BOOK REVIEWS


Reviewed by R.J. Harrison

This is an important book, which has escaped reviewers in the specialised literature of prehistoric Europe, and more especially, in mining technologies. It is written in Catalan, has no summaries in any other language, had a deficient distribution, so it is not surprising that it is barely known. Nevertheless, it contains information of real value that deserves wider publicity.

The Neolithic mines of Can Tintorer are in the municipality of Gàvà, just south of Barcelona, in NE Spain. They were found accidentally during levelling work for dwellings in 1972 and 1975, and successful rescue excavations were conducted between 1978–1980. At least 12 separate mine shafts were located in one area, some so damaged as to be traces only, but at least six remained with vertical shafts, galleries and side chambers intact. There were originally many more, but they are now destroyed.

The parent rock is Palaeozoic slate, strongly metamorphosed and folded, in which pockets of mineralisation containing Lidite and Variscite nodules are found in lenses of clay. These coloured minerals range from dull slate blue to intense sea green, and which are popularly (and wrongly) known to prehistorians as "callais" and "turquoise". The original intention of the miners was to extract the small pieces of attractive blue mineral, and manufacture beads and pendants from them. These were made into necklaces, and have a compact distribution in the fourth millennia graves in NE Spain, but recent discoveries of Variscite show it reached as far inland as the Ebro valley in Mequinenza (not on the map in fig. 22). These blue and green minerals were highly prized by Neolithic societies in Atlantic Europe, and local sources to obtain them are known in Portugal and Brittany as well.

The mines have impressive galleries (photos on p. 25), commonly with heights up to 1.6 metres, and were worked from a single vertical shaft, from which ran, or radiated, small workings for distances up to 10 metres. The marks of miners' picks remain in the clay and slate on the walls (p. 28). The mine workings are all quite modest in scale, and separate from one another, usually with one access shaft. The only map is incomplete and confusing (fig. 5), but suggests an area at least 200 by 120 metres was mined. Partial plans, sections and written descriptions are provided for each mine, as well as many photographs.

The mines were all filled in with secondary material, and although most of it was mining waste, some of it was not, and contained hundreds of artefacts. The excavators make clear that the mines had an important episode of reuse, when two contracted inhumation burials were made, one in Mine 9, and the other in the nearby location called Les Ferreres (pp. 189–96). The grave in Mine 9 had a mature female accompanied by
a neonatal infant and some grave goods; the other grave was an adult of unknown sex. Also in Mine 9 were bones from another five individuals, four adults and one child. They were accompanied by bone spatulas and pottery (fig. 52), but it is not clear which artefacts were associated with which burial(s), nor exactly where the human bones were found.

The artefacts were extraordinarily abundant. They include 133 typologically classifiable pots and feature sherds, of which about 80 are reconstructable as bowls and jars, and which belong to the late 4th millennium BC. Plain fragments were not discussed. The pottery is described for 48 pages in Chapter 6, and abundantly illustrated, showing whole vessels as well as their characteristic finishes. In addition, there was a rich industry of over 140 implements of stone and flint, (ch. 7), not quantified, but sufficiently well illustrated to show the laminar nature of the flintwork, and the 28 polished stone axes and hammers, many made of schist. At least 9 axes were of imported material, and of a size suitable for woodworking (photos on p. 138). There were many grinding stones, some of them broken. The flint industry lacked waste chippings. The bone industry consisted of many points, chisels, gouges, polishers and spatulas (ch. 7, 144–53). There were also some personal adornments of perforated sea shells, beads and plaques.

The mined Variscite was obviously worked on the spot, as unfinished beads and broken pieces show (pp. 155–60, photo on p. 160). However, the processing workshops of the Variscite were not located, and were probably destroyed by the modern builders when the site was levelled.

Seven 14C dates, all on charcoal, from Mines 6, 7, 8 and 28, give uncalibrated dates between 3400–2760 BC, and for the “sepulchral level” in Mine 7, a later date of 2360 BC. Calibrated, these fall into the end of the fourth and middle of the third millennia BC, and belong to the Middle Neolithic of Catalunia.

Finally, abundant data were collected for a palaeoeconomic reconstruction. Over 900 animal bones and shells are analysed in Chapters 10 and 11, showing that cattle dominate the collection, (over 45%), followed by sheep/goat at 28% and pig at 27%. There were even carbonised plant remains, described in Chapter 8. They include Olea europaea, Hordeum vulgare, Triticum aestivum, T. monococcum, Vicia, Leguminosae, and Avena (not certain). Charcoal analysis in Chapter 10 showed a dry mediterranean woodland with wild olive, oak and some pine.

These data are frankly perplexing, and made all the more difficult to understand by their incomplete presentation in this monograph. The lack of systematisation, and of really detailed contextual descriptions of the site, its mines, their stratigraphies and contents, and the precise locations of samples for 14C and seeds, means that a full appreciation is not possible yet. Despite this, the artefacts are so abundant as to make Can Tintorer one of the richest Neolithic sites in the whole of NE Spain. Yet we know that European Neolithic mines are characterised by few artefacts other than industrial waste, so we have a paradox: a richly furnished Neolithic mine when all others are poor. It seems clear that there is a lot more to the mine complex of Can Tintorer than meets the eye, and that the excavation monograph is only the first step to understanding this site. Such a range and richness of artefacts are not shown by the excavators to be connected with the mining of Variscite. Instead, the artefacts look like a typical domestic assemblage from a settlement. It appears much more likely that an extensive Neolithic village had existed over, or close to, the mines, and that its rubbish was the original source of the artefacts found in the mines. The mine fills are sometimes secondary, frequently complicated stratigraphically, and the mines were probably worked sporadically over a period of several centuries. After abandonment, some were used again as burial places. The settlement rubbish that fills the galleries could, therefore, be unconnected with the mines. If this suggestion is correct, the mines of Can Tintorer will need to be completely reassessed.

This monograph records exciting discoveries, not just for the European Neolithic, but for all archaeologists and historians who try to understand trade networks, procurement strategies, as well as mining technologies. It is a pity that its incompleteness, and the lack of methodological rigour typical of a rescue project, were not tackled directly. Nevertheless, it is a book that all serious archaeology libraries must have.