Gsur. D.A.T., 1955. (p. 46)



a



b

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a



b



c



d



e

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a



b



c



d



e

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- d. Hand and foot grips. D.J.S. (p. 75)
- e. Fragment of a threshold. D.J.S. (p. 74)



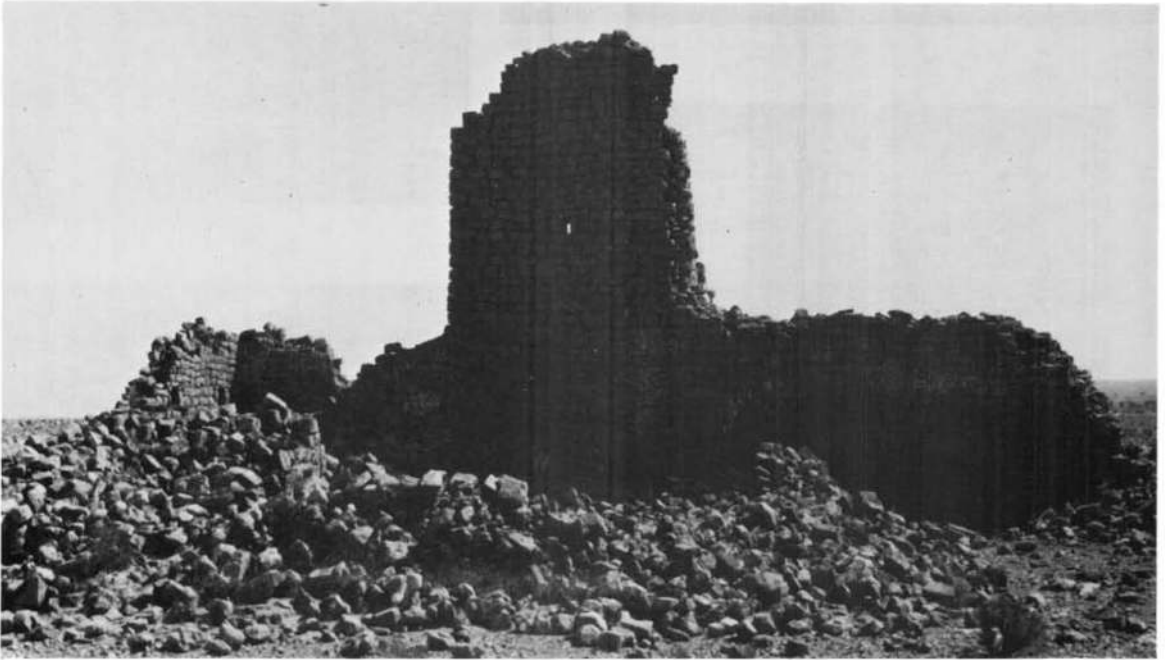
PLATE 6



a



b



c



d



e

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b



c

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a



b



c

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a



b

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a



b



c

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a



b

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a. Entrance, with Shaikh Kilani Baba. E.S. (p. 61)

b. Courtyard, doorway of entrance chamber. E.S. (p. 74)



a



b

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- a. The E. side (grade 1). D.A.T. (p. 63)
- b. The olive press room. D.J.S. (p. 64)



a



b



c



d



e

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- a. Uprights of the olive press. D.J.S. (p. 64)
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a



b



c

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a



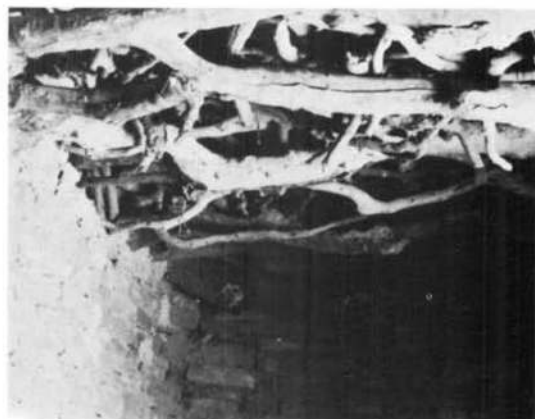
b



c



d



e

15. Building 34.

a. Internal arch. D.J.S. (p. 74)

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a



b



c

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a



b

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a



b



c

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a. N. courtyard, blocked entrance in N. wall and piers of N. arcade with wall of Period 2. Beyond, Midden  
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c. Room S. of *sacellum* with later partition wall, from N.W. D.J.S. (p. 82)



a



b

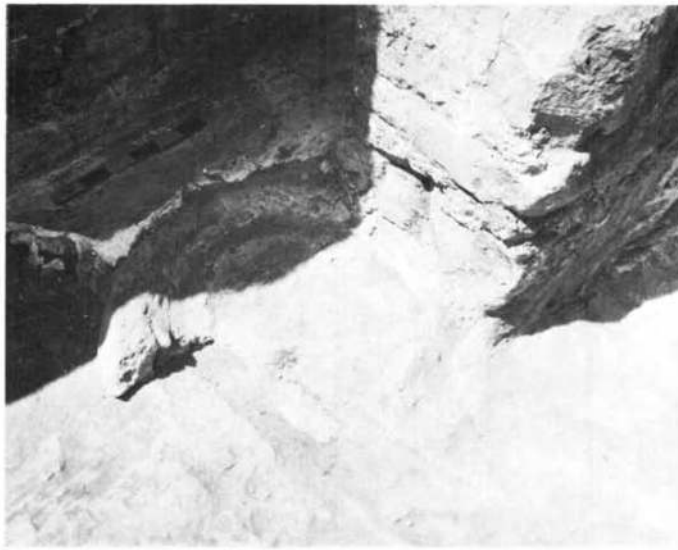
19. Building 32, Period I.

a. *Sacellum* of Period IA and ante-chapel of Period IB. D.J.S. (p. 82)

b. The N. chapel. D.J.S. (p. 84)



a



b



c

20. Building 32, Period I.

- a. Ante-chapel, drum of column on S. side of entrance to *sacellum*. D.J.S. (p. 82)
- b. Seating for column on S. side of entrance to ante-chapel. D.J.S. (p. 84)
- c. Seating for column on N. side of entrance to the N. chapel. D.J.S. (p. 84)



a



b



c



d



e



f



g

21. Building 32, Period I.

- a. Remains of main entrance. D.J.S. (p. 84)
- b. Column between porch of Period 2 and S. arcade. D.J.S. (Not described)
- c. S. courtyard, room in N.W. angle. D.J.S. (p. 82)
- d. Moulded (?) door or window frames. M.H.B. (p. 74)
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- f. Decorated stone, no. 8. M.H.B. (p. 245)
- g. Decorated stone, no. 8. M.H.B. (p. 245)





a



b



c



d

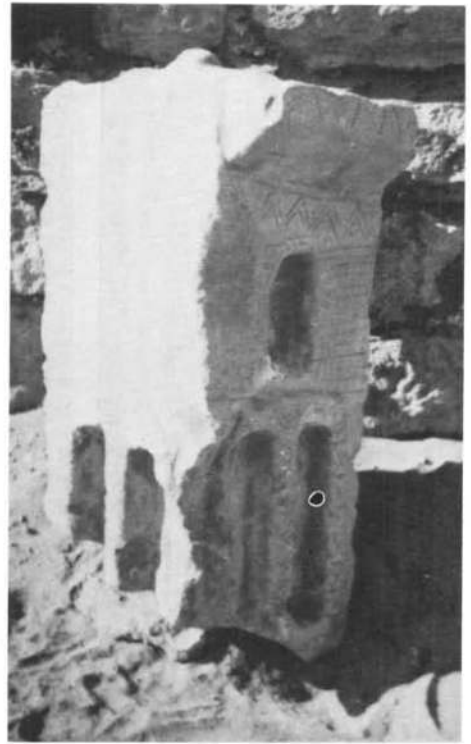
22. Building 32, altars and decorated stones.  
a. Nos. 1, 2, 19, 36, (altar) 23. D.J.S. (pp. 244-5)  
b. Nos. 4, 7, 34, 35. M.H.B. (pp. 245-6)  
c. No. 29. D.J.S. (pp. 89, 246)  
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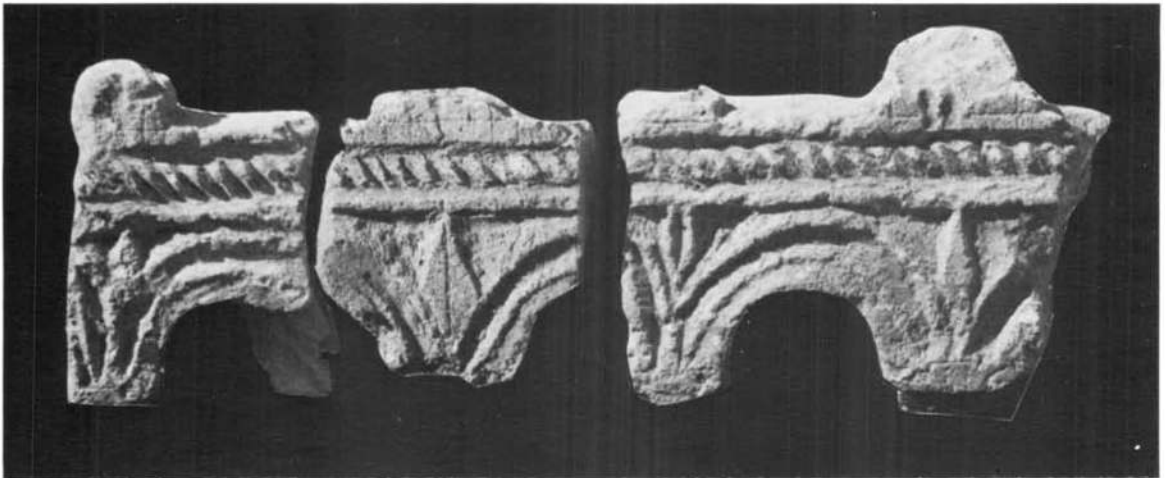
a



b



c

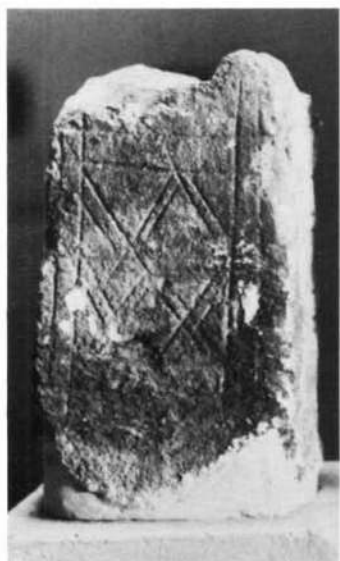


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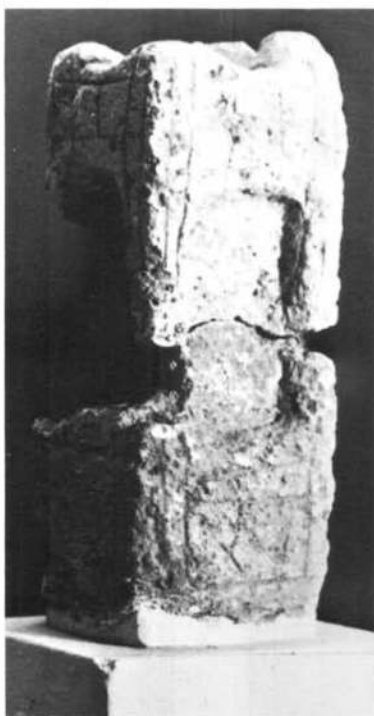
23. Building 32.

a-c. altar no. 24. (p. 86)

d. Aedicula. D.A.T. (p. 284)



a



b



c



d



e



f

24. Building 32 D.A.T.

- a. Altar no. 9. (p. 244)
- b. Altar no. 8. (p. 244)
- c. Altar no. 23. (p. 244)
- d. Altar no. 21. (p. 244)
- e. Decorated stone no. 19. (p. 245)
- f. Decorated stone no. 25. (p. 245)



a



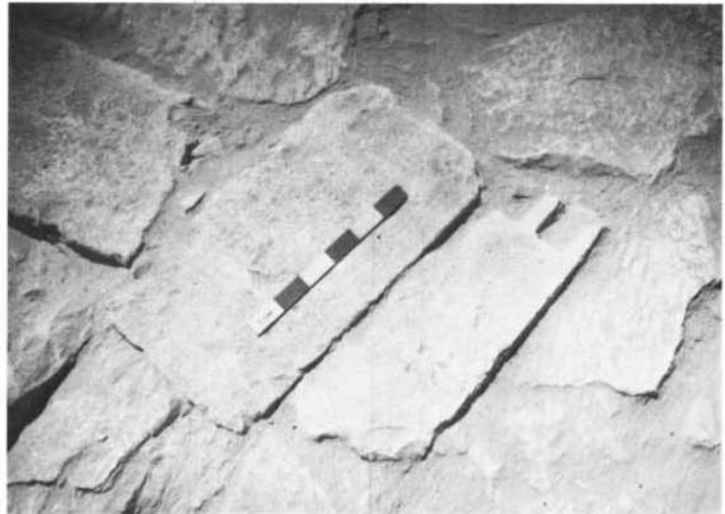
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c



e

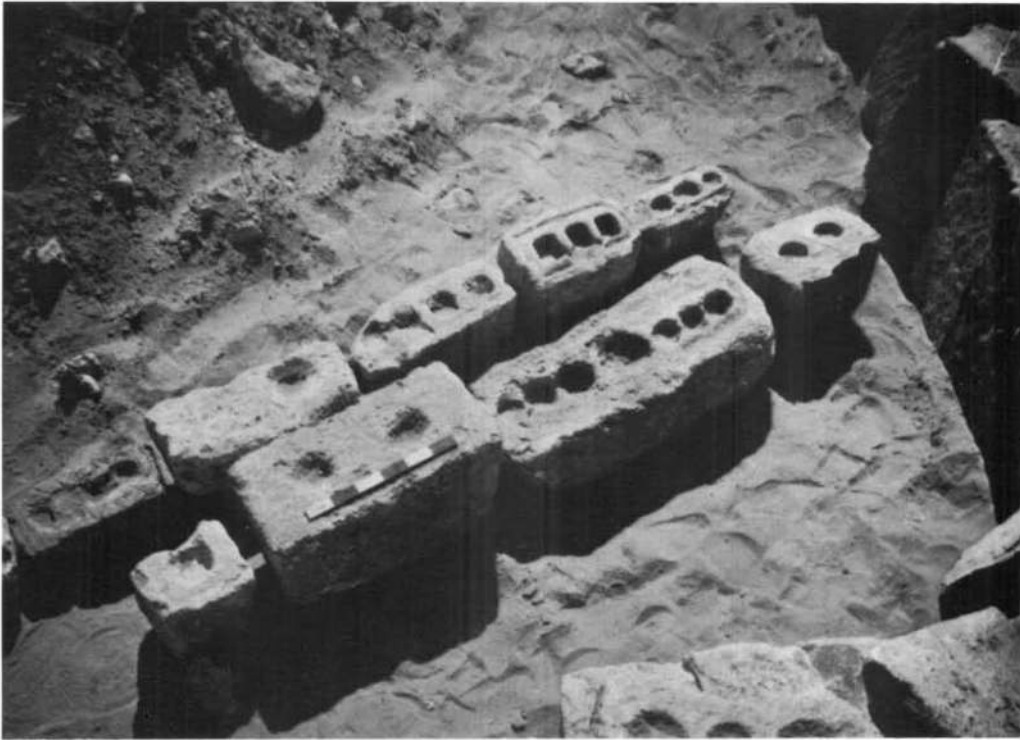


d

25. Building 32, Period I.
- a. Stone basin. D.J.S. (p. 84)
  - b. Altar no. 26. D.A.T. (p. 245)
  - c. Altar no. 1. D.A.T. (p. 243)
  - d. Altar no. 26 as paving stone in Period 2. D.J.S. (p. 245)
  - e. Graffito on dressed stone. D.J.S. (Not described)



a



b

26. Building 32, Period I.  
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b. Stone offering-tables. D.J.S. (p. 87)



a



b



c



d



e

27. a. Building 32, stone head (front). D.J.S. (p. 284)  
 b. Stone head (back). D.J.S. (p. 284)  
 c. Statuette. D.J.S. (p. 284)  
 d. Relief from Nesma, Wadi Sofeggin. O.B. (p. 88)  
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28. Building 32, Period 2, arch at N. end of porch. D.J.S. (p. 90)



a



b

29. Building 32, Period 2.

a. Relief ornament in plaster with 'hand of Fatima'. D.J.S. (p. 90)

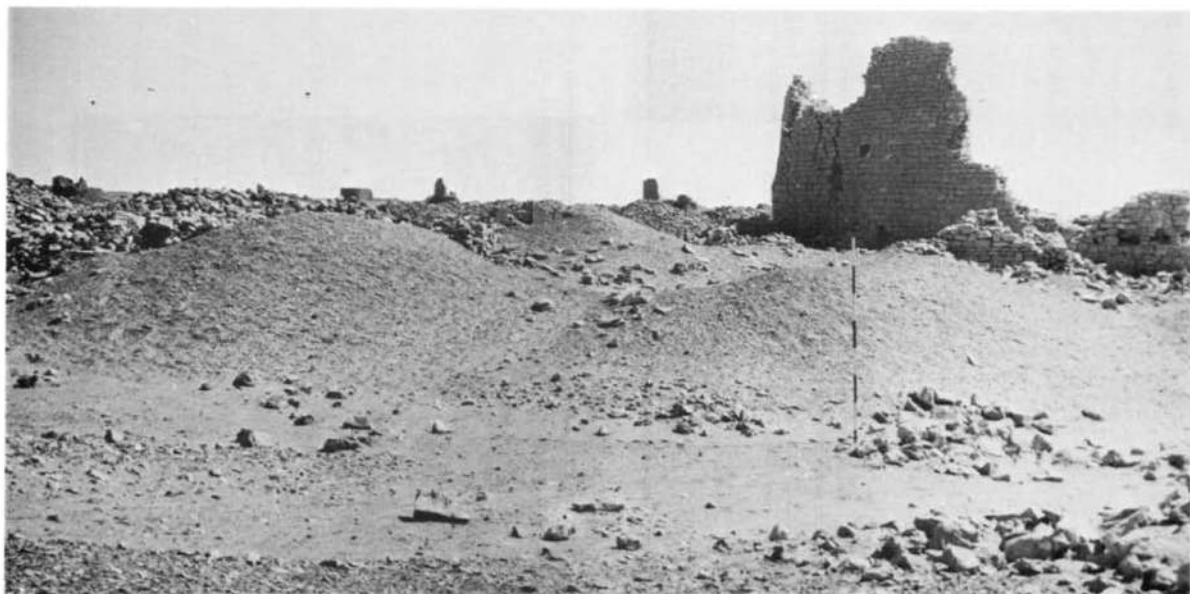
b. Painting on wall-plaster of Period I. D.J.S. (p. 91)



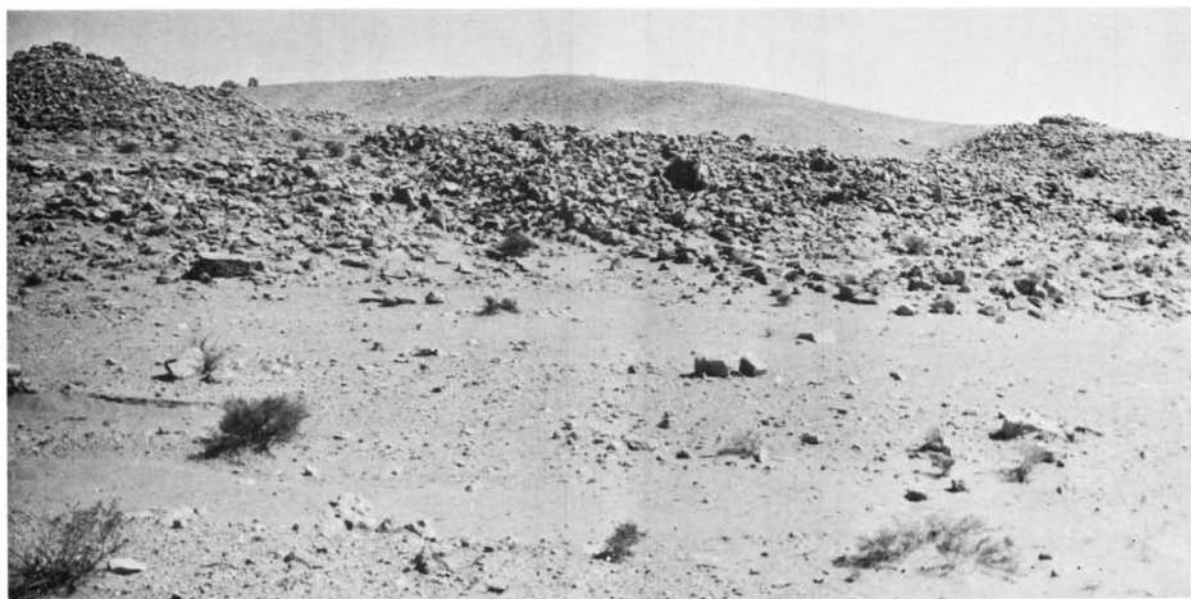




31. Building 32, Period 2, painted and incised decoration. D.J.S. (p. 91)

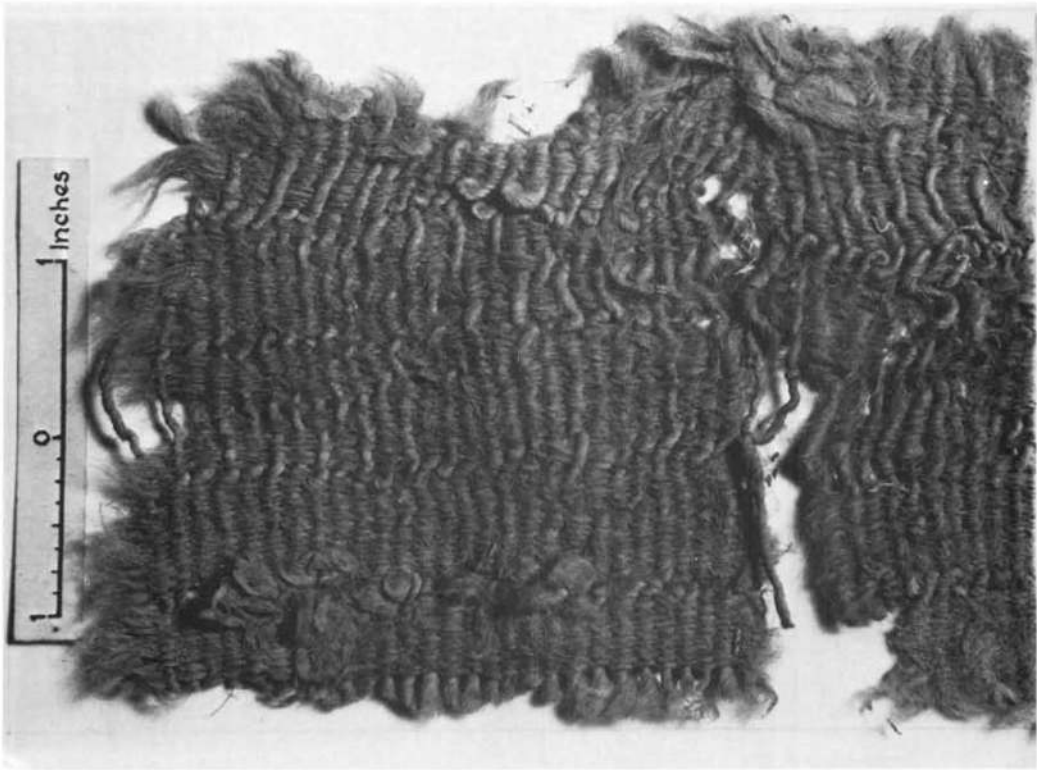


a

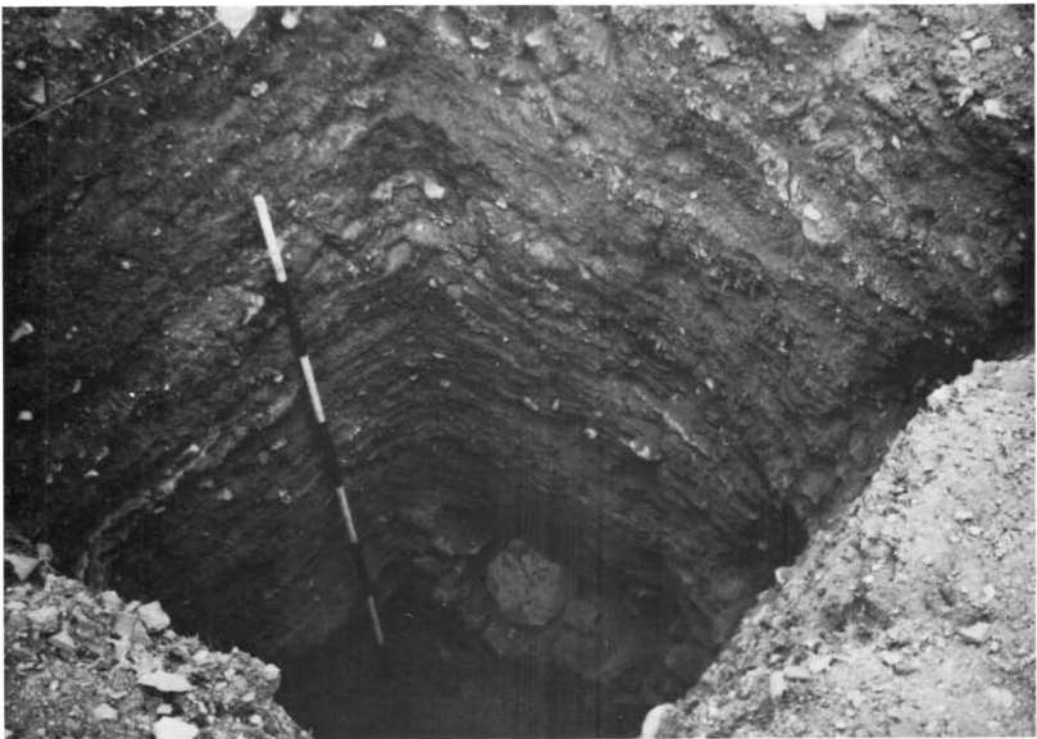


b

32. a. Midden 2. Beyond, Building 33. D.J.S. (p. 92)  
b. Midden 3 and remains of huts, from S.W. D.J.S. (p. 92)



a



b

33. a. Midden 3, fragment of cloth. (p. 93)  
b. Midden 1, the excavation. D.J.S. (p. 96)



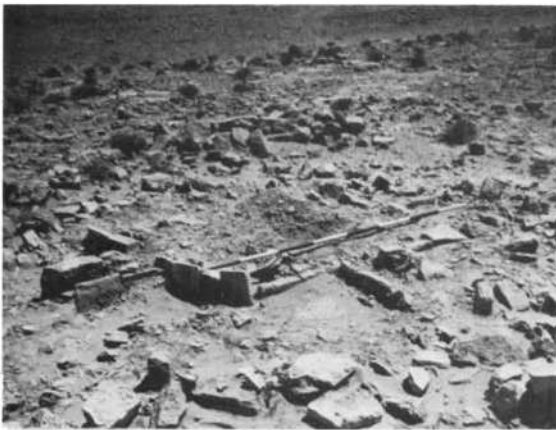
a



b



c

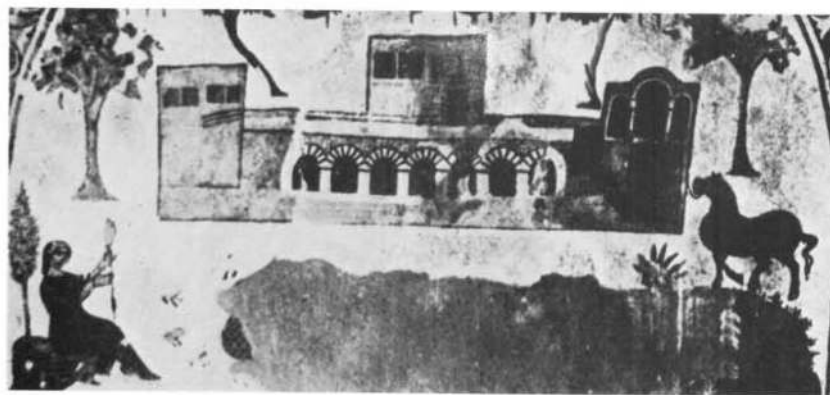


e



d

34. a. Well 1. D.J.S. (p. 98)  
b. Cistern 1, interior, E. end. D.J.S. (p. 98)  
c. Catchment wall of Cistern 4. D.J.S. (p. 98)  
d. Cistern 3. D.J.S. (p. 98)  
e. Unexplained feature S.W. of Building 32. D.J.S. (p. 99)



a



b



c

35. a. Mosaic from Tabarka (Tunisia) showing horse tethered to a building. D.J.S. (p. 79)  
 b. Hearth, N. of Building 11. D.J.S. (p. 99)  
 c. Oven, by Building 30. D.J.S. (p. 99)



a



b



c



d



e

36. Cemetery 1.

a. Partial view. D.J.S. (p. 111)

b. Tomb 1, excavated, with bowl and lamp *in situ*. D.J.S. (p. 105)

c. Tomb 2, before excavation, showing offering-table. D.J.S. (p. 111)

d. Tomb 2, excavated, from the N. D.J.S. (p. 111)

e. Tomb 4. D.J.S. (p. 105)



a



b



c



d



e

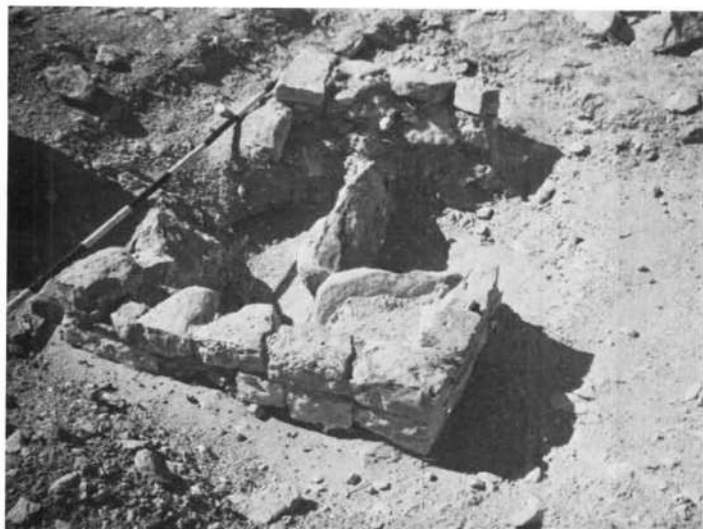


f

37. Cemetery 2.

- a. General view looking S. to Building 35. D.J.S. (p. 106)
- b. Outlying circular tomb to the N. D.J.S. (p. 106)
- c. Tomb 4, before excavation. D.J.S. (p. 100)
- d. Tomb 4 excavated. D.J.S. (p. 100)
- e. Tomb 5, before excavation. D.J.S. (p. 106)
- f. Tomb 5 excavated. D.J.S. (p. 106)





a



b



c



d



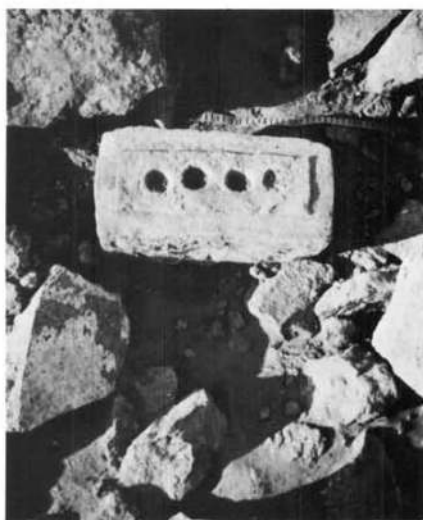
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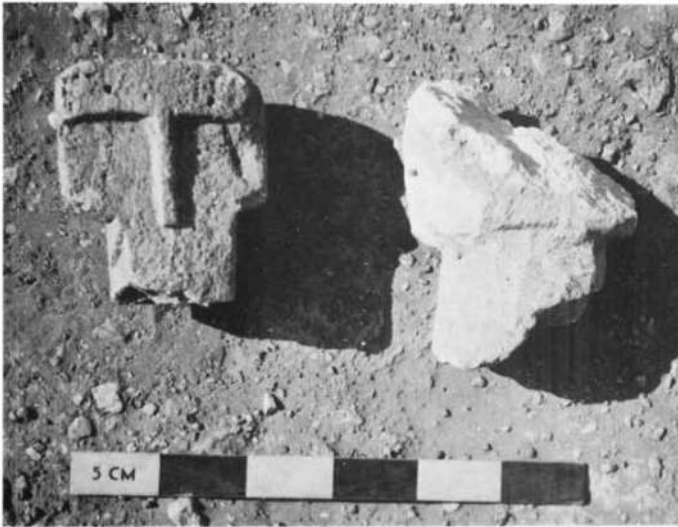


f

38. a. Cemetery 3, Tomb 2, excavated. D.J.S. (p. 105)  
 b. Offering-tables from outlying tombs (group A) of Cemetery 1. D.J.S. (p. 107)  
 c. Circular tomb N.E. of Cemetery 3. D.J.S. (p. 107)  
 d. Ornamental offering-table. D.J.S. (p. 112)  
 e. Offering-table on Tomb 2, Cemetery 1. D.J.S. (p. 111)  
 f. Offering-table from outlying tombs (group E) of Cemetery 1. D.J.S. (pp. 107, 112)















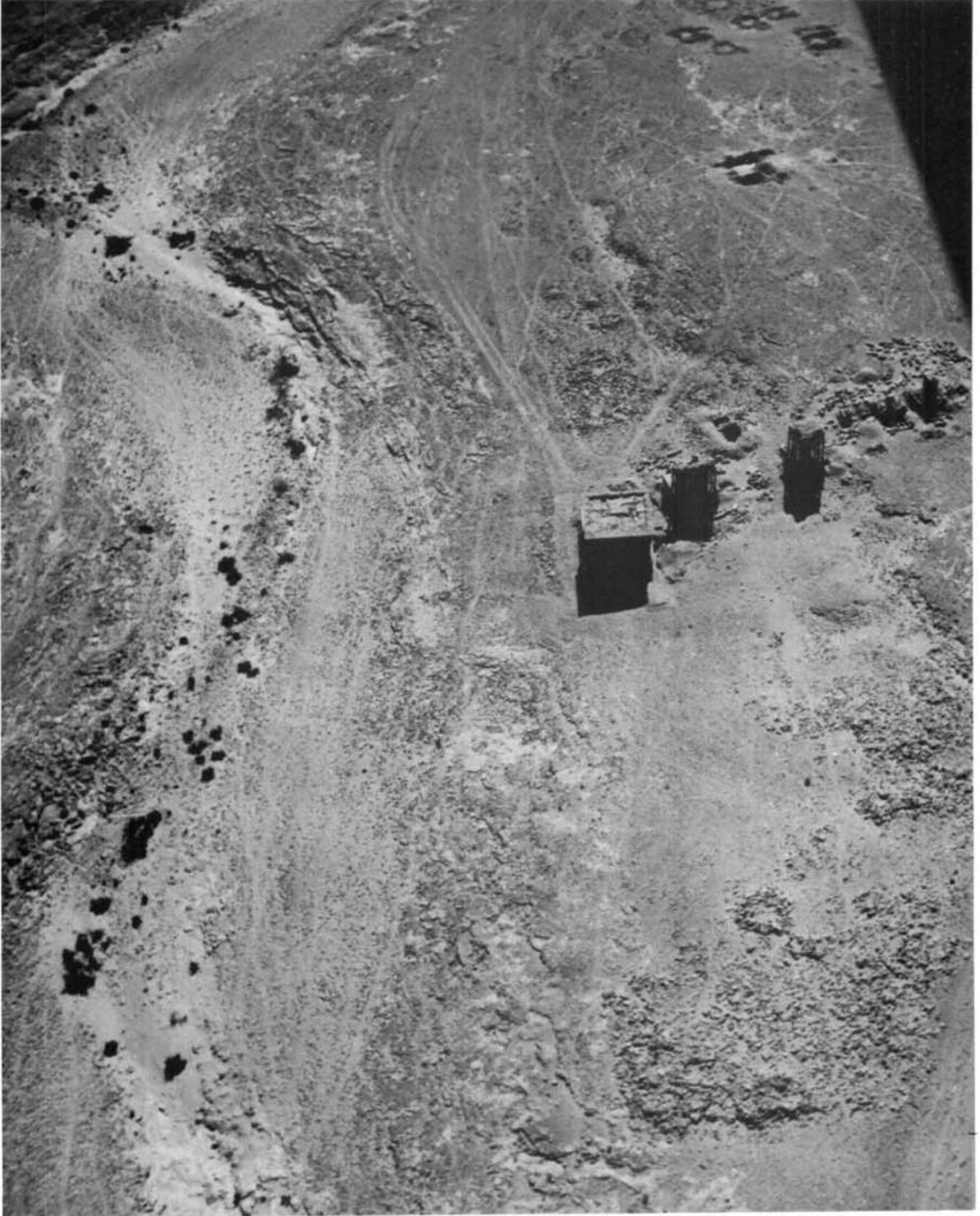
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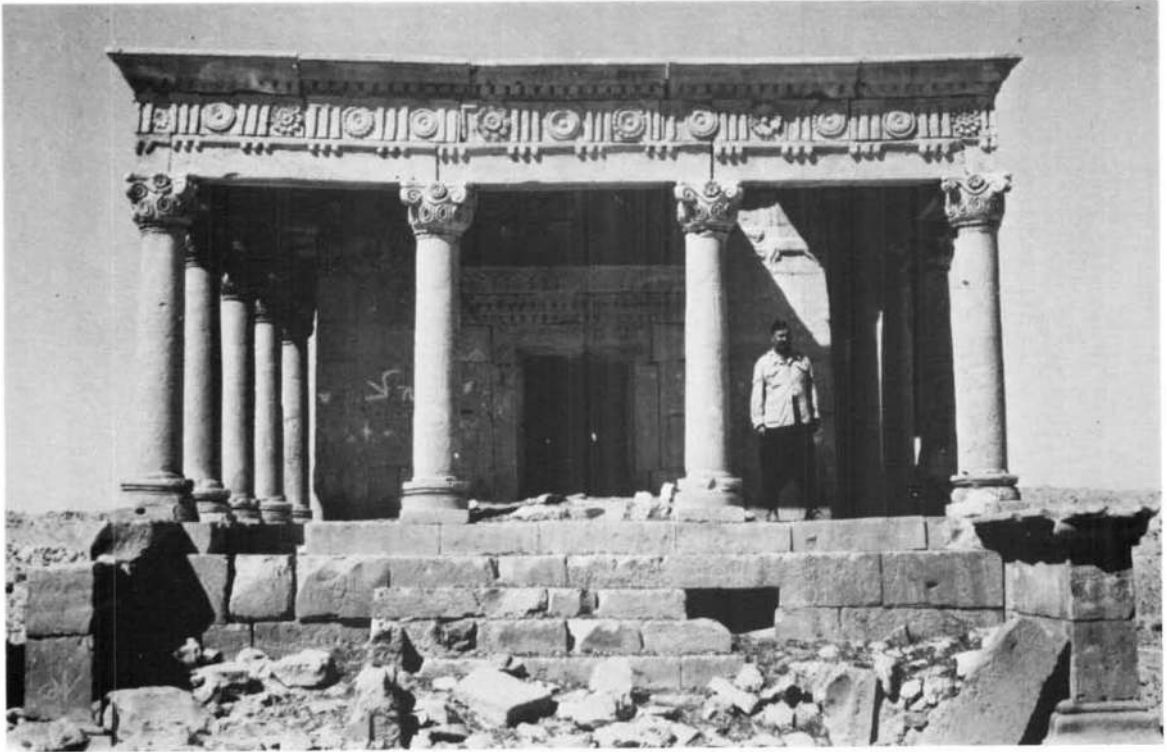
b

45. a. N. Tombs. Lady Dean. (p. 121)  
b. S. Tombs. D.A.T. (p. 121)





46. Aerial view of N. Tombs, Cemetery 4, and Arab winter huts. H. Braeuner. (pp. 107, 121, 124)



a



b

47. Tomb N. A.  
a. E. side, 1952. N. Del. (p. 121)  
b. S. side. E.S. (p. 122)

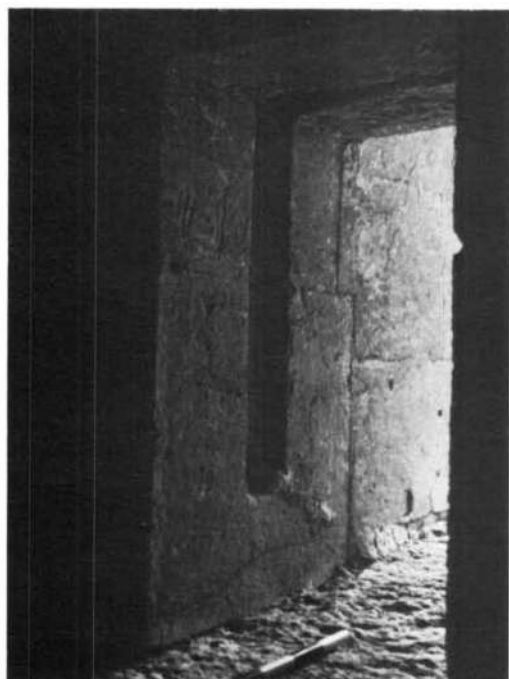


a

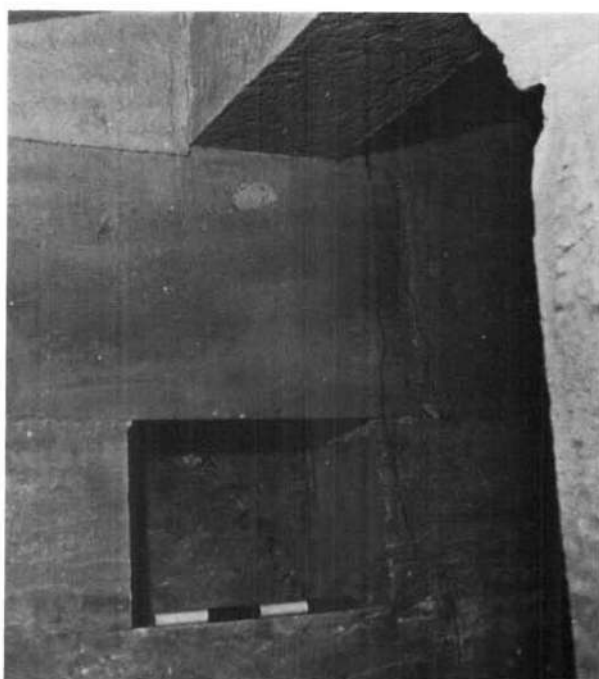


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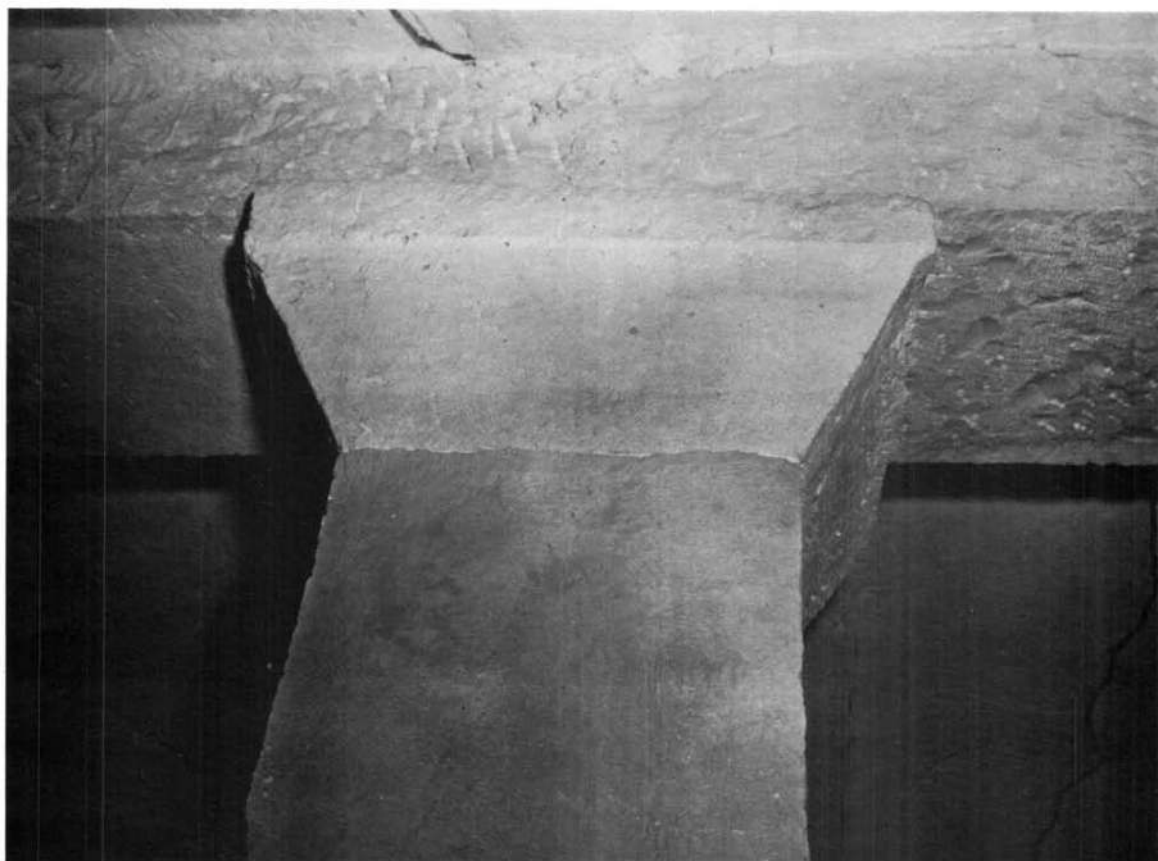
48. Tomb N.A.  
a. W. side. M.H.B. (pp. 123, 124, 218)  
b. N. side. M.H.B. (pp. 123, 124)



a



b



c

49. Tomb N.A.

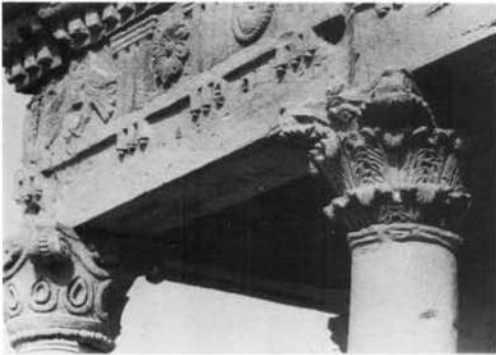
a. Entrance to lower chamber. M.H.B. (p. 122)

b. Niche in lower chamber. M.H.B. (p. 122)

c. Lower chamber showing central pillar. M.H.B. (p. 122)



a



b



c



d

50. Tomb N. A.  
a. Steps of podium. (p. 121)  
b. W. side, Corinthian capital and N. end of frieze. (p. 124)  
c. Upper chamber, floor and column. D.J.S. (p. 122)  
d. Upper chamber, roof and supporting column. M.H.B. (p. 122)



a



b

51. Tomb N.A.

a. Inscription and frieze above doorway, eagles and hares. D.A.T. (p. 123)

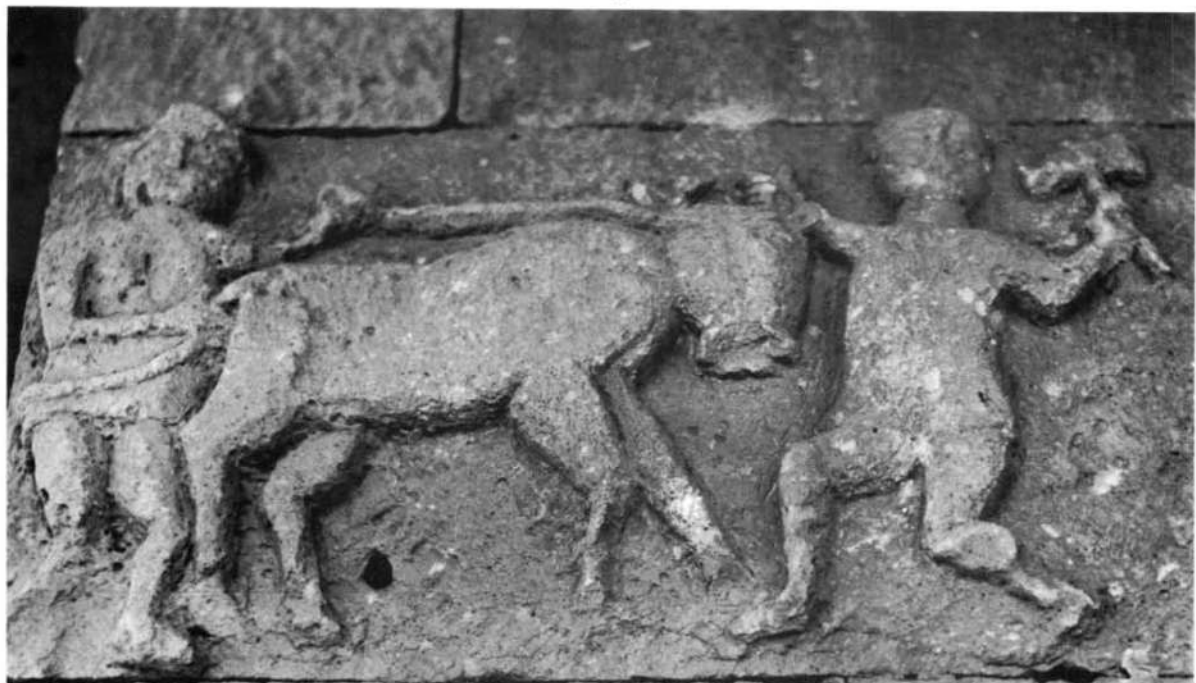
b. Inscription. M.H.B. (p. 260)



a



b



c



d

52. Tomb N. A.

a. Eagle and hare, left. (p. 217)  
b. Eagle and hare, right. (p. 217)

c. Sacrifice. D.A.T. (p. 123)

d. Lion and prey on E. side. N. Del. (p. 123)



a



b

53. Tomb N. A.  
a. Busts on S. side. E.S. (p. 123)  
b. Detail. E.S.





a



b

54. Tomb N. A.  
a. Capital on E. side. D.A.T. (pp. 124, 210)  
b. Capital on S.E. corner. D.A.T. (p. 124)



a



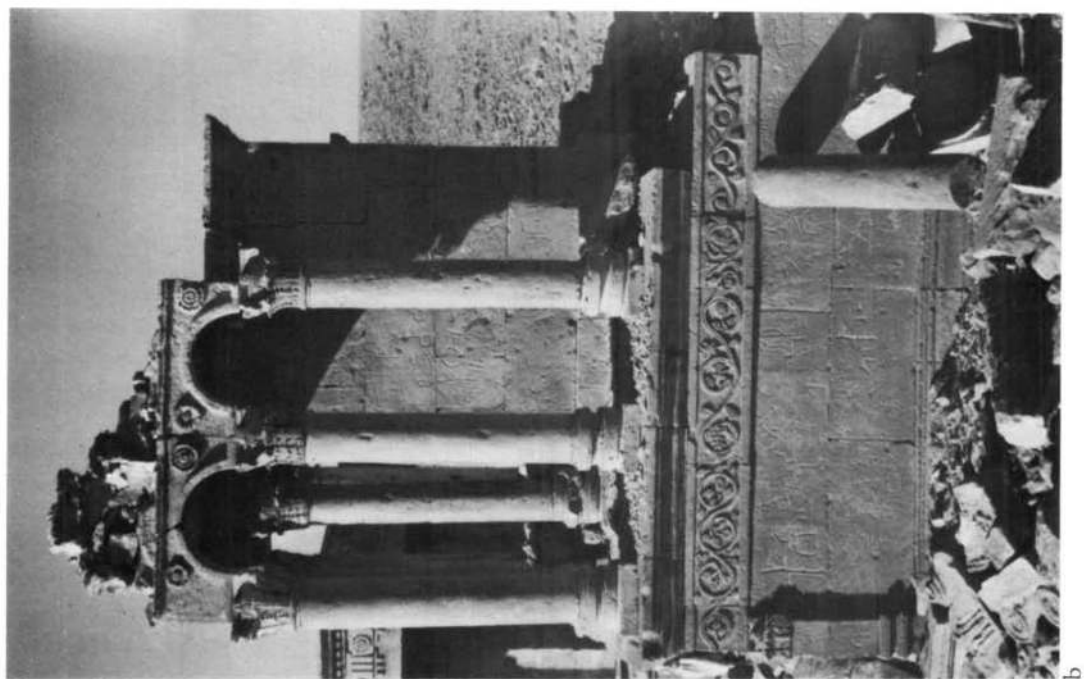
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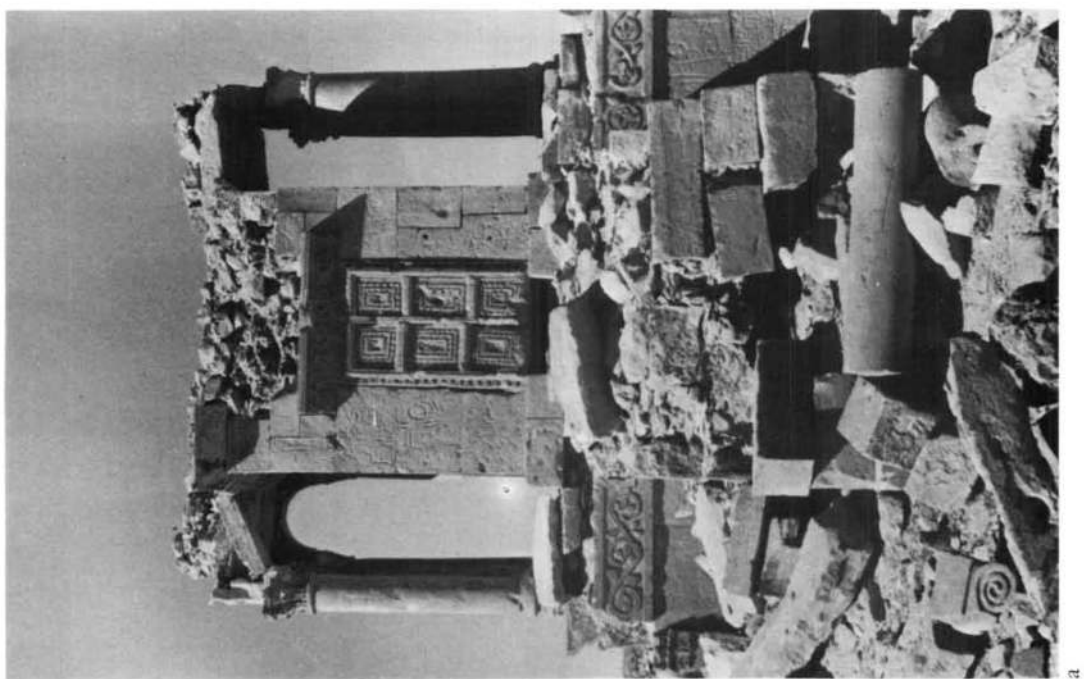
c

55. Tomb N. A.

- a. Two figures fighting. D.A.T. (p. 124)
- b. Horse in upper chamber. D.A.T. (p. 124)
- c. Horse on external N. wall of cella. D.A.T. (p. 125)

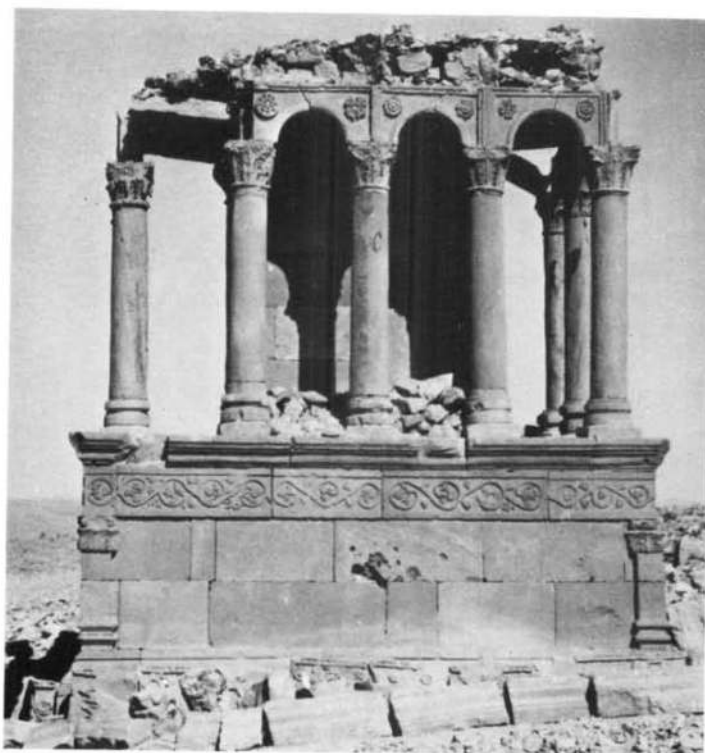


b



a

56. Tomb N.B.  
a. E. side. D.A.T. (p. 135)  
b. S. side. D.A.T. (p. 135)



a



b

57. Tomb N.B.  
a. W. side. D.A.T. (p. 135)  
b. N.W. corner. D.A.T. (p. 135)



a



b

58. Tomb N.B.

a. Scroll of podium frieze. D.A.T. (p. 134)

b. Inside funerary chamber showing offering duct. M.H.B. (p. 134)



a



b



c

59. Tomb N.B.

a. Lintel and upper part of false door. D.A.T. (p. 134)

b. False door. D.A.T. (p. 134)

c. Victory 1. D.A.T. (p. 140)



a



b

60. Tomb N.B.  
a. Detail of Victory on arch-head. D.A.T. (p. 136)  
b. Inscription. D.A.T. (pp. 134, 261)



a



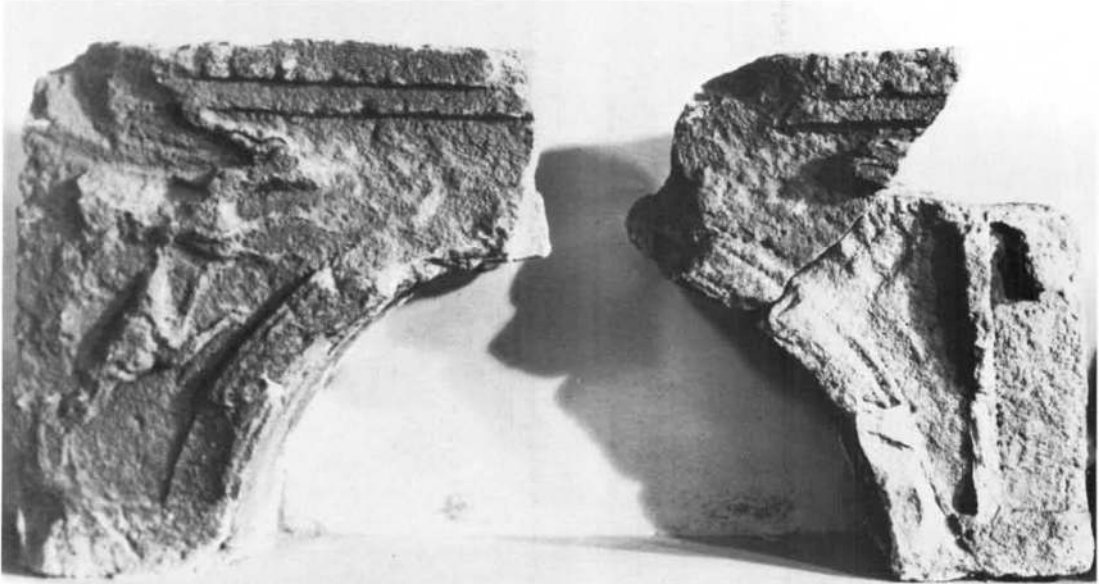
b

61. Tomb N.B.  
a. Arch-head 1, victories. N. Del. (p. 136)  
b. Arch-head 4, fight. N. Del. (p. 136)





a



b

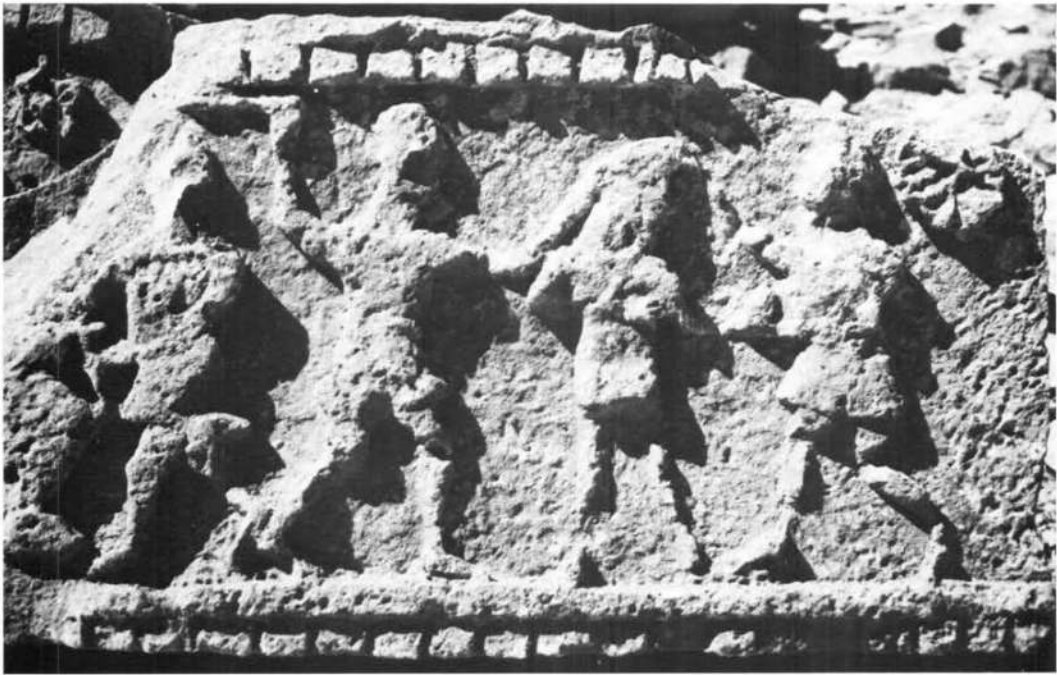
62. Tomb N.B.

a. Arch-head 2, ostrich and huntsman. D.A.T. (p. 136)

b. Arch-head 3, antelope, hound, and date-palm. D.A.T. (p. 136)



a



b



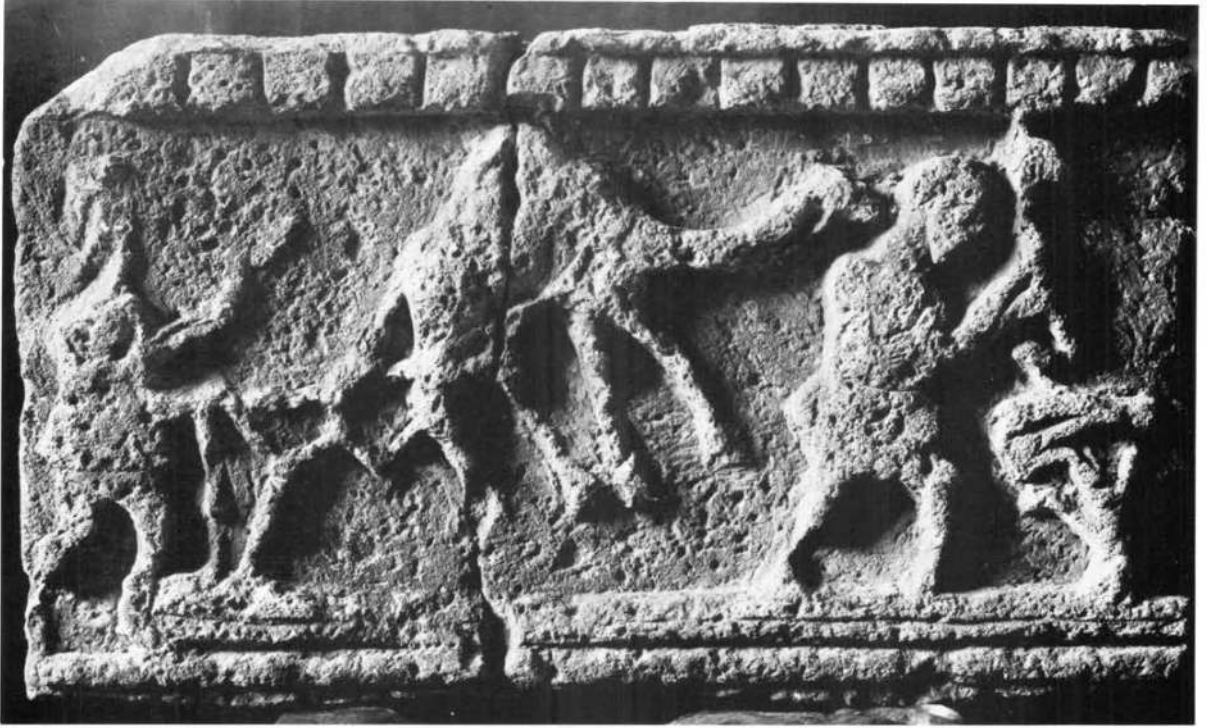
c

63. Tomb N.B.

a. Chieftain, stone 1. N. Del. (pp. 137, 223)

b. Four figures, stone 2. D.A.T. (pp. 137, 224)

c. Reconstruction in Tripoli Museum. D.A.T. (p. 137)



a



b

64. Tomb N.B.

a. Ploughing with camel, man chopping down bush, stone 4. Istanbul. (p. 137)

b. Horse and ox ploughing, stone 3. D.A.T. (p. 137)



a



b

65. Tomb. N. B.  
a. Ploughing and sowing, stone 5. Istanbul. (p. 137)  
b. Camel and young, stone 6. Istanbul. (p. 137)



a



b



c

66. Tomb N.B.  
a. Reaping, stone 7. D.A.T. (p. 138)  
b. Reconstruction of frieze. D.A.T. (p. 138)  
c. Reaping, stone 8. D.A.T. (p. 138)



a



b

67. Tomb N.B.

a. Threshing and winnowing, stone 9: note cattle. D.A.T. (p. 138)

b. Camel caravan, stone 10. D.A.T. (p. 138)



a



b



c

68. Tomb N.B.

- a. Lion hunt, stone 11. D.A.T. (p. 138)
- b. Fight with stag and bull, stone 12. D.A.T. (p. 138)
- c. Cheetah or leopard hunt, stone 13. D.A.T. (p. 138)



a



b

69. Tomb N. B.

a. Ostriches, stone 14. Istanbul. (p. 139)

b. Horsemen, stone 15. Istanbul. (p. 139)





a



b

70. Tomb N.B.

a. Hare hunt, stone 16. D.A.T. (p. 139)

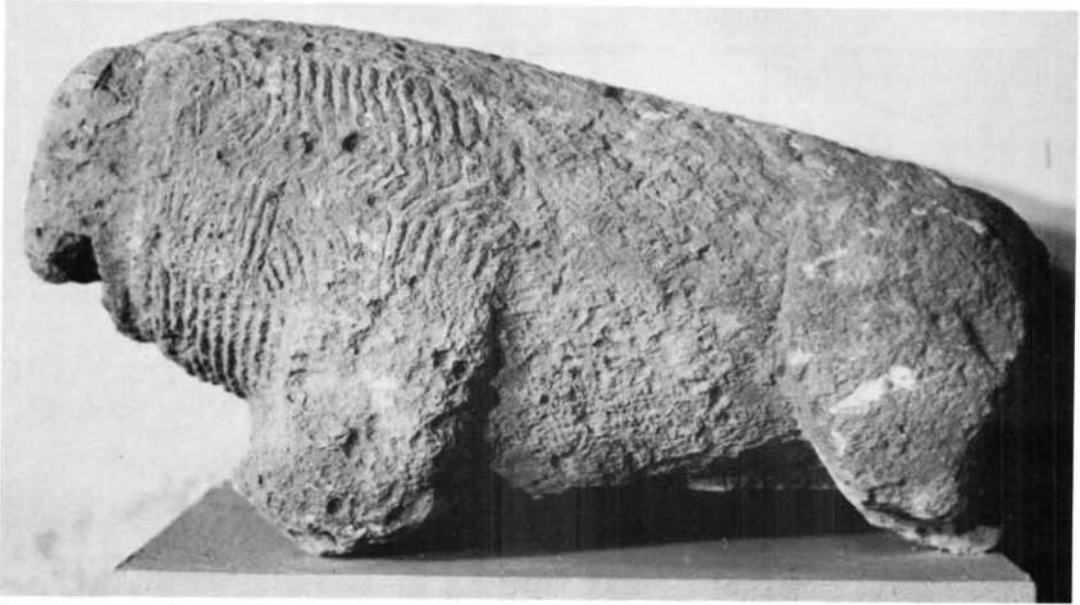
b. Palm trees, stone 17. D.A.T. (p. 139)



a

b

71. Tomb N.B.  
a. Rosette, stone 18. D.A.T. (p. 139)  
b. Victory 2. D.A.T. (p. 140)



a



b

72. Tomb N.B.  
a. Lion. D.A.T. (pp. 140, 216)  
b. Lioness. D.A.T. (pp. 140, 216)

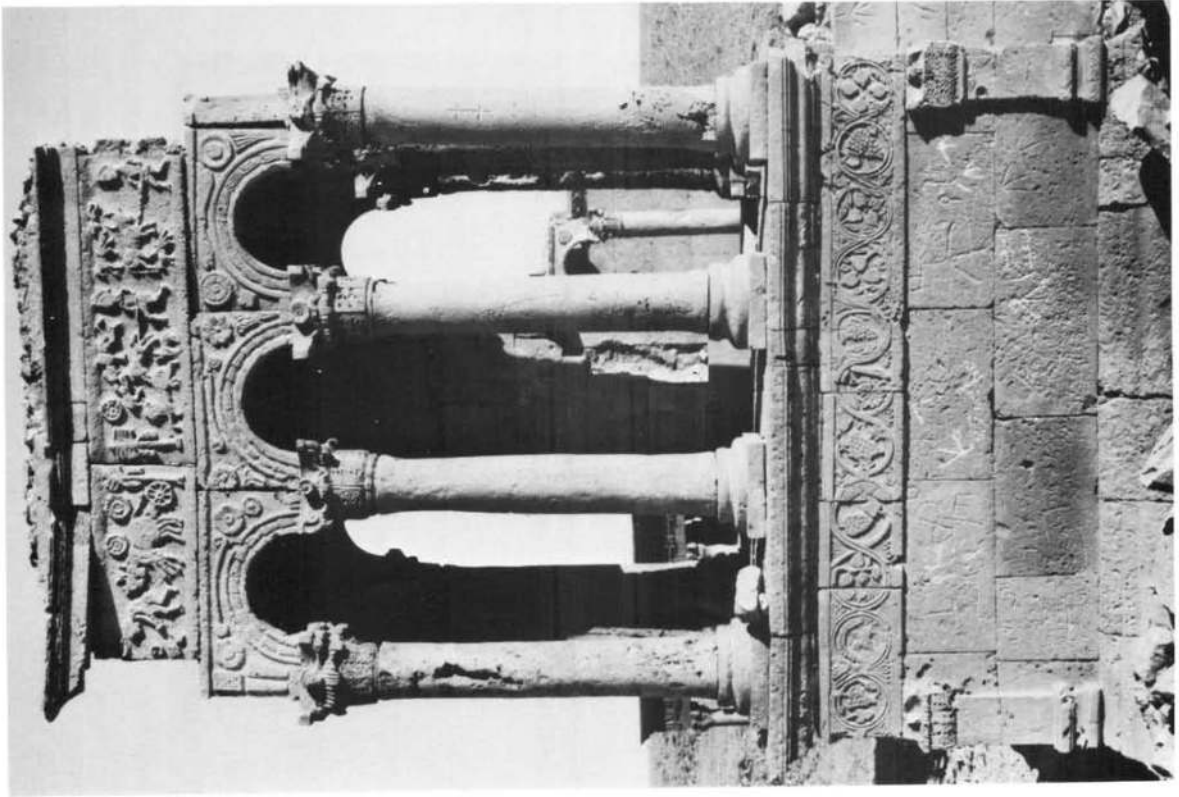
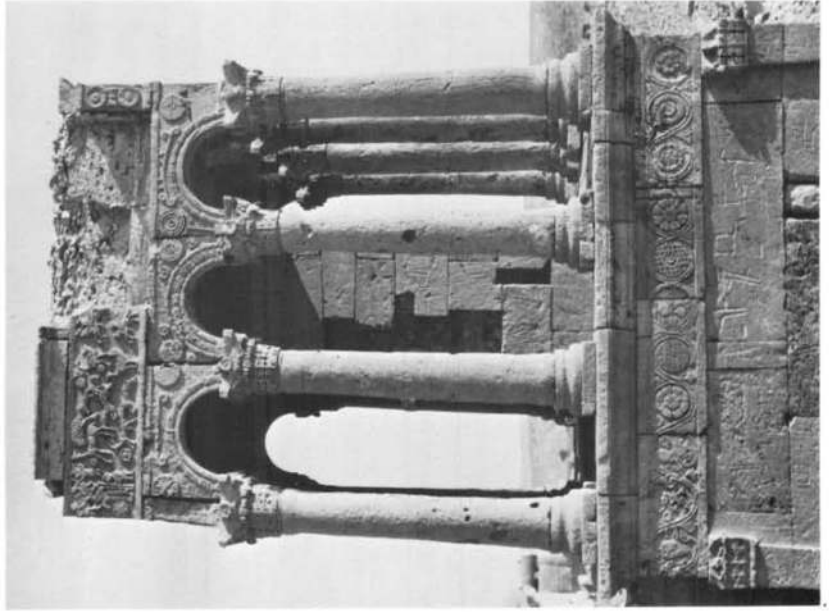


a



b

73. Tomb N. C.  
a. Tombs C and B, the S. sides. D.A.T. (p. 151)  
b. Scroll on Tomb C. D.A.T. (p. 151)



74. Tomb N. C.  
a. S. side. D.A.T. (pp. 210, 211)  
b. N. side. D.A.T. (p. 154)



75. Tomb N. C,W. side. D.A.T. (p. 151)



a



b

76. Tomb N. C.  
a. Inscription. D.A.T. (pp. 151, 261)  
b. False door. D.A.T. (p. 151)



a



b



c

77. Tomb N. C.  
 a. Camel ploughing, stone 1. D.A.T. (p. 152)  
 b. Isiguar stone, stone 1a. Istanbul. (pp. 152, 261)  
 c. Offering duct in tomb chamber. M.H.B. (p. 151)





78. Tomb N. C, chieftain, stone 2. Istanbul. (pp. 153, 223, 224, 231)



a



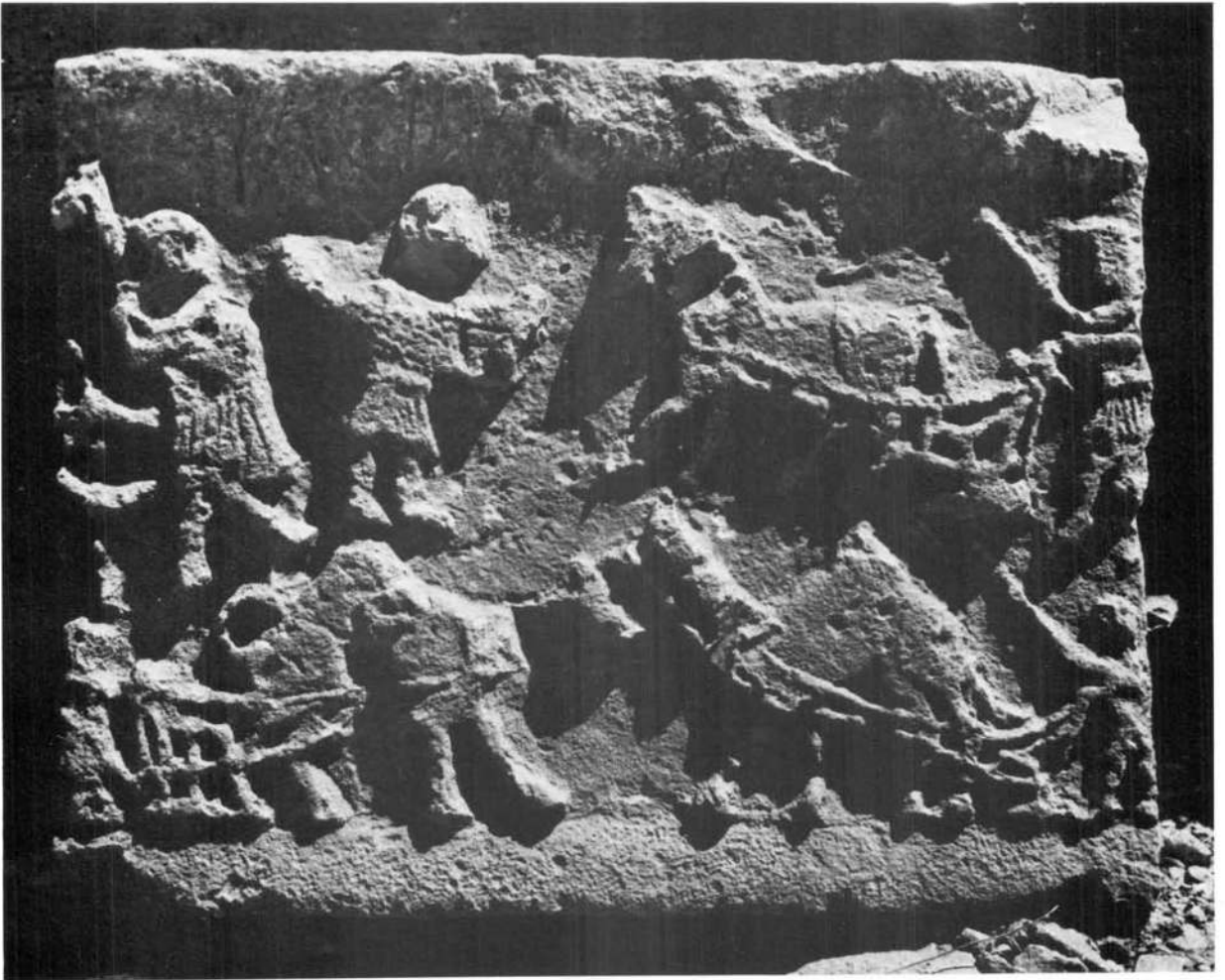
b



c

79. Tomb N. C.

- a. Rosette, stone 3; execution, stone 4. M.H.B. (pp. 153, 224)
- b. Men and animal, stone 3a. Istanbul. (p. 153)
- c. Agricultural and hunting scene, stone 4a. M.H.B. (p. 153)



a

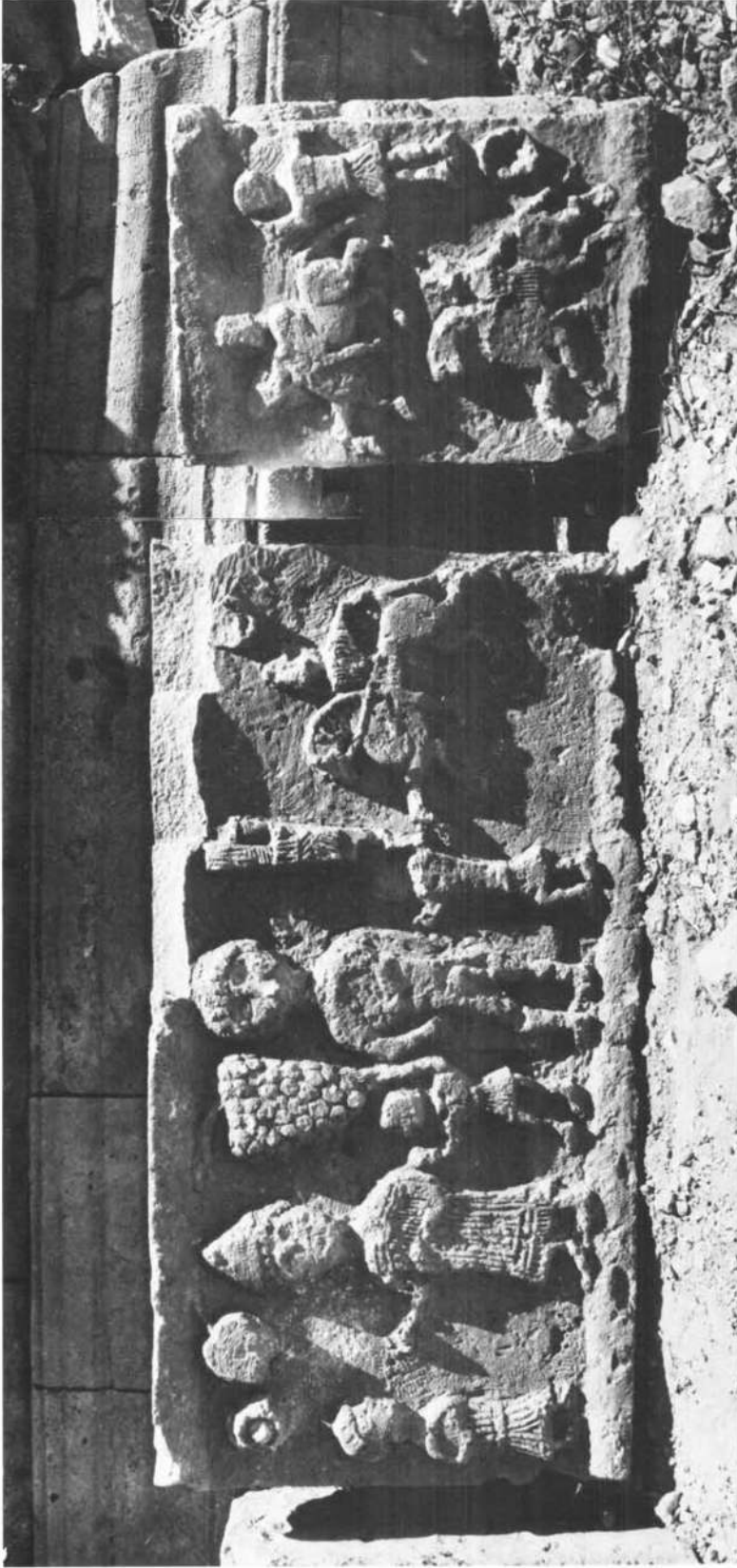


b

80. Tomb N. C.

a. Ploughing, stone 5, with inscription. D.A.T. (pp. 154, 262)

b. Two figures, stone 6. Istanbul. (p. 154)



81. Tomb N. C, standing figures and horsemen, stone 8. D.A.T. (p. 154)



a



b



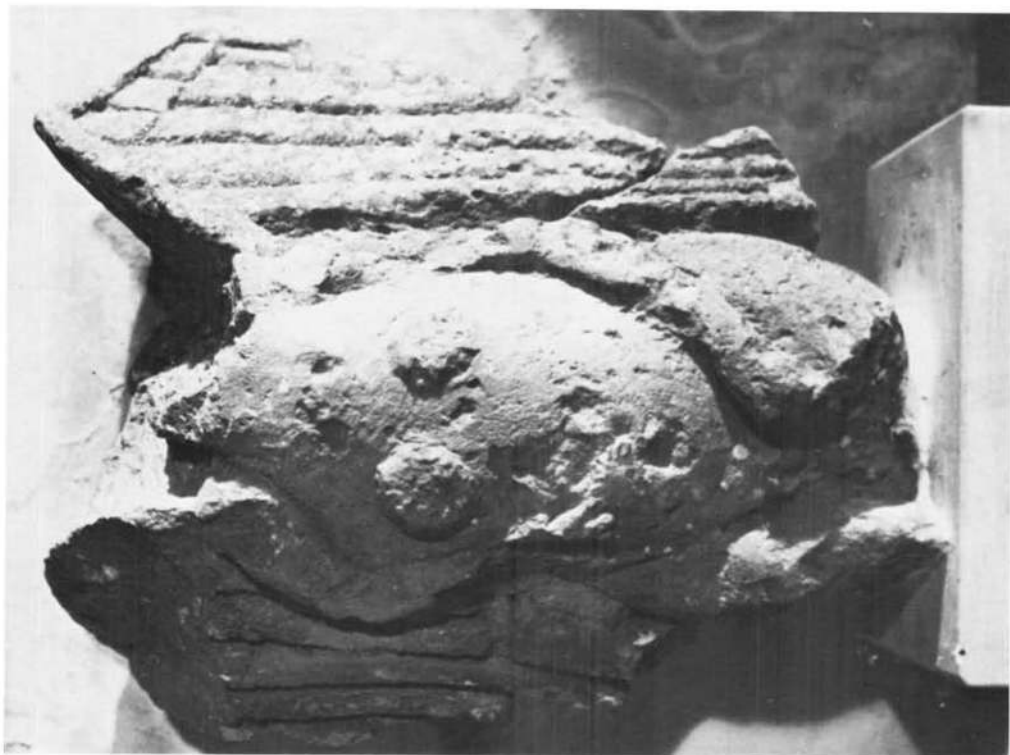
c

82. Tomb N.C.

a. Garden scene, stone 7. M.H.B. (p. 154)

b. Standing figure, stone 8a. D.A.T. (p. 154)

c. Agricultural scene, stone 9; hunting scene, stone 10. D.A.T. (p. 154)



a



b

83. Tomb N.C.  
a. Hunting scene, stone 11. Istanbul. (p. 155)  
b. Siren. D.A.T. (p. 155)



a



b

84. a. Tombs D, E, and F, N. and E. sides. D.A.T.

b. Arch-head with palm trees (D), a roof spiral (D), and a piece of frieze (E). D.A.T. (p. 160)



a



b

85. Tomb N.D.

a. Entrance to lower chamber, S. side. M.H.B. (p. 160)

b. Masonry of podium showing criss-cross chisel marks. M.H.B. (p. 160)





a



b



c

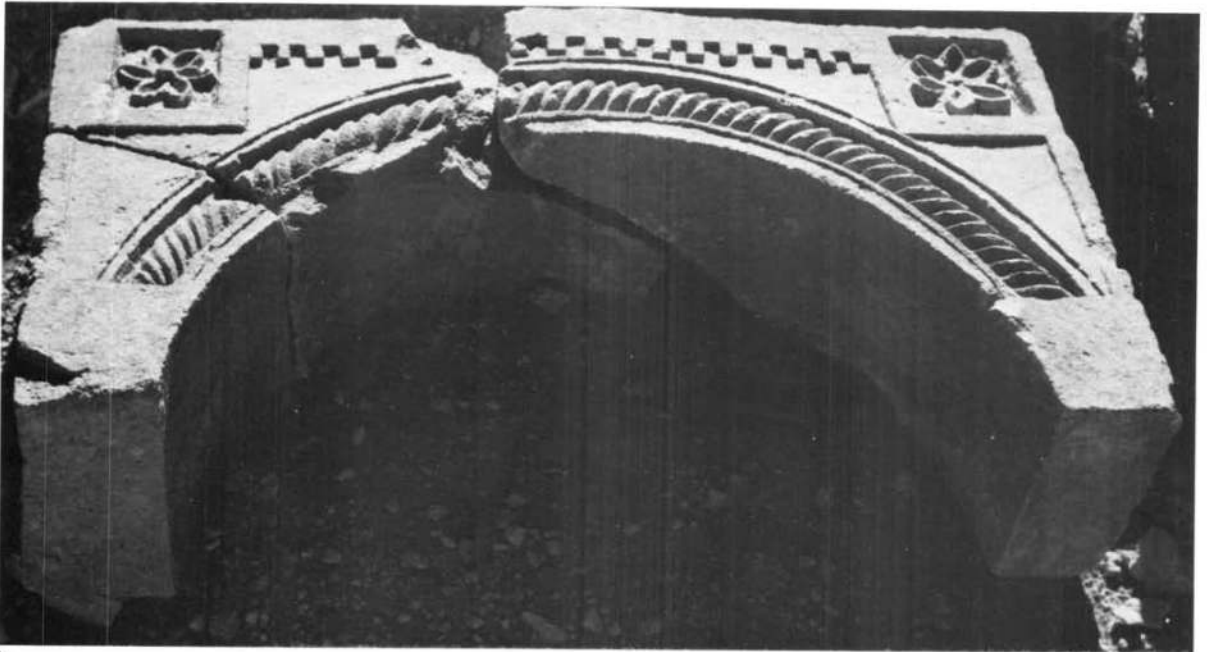


d

86. a. Tomb N. D, stone 3, ostrich hunt. D.A.T. (p. 161)  
b. Tomb N.D, stone 2, vine and grapes. D.J.S. (p. 160)  
c. Tomb N.E, arch-head 3. (p. 166)  
d. Tomb N. D, stone 7, two fish. D.A.T. (p. 166)



a



b

87. Tomb N.E.

a. Arch-head 1. D.A.T. (p. 166)

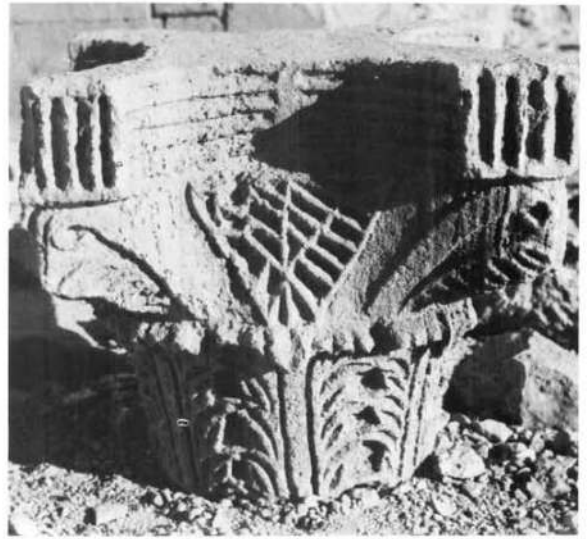
b. Arch-head 2. D.A.T. (p. 166)



a

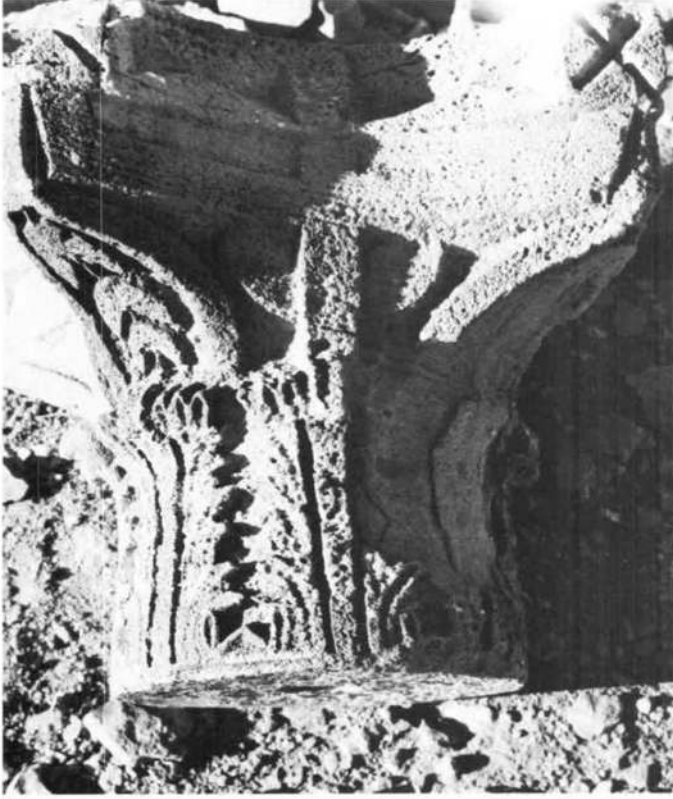


b



c

88. a. Capitals from Tombs North D and E; recent Arab winter huts in background. J. Lush. (pp. 166, 211)  
b, c. Capitals from Tomb N.E. D.A.T. (pp. 166, 211)



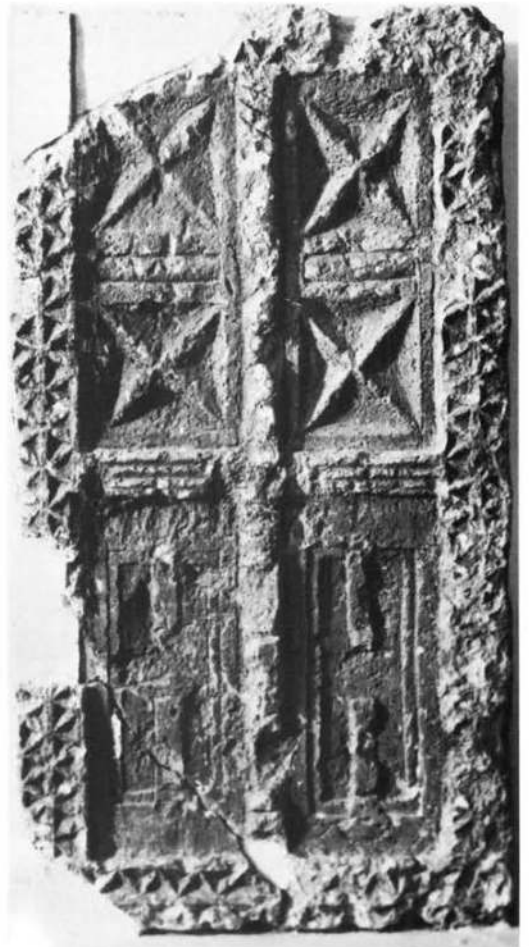
a



b



c



d

89. Tomb N. E.  
a-c. Capitals. D.A.T. (pp. 166, 211)  
d. False door. D.A.T. (p. 166)



a



b



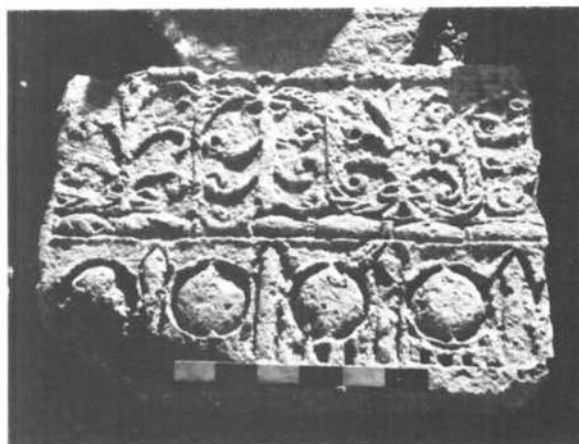
c

90. Tomb N. E.

- a. Peacock etc., stone 1. D.A.T. (pp. 167, 217)
- b. Animals and birds, stone 3. D.A.T. (p. 167)
- c. Animals, ostrich hunt, stone 4. D.A.T. (p. 167)



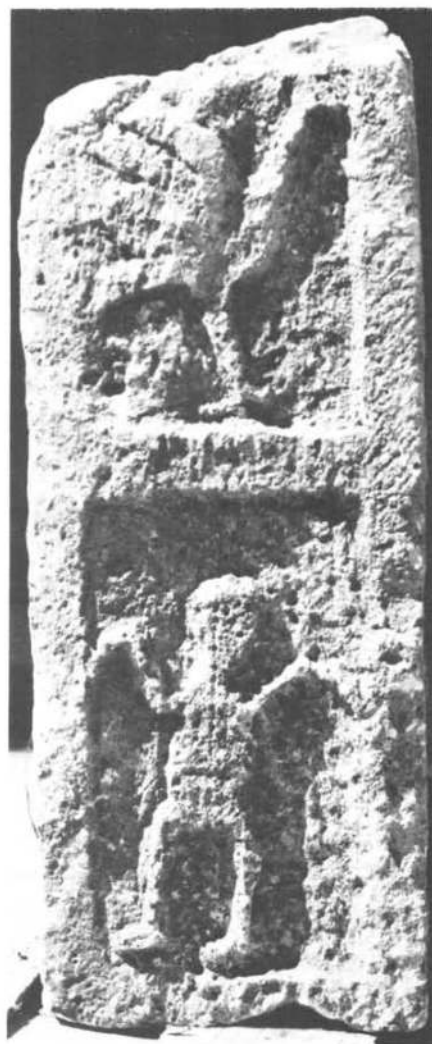
a



b



c



d

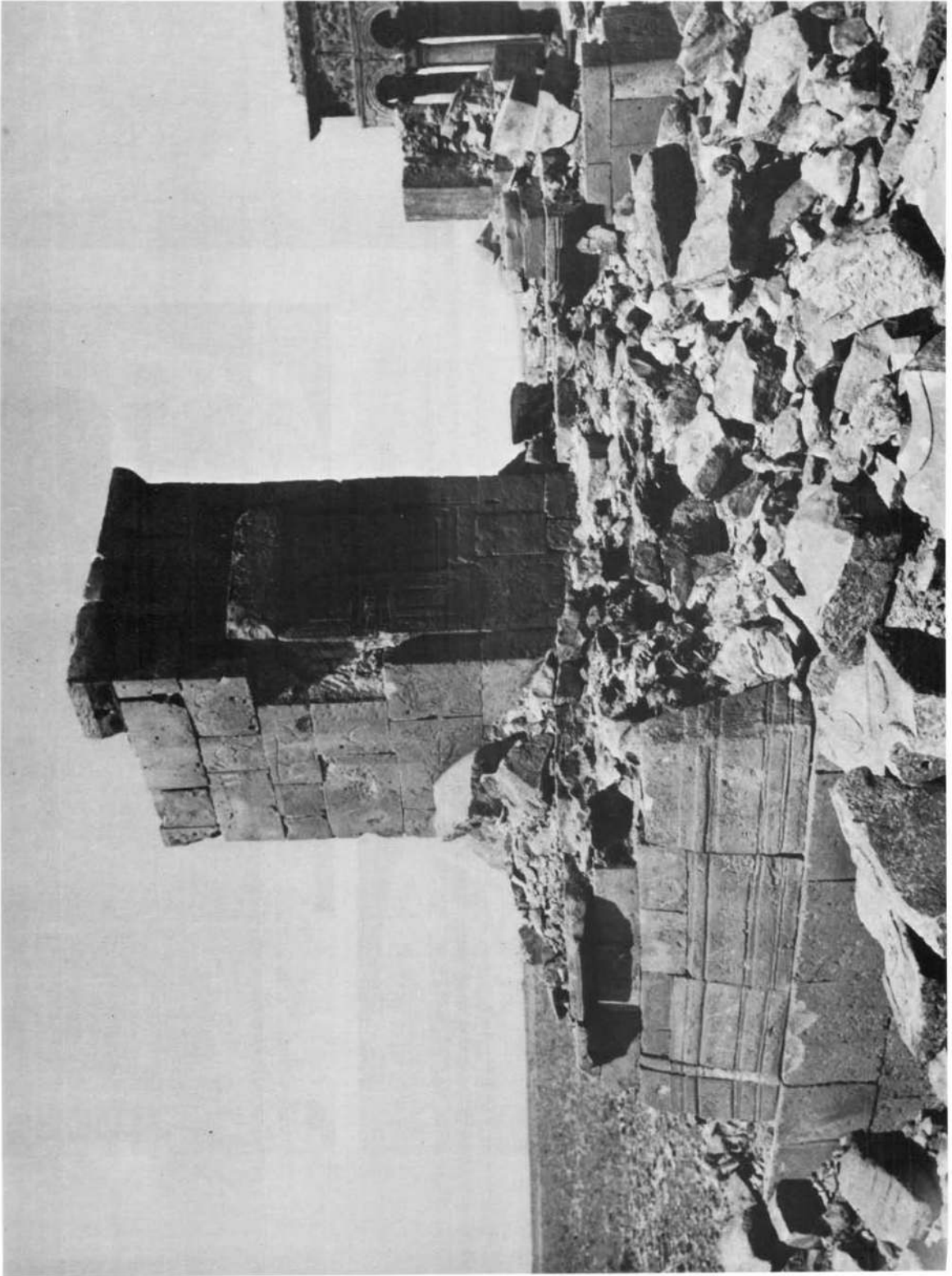
## 91. Tomb N.E.

a. Frieze with anthemion, stone 6. D.A.T. (p. 167)

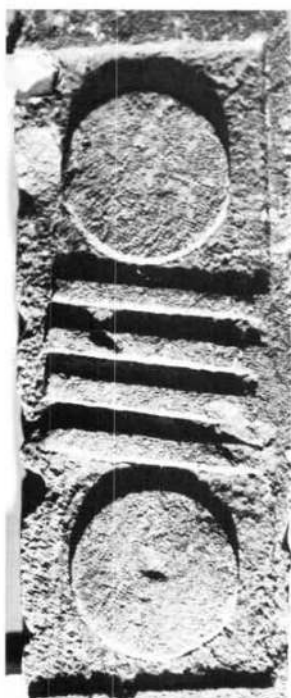
b. Frieze with anthemion, stone 8. D.A.T. (p. 167)

c. Frieze with triglyph, roundel, chip-carving, stone 9. D.A.T. (p. 167)

d. Bird and man, stone 2. D.A.T. (p. 167)



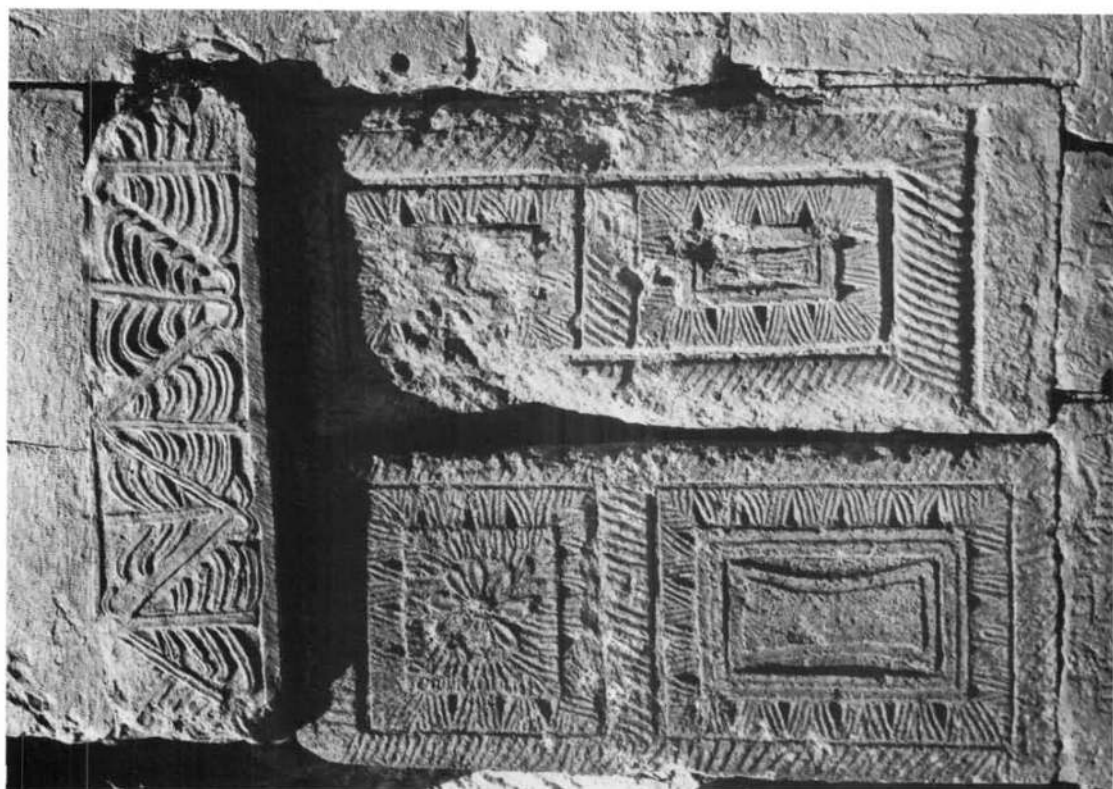
92. Tomb N.F, from the S. E. D.A.T. (p. 170)



b



c



a

93. Tomb N. F.  
a. False door. D.A.T. (p. 170)  
b. Piece of frieze. D.A.T. (p. 170)  
c. Capital. D.A.T. (pp. 170, 211)





a



b



c

94. Tomb N.G.  
a. Pre-war photograph showing remaining facing stones. D.A.T. (p. 178)  
b, c. Stones found near the N. Tombs. D.J.S. (p. 181)



a



b



c



d



e

95. Tomb N. G.  
 a. Outer chamber. D.J.S. (p. 178)  
 b. Inner chamber. D.J.S. (p. 178)  
 c. 'Triple' quern. D.J.S. (p. 178)

- Tomb S.B.  
 d. Outer chamber. D.J.S. (p. 178)  
 e. Inner chamber. M.H.B. (p. 178)



a

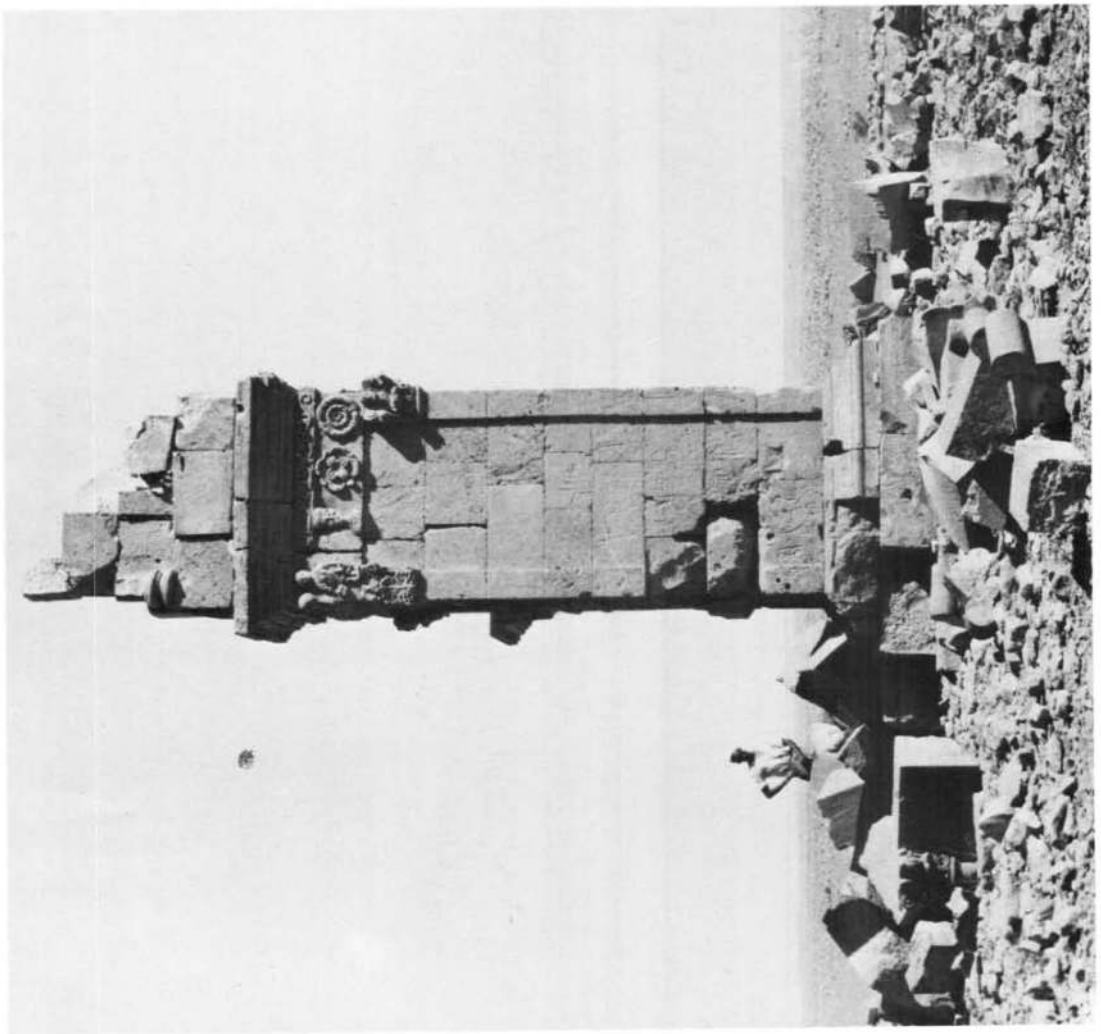


b

96. Tomb S. A.

a. Bauer's photograph. (p. 184)

b. Obelisk tomb, Mselletin, Wadi Merdum. D.E.L. Haynes. (p. 212, n. 2)



97. Tomb S. A.  
a. W. side. D.A.T. (p. 184)  
b. N. side. D.A.T. (p. 184)



98. Tomb S.A, from the S.E. The Wadi Ghirza is in the background. D.A.T. (p. 182)



a



b

99. Tomb S.A.  
a. N. frieze. D.A.T. (pp. 184, 210, 211, 222)  
b. W. frieze. O.B. (pp. 184, 211, 222)



a



b



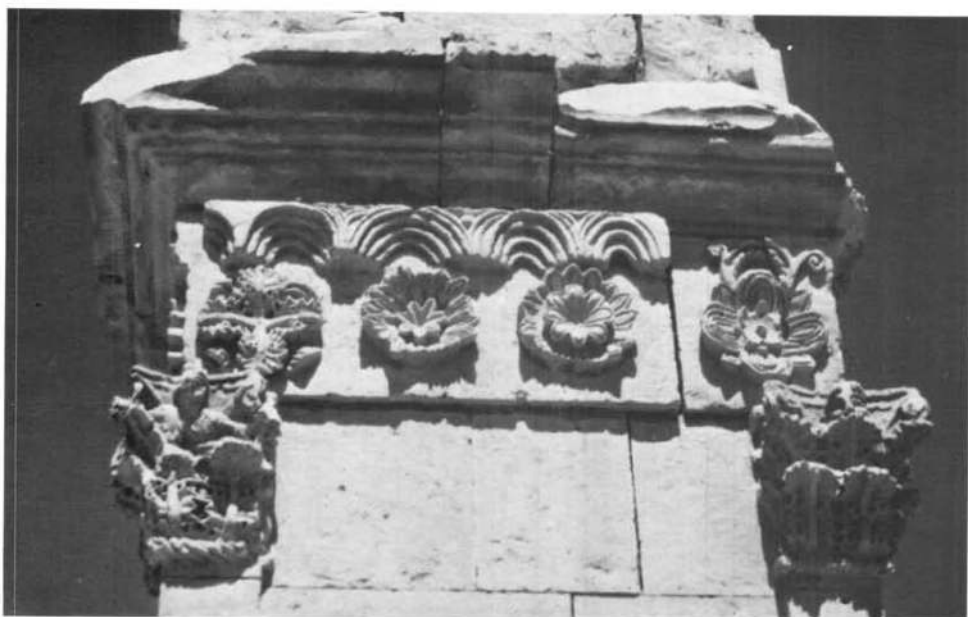
c

100. Tomb S.A.

a. W. side, W. end. O.B. (p. 211)

b. S. side, W. end. O.B. (p. 211)

c. Complete S. frieze. O.B. (pp. 184, 216)



a



b



c

101. Tomb S.A.

a. Complete E. frieze. O.B. (p. 184)

b. Fallen rosette. D.J.S. (p. 185)

c. Engaged capital from second storey. N. Del. (p. 185)





a



b



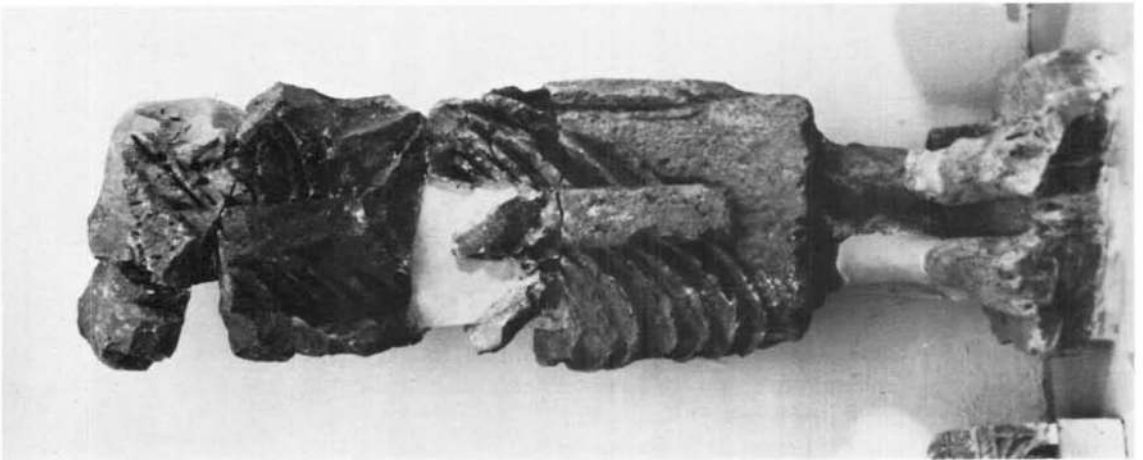
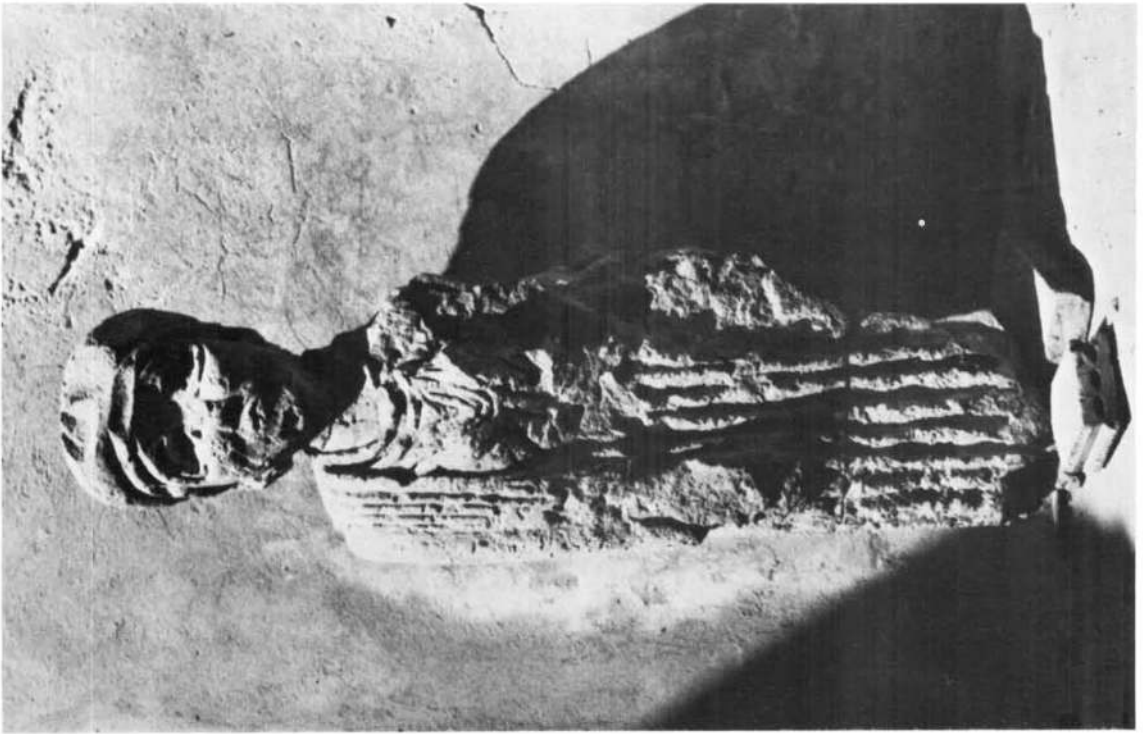
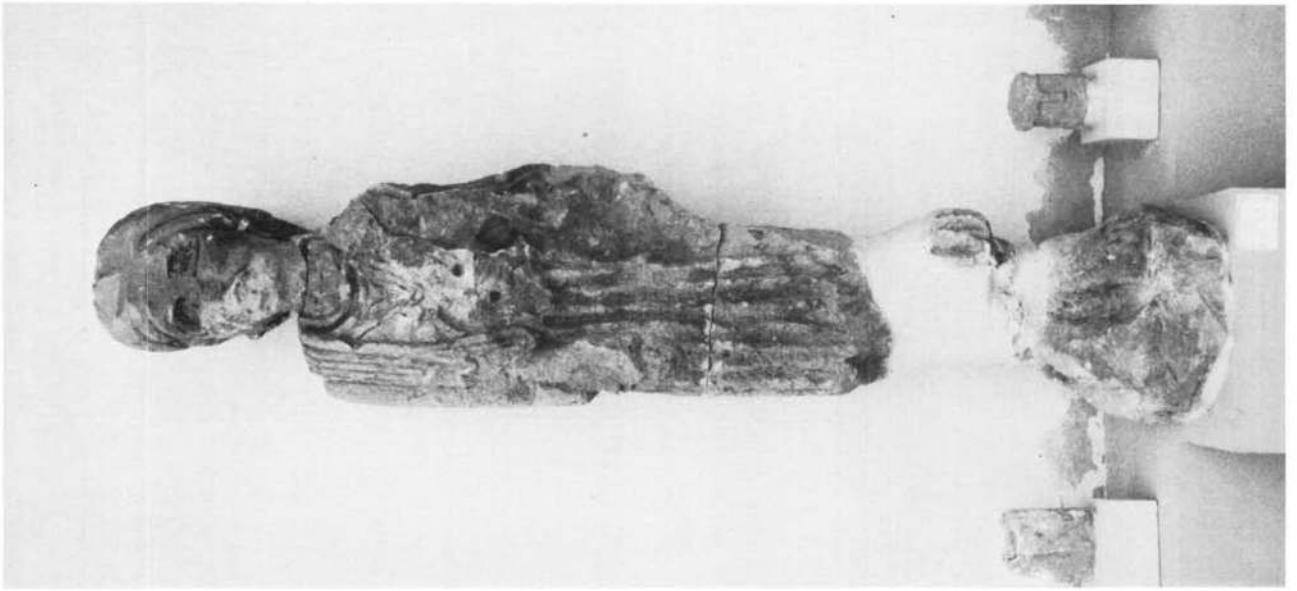
c

102. Tomb. S.A.

a. Libation channel with part of entrance to funerary chamber. D.A.T. (p. 182)

b. Decorated stone from second storey, rosette and animal (?). D.A.T. (p. 185)

c. Decorated stone from second storey, scorpion and phallus. D.A.T. (p. 185)



103. Tomb S.A, statue. D.A.T. (p. 185)



a



b

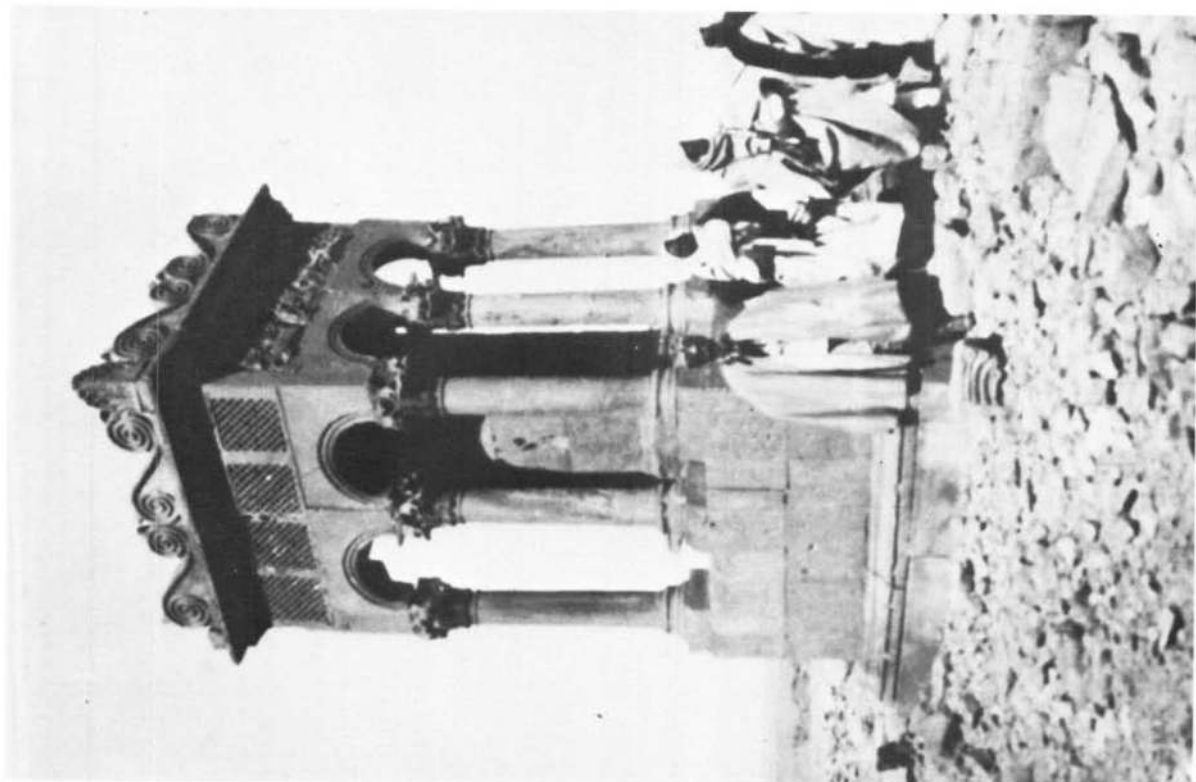


c

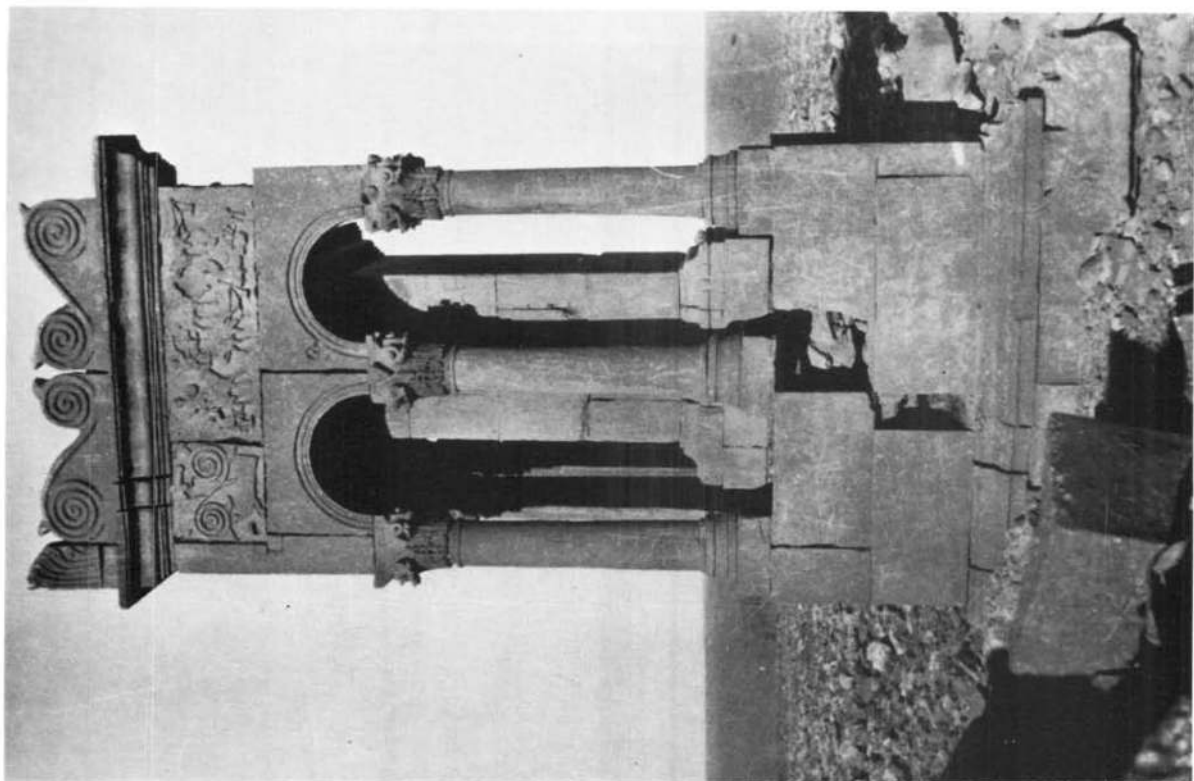


d

104. Tomb S.A.  
a. The crowning capital, inner side, and pine cone. M.H.B. (p. 185)  
b. The crowning capital. D.A.T. (pp. 185, 210)  
c. Pine-cone with anchoring block. O.B. (p. 185)  
d. Capital from market at Lepcis. D.E. Strong. (p. 185)



b



a

105. Tomb S.C.

a. Bauer's photograph of the E. side. (p. 190)

b. Bauer's photograph of the E. and S. sides. (p. 190)



a



b

106. Tomb S.C.

a. Libation channel. D.A.T. (p. 190)

b. Entrance to funerary chamber with blocking slab *in situ* and part of interior. D.A.T. (p. 190)



a



b



c

107. Tomb S.C.

a. Capital with bunch of grapes. D.A.T. (p. 190)

b. Capital with head. D.A.T. (p. 190)

c. Capital with head (possibly S. D). D.A.T. (p. 190)



a



b

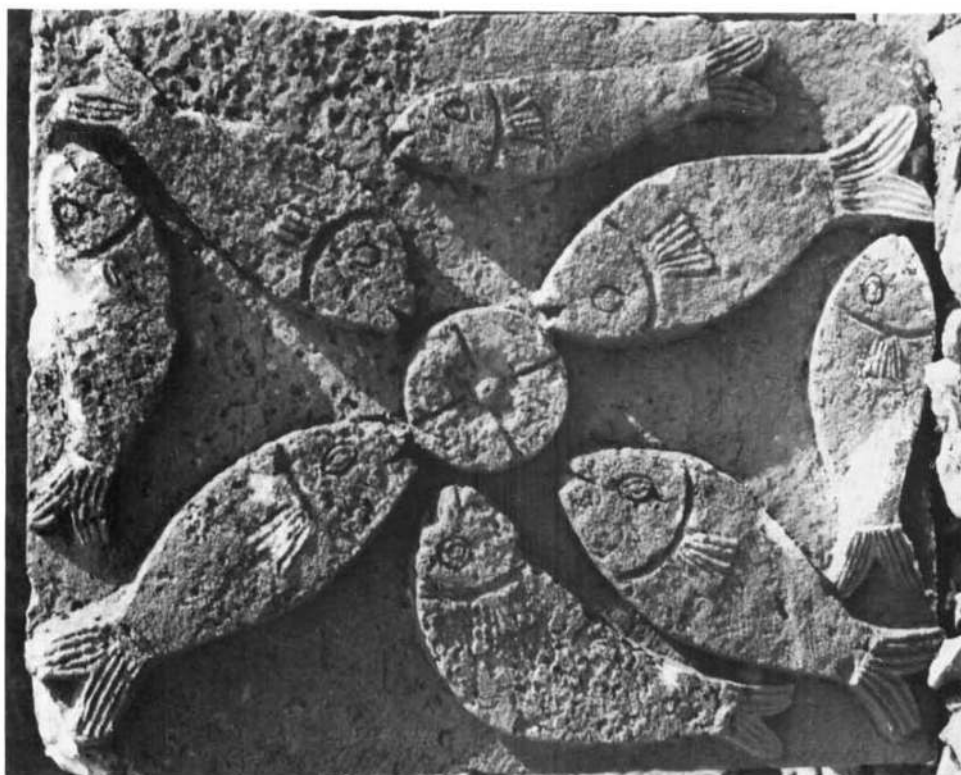
108. Tomb S.C.

a. Busts, stone 1. D.A.T. (p. 190)

b. Beasts, stone 2. D.A.T. (p. 190)



a



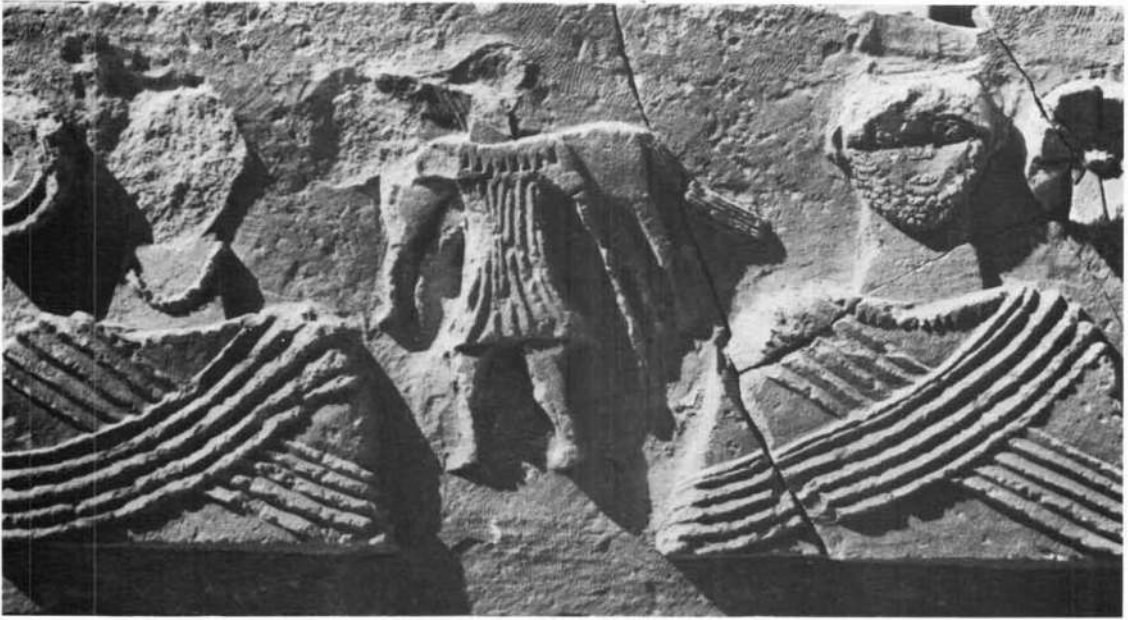
b

109. Tomb S.C.  
a. Peacock and phallus, stone 4. D.A.T. (p. 191)  
b. Fish around rosette, stone 3. D.A.T. (p. 190)





110. Tomb S.C.  
a. Agricultural scene, stone 5. D.A.T. (p. 191)  
b. String of camels, stone 6. D.A.T. (p. 191)



a



b



c

111. Tomb S.D.  
 a. Busts, stone 1. D.A.T. (p. 193)  
 b. Beasts, stone 2. D.A.T. (p. 193)  
 c. Ostrich hunt, stone 3. D.A.T. (p. 193)



a



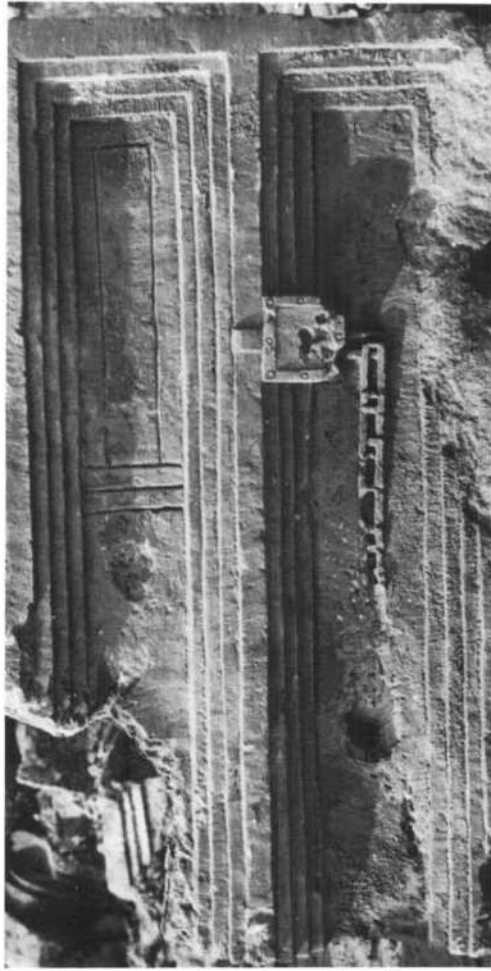
b



c

112. Tomb S.D.

- a. Stag hunt, stone 4. D.A.T. (p. 193)
- b. Tree, stone 5. D.A.T. (p. 193)
- c. Sphinx, stone 6. D.A.T. (p. 194)



a



b

113. Tomb S.E.  
a. False door. D.A.T. (p. 195)  
b. Arch-head. D.A.T. (p. 195)



a



c



d



b



e

114. Tomb S. E.

a. Capitals and S. side. M.H.B. (p. 195)

b. Capitals. D.A.T. (pp. 195, 210)

Capitals from Lepcis.

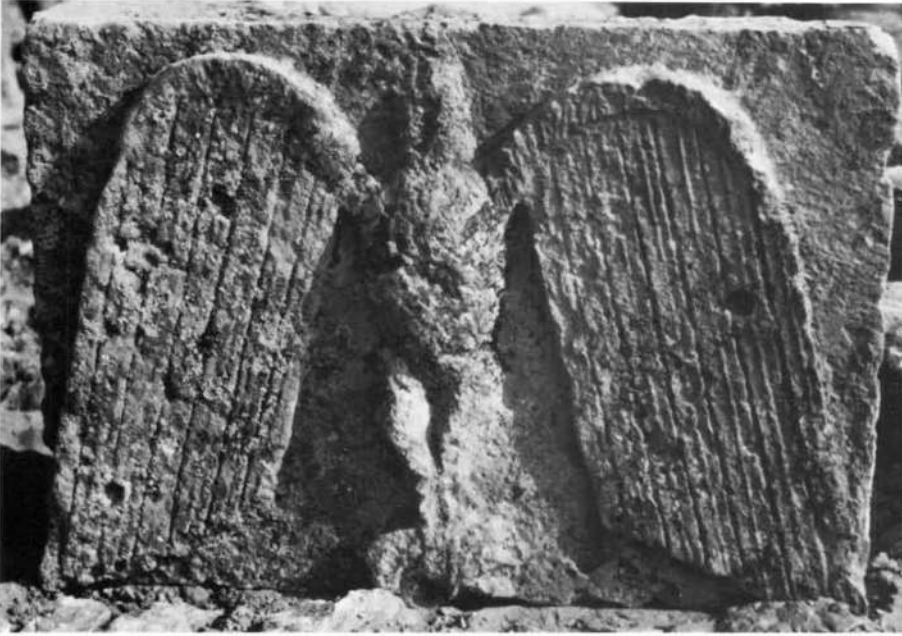
c. Old Forum. D.E. Strong, (p. 210)

d. Palaestra. D.E. Strong, (p. 210)

e. Arch of Sept. Severus. D.E. Strong, (p. 210)



115. Tomb S.E, busts, stone 1. D.A.T. (p. 195)



a



b

116. Tomb S.E.  
a. Eagle with prey, stone 2. D.A.T. (p. 196)  
b. Ostrich and young, stone 2a. D.A.T. (p. 196)



a



b

117. Tomb S.E.  
a. Man and palm tree, stone 3. D.A.T. (p. 196)  
b. Horse, stone 6. D.A.T. (p. 196)





a

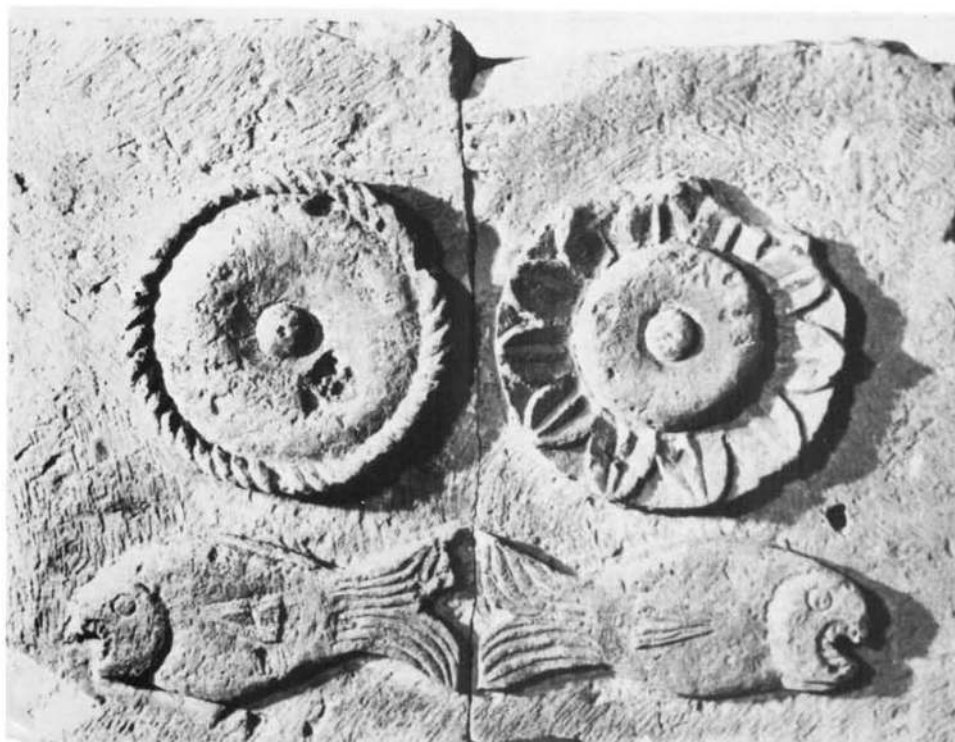


b



c

118. Tomb S.E.  
a. Man and lion, stone 5. D.A.T. (p. 196)  
b. Man, stone 5. D.A.T. (p. 196)  
c. Man, stone 3. D.A.T. (p. 196)



a



b

119. Tomb S.E.

a. Rosettes, stones 8 and 9. D.A.T. (p. 196)

b. Vine stems and rosettes, stone 12. D.A.T. (p. 196)



a

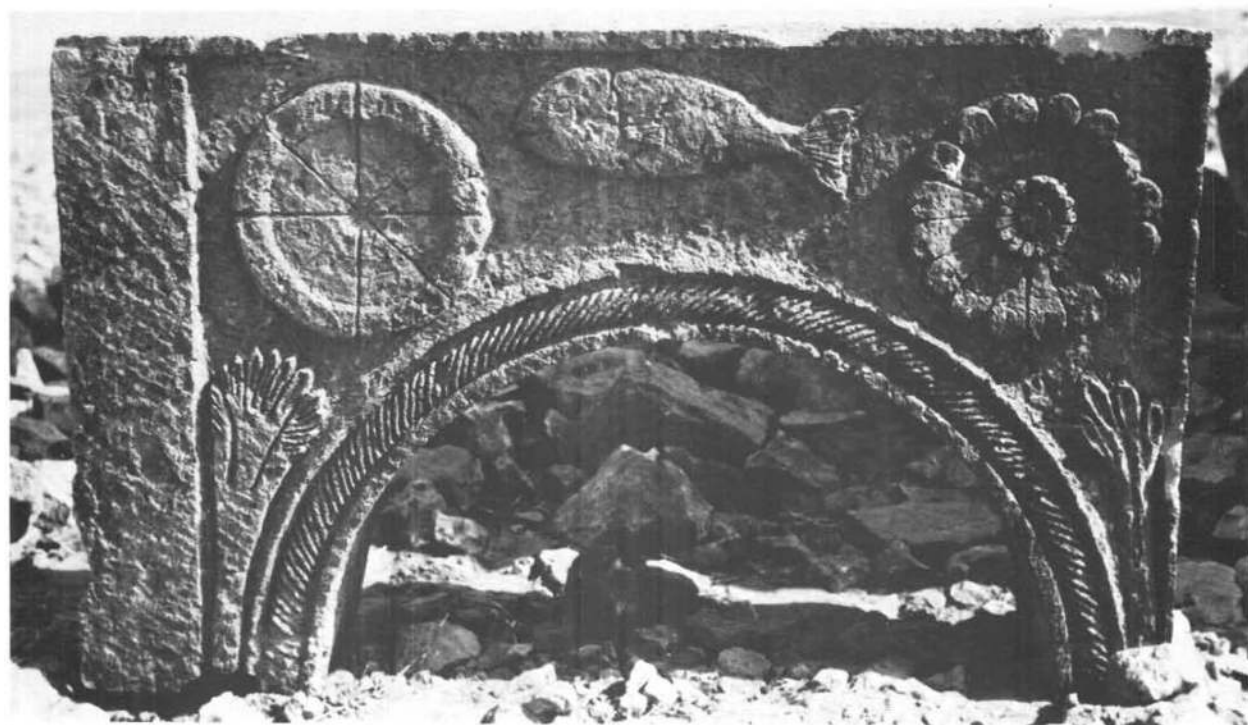


b

120. a. Tomb S. F and Tomb S. G in 1955. D.J.S. (p. 199)  
b. Tomb S.F, N. arch-head 1, vine and palm tree. D.A.T. (p. 199)

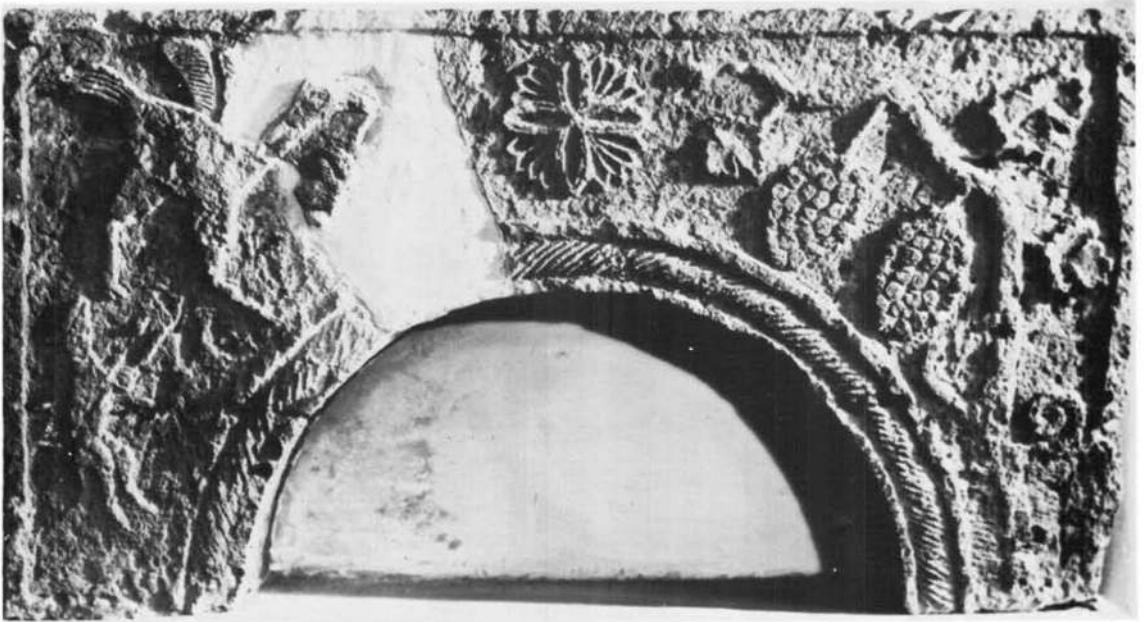


a



b

121. Tomb S. F.  
a. E. arch-head 2, two fish. D.A.T. (p. 199)  
b. S. arch-head 3, one fish. D.A.T. (p. 199)



a



b

122. Tomb S. F.  
a. W. arch-head 4, bird and vine. D.A.T. (p. 199)  
b. Head with calathus and grapes, stone 1. D.A.T. (p. 199)



a



b

123. Tomb S.F.

a. Fight, stone 2. D.A.T. (p. 200)

b. Three figures, stone 3. D.A.T. (p. 200)



a



b



c

124. Tomb S. F.  
a. Two warriors fighting, stone 4. D.A.T. (p. 200)  
b. Horseman and hound, stone 5. D.A.T. (p. 200)  
c. Scroll, stone 9. D.A.T. (p. 200)



a



b



c



d

125. Tomb S. F.

a. Ritual scene, Istanbul 300. Istanbul. (pp. 88, 200, 224)

b, c, d. Fragments of figures, stones 6, 7 and 8. D.A.T. (p. 200)





a



b

126. Tomb S. F.  
a. Two figures, one holding cup, Istanbul 301. Istanbul. (p. 200)  
b. Vintager, Istanbul 302. Istanbul. (p. 200)



a



b

27. Tomb S. G.  
a. Arch-head 1, capitals and N. frieze. D.A.T. (p. 202)  
b. Fallen arch-head 3. D.A.T. (p. 202)



a



b

128. Tomb S. G.

a. Arch-head 2, capitals and E. frieze. D.A.T. (p. 202)

b. Fallen arch-head 4. D.A.T. (p. 202)



a



b



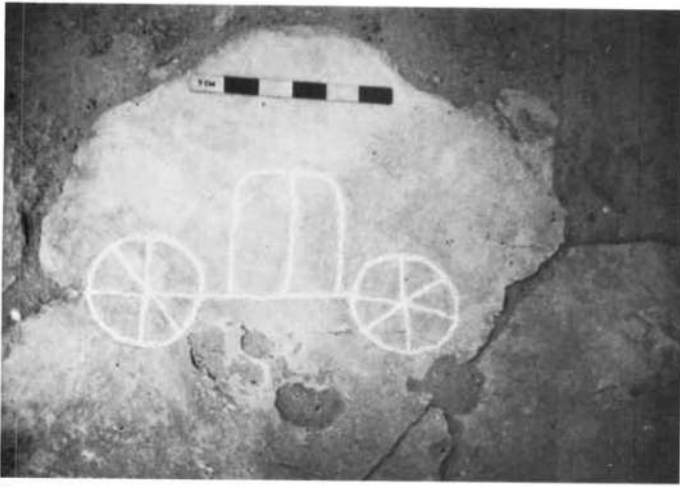
c



d

129. Tomb S.G.

- a. Fallen frieze with vine and cantharus, stone 1. D.A.T. (p. 202)
- b. Fallen frieze with vine and rosettes, stone 2. D.A.T. (p. 202)
- c. Capital with mask from S. F or G. D.A.T. (p. 216)
- d. Libation hole. D.A.T. (p. 202)



a



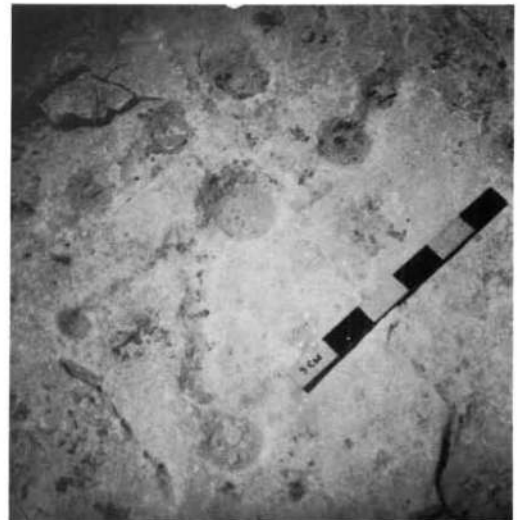
b



d

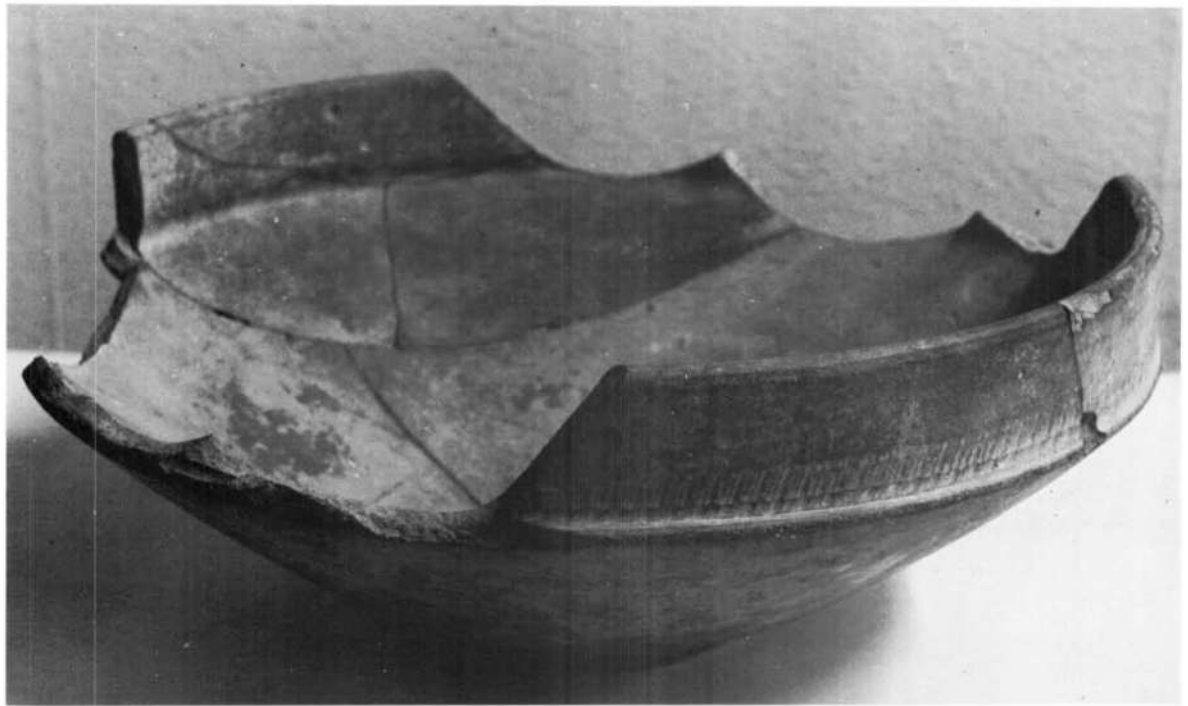
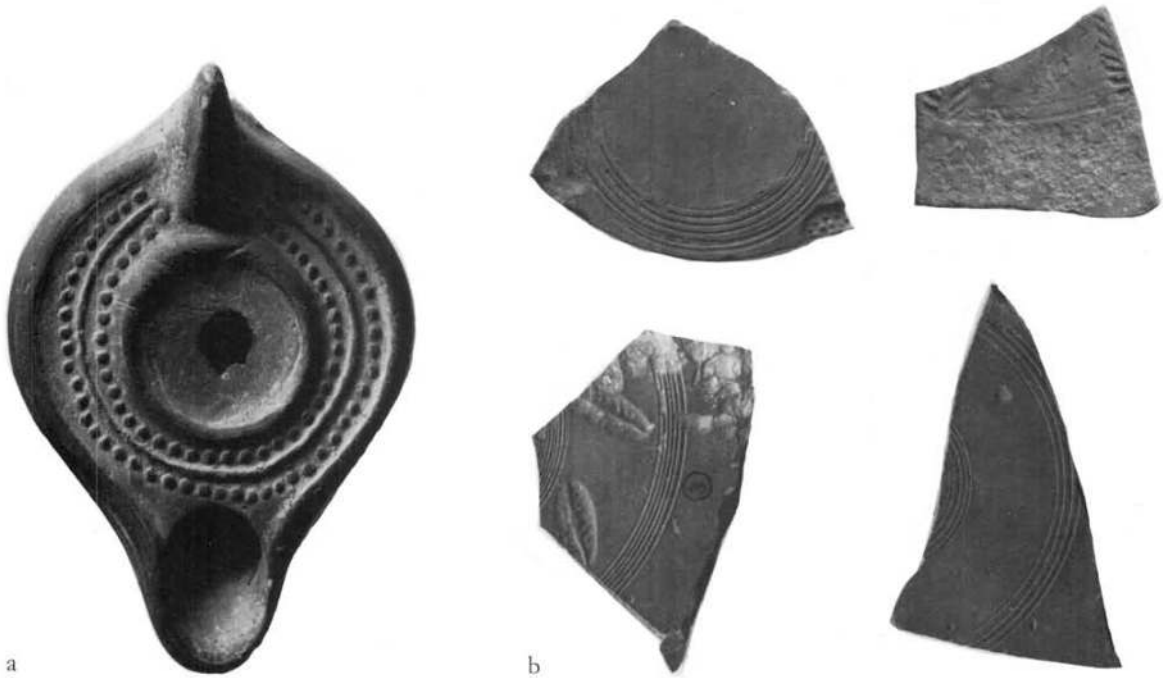


c



e

130. The Siah et-Tmed. (fig. 2)
- a. Rock-carving. D.J.S.
  - b. Rock-carving and cup-marks. D.J.S.
  - c. Rock-carving. D.J.S.
  - d. Small column with capital. D.J.S.
  - e. Cup-marks. D.J.S.



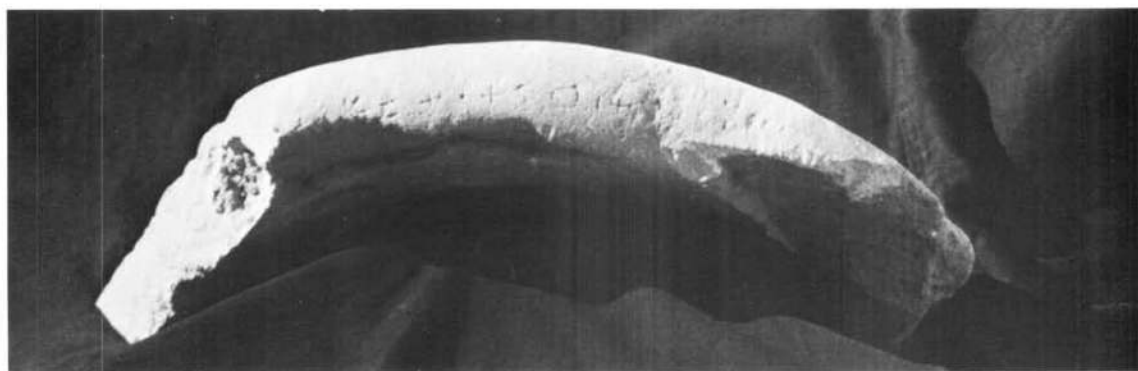
131. a. Lamp from Tomb I, Cemetery I; Trip. Red Slip Ware. N.T. (pp. 110, 113, 234, 236)  
 b. Tunis. Red Slip Ware A(a)2., and Trip. Red Slip Ware A(b)30, A(b)31, and A(a)14. N.T. (p. 235)  
 c. Bowl from Tomb 1, Cemetery 1; Trip. Red Slip Ware. N.T. (pp. 111, 113, 234, 236)



132. Roman lamps from Building 32, B(b)7, B(b)6, B(b)1, B(b)9, and uncatalogued. N.T. (pp. 234, 236-7)



a



b

133. a. Roman lamp frags., B(c)1, B(b)3, and B(b)5. N.T. (p. 236)  
b. Part of stone bowl with Libyan inscription 1a on rim. N.T. (pp. 87, 250)





134. Uncatalogued lamp frags. in Trip. Red Slip Ware (above), and Afric. Red Slip Ware (below). N.T. (pp. 110, 234)

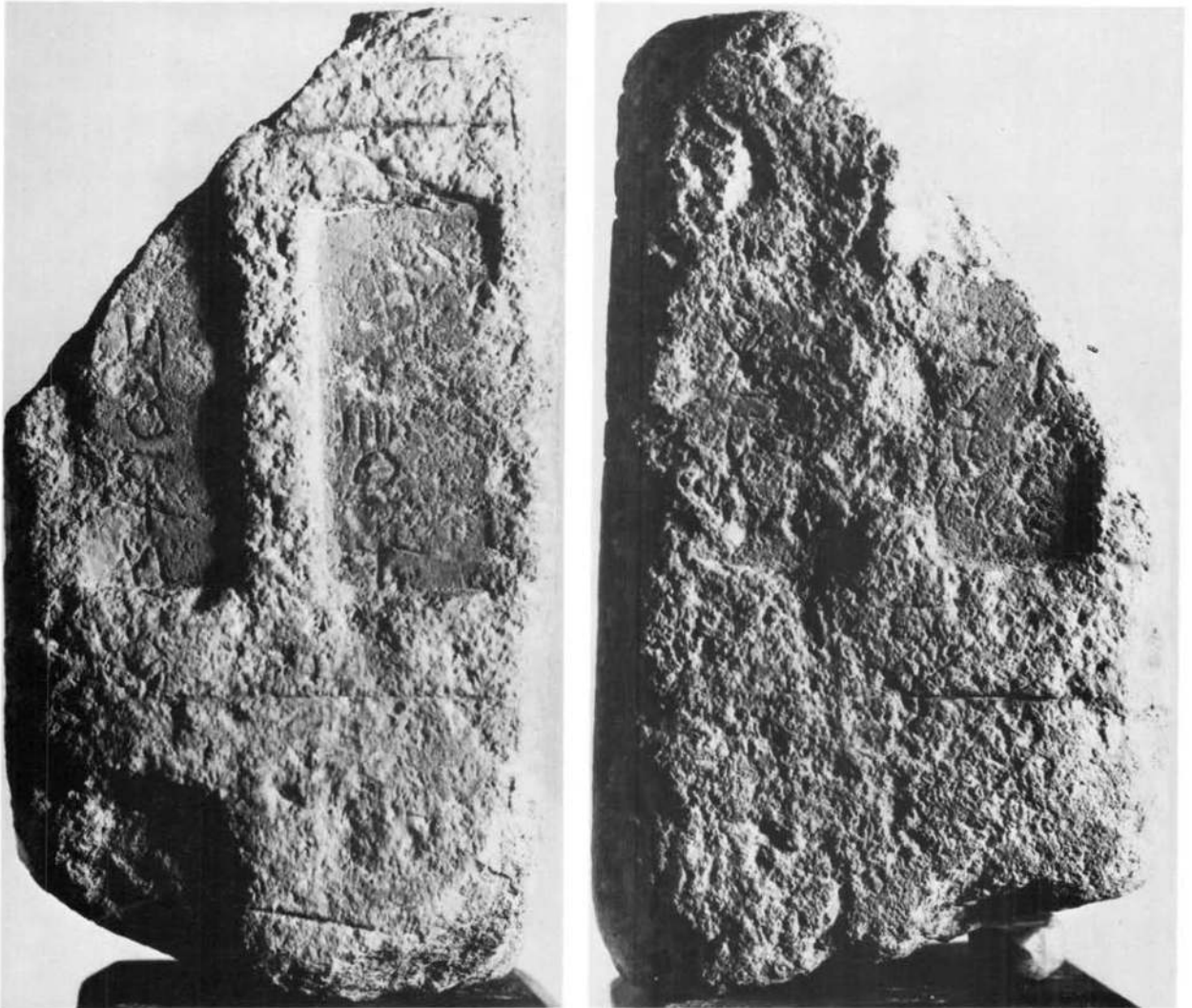


a



b

135. a. Uncatalogued lamp frags. in Trip. Red Slip Ware. N.T. (pp. 110, 234)  
b. Uncatalogued lamp frags. in Afric. Red Slip Ware. N.T. (p. 110)



136. Altar from Building 32; Libyan inscription 2. N. Del. (pp. 243, 250)



137. Altar from Building 32; Libyan inscription 3. N. Del. (pp. 243, 250)



138. Altar from Building 32; Libyan inscription 4. N. Del. (pp. 243, 250)

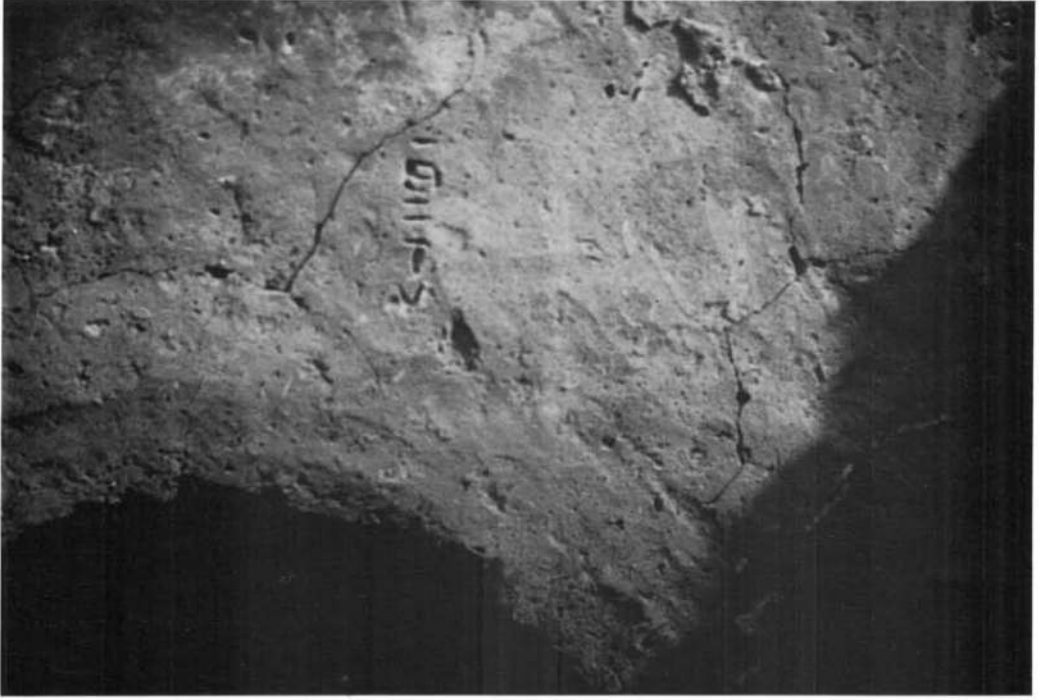


a



b

139. a. Altar from Building 32; Libyan inscription 4. N. Del. (pp. 86, 250)  
b. Altar from Building 32; Libyan inscription 6. N. Del. (pp. 86, 244, 251)



140. Libyan inscription 9, from Building 32. D.J.S. (pp. 90, 251)



a



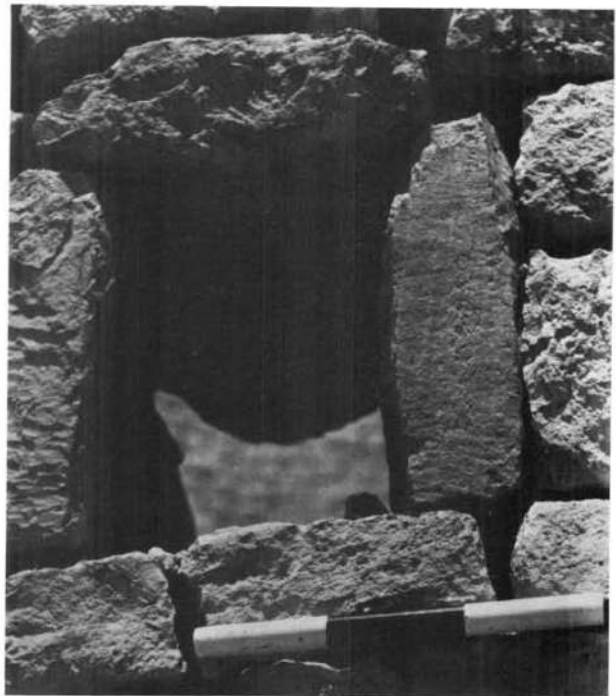
b

141. a. Libyan inscription 14, from Building 1. D.J.S. (pp. 60, 251)  
b. Libyan inscription 17, from Building 1. D.J.S. (pp. 60, 251)





a



b



c

142. a. Libyan inscription 20, from Building 22. M.H.B. (pp. 70, 251)  
b. Libyan inscription 23, from Building 26. M.H.B. (pp. 75, 252)  
c. Libyan inscription 21, from Building 26. D.A.T. (pp. 61, 251)



143. Libyan inscription 25, from Tomb N. A. N. Del. (pp. 123, 252)



a



b

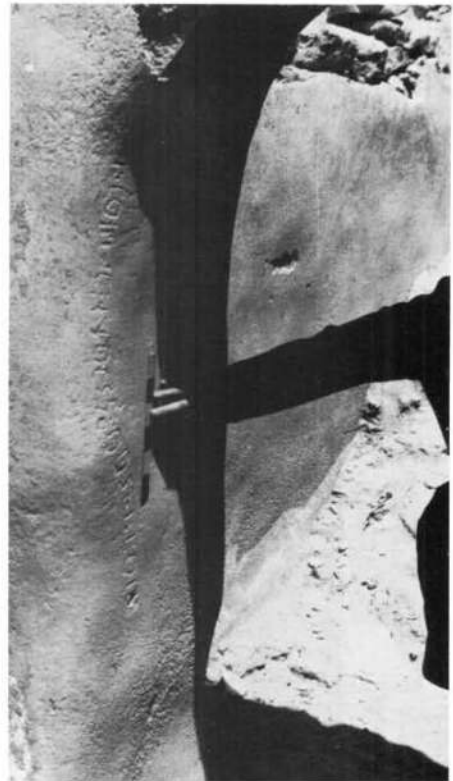
144. a. Libyan inscription 24, from Building 34. D.J.S. (pp. 68, 252)  
b. Libyan inscription 27, from Tomb S. C. C.M.D. (pp. 190, 252)



a

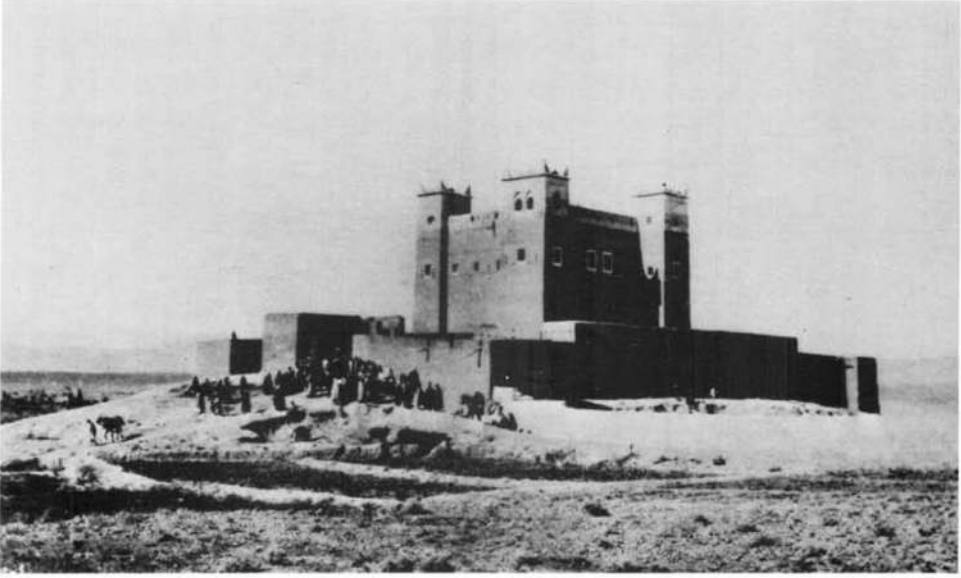


b



c

145. a. Libyan inscription 30, from Wadi Umm El-Ageram, Tomb E. C.M.D. (p. 252)  
b. Libyan inscription 28, from Gasr Chanafes S. C.M.D. (p. 252)  
c. Libyan inscription 36, from El-Gheria el-Gharbia. C.M.D. (p. 252)

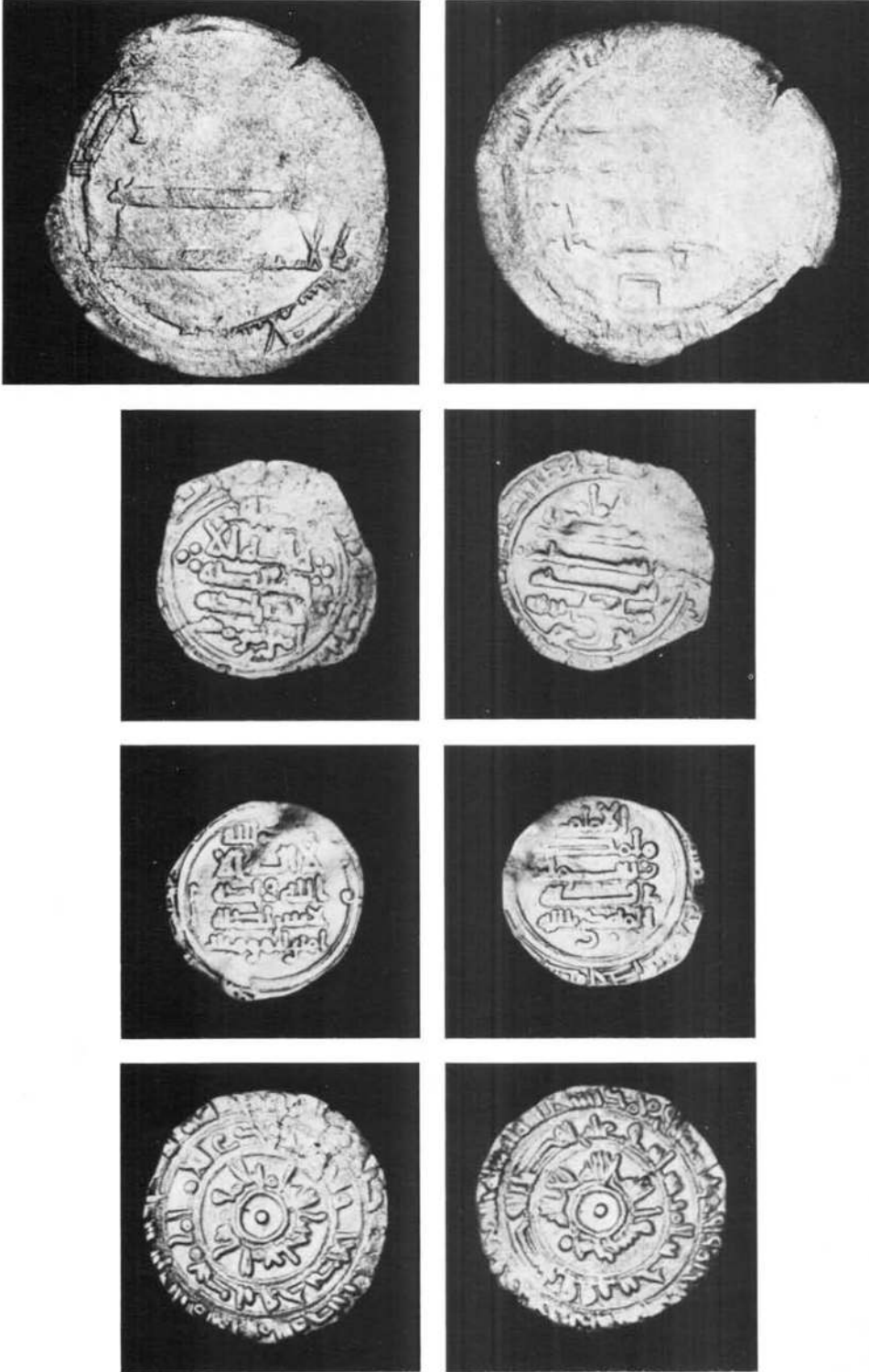


a

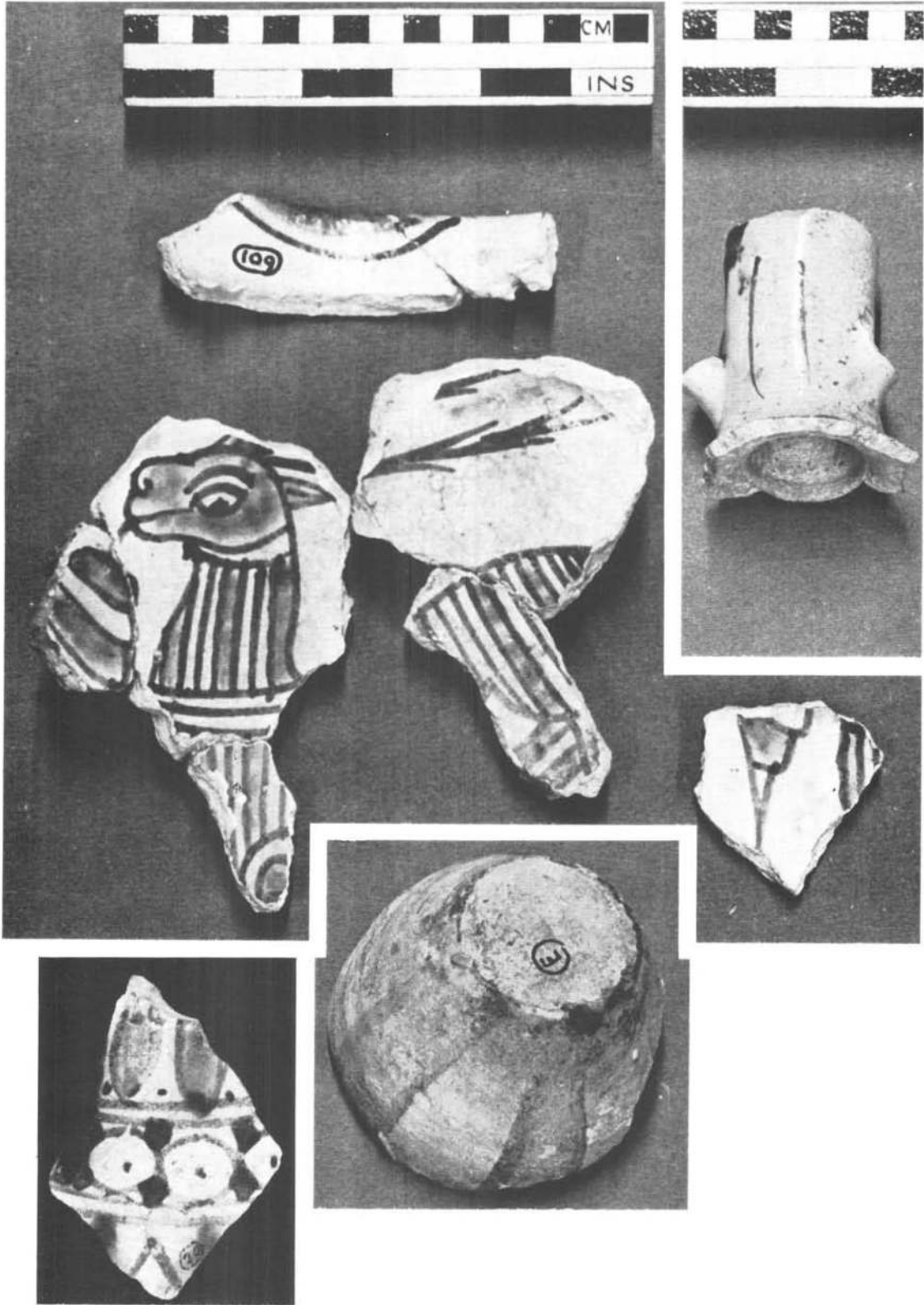


b

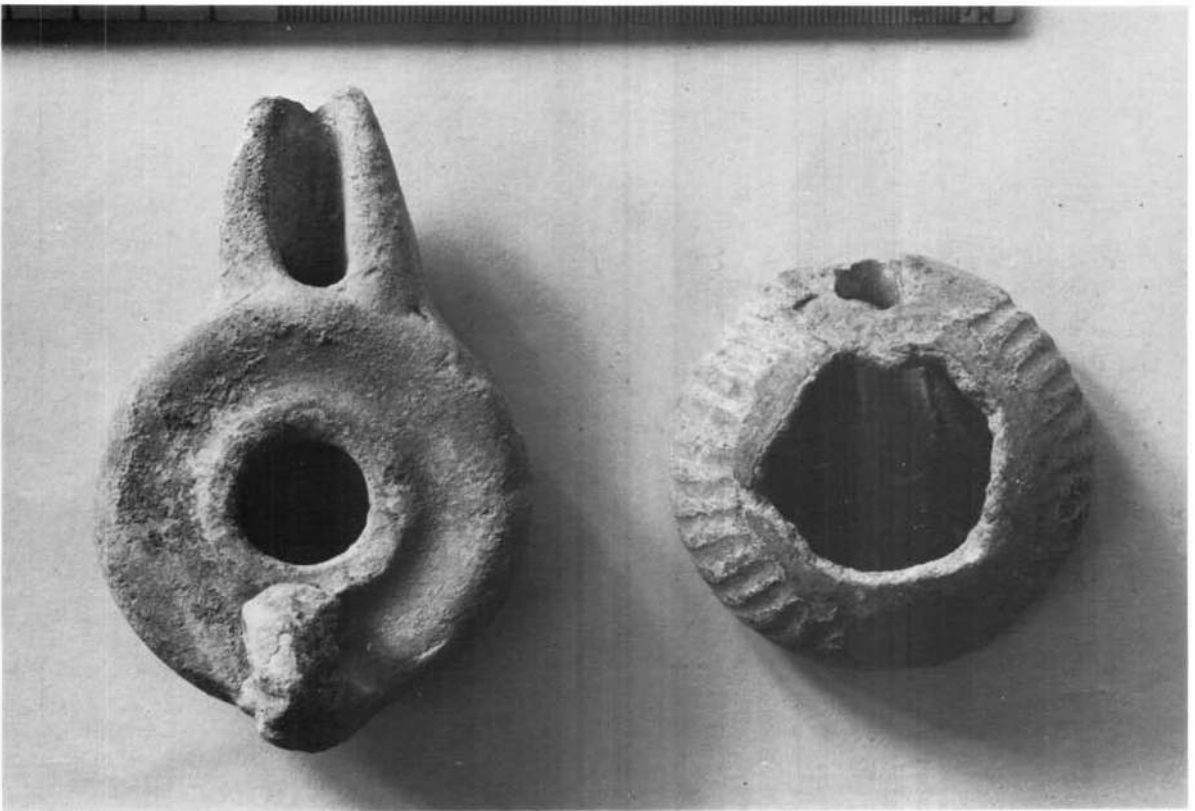
146. a. The Kasbah of Mbarek el Fdail, S. Morocco. (pp. 77, 80)  
b. Gasr Banat. (p. 264)



147. Islamic coins from Building 32. N.T. (pp. 82, 91, 274)



148. Islamic pottery from Building 32, N.T. (pp. 91, 275, 276)

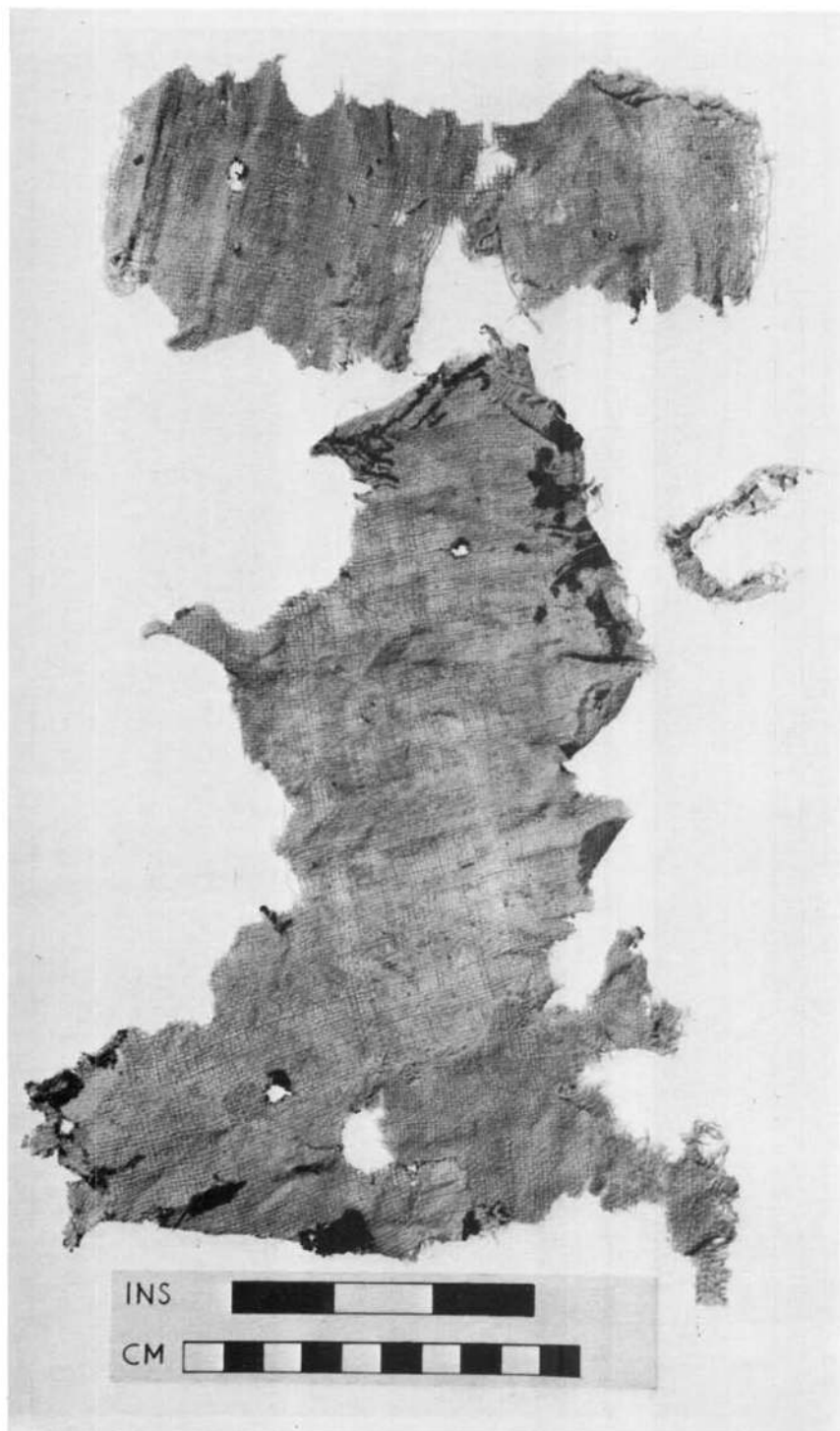


149. Islamic lamps from Building 32. N.T. (pp. 91, 276-8)





150. Mirror boxes from Building 32. N.T. (pp. 91, 260, 282)



a



b

151. Medieval textiles, Building 32.

a. Catalogue nos. 2 (lower) and 3. N.T. (p. 291)

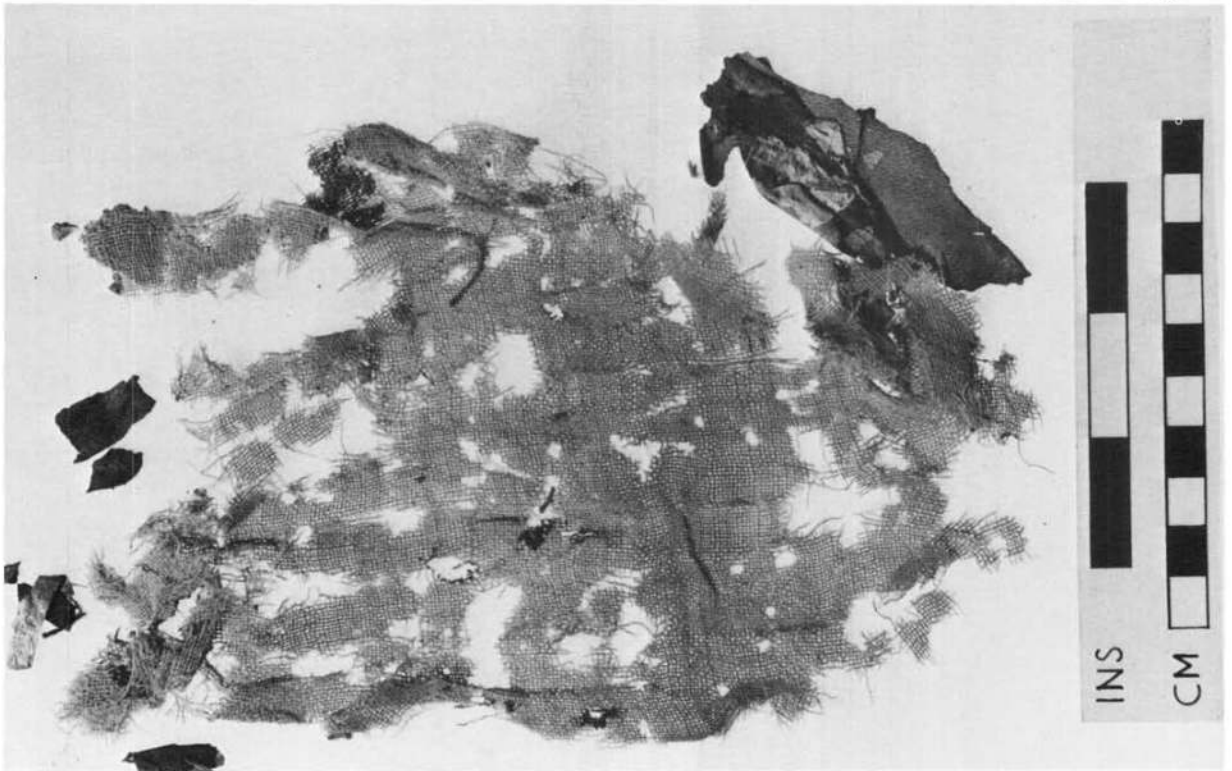
b. Fragment 2A: detail, 4 x original. System (1) vertical. N.T.



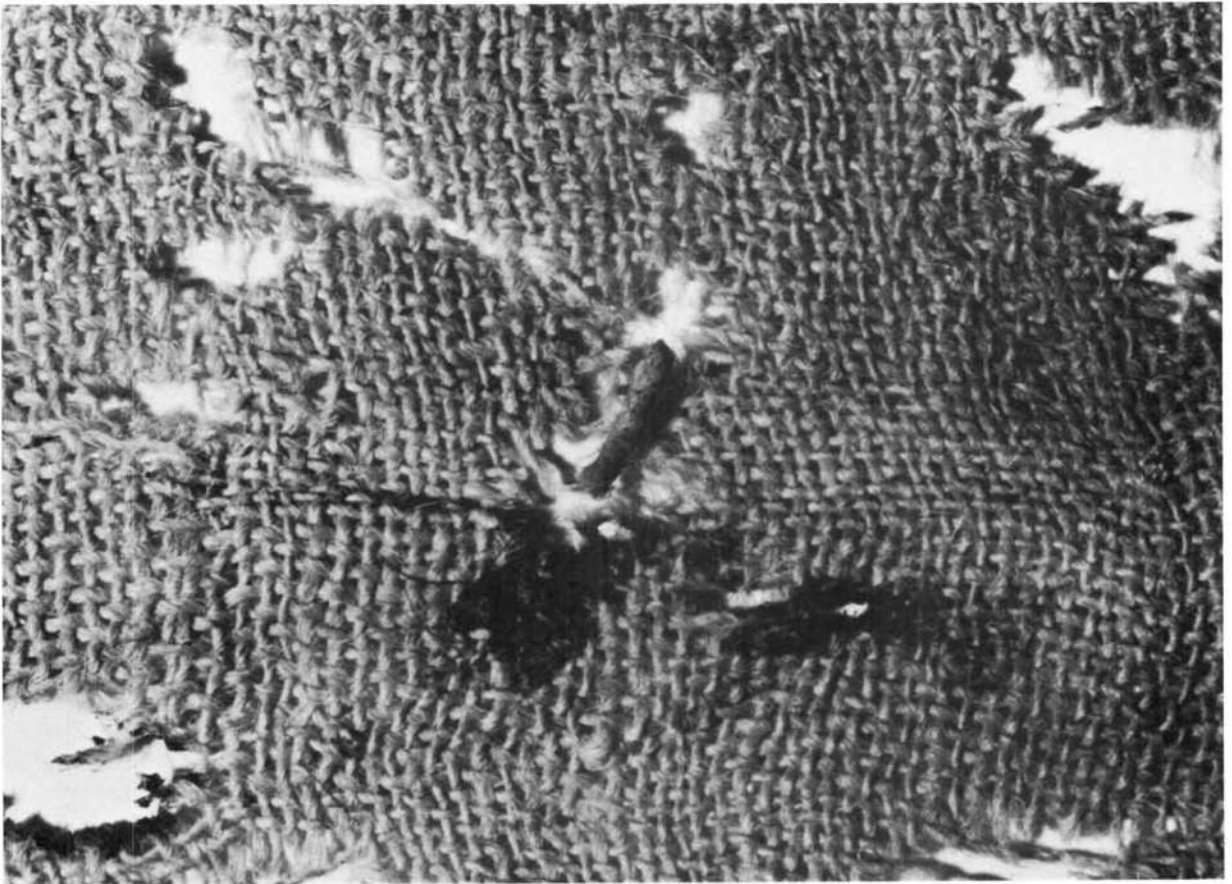
a

b

152. Medieval textiles, Building 32.  
a. Catalogue no. 18. N.T. (p. 293)  
b. Detail, 4 x original. System (1) vertical. N.T.

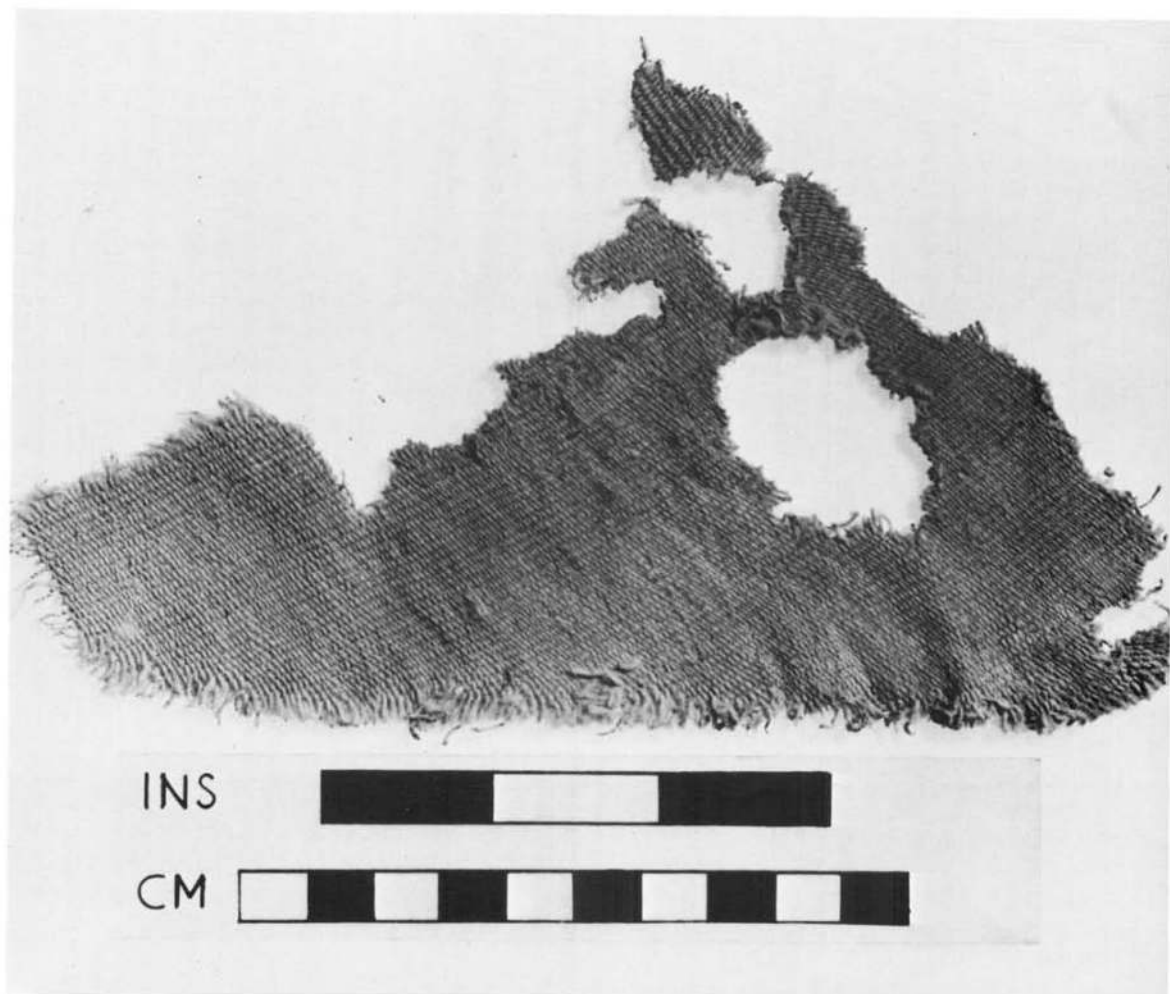


a

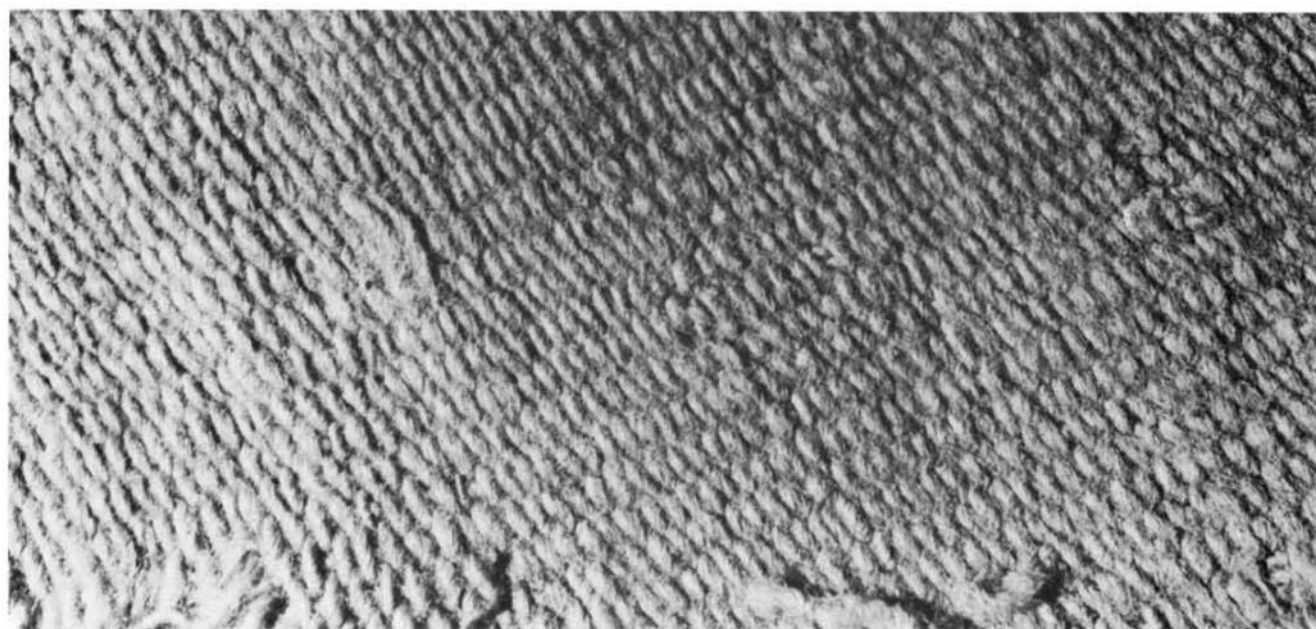


b

153. Medieval textiles, Building 32.  
 a. Catalogue no. 19. N.T. (p. 293)  
 b. Detail, 4 x original. System (1) vertical. N.T.



a

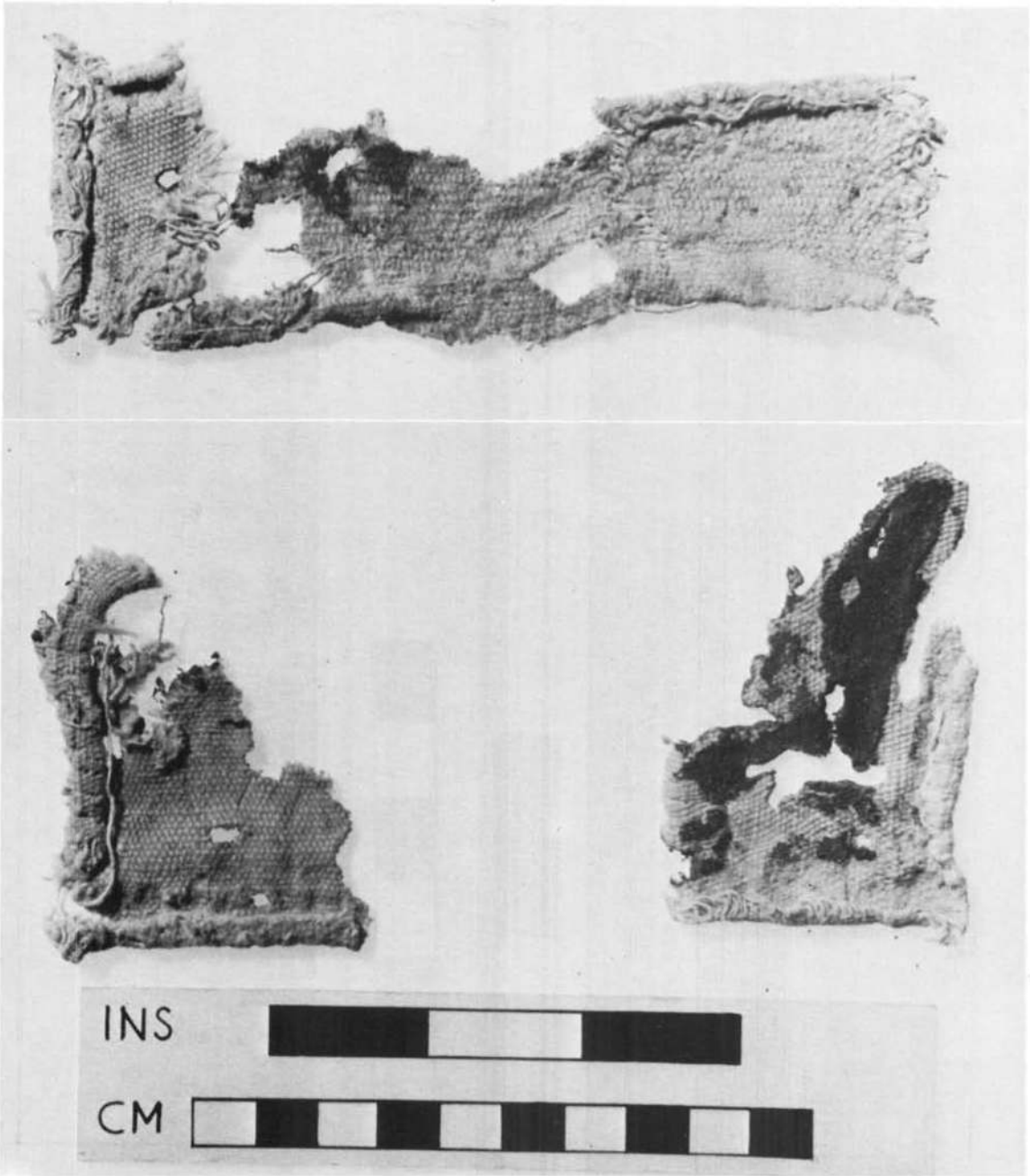


b

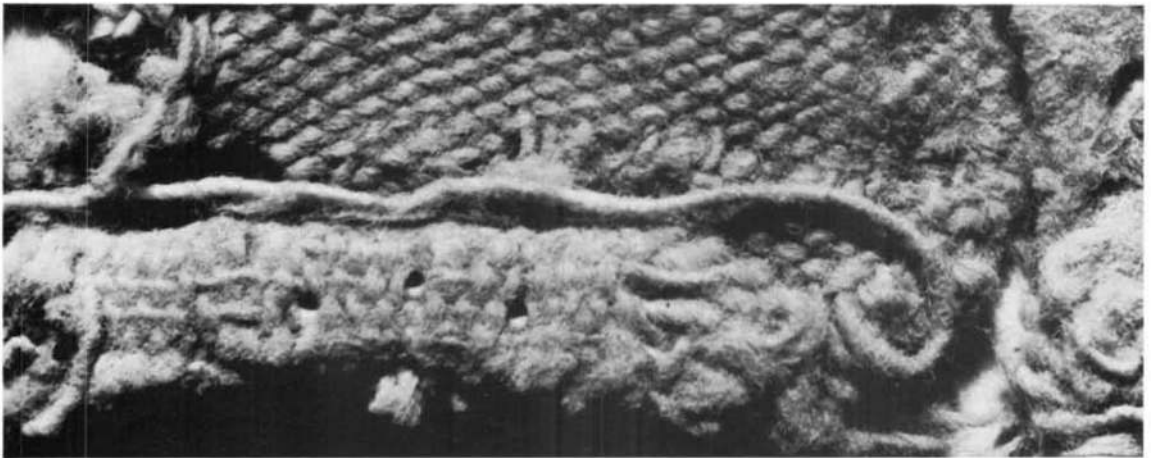
154. Medieval textiles, Building 32.

a. Catalogue no. 25. N.T. (p. 293)

b. Detail, 4 x original. System (1) vertical. N.T.



a

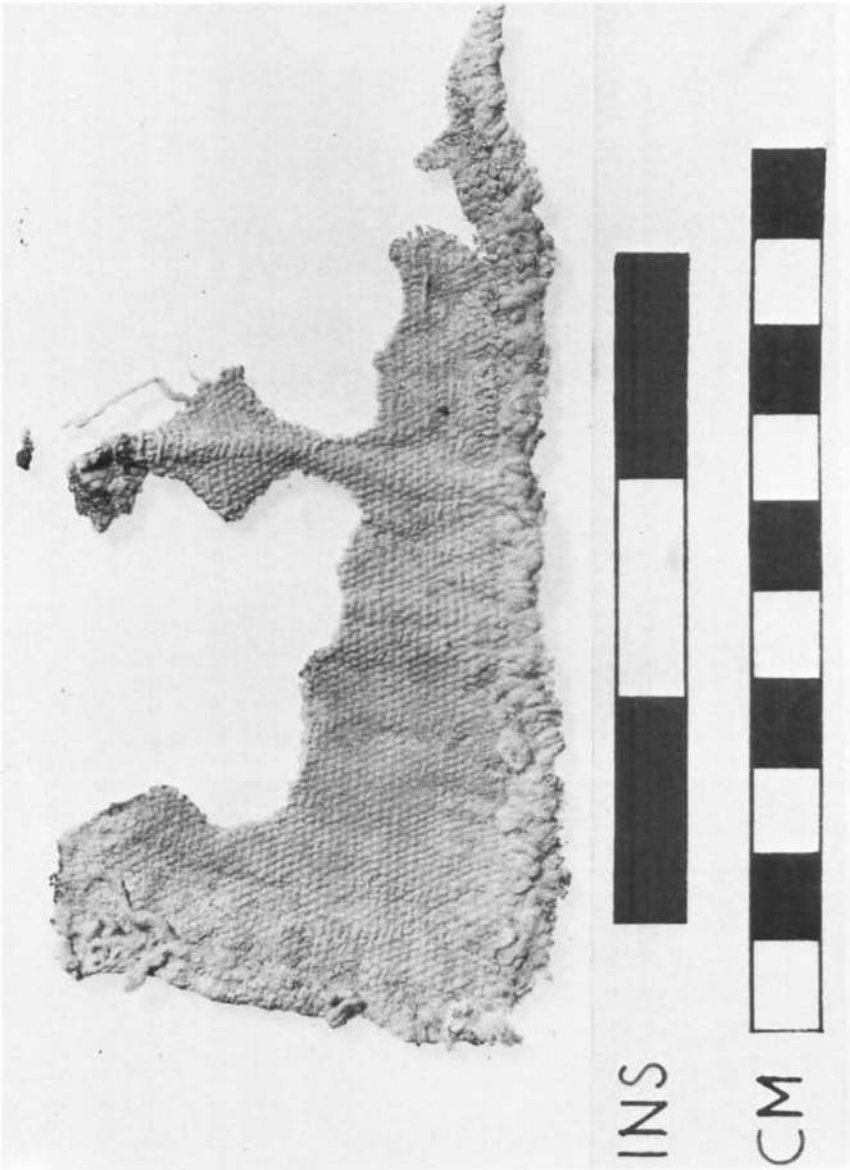


b

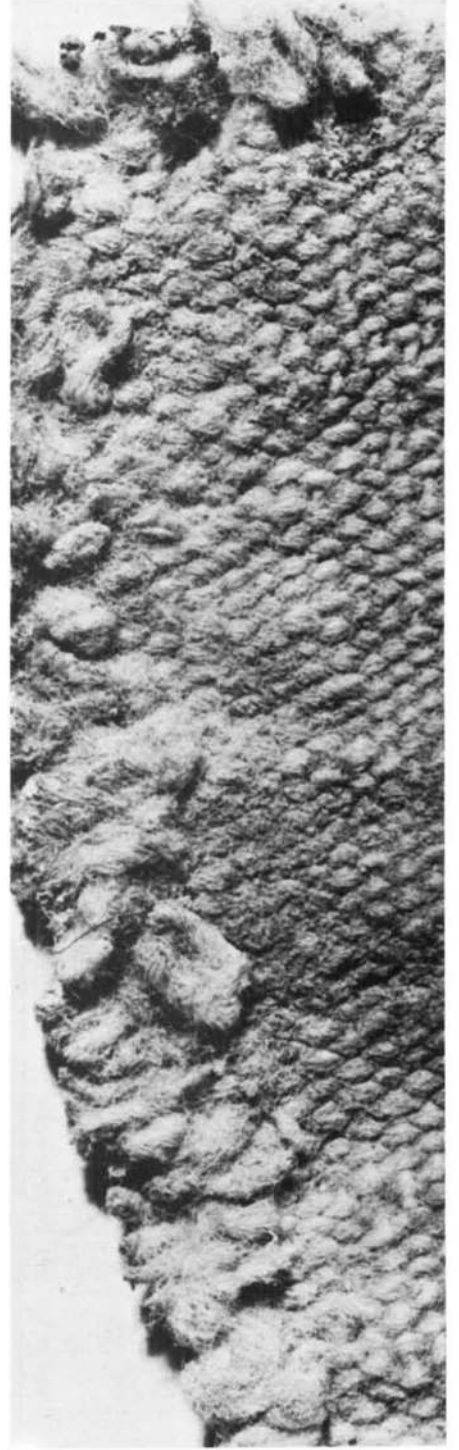
155. Medieval textiles, Building 32.

a. Catalogue no. 29. N.T. (p. 294)

b. Detail, 4 x original. System (1) vertical. N.T.

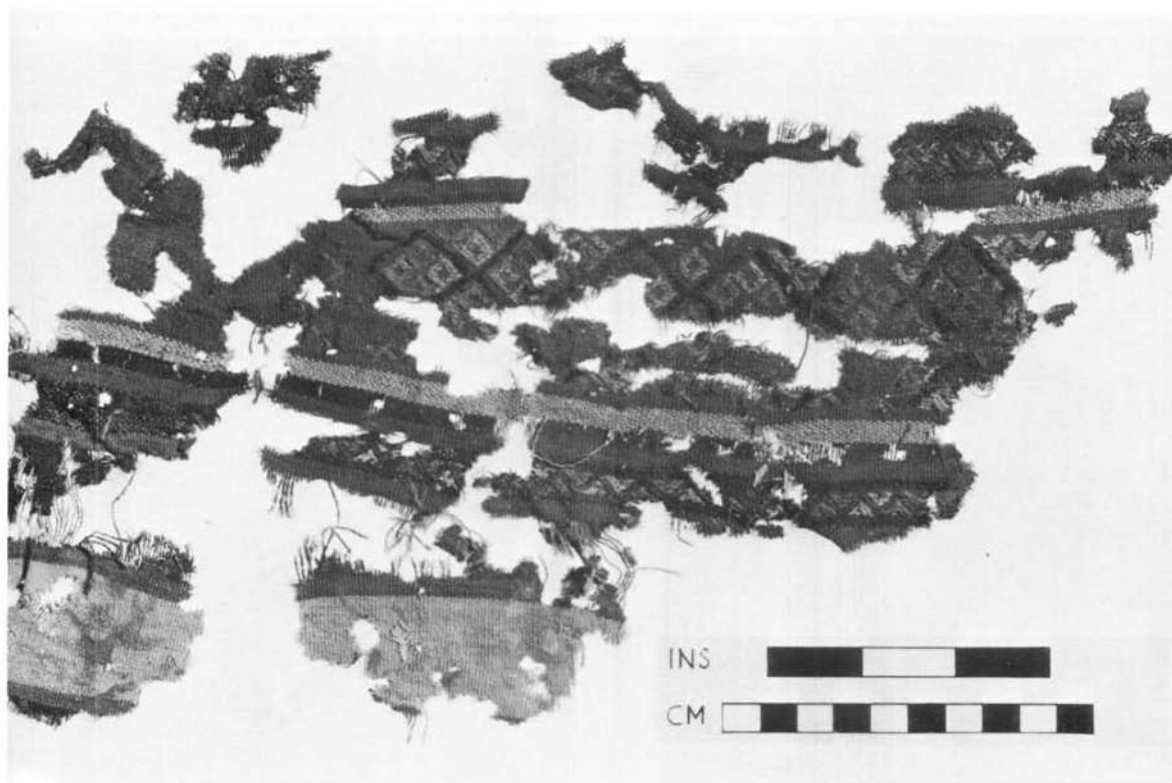


a

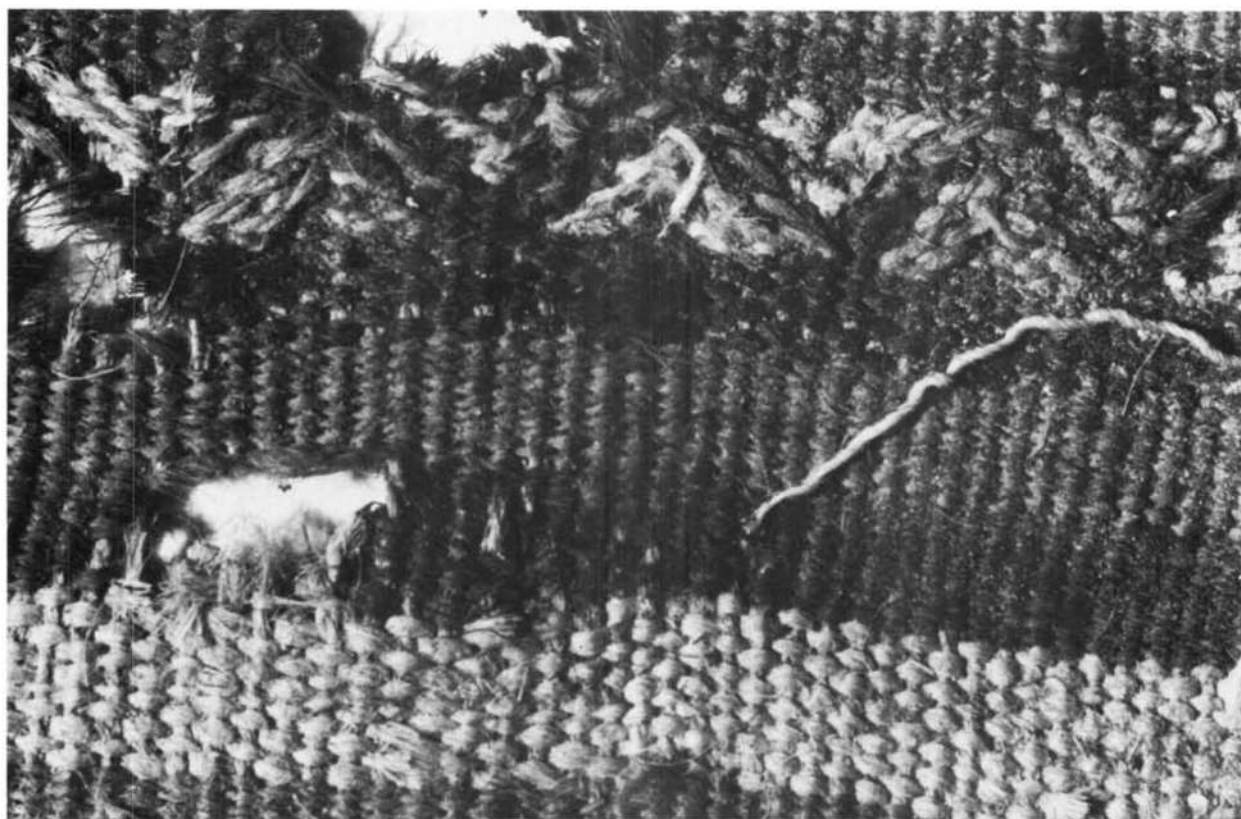


b

156. Medieval textiles, Building 32.  
a. Catalogue no. 30. N.T. (p. 294)  
b. Detail, 4 x original. System (1) vertical. N.T.



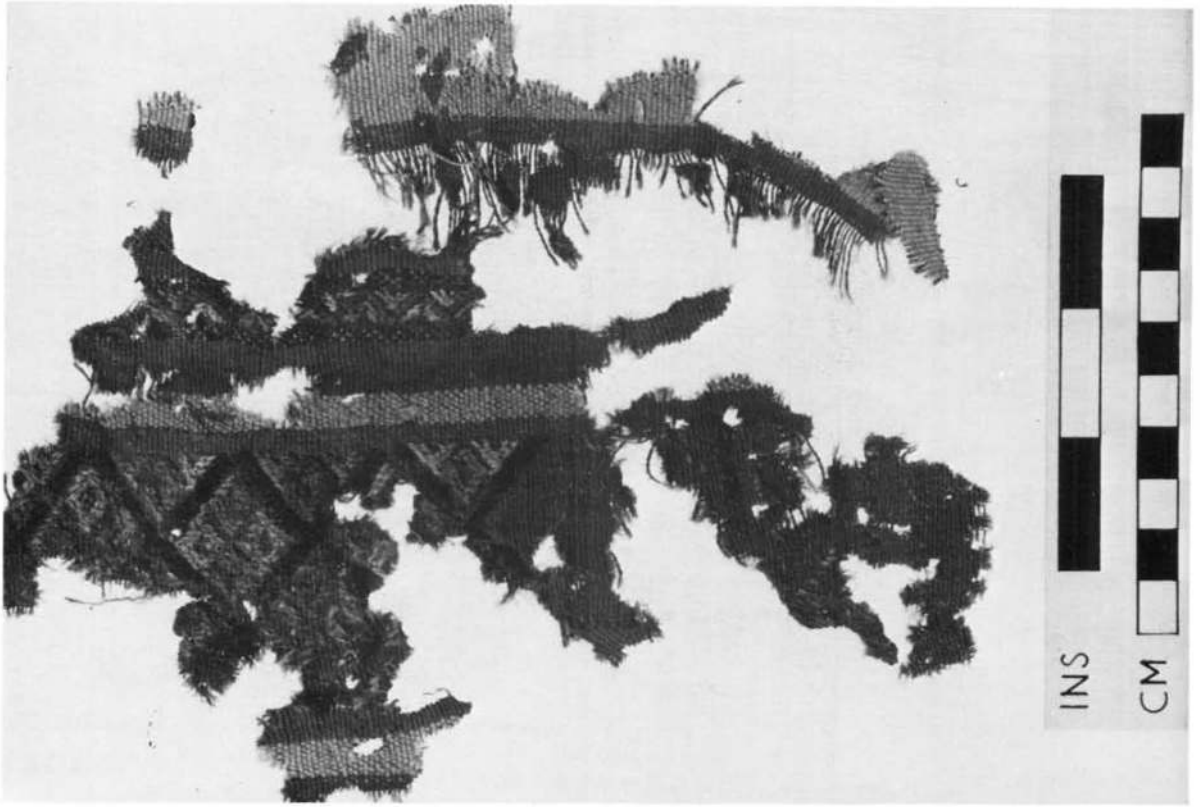
a



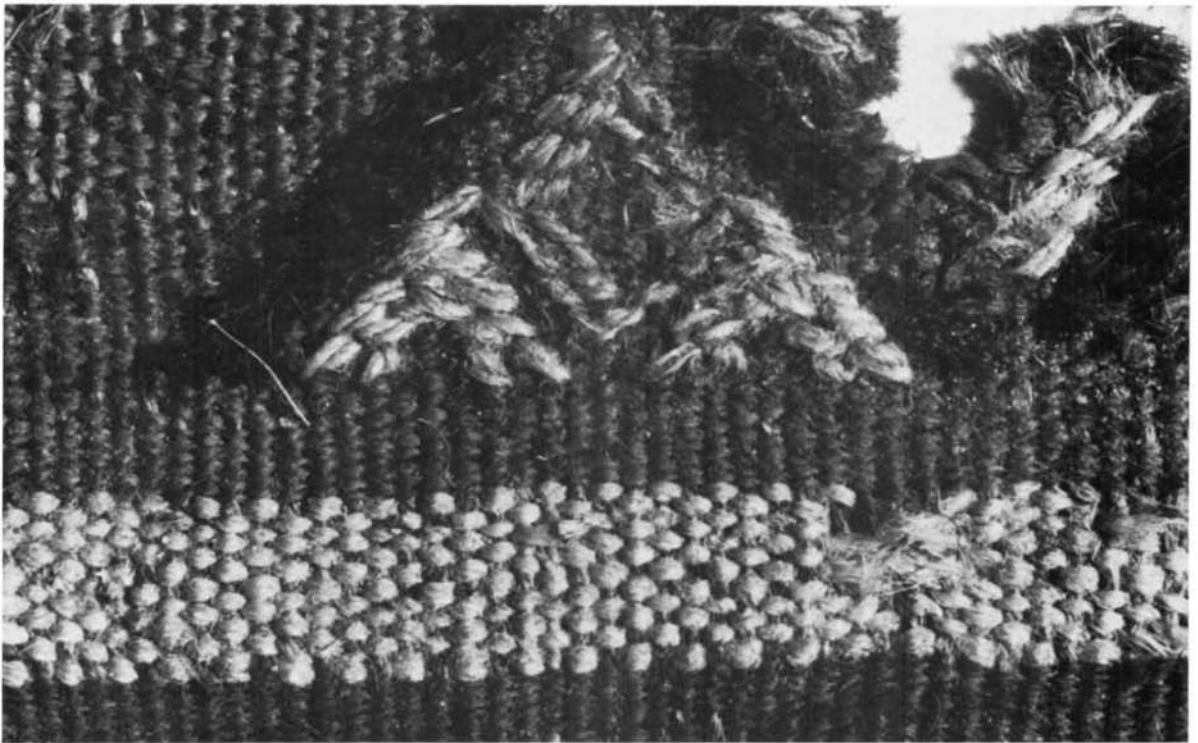
b

157. Medieval textiles, Building 32.  
a. Catalogue no. 49. N.T. (p. 295)  
b. Detail, 4 x original. System (1) vertical. N.T.





a

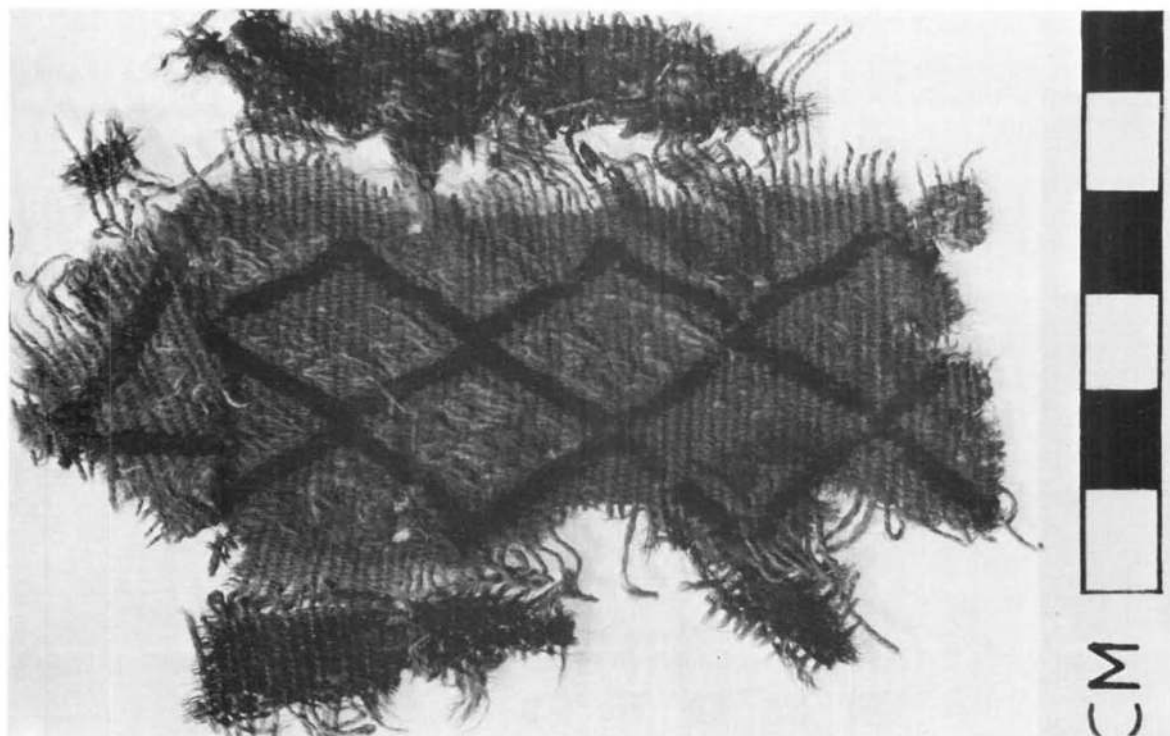


b

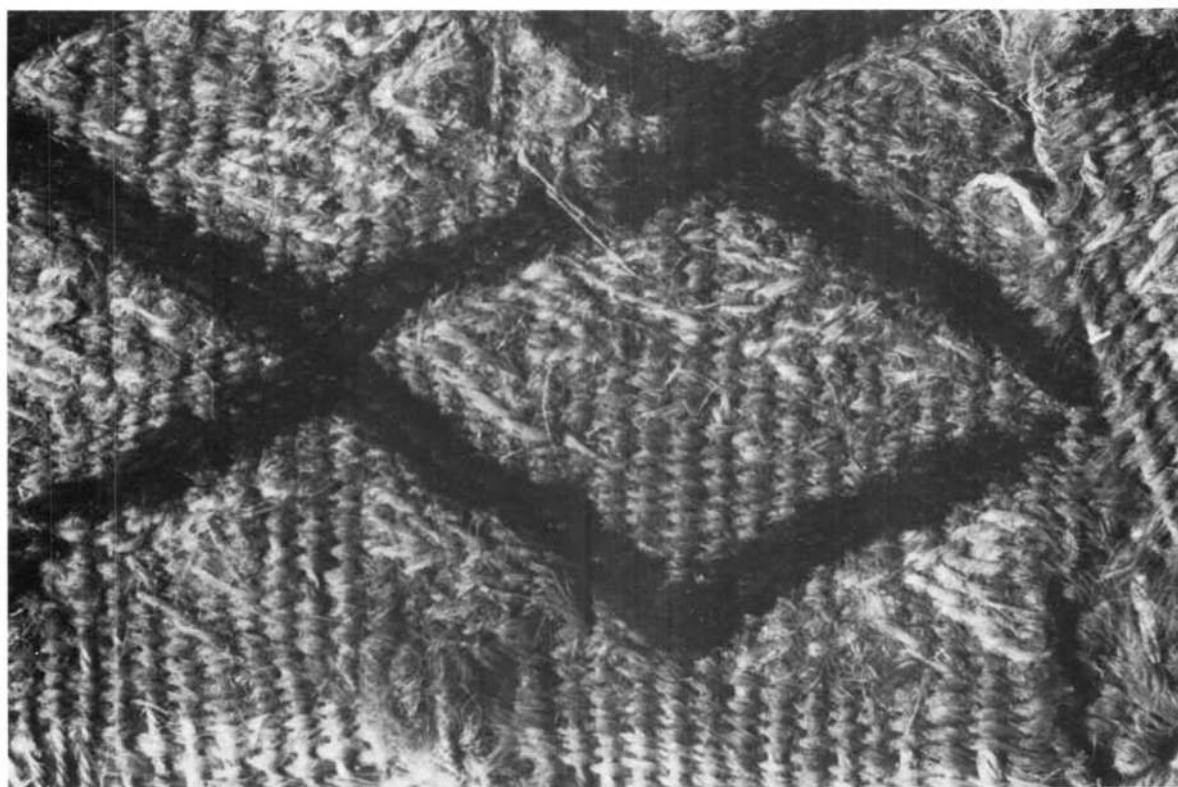
158. Medieval textiles, Building 32.

a. Catalogue no. 49. N.T. (p. 295)

b. Detail, 4 x original. System (1) vertical. N.T.

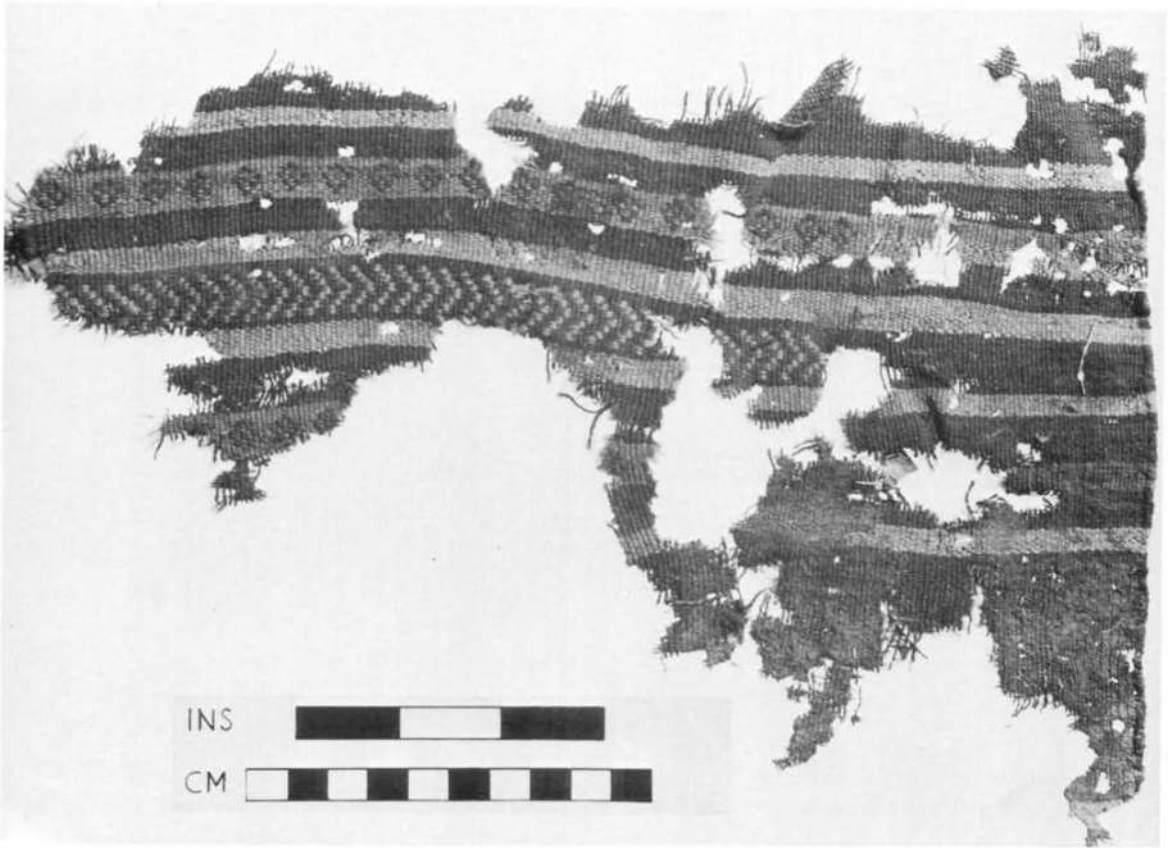


a

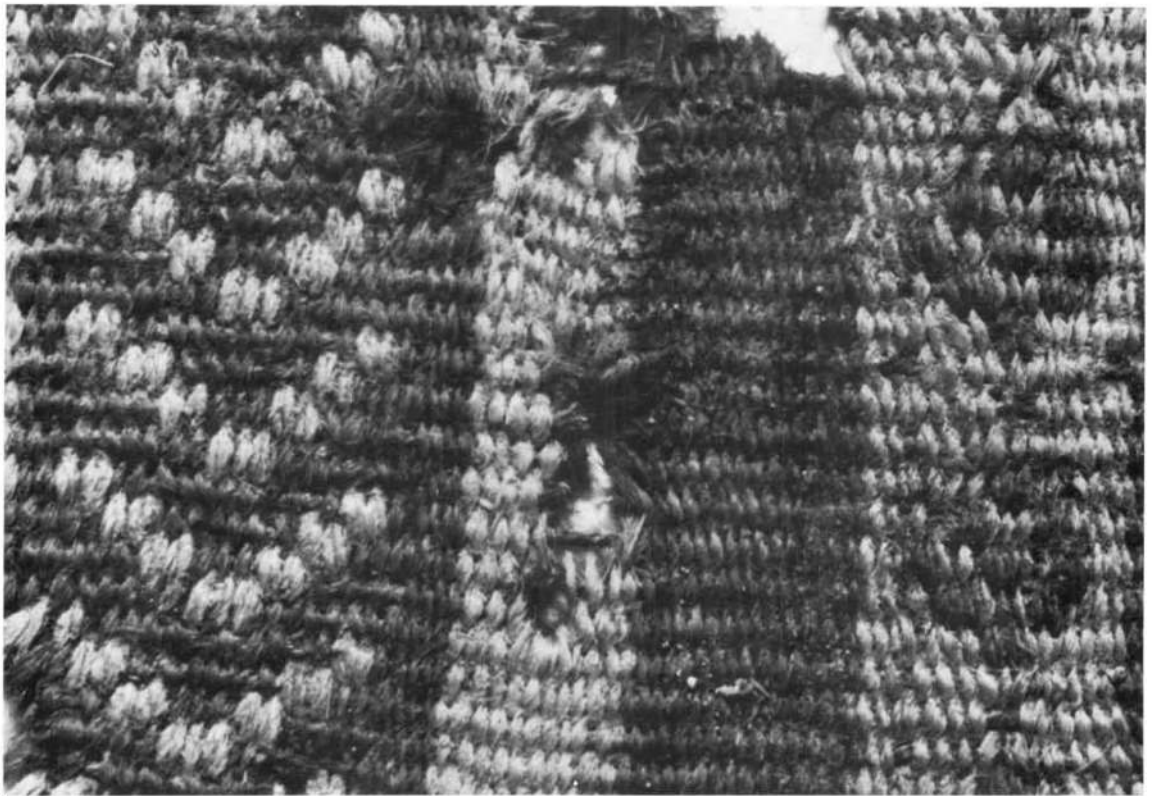


b

159. Medieval textiles, Building 32.  
a. Catalogue no. 50. N.T. (p. 296)  
b. Detail, 4 x original. System (1) vertical. N.T.



a

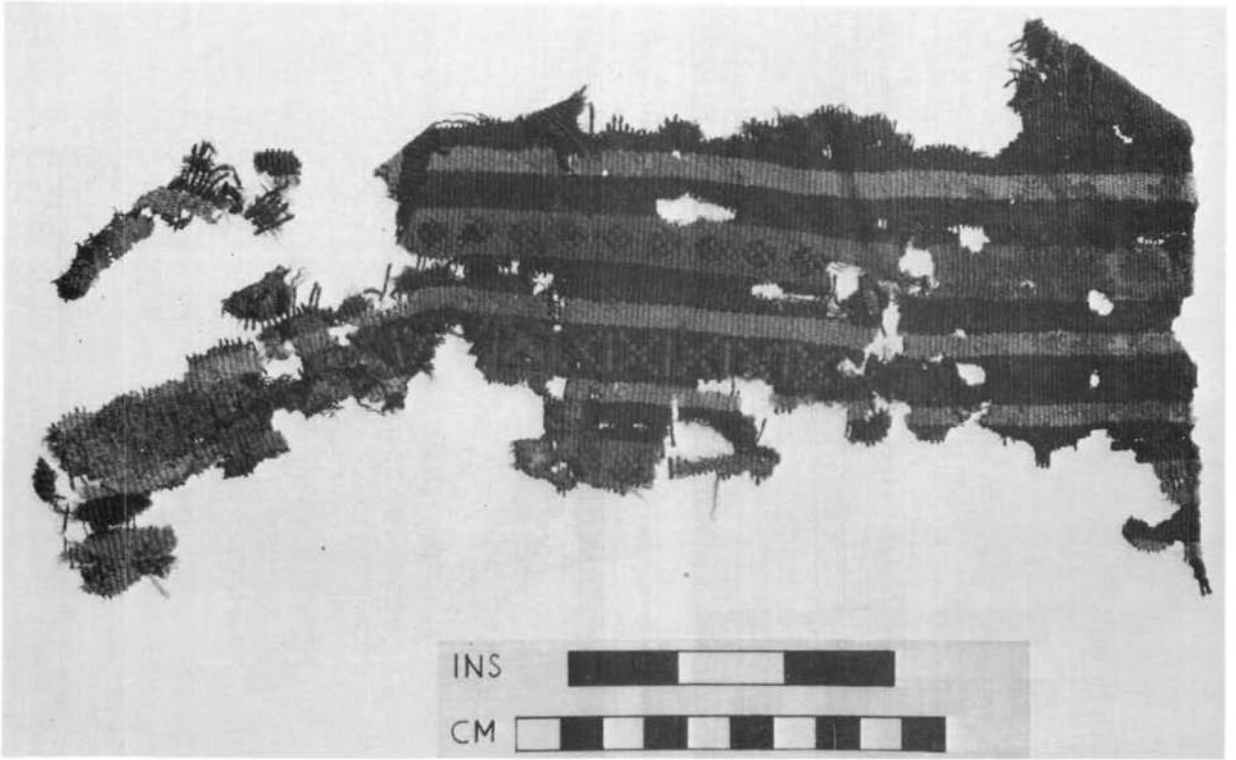


b

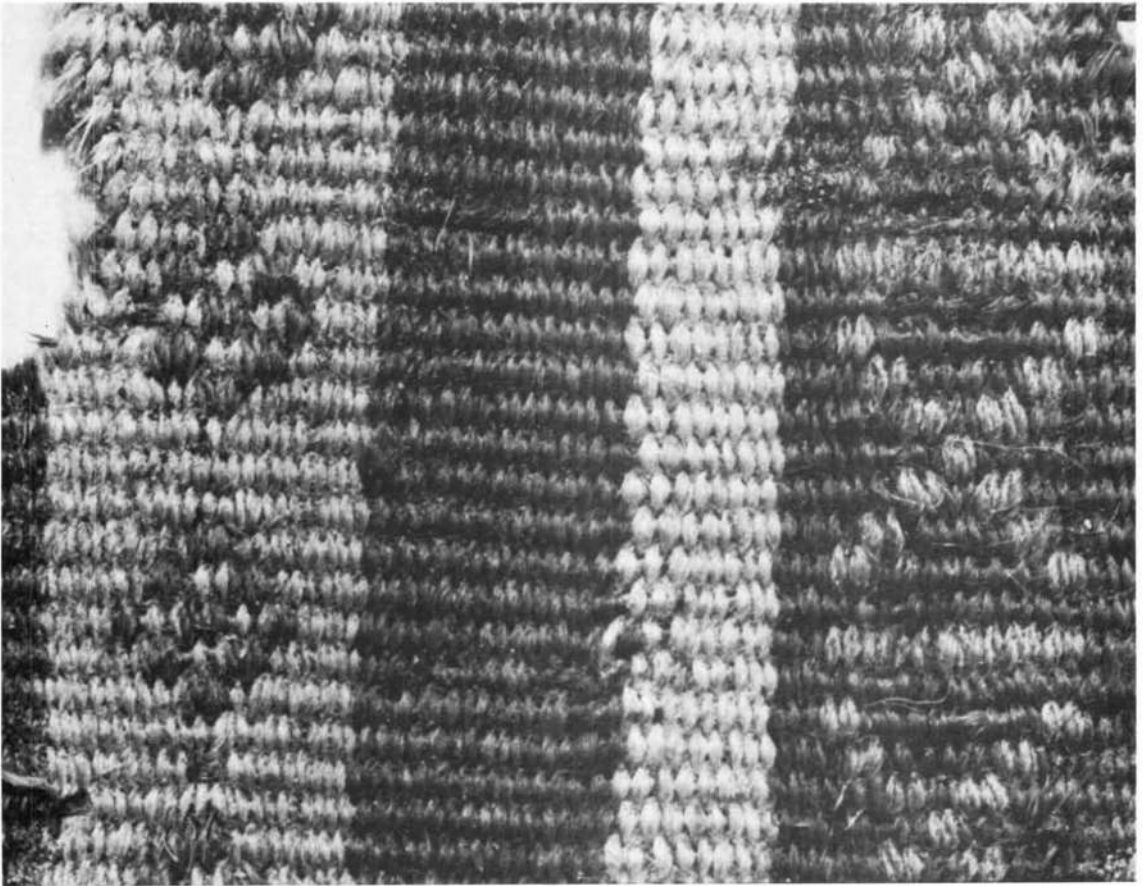
160. Medieval textiles, Building 32.

a. Catalogue no. 52, fragment A. System (1) vertical. N.T. (p. 296)

b. Detail, 4 x original. System (1) horizontal. N.T.



a



b

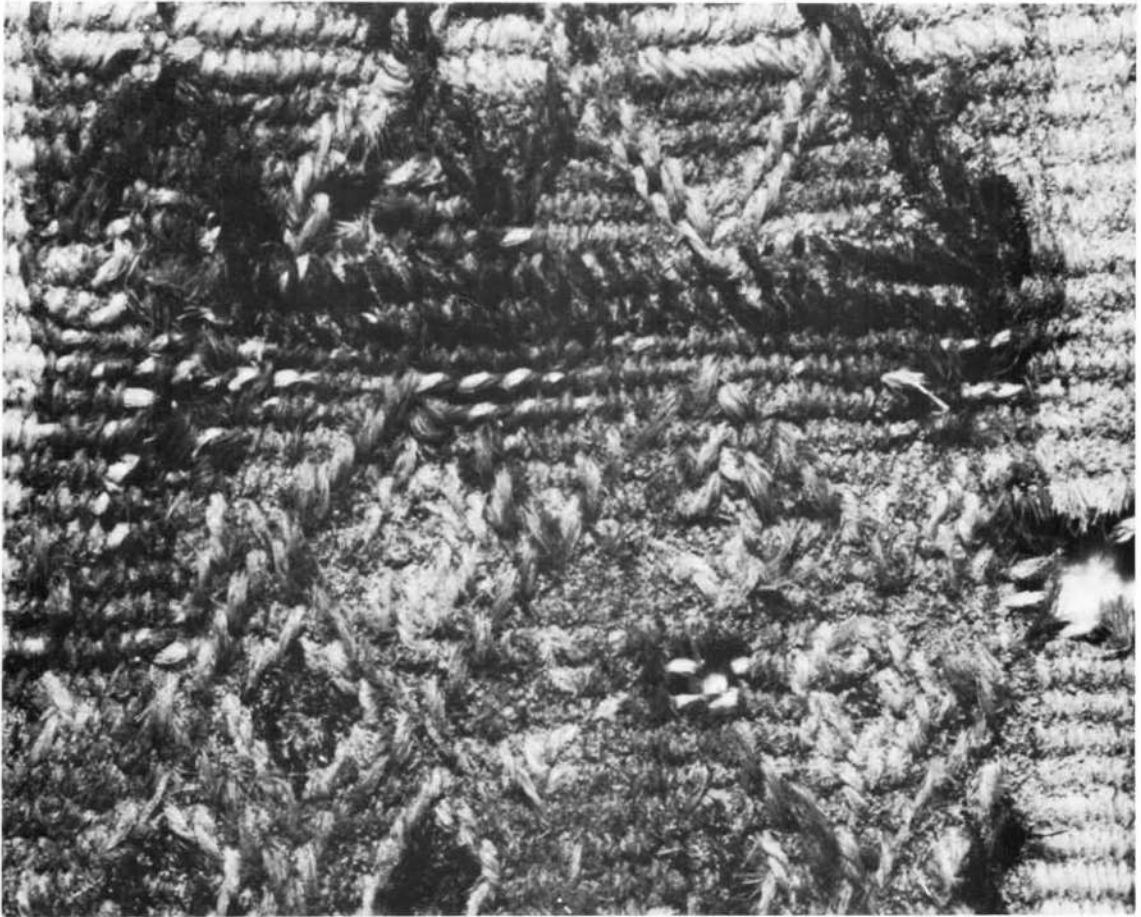
161. Medieval textiles, Building 32.

a. Catalogue no. 52, fragment B. System (1) vertical. N.T. (p. 296)

b. Detail, 4 x original. System (1) horizontal. N.T.



a



b

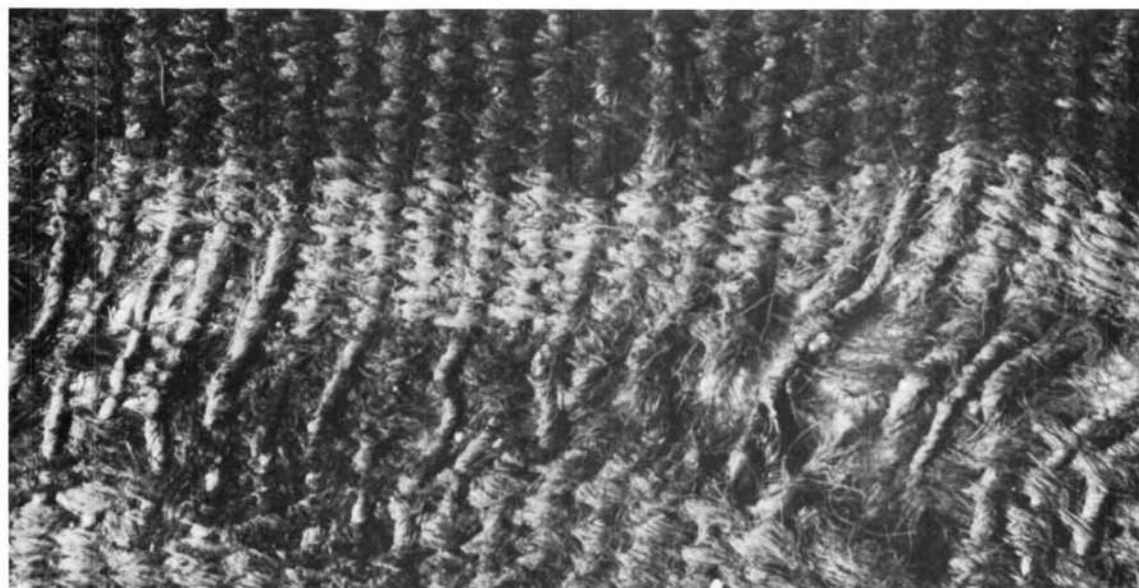
162. Medieval textiles, Building 32.

a. Catalogue no. 53. System (1) vertical. N.T. (p. 297)

b. Detail, 4 x original. System (1) horizontal. N.T.



a

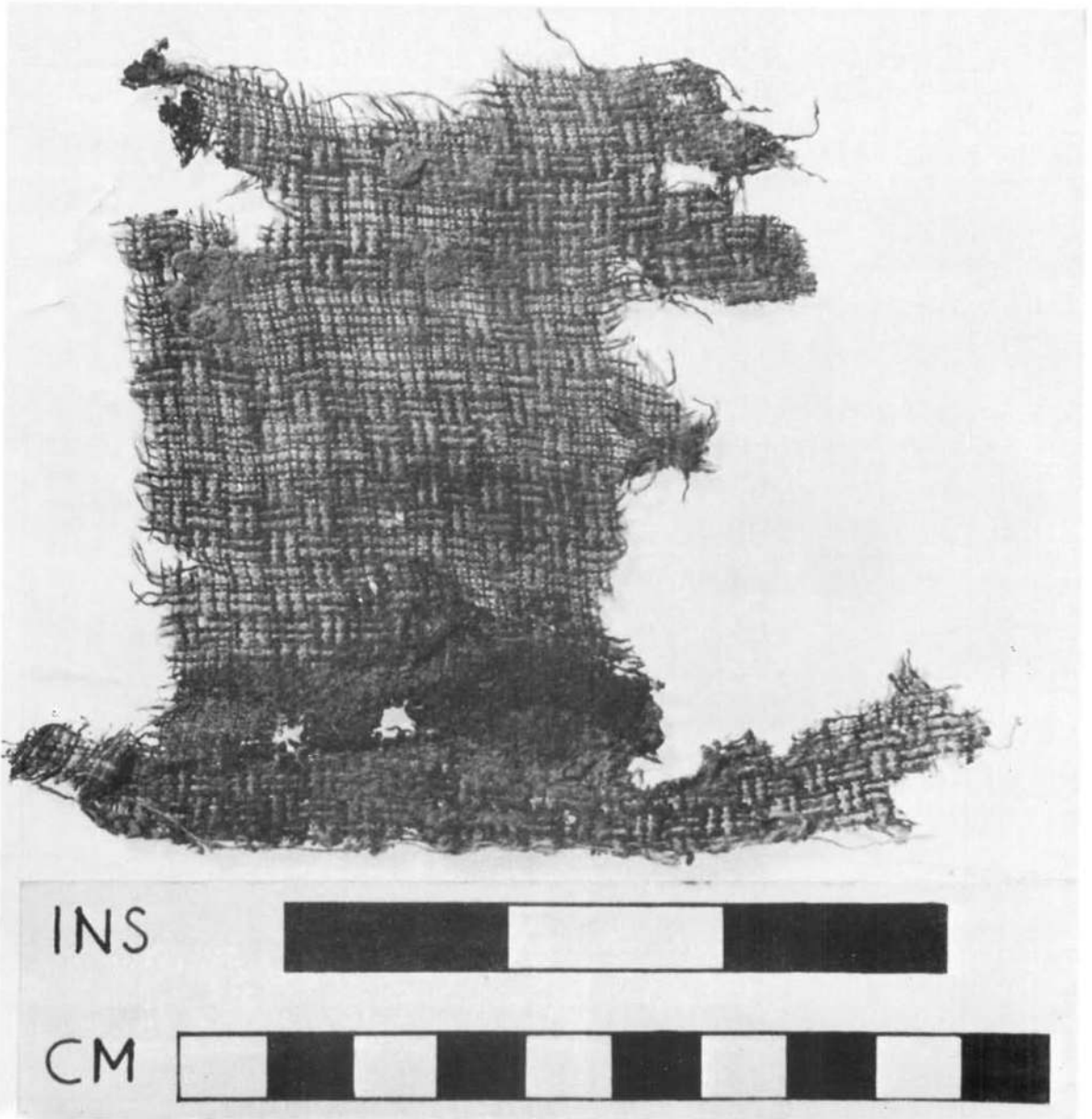


b

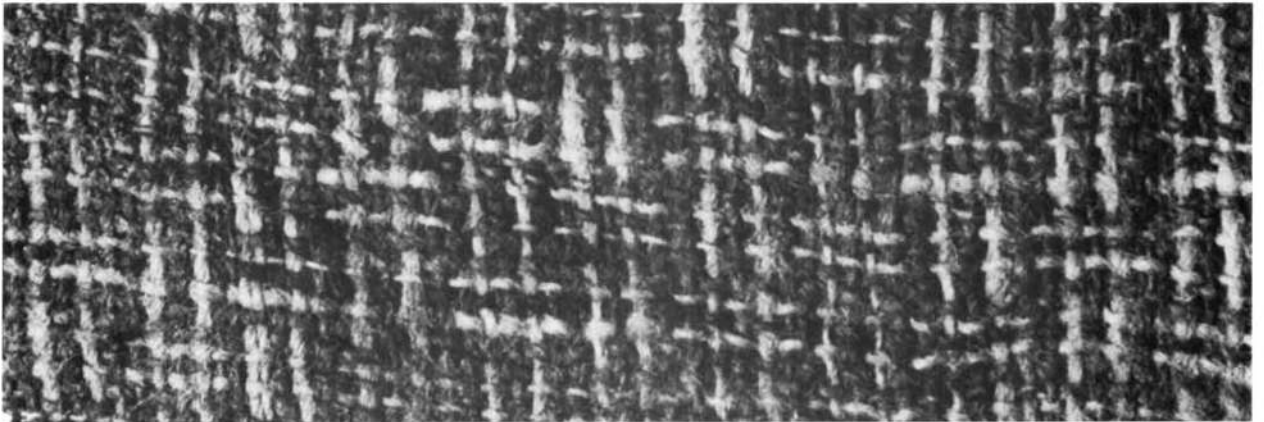
163. Medieval textiles, Building 32.

a. Catalogue no. 54. N.T. (p. 297)

b. Detail, 4 x original. System (1) vertical. N.T.



a



b

164. Medieval textiles, Building 32.

a. Catalogue no. 58, fragment A. N.T. (p. 298)

b. Detail, 4 x original. System (1) vertical. N.T.



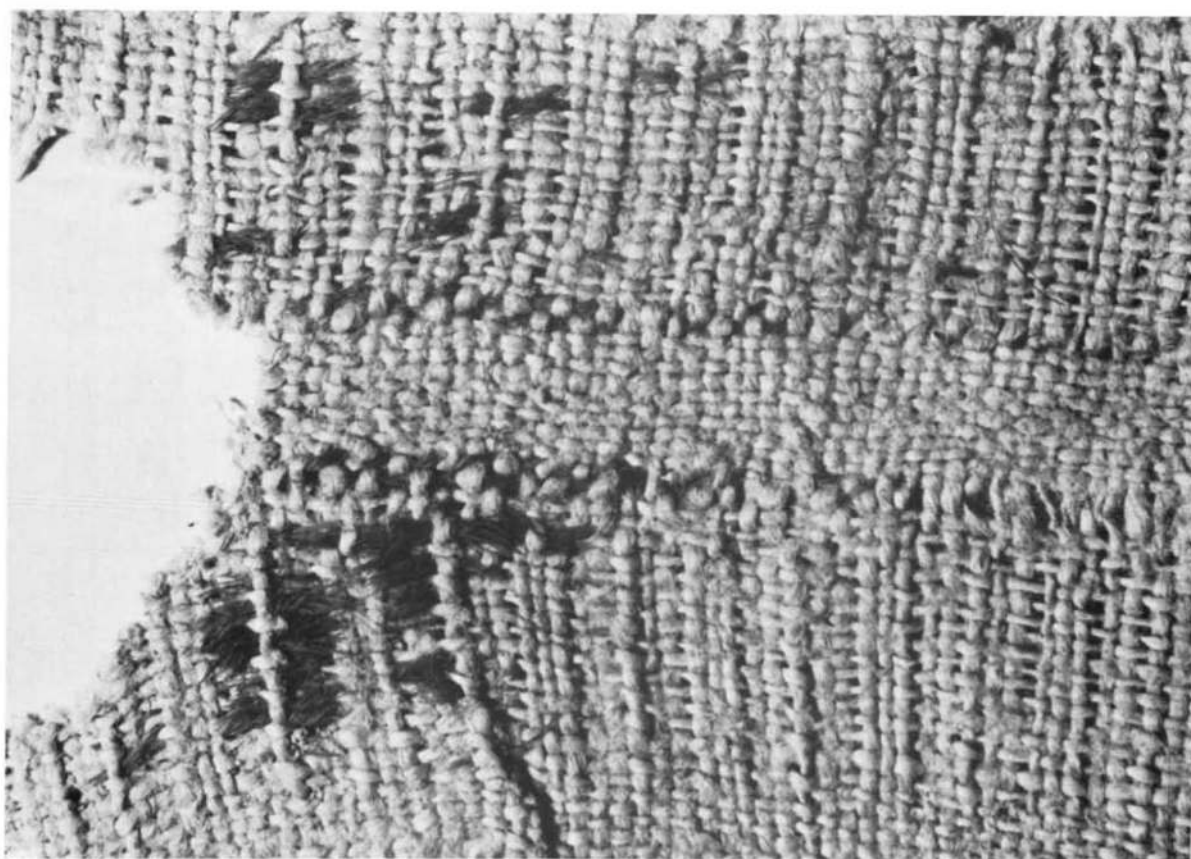
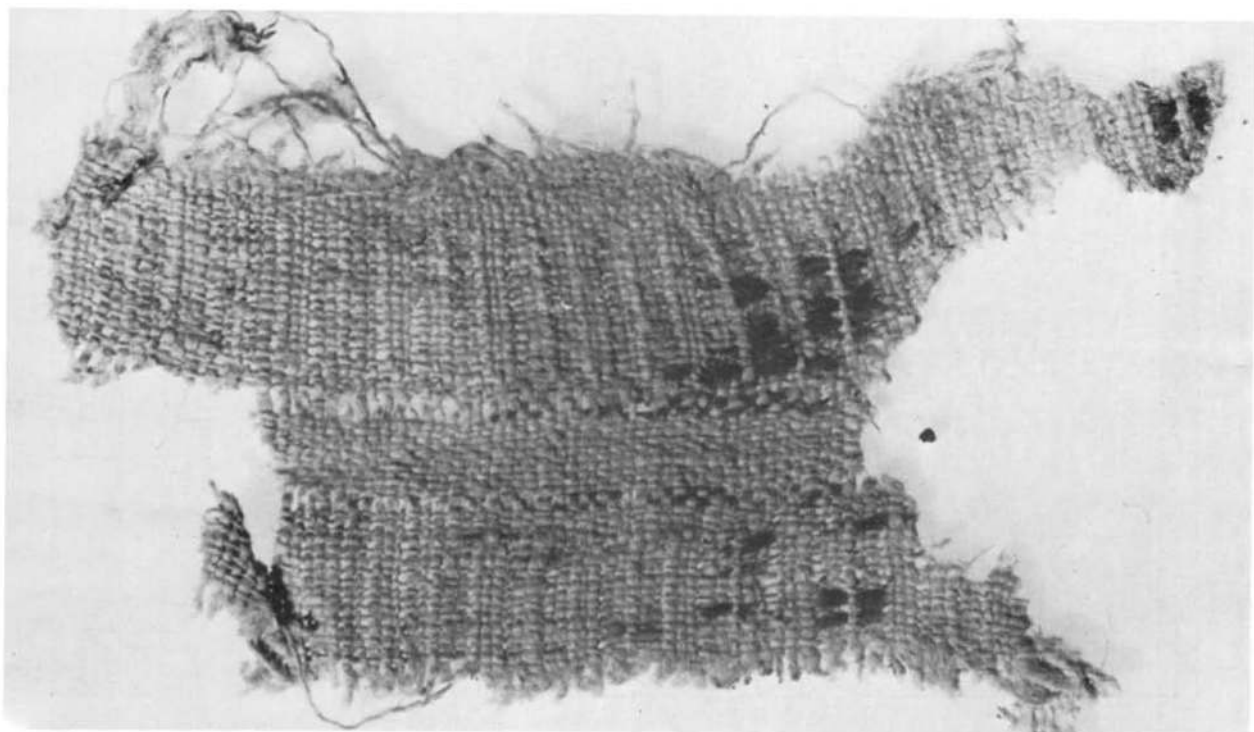
a



b

165. Medieval textiles, Building 32.  
a. Catalogue no. 58, fragment B. N.T. (p. 298)  
b. Detail, 4 x original. System (1) vertical. N.T.



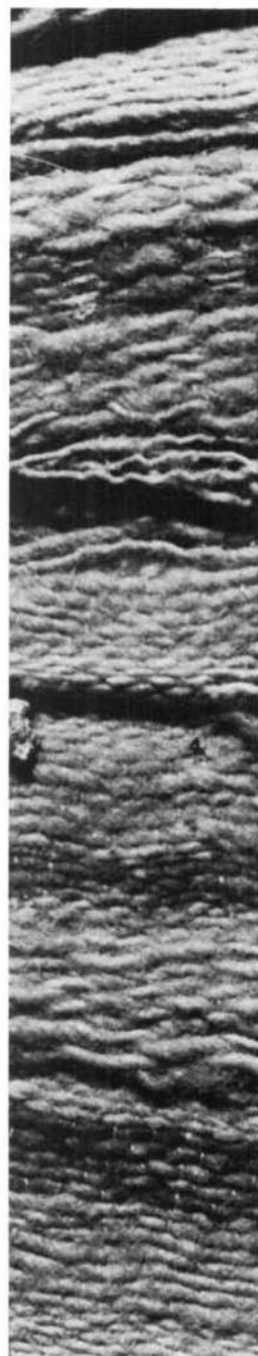
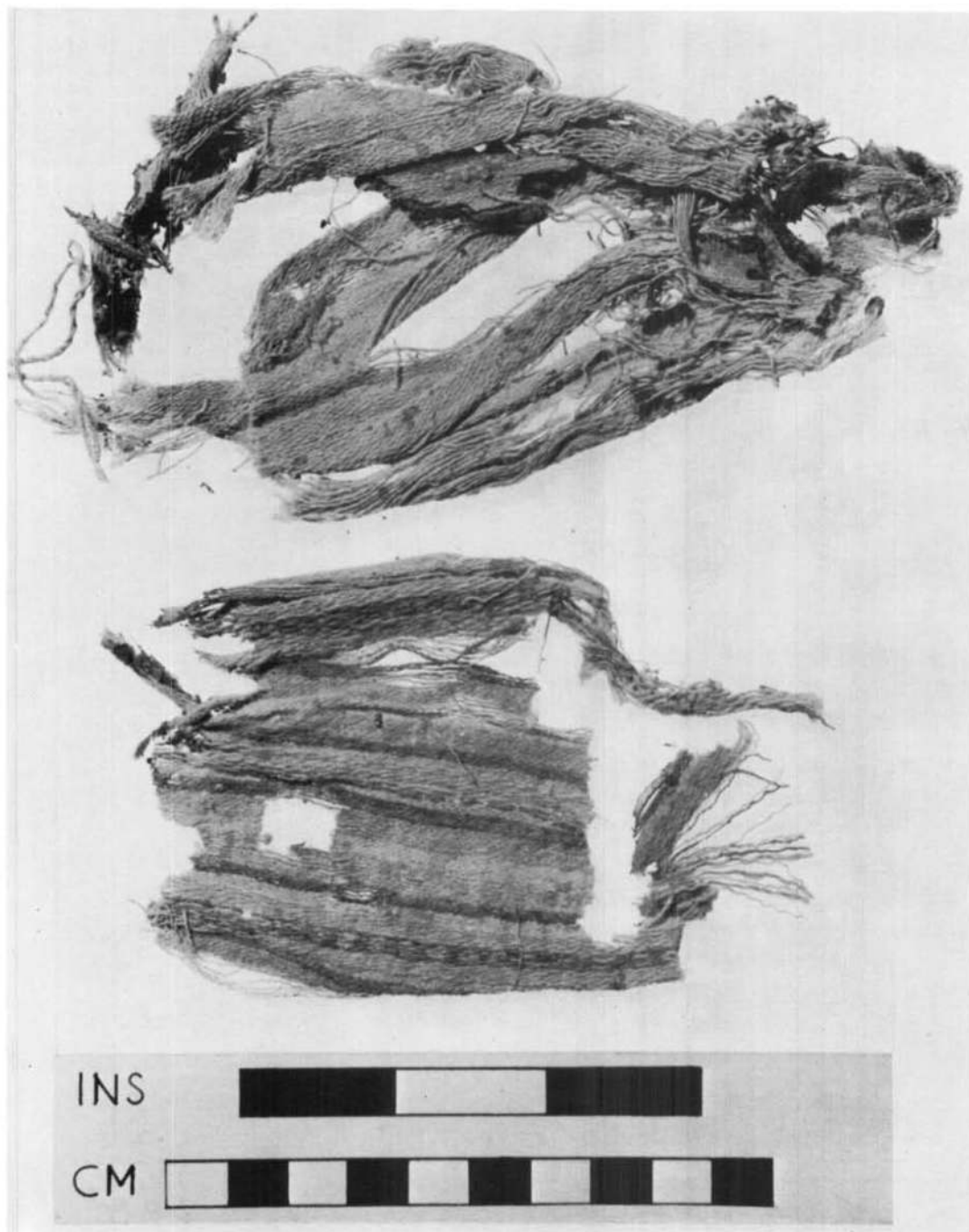


b

166. Medieval textiles, Building 32.

a. Catalogue no. 66. N.T. (p. 299)

b. Detail, 4 x original. System (1) vertical. N.T.



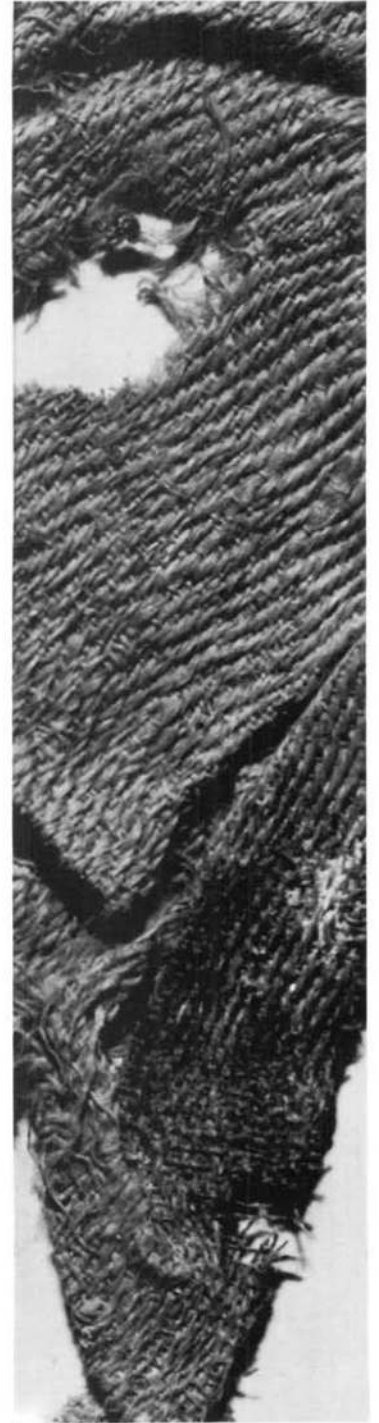
167. Medieval textiles, Building 32.

a. Catalogue no. 67. N.T. (p. 299)

b. Detail, 4 x original. System (1) vertical. N.T.



a



b

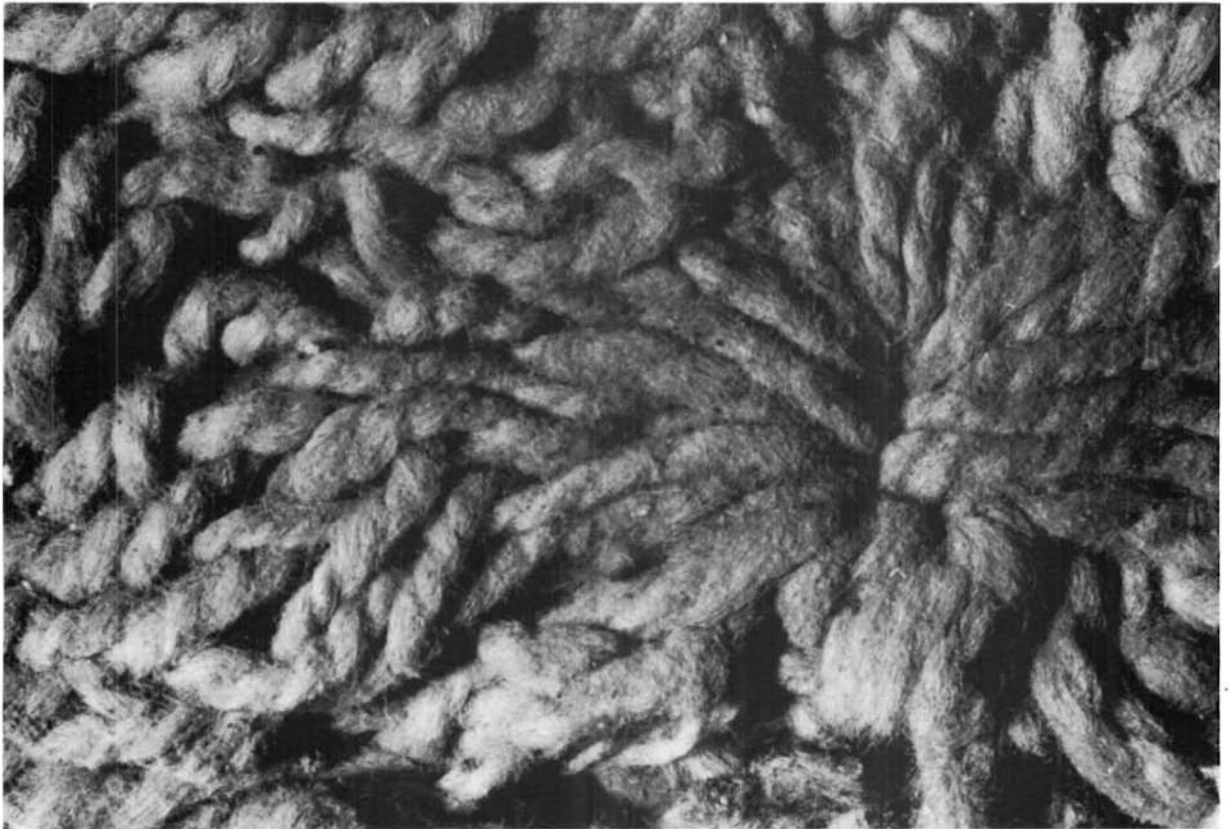
168. Medieval textiles, Building 32.

a. Catalogue no. 71. N.T. (p. 300)

b. Detail, 4 x original. System (1) vertical. N.T.



a



b

169. Medieval textiles, Building 32.  
a. Catalogue no. 72. N.T. (p. 300)  
b. Detail, 4 x original. System (1) vertical. N.T.



b

170. Medieval textiles, Building 32.

a. Catalogue no. 75. N.T. (p. 301)

b. Detail, 4 x original. System (1) vertical. N.T.



a



b

171. Medieval textiles, Building 32.

a. Catalogue no. 76. N.T. (p. 301)

b. Detail, 4 x original. System (1) vertical. N.T.



172. Medieval textiles, Building 32.  
a. Catalogue no. 70. N.T. (p. 300)  
b. Catalogue no. 72, loose fragment. N.T. (p. 300)  
c. Catalogue no. 84. System (1) vertical. N.T. (p. 302)