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THE OXFORD HISTORY  
OF ANCIENT EGYPT

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*Edited by*  
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## The Roman Period (30 BC–AD 395)

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There can be few historical events better known than the love affair between Mark Antony, triumvir of Rome, and the beautiful and talented Queen Cleopatra VII of Egypt. His association with Cleopatra may not have been without political motives, for there was much to be gained by Rome fostering good relations with Egypt, the wealth of which was proverbial. Ultimately, however, his relationship brought him into conflict with his astute, single-minded, brother-in-law, Octavian. The issue was finally settled in the battle of Actium, fought in September 31 BC, and a year later Octavian, who in 27 BC changed his name to Augustus, entered Egypt for the first and last time. Egypt, the land of the pharaohs and their hellenistic successors, the Ptolemies, was now part of the Roman empire.

Egypt was a land apart—an exotic and distant part of the empire, perhaps more bizarre than any other province. Here, pharaonic culture thrived and a visitor to Roman Egypt would have found himself in a time capsule, for the sights, sounds, and customs of Roman Egypt would have had more in common with pharaonic civilization than with contemporary Rome. Temples were still built in traditional style. The hieroglyphic script continued to be used, and Egyptian was spoken by the common people, although the lingua franca was Greek. Cleopatra was, as far as we know, the only Graeco-Roman ruler of Egypt to learn Egyptian, and then it was one of a multitude of languages in which she was proficient. Further indications of the depth of the all-pervading pharaonic culture is the persistence of mummification as a burial rite and continuing reverence for Egyptian gods. The special nature of Roman Egypt is undeniable, although there is a growing

body of scholars who consider the 'Romanity' of Egypt to be a more significant aspect.

Whether this is the case or not, cultural differences existed and it is hardly surprising that Rome adopted a somewhat hostile and suspicious attitude to Egypt. Roman senators were forbidden to enter the country and native Egyptians were excluded from the administration. It is significant that the only Egyptian town founded by Rome was Antinoopolis, on the Nile in Middle Egypt. The force behind this establishment was Hadrian, one of the few emperors ever to visit the country. His own love affair with Egypt is reflected in his great villa at Tivoli, where he attempted to recreate a Nilotic landscape in the Canopus garden.

Despite its unique aspect, Egypt has a special role to play in our understanding of the Roman empire as a whole. The dry climate has led to the preservation of a wealth of evidence that is lacking in more temperate regions. It is, for example, a repository of written evidence that is seldom preserved elsewhere. Best known are the papyri, which give an unrivalled insight into the business affairs and daily life of Roman Egypt. One of the most famous and productive sites is the town of Oxyrhynchus near the Nile, about 200 km. south of Cairo. In 1897 two Oxford scholars, Grenfell and Hunt, began to quarry the rubbish of the ancient town (*sebakh* in Arabic) for papyri. Their work proved to be a windfall for papyrology, for the documents so far published occupy nearly sixty volumes and there is almost the same quantity awaiting study.

Egypt is also the most important country for ostraca, documents written on potsherds in place of papyrus. Between 1987 and 1993 excavations at the Mons Claudianus fort in the Eastern Desert yielded over 9,000 ostraca, the largest collection from anywhere in the ancient world. For the first time they document quarry operations and give us a unique insight into the provisioning and logistics of a major Roman enterprise in the desert.

Documentary evidence apart, Egyptian town sites and tombs often yield organic matter that is seldom available elsewhere. Textiles are often beautifully preserved, as are basketry, leather, or food remains. Unfortunately the potential of this material has yet to be fully explored, as all too often it has been discarded in favour of the written evidence. Thus, Grenfell and Hunt seem to have thrown this material aside to be used as fertilizer by the fellahin. Recent excavations, such as those at Mons Claudianus, are beginning to rectify this imbalance.

### Administration

Roman Egypt was divided into about thirty administrative units called 'nomes', a system inherited from the preceding Ptolemaic era. Each had a governor or *strategos*, appointed by and answerable to the Prefect or governor of Egypt, via one of four *epistratego*i, the regional administrators. The Prefect was assisted by procurators responsible for finance and by other officials.

Each of the nomes had a capital town or *metropolis*, where the seat of local government was located. Unfortunately we do not know very much about these, as the urban topography of Roman Egypt has been little studied. The two best understood are Oxyrhynchus and Arsinoe, whence the evidence is derived from papyri. It appears that they were places of some sophistication and wealth. Thus, Oxyrhynchus had a gymnasium, public baths, a theatre, and about twenty temples, while Arsinoe had running water supplied by two reservoirs into which water was pumped from an arm of the Nile.

During the first two centuries AD, the nomes and their metropolises enjoyed little in the way of self-government, but in AD 200 Septimius Severus ordered the creation of town councils in each nome, a step towards upgrading the metropolises to *municipia* (a *municipium* being, in essence, a self-governing borough). This, however, led to consider-

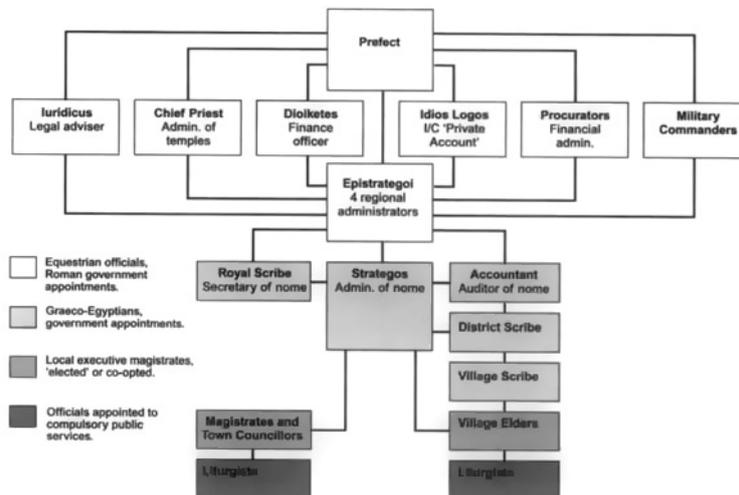


Diagram showing the bureaucratic structure of Roman Egypt

able resentment, for with increased responsibility came increased financial burdens to the holders of office.

Under Roman rule, all males between the ages of 14 and 60 were obliged to pay a poll tax annually. Roman citizens were exempt, but these probably only formed a minor part of the population. The upper classes, the 'metropolitae', paid at a reduced level. Class was, thus, a subject of some consequence and at the age of 14 a metropolitae boy would be required to present his credentials.

### The Army

As in other provinces, the main agent of control was the army. The epigraphic and papyrological evidence that Egypt provides furnishes an unrivalled picture of the functioning of a provincial army, to which can be added the archaeological evidence of the forts from which the army operated. Many of these, preserved by the desert, still stand to their wall tops.

One of the major early historical sources on the disposition of troops was Strabo (17.1.12), who, in a much-cited passage, states:

There are three legions of soldiers, one in the city and the others in the chora. In addition there are nine Roman cohorts, three in the city, three on the border with Ethiopia at Syene, as guard for those places and three elsewhere in the chora. There are three horse units which are likewise positioned in important places.

The city is, of course, Alexandria, where the fort of Nikopolis, about 5 km. east of the centre, stood until the late nineteenth century. Today a few fragments remain in the Khedival palace that was built on the site and all but obliterated it. Another legion seems to have been stationed in the fortress of Babylon (fragments of which can still be seen in the grounds of the Coptic museum in Cairo), while the third had the task of guarding the Thebaid. The legions deployed include the XXII Deiotariana, the III Cyrenaica, the II Traiana, and the XV Apollinaris.

Strabo is much less specific about the auxiliary units, but here it is possible to fill in the detail from a variety of sources within and outside Egypt. The evidence includes dedications, diplomas, tombstones, and other inscriptions, as well as papyri and ostraca, the latter two more or less restricted to Egypt itself. During the first three centuries AD there seem to have been, on average, three to four *alae* (cavalry units) stationed in the country, as well as about eight cohorts, which accords remarkably well with Strabo's claims.

The units changed and moved from one part of the empire to another, and between different places within Egypt, and in some cases it is possible to reconstruct their history. Thus, the *ala* Vocontorium is one of the earliest and best-attested auxiliary units in Egypt. Prior to AD 60 it seems to have been based in the Koptos area and there is also evidence for its presence in the fort at Babylon in AD 59. During the Flavian period it may have served on the German frontier, returning to Egypt by AD 105. It was later deployed in the Eastern Desert at Mons Porphyrites (AD 116), then again in the Nile Valley, until it disappeared from the records in AD 179.

Another example is the *cohors* II Ituraeorum, which is attested in Syene (Aswan) in AD 28 and AD 75 and later at various other places in the Syene area, before ending up at Mons Claudianus in AD 223–5.

The tasks that the army had to perform were multifarious. Defence of the empire was obviously important. According to Strabo, the areas to the south and east of Egypt were peopled by tribes largely identified to the Romans by their eating habits. There is little doubt that the troops stationed at Syene (Aswan) would have been charged with securing the southern limits of the state. Equally, desert security might have been, in some measure, the responsibility of units based along the Nile in Upper and Middle Egypt. There were certainly forts in parts of both the Eastern and Western Deserts, but they seem as much related to mineral exploitation and the promotion of trade as to security.

However, the army based in Egypt played a major role in most of the eastern military campaigns, such as the annexation of Arabia in AD 106 and Trajan's Parthian War. It was also called on to quell the Jewish revolts of the first and second centuries AD. Here the legions at Nikopolis and the units stationed at Pelusium in northern Sinai would have played a significant part, as they could have moved with relative rapidity to eastern trouble spots. Alexandria was undoubtedly the key military base. The legions based nearby would have been charged with controlling the unruly Alexandrian mob, securing this jewel of a city against attack, policing the countryside, and playing a part in the wider problems of the empire.

In fact, a major role of the army everywhere was to act as a police force. There is a substantial number of ostraca, principally referring to the Eastern Desert, that specify guard duties and the manning of *skopeloi* or watch towers. It appears that the guards were organized into *dekanoi*, which were controlled by *curatores*, who in turn were responsible to centurions. Movement along desert roads seems to have been

very strictly controlled, with need for permits, written on an ostrakon, or perhaps sometimes papyrus. Undoubtedly this was a measure to limit the banditry for which Egypt was notorious. This enduring problem must have been a major preoccupation of the army, with units of soldiers under the command of the *strategos* hunting down both the bandits and their sympathizers in the general population. Banditry would have been particularly prevalent in the mountainous parts of the Eastern Desert, where there would have been ample opportunity to hide, and rich picking to be had from the caravans of oriental luxuries travelling from Berenice or Myos Hormos (Quseir el-Qadim) on the Red Sea coast to the Nile. This undoubtedly accounts for the string of forts between Berenice and Koptos and particularly for the forts and numerous watchtowers on the road between Quseir el-Qadim and Koptos.

The army seems to have been involved in many other activities, such as the supervision of grain boats travelling down the Nile to Alexandria, guarding the ever unpopular tax collectors while executing their duties, and supplying and supervising quarrying and mining enterprises in the desert. Here, the evidence from Mons Claudianus suggests that they lived alongside civilians and were an integral part of the extractive system. They were charged, amongst other things, with supervising the *skopeloi*, with guarding valuables such as iron tools, and perhaps with the maintenance of structures.

### The Economy

There are three interrelated aspects of the economy of Roman Egypt. The most important is the agricultural production of the Nile Valley and the Delta. The fecundity of Egypt was well known and the city of Rome relied heavily on the Alexandrian grain ships to feed its teeming population. A second facet is the mineral extraction focused largely, but by no means exclusively, on the Eastern Desert. Here gold had been exploited since pharaonic times, but during the Roman period it was also a source of exotic stones such as the *granito del foro* and imperial porphyry. The red granite of Aswan has a long history of exploitation and it is not surprising that it was also one of the most important decorative stones used by the Romans.

The third aspect of the economy is the role that Egypt played in articulating Roman trade. Alexandria was, of course, one of the great trading cities of the ancient world, but Egypt is uniquely placed, with access to both the Mediterranean and the Red Sea, which itself leads to

the Indian Ocean and beyond. The country thus played a major role in Rome's trade with the Orient: with India in particular, but through it contact was made with Malaysia and possibly even China.

To many people today Egypt is a long thin ribbon of land expanding to a triangle in the form of the Delta. This is where the population lives and works and this is where the food is grown. Today, as in the past, the fertile land produces a surplus. The cause of this fertility is not, of course, the climate, for rainfall is negligible, but the river Nile. Before the building of the first Aswan dam, the river would burst its banks annually, depositing a fresh layer of rich silt on the surface of the fields. So important were these floods that their height was measured with specially constructed Nilometers, Roman examples of which can be seen at, for example, Aswan and Luxor, with a fine medieval one at Cairo. The level of taxation was adjusted to the height of the water: a good flood would mean a good crop, and the populace would be able to stand higher taxes. Pliny (*Historia Naturalis*, 5.58) is quite specific about the importance of flooding:

An average rise is one of seven metres. A smaller volume of water does not irrigate all localities and a larger one, by retiring too slowly, retards agriculture; and the latter uses up the time for sowing because of the moisture of the soil while the former gives no time for sowing because the soil is parched. The province takes careful note of both extremes: in a rise of five-and-a-half metres it senses famine and even at one of six metres it begins to feel hungry, but six-and-a-half metres brings cheerfulness, six-and-three-quarters complete confidence and seven metres delight. (trans A. Bowman)

Rome's reliance on Egyptian grain has a long history, stretching back to the Ptolemies, when, as early as 211 or 210 BC, Rome requested a consignment of grain from Ptolemy IV. The arrival of the Alexandrian grain ships was to become an important element in the economy of Rome, upon which the fates of emperors might hang. Under Augustus it may have reached 20 million *modii* (well over 1 million tons). The corn trade was part of the *annona*, the tax in kind levied by Rome on the producing provinces. There is some evidence to suggest that even the cost of transport from the estate to the Nile had to be met by the producers.

The supply of grain from the growing areas to the warehouses of Alexandria was a carefully regulated operation. The shipment was carried out by the *sitologos* (corn official) aided by the *antigraphheus* (clerk) and a financial assistant.

A sealed sample or *deigma* would be entrusted to the boat's captain for delivery with the consignment. This would be a check against

adulteration or substitution of the cargo with one of lower quality during the voyage. In any case, it seems to have been normal practice for a soldier to be present on board during the journey. On arrival at the great granaries in Alexandria, the corn would be in the care of special Roman procurators who, with their staff, were responsible for its safe-keeping and condition.

The corn ships generally left Alexandria in May or June and the journey to Rome, against the prevailing northerly winds, could take a month or perhaps even two. The route would be along the North African coast or north to Cyprus, then hugging the south coast of Turkey. The return with a tail wind took about a fortnight, the ships travelling 'with the speed of racehorses', as the emperor Gaius claimed. Either way, the journey was not without its hazards, as St Paul's shipwreck on Malta vividly illustrates.

Archaeologically, we know very little about the estates that produced this corn, but the papyri known as the Heroninos archive permit the detailed reconstruction of the working of one of them operating during the third century AD, the Appianus estate in the Faiyum. It appears that the owner of the estate, Aurelius Appianus, was a landowner of some standing with holdings comparable with those of Roman senators. His central administrators, bound by patronage, were recruited from the town councillors and landowners of the nome, and below them were the *phrontistai* or production managers, probably recruited from wealthy rural families, who perhaps worked for several estates simultaneously. The labour was provided by a nucleus of full-time workers supplemented by extra labourers when needed. It seems that the supply of paid labour from the poorer classes in rural Egypt made it unnecessary and uneconomic to seek slave labour.

There were three categories of full-time labourers: the *paidaria*, *oiketai*, and *metrematiai*. The first two categories seem to have been employed for life and perhaps provided with free accommodation, while the *metrematiai* were independent villagers contracted to work for a varying set number of years. Casual labourers came from many different backgrounds sometimes outside the village.

The primary aim of the unit was the production of wine for external sale. The other crops were grown to provide food for the employees, fodder for the estate draught animals, and grain for tax. All of these were necessary to permit the economic functioning of the estate. It is thus apparent that the grain for which Egypt was renowned was produced as part of a complex and sophisticated system of farming, which made profits in other ways.

The mineral resources of the Eastern Desert were known and exploited during pharaonic times. For example, the amethyst mines of Wadi el-Hudi have yielded a stele recording the use of the army in mines operated under Senusret I of the Middle Kingdom. Furthermore, the New Kingdom temple of Sety I at Abydos was granted rights at the gold mines in the Eastern Desert, a gang of workmen to bring back the gold, and a settlement at the mines themselves. These may well be the mines at Umm el-Fawakhir in the Wadi Hammamat, which still in use at the end of the twentieth century. A remarkable papyrus map in the Turin Egyptian museum is thought to depict this area.

Interest in the mineral resources, particularly gold, persisted through the Ptolemaic period into Roman times. Finds of black gloss pottery at sites such as Abu Zawal, about 20 km. west of Mons Claudianus, suggest that it, and probably other mines, were established before the Roman conquest, although they undoubtedly continued to operate after it.

Gold working sites have been little studied, but their appearance is distinctive. There is usually a cluster of small huts surrounded by stone heaps, and everywhere there is evidence of the apparatus used to crush the quartzite from which the ore would be extracted. The principal tool seems to be a well-made type of curved saddle quern with a heavy upper stone shaped like Napoleon's hat, the 'brim' of which formed the handles. Water would be needed in considerable quantity to separate the pay dirt from the gangue, and some sites, of which Abu Zawal is characteristic, have a substantial well forming the core of the complex. In other cases the crushed rock would have been taken away and separated elsewhere.

The method of extracting the gold was observed by the Greek geographer Agatharchides, who visited the mines in the second century BC. His original work has been lost, but fortunately his description has been preserved in the writings of Diodorus Siculus. He tells us that the rock was broken by fire setting and the use of hammers. It was then crushed in large stone mortars to the size of a pea, after which it would be ground to a fine powder in hand mills before being washed with water on a sloping surface to separate the gold and country rock. Presumably, the saddle querns, now so much in evidence on these sites, were used in the final grinding.

Stone quarrying also has a long ancestry in Egypt. The most celebrated example must be the great complex at Aswan, now unfortunately much disturbed and built over by the expansion of the modern

town. Aswan produced a variety of granitic rocks, the most celebrated of which was the red- or rose-coloured granite. During the pharaonic period it was used for sarcophagi, for obelisks, and as capping for the great pyramids of Giza, perhaps because its reddish colour suggests the sun. During the Roman period, the quarries continued unabated, and columns carved from Aswan granite are found in quantity around the shores of the Mediterranean. It is, in fact, one of the 'big three' decorative rocks of the Roman world, on a par with the *granito violetto* from the Troad and *Cipollino* from Greece.

The success of Aswan clearly results from its location on the banks of the Nile. The products could easily be loaded onto barges and floated to Alexandria, where they would be transferred to the *lapidariae naves*, the special stone ships used for transporting heavy loads across the Mediterranean. Other successful quarries such as those for sandstone at Gebel el-Silsila or those for 'Egyptian alabaster' (or 'calcite alabaster') in Middle Egypt, were also situated within easy reach of the Nile (although the principal calcite-alabaster quarries at Hatnub were at least half a day's journey away, and presumably somewhat longer when hauling large blocks). At Aswan, the quarries seem to have had a long life, the Romans continuing a tradition of quarrying of several thousand years.

For obvious logistical reasons, the large-scale quarrying of remote desert stone (for use in buildings or sculpture) was eschewed by the pharaohs, with the exception of *bekhen*, a greywacke sandstone from Wadi Hammamat, and even more remarkably, the so-called 'Chephren diorite', an anorthosite-gneiss from Gebel el-Asr in the Western Desert about 200 km. south-west of Aswan. During the Roman Period, however, an attempt was made to exploit the very considerable lithic resources of the desert more thoroughly, and the focus was the Eastern Desert, where a range of hard basement rocks was exploited, comprising mainly porphyry and varieties of diorite.

The centre that articulated most of this activity seems to have been Mons Porphyrites (Gebel Dokhan), about 70 km. north-west of Hurgada. Ostraca from Mons Claudianus state that the men working there were part of the *numerus* of Porphyrites and the *arithmos* of Claudianus. Similarly, the workers at nearby Tiberiane (Barud), the source of the *granito bianco e nero*, seem to have been of the *numerus* of Porphyrites and the *arithmos* of Tiberiane. To this can be added the scatter of tiny chips of porphyry found on most quarry sites in the Eastern Desert, suggesting that men who had worked the porphyry were being sent to other quarries.

A recently discovered inscription documents the discovery of this area in a remarkable way. It tells us that the resources were found by Gaius Cominius Leugas, who must have been the Roman equivalent of a field geologist, on 23 July AD 18. He appears to have discovered porphyry, black porphyry, multi-coloured stones, and *knekites* ('safflower stone'), which has yet to be geologically defined.

The dating of the earliest quarrying at Mons Porphyrites to the reign of Tiberius (AD 14–37) is confirmed by a further inscription, and it appears to have persisted until the late fourth or possibly even the early fifth century AD, if the pottery dating is correct. Purple had been worn as a mark of nobility in the Mediterranean region for many thousands of years and no doubt the discovery of a purple rock would have been a major event of considerable interest to the emperor personally. The operation itself has been described, with some justification, as the most remarkable manifestation of Roman activity to be seen anywhere in the empire. It was necessary to supply the quarries with food, to dig wells tapping the fossil water (which, contrary to popular belief, abounds in the desert), and to construct forts for the military and villages for the workers. While the two might have cohabited to some extent, the quarries are on the tops of mountains and it was convenient to post workers nearer to their place of labour. The site seems to have begun as a series of scattered mountain villages, which were later, in the second century AD, to be controlled by a fort at wadi level. In the late Roman period convicts may have been used, and a passage in the writings of Eusebius refers to a group of Christians (almost certainly quarry-workers) who had their eyes gouged out and their hamstrings cut before being deported to Palestine—presumably for trying to proselytize the garrison. However, for much of the time the operation was probably manned by civilians and soldiers working together, which was certainly the case at Mons Claudianus. Even Christianity was generally tolerated, as a number of inscriptions attest.

Mons Claudianus, some 50 km. to the south of Mons Porphyrites, was the source of a grey granodiorite used mainly for columns. This is now the most intensively studied of the Roman quarry sites in the Eastern Desert. The complex comprises a fort of Domitianic date, and an earlier one that has produced an ostrakon of Nero, with 130 small quarries scattered within a radius of about 1 km. around; each was connected to the main wadi bed by a slipway, which terminated in a loading ramp—the place where the products would be transferred from rollers or sledges to carts for the 120-km. journey across the desert to the Nile. Some of these carts must have been very large, for a

20-m. column would weigh over 200 tonnes. Here, it is pertinent to note that an ostrakon refers to a twelve-wheeled cart and, in the Naq el-Teir plain, tracks have been observed with a span of 3 m.

It used to be thought that the rock of Mons Claudianus, also known as the *granito del foro*, from its frequent occurrence in the Roman forum, had a pan-Mediterranean distribution. However, a programme of chemical and petrographic analysis during the 1990s has shown that its distribution is virtually restricted to some of the finer monuments in Rome. It appears that Mons Claudianus lay outside the normal orbit of Roman trade and may have been more or less the personal property of the emperor. It is interesting to note that other grey rocks of similar appearance were exploited in more accessible outcrops on the islands of Elba and Giglio, and also in western Turkey. The rock of Mons Claudianus was special, not because of its properties, but because of where it came from. It was a product from the utmost end of the empire and could be won only by extraordinary efforts. This could be the secret of the whole quarrying enterprise in the Eastern Desert, which makes little sense in rational economic terms.

The importance of Egypt to the Roman economy went beyond production. Perhaps one of the strangest and most bizarre aspects of taste among the Roman nobility was the predilection for oriental luxuries: pearls, pepper, silks, frankincense, and myrrh, as well as various other spices and exotic medicines. Egypt articulated this trade, for these goods were brought by ship across the Indian Ocean and thence to the western shores of the Red Sea. Here they were offloaded and dragged across 150 km. of desert to the Nile, whence they were floated to Alexandria and then on to Rome. India benefited from this trade, for in return it received glass, textiles, wine, grain, fine pottery, and precious metals as well as human cargoes, such as singing boys and maidens for the pleasure of Indian potentates.

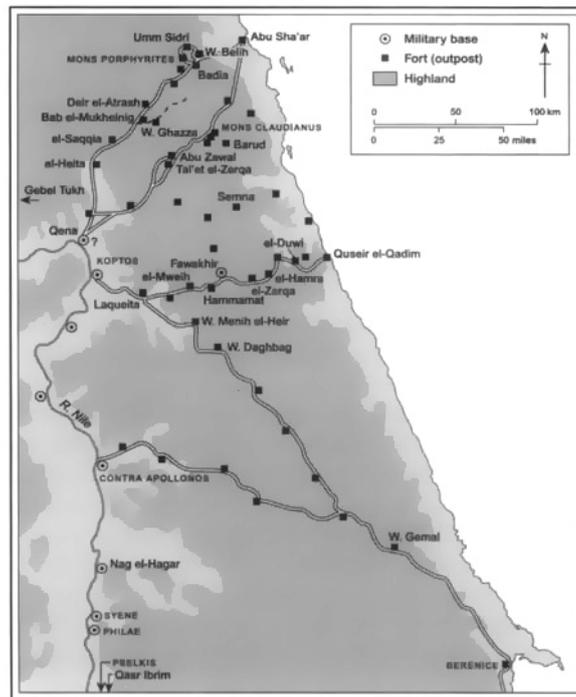
It might be thought advantageous for the ships to sail up the Red Sea and to cross the isthmus now occupied by the Suez Canal. Indeed, there was a project, begun under Ptolemy II and improved by various successors, particularly Trajan and Hadrian, that connected the Nile with the Bitter Lakes. However, it was not extensively used, at least in the first centuries BC and AD, largely because of the severe northerly wind that blows down the Red Sea for 80 per cent of the year. This would have been a major hazard to Roman shipping and it was preferable to make a more southerly landfall and to take goods overland to the Nile. The two ports established by Ptolemy II Philadelphus (285–246 BC) to

facilitate this trade were Berenice, named after his wife, and Myos Hormos. It appears that Myos Hormos was pre-eminent during the second century BC and that Berenice began to rise in importance during the first century BC and became dominant in the first century AD, although Myos Hormos continued in use. The India trade was thus developed in Ptolemaic times and the Romans merely took over and perhaps expanded a well-established concern. The Red Sea would also have been known to pharaonic traders, for it undoubtedly gave access to the mysterious East African land of Punt (see Chapter 11), from whence came exotic plants and animals.

The site of Berenice is well established and has been equated with the ruins near Ras Banas in southern Egypt, since its discovery by Belzoni in 1818. Myos Hormos has been the subject of extended debate, most writers siting it at Abu Sha'ar, 20 km. north of Hurghada, because this accords with the latitude and longitude given in Ptolemy's *Geography*. However, the 1990s excavations of the little fort on the site demonstrated that it is a late Roman and Byzantine foundation, with no evidence of earlier settlement. However, the site of Myos Hormos is described in some detail in the Classical literature, and study of satellite images suggests that the closest correspondence is with the site of Quseir el-Qadim at the end of the fortified road from Koptos on the Nile. This diagnosis has recently been confirmed by excavations at el-Zerqa about halfway along the route, for these have produced ostraca demonstrating beyond reasonable doubt, that the port at the end of the road was indeed Myos Hormos.

The nature of this trade can be filled out from both literary and archaeological sources. The main document is the *Periplus Maris Erythraei*, a sailing guide to the Red Sea, the Gulf of Aden, and the western Indian Ocean, compiled in the first century AD. It is supplemented with references in Tamil poems to 'cool fragrant wines brought by the Yavana in their ships' or again 'the thriving town of Muziris, whither the beautiful large ships of the Yavana come bearing gold, making the waters white with foam and return laden with pepper'. It appears that the best time to leave Egypt was July, when the south-western monsoons would drive the ships across the Gulf of Aden and the Indian Ocean, while the return would be delayed until November to take advantage of the north-eastern monsoons.

The south-western monsoons are some of the most ferocious winds on earth, and the ships must have been immensely large and strong to withstand such a voyage, perhaps akin to those on the Alexandria-Rome run, which were up to 60 m. long and had a displacement of



Maps of forts in the Eastern Desert and the routes from the Red Sea ports Berenice and Myos Hormos (Quseir el-Qadim) to the Nile in the Roman Period (30 BC–AD 395)

around 1,000 tons. Certainly the profits would have made the risks worthwhile: a recently published papyrus describes a shipment of nard (aromatic plants), ivory, and textiles from Muziris in India to Alexandria; this consignment had a value of 131 talents, enough to buy 2,400 acres of the best farmland in Egypt.

Archaeology can also help in understanding this trade. Long ago, Sir Mortimer Wheeler excavated the Roman settlement of Arikamedu on the Coromandel coast of India, where he found amphorae that would have contained the best wine of Campania, and fine red pottery of Tiberian date, produced in the workshops of Lyons, Pozzuoli, and Pisa. In Egypt, an excavation project during the 1990s at Berenice promises to furnish equivalent information on the Egyptian end. In the late 1970s and early 1980s small-scale excavations at Quseir el-Qadim,

then thought to be the port of Leucos Limen, produced interesting material, including a sherd with a Tamil inscription on it.

The overland routes from Berenice and Myos Hormos across the desert have been thoroughly studied. The one from Berenice runs in a north-westerly direction for over 350 km. and is equipped with *hydreumata* (watering places) every 20–30 km. Its destination is Koptos, but about halfway along there is a branch to the west that leads to Apollinopolis Magna (Edfu). The route from Myos Hormos again leads to Koptos, and Strabo tells us that the journey took six or seven days, the route being furnished with *hydreumata* dug to a great depth. Two of these (el-Mweih and el-Zerqa) were excavated in the 1990s, producing new documentary evidence in the form of ostraca, the publication of which is awaited.

The final leg of the trade, from Alexandria to Rome, may well have been intimately connected with the *annona* (the tax in kind, mentioned above), since shippers who served the state were able to carry some of their own goods free of tolls. However, this is by no means the whole story. Alexandria has produced many more examples of Baetican oil amphorae than any other major city in the eastern Mediterranean, a single example that serves to emphasize its role as a major port for inter-regional trade of all sorts and in all directions. To Strabo it was the greatest port in the world, and, of course, its Pharos or lighthouse was one of the wonders of the ancient world.

## Religion

There can be no aspect of Roman Egypt more complex or more difficult to understand than religion. In effect, Rome inherited pharaonic religion, on which a classical gloss had been superimposed, largely during the preceding Ptolemaic period. Visitors to the ancient temples of Egypt usually think that they are looking at masterpieces of the Dynastic era, but in many cases—Dendera, Edfu, Kom Ombo, Esna and Philae, for example—the extant structures are substantially Ptolemaic and Roman.

Although the first and most striking aspect of Egyptian religion is polytheism, there were a number of overriding beliefs (for further discussion, see the section on New Kingdom religion at the beginning of Chapter 10). Thus, such gods as Ra, the sun, Geb, the earth, and Nut, the sky, seem to have been worshipped almost everywhere in Egypt. There was, however, also a tendency towards monotheism. Ra was the

source of everything, Ptah is described as 'the heart and tongue of the gods', and in the mid-fourteenth century BC Akhenaten decreed that Aten was the one god that should be worshipped. Another readily observed feature of Egyptian religion is the partiality for animal cults. For example, Horus is represented by a falcon and Hathor by a cow. It was not, however, the animals themselves that were the focus of the worship, but the gods that chose to take on their forms. From this arose the custom of mummifying animals, often by the thousand: crocodiles, baboons, cats, the Oxyrhynchus fish, and so on.

Each of this plethora of gods had his or her own role to play, but the situation is far from simple, because their roles changed through time, and gods could merge together so as to become all but indistinguishable from one another. Thus Horus, the falcon, shown with a sun disc, is often indistinguishable from the sun-god Ra. Amun was originally the god of water and air, but later became the god of physical reproduction, the giver of life.

After Alexander's conquest in 332 BC, Greek culture became implanted, not only in the Greek cities of Alexandria, Naukratis, and Ptolemais, but also in the Greek communities scattered throughout the land. The Greeks identified their own gods within the Egyptian spectrum. Thus, Horus was equated with Apollo, Thoth with Hermes, Amun with Zeus, Hathor with Aphrodite, and so on. How the beautiful Athene would have reacted to being equated with the hippopotamus-goddess Taweret, we do not know.

A good example of this process of hellenization is the god Pan. He was equated with Amun-Min, the god of sexual reproduction, who had an important sanctuary at Koptos. The city is at the end of desert roads leading to the east. Amun-Min thus became the god of the east and was shown with an incense burner, perhaps symbolizing the spices and perfumes of the orient. From these beginnings, during the Roman period, Pan became the god of the Eastern Desert, the capricious guardian of the desert routes. He is shown not as the Pan of Greek mythology, but as the ithyphallic Min, his erection clearly inherited from his previous life.

During Ptolemaic times, a new god called Serapis was invented with the object of giving a greater degree of political and religious unity. Unlike the traditional pharaonic-period deity Osirapis, from whom he derived, he is shown not as an animal but as a bearded man, not unlike Zeus: of all the Egyptian gods, he is the most similar to a Graeco-Roman god. Serapis became immensely popular at Memphis, the old capital of Egypt, and then at Alexandria, when the seat of government

was moved there. Eventually the cult gained adherents in Sabratha and Lepcis, Rome, and later Ephesus and the Danube provinces.

Another very popular god in Roman Egypt was Isis, sometimes identified with Hathor. She was both wife and sister to Osiris, who was judge and ruler of the dead and supreme god of the funerary cult. Her role was that of a prototype for motherhood and the faithful wife. She was much adored by women, to whom she was queen of heaven and earth, of life and death. She looked favourably on all women's activities to such an extent that she was at one time the goddess of prostitutes as well. As in the case of Serapis, Isis' worshippers were to be found all over the empire, particularly in Spain. The rituals associated with her cult changed little from pharaonic times: at dawn her statue would be uncovered and adorned with jewels while the sacred fire was lit—all to the accompaniment of sacred music.

Just as the gods of Roman Egypt were essentially Egyptian gods, so temple architecture forms a continuum with Dynastic and Ptolemaic temples. The exception is the Paneion, which because of Pan's special role in the desert may be situated away from habitation in remote spots. Often they were no more than a rock on which travellers would write their dedications. A fine example of this is to be seen in the Wadi Hammamat.

The temple of Hathor at Dendera provides a good idea of the appearance of a late Ptolemaic–Roman temple. The propylon (north gate) is the work of Domitian and Trajan, but the main focus of the complex, the beautifully preserved temple of Hathor, was constructed between 125 BC and AD 60. The front of the building has a massive façade marked by six columns with Hathor-headed capitals surmounted by a cornice. The entrance leads to a hypostyle hall, built in the twenty-first year of Tiberius by Aulus Evilius Flaccus, with the aid of the inhabitants of the town and district, and its roof is supported by Hathor-headed columns. The hall leads through to an inner hypostyle hall and two 'vestibules', the inner of which contains the sanctuary, surrounded by a number of chapels. The ornament is characteristically Egyptian, but many of the subjects are Roman emperors. Thus we see Tiberius before the gods, Claudius making an offering to Hathor and Ihy, and representations of Augustus and Nero. The whole complex is a strange experience for a student brought up on classical scholarship.

Another fine example of a Roman temple is Trajan's kiosk at Philae, preserved on an island between Aswan and the High Dam. This elegant and finely proportioned building has fourteen columns with bell capitals and screen walls, two of which are decorated with scenes

representing Trajan making offerings to Isis, Osiris, and Horus. The symbolism of all these temples must have had a very special message to the population of Roman Egypt. Here there is no question of the emperor as god; he is seen as a supplicant to the great gods of old Egypt.

However, from the mid-first century AD onwards a new phenomenon appeared on the religious scene: Christianity. It seems to have taken root in Alexandria, whence it spread to the rest of the country. No doubt, with so many cults in existence, one more could be accepted and absorbed. However, Christianity was an uncompromising religion that did not see itself on a par with the others and actively sought to win converts from paganism. The old order was threatened, and from the mid-third century onwards persecution began in a sporadic way until its culmination in the great purges of Diocletian, begun in AD 303.

In the third century AD there emerged a new trend in religious practice that was to sweep the world. The desert is a religious testing ground, away from the hurly-burly of ordinary life where survival depends on reliance on God. Christ had already set the scene when he spent forty days and forty nights in the desert undergoing the temptations of the devil. In the late third century, according to tradition, two young rich men, Paul the first hermit and Anthony the first monk, each separately left their homes in the Nile Valley to live in the solitude of the wilderness. How they survived is not really a mystery, because holy men everywhere are treated with respect and fed by people they encounter. Since they both settled by springs, no doubt they would have been visited by Bedouin who would have known of the water source and had rights there. Eventually, despite his isolation, the fame of Anthony spread and even the emperor Constantine wrote to him asking for prayers. He was visited by his old disciples, various dignitaries, pilgrims, and, of course, curious sightseers. The coming and going of visitors led to the establishment of a caravanserai, which eventually developed into a monastery—the most significant monastery in Christendom, from which all others derived.

Burial customs are, of course, intimately connected with religious practices. It is not surprising, therefore, that the practice of mummification persisted alongside paganism—in some cases as late as the fourth century AD. The poor might receive the simplest burial as plainly bandaged mummies, but the rich would be given an elaborate mummy case, as pharaonic tradition dictated. During the Roman period encaustic portraits painted on board were set into the head of

the mummy case. These minor works of art are some of the most vivid and realistic to be seen anywhere in the Roman world. No doubt they would be commissioned from a highly skilled artist and, as they have an almost photographic degree of realism, they appear to have been executed while the individual was still alive. It has been suggested that they were painted during the prime of life and success, and were then kept for their eventual funerary use.

In Alexandria, there is evidence for an alternative style of burial, perhaps reflecting a different taste amongst the wealthy inhabitants of Greek origin. In the Kom el-Shugafa (the hill of the potsherds) is a complex of catacombs dating to the second century AD. It comprises a circular stairwell leading to a complex of burial chambers and a banqueting hall where mourners visiting the tombs could dine in close proximity to the deceased. While it was originally designed for the wealthy, it seems to have been extended to the poorer classes, for there are many small niches to accommodate unpretentious burials. Artistically the decoration is of some interest, deriving elements from both the Greek and the Egyptian canons. There are false sarcophagi decorated with masks, ox skulls, and festoons, but elsewhere are reliefs depicting deities such as Anubis or Thoth.

### **Crafts and Trades**

Minor arts and crafts are in abundant evidence in Roman Egypt. Almost every site of this period is littered with pottery, glass, and faience as well as organic materials, which are not normally seen in more temperate climates, such as basketry, textiles, and leather. Because of the architectural *richesse* of Egypt and the wealth of written evidence, everyday crafts have received less attention than they merit. Their potential for the analysis of trade, chronology, and technology has yet to be realized, but since the 1980s particularly the systematic study has commenced and is beginning to show interesting results.

Pottery is widely acknowledged to play a vital role in many aspects of archaeological enquiry. Imports to Roman Egypt such as wine jars from Italy and France, oil jars from Spain, fine red wares from North Africa, or lamps from Italy can be recognized and dated. Their importance is undeniable and they are beginning to throw light on trading contacts with the rest of the Mediterranean. However, our knowledge of the local Egyptian wares is still relatively limited. Most assemblages are dominated by jars made from 'Nile silt', a dull dark-brown clay characteristic of the Nile floodplain. There is every reason to believe

that these were being produced at many potteries along the Nile Valley and in the Delta, but there is a marked archaeological *lacuna* and we know of only a few kiln sites—all of them situated on the southern shore of Lake Mareotis near Alexandria and all discovered through the researches of one man, Jean-Yves Empereur. These Alexandria kilns appear to have been producing a type of amphora that is not closely datable and that appears on a majority of Roman sites in Egypt. In the third century, the kilns may have been producing imitations of Koan amphorae, presumably because they were destined to contain Koan-style wine, which was a medicinal variety made with sea water.

At the other end of Egypt, pottery with a red slip or wash was made at Aswan, and it is again found widely throughout the country, particularly in first- and second-century contexts. However, this is most certainly only part of the story and there must have been many other establishments along the Nile Valley producing jars or fine table wares such as the Egyptian 'red slip ware' first defined by John Hayes. Among the papyri from Oxyrhynchus are three that are leases for potteries. It appears that production was closely linked to the estate. The lessor, presumably the estate-owner, agrees to provide the pottery building, the storeroom, the wheel, the kiln, the clay, and the fuel for firing, in return for which the lessee must provide his own workforce and supply the lessor with a very large number of jars, in one case in excess of 15,000, which must have been destined to contain the produce of the estate. It is unfortunate that it is not possible to link this fascinating documentary evidence of estate production to the actual pottery or even to the type of pots produced.

Throughout most of the Roman world, fine table wares take the form of red gloss wares, produced in Gaul, Italy, or the East. While these are also found in Egypt, their place is taken by brilliant blue or green faience vessels. Faience is not pottery but a glazed quartz frit formed by grinding quartz and mixing it with an alkali salt and a colourant such as a copper salt. There are several ways of making faience, all of which produce much the same end result: for example, a core of fine quartz cemented with alkali can be packed into a glazing mixture of plant ash, copper oxide, and lime, or the frit can be prepared and painted onto the fashioned core. Alternatively, as the quartz dries, the colourant is drawn to the surface so that, on firing, it fuses to produce the characteristic glaze. Faience cannot be thrown and was usually formed by moulding: it is thus more suited to the production of beads and figurines, but in the Roman period it was used for plates, dishes, and drinking cups. We know little about the production of

Roman faience and it is unfortunate that the one kiln site known, at Memphis, was excavated early this century before modern techniques of observation and recording had been developed.

Glass is another common component of Roman rubbish deposits. Much of it is of surprisingly fine quality, often thin walled and clearly very accomplished. Even on desert sites the vessels may be blown, mould-blown, or with multi-coloured ornament or cut decoration. At present it is unclear how much of this was imported from the great glasshouses of Syria or how much was locally produced. Alexandria is described by Strabo and other later writers as a great centre for glass-making, perhaps making some of the finest polychrome vessels, but archaeologically we know very little about it. There were certainly other glasshouses, judging from the guild of glass workers mentioned in the *Oxyrhynchus papyri*.

The production of flour was an important trade closely connected with subsistence. Rotary querns were certainly in use, but the type of mill most commonly encountered is the lever or 'Olynthian' mill. It comprises a slab of stone about 50 sq. cm. with a slot, which forms the hopper, in the middle. A lever is fixed across the top of the stone, which is oscillated to and fro around a pivot. Examples have been found in the Greek settlement of Naukratis, but also at Tanis, in the Faiyum, at Quseir el-Qadim, and in the forts of Tiberiane (Barud) and Mons Porphyrites. It is almost certain that this type of mill was introduced by the Greeks, where the type continued in use until at least the third century BC. However, in Egypt they certainly persisted into the Roman period and the example from Quseir belongs to the first century AD, while those from the forts are certainly of first- or second-century AD date. The fort at Badia, in the Mons Porphyrites complex, has produced the components of segmented mills in lava probably from the Greek island of Nisyros. The type is known from Delos, although the examples from Badia could be of late Roman date.

In the ancient world it seems that Egypt was renowned for its textiles, and significant collections, largely of the later Roman period, have been recovered from the towns of Antinoopolis and Panopolis, where there may have been woollen mills. Again Alexandria seems to have been important, supporting a linen trade and the reworking of oriental silks.

Other crafts that might be mentioned are the growing and manufacture of papyrus, the manufacture of drugs and medicines, the production of jewellery, leather working and metalworking, all of which are still inadequately studied.

### Demography

The demography of Roman Egypt during the first three centuries AD is well documented, for we have about 300 papyri recording census returns. These returns detail not only members of families living in the Nile Valley, but also their lodgers and slaves.

Estimates of the population of Roman Egypt are fraught with difficulty, not least because the two principal historical sources contradict one another. Diodorus Siculus puts the population in the first century BC at 3 million, while Josephus, writing in the first century AD, gives a figure of 7.5 million exclusive of Alexandria. On the whole, modern scholars find the figure given by Diodorus to be the more credible.

Alexandria, one of the most populous cities in the ancient Mediterranean, is said by Diodorus to have a population of 300,000, which is not so far removed from the modern estimates of around 500,000. It can also be argued that the rural population was distributed over 2,000–3,000 villages, each with an average population of around 1,000–1,500, giving a total figure of 3 million, which accords well with the probable rural population before the nineteenth century. Such calculations by modern scholars give a total population of 4.75 million, of which 1.75 million lived in the towns.

The census returns enable us to flesh out these bare figures. It seems that around two-thirds of households comprised conjugal families (with their siblings) or multiple families linked by kinship, while most of the remaining households were occupied by solitary persons or by families extended by the presence of co-resident kin. Lodgers seem to have been comparatively rare. Slaves, on the other hand, constitute about 11 per cent of the total population. Since the returns give ages, it is possible to estimate death rates. Among women, it seems that very few lived to their sixties, and female life expectancy at birth was probably in the mid- to low twenties. Male life expectancy, on the other hand, was at least twenty-five years. The sex ratio of the 1,022 persons whose sex can be adduced was 540 males to 482 females, but among slaves it is reversed (thirty-four males to sixty-eight females).

Marriage in Roman Egypt was a legal status that had consequences for the offspring, but weddings and divorces were private matters in which the state did not intervene. The wife would nearly always live in the husband's household, often with his extended family. About a sixth of all marriages were those between brothers and sisters. Most women would have married by their late teens and virtually all by their late twenties, but only half of all men had married by the age of 25. The

average age of women at maternity was around 27 years. The demographic picture of Roman Egypt thus corresponds closely with that of a typical pre-industrial Mediterranean population.

### **The Nature of Roman Egypt**

All Roman provinces were an amalgam between the influence of Rome and indigenous culture. In most cases, the former more or less subsumed the latter. Thus, in Roman Britain or Gaul, for example, traces of the pre-existing Iron Age persist, but the most marked aspect is the change to a Mediterranean style of life. Only in Egypt, and perhaps to some extent in the Greek lands of the north-eastern Mediterranean, is the Roman period an essay in continuity with what went before. At least one of the reasons for this must lie in pharaonic architecture. The creation of a landscape dominated by buildings made of massive blocks of stone, which were not easily swept away, must have been a major factor. They served exactly their intended purpose: to remind people of the greatness of pharaonic civilization and to be a constant witness to the beliefs and values of that period of Egyptian greatness. This may not be the only reason, but it must have been a contributory factor.

It would be wrong to suggest that the Roman era was one of stagnation or that there was no change at all during the seven centuries that lay between the death of Cleopatra on 12th August 30 BC and the Arab conquest of AD 642. However, the major cultural change took root in the third century AD, when Christianity gained widespread acceptance, as it did throughout the empire generally. Monasticism had its roots in the Egyptian desert led by people such as St Paul and St Anthony. Even here pharaonic culture was not without its influence, for Anthony started his religious life living in an old tomb near his village on the Nile and it is here that he wrestled with demons and wild animals, before making his journey into the wilderness.