

Desert Road Archaeology

HEINRICH-BARTH-INSTITUT



Institut für Ur- und Frühgeschichte der Universität zu Köln

Forschungsstelle Afrika

27 A F R I C A P R A E H I S T O R I C A

Monographien zur Archäologie und Umwelt Afrikas

Monographs on African Archaeology and Environment

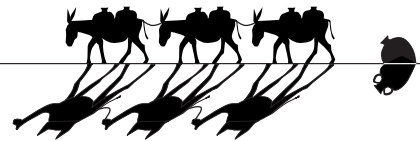
Monographies sur l'Archéologie et l'Environnement d'Afrique

Edited by Rudolph Kuper

KÖLN 2013

Desert Road Archaeology in Ancient Egypt and Beyond

Edited by Frank Förster & Heiko Riemer



H E I N R I C H - B A R T H - I N S T I T U T

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Jennerstr. 8, D-50823 Köln

<http://www.hbi-ev.uni-koeln.de>

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Bibliographic information published by
Die Deutsche Bibliothek

The Deutsche Bibliothek lists this publication in the Deutsche Nationalbibliographie; detailed bibliographic data are available on the Internet at <http://dnb.ddb.de>

Financed by Heinrich-Barth-Institut e.V.

Printed in Germany by Hans Kock GmbH, Bielefeld
Typeset and layout: Heiko Riemer
Copy editors: Elizabeth Hart and Rachel Herbert

Set in Palatino

ISBN 978-3-927688-41-4
ISSN 0947-2673

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A stroll along the corniche?

Coastal routes between the Nile Delta and Cyrenaica in the Late Bronze Age

Abstract

The subject of this paper is the range of potential mechanisms for travel along the Mediterranean coast, from the western edge of the Nile Delta towards Cyrenaica. More specifically, it is concerned with the ways in which travel along this stretch of coast in the period from c. 1300–1150 BC may have been affected by the presence of Zawiyet Umm el-Rakham, an Egyptian fortress-town 300 km west of the Nile Delta, founded (and probably abandoned) during the reign of Ramesses II. The problems of transit through the region will be examined, especially the nature of the supply-chain for the large Zawiyet Umm el-Rakham garrison, and Egyptian evidence relating to the question of the possible mass-migration along the Marmarican coast of Libyan groups during the Ramesside Period.

Keywords: chain of forts, maritime trade, Marmarica, Maryut Coast, Zawiyet Umm el-Rakham, Mersa Matruh, Libyans, New Kingdom, Ramesses II

1. Introduction

The period from c. 1300–1150 BC saw unprecedentedly high levels of activity along the Maryut Coast [cf. Fig. 1]. The foundation of the Ramesside fortress-town of Zawiyet Umm el-Rakham (henceforth ZUR) was one response to this activity, although the specific reasons for this significant investment by the Egyptian state are not entirely clear. However, ZUR seems to have had a role, or roles, to play in movement along the Maryut Coast by three significant groups: migrating Libyans whose progress ZUR may well have been intended to impede; maritime traders whose activities ZUR may well have been intended to encourage; and agents of the Egyptian state who founded, garrisoned and provisioned ZUR. As far as the movement itself is concerned, for the first group, the migrating Libyans, the evidence strongly suggests that an overland route was used, although the nature of that overland route is not entirely clear. For the second group, the maritime traders, a sea-borne route

was self-evidently utilised. For the third group, those who maintained the existence of ZUR, the evidence is much more ambiguous.

2. Sea routes along the Marmarican coast

The possibility of a Bronze Age sea-route skirting the coast between the Nile Delta and Cyrenaica has been considered by several authors, but usually in the context of an adjunct to a wider maritime trading pattern involving Crete. The discussion here centres around what sea-route between Crete and the North African coast would be possible/practicable and would fit within a wider pattern of international maritime trade, especially (but far from exclusively) in the Late Bronze Age. The maps of suggested routes provided by Watrous (1992: figs. 10; 11), especially his advocacy of a ‘southern route’ (op. cit.: 176f.), suggest, from a Cretan-based perspective derived from the evidence at Kommos, that both Crete–North Africa and North Africa–Crete

(and an east-west and west-east Cyrenaica–Nile Delta) routes are possible, as part of a potential clockwise and anti-clockwise grand circuit of the Eastern Mediterranean. Further evidence has been advanced by other scholars supporting both clockwise and anti-clockwise (partially or wholly) routes in the Eastern Mediterranean, including both Crete–North Africa and North Africa–Crete journeys (Hulin & White 2002: 169 and references cited). The crucial North African site for trans-Mediterranean trade before the 13th century BC is Bates’s Island, near Mersa Matruh, whose function has been described by its excavator as a ‘seasonal safe-haven for foreign mariners breaking their sea journeys between Crete and the Delta’ (White 2003: 75). The evidence from Bates’s Island suggests a status quo in the 14th century BC of relatively free maritime passage, the limited participation in this trading network by ‘local’ Libyans, and no large-scale Egyptian presence to regulate activity in the area.

3. Land routes across Marmarica – the migration of Libyans in the Late Bronze Age

This lack of Egyptian presence along the Marmarican coast in the 14th century BC is part of a larger picture which indicates that, in the period to the end of the 18th dynasty, the broad swath of territory to the west of the Nile Valley and Delta, which is now sometimes referred to as the Western Desert, was an area of significant uninterest to the Egyptian state. With the partial exception of the major oases (Bahariya, Farafra, Dakhla, and Kharga) the Western Desert did not offer significant opportunities for either immediate imperial economic exploitation, or as a region to be traversed in order to reach to more distant, but worthwhile, locales. As far as both of these factors are concerned, the Libyan west can be compared unfavourably with the Nubian south and the Asiatic east. At the same time the Libyan west did not offer a significant potential threat (to compare with the actual danger from, for example, the Hyksos and the Kerma kingdom in the Second Intermediate Period) to balance those opportunities.

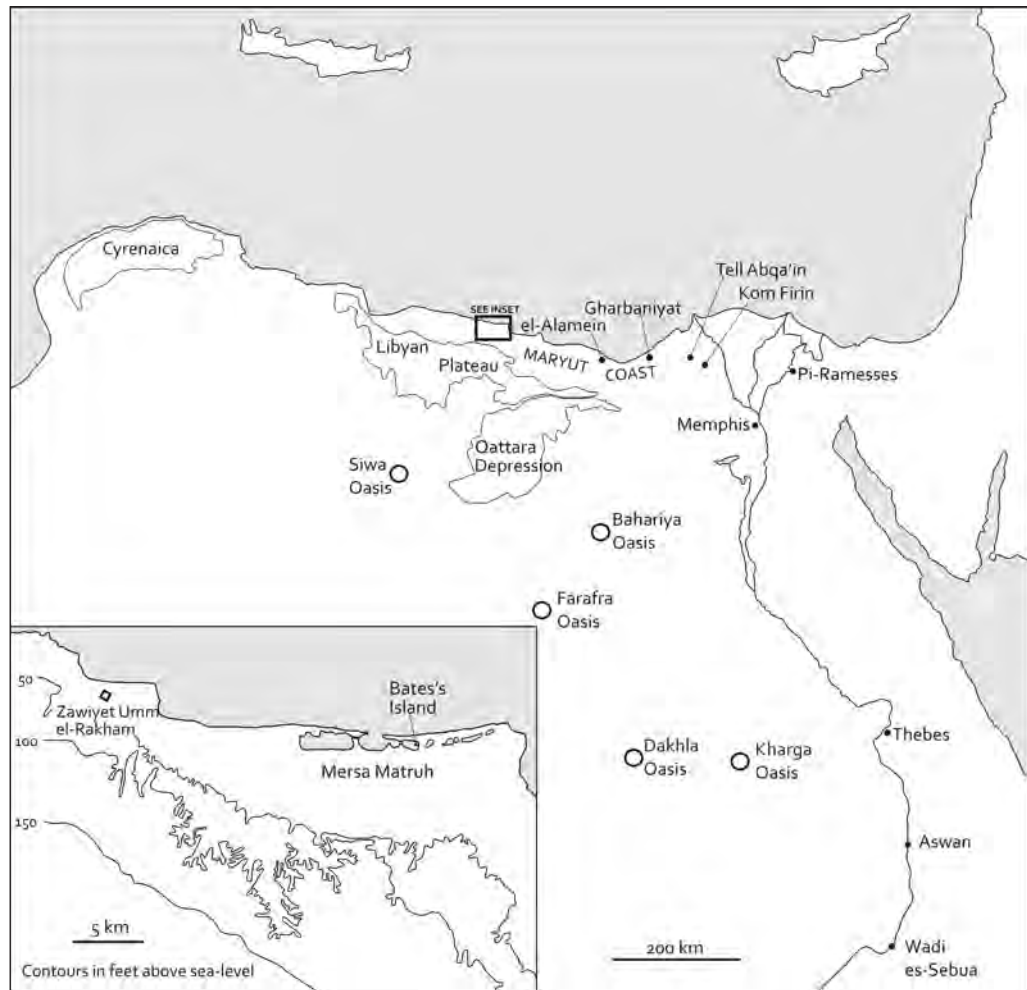
The relationship with the Libyan west, until the reign of Amenhotep III, can be typified as low-level trade (ostrich eggs and feathers are the typical products, cf. Snape 2012) and low-level threat (fringe-

raiding of Egypt’s western edges) by long-known Libyan groups, the Tjemeh and Tjehenu (for an overview of Egyptian contacts with these groups cf. Osing 1980; Hölscher 1937: 12–32; Snape 2003b). This lack of both opportunity for, and threat to, the Egyptian state meant that the Libyan west did not require the investment of manpower and material infrastructure for the maintenance of an occupying and potentially colonising military/political force or a defended transit route. One might compare the resources deployed in the creation of the Middle Kingdom fortresses of the Second Cataract system and the New Kingdom ‘Ways of Horus’ system, both of which had as one of their functions the facilitating of safe and efficient transit through Lower Nubia and northern Sinai, respectively. Note that, in each case, the importance of the system of fortifications/fortified settlements was in their ability to control the area in which they were established and also to defend relatively obvious transit routes to potentially hostile/valuable regions beyond.

The reign of Amenhotep III signalled a changed relationship between Egypt and the Libyan west. Two elements of this may be significant. The first is the reference to a new Libyan group, the Meshwesh, the first of a new set of Libyan ‘tribes’ (*mhwt*) with whom Egypt was to become familiar at the end of the 14th and beginning of the 13th centuries BC. The context of this contact is a reference, on a jar-label from Amenhotep’s Theban festival-palace at Malqata, to ‘fresh fat of the Meshwesh bulls’ (Hayes 1951: 131f., fig. 10) which, although probably referring to a type of bull present in Egypt, rather than an importation of the fat itself (op.cit.: 91), indicates that the nature of the Meshwesh as cattle-herding people, and their access to networks which could bring their produce to Egypt (and be recognised as such) was now recognised by the Egyptian state.

The second important indicator of the nature of Egyptian/Libyan interaction during the reign of Amenhotep III is a reference to his seizing of Tjehenu-Libyans as forced-labour for construction projects at Thebes (Helck 1957: 1656). This evidence, when taken in conjunction with a similar seizure of Tjemeh-Libyans under Ramesses II for work on his Nubian temples (especially Wadi es-Sebua, cf. Barsanti & Gauthier 1911), suggests an impressively large southern range for Tjehenu/Tjemeh in the Western Desert. This might well be considered con-

Fig. 1 Map of north-east Africa/south-east Mediterranean, showing the location of Zawiyet Umm el-Rakham and other sites/features referred to in the text.



gruent with what we know about these groups as ‘old’ Libyan groups as nomadic herders, but also indicates an established set of routes across the Western Desert used by the Tjehenu/Tjemeh, perhaps an oasis–oasis network, and including touching on the Nile Valley, sometimes unwisely so. It should be noted that attempts to isolate specific territorial limits for Tjehenu/Tjemeh activity are fraught with difficulties (cf. O’Connor 1990).

However, despite this potentially wide range of Tjehenu/Tjemeh presence in the Western Desert, the most obvious zone of contact between Egyptians and Libyans was the area immediately to the west of the Delta and along the Mediterranean coast. In particular, the Mediterranean coast offered much more than the Western Desert both as a zone for Libyan settlement on a permanent or seasonal basis. It was also the easiest and most direct route be-

tween Egypt and Cyrenaica, the putative home of the Meshwesh and the other major ‘new’ Libyan group, the Rebu/Libu.

In the reign of Seti I, war-reliefs at Karnak show the king engaged in serious warfare of uncertain extent and purpose against Libyan enemies. This may simply have been a punitive raid in force, but the scenes on the north wall of the hypostyle hall at Karnak can be seen as part of a larger composition celebrating a series of related military achievements by Seti I. The most famous (and best preserved) of these is Seti’s re-establishment of Egyptian control over the ‘Ways of Horus’ system in North Sinai; the Libyan scenes might potentially be viewed as operations ahead of the establishment of a similar system of forts along the Mediterranean coast west of the Delta. Such a system was in place during the reign of his successor. Ramesses II provided new

fortifications for, or established *de novo*, the settlements of Tell Abqa'in (Thomas 2000) and Kom Firin (Spencer 2008), on the western edge of the Delta, whose purpose is almost certainly a response to a growing threat from the west. He also established at least one major fortress-town along the Mediterranean coast, at Zawiyet Umm el-Rakham.

4. The fortress-town of Zawiyet Umm el-Rakham

The site of Zawiyet Umm el-Rakham (for location see **Fig. 1**) was discovered by chance in 1948 and intermittently investigated by Habachi in the 1950s. It has been the subject of a major fieldwork project by the University of Liverpool since 1994 (for an overview of the history of work at the site, see Snape & Wilson 2007: 1–7). It was probably founded early in the reign of Ramesses II (op.cit.: 129) and probably abandoned during, or shortly after, his reign since no royal names apart from his have yet been found at the site. It is likely that this abandonment was triggered by the very factor which led to its creation: the eastwards pressure along the Marmarican coast towards Egypt by various Libyan groups, culminating in Merenptah's Libyan war of year 5 (for an alternative view, see Manassa 2003: 30). Nothing so far recovered from ZUR suggests a post-Ramesses II / Merenptah re-occupation by Egyptian forces, although there is evidence of a short-lived (Libyan?) 'squatter' occupation of the fortress shortly after its abandonment by the garrison (Simpson 2002). The lack of Merenptah or Ramesses III occupation at ZUR is mildly irritating given that it is the only archaeologically well-attested Ramesside fortress in the Libyan west and that the Libyan war texts/scenes of both Merenptah and Ramesses III make reference to a variety of named fortresses which could otherwise be happily identified as ZUR.

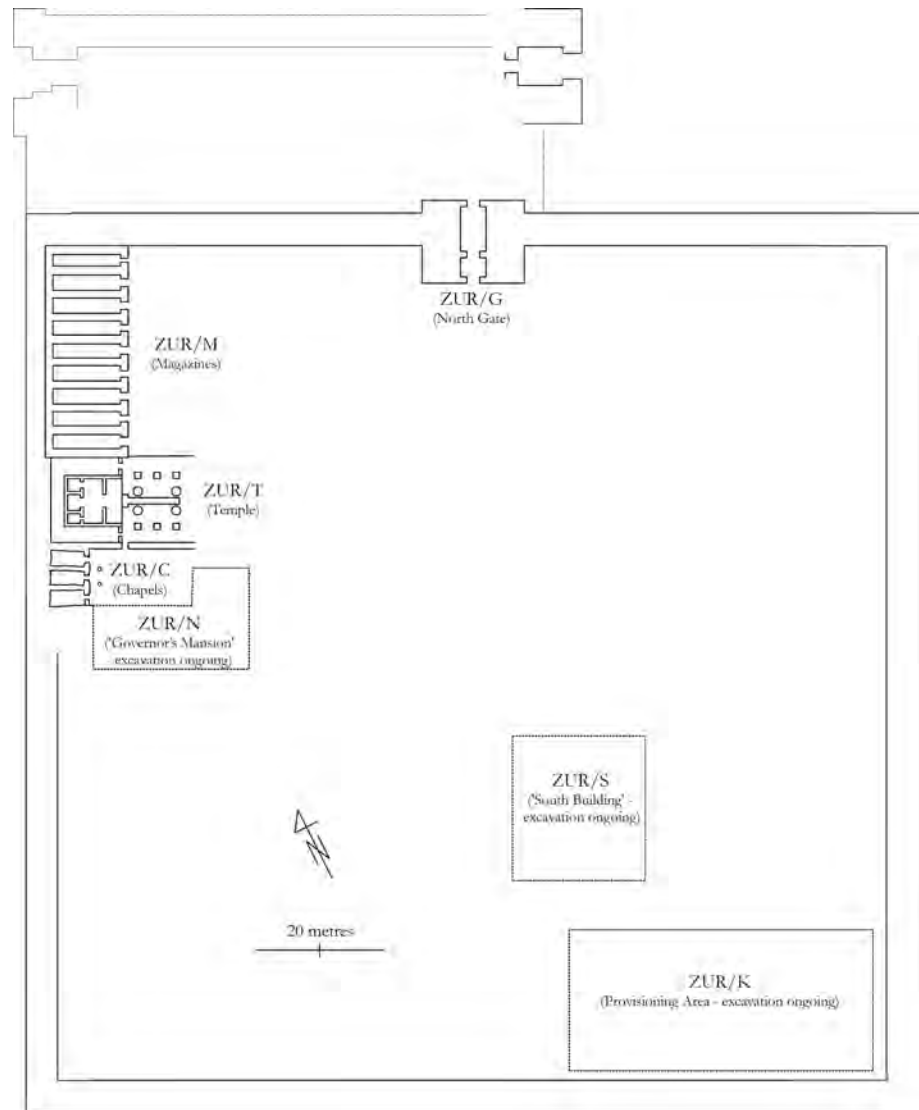
The programme of survey, geophysical survey and excavation carried out by the Liverpool team has revealed a very substantial fortified settlement [**Fig. 2**]. A mudbrick wall averaging 4.5–5 metres thick, broken only by a heavily-defended gateway, enclosed an area of 19,600 square metres. The scale of these defences suggests a significant and determined use of substantial resources by the Egyptian state to protect the garrison within from a real

threat. The range and nature of the structures contained within the interior of this enclosure further testify to the nature of the ZUR site as a significant settlement of intended longevity. These structures include, *inter alia*, a limestone temple and adjacent chapels (published in Snape & Wilson 2007), a series of magazines, a major provisioning area for the production of bread and beer, and a complex multi-roomed structure which may have functioned as a 'Governor's Residence'. Material recovered from ZUR relevant to the current discussion includes substantial quantities of Egyptian and non-Egyptian pottery and inscribed material produced for elite members of the Egyptian garrison, including its known commandant, Neb-Re. That ZUR was founded in part of the Libyan west which was regarded as Tjemeh-land is strongly suggested by a hieroglyphic inscription from the main gate at ZUR which refers to '... *mnnw*-fortresses upon the hill country of the Tjemehu and the wells within them ...' [**Fig. 3**] (cf. also Snape 1998). Other details from this short but intriguing text which might be considered relevant to the current discussion are the references to a plurality of *mnnw*-fortresses, and a stress placed on the presence of a water source within the(se) fortress(es). It might, of course, be argued that the gate text does not actually refer to ZUR itself, but to other *mnnw*-fortresses in Tjemeh-land. However, the term *mnnw*-fortress normally refers to a fortified population centre of some size (cf. Morris 2005: 627); the extent and sophistication of the archaeologically-recovered remains from ZUR make it clear that it could appropriately be regarded as such. If ZUR is or is not a *mnnw*-fortress is only one detail in the wider question of whether there actually was a chain of Libyan fortresses, including ZUR, and the significance, if any, of their location(s).

5. Was there a Libyan chain of forts?

The extent to which there was a chain of forts running along the Mediterranean coast west of the Delta in the Ramesside Period is difficult to assess. The textual and archaeological records present an ambiguous picture, particularly if comparisons are drawn with the two most substantial known defensive systems from dynastic Egypt, the Nubian forts of the Middle Kingdom, and the North Sinai 'Ways

Fig. 2 Schematic plan of the fortress-town of Zawiyet Umm el-Rakham, with principal areas excavated or under continued investigation, as at 2008.



of Horus' forts of the New Kingdom. In both those cases we have a substantial amount of mutually-supportive textual and archaeological evidence.

Until the building of the Aswan high dam, the Middle Kingdom forts of the Second Cataract region represented one of the best surviving series of archaeological sites from the Middle Kingdom, whose nature and purpose have been much studied and debated. A counterpart to this wealth of archaeological data is the listing of those same forts in the Middle Kingdom Ramesseum Onomasticon (Gardiner 1947: 10f.). Somewhat less well-preserved, but nonetheless archaeologically identified and excavated in part (cf. Hoffmeier & Moshier, this

volume) are the fortified settlements of the North Sinai route from Egypt to the southern Levant, which may also be identified (though not without debate in the case of individual ascriptions) with the illustrated and named 'Ways of Horus' forts on, for instance, the Seti I Karnak reliefs (cf. Gardiner 1920). No such textual material specifically refers to a Libyan chain of forts.

An explanation for the lack of depictions/references to Libyan fortresses under Ramesses II may be that the actual foundation of fortresses does not seem to be an important theme in royal art, although their depiction as part of a royal progress, or the destruction of enemy forts, is (cf. Spalinger 1980;

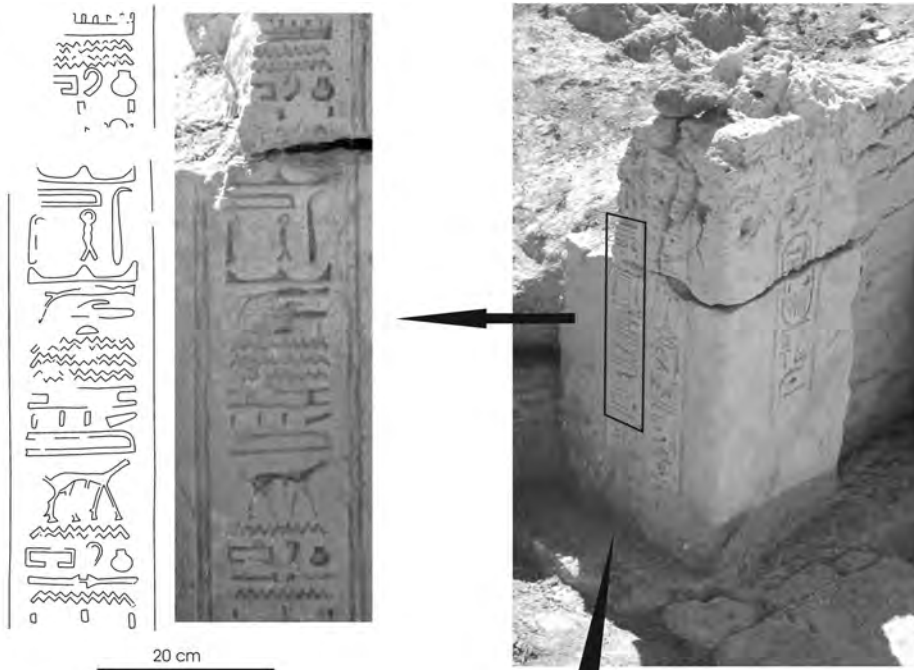


Fig. 3 View looking north through the North Gate at Zawiyet Umm el-Rakham, showing the location and text of the *mnnw*-inscription.



one which is often associated with the processing/housing of prisoners of war; these should not, however, necessarily be identified with *mnnw*-fortresses.

Other references to *mnnw*-fortresses which may have been located in the Libyan west include stela Tanis III which refers to '... *mnnw*-fortresses, equipped with everything ...' (Kitchen 1979: 292,8f.; 1996: 123). Morris believes that it is Libyan *mnnw*-fortresses which are referred to here, but only on the basis that the sheer achievement in provisioning such structures compared

Heinz 2001). A vague statement from Abu Simbel referring to Ramesses II as one who 'has placed the Shasu in the Westland and has settled the Tjehenu on the ridges. Filled are the strongholds (*nhwtw*) he has built' (Kitchen 1996: 67) might refer to new forts built on both the eastern and western frontiers, especially as the type of fortress referred to (*nhwtw*) is

Fig. 4 View of the Maryut Coast at Zawiyet Umm el-Rakham, looking north from the edge of the Libyan Plateau. The black rectangle marks the external walls of the site [cf. Fig. 2].



with Nubian *mnnw* would make the achievement notable (Morris 2005: 628). Less ambiguous is Merenptah's Karnak Libyan war text which refers to Libyan enemies crossing his border 'to rob these *mn(n)w*-fortresses' (Kitchen 1982: 4,8–10; 2003: 4), but although western *mnnw*-fortresses are meant, it is not clear how many or, specifically, where they are located. The Merenptah war texts also refer to the 'western *mnnw*-fortress', which was able to send a report of the passage of fleeing Libyans after their defeat by Merenptah (discussed in Manassa 2003: 47ff.).

The archaeological evidence for a Libyan chain of forts is also problematic (for a survey see Morris 2005: 641–645). The most complete discussion of this material is that of Habachi (1980), who noted the discovery at el-Alamein of a series of genuinely monumental stone blocks, all inscribed for Ramesses II, including two fragments of a red granite stela at least 1.6 m tall (Habachi 1980: pl. 7), the upper part of a further stela (op.cit.: 22) and a large red granite block (op.cit.: 21). Impressive though these monuments are, their original context within a fortified (?) settlement (?) at el-Alamein itself (?) remains unclear. A similarly impressive Ramesses II monument – a red granite column 3.5 m tall – was noted as early as the 1930s at Gharbaniyat, a site at which Habachi also noted 'foundations of sundried

brick walls' (op.cit.: 24), although this latter structure has proved somewhat elusive in more recent times. Some scholars have been understandably tempted to join the dots between these Maryut Coast sites, after adding a few more, to create a linked chain of forts a day's march apart, stretching from the western Delta to ZUR (Habachi 1980; Kitchen 1990: 18f.). This seems utterly plausible, but currently lacks confirmation through discovery. The existence of ZUR is, however, undeniable.

6. Water, and the physical context of Zawiyet Umm el-Rakham

The function of ZUR as a help or hindrance to travel along the Mediterranean coast can partly be assessed by reference to its physical situation (for a full account see Hounsell 2002: 1–23). ZUR is located on the coastal plain of the Maryut Coast which runs, with an average width of 20 km, from the west of the Nile Delta to the Libyan border at Sollum (Abu al-Izz 1971: 226). More specifically, ZUR sits on a transitional zone between the wide coastal strip of the Ras Alam el-Rum to Mersa Matrüh to the east, and the narrower coastal strip of the Ras Umm el-Rakham to Sollum region to the west [Fig. 4]. It is, therefore, situated at a point



Fig. 5 View looking north along one of the major wadis which cut into the Libyan Plateau in the vicinity of Zawiyet Umm el-Rakham.

where the narrow coastal strip of the west widens, and therefore acts as a gatekeeper to the wider coastal plain to the east. The coastal plain is defined by the high *reg* desert of the Libyan Plateau to the south and the Mediterranean Sea to the north [Fig. 5], and is typified geomorphologically by the presence of two/three ridges of soft oolitic limestone which run parallel to the coast (Zahran & Willis 1992: 17). The Maryut Coast is the wettest region of Egypt, with annual rainfall records of 144 mm (data from the 1960 'Climatic Normals of Egypt', tabulated in Zahran & Willis 1992: 19). This rainfall is concentrated in the winter months (October to March), providing opportunities for seasonal crops, especially winter barley, but also for water-harvesting for storage against dry summer months; this is practiced today with cisterns cut into the limestone with low rubble walls, called *gishgish*, directing the flow into the mouth of a cistern (Cole & Al-torki 1998: 144–148). A series of drainage channels in the area of the main temple at ZUR suggests that a similar technique may have been employed within the fortress (Snape & Wilson 2007: 28–31).

A more reliable, year-round source of water in the ZUR region is an aquifer in the limestone bedrock: 'Mediterranean Calcarenes [...] form an important watertable aquifer [which] floats on a

saline water wedge resulting from the intrusion of sea water. [...] The aquifer is replenished through the direct infiltration of local precipitation' (Barth & Shata 1987: 55). This aquifer is to be found at a depth of c. four metres below the surface of the limestone (= ground level in the Ramesside Period) and was exploited at ZUR by means of a series of wells dug into the soft limestone. This relatively easy access to water might compromise a view of forts on the Maryut coastal plain being able to completely control access to all available water sources, although the number of working wells along this coast in the Late Bronze Age is, of course, unknown.

The productive capacity of Ramesside wells in this area can be demonstrated through one of the two wells which have already been excavated at ZUR. One of these, the 'Temple Well', is close to the temple/magazines, and the other, the 'Kitchen Well', is within the provisioning area. The 'Temple Well' is 4.5 m deep, averages 75 cm wide and, when cleaned out by the Liverpool team, allowed the removal of water at 180–200 litres per hour [Fig. 6]. The 'Kitchen Well' is of the same depth as the 'Temple Well' and, although it has a narrower mouth, has a wider shaft (averages c. 1.00 m). The productive capacity of the 'Kitchen Well' has not been measured. The size of the garrison at ZUR is not easy to estimate, but evidence on troop-numbers provided by stelae (Snape & Wilson 2007: 127f.) from the site suggest a baseline figure of 500 individuals. If the water requirements of these individuals was in the region of 15–20 litres of water per person per day, then a total figure of 10,000 litres per day is required. This may seem a daunting quantity but, given the figures provided by the 'Temple Well', a series of only six wells of this type, used for ten hours per day, could produce somewhere between 10,800 and 12,000 litres per day, in addition to any additional cistern-based storage through water-harvesting.

There are other aspects of provisioning at ZUR which are relevant to its function/purpose, but before these questions are considered, the issue of the potential and actual routes of the Libyan migrations into Egypt must be considered.

7. Possible routes for Libyan migrations into Egypt

The most important sources which provide evidence for the actual routes used by Libyan groups in their descent on Egypt in the 13th and 12th centuries BC are the war texts/reliefs of Merenptah (war of year 5, texts surviving only) and Ramesses III (wars of years 5 and 11, texts and reliefs at Medinet Habu). It is important to note that these descents represent true migrations of communities and their belongings, not merely the rapid movement of an army. It is therefore, perhaps, natural to assume that the Libyan migrations under Merenptah/Ramesses III travelled along the Mediterranean coast, although this assumption has been challenged, at least as far as the Merenptah year 5 Libyan war is concerned, by the detailed study of that king's Karnak war text by Manassa (2003), who believes that the account of Merenptah's Libyan war suggests a more strategically sophisticated approach on the part of the Libyans. She believes that the final Libyan descent into Egypt was from the Farafra Oasis and that the main body of the migration was via 'western desert routes that connect the Libyan desert with the Nile Valley via the oases' (Manassa 2003: 27) and that, therefore, the centrepiece of the Merenptah war – the battle of Perire – took place somewhere along the southern part/edge of the western Delta. Support for this account might be found in the reference to the movement of the Libyan force who 'reached the mountain of the oasis (*wh3t*) and the *shadu* (*šꜥdw*) of the district of Farafra (*T3-iḥw*)'; the reference to 'the oasis', with no further qualifier, has been variously interpreted as both Bahariya and Kharga (Manassa 2003: 31, n. 168 and references cited) although Manassa suggests (using somewhat anachronistically later data) that Siwa is meant (op.cit.: 32). The possibility of a multiplicity of other known routes in the Western Desert (as referred to in other contributions to this volume) might find support from the evidence of both the Merenptah war texts, where corpses are said to be scattered 'on every road' (*mit nbt*) like locusts (Manassa 2003: 71; 74), and those of Ramesses III, where Amen opens up the 'roads of the land of Tjemeh' for the king (Kitchen 1983: 13,3; O'Connor 1990: 36). The potentially extensive southern range of Libyan groups in the reigns of Amenhotep III and Ramesses II has al-



Fig. 6 The author samples the water from the recently-cleared 'Temple Well' at Zawiyet Umm el-Rakham.

ready been noted above. It is also the case that, post-Ramesses III, late New Kingdom Egypt saw what are probably Libyan raids from the Western Desert in the south of the country, specifically documented in the Theban area (cf. Haring 1992).

If the oasis–oasis routes represent a viable option for long-distance travel in the Western Desert then, Manassa argues, the Merenptah text suggests three potential routes used for the Libyan 'invasion':

- (1) Siwa–Farafra–Bahariya–Faiyum–southwestern Delta;
- (2) Siwa–Farafra–Bahariya–Middle Egypt–eastern Delta;
- (3) 'a smaller raiding party moving across the Mediterranean coast' (Manassa 2003: 94f.).

However, a major problem in accepting the oasis-oasis system as a major migratory route is that of the migratory constituency. Although the Karnak text is broken at the point where herds of animals are listed as booty ('cattle 1,307, goats ...' survives; cf. Kitchen 1982: 9; 2003: 8), the Heliopolis Triumph Column lists 11,639 quadrupeds (Kitchen 1982: 38; 2003: 29). If this latter figure is correct – and so is that of 42,700 for the animal-booty taken by Ramesses III (O'Connor 1990: 37) – then the assumption that the coastal route was the major route for the bulk of the Libyan migratory hordes, because of the difficulty of grazing such huge, possibly concentrated, herds, might be relevant. In this context the ability of the Egyptians to deny access to at least some water sources to large numbers of people and animals passing along the coast, as suggested by the ZUR gate text, might be a partially effective strategy. Access to water by migrating Libyans is a theme which is referred to more than once in the Merenptah texts, although in contexts which are ambiguous. The archers of the Libyans abandon their water-skins after their defeat, and the chief of the Libu is spoken of as having 'no skin of water to sustain him' on the Karnak text (Kitchen 1982: 14; 2003: 12), while the Kom el-Ahmar stela, although fragmentary at this point, seems to refer to the activities of Merenptah in respect of the Libyans which resulted in their being '[deprived of their] wells, parched with thirst, through what the Strong Bull has done, who fights on [his bound]ary' (Kitchen 2003: 17), which might imply a deliberate strategy of denying access to existing wells by the Egyptians. If the overland routes were used by a more mobile contingent of Libyans, it is possibly a tribute to the success, rather than the failure, of any Libyan coastal fortress system in pushing the Libyans away from the obvious coastal route (cf. Manassa 2003: 49).

8. Self-sufficiency and external supply at Zawiyet Umm el-Rakham

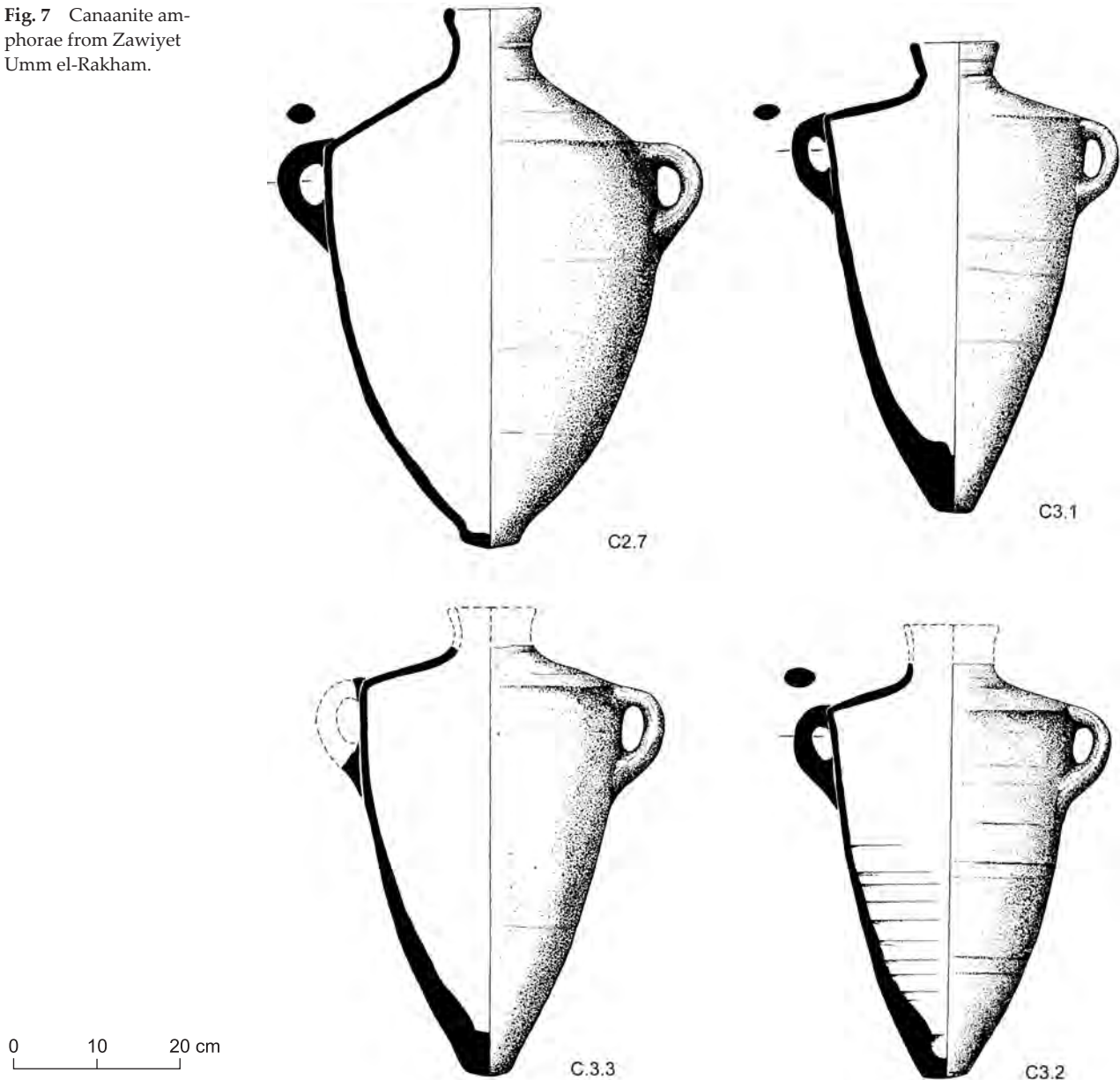
A critical issue in our understanding of the role and function of ZUR is the extent to which it was self-sufficient and to what extent externally supplied. By self-sufficient I refer to the ability of the garrison to produce its own requirements using resources

under its immediate control, or acquire them via local exchange networks. By external supply I mean material which is brought to ZUR, potentially from a great distance, by agents of the Egyptian state or other agencies over whom the garrison had no regular and manageable contact. External supply might include material acquired incidentally as part of ZUR's function in the Eastern Mediterranean trading circuit, which might be primarily luxury or supplemental items (Snape 2000; 2003c). More fundamentally, external supply could have provided the core necessities required for the maintenance of the garrison.

Material excavated at the site to date (e.g. Snape 2003a) indicates that the subsistence of the ZUR garrison was through a mixed pattern including local production by the garrison (including the locally obtained building materials of mudbrick and limestone, water, grain, flax, some ceramics), exchange with local Libyan groups (livestock, especially sheep/goats and products thereof), and exotic luxuries from non-Egyptian maritime traders (olive oil, wine, perhaps opium). As far as this paper is concerned, the more interesting question is to what extent ZUR was dependent on long-range transport networks which stretched back to Egypt itself, and what mechanisms for transport were employed in these networks; were these networks overland, by sea, or both?

In terms of quantity and, significantly, weight, the most common small-find at ZUR is pottery. Some of this pottery is of a clearly non-Egyptian, non-local origin (Snape 2000) [Fig. 7]. A more vexed question is that of the Egyptian-style pottery, which appears to be based on common Ramesside, typically silt-ware, types for domestic use and storage (cf. Aston 1998), including large-necked storage jars, funnel-necked jars, flat-based beer jars, and a variety of flat- and round-based dishes/plates/bowls [Fig. 8]. An ongoing study of the ZUR 'Egyptian' ceramic corpus suggests the use of variants of Nilotic (especially Nile silt B2) and local wares, the latter probably using local clay sources, such as those in the nearby Wadi Agiba (as already identified by Hulin 1989: 4; cf. Hulin 2001). The proportion of locally-produced/imported Egyptian pottery at ZUR remains to be determined, but even if a relatively small amount was imported from Egypt (including thin-walled marl amphorae, see Fig. 9), the necessity of transporting a heavy and easily breakable

Fig. 7 Canaanite amphorae from Zawiyet Umm el-Rakham.



product over a long distance seems to preclude an overland route.

The presence of spinning-bowls at ZUR is strong evidence for the cultivation of crops (i.e. flax) at the site. Potentially, grain could be grown there too; indeed the cultivation of rain-fed winter barley has long been a major staple of the Maryut Coast and the mouths of its associated wadis, which are especially numerous around ZUR (Zahran & Willis

1992: 338; Cole & Altorki 1998: 137). Grain was certainly stored at the site; to date, granaries with a total capacity of approximately 56,000 litres of grain have been excavated. The most important requirement of the garrison apart from water – grain for bread and beer – could potentially be produced locally. However, other evidence from ZUR suggests other options.

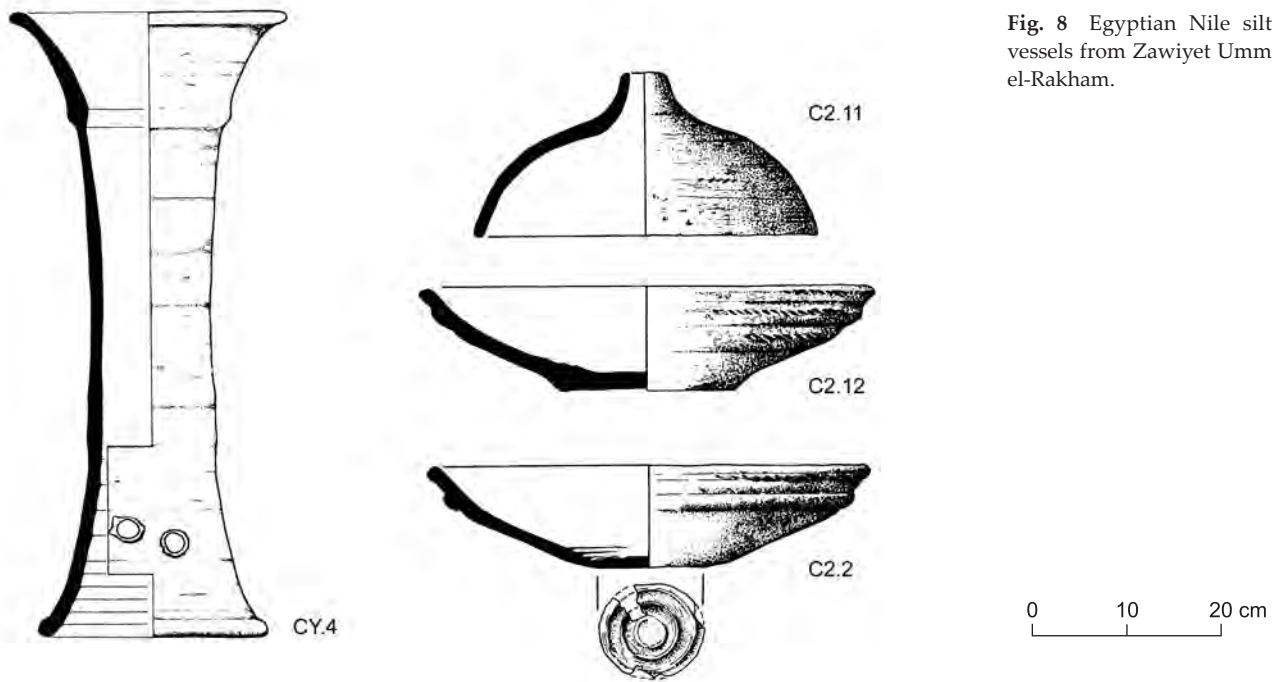


Fig. 8 Egyptian Nile silt vessels from Zawiyet Umm el-Rakham.

9. Further textual evidence for transport systems at Zawiyet Umm el-Rakham

In 2000 a group of monuments created for the fortress commandant Neb-Re – most importantly his standard-bearing statue and a naos containing the figures of Ptah and Sekhmet – was found by the Liverpool team within one of the rear rooms of his private chapel (Snape 2001; 2004; published in full in Snape & Godenho 2013). The Neb-Re monuments were inscribed with texts which, primarily dedicatory and autobiographical in nature, give some sense of a broader agenda of Neb-Re in relation to ZUR itself. Sections of the autobiographical text on the back-pillar of the statue of Neb-Re give specific detail, including a reference to Neb-Re provisioning the fortress-town with '[...] many rooms of grain from the field and from the hold of the *menesh*-ship, ferrying more grain than sand, which is for the district [...]'. Presumably, the 'grain from the field' refers to that which was produced locally around ZUR itself. But the text also suggests a second source of supply: grain-ships. The specific vessels referred to, *menesh*-ships, were sea-going merchant ships which were an innovation of the reign of Ramesses II. They represent a departure from

primarily riverine Egyptian craft and seem to be Egyptian versions of the high-prowed 'Syrian' merchant vessels seen arriving in the 18th dynasty in the tomb of Kenamun (Davies & Faulkner 1947) [cf. Fig. 10] or Ulu Burun-like vessels (Spalinger 2005: 255; Basch 1978; for the term see also the references in Jones 1988: 138). Spalinger (2005: 255) argues that these are products of the royal dockyards and were primarily employed for state purposes. Documentary evidence exists for their use to transport foreign tribute (in the 'Kadesh Poem' of Ramesses II, cf. Kitchen 1979: 38,3), and their role as sea-going transporters of bulk cargoes makes perfect sense in the context of the Neb-Re text. It should be noted that other sea-going vessels are known from Egyptian texts, including the *mkw*-ships in which Merenptah sent grain to aid the beleaguered Hittites (Manassa 2003: 158), as are riverine grain-transporters, but the latter seem to be broad barges (*wshyt*) better suited to river than maritime travel. Nevertheless, the experience of riverine grain-transport for Egyptians in the Ramesside Period was of individual boats being able to have cargoes of grain in excess of 42 tons (Gardiner 1947: 47; Castle 1992: 240). *Menesh*-ships are also mentioned in another significant and, as far as ZUR is concerned, relevant

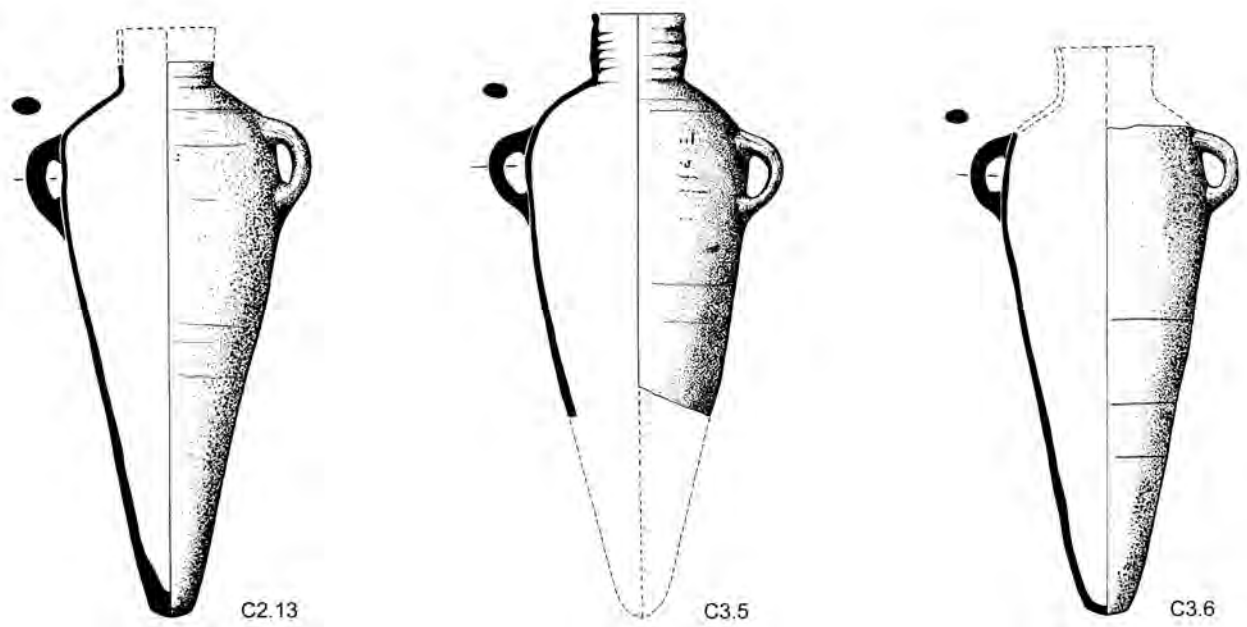


Fig. 9 Egyptian marl amphorae from Zawiyet Umm el-Rakham.

0 10 20 cm

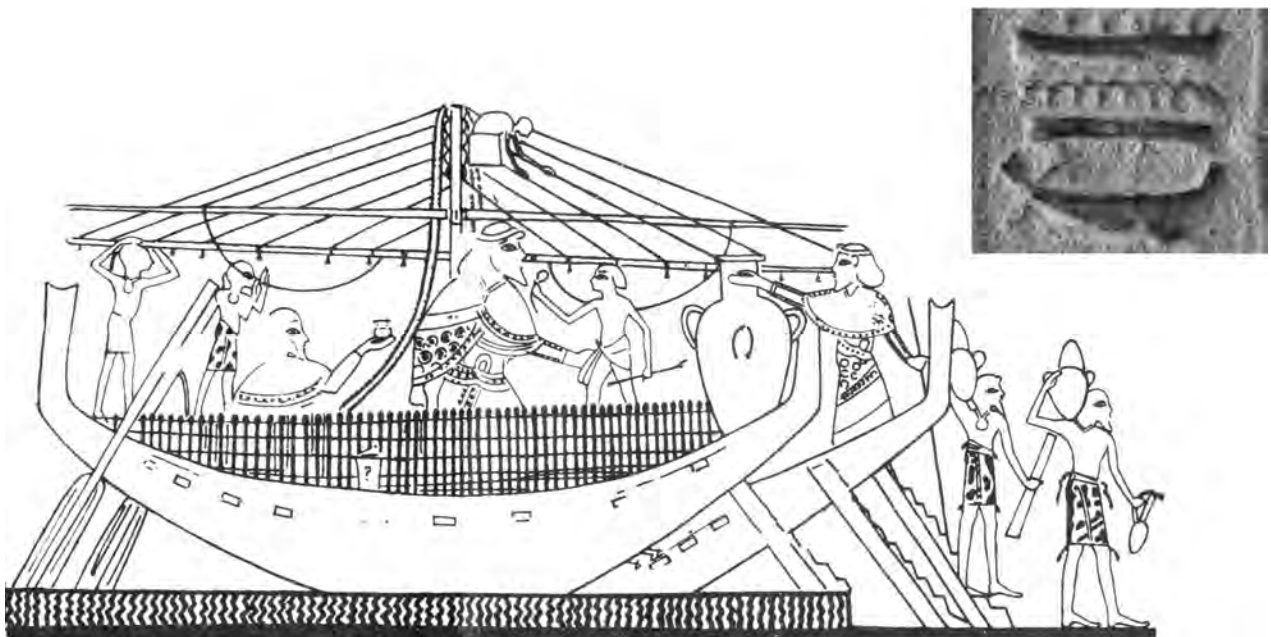


Fig. 10 High-prowed 'Syrian' transport vessel docking at an Egyptian port (after Davies & Faulkner 1947: 8), with the word *menesh* (-ship) from the Neb-Re text.



Fig. 11 View of the Mediterranean coast west of Ras Umm el-Rakham, looking towards the headland of Ras Abu Laho.

context – as troop-ships (in Papyrus Anastasi III, cf. Gardiner 1937: 28).

This evidence for the Ramesside development of a long-range, sea-going bulk transporter offers the possibility that overland travel between ZUR and the Nile Delta need not necessarily have been a major part of the provisioning of ZUR, and that a limited number of anchorages a day's sailing apart, not a series of fortresses a day's march apart, were required. The two might, of course, be the same. But this scenario does bring with it a number of potential problems. The first is the reliability of the winds and tides, the second is the availability of ports and harbours, which will be discussed below. It should also be noted that, while this system might explain the provisioning of ZUR (and other forts on the Maryut Coast), it does not negate any strategic anti-Libyan considerations which might have brought into existence possible fortresses between el-Alamein and ZUR. However, while aware of the danger of overstating the case, it may well be that the extension of Egyptian control as far west as ZUR was only possible through the technically advanced *menesh*-ship, which made long-range sea-going movement of large cargoes and troops possible.

10. What was Zawiyet Umm el-Rakham for?

The resource implications of ZUR suggest an importance to the Egyptian state which requires a function to be sought and, more particularly, a function which had not been required until the early Ramesside Period. It seems obvious to link this to the increasing, and increasingly uncomfortable, contacts with Libyan groups old and new, and, potentially, the Sea-Peoples. But, specifically, how?

Habachi's (1980) approach was to identify in the maritime situation of ZUR a coastal defence against the Sea-Peoples, particularly in view of Ramesses' campaign against Sherden sea-raiders in the Nile Delta in his year 1. There are a number of factors which suggest that this was not the case or, rather, this was not the primary function of ZUR. Material from ZUR, especially inscribed doorjambs bearing epithets of Ramesses II, make specific reference to the king as one who tramples (*ptpt*) or otherwise destroys specific enemies, namely the Tjemeh, Tjehenu and Libu, but no others. This seems to indicate that, on present evidence, the threat to be faced was specifically Libyan.

The size of ZUR seems excessive for an 'early warning system', but even an optimally large garrison would be unlikely to constitute a force substantial enough to engage in open combat a Libyan mass-migration. However, the presence of a superficially intimidating structure close to the Ras Umm el-Rakham gap may have been primarily intended to dissuade through display. Control by the garrison of local water sources may have been relevant as well. On a more strategic level, the location of ZUR just to the west of the later well-established overland route from the Mediterranean coast at Mersa Matruh to Siwa (and from there access to the oases network, as suggested by the map in Manassa 2003: pl. 1) may also have been relevant.

The presence of significant quantities of imported Aegean/Levantine pottery at ZUR (Snape 2000; 2003c) might suggest a more nuanced function of ZUR as a defence against a perceived new Libyan threat, which is to protect a vulnerable part of the Eastern Mediterranean maritime trading circuit. The area around ZUR may well have been a convenient jumping-off/arrival point for the cross-

ing to southern Crete, indeed the evidence from Bates's Island strongly suggests as much (White 2002). The Bates's Island material also suggests limited participation by 'local' Libyans (e.g. Tjemeh/Tjehenu) in low-level exchange with foreign visitors in the 18th dynasty. The lack of a significant Egyptian presence in this area before the beginning of the Ramesside Period has already been noted, and it may be that one, if not the primary, function of ZUR was to secure this part of the North African coast as a transit route giving unimpeded access for arriving/departing mariners, against the possible unwelcome interventions of an eastward-encroaching and non-participatory set of 'new' Libyans, especially Meshwesh and Libu (Snape 2003b). This perceived difference in Egyptian interaction with 'old' Libyan groups as opposed to the 'new' ones may also be seen in levels of interaction around ZUR itself (Snape 2003a; 2003b) and in references to a fractious relationship between old and new Libyan groups in the Merenptah/Ramesses III texts (Manassa 2003: 23f.). The 'purpose' of ZUR may have been to speed, as much as to impede, travellers along the Libyan coast to Egypt.

A further point may be worthy of note in respect of the maritime aspect of ZUR's role. Maritime traders reaching the North African coast close to ZUR could, potentially, have anchored just off the coast [Fig. 11] since they were not unloading significant amounts of cargo. However, the *menesh*-ships, whatever their cargo – grain, pottery, men –, would have required more substantial harbour facilities [cf. Fig. 10]. This is a significant problem since, as White & White (1996) note, there is none between Sollum and the Nile Delta, apart from Mersa Matruh. The location of ZUR may therefore have one further determining factor – it needed to be close to a harbour at which *menesh*-ships could unload their cargo which could then be transported overland to ZUR itself (as suggested in White 2003: 82). If this is the case, then the location of ZUR might have represented a compromise at the strategically useful narrowing of the Maryut coastal plain at Ras Umm el-Rakham and the point of departure for the direct overland route to Siwa, but also close to the logistically necessary harbour facilities at Mersa Matruh. This combination of circumstances may make ZUR uniquely favoured as a massive Libyan *mnnw*-fortress simply because it could not be anywhere else.

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