

Archaeology and Storytelling: Encounters with the Past in Scotland and Cyprus

by Michael Given, Glasgow

At first glance, archaeology and storytelling seem worlds apart. The first is an academic discipline, concerned with hard fact, rational argument and identifiable sources, while the second is ‘mere’ fiction and entertainment. But is the line between fact and fiction so easy to draw? Most storytellers and a few – very few – archaeologists would answer a clear ‘no’. Storytelling can be a powerful means of communicating all sorts of human truths, social values and community traditions. Archaeology is at its most relevant and interesting when it transcends factual description and engages with the people of the past. Both, after all, are ways of making sense of the world around us. Perhaps by combining the two we can craft a new form of communication which brings together academics and audiences in a shared experience of a very human past.

In February 2009 I tried to do just that, by taking two archaeological case studies and turning them into stories about encounters with the past. One was set in an ancient and modern copper mine in Cyprus, which I retell below, and the other at the Norse farmsteads of Jarlshof in Shetland. An enthusiastic audience of members of the Lorn Archaeological and Historical Society acted as very willing guinea pigs, and together we discussed storytelling as a means of engaging with and communicating the past.

Many cultures, not least that of Scotland, already have their own strong storytelling traditions. Is there some common ground between these and the archaeological investigation of past human experience? The Norse structures at Jarlshof in Shetland provide one example of what we can do with storytelling. They consist of a fascinating series of farmsteads, complete with byres and outhouses, and an enormous variety of well-preserved artefacts left on floors and discarded in middens. These illustrate a wide range of daily tasks, and include iron knives, fishhooks, spindle whorls, loomweights, bowls, and a host of others.

In the excavation report and most other published descriptions, these artefacts are described factually, with some comments about function and origins. But what about the people who used them? What associations or stories grew up round an iron knife, or a ‘koli’ or oil lamp, or the

backstone of a hearth? Perhaps by juxtaposing the artefacts and Shetland's rich tradition of storytelling, we can gain a better sense of what people's everyday tools and implements meant to them. In the traditional story 'Mind the Crooked Finger', for example, a knife, a bible and a candle are used by a crofter to beat off the trows, who are determined to spirit away his wife and newborn baby. To people who sit round their hearth and tell stories of the everyday things beside them, a knife is much more than a simple tool for cutting.

Are these stories 'true'? Just because a story has trows in it does not mean that it is worthless. The same should hopefully apply to my own stories, such as the one that follows. Like any storyteller, I would argue that it contains a variety of truths at different levels. Like any academic archaeologist, I have tried to make sure that my interpretations are based on careful research, reliable data and reasoned argument. If the result is that you, the audience or reader, are stimulated to think about the experience of mining, or the meanings and associations that people build up round apparently ordinary places and artefacts, then telling the story has been worthwhile.

Blood, sweat and copper slag

A few years ago I was working in the intense sun of a Cypriot summer, helping my colleagues record and map a Roman slag heap. It was vast: 330 m long, between 10 and 50 m wide, and up to 18 m high. This was the Skouriotissa slag heap, evidence of the huge scale of the copper mining and smelting operation that took place during the Roman and Late Roman period on Cyprus. This was the centrepiece of our research into ancient copper mining, as part of the Troodos Archaeological and Environmental Survey Project.

Covered in sweat and black dust from the slag, we drew the layers, took samples of slag and pottery, identified workshop floors, and took points for a contour map. We were gradually working out the sequence of smelting operations: ore, flux and charcoal went into the clay furnaces; when the smelt was finished the slag was tapped out through a hole in side; the furnace was broken open to extract the lump of 'matte' or impure, unrefined copper; the slag cake and the remains of the furnace were smashed up and levelled to provide a new working floor; and the whole process started again. The more we scrutinized the face of the slag heap,

the more we were able to spot the successive layers of slag, the workshop floors, and the pieces of charcoal, some of which still showed the branches they were made of. It didn't help that every ten minutes we were covered in the choking dust that billowed along behind the huge trucks of the modern mining operation, which were carrying ore down from the open-cast pit on the mountain to the leaching piles.

Just as I was holding my breath for another of the trucks to pass, it juddered and crashed to a halt just beside me. Its dust-covered driver opened the hatch and climbed down the ladder from his driving cab. As he turned towards me, I saw the streaks of dust and sweat on his gaunt face, and the intense eyes which peered suspiciously at me, screwed up against the harsh light.

He gestured towards the slag heap, and gave the characteristic Cypriot turn of the finger and shake of the head that means, 'What are you doing? Explain yourself!' I began telling him about the slag heap, and why we were recording it. In the Roman and early Byzantine periods, Cyprus was one of the biggest producers of copper in the Mediterranean, I said, trying to impress him, and this was by far and away the biggest operation on the island. The copper that came from here and left this enormous pile of slag went on to make up bronze coins and statues across the entire empire. But he flapped his hand at me and strode towards the face of the heap. He gestured at a slag cake, and with the same turn of his finger asked silently what it was.

Again, I explained: it was the waste product from the smelting, and contained the rock and metals such as iron and manganese which did not go into the ingot of unrefined copper. It also had a tiny amount of copper: by the Late Roman period the process was so efficient that the slag usually contained less than 1% copper. When the workers judged that the smelt was finished, they drilled a hole in the side of the clay furnace. The molten slag dribbled out and solidified, hence the strange dribbles on the surface of the slag cake that the old man was crouching over.

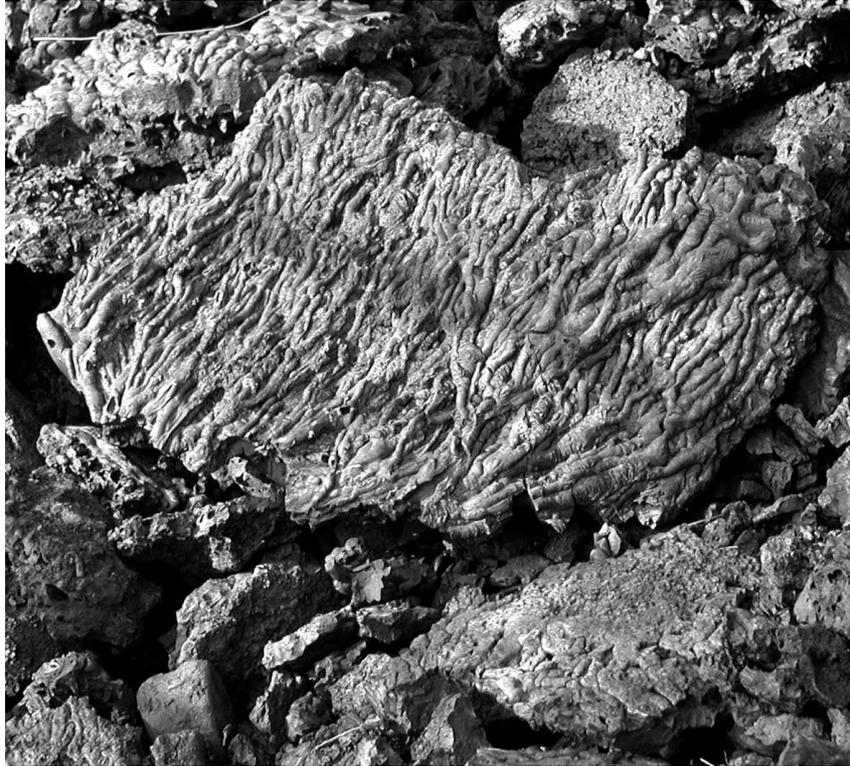


Fig. 1. Roman-period slag cake (c. 70 cm across). Photo: Vasiliki Kassianidou.

But again he interrupted me, suddenly jabbing his finger at the surface of the slag cake. ‘Blood,’ he hissed. ‘It is blood, and flesh, and sweat’. He stood up and glared at me. ‘You do not believe me. I will show you.’ He turned and pointed to the modern mine towering above us. ‘Sunday. The top of the mine. The middle of the day. I will show you.’ Without waiting for a response he climbed back into his driving cab, and with a snarl of its diesel engine the huge truck moved off down the road, the ore crashing and rumbling as the truck hit the pot holes.

I had to get back to work, and perhaps fortunately my colleagues had not stopped to listen or watch what the old man was doing. They were excited by some particularly well-preserved fragments of pottery that they were finding in several layers of the slag heap. These showed us that most of the copper production happened in the 5th–7th centuries AD. According to our Roman pottery specialist, these fragments of tiles and amphorae belonged to exactly the same types that our survey teams were finding at a whole series of little sites in the valley and plains around the mine. Miners had to eat, of course. Were these small sites in fact the farmsteads and agricultural estates which produced grain and olive oil for the miners? It would make

sense that both the mine and its agricultural suppliers used the same tile and pottery manufacturers.

These preliminary ideas and theories gave me lots to think about, but as the rest of the week went by, I began wondering about what the old man had said. When it came to the point, of course, I couldn't resist going to the mine to see what he had to show me. By midday on Sunday I was walking through the outlandish colours of the modern mine, towards the huge open cast pit. Reminding myself of what I had learnt from our archaeometallurgist, I tried to identify what I saw: the glistening greenish-grey of the ore in the side of the pit; the outcrops of yellow ochre, used as a flux to lower the melting point of the copper; the splashes of orange and rust-red from the oxidised iron, used by the ancient prospectors as indicators of the copper-bearing chalcopyrite ore that lay underneath.

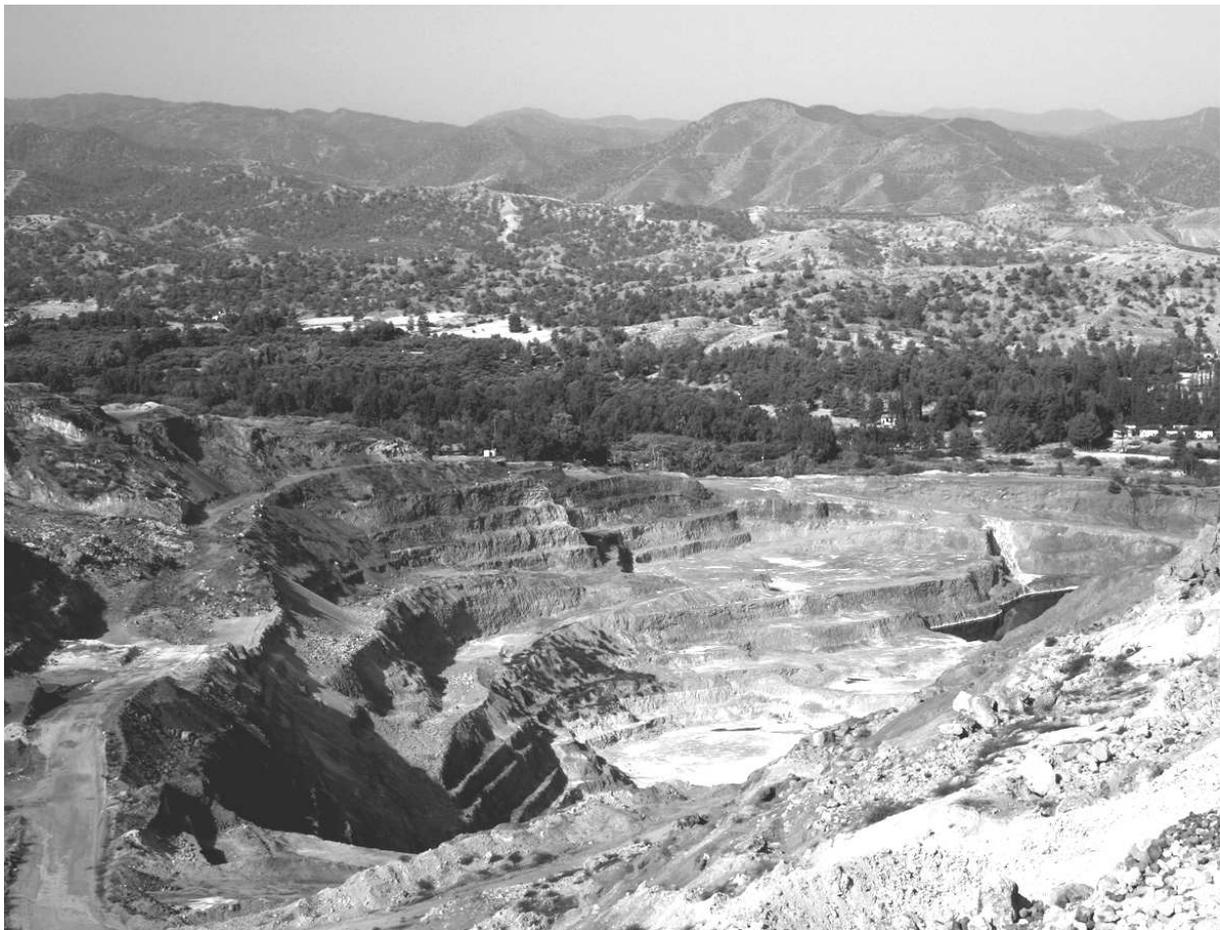


Fig. 2. Open cast pit of Skouriotissa mine, looking west. The slag heap is in the centre left of the photo between the mine and the trees, but obscured by the edge of the mine. Photo: author.

There was still no sign of the old man, so I walked a little way along the edge of the pit. I had been in the mine before, though unlike now it was an ‘official’ visit. We had found a report that the miners had discovered a huge mass of ancient amphora fragments while they were extending the open cast pit. We asked the manager of the mine about it, and although they had been dumped in an inaccessible area, he kindly arranged for a couple of bucket loads to be brought round for us to the back of the mining headquarters. These ‘bucket loads’ turned out to be 21 cubic metres of Roman amphora sherds, stained yellow from their centuries in the copper mine. Modern miners think on a large scale – but so did ancient ones. What were they doing with such vast numbers of these bulbous two-handled pots, normally used for transporting olive oil, wine or water? Our Roman pottery specialist worked out that they were of only two different types, probably locally made, though she had identified the same types in some neighbouring agricultural sites. Could they be for bringing in water for the miners? For bailing out the mine? Either way, goatskins would seem to be lighter and make more sense.

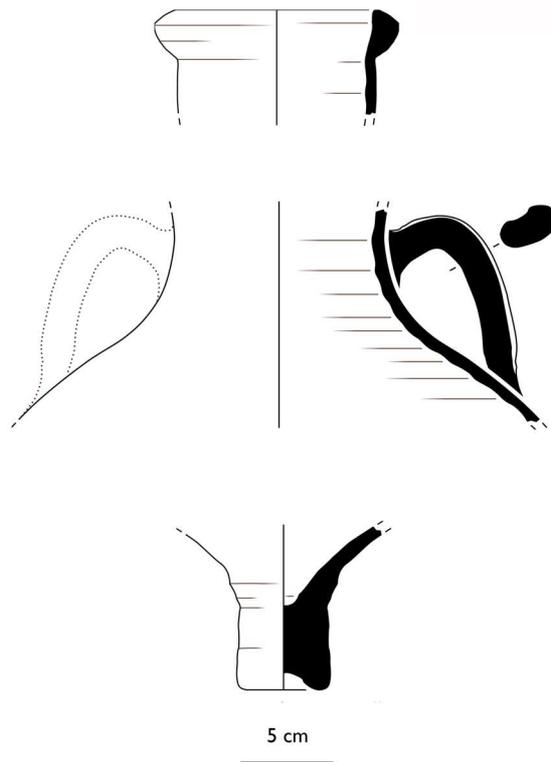


Fig. 3. Roman amphora fragments from Skouriotissa mine: rim, handle and ‘toe’. Original height probably c. 60–70 cm. Drawing: Jean Humbert.

As I walked to and fro, I began to notice that every now and then there was a tunnel going into the ore body. Twentieth-century copper mining didn't use galleries, so these must be earlier. Could they be contemporary with our Roman slag heap? I looked round, wondering about the chronology, and suddenly saw that the old man had appeared in the mouth of one of the galleries. In his hand he held what was quite clearly a Roman oil lamp, the tiny flame from its coarse string wick almost invisible in the sunlight. Without a word, he turned and vanished into the gallery.

I had no way of knowing if the gallery was safe. I had no hard hat, and no torch – and neither did the old man, clearly. But I didn't even stop to think: the next thing I knew I was bent double, following him into the dark tunnel. The walls at first were ochre and rust-coloured with the iron oxides, but soon there were bands of the greeny-grey copper ore. The heat was intense, the air sulphurous and stifling. I stumbled along, treading in the flickering shadow cast by the old man with the oil lamp held in front of him.

Abruptly he stopped. He turned and hissed, 'Listen. You must listen'. I stopped, and tried to quieten my breathing. Nothing. 'You must listen', he repeated. He picked up a handful of dust and ore fragments from the floor, and let it slide through his fingers. 'If you hear that, you must get out.' He continued on, and soon we began to pass wooden pit props every couple of metres, preserved beautifully in the acid conditions of the mine. My first thought was 'Dendrochronology!'. They had to be Roman, and contemporary with our slag heap; it would be wonderful to take a section of one. But once again he hissed, 'Listen!'. He tapped a pit prop. 'When you hear them creaking, you must get out'.

And again we continued our slow progress into the mountain. One stretch had no pit props; perhaps the ancient miners had decided it was more solid. The old man picked up a lump of ore from the ground and hammered it briefly against the ceiling. It made a hard, strong thudding noise. He nodded. 'That is good. When it echoes, you must get out.' But a sudden change came over his face, in the flickering of the oil lamp. 'Sometimes you hear it through the mountain,' he whispered. 'It thunders, and you do not know where in the mountain it is. Then a long rumbling.' He pushed his face angrily into mine, his eyes wide in the lamplight. 'And you know what they take out of the mine when that happens? Ore, and flesh, and blood, and sweat, and rock. That is your slag, your copper, your bronze

coins and statues. Blood and flesh.’ He looked forward to where the pit props started again, and cried out in a sudden anguish, ‘How can a timber hold up a mountain?’. I said nothing. We continued on our way. Once again, he stopped, and put his hand down to pick up something from the floor. I looked into the little pool of lamplight, and recognised immediately what it was. The old man turned the yellow-stained lump of pottery slowly over in his hand. It was the strengthened toe of the amphora, I saw, where it came to a point at the bottom. ‘These were the worst’, he whispered. The anger came back into his voice. ‘All because of those fancy doctors and rich city patients, who wanted their copper salts and vitriols. There was a tunnel, a deep one. At the bottom the water was warm and yellow, and it stank. The poison in the air put out the lamps, and we could not breathe, and it was so hot we could wear nothing. So we had to run, run as fast as we could, so we could get out again and breathe, and carry this huge heavy jar, and fill it with the poison, and run back again carrying it.’

His eyes widened as he saw again the rows of amphorae, the yellow stinking water, the oil lamps extinguished in their little niches in the rock. ‘That was the worst,’ he repeated. Suddenly he was fighting me, struggling against me, and it took me a minute of panic before I realised he was struggling to get past. I crouched on the floor and he scrambled across me and fled back towards the daylight, bent double, his long cry echoing down the gallery behind him.

I found his lamp, but it had gone out and there was no way of lighting it. I picked my way slowly and painfully back along the gallery, and finally emerged into the blinding sunlight of the mine. Unsurprisingly, there was no sign of the old man, and I never saw him again.

The next day, I stood in front of the slag heap with my colleagues, trying to figure out the complex stratigraphy. This was essential, I thought, if you’re going to understand an ancient copper mine. You need the stratigraphy, the chemistry, the geology, the pottery, and all the rest of it. But there was more to it than that; ancient mining was about people too. As I worked, I couldn’t help looking at the strange dribbly texture of the slag cakes. ‘Blood and sweat’, I thought; and, ‘You must listen’.

Sources and stories

Galen, *De Simplicium Medicamentorum Temperamentis ac Facultatibus Libri XI. 12. 240.4-11* (the Greek doctor Galen visited Skouriotissa

- mine in AD 166, and described the collection of copper salts dissolved in water and the appalling working conditions)
- Hamilton, J. (1956). *Excavations at Jarlshof, Shetland*. Edinburgh: HMSO.
- Harvey, H. (2005). 'How could a timber hold up a mountain?': Earl E. Scott Jr.'s coal mining narrative as hero's journey. *Storytelling, Self, Society* 1(2): 62-87.
- Jacobsen, K.W. (2007). Transport amphorae in the copper mining industry of Cyprus: introducing a new type of transport amphorae from Cyprus. In M. Bonifay and J.-C. Treglia (eds), *LRCW 2. Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean: Archaeology and Archaeometry, 885-779*. BAR International Series Vol. S1662. Oxford: Archaeopress.
- Kassianidou, V. (2000). Hellenistic and Roman mining in Cyprus. In G. Ioannides & S. Hadjistilli (eds), *Acts of the Third International Congress of Cypriot Studies, 745-756*. Nicosia: Society of Cyprus Studies.
- Marwick, E. (1975). *The folklore of Orkney and Shetland*. London: Batsford. ('Mind the Crooked Finger': pp. 170-172)
- Troodos Archaeological and Environmental Survey Project:
<http://www.taesp.arts.gla.ac.uk/>

Acknowledgements

Thanks to Dr Valentina Bold (University of Glasgow), Dr Kristina Winther Jacobsen (University of Aarhus), Dr Vasiliki Kassianidou (University of Cyprus), and the TAESP team.

Address for correspondence: Michael Given, Department of Archaeology, University of Glasgow