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Book Reviews



ACCIDENTAL AND EXPERIMENTAL ARCHAEOMETALLURGY. Edited by David Dungworth and Roger C. P. Doonan. Pp. vi and 168, Illus 247. The Historical Metallurgical Society (Occasional Publication, 7), 2013. Price: £13.00. ISBN 978 095602 251 6.

In September 2010, the Historical Metallurgy Society's annual meeting at West Dean, Sussex, had the theme of 'Accidental and Experimental Archaeometallurgy'. The organizers developed an innovative programme involving both lecture sessions and outdoor experiments, and after the conference, they continued to support the experimenters through scientific analysis of their materials. This volume, edited by the organizers, contains both publication of many of those experiments and a selection of the lectures. Experimental archaeometallurgy encompasses many activities, with the main ones consisting of laboratory experiments, field experiments as 'authentic' reconstructions, and experiments into the physical properties of materials and artefacts. For this conference, the field experiments were mainly associated with the smelting of iron; the lecture presentations covered a larger range of approaches, materials and processes.

The volume opens with several theoretical and review papers (Doonan and Dungworth; Dungworth; Doonan; Crew; Merkel). The following seven papers describe various aspects of iron, deriving mainly from the experiments undertaken, and the data produced, during the conference, although discussion is by no means restricted to that event (McDonnell; Sauder; Keen; Girbal; Doonan; Smith; Sauder). Three papers are based on lecture presentations with a ferrous theme (Halkon; Soullignac and Serneels; Birch). Non-ferrous metallurgy is represented by one paper based on a conference experiment (Timberlake) and three on lecture presentations (Gauthier and Téreygeol; Dungworth; Pitman et al.). The volume concludes with a paper describing and discussing the scientific analysis of materials from the various iron-smelting experiments (Phelps).

The introductory papers of the volume present broad-ranging critiques of experimental archaeometallurgy, expressing concerns about its theoretical framework, its publication record, and even a perceived gender bias amongst its exponents. For me, some of these preoccupations are specious, in particular, that concerning publication (pp. iv, v, 7–8). Raw results of experiments are commonly published (and therefore easily accessible) on the internet, and more rounded, complete, experimental projects are regularly published by the major academic journals. The simple truth, I would argue, is that most short-term experiments in archaeometallurgy do not bring results that are worth publishing in formal article form, and it is rather academic concern about the perceived low reward for the great investment in time and the development of craft skills that is the real issue. For

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example, the major papers on iron-smelting by Crew and Sauder each record their author's insights after approximately one hundred smelts with humility, and as unfinished work.

The papers forming the main part of the volume are diverse in nature and impact. Many will be of long-lasting significance; others document a transient moment in the development of an experimenter's ideas. Peter Crew's magisterial 'Twenty-five Years of Bloomery Experiments: Perspectives and Prospects' is particularly welcome. Another enormously significant paper is that by Lee Sauder on 'Making Steel in the 'Aristotle Furnace'', which represents a first 'academic' outing for one of the hearth 're-melting' techniques that have now become so widely adopted by smiths working with traditional techniques (incidentally, providing an excellent example of how experimental work does not always require conventional academic publication to achieve widespread dissemination). Sauder also separately presents his smelting work at West Dean ('An American Bloomery in Sussex') in such a way that it forms a useful update to his important treatise (with Skip Williams) published a decade ago (*A Practical Treatise on the Smelting and Smithing of Bloomery Iron*, *Hist. Metall.*, **36(2)**, 122–31, 2002).

The editors describe in their Preface how they have 'embraced and explored a range of writing styles' (p. v). Nowhere is this better seen than in Jake Keen's paper, honestly titled 'Smelting for Fun: Hypothesis Testing, Happy Accidents and Theatrical Performances'. This paper is the perfect antidote to some of the theoretical contributions. Those lucky enough to be at the conference felt it to be a resounding success; this paper, perhaps, comes closest to explaining why. One of the great outcomes for the West Dean meeting was to allow a large number of people to experience early technology through observation or participation, and so it is to be regretted that mention of experiential archaeometallurgy and its value features so little in this volume. However, some of the papers will be influential long into the future. As a reference work for students, the collection will be invaluable. Although there is a slight 'ferrous bias', there will be something here for all those interested in archaeometallurgy, whether themselves experimentalists or not.

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