

here most often denoting the felicity of the married couple. Huskinson might have noted the ubiquity of this device on marriage gems and rings, at the beginning of a relationship. If on sarcophagi, it might rationally be thought to mark its end, the message of the iconography is that love conquers all.

With the advent of Christianity, the type continued to be popular, which is no surprise in a society that continued to think of itself as Roman. Earlier elements naturally remained in the arrangement of panels with often the central portrait or double-portrait *clipeus*, or sometimes on sarcophagi where flutes converge in the centre a symbolic device in a *vesica*-shaped *mandorla*. Early Christians readily took over the pastoral imagery found on many earlier examples and developed a repertoire of biblical scenes, at first with Jonah and his *ketos*, then with other scenes such as Daniel or the raising of Lazarus and other miracles of Jesus. Such scenes were of course found on other contemporary works, for instance in *scrinia* of ivory or metal. There are certainly local elements: remembering that these sarcophagi were a product of Roman workshops, it is not surprising to find that St Peter and episodes connected with him were popular: his denial and his arrest, and the baptism of his jailers. There is a remarkable variety and range of motifs in Christian sarcophagi, which change over time, with full-length figures of Christ or the chi-rho monogram becoming central motifs in the second half of the fourth century.

Although Roman workshops seem to have ceased operating early in the fifth century, there was some production of sarcophagi employing strigillation, sometimes in rather unusual ways in southern Gaul and in North Africa. In Italy, in the Middle Ages and Renaissance, the reuse of strigillated sarcophagi entire as tombs, or their fronts set in the walls of buildings as *spolia*, emphasised a continuing *Romanitas*. They were even copied, as attested by a splendid example dated to the mid-thirteenth century in the Camposanto, Pisa. The appeal of the type in later ages in Italy of course, and in France and Britain, is well known. For me the most touching image in the book is the late eighteenth-century tomb of Penelope Boothby by Thomas Banks in Ashbourne Church, Derbyshire, and the most bizarre is the back of a chair designed by Thomas Hope in the Royal Pavilion, Brighton, early in the following century.

The compilation of this book and the search for examples with its thorough discussion of the type in antiquity and its modern reception was

clearly the result of Herculean labours. Huskinson has not only provided us with a guide to a particular tomb type, but has shown how such a work can lead on to consideration of much larger themes, which illuminate ancient (and not so ancient) art and life.

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The Metallurgy of Roman Silver Coinage: from the reform of Nero to the reform of Trajan. By KEVIN BUTCHER and MATTHEW PONTING, with contributions by JANE EVANS, VANESSA PASHLEY and CHRISTOPHER SOMERFIELD. 260mm. Pp xxxii + 798, 251 ills (24 col), 118 tables. Cambridge University Press, Cambridge, 2015. ISBN 9781107027121. £110 (hbk).

This monumental book, 'envisaged as the first in a series', deals with the changes in the weight and fineness of the Roman silver coinage in the first century AD. Although the title states that it starts with the reform of Nero, there is also a chapter on the Julio-Claudian coinage from 2 BC to AD 64 (the authors see this period as 'effectively ... the tail end of the Republican denarius coinage'), so the book will serve as a reference on the Roman silver coinage for the whole of the first century AD, although with a particular focus on the last third of the century.

The present volume has been preceded by a series of papers by the same authors on the fineness of Roman silver coinages of the first three centuries, in which they have clearly demonstrated that the data published by David Walker, in his three volumes on *The Metrology of the Roman Silver Coinage* (Walker 1976–8), cannot be relied upon. Walker published some 4,900 x-ray fluorescence (XRF) analyses taken from the lightly polished edges of the coins he examined. He also included the extensive silver issues struck in the eastern cities of Alexandria, Antioch, Caesarea and elsewhere, which have traditionally been studied separately from the denarius coinage. For some twenty years this very comprehensive data set was accepted as providing the definitive account of the fineness of Roman silver coins down to AD 253. However, already in 1989 Mike Cowell had shown that Walker's technique did not provide an accurate picture of the metal content of the coins examined because of the phenomenon of surface

enrichment whereby Roman mint-workers could ensure that coins with a significant copper-alloy content appeared to be made of pure silver (Schmitt-Korte and Cowell 1989). As a result, Walker's data gave estimates of silver content that were both too high and with a much greater variability among individual specimens of a particular issue than was actually the case. The technique pioneered by Cowell, and employed by Butcher and Ponting, involves XRF analysis of samples drilled from the edge of the coins examined and they have demonstrated that it is only by analysing the metal content of the interior of the flans of these coins that an accurate picture of their metal content can be obtained. Importantly, they can show that there is much greater consistency in the fineness of different coins from a particular issue than did Walker's data.

This volume therefore is very necessary in that it provides the first part of a comprehensive reworking of Walker's data. The authors present a much more nuanced picture of the development of Roman silver coinage in the first century AD, particularly for the provincial coinages. However, the book is much more than a presentation of a series of analyses of the fineness and weights of Roman silver coinage. Butcher and Ponting present a new account of the monetary history of the Roman Empire in the first century AD in the course of which there are some important insights: for example, they note that all the significant elements in the coinage system which scholars term 'Augustan' had already been introduced by Julius Caesar (p 434); that the evidence that Nero's reform occurred in AD 64 is thin and that we can only be certain that it took place between AD 63 and 66 (p 690); and they argue, following Mommsen, that this reform changed what had been a bimetallic system based on gold and silver to a monometallic system based solely on gold, with silver overvalued against it (p 690).

The book starts with some general comments on Roman silver coinage and monetary history and the question of how far the public accepted debasement of the coinage: the authors make good use of evidence from medieval Europe. There is also an interesting chapter on the history of the study of the metrology of Roman coinage: it surprised this reviewer at least to learn that this topic was first discussed by Guillaume Budé in 1514. The authors also explain how they have used the evidence of hoards to throw light on public awareness of the changes made to the weight and fineness of silver coins (the evidence of site finds being too limited to be of use).

There can be no doubt that this is a very important contribution to the study of Roman monetary history. It is to be hoped that the other volumes promised will appear soon, and encouraging that the authors have obtained an Arts and Humanities Research Council grant to continue the project into the third century AD. If there is one criticism it is that, while the heart of this book is a series of 1,136 new analyses of the metal content of Roman coins, nowhere is there a table or series of tables that sets out the full results of the analyses, with not just the silver but also the minor elements, as these are often important in revealing new sources of metal. Although these data can be downloaded from the Archaeology Data Service's website, it seems strange that space was not found to include it in a book of over 800 pages.

Schmitt-Korte, K and Cowell, M 1989. 'Nabataean coinage – Part I: the silver content measured by x-ray fluorescence analysis', *Numismatic Chronicle*, **149**, 33–58

Walker, D R 1976–8. *The Metrology of the Roman Silver Coinage. Parts I–III*, BAR, Suppl Ser 5, 22 and 40, Oxford

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Glass of the Roman World. Edited by JUSTINE BAYLEY, IAN FREESTONE and CAROLINE M JACKSON. 290mm. Pp xxvi + 204, ills (some col), maps, plans. Oxbow Books, Oxford, 2015. ISBN 9781782977742. £40 (hbk).

Die römischen Gläser aus Augst und Kaiseraugst: Kommentierter Formenkatalog und ausgewählte Neufunde 1981–2010 aus Augusta Raurica (2 vols). By SYLVIA FÜNFSCHILLING. 310mm. Pp 708, ills (some col; 5 folded), 98 tables. Forschungen in Augst 51, Augusta Raurica, Augst, 2015. ISBN 9783715100517. CHF 160.00 (hbk).

Judged by their titles these two books could be seen as having different markets in mind. *Glass of the Roman World* (henceforth *GRW*) is a title that promises a synthetic overview. The second volume, on the new finds from the Roman town and military site of Augst in Switzerland, would at first sight seem to be the sort of very specialist volume that only a handful of glass specialists would need on their shelves. This, as will be explained, is very far from being the case.