The Beau Street, Bath Hoard edited by Verity Anthony, Richard Abdy and Stephen Clews, Archaeopress Roman Archaeology 59, 2019. Hardback, £60

Coin Hoards and Hoarding in Roman Britain AD 43 –c.498, by Roger Bland. Spink: British Numismatic Society Special Publication 2018. Hardback, £40.

Coin hoards have always formed a major subject of study for numismatists. It can focus on the hoards themselves, what their distribution in time and space indicate about the processes and motivations for hoarding, or it can examine what the contents of those hoards can tell us about production, circulation and the coinage pool.

The Beau Street hoard was found during excavations in 2007. It contained 17,660 coins, a mixture of *denarii*, radiates and debased radiates. Most of the coins dated between 222 and 274. It consisted of at least eight bags of coins along with a large number of loose coins which may have been in bags that had completely decayed. This volume consists of five short introductory chapters followed by the main catalogue.

Chapter 1 by Richard Abdy provides an overview of the hoard. A brief summary of the relevant monetary history is followed by a discussion of the hoard contents compared to other hoards. The term "radiate" is used for the pre-debasement coins up to 260 and "debased radiate" for those struck after 260. The hoard has comparable quantities of earlier coins (77%) compared to the Stevenage (75%) and M1 (85%) hoards, but Cunetio (21%) and Bassaleg (45%) have far fewer. This is clear evidence of the deliberate selection of earlier, more intrinsically valuable, coins. Abdy then compares the hoard to Pot IV from the Chalfont St Peter hoard. It would have been informative to have had the break-down of the contents of pots I–III presented as well. Abdy uses the French word *thésaurisation* (to accumulate, hoard) in his discussion but does not define in what sense he is using it, probably meaning "[coin] selection".

Chapter 2 by Mark Corney describes the findspot of the hoard and its archaeological context. In some places a greater integration between text and image is needed (where is heated suite A?, for example). The hoard was found in a stone-lined cist below floor level, although the floor had been destroyed.

Chapter 3 by Benedict Sayers discusses the contents of the eight bags and the loose coins. Each bag contained mainly one type of coin: bag 6 had mainly *denarii*, bags 1, 3, 4, and 5 silvered radiates and bags 2, 7 and 8 debased radiates. The loose coins looked very similar to the bags of silvered radiates. Tufte (1983) wrote that "A table is nearly always better than a dumb pie chart; the only worse design than a pie chart is several of them, for then the viewer is asked to compare quantities located in spatial disarray, both within and between pies" (p. 178). This chapter provides an excellent example of the problem. Ten pie charts are spread over seven pages adding nothing to the reader's comprehension. A second table showing the data given on page 14 as percentages with the rows in the same order as the discussion would have been a much clearer illustration. Sawyer discusses the chronological distribution of coins using line graphs and provides a distribution by mint. It is impossible to assess these patterns without comparative data from other hoards. Comparison against a background pattern is one of the essential lessons taught by Reece in his many publications. Many questions remain unanswered: do the individual bags look like hoards with the same closing date, or are they unusual in composition? Does the overall hoard look unusual? Does the pattern of bag compositions match the sequence in which they were deposited in the cist?, and so on.

Julia Tubman describes the micro-excavation, recording and conservation of the coins. The dismemberment of the bags to preserve the groups of coins added hugely to the academic value of this hoard. The only omission is a discussion of the possible sequences in which the bags

were placed in the cist. The final chapter is a note by Kevin Butcher and Matthew Ponting on their on-going work on the archaeometallurgy of Roman coinage.

The remainder of this book is a detailed catalogue with copious plates that are extremely welcome to anyone dealing with less well-preserved material, although some are rather too flatly lit.

The second volume is a consolidated version of five Presidential Addresses given by Bland and published in the *British Numismatic Journal*, topped and tailed by additional chapters and completed by an extensive 'check list' which occupies two-thirds of the volume. We should join Bland in acknowledging the enormous contribution of Eleanor Ghey in collecting the data from which this check list was created, and on which Bland's analyses are based.

The volume is attractively typeset and copiously illustrated with 33 colour plates at the back. The photographs vary in quality from the glorious colour plates of hoards such as Sandridge (pl. 30) to the photograph of the Chalfont St Peter hoard which consists of three grey blobs on a grey background with no scale (Fig. 2.10). There are a number of editing errors: footnote 28 (p. 4) is a repeat of footnote 27; the *Coins and the Archaeologist* conference was held in 1973 (p. 5); Fig. 2 (p. 10) possibly refers to Fig. 2.2; Murray Andrews (not Murray Edwards) helped enhance the medieval hoard data (p. 11); double eagles are $20 gold coins (p. 22); Table 3c (p. 32) is Table 3.3c; St Levan V (p. 40) is missing from Fig. 3.10 and Map 3; six hoards becomes seven in the next sentence (p. 101); Fig. 6.7 is should be Fig. 6.2 (p. 104); 91% come from period 19 not 17 (p. 107); period 19 not 17 (p. 108), and total of [29] *solidi;* p. 120 "stories of wealth"; p. 122 Fig. 7.1 is pl. 32.

My biggest complaint is the presentation of the data. Thankfully, "dumb pie charts" are rare, but extensive use has been made of pointless 3D effects. These effects in single series graphs (e.g., Fig. 5.30) make seeing the values fiddly, but not impossible, unlike the graphs arranged in three series (e.g., plate 8) where some of the bars hide those behind making it impossible to see the data. I criticised these types of graphs many years ago (Lockyear 1994). They would be more effectively presented as simple 2D side-by-side bar charts such as plate 33. The late Mike Baxter — a statistician with extensive interests in archaeology — argued that 3D graphics such as these should be banned from academic publications, a sentiment with which I wholeheartedly agree. Additionally, none of the graphs have their *y*-axes labelled. Mostly one can work it out from the text or the captions, but the point stands. The maps are excellent, but it frustrating when trying to follow the flow of the argument to have some maps in the text, some in the maps section at the back, along with some graphs in the text and some, needlessly in colour, at the back.

Chapter 1 provides an overview of the development of coin hoard studies. Bland acknowledges the contribution of key scholars including Richard Reece and John Casey but omits to note (p. 4) that Casey devised an alternative set of 29 periods to Reece's 21.

Chapter 2 discusses some of the key themes in hoard studies, e.g., "what is a hoard"? Bland opts for "a group of objects which have been deliberately brought together." It is worth considering, however, the value of the objects. The late Sara Champion pointed out to me that a single low-value bronze coin is likely to be an accidental loss, whereas a single gold coin is unlikely to be. The dating of hoards is also an issue. The hoard ontology developed by the Nomisma project defines the 'closing date' of a hoard as the date of the latest coin, and the *terminus post quem* as the date after which the hoard was deposited taking all the possible sources of evidence into account. The Bredon Hill hoard discussed by Bland (p. 18, cf. p. 69) is an excellent example of this problem.

Bland also discusses the enduring argument that links periods of unrest with the incidence of hoarding. He cites the work of John Kent and Edward Besly on the hoards of the English Civil War, and their competing views as to how the events in that war are reflected, or not, in the evidence. This particular case study cries out for formal spatial analysis.

The chapter concludes with an examination of two historic examples of hoarding in times of trouble: Pepys hoard from 1667 and the Hackney hoard from 1940. The latter consists of two gold hoards that were recovered in 1952 and 2007. They were buried in 1940 in two jars, one containing 82 $20 US gold coins dating to 1890, and the other 80 similar coins dating between 1853–1913. Beyond Bland's observation that the hoard was concealed for safekeeping, the fact that the closing date of the two hoards precedes the actual concealment date by 50 years in one case, and 37 in the other, and that the coins were not currency and having ceased to be struck in the US in 1933 are both salutary warnings against the simplistic interpretation of hoard data. In both examples, the immediate impetus for concealment was the threat of invasion which, in neither case, actually happened.

Chapters 3 to 7 examine successive periods and possible interpretations for the observed patterns. Chapter 3 looks at the Iron Age to Roman Transition and the vexed issue of the relationship between Iron Age and Roman coinage. Chapter 4 looks at hoards from AD69–238 and examines the possibility that the pattern matches historical events. Chapter 5 examines radiate coin hoards of the third century and competing economic v. ritual explanations. Chapters 6 and 7 look at late Roman and post-Roman hoards and the relationship to the end of the province.

The volume concludes with Ghey's valuable check list, which is usefully indexed.

These two volumes contain much valuable information, and a series of ideas which could be pursued in more detail. I do hope, however, that more effective means of data analysis, such as relative risk maps (Bevan 2012), will be bought to bear on these data. As the size of our data set continues to grow, we need to adopt more effective means of data analysis than the rudimentary bar chart and dot distribution map if we are to make the most of this rich resource.

Bevan, A. (2012), "Spatial methods for analysing large-scale artefact inventories." *Antiquity* 86: 492—506.
Lockyear, K. (1994), "Ranter's corner — PUPs." *Archaeological Computing Newsletter* 41: 1–2.
Tufte, E. (1983). *The Visual Display of Quantitative Data*. Graphics Press.