ASPECTS OF ILLUSTRATION: PREHISTORIC POTTERY

by Seán Goddard, David Knight & Jane Goddard, Sue Hamilton and Sue Rouillard
CONTENTS

List of Illustrations ii

Introduction iii

I. The Prehistoric Pottery Drawings of Robert Gurd
   by Seán Goddard MAAIS
   University of Exeter 1

II. The Illustration of Prehistoric Pottery: Requirements of the Pottery Researcher
    by David Knight BA, DPhil, MIFA and Jane Goddard BA, MAAIS
    Trent & Peak Archaeological Trust 5

III. The Problem of Fabric: The Representation of Variables in Prehistoric Pottery
     by Sue Hamilton BA, PhD
     Institute of Archaeology, University College London 13

IV. The Illustration of Glastonbury Ware: A Case Study
    by Sue Rouillard MAAIS
    University of Exeter 21
## List of Illustrations

<table>
<thead>
<tr>
<th>Figure</th>
<th>PART I</th>
<th>PART II</th>
<th>PART III</th>
<th>PART IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Complete Page Copied from the Original at 50% Reduction (with drawn scale detail of three sherds).</td>
<td>5.</td>
<td>Iron Age Pottery from Aslockton, Nottinghamshire.</td>
<td>10.</td>
</tr>
<tr>
<td>3.</td>
<td>Complete Page Copied from the Original at 50% Reduction (with drawn scale detail of two vessels).</td>
<td>6.</td>
<td>Late Iron Age Pottery from Mill Drove, Bourne, Lincolnshire.</td>
<td>11.</td>
</tr>
<tr>
<td>4.</td>
<td>Bronze Age Pottery from Swarkstone Lowes, Derbyshire.</td>
<td>7.</td>
<td>Late Iron Age Pottery from Mill Drove, Bourne, Lincolnshire.</td>
<td>12.</td>
</tr>
<tr>
<td>5.</td>
<td>Iron Age Pottery from Aslockton, Nottinghamshire.</td>
<td>8.</td>
<td>Late Bronze Age Briquetage Pedestals from Tetney, Lincolnshire.</td>
<td>13.</td>
</tr>
<tr>
<td>7.</td>
<td>Late Iron Age Pottery from Mill Drove, Bourne, Lincolnshire.</td>
<td>10.</td>
<td>Late Bronze Age Briquetage Pedestals from Tetney, Lincolnshire.</td>
<td>15.</td>
</tr>
<tr>
<td>8.</td>
<td>Late Bronze Age Briquetage Pedestals from Tetney, Lincolnshire.</td>
<td>11.</td>
<td>Late Bronze Age Pottery from Yapton, West Sussex</td>
<td>16.</td>
</tr>
<tr>
<td>9.</td>
<td>Bronze Age Pottery from Down Farm, Woodcutts, Dorset (with subsequent annotations). …</td>
<td>12.</td>
<td>Late Iron Age Pottery from Testers, Steyning, West Sussex.</td>
<td>17.</td>
</tr>
<tr>
<td>11.</td>
<td>Late Bronze Age Pottery from Yapton, West Sussex</td>
<td>14.</td>
<td>Two Examples of Glastonbury Ware Drawn by A. Bulleid.</td>
<td>19.</td>
</tr>
<tr>
<td>14.</td>
<td>Two Examples of Glastonbury Ware Drawn by A. Bulleid.</td>
<td>17.</td>
<td>Part of Group A — Geometric Designs from the Decorative Catalogue Papers 13</td>
<td>22.</td>
</tr>
</tbody>
</table>

Cover Illustration: by Robert Gurd (part of Figure 3 above)  
Cover Design and Publication Typeset: Mélanie Steiner  
Printed by: Kingsley Press, Northampton
Introduction

In November 1992, a joint meeting was held of the Association of Archaeological Illustrators & Surveyors and the Prehistoric Ceramics Research Group at the Institute of Archaeology in London. The purpose of the meeting was to discuss the Illustration of prehistoric pottery. This was, firstly, a forum for the exchange of information and ideas about different styles and drawing conventions; and to discuss amongst specialists what was desirable and practical.

In this increasingly visual age we are encouraged to absorb data at a glance. A good illustration can convey information quicker than the corresponding written description. The conventions used for pottery illustration have been developed over the century to convey information clearly and concisely, without losing a sense of the aesthetic. These papers aim to look at different styles and techniques which have been used to convey very specific types of information, for example: fabric, manufacturing technique, decoration or evidence of function.

The individual nature of each prehistoric pot requires a very different approach to the more mechanistic methods, which may be employed to illustrate mass produced, wheelmade pottery. This was the reason behind the inclusion of case studies such as Sue Rouillard’s work on the Glastonbury pottery and the work done by David Knight and Jane Goddard in the Trent Valley.

Changes in the organisation and funding for the profession, over the past decade, have meant an inordinate amount of pressure being placed on both illustrator and specialist, to do ‘the most in the least time’, due to deadlines. Seán Goddard’s survey of Gurd’s illustrations from the first half of this century, reminds us what may be achieved with the appropriate level of funding. Although the present situation is not ideal, it has now established itself as a norm. There is no one right way to draw pottery. The important thing is that one must be able to ‘read’ the illustration clearly and without ambiguity, as one would the written description. This point was strongly emphasised in all the papers and especially by Sue Hamilton. The search for parallels is an inherent part of the research process and if the ceramic specialist can compare two pieces of pottery from the illustrations alone, without having to refer to the sherds, then the drawings have done their job.

The form and decoration of each vessel is fairly easily conveyed by the drawing, but the illustration can show more and be read so much more efficiently by including the appearance of the fabric; the physical evidence of how the pot was used (sooting, wear marks or secondary alterations); the manufacturing techniques used (wheel, coil or slab building, knife trimming, burnishing or other surface treatment). Ideally, all can be shown on a single drawing.

The success of the exercise rests on the understanding by the illustrator of what the ceramic specialist requires. This relationship should be one of mutual respect for each other’s skills. Good communication between both participants is therefore vital. It is hoped that these papers will highlight this need and act as stepping stones between these specialists.

Anna Slowikowski, (AAI&S chairman 1990-1993)
Figure 1. Complete Page of Gurd Illustrations which Describes the Differences between Fabric Types. Note in particular the ‘rogue’ sherd P22, a soft grey fabric on a page of hard burnished sherds (Liddell 1931, Pl XXVII)
PART 1. THE PREHISTORIC POTTERY DRAWINGS OF ROBERT GURD

by Seán Goddard.
University of Exeter.

For reasons which have never been convincingly voiced, prehistoric ceramic specialists have almost always demanded more detail from pottery illustrations, as compared, for example, with those who study Roman and medieval ceramics, who are happy with a more diagrammatic drawing. Often the prehistoric specialists require a more naturalistic rendering to describe the often fragmentary survival of the material. This approach may reflect, in part, the difference in the quantity of material recovered from archaeological excavation. Roman sites may literally yield tonnes of pottery, whereas prehistoric sites may only fill four or five finds boxes. Whatever one thinks about the merits of this difference, it is likely that an illustrator faced with the task of drawing prehistoric pottery will have in mind the fine examples of the work of Robert Gurd.

Gurd had a unique gift for recording prehistoric pottery and, in particular, for the neolithic. He had an affinity with the material, which I might go as far as to say, has not been bettered. Others have attempted to emulate his style but few have the same convincing flair. I have access to four pages of original Gurd pottery drawings. Three are from Dorothy Liddell’s reports on her excavations at Hembury Fort in Devon (Liddell 1929–1936). I have looked closely at the work, comparing some of the drawings with the sherds themselves. It is hard to imagine that anyone could improve the rendering. Texture, surface eruptions of tempering, decoration, scratches and breaks are all there in an easily interpreted form. His work not only looks good and would bear any scrutiny. What is more remarkable (and it points to Gurd’s supreme confidence) is that each page of drawings is composed and executed on one sheet of board: no paste-up and not a spot of process white anywhere!

Figure 1 is an example of this work. It shows an immediate and obvious difference between fabrics. The majority appear hard, black and burnished, whereas P22 and P23 are clearly different. The sherd P22, which I have seen, is a soft, grey, pasty fabric and the drawing demonstrates this difference well. Figures 2 and 3 show complete pages reduced to 50%, with examples of the drawn scale illustrations adjacent. The style is relaxed but convincing, with close attention to detail. In particular, note how, in Figure 3, the deep shadow cast by the heavy lugs and handles, also have some reflected light thrown back to ameliorate the effect, making it all the more believable. It is worth noting, however, that these illustrations can never have been expected to be reduced beyond 50%. As the examples shown here demonstrate, this would appear to be their optimum printed size.

Gurd’s style with the pen may be compared to earlier generations of engravers whose remarkable talents allowed them to interpret convincingly, in line, all the subtleties of form and tone. He clearly liked prehistoric pottery.

Gurd first appeared on the archaeological scene in 1914 as a member of the Brighton and Hove Archaeological Society and by then was illustrating excavation reports for the Sussex Archaeological Collections. At this time he was employed as a draughtsman for the Southern Railway in Brighton and may have been ‘discovered’ by Eliot and E. Cecil Curwen, father and son doctors, who did so much archaeological work in Sussex. The association with the Curwens lasted until Robert Gurd’s untimely death in 1937, by which time he was in charge of the Drawing Office of the Southern Railway.

Gurd’s earliest published drawings were maps and plans but he was soon drawing flint and other artefacts, and even reconstructions, as well as his pottery drawings. Unlike many working in archaeological illustration, Gurd soon established a style which required little further development in the twenty or so years
Figure 2. Complete Page Copied from the Original at 50% Reduction (with drawn scale detail of three sherds). Note the different pen styles to describe surface rendering (Clifford 1937, 193)
Figure 3. Complete page copied from the original at 50% reduction, with drawn scale detail of two vessels. P345 shows the surface eruption of large tempering fragments and scratches, and also demonstrates the use of reflected light within the heavy shadow of the handle (Liddle 1935, Pl XXXVII)
he was active. Although mostly associated with the Curwens in Sussex, he was clearly sought after by many of the leading archaeologists of the day, to record important prehistoric pottery from southern Britain. For example, he had illustrations on twenty eight pages in the *Proceedings of the Prehistoric Society*, Volume 2 (1936).

Whilst the style of Robert Gurd's pottery drawings may be something that many may aspire to, I suspect few could easily compete with such confidence, flourish and speed of execution. It is interesting to compare Gurd's work with that of another hand in Sir Mortimer Wheeler's Maiden Castle report (Wheeler, 1943), where the two styles are mounted on the same page. If one looks at Gurd's drawn scale illustrations shown here with their almost casual linework, I think most of us would have to abandon hopes of emulating the style for their own work. Robert Gurd had a unique talent.

*Select Bibliography of Robert Gurd's Published Pottery Illustrations (Part I)*

---

Clark, G. (1935)


Clifford, E.M. (1937)

'The Excavation of Nympsfield Long Barrow, Gloucestershire'.

*Proceedings of the Prehistoric Society* Vol 3, No 4, Figs 3, 4, 6, 7.

Curwen, E. & E.C. (1922)

'Notes on the Archaeology of Burham and the Neighbouring Downs'.

*Sussex Archaeological Collections* 63.

Curwen, E.C. (1937)


Hawkes, C.F.C. (1935)

'The Pottery from the Sites on Plumpton Plain'.

*Proceedings of the Prehistoric Society* Vol 1, No 3, pp 40-43, 47-54.

Liddell, D.M. (1929-1936)

'Reports on the Excavations at Hembury Fort'.


Liddell, D.M. (1934)

'Excavations at Meon Hill'.


Liddell, D.M. (1935)

'Excavations at Meon Hill, Second Season'.


Piggott, C.M. and Seaby, W.A. (1937)

'Early Iron Age Site at Southcote, Reading'.

*Proceedings of the Prehistoric Society* Vol 3, No 4, Figs 3, 4, 6, 7.

Piggott, S. (1937)

'Excavation of Long Barrow in Holdenhurst Parish, Hampshire'.

*Proceedings of the Prehistoric Society* Vol 3, No 1, Figs 3, 4, 6.

Wheeler, R.E.M. (1943)


See also *Sussex Archaeological Collections* 57 (1915) to 78 (1937), where almost every volume has Gurd drawings, mainly, but not exclusively, for E.C. Curwen.
PART II. THE ILLUSTRATION OF PREHISTORIC POTTERY: REQUIREMENTS OF THE POTTERY RESEARCHER.

by David Knight and Jane Goddard. 
Trent & Peak Archaeological Trust, Nottingham.

The pottery researcher relies heavily upon visual comparisons between illustrated vessels. It is desirable, therefore, that drawings should portray realistically the vessel fabric, form, surface treatment and condition, and convey the maximum information regarding the method of manufacture. This short paper considers each of these attributes in turn and, to illustrate the argument, it includes several examples of drawings prepared recently by Jane Goddard.

Fabric

Fabric variations cannot easily be depicted visually, but in the case of coarse wares an accurate portrayal of the size range, shape, frequency and sorting of the coarse inclusions greatly facilitates assessment of its character (cf. Goddard, 1993, Figure 5; Hamilton, this volume). Fineware are more problematic, but distinctive kinds of surface finish can provide visual clues to the character of the fabric (e.g. burnishing; see below). It is recommended that fabric codes should be added to each drawing, permitting rapid visual assessment of correlations between fabric type and other vessel attributes (notably form and decoration), and between fabric and context (for other options see Hamilton). The illustrated vessels were manufactured from a variety of fabric groups, defined according to variations in the frequency and modal size range of the main inclusion types. Each fabric code employs four alphabetical characters. The first two characters indicate the main inclusion type (SH: shell; QU: quartz; SS: sandstone) and the other remaining characters describe respectively the quantity and modal size range of this inclusion. Full discussion of these fabrics is inappropriate here, but the following conventions should be noted in order to clarify the coding employed on the accompanying illustrations:

Frequency: Rare (R; < 3 %); Sparse (S; 3-9 %); Moderate (M; 10-19 %); Common (C; 20-29 %);
Size: Fine (F; < 0.25 mm); Medium (M; 0.25-1 mm); Coarse (C; 1-3 mm); Very coarse (V; > 3 mm).

Figure 4. Bronze Age Pot from Swarkstone Lowes, Derbyshire
Figure 5. Iron Age Pottery from Aslockton, Nottinghamshire
Figure 6. Late Iron Age Pottery from Mill Drove, Bourne, Lincolnshire
Form and manufacturing techniques

It is important that full information be provided on the proportion of the vessel that survives, for without this, it is impossible to assess independently the validity of the reconstructed profile and diameter. In addition, such information can provide valuable insights into the mechanisms of deposition — for example, large fragments may indicate deliberately structured deposition. This information can be conveyed by drawing the outline of the surviving fragment and, if more of the vessel survives than can be shown by a front view, by incorporating a pie chart to indicate the approximate percentage of the maximum circumference that survives (assuming that this convention is clearly specified in the statement of methodology). A more effective alternative to a pie chart might be a concentric circle, the outer ring of which could be shaded to indicate the proportion of the surviving circumference (e.g. Figures 5, 6). It is recommended also that all sherd joins be shown, as a guide to the fragmentation of the vessel at the time of excavation. Fracture patterns may, of course, also provide valuable information on manufacturing methods (e.g. horizontal fractures along joins between coils) while an understanding of fracture processes may aid sherd identification (e.g. collars of Collared Urns, formed sometimes by folding over the rim: Allen et al., 1987, Figure 10.54). Overlaps between coils may also be visible in section, and it is helpful if these are indicated in the section (e.g. by a solid line against a hatched/stippled background). A solid line may also be used to mark the interface between applied handles, cordons, etc., and the vessel wall. The usual convention of employing a ruled line for the diameters of wheelmade vessels and an unruled line for the diameters of handmade vessels should also be employed.

Surface treatment

It is clearly desirable that a full and accurate record be made not only of all decorative elements but also of all other forms of surface finish (e.g. scoring, brushing or finger smearing), with due attention to irregularities in the design. Certain kinds of surface finish cannot easily be portrayed visually and may, unfortunately, need to be shown in a more stylised manner. Burnishing is particularly problematic, especially where clear burnishing grooves cannot be discerned, but can be denoted reasonably effectively by short horizontal lines.

Sherd condition

The level of abrasion is clearly a factor of major importance in assessing the post-depositional history of sherds, and it is recommended that abraded surfaces be clearly distinguished (e.g. by stippling or shading). Together with sherd size, this should provide an effective visual record of the general condition of the collection and intercontext variations. This should contribute significantly, therefore, towards discussions of redepositional processes. Attention should also be accorded to methods of depicting charred residues or other surface deposits which may elucidate the function and post-depositional history of the pottery.

Drawing medium

Although pottery drawings are conventionally prepared for publication in ink, it is suggested that pencil illustrations be considered as an alternative. Pencil shading can reveal subtleties in the surface appearance of vessels that cannot be conveyed by ink, but although used occasionally in the past (e.g. Powlesland, 1986) the technique has not been widely applied (cf. Goddard, 1993, 3). Pencil originals can be reproduced photographically, but high quality copies may also be obtained by laser copying techniques, thus reducing costs. In several recent reports on prehistoric pottery and briquetage, from Lincolnshire and Nottinghamshire, the writers have experimented with pencil for the final end product. The merits or otherwise of this technique, which it is suggested is especially effective for conveying the surface appearance of vessels, may best be judged by the accompanying figures. A more radical suggestion would be to
Figure 7. Late Iron Age Pottery from Mill Drove, Bourne, Lincolnshire
Figure 8. Late Bronze Age Briquetage Pedestals from Tetney, Lincolnshire
explore the possibility of colour originals. The cost implications of this would need to be fully explored, but the benefits to the ceramic researcher would be considerable.

**Scale of reduction**

Reduction of detailed pencil drawings may cause much of the subtle surface detail which can be conveyed by this technique to be lost, and ideally surface shading would be carried out at the scale required in final publication. Reduction by 50% generally provides a satisfactory level of surface detail. Although obviously rather more costly than conventional reductions to 33% or 25%, it is recommended in view of the progressive loss of fine detail at these smaller scales.

**Final remarks**

Drawings prepared to the above specifications require a higher labour investment than might normally be expended, during post-excavation. In the opinion of the writers, however, the investment is amply rewarded by the benefits to the pottery researcher of drawings that convey more precisely the character of the pottery assemblage and to summarise in visual form a wide range of information which would otherwise remain buried in the text. This may in turn permit a more concise description and catalogue, and in addition to reducing text printing costs may make the end product more readable! Many of these benefits, it should be emphasised, are applicable to other ceramic artefacts - as shown in Figure 8, where examples are included of Late Bronze Age briquetage from a site at Tetney, Lincolnshire (Palmer-Brown, 1993).

**Acknowledgements**

Thanks are expressed to Severn Trent Water for funding the excavations and post-excavation work at Aslockton; to Naomi Field, Director of Lindsey Archaeological Services, for permission to reproduce the drawings from Bourne and Tetney; to Anglia Water for funding the preparation of the Tetney drawings; M. Parker & Sons Ltd. for funding the preparation of the Bourne pottery drawings and the Highways Agency for funding work at Swarestone Lowes. Comments on this paper were kindly provided by Dr. Carol Allen, Sheila Elsdon, Dr. Elaine Morris, Richard Sheppard, Anna Slowikowski and Dr. Ann Woodward.

**References (Part II)**


*Graphic Archaeology* pp 1-8.

‘Bronze Age Salt Production at Tetney’. *Current Archaeology* 136, pp 143-5.

Powlesland, D. with Haughton, C. and Hanson, J. (1986)  
Catalogue of Illustrated Sherds (Figures 4-8, pages 5-7, 9, 10)

Details are recorded in turn of vessel form, surface treatment, firing conditions, colour, surface deposits and condition (ext: exterior; int: interior). All fragments derive from handmade pottery vessels (1-16) or briquetage (17-19). An explanation of the fabric codes used to identify each of the vessel drawings is included in the text. Contextual information, which is not relevant to this article, is omitted.

1. Six joining sherds deriving from a plain ‘bucket urn’ of Deverel-Rimbury type, with flat base and simple rounded rim. Uneven outer face, preserving shallow finger indentations created during moulding of vessel. Irregular flattened lump of clay attached to inner face. Irregularly fired ext. (brown/black) and unoxidised core and int. (black); surfaces of fired clay lump compare with interior surface. Extensive burnt deposits on inner face. Unabraded.

2. Single sherd deriving from ovoid vessel with slightly flattened rim, pinched out internally. Deep scoring on outer face. Row of finger-nail incisions along lip and row of shallow finger-tip impressions on outer face at base of rim (thumb impressions formed during application of finger-nail incisions to lip?). Irregularly fired ext. and int. (mainly buff, with black/grey mottles); core unoxidised (black). Unabraded.


5. Two joining rim sherds from vessel with high slightly everted neck and rim pinched out internally and externally. Unusual herringbone pattern of tooled or finger-nail incisions along top of rim. Unoxidised throughout (black ext. and light/dark grey core and int.). Unabraded.

6. Twenty seven joining sherds from ovoid neckless jar with flattened square-sectioned rim, demarcated from shoulder by a pronounced groove. Most of this vessel survives, apart from the lower body and base. Fault randomly oriented brush marks on exterior. Horizontal fracture around circumference, c. 60mm beneath base of rim, suggests junction between coils. Irregularly fired ext. (mainly buff/black/grey) and int. (orange-brown/black/grey); unoxidised core (black/dark grey). Unabraded.

7. Three joining sherds from ovoid vessel with rounded rim, slightly pinched out internally and externally. Smoothed outer face with traces of burning. Irregularly fired ext. (buff/black/grey); unoxidised core (black/grey); oxidised int. (orange-brown). Slightly abraded.

8. Nineteen sherds joining to form a virtually complete neckless ovoid jar with a flat base, domed slightly internally; rounded rim, demarcated from shoulder by a pronounced groove, reminiscent of bed forms. Smoothed outer surface, with band of horizontal striations along shoulder. Horizontal fracture below girth suggests junction between coils. Irregularly fired ext. (mainly buff/black/grey) and int. (orange-brown/black/grey); unoxidised core (black/grey). Unabraded.

9. Two joining sherds from vessel of ovoid or related form with rounded rim, slightly pinched out externally. Burnished exterior. Unoxidised exterior (black) and core (black/grey) and irregularly fired int. (orange/grey). Traces of burnt deposits on exterior. Moderately abraded.

10. Rim of vessel with short upright neck and flattened rim pinched out slightly internally and externally. Series of deeply incised lines on shoulder, intersecting to form a rough lattice pattern. Outer and inner faces burnished. Unoxidised throughout (black ext. and int.; grey core). Slightly abraded.

11. Sherd from probable ovoid vessel with short everted neck and thin tapering rim. Irregularly fired ext. and int. (buff/black/grey) and unoxidised core (grey/black). Slightly abraded.

12. Seven joining sherds from neckless ovoid vessel with rim slightly bevelled internally and slightly pinched out externally. Smoothed outer and inner face. Irregularly fired ext. and int. (black/grey/buff); unoxidised core (black/grey). Unabraded.


14. Body sherd with four deeply scored lines on exterior, intersecting to form a rough lattice pattern. Oxidised ext. (orange/orange-brown) and incompletely oxidised core (brown); inner surface no longer survives. Moderately abraded, with flaked inner surface.


16. Body sherd with random lightly incised and brushed lines on exterior. Orientation and angle uncertain. Irregularly fired ext. and int. (orange/buff/brown) and unoxidised core (black/grey). Slightly abraded.

PART III. THE PROBLEM OF FABRIC: THE REPRESENTATION OF VARIABLES IN PREHISTORIC POTTERY

by Sue Hamilton.
Institute of Archaeology, University College London.

'A fabric type is a definable collection of information about the range of inclusions, the clay matrix, the colour of clay and the firing of one or more sherds'. Prehistoric Ceramics Research Group 1992, 9.

![Fabric composition: medium to sparse density of flint grits up to 4mm in diameter with the addition of grog](image)

Fabric composition:
some grog but otherwise few or no grits

Figure 9. Bronze Age Pottery from Down Farm, Woodcutts, Dorset (from Barrett 1991, with subsequent annotations).

Introduction

This paper considers the role of pottery illustration in representing the variables around which the analysis and publication of prehistoric pottery is constructed. It particularly focuses on the representation of pottery fabric. The pottery illustrated, by way of example, comes from southern British Bronze and Iron Age assemblages (Figures 9-12).

The representation of variables

Artefacts and artefact types are created through sequential production choices made with particular aims in view, and with reference to the existing conditions (Barrett, 1991). The illustrated page provides a discrete point at which the procedures and choices involved in pottery production can be represented together: the raw materials used; construction techniques;
Figure 10. Early Iron Age Pottery from Hollingbury Hillfort, East Sussex (from Hamilton, 1984)
vessel form; vessel decoration and firing practices. The text of pottery reports typically separates these elements under empirical headings such as 'the fabrics', 'vessel forms', 'decorations and surface treatments' and the like. The illustrations can balance/countervact this separation by maximising the reader's potential to observe how these variables occur together in specific vessels.

By tradition, the drawings in specialist reports follow the text — this positions the text to preempt visual information and weakens the interpretative role of illustration. Often the illustrated corpus of prehistoric pottery serves as a guide to the styles of pottery which distinguish the assemblage, and little more. Only banal conclusions are possible from the illustrations, because the information provided on them is too slight. Many specialists regard pottery illustrations as a barely adequate substitute for a museum visit to 'see' the assemblage in actuality. In this perspective the prime role of the illustrations would seem to be to aid the recognition of the pots/sherds when they are searched for in museum stores! Given the above observations, it is an interesting paradox that most of us in fact look at the illustrations first, and then the written report. We are clearly seeking for essential information from a preliminary scan of the drawings.

It is important to see pottery illustration as having an equivalent role to the 'hands on' approach. The illustrated page should maximise the presentation of observations already made by the finds specialist during post excavation analysis. The published drawings should stimulate 'problematisation' — the generation of further questions concerning the basis of observed regularities. It is elitist to hamper desktop analysis of these juxtapositions — restricting it to those with time and resources to access museum stores. This is particularly important with prehistoric pottery, which can display great regional variation, particularly in its fabrics.

Fabric and text

The isolation of fabric types is the starting point for pottery classification, fabric being the one attribute that all pottery sherds have. Fabric descriptions commonly comprise >50% of the text of a prehistoric pottery report. Turbid descriptions of perhaps thirty fabric types along the lines of: 'Fabric 2, flint-tempered fabric: grits up to 3mm in diameter include flint, but mostly soft white calcareous inclusions. Smoothed exterior surfaces. Reduced firing conditions.' hardly make stimulating reading. Given the central role of fabric, not only in classification but in embodying information about access to raw materials, exchange (of raw materials and finished pots), technology (e.g. evidence of construction and firing processes), and vessel function (where fabric facilitates particular types of use), it is essential to achieve a more user-friendly way of presenting fabric information.

Illustrating fabric

More illustrative information is now being placed on pottery drawings, particularly with respect to vessel surfaces and sections. Examples of the latter include: i) the use of specific 'infill' conventions to indicate coil construction or wheel-thrown construction; ii) indication in the section of observed coil joins; and iii) the use of unfilled section areas to indicate applied pieces. Effective visual representation of fabric surface however needs to be dealt with more rigorously, while the possibility of representing subsurface fabric has largely been ignored.

Drawing surfaces: pottery surfaces are the result of both forming and finishing processes. The convention of 'stippling' or line 'shading' to make vessels seem more three dimensional often inadequately takes into account actual surface textural qualities. A constant source of confusion when looking at pottery drawings is whether use of stippling, for instance, indicates the grainy surface of a quartz-tempered fabric, or whether it merely being used as shading irrespective of fabric type or surface texture (Figure 9). It seems perverse that a policy of drawing what the surface actually looks like - by using the most realistic 'infill' imagery, is not standard practice. 'Realistic' representation
Figure 11. Late Bronze Age Pottery from Yapton, West Sussex (from Hamilton, 1987)
of surface texture needs to be published at a larger scale than is generally used. With the increasing use of A4 size for publication a scale of 1:2 is viable, even for larger vessels, and not impossible for smaller format journals (Hamilton, 1996).

**Fabric composition:** pottery illustration has not caught up with the detailed fabric descriptions which for several decades have been a standard component of prehistoric pottery reports. Pottery construction and finishing processes often create a surface texture which is significantly different to the fabric matrix as a whole. Obviously more text could be placed on the illustrations — fabric codes; fired finish codes (Hamilton, 1996), but more than this is required. We need to address how subsurface fabric can be visually represented without being forced back into the body of the text for basic ‘fabric description’ information. Any such representation of subsurface fabric must indicate both: i) inclusion/temper types (flint, grog etc.); and ii) the textural characteristics (size, density, shape) of these inclusion/temper types. Simple guidelines exist for identifying, quantifying and defining pottery fabric variables, either by direct measurement and counts, or by using standard visual estimation charts (e.g. inclusion density charts and roundness classification charts: Prehistoric Ceramics Research Group 1992). Assessment is most commonly achieved by macroscopic analysis of broken sections, while microscope study of thin sections or of disaggregated samples (Hamilton, 1993) is used for detailed analysis of selected sherds. Pie charts have great potential for summarizing the information observed and quantified by such methods of assessment.

**Pie charts:** Figures 10, 11 and 12 indicate examples of the use of pie charts to represent fabric. These pie charts summarise the inclusion types and counts present in disaggregated 1.0g fabric samples. The number of inclusions present in a sample is given in the centre of each pie chart. The segments on the charts indicate the relative percentages of individual inclusion types present. Each inclusion type segment is subdivided according to the relative percentage of inclusions which fall within the recognised size categories. Wentworth grain size classifications were used: Appendices 1 and 2 (see below page 19).

Initial experiments used hand constructed pie charts to summarise quantified information, with text indicating the fabric categories (Hamilton 1987; Figures 2 and 3). One attempt visually represented size categories with a sliding scale of dots to represent six grades — I did not consider the resulting ‘snow storm’ effect to be wholly successful (Figure 10, Hamilton 1984)! Ultimately, Computer Aided Design (CAD) pie charts, with different shading to indicate the different inclusion types were employed (Figure 12, Hamilton 1993). These are, I think, much more successful. The shading facilitates visual cross-comparison of fabric types. Additionally, the concentric rings within the charts allows ‘nested’ information to be presented. By placing inclusion type in the outer ring, followed in the middle ring by subdivisions of each inclusion category into inclusion size grades, the observer is drawn into asking different levels of questions.

The CAD charts encapsulate quite sensitive information. They allow intra- and inter-site comparison of fabrics on the criteria of:
1. Inclusion abundance
2. Specific combinations of inclusion categories
3. The size characteristics of the individual inclusion categories.

Since all inclusions irrespective of their size or weight received single counts, higher counts (abundance) can be indicative of finer and/or lighter inclusions. The number of inclusions within each size category allow the latter concept to be better assessed. The pie chart segments represent the relative proportion of inclusion categories present. A small segment size of any given inclusion category on one chart, compared with a larger segment size of the same inclusion category on another chart, does not necessarily mean that they have widely varying numbers of inclusions in the segments being compared. Segment size should be interpreted in the context of the total number of inclusions indicated in the centre of each pie chart. Higher counts tend to indicate finer inclusions because more can be counted per unit weight.
Figure 12. Late Iron Age Pottery from Testers, Steyning, West Sussex (from Hamilton, 1993)
Pie charts could be used equally effectively to summarise fabric types identified by macroscopic analysis and quantified using visual estimation charts, or thin sections quantified by point counts.

Conclusions

Pottery illustration can never mirror all the observable attributes of a pottery sherd or vessel, but they can be better directed towards enabling us to probe the underlying structures beneath the data which we empirically see. A strategy towards achieving these ends would be:

1. To recognise the central role of the illustrated page in mediating pottery information.
2. To provide enough information on the illustrated page to allow the reader to construct meanings and relationships. This could be done by a combination of written information, visual imagery and graphic representation.
3. To strive for visually imaginative ways of demonstrating this information — hopefully fostering discourse by simultaneously disrupting and engaging the ‘reader’ (Hamilton, 1996).
4. To place the drawings before the text in specialist reports.

Specialist publications need an expanded visual vocabulary which recognises that drawings are an essential medium in presenting complexity — in this case, the complexity of the multiple variables of prehistoric pottery, with their considerable potential for opening up lines of enquiry into the past.

Appendix 1: Wentworth’s Size Classification

<table>
<thead>
<tr>
<th>Name</th>
<th>Grade Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(diameter in mm)</td>
</tr>
<tr>
<td>pebble</td>
<td>64.0 - &gt;4.0</td>
</tr>
<tr>
<td>granule</td>
<td>4.0 - &gt;2.0</td>
</tr>
<tr>
<td>very coarse sand</td>
<td>2.0 - &gt;1.0</td>
</tr>
<tr>
<td>coarse sand</td>
<td>1.0 - &gt;0.25</td>
</tr>
<tr>
<td>fine sand</td>
<td>0.25 - &gt;0.125</td>
</tr>
</tbody>
</table>

Appendix 2: Abbreviations used in Pie Charts

Inclusion types:

F. = Flint
G. = Grog
I.O. = Iron Oxides
S. = Shell
Q. = Quartz

Inclusion size grades:

v.c. = very coarse
c. = coarse

References (Part III)

Barrett, J. (1991)


‘Late Bronze Age Pottery’, in D. Rudling ‘The Excavation of a Late Bronze Age Site at Yapton, West Sussex, 1984’, *Sussex Archaeological Collections 125*, pp 53-63.


Prehistoric Ceramics Research Group, (1992)
Figure 13. A Selection of Pottery Vessels from SLP Papers 7 & 9, showing sherd for sherd illustration and surface rendering for different fabrics. 318, 2313, 2661, 486, 777 all Fabric 1, Glastonbury Ware. 1300 Fabric 4 (Papers 9), 1728 Fabric 3 and 2330 Fabric 2.
PART IV. THE ILLUSTRATION OF GLASTONBURY WARE: 
A CASE STUDY

by Sue Rouillard. 
University of Exeter.

This paper will illustrate the different approaches taken by various excavators to the publication of prehistoric pottery from different areas of one site. These range from Arthur Bulleid, who, in 1895 initially discovered the site at Meare in Somerset and who subsequently excavated there, through various small-scale excavations in the 1960’s, 1970’s and 1980’s, to the latest report by John Coles (pottery report by the author) published in 1987. This last volume had the aim of completing Arthur Bulleid’s and Harold St George Gray’s unpublished work on Meare Lake Village East excavations of 1933-1956. What follows is a brief account of the published record of the Meare site and the circumstances and reasoning behind the publication of the pottery by the Somerset Levels Project (SLP) and in particular the pottery included in the excavation report by John Coles of the site excavated by Bulleid and Gray some 50 years previously.

The obvious limiting factor for any report is funding and therefore the ‘best’ use and balance of illustration in complementing the text, must be pursued and encouraged from the outset. The overall strategy of the research inevitably channels attention to specific areas of study, to the detriment and/or omission altogether of some categories of finds. The resulting contrast of approach to the study of the pottery is manifested in the following illustrations but in each case is seen as valid for the reasons discussed below.

The Iron Age sites at Meare in Somerset are well known as examples of wetland sites that were excavated in the early decades of the 20th century. The neighbouring site of Glastonbury Lake Village (GLV), some 4.5 km away, is renowned for waterlogged organic deposits of an Iron Age Lake Village, although sadly few of the organic finds survive to the present day. Amongst the pottery found in association with the organic remains, were examples of a fine ware with a highly distinctive decoration. This decorated pottery has become known as Glastonbury Ware, although it is by no means the only type of pottery found at the site.

Figure 14. Two Examples of Glastonbury Ware Drawn by A. Bulleid, Published in 1948.
In the light of recent research, the Iron Age sites of the Meare Lake Villages can today be described as more of a seasonal encampment on marginal wetland than as a permanent Lake Village surrounded by water. The Meare sites consist of two adjacent mounded areas known as Meare Lake Village West (MLVW) and Meare Lake Village East (MLVE). Like Glastonbury Lake Village before it, MLVW was extensively excavated by Bulleid and Gray. Excavations took place intermittently between 1910-1933, and report volumes followed in 1948, 1953 and 1966. In the 1948 publication the main thrust of study within the pottery assemblage was upon the highly decorative finer ware. That thrust naturally reflected the contemporary prevailing preoccupation in archaeology at that time with stylistic concerns. To reflect this, Bulleid’s drawings were reproduced at one half life-size and were exceptionally well done but perhaps do not offer all the information a more technical drawing would today (see Figure 14).

Following the end of the examination of the west site, Bulleid and Gray turned to the east village. They excavated from 1933-1938 and Gray from 1948-1956. Bulleid died in 1951 and Gray in 1963, before the final volume of MLVW was published in 1966. MLVE appeared only as interim reports in the Proceedings of the Somerset Archaeological and Natural History Society.

In the the 1960’s, further excavations were carried out by M. Avery who hoped to publish the posthumous report for Bulleid and Gray but only managed to publish an interim report and discussion (Avery, 1968).

During the 1970’s, the Somerset Levels Project (SLP) was formed by John Coles and Bryony Orme. Work commenced, concentrating on areas where peat was being extracted. An excavation programme was initiated at Meare, because of a need to evaluate the then current condition and preservation of the site in the light of rapid and irreversible environmental changes, namely the increased drainage of the Levels. In the course of this work the SLP made several small excavations at the Meare Villages. On the West site (MNV) in 1978, four trial trenches were opened, they produced approximately 2 kg of pottery. The few diagnostic sherds were published as Somerset Levels Papers 5, 1979. In 1979 a modest area (12 x 17 metres) was opened at MVE. All the pottery, except plain body sherds, was drawn and published, albeit some on fische (Papers 7, 1981). Like Bulleid’s reports before, all the decorated pieces were illustrated, but here, for the first time, they were shown in full relation to the plain wares which dominated this assemblage. The 1979 pottery appeared to be significantly more fragmentary than that of Bulleid’s pottery, possibly due to the environmental changes that the site had undergone. It was thus felt necessary to reflect the change by illustrating the pottery in a style that would show the physical appearance of it. It was also desirable to show abrasion where it occurred; to demonstrate the effect that the redeposition of the pot over the site in antiquity had made on the pot surface and more recently, because the site had become vulnerable to mole damage. Finally, it was thought important to distinguish the newly devised fabric groupings which had highly characteristic surface textures. The style adopted, as shown in Figure 13, made use of realistic surface rendering to differentiate the fabrics. The portrayal of each individual sherd not only emphasizes how fragmentary or abraided the pots were, but allows for an assessment to be made of the proportion of the vessel that remained and how much was available for the production of the drawing. The 1979 approach, although time consuming was thought to be worthwhile because the pottery had been carefully recorded three dimensionally on site and post-exavcation processing had enabled joining sherd from more than one vessel to be demonstrated to have come from across the site and from within very varied contexts. However, the 1979 site was a relatively small area and the total quantity of pottery recovered from it amounted to only a little over 38 kg, so it was feasible to process the finds in this way.

In 1982 an exploratory trench by the SLP, of a 100 sq. metres was excavated in MVE which produced nearly 12 kg of pottery. The style of pottery illustration established in 1979 was adopted again for publication but only those
sherd which substantially added to the published corpus were drawn (Papers 9).

Further excavations by the SLP were carried out in 1984, with various aims, including that of finally linking the two villages by survey. Although nearly 19 kg of pottery was recovered only a small amount was illustrated due to the large forthcoming account of the Meare East excavations. It was with the 1984 pottery that a simpler style of illustration was first explored; partly instigated by the realization of the sheer quantity of the pottery shortly to be dealt with, from MLVE and partly to produce a more stylistic approach (Figure 15).

The Meare East Report,
_Somerset Levels Papers 13_

John Coles and Bryony Orme took on the somewhat daunting task of interpreting the written documents and plans of MLVE, plus locating and collating the relevant material that had been excavated some 50 years before. Due to the rather unique circumstances of the site and range of artefacts found, it was decided that practically all the ‘small finds’ should be illustrated. However, due to the quantities involved, the pottery could not be dealt with so simplistically and had to be processed in order to make some sense of it. There was also the question of how best to illustrate the results. Several factors had to be taken into account before a decision on how to publish could be made.

Firstly, Bulleid and Gray had published their report on the MVILW and they rightly linked the pottery assemblage to their earlier site of GLV. In his chapters on the Meare West pottery Bulleid had dwelt mainly on the motifs of the finer wares, hardly mentioning the existence of the contemporary bulky plain wares that are now known to have been present on the site. Secondly, the realistic illustrations reflected the era; well-drawn, employing foreshortening to take the pattern realistically around the pot; these apparently fairly complete vessels were shown and published at half-scale, where their highly intricate designs could be shown at their best (see Figure 14). Thirdly, upon excavation, the pottery had been dealt with quite differently to the small finds and the early date of the excavations meant that recording techniques, although advanced for their time, were sadly lacking compared to present day standards — finds were often reburied, or at best retained and labelled by area alone. The passage of time since excavation coupled with numerous journeys to different stores, had also allowed for some of the finds to go astray. Lastly there was the question of whether or not a similar style, to that of the previously published SLP material

Figure 15. Examples of the More Stylistic Approach of Illustration Adopted for the Papers 12 Report.
Figure 16. Part of the Stratified 'Mound' Group 14 from Papers 13. The Pottery is Fabric 1 apart from 266, 166 and 163.
should be maintained in the forthcoming publication.

So it was, that in 1984 the SLP were faced with nearly a tonne of, at best, poorly stratified pottery and some rationalization had to be applied in order to cope. A decision was soon made to concentrate on four, fairly well labelled and recorded areas known as ‘Mounds’, that were quite well distributed over the site. All the pottery, plain and decorated from each of the small Mounds chosen was to be published in ‘Mound Groups’, the closest it was possible to get to stratified groups from the site, (Figure 16). In addition, as the decorated motifs were so easily recognized and referred to by other authors, and because there were not vast quantities of them, a catalogue would be made of all the existing designs from throughout the site.

It followed that if such an ambitious plan were to be completed, within a realistic time scale, the drawings would have to be more stylized than the early SLP sherd for sherd detailed illustration. However, for ease of comparison and standardization with previous SLP reports, all the vessels would appear at one third scale, for to match Bulleid’s and Gray’s scale of one half was seen to be unnecessary. Further information would not be gained and because of the greater number of pages required would have attracted higher costs. The decorative motifs were foreshortened as before but simplified, to show more of the design and less of the abrasion, similar to the 1984 report, keeping dashed lines to continue the design where it was missing, yet where it could be inferred with some degree of certainty (Figure 16). In order to be able to refer to the designs easily, they were divided into four groups A-D, depending on their geometric content (Figure 17). Whilst completing these tasks the whole of the remaining assemblage was investigated and it became clear that some significant forms would not be represented if only the pottery from the four Mounds were to be published. It had also become clear from working on the Mound Groups that some forms and vessels were becoming very repetitive. These potential anomalies were overcome by creating a fully illustrated Type Series that was extended to incorporate the Bulleid and Gray Type Series, that in turn embraced vessels found at Glastonbury (Figure 18). By this means the forms that would not otherwise have been published (from the bulk of the poorly provenanced Meare East pottery) could be incorporated into the report and different forms could be quantified for statistical analysis especially within the Mound Groups.

To conclude, the SLP publication on Meare Village East attempted to analyse ‘best stratified’ pottery groups, as widely distributed throughout the site as possible. All of the pottery was examined at some point and unusual or significant forms or designs were extracted for inclusion in either a Type Series or Design Catalogue. With these established alongside an existing Fabric Series first fully described in Papers No 7, it was possible to refer to individual vessels by a code alone which enabled conceptualisation of a pot that had not been illustrated. Without the initial comprehensive illustration, such a reference could not be made neither could pottery be referred to in a tabulated form within stratified contexts etc., when necessary.

In many ways the stylistic approach to the illustrations in the 1984 report can be seen as a common sense compromise, although unlike Bulleid’s drawings selectively published at half-size, SLP illustrations, at a scale of one third, could not show the detail of tool marks used in the decorating process. However, even Bulleid’s drawing did not always stand up to scrutiny, for recent comparison of the drawings with the actual pots, show that in some cases the drawings give a false sense of the condition and completeness of the vessels.

Alternatively a pot drawn, sherd for sherd may be more accurate in showing what the drawing is based on, but this also has its limitations, as joining fragments do not always conveniently align themselves with relevant pieces that complete a profile and for example base sherds, end up hidden behind the front of the pot. Also, it may be that the drawn decorated sherds may only represent a small percentage of the profile, whereas the whole section may have been taken from larger
Figure 17. Part of Group A — Geometric Designs from the Decorative Catalogue Papers 13.
unillustrated pieces.

When contemplating the reconstruction of designs, familiarity with the pottery and the experience of the illustrator contributes to a decision on whether to reconstruct a design or not. It could be argued that it would be safer to leave the intervening spaces blank, although a reader new to the motifs would probably have a better impression of the design if a reconstruction were to be attempted.

As for the surface rendering, the earlier SLP reports had illustrated clearly the differences between the fabrics. With hindsight, inclusion of sample drawings with surface rendering in the 1984 report might have been appropriate but at the time it was hard to see what could really be gained by texturing every sherd, because large plain vessels, even at one third scale, filled half a page, which would become too expensive (Coles et al., 1986, Figure 32).

When the SLP undertook this project, funding was sufficient to allow the time required for such in-depth analysis. I realise this would not always be the case. However, when dealing with any large site, the establishment of mechanisms at the outset to illustrate the pottery, such as those discussed above, would be a very worthwhile approach. It is hoped that this paper demonstrates clearly that there is not one simple formula for illustrating prehistoric
pottery. Each site is unique and will bring so many governing factors with it, that each case must influence its own individual publication strategy to be established. A best-case scenario might be to incorporate very detailed drawings at a half-scale, to give examples of fabric texture and/or fine decoration techniques, whilst illustrating the majority of an assemblage at a lesser scale, including a type series if relevant. Thankfully there are no hard and fast rules for us as illustrators, to limit innovation.

Acknowledgements

My thanks go to John and Bryony Coles, Directors of the Somerset Levels Project for the use of work compiled under the Project. To the Somerset Archaeological and Natural History Society for permission to use Bulleid’s illustrations. Many thanks also to Mike Rouillard for correcting my script.

References (Part IV)

Avery, M. (1968)
‘Excavations at Meare East 1966. An Interim Report and Discussion’,

Bulleid, A. and Gray, H. St. G. (1917)

Bulleid, A. and Gray, H. St. G. (1948)
‘The Meare Lake Village, I, Glastonbury Antiquarian Society.


Rouillard, S.E. (1987)
AAI&S TECHNICAL PAPERS

Non-members £4.00 + 40p p&p. (ISSN 0950 9208)

Paper No. 9. 1988: The Illustration of Lithic Artefacts:
A Guide to Drawing Stone Tools for Specialist Reports.
A joint publication with the Lithic Studies Society.
A.Saville and H.Martingell.
Non-members £4.00 + 40p p&p. (ISBN 0 9513246 0 8)

Paper No. 10. 1990: The Illustration of Excavated Window Glass:
Suggestions for Methods and Materials.
S.White and D.King.
AAI&S and IFA members £1.30 + 40p p&p.
Non-members £1.50 + 40p p&p. (ISBN 0 9516721 0X)

Paper No. 11. 1994: The Illustration of Wooden Artefacts:
An Introduction and Guide to the Depiction of Wooden Objects.
S.J.Allen.
AAI&S and IFA members £4.00 + 40p p&p.
Non-members £5.50 + 40p p&p. (ISBN 0 9516721 3 4)

AAI&S and IFA members £6.00 + 40p p&p.
Non-members £7.50 + 40p p&p. (ISBN 0 9516721 5 0)

The Association of Archaeological Illustrators and Surveyors was formed in 1978. As a professional body it aims, through its activities, to encourage a high standard of archaeological illustration and surveying and to establish a code of conduct.

Hon. Secretary AAI&S
c/o University of Exeter
Department of History and Archaeology
Queen's Building
Exeter
Devon EX4 4QH

The Prehistoric Ceramics Research Group was formed in 1988. It aims to promote regular contact with those interested in prehistoric ceramics.

Hon. Secretary Prehistoric
Ceramics Research Group
c/o Wessex Archaeology
Courtyard House
Old Sarum Park
Salisbury ST 6EB