

Into Egypt's Eastern Desert

*In the second part of his article, **Colin Reader** continues his trip into Egypt's remote and spectacular Eastern Desert, discovering the sites of important and impressive quarries and yet more examples of the art carved into the rocks and boulders along the ancient trading routes.*



The first part of this article (see the last issue of *AE*, Issue 57, Dec. 2009/Jan. 2010) dealt largely with my initial impressions of Egypt's Eastern Desert. As our exploration continued, we encountered increasing evidence for the mastery the people of ancient Egypt had over the land they inhabited and travelled.

The Glorious Mistake!

I had been given a set of GPS coordinates for a pharaonic site from which both granodiorite (a hard igneous rock) and associated gold deposits had been quarried. In mountainous terrain, such as the Eastern Desert, it is not possible simply to follow a bearing from one place to another, and just finding the site at Bokari turned out to be a huge adventure!

Although we were equipped with the best available maps, we came close on a number of occasions to abandoning our quest for the ancient gold mine. One of our first errors, however, turned out to be a glorious mistake!

The map, on which we had planned our route the night

before, indicated that after passing a well, we needed to take the first track on the left. Quite rapidly, however, instead of following the floor of the wadi, as we had expected, the road beneath us began to rise steeply and it was soon clear that there were tracks on the ground that were not shown on the map!

The road we were on was a narrow man-made track, with the ground falling away quite precipitously on either side. So narrow was this track, that we could not turn around for some distance, but when we did find a stopping point, our frustrations melted with the vista that opened up before us. Having been accustomed to travelling along the wadi floors, we were not used to taking in the view from such a lofty vantage point – and what a tremendous view this was (*see above*)! Eventually, however, we managed to picked up the caravan route we wanted and after two or three hours travelling, we found the ancient gold-working site at Bokari.

Typically for the Eastern Desert, the workable gold deposits at Bokari are found in veins of quartz. Whether

it was the hard granodiorite, with its coarse black and white grains, or the gold-bearing veins, that first brought the ancient Egyptians to this remote point in the desert is unclear; however a number of quartz veins had been completely quarried away by the ancient workers to leave deep scar-like trenches in the walls of the wadi (*see right*). The gold-bearing quartz had undergone primary processing immediately after excavation and piles of broken and barren quartz had been left at the end of each trench.

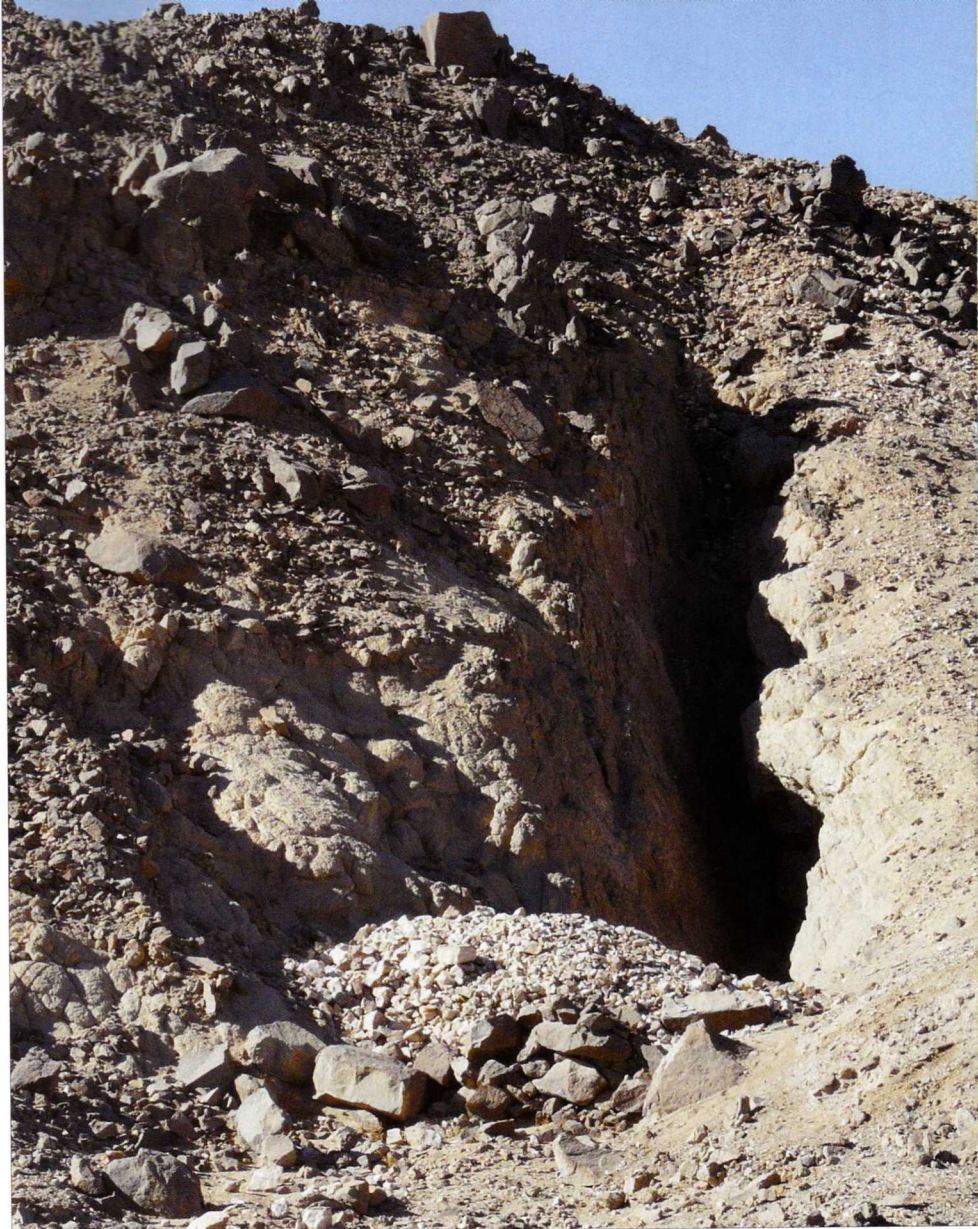
Secondary processing of the excavated quartz had been undertaken in the main settlement area. Here, amongst the remains of the dry-stone huts that had been the workshops and the resting places of the ancient quarrymen, we found saddle querns and later Roman rotary querns, together with a number of other artefacts that were associated with the ancient quarrying activity.

Forts

Mining sites were not the only form of settlement we found in the Eastern Desert. During days four and five of our trip we left the Precambrian areas and headed west once more into the Nubian Sandstones.

Heading westward along Wadi Zeidun, the dark-coloured rocks of the Precambrian strata are capped by an increasingly thick deposit of Nubian Sandstones. The contact between the two rock types dips towards the Nile Valley and the further west you travel, the nearer to the floor of the wadi the contact becomes and the more the younger overlying Nubian Sandstones dominate the landscape.

The significance of this contact was brought home to us during one memorable lunch stop, during which we were sitting on a low ledge of Precambrian granite, with our backs resting against Nubian Sandstones. As we were eating, it gradually dawned on me that the contact between the two rock types – the line at which the granites and the sandstones touched, level with the small of my back – represented a gap of at least 400 million years: 400 million years of the Earth's history that is entirely missing! For the rest of that lunch break, we all sat in relative silence attempting to comprehend how such an immense period of time could be represented by a simple line along the wall of a wadi (*see right*).



Once back fully in the Nubian Sandstone landscape, one of the first sites we came across was Daedymus Fort, a Roman stronghold strategically located at the crossroads of Wadi Zeidun and Wadi Qash (*see overleaf*).

Although the fort is ruined, many of the walls and defensive towers still stand to a considerable height and many internal rooms and buildings can still be identified, built against the inside of the main defensive wall. Some of the rooms have plastered walls and the remains of fireplaces. A large area within the fort had been set aside for storage of water,

Opposite Page

On our way to Bokari – the 'Glorious Mistake'.

This Page

Above: gold mining at Bokari – the gold-bearing quartz vein has been excavated out of the lower wadi wall and then broken up on the spot. The barren quartz is neatly stockpiled at the end of the trench.

Below: Nubian Sandstones overlying Precambrian rocks. The line of contact between these two rock groups represents over 400 million years of earth's history that is missing from the geological record.





Above, top left:

Daedymus Fort.

Above, left:

pots at Daedymus Fort.

Above, right:

Winkler's Site 18.

Two Early Dynastic serekhs, suggesting that this area was a focus of activity during the earliest phases of the Pharaonic period.

Right:

débris from illicit excavations at Winkler's Site 24b.

within two plaster-lined tanks that had been dug into the floor of the wadi.

By far the most striking feature of the fort for me, however, was the sense of sudden abandonment – an impression that was, in large part, the result of the survival of huge stockpiles of mostly broken pots, both within the fort and in the immediate surroundings. Here were hundreds, maybe thousands, of pots, including a number that were intact, having survived for some two thousand years in this remarkable place (*see above*).

Wadi Qash

The area around Wadi Qash is arguably the most important area in the Eastern Desert for rock art. In this and a number

of the connecting wadis, some of the most iconic sites can be found, such as Winkler's Site 24 and the long-lost 'Site 18'.

What is interesting about these sites is that, unlike elsewhere in the Eastern Desert where pharaonic images are seen only occasionally, in the Wadi Qash area there is a significant number of clearly pharaonic items, including numerous images of the god Min, together with the names in cartouches and *serekhs* of early pharaohs (*see above*).

It is this area particularly that seems to be the focus of the modern illicit excavations that were discussed in the first of these articles. At Site 24b, the excavations had been taken deep into a sediment-filled cleft between the wadi wall and a huge boulder and the resulting excavation débris now buries much of the rock art at this site (*see below*). At Site 18a, the excavation appears to have been more targeted, resulting in significant damage to a number of items of pharaonic art – see the damage to a figure of Amun-Min (*opposite page, top right*).



Mons Claudianus

Some distance north of Wadi Qash are the hugely impressive Roman granite quarries of Mons Claudianus. These quarries are located high among a group of ragged granite peaks (*see bottom right*) and were in use from the end of the first century to the middle of the third century AD.

It is believed that almost all the grey granodiorite from Mons Claudianus ended up in Rome, with examples known from the portico of the Pantheon, built by the Emperor Hadrian. In a world shrunken by jet-travel and a desert made more accessible by 4x4s, it was difficult to comprehend fully the enormity of what the Romans achieved here: not only in exploiting this remote mountainous area, but also in being able to transport the fruits of their labour such long distances and over such terrain.

The active quarries extended across a sizable area and surrounded a central area referred to as the main settlement. The main settlement (*see right*) at Mons Claudianus was a fort with defensive walls and projecting towers, which, at the height of quarrying operations, will have housed around one thousand people. As well as quarrymen, the fort will have been the defensive base for soldiers, as well as home to people involved in feeding the quarry workforce and in tending animals. The animals themselves were housed in a separate structure located next to the fort. In addition, a range of other buildings, including bath houses and a temple to Serapis, were also located outside the main defensive structure.

The areas surrounding the main settlement are littered with the unfinished remains of columns, column bases and capitals and the occasional statue. Scrambling about an abandoned quarry under the full glare of the Egyptian sun is no easy undertaking, but all of us were driven on by one artefact that we simply had to see for ourselves: the largest column in the quarry, which is some 20 m. (60 ft.) high and has been estimated to weigh about 200 tonnes (*see overleaf*).

Although this column was nearing completion when it finally broke, it appears that there had been difficulties from early on. A number of roughly hewn projections, which had been left unworked so that clamps could be

applied to the column, suggest that the masons had identified a number of flaws in the rock at quite an early stage. Despite their best efforts, however, they had been unable to overcome the natural weaknesses of the granite and, instead of being shipped off to Rome, this huge column was simply abandoned.

Wadi Hammamat

Wadi Hammamat provides the main route between the Nile at Qena and Qusier on the Red Sea coast. For me, this wadi has it all: quarrying, geology and rock art, which in my view, far exceeds anything else in the Eastern Desert in terms of its beauty. The rock art that I find so captivating is in the ancient Bekhen Stone quarries that the wadi passes through.



Above:
a damaged carving of Amun-Min at Winkler's Site 18a.

Below:
the main settlement at Mons Claudianus.

Bottom: *the granite peaks of Mons Claudianus.*





Above:
*the abandoned column at
Mons Claudianus.*

Known, incorrectly, as the Hammamat Schist Quarries (the Precambrian rock here is not a schist, which is something similar to a slate) these quarries were worked extensively during the Pharaonic period. On the basis of the inscriptions and cartouches that I was able to examine, it would appear that the quarry had been worked from at least the reign of Khufu in the Old Kingdom.

As can be seen in the photos left and opposite right, when patinated, this rock has a spotted appearance of deep brown and mid-brown hues and yet, when fresh, the rock has a rich golden colour. On the southern wall of the wadi, hundreds of hieroglyphic inscriptions have been carved or scratched. Whilst some of this rock art is little more than graffiti, most of the items are works of art that would grace any museum collection.

By far the most accomplished piece, however, is on the north side of the wadi, which is generally regarded as the main quarry area and where the remains of stone-built huts and unfinished sarcophagi can still be seen. Here, high on a quarry face is a rendering of Sety I offering lotus flowers to Amun-Ra. As is usually the case with art commissioned during the reign of Sety I, the quality of the carving here is superlative, despite this being a relatively remote site.

The Red Sea Coast

After leaving the Bekhen quarries, the Wadi Hammamat road took us east-

wards, reluctantly out of the Eastern Desert and to the ancient port of Qusier on the Red Sea coast.

Although saddened by the dawning realisation that our Eastern Desert trip was nearing its end, there was still a great deal to interest the archaeologist and the geologist within me. Every so often along the length of the winding wadi, the Romans had built a series of way-forts, similar in many respects to the fort we had examined a few days previously at Daedymus. Each of these forts was in line-of-sight contact with its neighbours so that the Romans could ensure communications and safe passage through the wadi at all times.

In a relatively short distance (perhaps a few miles) the road passes through an amazingly contrasting series of geological zones. Firstly, we passed the Meatiq Dome, an area of extremely ancient Precambrian rocks, which includes some of the oldest rocks in the Eastern Desert. Further east, the road passes first through the Nubian Sandstones and then through a ridge of bright white Cenozoic limestones, one of the few areas of these young rocks that, quite by chance, survived the erosion that followed the opening up of the Red Sea (*see opposite*).

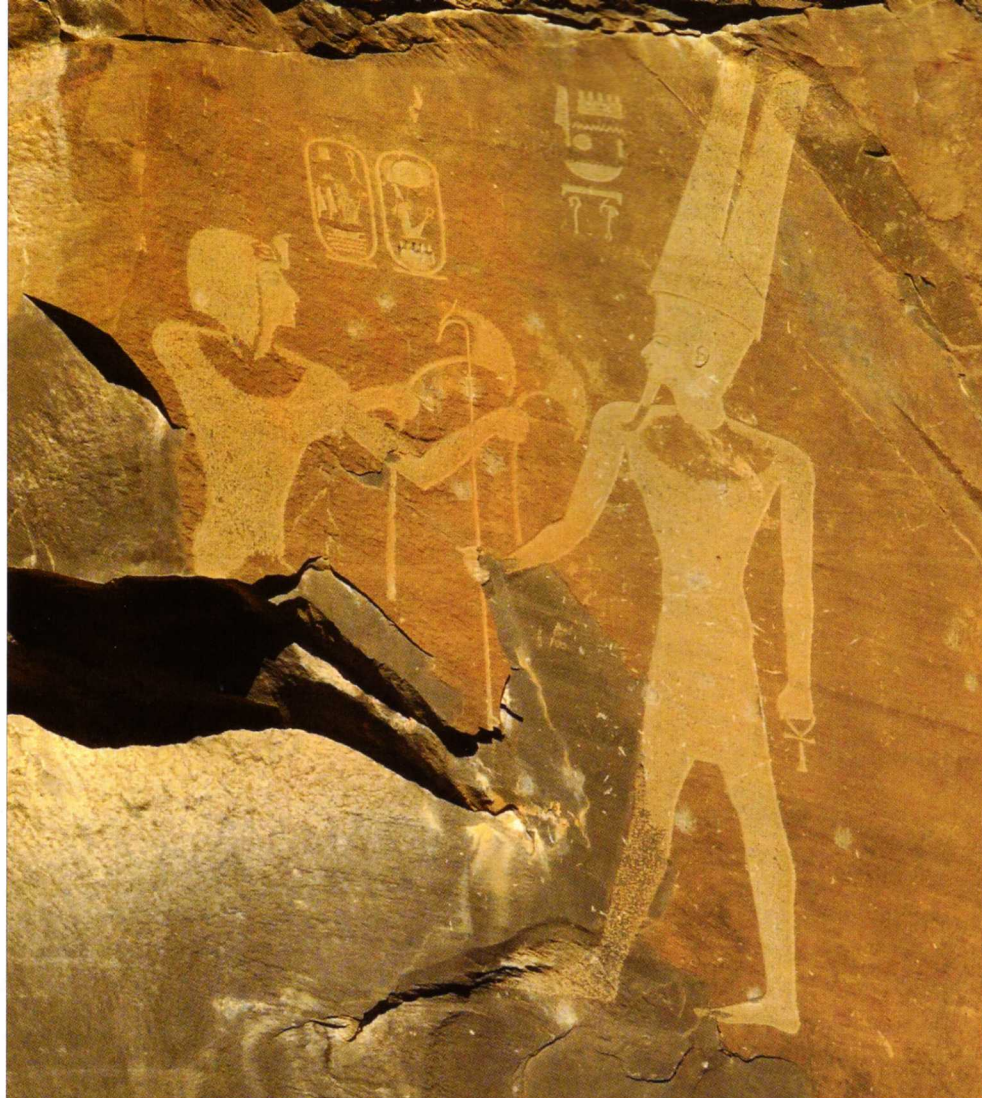
Here along these few miles of wadi road, we passed strata that ranged in age from 1,200 million years old to 40 million years old, an unimaginable period of time, which epitomises for me the amazing geology of the Eastern Desert and served as a fitting 'final curtain' for our long trip.

As the road descended towards the coast and the fishing port of Qusier, a strange feeling came over me. I had been forewarned of this but have to admit I had been sceptical. For nearly a week we had travelled alone in the wilderness of the Eastern Desert without coming across another soul. Now as civilisation emerged from between the ragged coastal mountains, there was an urge to turn back. Not an overwhelming urge, but the realisation that the solitude that had accompanied us since Edfu was about to end was a sobering one.

Unlike some of the resorts on the Red Sea, which have grown with the tourist trade, Qusier still retains much of its original charm. As we pulled up at a shore-front restaurant, the low afternoon sun glinted off the rippling sea

Below:
*Horus resplendent! An example of
rock art from the Bekhen Stone
quarries in Wadi Hammamat.*





Left:
*Sety I making offerings to Amen Ra
at the Bekhen Stone quarries.*

and, had I thought to pack for this eventuality, I would almost certainly have gone for a swim. Civilisation meant telecomms and, for the first time since leaving Edfu, we could call home and speak with our loved ones – those whose dedication to ancient Egypt wasn't sufficiently strong that they were ready for a week under canvas in the emptiness of the Eastern Desert.

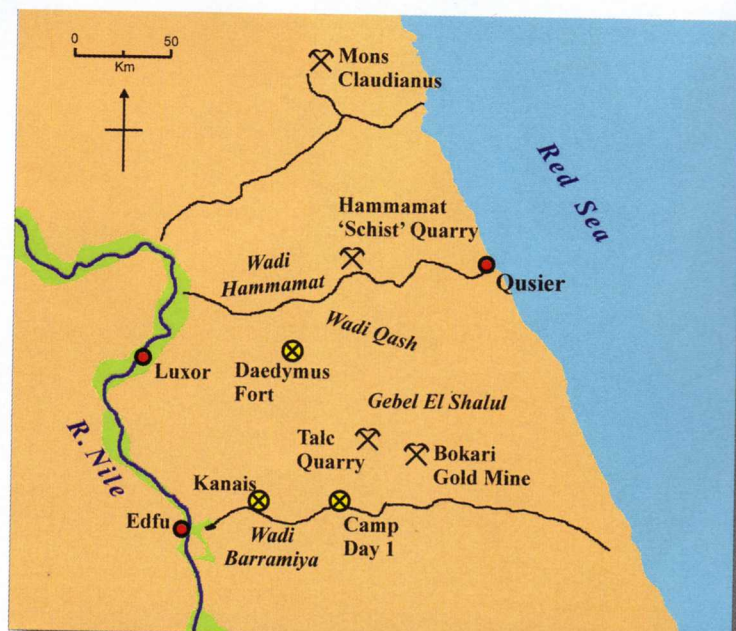
In contrast to the warm December sun dancing on Qusier Bay, the UK was at this time in the grip of a heavy frost and it seemed almost surreal to think about icy pavements and scraping the frost from car windscreens.

With warm thoughts of a wintry homecoming, we washed our hands and faces with soap and water for the first time in days and sat down to eat – rice

Below:
*a young Cenozoic limestone outlier
north of Wadi Hammamat.*



Map of the Eastern Desert, showing the sites visited.
Map by Peter Robinson.



All photos in this article
by the author.

and fish pulled that day from the bay and, perhaps, cooked in a way that the ancient Egyptian settlers of Qusier would have enjoyed after their own long treks through the Eastern Desert of Egypt.

Colin Reader

Colin is a professional geologist with a deep interest in ancient Egypt. He has applied his knowledge and training to the study of the geology of Egypt, and in particular to the way in which it helps us to understand the history of the country and some of its ancient monuments, such as the Great Sphinx at Giza. Colin is a regular contributor to *AE*.

Further Reading

Followers of Horus - Eastern Desert Survey Report, Volume 1, Rohl (Ed.), ISIS, 2000.

Desert RATS - Site Catalogue, Morrow and Morrow (Eds.), BSS, 2002.

Legend, David Rohl, Century, 1998.

Genesis of the Pharaohs, Toby Wilkinson, Thames and Hudson, 2003.

How to Get to the Eastern Desert.

It is not possible to travel in this region on your own and without special permissions and permits. You will need a specialist tour company. Colin made his journey with *Ancient World Tours (AWT)*. He is leading a tour to the Western Desert and the Gilf Gebir this year with *AWT*. See

www.ancient.co.uk.

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