

then entered into a data matrix which was used as the starting point for statistical clustering techniques. Both techniques are clearly a formalised version of the methods used both by ceramic petrologists and those trying to sort pottery fabrics macroscopically and could well be useful as a means of making our intuitive approach to classification more open to examination. This naturally leads on to the final paper in the volume, 'Extending Ceramic Petrology' by Ian Freestone. Freestone draws together various strands running through the papers and tells some home truths, both about the limitations of ceramic petrology and about the limitations of ceramic petrologists (principally that they have never sat down and established a formal terminology). Freestone proposes the adoption of a minimum standard consisting of six primary characteristics:

- 1) A list of all the inclusions present above trace level, with some indication of their relative abundance.
- 2) An indication of the total quantity of non-plastic inclusion, even if only in subjective terms such as 'common' or 'abundant'.
- 3) An indication of the degree of sorting of inclusions.
- 4) An indication of 'typical' grain size.
- 5) An estimate of roundness.
- 6) The colour of the ceramic matrix and whether or not it is birefringent.

This standard could well form the basis for one based on macroscopic examination and, indeed, is very close to that used in the Museum of London and elsewhere. Following a discussion of textural analysis and mineralogical quantification Freestone's paper briefly mentions the relatively recent techniques of electron microprobe analysis in which the elemental composition of inclusions seen in polished section under the Scanning Electron Microscope can be measured. The method only works where the fabric includes minerals of complex composition and is not, therefore, an answer to the ubiquitous problem of what to do with quartz or grog-tempered wares.

To conclude, this volume shows that the techniques of ceramic petrology are being extended and applied to more and more diverse areas of archaeology (and ethnography). To anyone working on the classification of pottery by fabric, with or without the use of thin-sections, the volume will contain material of interest and earns a place on the library or laboratory shelf.

Alan Vince

E. Lewis (ed) *Customs and Ceramics — Essays presented to Kenneth Barton* A. P. E. Wickham. 184 pp., 80 figures. Price £9.50 plus 50 p postage.

I find it hard to believe that Ken Barton has retired and gone to live in France. From my northern fastness in Aberdeen, I have come to expect him to be there when I journey south, ready as ever to examine my latest offering and to opine, discuss and, not infrequently, argue. But retire he has and this collection of ten essays has been presented to him by some of his friends as a tribute to his many years of work in the field of ceramic research. Examining a wide range of topics and spanning the medieval and post-medieval periods, the essays reflect the wide range of Ken's own interests.

Following an introduction by Graham Webster, who launched Ken on his archaeological career, John Hurst examines the beginning of the study of medieval pottery in his essay on antiquarian finds of medieval and later pottery. Frans Verhaeghe, following Ken's example, examines museum

collections in a thought-provoking essay which considers a fragment of a Brussels aquamanile and from that discusses ceramic competition with quality metal goods in the middle ages. This is the longest paper in the book, and is presented with Verhaeghe's usual meticulous scholarship. Also pursuing Ken's life-long association with French pottery and the Channel Islands, Robert Thomson and Duncan Brown, and Bob Burns respectively examine some earthenware curiosities from the Saintonge, and Normandy stonewares from Guernsey.

On the home front, Mike Ponsford looks at the dating of Ham Green ware from Bristol, while Elizabeth Lewis looks at the documentary evidence relating to the Blackwater potters, another ware eagerly pursued by Ken. David Allen examines four bellarmine 'witch-bottles' from Hampshire, and Russell Fox describes 18th- and 19th-century chimney pot and inscribed tile production in the Portsmouth area. The collection is rounded off by Peter Brears, who departs from the ceramic theme and presents a delightful essay on the Christmas wassail custom in England, tracing it from its medieval origins to the 19th century.

This is an attractive and interesting collection of essays and one which I am sure Ken Barton will appreciate. However, just one note of caution to readers — the scale of the drawings is not consistent throughout the volume, while the book is produced in a paper-back size (landscape format). Some may find this irritating, as it makes it awkward to fit into bookshelves, but I have to say that it appeals to me. It slips easily into the pocket to take on journeys or to read while having a quiet drink in the pub. I did this recently and found it excellent company — I'm sure Ken would approve.

Charles Murray

I. W. Reed, *1000 Years of Pottery. An Analysis of Pottery Trade and Use. Fortiden i Trondheim Bygrunn: Folkebibliotekstomten (the Library Site)*. Meddelelser Nr.25. Riksantikvaren, Utgravningskontoret for Trondheim, Trondheim 1990. 94 pp., 26 figures/tables. Price NOK50.

Norway is unique in Europe in that from the 7th century until c.1700 there were no local pottery industries; all the pottery used was imported, and this provides an extraordinary opportunity to understand the changing patterns of trade. The author of this report on the pottery from the Library site in Trondheim (over 34,100 sherds) is to be commended for making the most of the evidence at his disposal within a limited timetable and budget. To appreciate the strengths and weaknesses of this the first detailed publication of pottery from Trondheim requires a certain knowledge of archaeological and pottery research in Norway.

The first large-scale urban excavation in Norway was the Bryggen excavation in Bergen, directed by Asbjørn Herteig. This ran from 1955–69, but it was not until the 1970s that excavations began to be carried out in advance of development work on other sites, and not until 1978 that state-funded excavation units were established in historic towns such as Trondheim, Bergen, Tonsberg and Oslo. The approach to publication has varied. The different sites in Oslo and the Bryggen excavation in Bergen are being published in a series of monographs (the latter in English). In Tonsberg, publications have been planned but have yet to be published, while the Riksantikvaren in Bergen have produced a series of archive reports but no final publications. In Trondheim a compromise has been reached whereby the sites are published by means of A4-size fascicules which constitute a research archive rather