Lead and silver: Britain, France and beyond

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This volume brings together a range of papers on the history and archaeology of lead and associated silver-bearing ores, the processes by which they were smelted and refined, and the landscapes they inhabited. It has its origins in the papers presented to the Historical Metallurgy Society’s annual conference in 2005, held at Middleham in North Yorkshire. They have been complemented by more recent work to reflect the range of research carried out over the last decade. It is particularly pleasing to be able include two papers presented at the Society’s Research in Progress conference, held at the University of Bradford in November 2009 to celebrate the archaeometallurgical work carried out there under Dr Gerry McDonnell. They introduce us to the work on the archaeometallurgy of lead, copper and silver being carried out in France, much of it under the auspices of the Centre National de la Recherche Scientifique (CNRS).

When HMS sponsored the Boles and Smeltmills conference at Low Row in Swaledale, North Yorkshire, in 1992 it facilitated the exchange of ideas and stimulated cooperation which significantly advanced the study of non-ferrous historical metallurgy over the following decade. The papers from this conference (Willies and Cranstone 1992) provided a picture of the range of research at that time, with its focus on field evidence for smelting but also including documentary evidence and some analysis of residues.

Our research has now moved away from the individual pursuit of data on smelting sites to embrace a greater understanding of their role in the wider historic landscape. Much remains to be done in identifying and interpreting the field evidence, as demonstrated by Smith and Murphy, and by Pickin, in this volume. The latter, presenting the evidence for early medieval smelting of lead-based ores in south-west Scotland, highlights the potential for further work to build on discoveries from the 9th to the 11th century AD on sites straddling the modern border between England and Scotland (see, for example, Fairbairn 2007 and Smith 2006). There is also a need to re-assess some of the evidence and concepts presented in 1992 in the light of new evidence. Examples are provided with the early (Roman period) wind-blown hearth identified by Timberlake at Cwmystwyth (Anguilano et al, this volume) and Murphy’s conclusions on the Carlisle smelter of the same period (Murphy et al forthcoming).

The resources and energy behind the papers presented here is typical of those driving forward research into historical metallurgy in both Britain and France. Their authors are committed individuals, some from backgrounds in higher education or government-sponsored archaeological sciences, but more important, as is often the case, they are all individuals willing to work in their own time and with their own resources to advance our understanding of the subject. The sources used in these papers vary from the accounts and correspondence of the English Crown, through to data extracted from experimental archaeology, and reflect the multi-disciplinary approach of this volume.

This volume presents successes, but there is also evidence of the limitations to some investigation from which lessons can be learned. The invisibility of late medieval lead/silver smelting and refining sites within the landscape of the Tamar Valley (Claughton and Smart, this volume) compared with upland, mainly non-argentiferous, lead smelting sites is a problem which can be rectified by the application of existing geophysical methods. Those methods were successful in identifying a smelting furnace in the Tamar Valley, but it was dated to the 1st century AD, contemporary with the fort at Calstock also discovered during the geophysical survey (Claughton and Smart 2008).

Other problems may need fresh thinking. There are unresolved issues with medieval silver production for the 12th and earlier centuries AD, and particularly for the Northern Pennines (Claughton 2011; Claughton and...