The South Yorkshire and north Derbyshire regional ceramics reference collection database handbook

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Using the reference collection
Before using the database and the reference collection there is a basic question to be addressed – do you know want you want to know? **DO NOT** expect the database or the reference collection to solve problems which result from a lack of understanding of the basic issues and principles underlying pottery studies. You must undertake basic background research before using either the collection or the database and frame appropriate questions before seeking answers.

The following 'do's and don'ts' have been set out in an effort to ensure that the collection remains a useful resource and is not degraded over time by thoughtlessness, misuse or ignorance. Follow the rules and ensure that the collection remains useful for those who come after you!

DO NOT clip the edges of sherds to view the fabrics – freshly broken faces have been prepared on each sherd – further clipping will result in the ever increasing fragmentation of the sherds until they become useless.

DO NOT mix up the sherds from different drawers or compartments. After you have examined the sherds, ensure that each one goes back in the correct place – each sherd is marked with the type code so check it before you replace it.

DO NOT make alterations to the labels for any reason whatsoever. If you have a suggestion to make regarding a sherd, talk to the Keeper of Archaeology or the creator of the type series whose address can be found at the end of this handbook.

DO NOT add material to the collection without ensuring that it conforms to the standards and criteria of the rest of the collection. If you have new material that you consider should be added, contact the Keeper of Archaeology or the creator of the type series whose address can be found at the end of this handbook.

Introduction
The South Yorkshire and north Derbyshire medieval ceramics reference collection is intended to provide a practical guide to the pottery in use in the region in the period between the mid 11th century and the later medieval period. It also includes a small amount of earlier material and rather more post-medieval and early modern material. The physical reference collection held in Sheffield City Museum is intended to be used in conjunction with the database and supporting information held on the project website hosted by the Archaeology Data Service (A.D.S.). A number of articles have

also been published as part of the overall project and can be found in the journals *Medieval Ceramics* and the *Derbyshire Archaeological Journal*. These articles, as well as those listed in the bibliography, should be consulted in order to gain an overall appreciation of the production and use of pottery within the study area. This handbook and the bibliography which forms part of the database include details of the majority of other publications which together constitute the sum of our present knowledge regarding medieval pottery in the study area. Additional material can be found by following the references in the publications cited here.

This handbook is intended as a guide to the physical collection and to the material available on the A.D.S. website and is also intended to guide the reader to additional sources of information, including both publications and the excavation and research archives held in the various local and regional museums in the study area.

Although the project to create the collection and the database (funded by English Heritage) has ended, the reference collection is, inevitably, an ongoing project. It is clear from the work undertaken in north Derbyshire, for example, that there are a number of potteries which remain so far undiscovered and work is proceeding on attempts to identify these (Cumberpatch, in press 1, Allen and Cumberpatch, in prep.). The question of pottery used in north Derbyshire which was manufactured on the western side of the Pennines (Manchester and the Cheshire Plain) remains to be addressed at a future date. Much the same applies to South Yorkshire where sources of the Coal Measures Finewares are as yet unknown.

The physical reference collection and the database are intended to represent a summary of the situation as it was in August / September 2003, the effective end of the project. The papers which have been published as a result of the project (Cumberpatch, in press 1, 2, 3, 4, 2003a, 2003b) represent an exercise in catching up with the results of fieldwork undertaken in between the 1950s and the 1980s in that they are long overdue publications of work which, for a variety of reasons has not previously been published in any detail, although the sites themselves are well known within the world of medieval ceramic studies. Archaeological work continues in the area and, in spite of the regime of limited excavation and preservation *in situ,* (which acts to limit understanding and severely hampers attempts to interpret and understand the archaeological record) such work will yield results which will require incorporating into the database and the reference collection. These tasks will be addressed as the situations arise to ensure that the collection and the database remain relevant and useful to those working with medieval pottery in the area.

Given that the collection will require updating in the future, provision for this should be made within the contract-tender process (including the allocation of funds to A.D.S. to allow the updating of the database). In particular it is hoped that the investigation of more pre-Conquest sites will allow the establishment of the nature of pre-Conquest pottery production and use, together with the identification of locally manufactured wares.

The reference collection as it existed at the time of deposition represents a moment in the history of archaeological research within the study area; if the collection does not increase in size and scope over time then it will become merely a statement of the situation at the time of its creation rather than a useful research tool intended to increase the efficiency of the production of pottery reports, which are themselves simply bodies of data and provisional interpretative statements which should serve as one element in the process of archaeological interpretation.

The database used during the project was Microsoft Access 2000 which, at the time the project began, was the latest version of the MS Access database programme available. The basic form of the database was devised by the author and the organisation of the tables and the breakdown of the data were undertaken with the considerable assistance of Mr. Robert Watson and the advice of the staff of the Archaeology Data Service (A.D.S.). The final form of the database and the 'front end' were created by Keith Westcott of the A.D.S. using the A.D.S. UNIX system. The author would like to acknowledge the help and assistance provided by Robert Watson, Keith Westcott and the A.D.S. staff in enabling this aspect of the project to be completed.

The author has little knowledge and less understanding of database design and functioning and has approached the issues of design and functionality from the point of view of an archaeological ceramicist. Clearly, databases are designed to fulfil a variety of functions, none of them specifically

archaeological. While archaeological data are not particularly complex, they does pose certain problems in terms of compatibility with the aims and assumptions of the creators of database programmes and one of the functions of this handbook is to explain why there are certain oddities in the presentation of the archaeological data contained within the database as well as providing an overview of the ways in which the database can be used. Tedious though it may well be, it will repay the potential user to read this handbook prior to embarking on the use of the database.

The purpose of the database and the reference collection

In this section the purpose of the reference collection will be outlined, as will those uses for which it was not designed.

There is only one way to learn about medieval pottery and that is to spend time classifying, describing and interpreting an assemblage from a large excavation. This principle underlies the creation of the reference collection and the purposes which it is intended to serve. The project design laid equal weight on the creation of the reference collection and on the publication of assemblages from potteries and this is reflected in the fact that most of the time available was spent working on the assemblages from Brackenfield, Rawmarsh, Frenchgate, Burley Hill and King Street, Duffield and on the identification and characterisation of material from consumer sites which cannot yet be attributed to specific potteries. Two of these assemblages (Brackenfield and Rawmarsh) were deemed unsuitable for conventional publication and are included on the A.D.S. website where it has been possible to present all of the data collected, rather than a shorter edited version which is all that would have been possible in a conventional journal. For the same reason, a longer version of the Frenchgate report, which includes additional data tables, has also been included on the website. The more concise version will be published in *Medieval Ceramics* (Cumberpatch in press 2).

Uses:

The reference collection, comprising both the database and supporting data presented on the A.D.S. website, is intended as a guide to the pottery of the study area. The website is not intended as a substitute for the examination of the material at first hand. While many aspects of pottery can be replicated by description, drawing and photography, there remains an experiential element which cannot be replicated at one remove and requires the hands-on engagement with the material. This is not intended as an assertion of any sort of quasi-mystical relationship between the analyst and his/her data (which would be a preposterous assertion), but rather a simple acknowledgement of the fact that first hand examination allows the analyst to make his/her own assessment of the hardness, texture, colour and other physical attributes of the different types of pottery. It is this engagement with the material that results in the acquisition of practical knowledge of the pottery and the creation of a mental template which characterises a specific ware or type. While agreed descriptions and sets of standards for description (as exemplified by the M.P.R.G. *Glossary of Ceramic Forms* and the P.C.R.G. guidelines for the description of variables, both of which have been employed in the creation of the descriptions used in the database) are essential tools for description and communication, there is no substitute for the first hand encounter with pottery in large quantities over a sustained period of time.

Based upon this principle, the reference collection is intended as a guide for those accustomed to the vagaries of pottery data and is intended to allow those working on pottery from the area and in the surrounding regions to check possible identifications prior to a more detailed investigation of their material. The reference collection and the database are thus intended primarily as research tools by those familiar with the practicalities of working with pottery and the problems and potentials inherent in this process.

As noted above, the reference collection is not a finished project in any sense other than the bureaucratic; further work will, it is hoped, lead to the identification of more medieval and post-medieval potteries and to the characterisation of their products. Given this, the collection represents a statement of the extent of our knowledge at the moment of completion and should thus be seen as a starting point for further work, targeted towards the achievement of specific research aims.

Although methods of using the collection, the database and the various supporting documents and resources will be developed by the users themselves, the author sees the process as involving an examination of the database and other on-line resources as a first step to identifying an unidentified sherd or vessel. It is intended that only where the limitations of the description and the photographs preclude a positive outcome will a visit to the physical reference collection be needed.

Non-uses

Given what has been said above, there are clearly a range of purposes for which the collection is not intended and for which it is unsuitable. Some of these may be at variance with the emerging close connection between museums and the education of school-age children. Thus the reference collection is none of the following things:

- The reference collection is **NOT** a teaching collection for use by either children or undergraduates;
- The database is **NOT** a 'crib' or short-cut in the sense that someone unaccustomed to dealing with pottery can simply use it to date material from a particular site or a collection of material from field survey;
- The database is **NOT** a substitute for the employment of an experienced ceramicist to write a full pottery report;

Anyone who attempts to use it in any of these ways will neither inform their audience as to the nature of the analysis of ceramic data or produce anything useful in the way of a pottery report. The author takes no responsibility for the results of any such misuse of the collection or the database.

The scope of the reference collection and the database
Geographical scope

The reference collection and the database (hereafter referred to collectively as the SY/ND collection) covers the county of South Yorkshire (comprising the districts of Barnsley, Doncaster, Rotherham and Sheffield) and the northern part of Derbyshire down to an approximate east-west line drawn through the southern edges of the cities of Nottingham and Derby. This arbitrary southern limit was drawn so as to include a number of significant unpublished sites but to exclude those (notably Ticknall) which it was felt would have required an unfeasible additional investment of time were they to have been included. It is intended to be compatible with reference collections covering adjacent areas and to this end a table linking the collections has been provided. The collections include those in Lincoln (which covers Lincolnshire but also includes material from a much wider area) and Hull (Watkins 1987, 1991, Didsbury and Watkins 1992), which covers East Yorkshire and Humberside and also includes a useful collection of European imports. The website also includes a brief guide to the Barley Collection held in the University of Nottingham. The geographical scope of this collection is much broader than that represented by the SY/ND collection but it is far from comprehensive in its coverage and can only serve as an adjunct to other collections. Its most notable feature is the inclusion of quantities of Torksey and Torksey type wares which are poorly represented in the SY/ND collection.

The city of Nottingham remains a poorly represented element in the collection. Although recent work has resulted in the preparation of a useful guide to the considerable body of material held in the Brewhouse Yard Museum (Nailor and Young 2001) and a physical collection of ware types is available for consultation, the publication of key groups of pottery from the city (including material from both production and consumer sites) has yet to be undertaken and when this occurs it will transform our understanding of the production and supply of pottery to areas of Derbyshire and Nottinghamshire. It is suggested that, while the inclusion of a Nottingham type series in the SY/ND reference collection would be feasible at a later stage, a better solution would be a separate physical collection held in the city and closely integrated with the SY/ND collection through the enhancement and expansion of the database. It is hoped that this will be achieved in the near future.

At present there is no comprehensive reference collection for West Yorkshire, although the publication of the material from Sandal Castle (Moorhouse 1983a) Kirkstall Abbey (Moorhouse and Slowikowski 1987) and Pontefract Castle (Cumberpatch 2002a) has ensured that the range of wares found in the county is well documented. Publication of a number of potteries has also proved to be of great value (Manby 1964, Moorhouse and Slowikowski 1992, Cumberpatch and Roberts 1998-1999). Work in progress on material from sites within the town of Pontefract (Cumberpatch in prep. 1, Slowikowski unpublished) will further enhance the coverage of the material, although a number of important sites in the county remain unpublished (Cumberpatch 2000) and some areas (notably Leeds and other industrial towns with medieval antecedents) remain substantially uninvestigated.

Contact details for all reference collections existing at the time of publication are included in the appendix to the Medieval Pottery Research Group's Minimum Standards document (Slowikowski, Nenk and Pearce 2001).

Regional imports

Small amounts of material from outside the study area have been included in the collection where these are relevant to sites within the study area; thus material from Wrenthorpe is included, as are examples of West Yorkshire Gritty wares. The coverage of such regional imports is far from comprehensive however and anyone dealing with material from the area should also be aware of the neighbouring regional reference collections which include important material. As noted above, the geographical scope of the collection is limited by boundaries that are more or less arbitrary; no doubt these limits will be criticised, but at the time that the project design was drawn up, they appeared to be both useful and reasonable and, most importantly, represented objectives that could be feasibly achieved in the time scale proposed and with the degree of financial investment which was deemed appropriate to the project.

Lincolnshire, East Yorkshire and Nottingham wares have been included on a similar basis; the examples are mainly from sites within the study area, although sherds from East Yorkshire (notably Beverley), kindly donated by J.G. Watkins and P. Didsbury, have also been included. While these indicate the nature of such wares, there is no substitute for visiting the appropriate reference collection and examining the wider range of material contained within them at first hand.

Lincolnshire wares (including Shell Tempered and others)

Extensive and exceptionally high quality work on the pottery industry of Lincolnshire by Alan Vince and Jane Young has resulted in a number of reports on particular assemblages and also in the creation of a fine county type series. No attempt has been made to incorporate this into the South Yorkshire/ north Derbyshire collection, but, given that imports from Lincolnshire are a regular feature of assemblages from South Yorkshire and parts of Derbyshire, examples of a number of Lincolnshire wares found on sites within the study area have been include in the type series. These were identified by Alan Vince and Jane Young, to whom appropriate acknowledgements are due. In order to begin the process of integrating regional type series, the same names and codes have been used for these wares in the SY/ND series as are used in the Lincolnshire series. A table showing correlations between the two series has been included on the website.

Shell Tempered wares from Lincolnshire are a small but regular component of pottery assemblages in both South Yorkshire and north-eastern Derbyshire. These are, in all but one of the cases investigated to date, of Lincolnshire origin. The material included in the reference collection is from South Yorkshire sites and a fuller and more comprehensive collection forms part of the Lincolnshire type series. The Lincolnshire material included in the SY/ND collection has been identified by Jane Young and Alan Vince. Shell Tempered wares are particularly susceptible to leaching in acid soils and this is reflected in the condition of some of the sherds in the collection. It was felt important to include such damaged material however in order to represent the typical condition of such wares as they have often been classified as of Anglo-Saxon or even prehistoric date, largely on the basis of the condition of the sherds.

European pottery

No attempt has been made to cover the full range of European medieval imports into England; these remain concentrated in ports and although sites in both Bawtry and Doncaster regularly produce European material, they cannot rival the east coast ports of Hull (Watkins 1987) or Boston in either the range or quantity of material. The recent publication of material from Southampton is also relevant (Brown 2002), as are other assemblages and type series based upon collections from coastal sites. It is hoped, however, that the European material included (most of it from 16-20, Church Street, Bawtry) represents the commonest types found in the principal inland ports and which occasionally appears on inland sites.

Post-medieval pottery

Although the physical reference collection includes a considerable amount post-medieval material, this is, at present, a less well documented component that that represented by the medieval material. There are a number of reasons for this, the primary one being that the remit of the English Heritage funded project was concerned with the medieval pottery and included as a central element the publication of hitherto unpublished collections from specific potteries. To have attempted to include post-medieval potteries (such as Bolsterstone, Swinton, Sheffield Manor and Midhope) would have represented an enormous additional task which would have entailed several years more work. It is hoped that the publication of some of these sites will become a possibility in the future as funding becomes available and, indeed, a number of projects are under consideration at the time of writing. As this occurs, the reference collection will be upgraded and it is hoped, our understanding of the post-medieval and early modern pottery industry will be enhanced. To some extent this has already happened; the excavations at Silkstone, which were not envisaged when the reference collection project began, have yielded an important site specific collection which has been incorporated into the database and the physical collection. Details of the material have also been published (Dungworth, in prep., Cumberpatch 2002b).

Other post-medieval and early modern material, derived from consumer sites and which formed part of the nucleus of the original collection, has been retained and documented, but is not represented in the photographic record (notable the Brown Glazed Coarseware, Redware and slipware groups) as it is yet far from clear how far the recognition of differences in fabrics are diagnostic of different potteries as is the case with medieval material. Future work on this aspect of ceramic studies is urgently needed as is comprehensive work on the history and archaeology of the post-medieval and early modern pottery industry and its relationship with wider processes of industrialisation. Individual potteries have been documented and recorded (Kenworthy 1928, Milefanti and Brears 1971, Ashurst 1987, 2002, Cox and Cox 2001) and 18th and 19th material is extensively represented in the 'collectors' literature, but to date (and with a few notable exceptions) archaeologists have been reluctant to engage with the potential represented by this material.

The pottery – notes on wares and types

It is hoped that the information included in the database is substantially self-explanatory, but the following notes are intended to provide a brief introduction to the various wares and groups of wares. In no case are these notes a substitute for reading the original reports and the synthetic articles cited in each case.

Doncaster

Hallgate wares

Two excavations have revealed pottery kilns in Hallgate, Doncaster. The first, in 1965, has been published by Buckland, Dolby, Hayfield and Magilton (1979) and the second, named Hallgate 95 in order to distinguish it from the first site (the excavation took place in 1995), has been published by Cumberpatch, Chadwick and Atkinson (1998-1999).

The Hallgate wares A, B and C were first defined by Buckland *et al* (1979) and these descriptions have been included in the database with samples of the three types provided from the

Doncaster Museum collection. Multiple samples of the types are included, distinguished, as described above, by a number in brackets after the type name (e.g. Hallgate A (1) etc).

The Hallgate 95 excavation demonstrated that there was a phase of production which pre-dated that represented by the first kiln to be discovered and which also showed that the sequence of production was perhaps more complex than suggested in the earlier report (Cumberpatch 1997). Examples of Hallgate 95 types A, A1, C1, C2, C3, D, E and F are all included in the collection, together with the remaining parts of the sherds which were the subject of the thin section and ICPS analysis carried out by Dr A. Vince and Dr. N. Walsh. The results of these analyses were published as an appendix the report on the site (Cumberpatch, Chadwick and Atkinson 1998-1999). It should also be noted that the site overlay that of the Roman cemetery which lay immediately outside the Roman civilian settlement. This part of the site has never been published in spite of its importance although the site archive is held in Doncaster Museum.

Frenchgate and other Doncaster potteries

The extensive series of rescue excavations carried out in Doncaster in the 1960s and 1970s produced a considerable quantity of material which was subsequently published in monographs (Buckland *et al* 1979, 1989) and as articles (e.g. Hayfield 1984). Amongst the features identified during these investigations were a number of pottery kilns. Subsequently excavations in advance of the building of a supermarket close to the course of the River Cheswold revealed another kiln, although the scale of the excavation precluded any investigation of associated features (a general characteristic of the potteries discovered to date in Doncaster). While the earlier sites were published (Buckland *et al* 1979, Hayfield 1984), the latter (Doncaster Frenchgate) remained largely unknown and it was one of the sites that were identified as a suitable candidate for publication as part of the reference collection project (Cumberpatch, in press 2, 2003).

Doncaster Frenchgate

The Frenchgate material proved difficult to deal with as part of the reference collection project as the site lies immediately adjacent to the site of the Roman fort and considerable quantities of Roman pottery were present, mixed with medieval material. The circumstances of the excavation (notably a lack of adequate funding) precluded an open area excavation and this significantly detracted from the value of the exercise as a whole. Two articles have resulted from the examination of the material; a fuller version with basic quantification of the Roman material presented as part of the website and a summary which focuses on the medieval material and the remains of the kiln in *Medieval Ceramics* (Cumberpatch, in press 2). Although the site of the kiln lies under a car park, it is likely that other kilns and ancillary structures will have been substantially destroyed by the supermarket. Only further excavation will determine the extent to which 'preservation *in situ*' has actually resulted in anything approaching preservation.

Material from the kiln included wasters and samples of what were defined as the Frenchgate fabric have been included in the reference collection (Doncaster Frenchgate 01, Doncaster Frenchgate 02 and Doncaster Frenchgate type) together with hitherto unidentified wares which were judged to be of local origin (Doncaster Reduced Sandy ware 1, Doncaster Reduced Sandy ware 2, Doncaster Splash Glazed Sandy ware 1) but were probably not manufactured on the site.

Doncaster Cattle Market

The Cattle Market pottery assemblage (consisting of only forty-seven sherds) was recovered from a stone-lined pit during the construction of Church Way (Buckland *et al* 1979:60-62). There appear to have been no features in the immediate vicinity which could be definitely linked with pottery production and the similarity of the wares with those from Frenchgate suggest that they came from the latter site, although the dating suggested by Buckland *et al* is rather later than that suggested for the Frenchgate material on the basis of the examination of the pottery from the latter site. It is suggested that the Cattle Market material was closely associated with that from Frenchgate, and might even have been derived from it. No independent dating evidence exists for either site, so it remains to be seen whether future excavations in Doncaster produce additional evidence of the date of this

material. The Cattle Market material is held in Doncaster Museum, but in view of the very small size of the assemblage and the close similarity to the Frenchgate pottery, no samples were extracted for the reference collection.

Doncaster Market Place

The Market Place kiln (Hayfield 1984) was excavated in 1977 produced a small assemblage of forty-eight sherds of pottery in a red-gritted fabric. This is described in the original article as being very similar to the Hallgate C fabric but with the benefit of subsequent work outlined above, it is clear that it also shares characteristics with the Frenchgate material and also with Hallgate C2, as defined by Cumberpatch, Atkinson and Chadwick (1998-1999). The Market Place assemblage is held in Doncaster Museum, but in view of the very small size of the assemblage and the close similarity of the pottery to the Frenchgate and Hallgate 95 pottery, no samples were extracted for the reference collection.

Other Doncaster wares

In the course of the examination of the Frenchgate material and of assemblages from other medieval sites in Doncaster, a number of fabrics were noted which did not conform to the characteristics of known ware types. These were defined, described and given names based upon their characteristics, prefaced by 'Doncaster' to indicate that they were first noted here. Whether they were produced within the town or represent examples of regional imports remains to be established. The types involved are:

Doncaster Splash Glazed Sandy ware 1
Doncaster Splash Glazed Sandy ware 2
Doncaster Reduced Sandy ware 1
Doncaster Reduced Sandy ware 2
Doncaster Sandy ware

They are fully described in the database and examples are included in the reference collection.

Coal Measures wares

Coal Measures clay was used by many medieval and post-medieval potters and the term could be used to describe a wide range of wares manufactured in South Yorkshire and north Derbyshire (including Brackenfield) and probably beyond. It has, however, come to be associated particularly with the products of two potteries, one at Rawmarsh and one at Firsby Hall Farm near Conisbrough. As will be described below, these are almost certainly just two out of a number of potteries exploiting this type of clay and a new class, Coal Measures Fineware (CMFW) has been created to accommodate the products of these, as yet undiscovered potteries.

The terms Coal Measures Whiteware (CMW) and Coal Measures Purple (CMP) ware were introduced by Hayfield and Buckland in their discussion of an assemblage collected from fieldwalking near Firsby Hall Farm (Hayfield and Buckland 1989). These are to be preferred to the variety of other names proposed over the years for this material which include Firsby ware, Rawmarsh ware, Firsby-Rawmarsh ware (or –type ware), South Yorkshire Lightly Gritted ware and even the names proposed at an earlier date by the present author; South Yorkshire Gritty ware A and South Yorkshire Gritty ware B (Cumberpatch 1996). This latter attempt was based upon the recognition that the simple bi-partite division was inadequate for describing the full range of Coal Measures wares, but the extensive series of proposed sub-divisions were an unsatisfactory attempt to codify these differences. Until further work can be undertaken on a larger assemblage, the tripartite division into Coal Measures Whiteware (CMW), Coal Measures Purple ware (CMP) and Coal Measures Fineware (CMFW) is proposed, with the caveat that all three groups may at some later stage need to be sub-divided. A more detailed account of the South Yorkshire Coal Measures industry, including details of work carried out recently at Firsby Hall Farm and in Rawmarsh can be found on the website (Cumberpatch 2003a).

Since the completion of the reference collection and the database, a third possible production site has been identified by Mr. Peter Robinson of Doncaster Museum. This site, known as 'Pothills', lies close to the village of Armthorpe and appears to have been excavated, at least partially, by a local enthusiast. The material has been washed, marked and partially sorted, but no excavation records have yet been traced. The assemblage includes Coal Measures White ware, Coal Measures Purple ware, Cistercian wares and early Brown Glazed Coarsewares. A brief examination of the material suggests that it may relate to a hitherto unknown production centre dating to the later 14th, 15th and 16th centuries. Further work on this assemblage is needed before its full significance can be appreciated.

Derbyshire
Chesterfield wares

Recent work in Chesterfield (Foundations Archaeology 2001, Connelly and Walker 2001, Crooks 2002, Cumberpatch and Thorpe 2002) has allowed a provisional local type series to be drawn up for the town and for the products of the Brackenfield pottery to be identified and distinguished from other local wares. At present the majority of non-Brackenfield material is of unknown origin and has been provisionally named as 'Chesterfield *** ware'. A complete list of the types defined is given in the database and the wares are discussed in greater detail in the general review of Derbyshire medieval pottery (Cumberpatch in press 1). It is hoped that future work in Chesterfield (Cumberpatch and Thorpe 2002) will lead to a better understanding of the typology and chronology of these wares, although identification of their origin will be a longer term problem, the resolution of which will require further research into potential potteries within and around Chesterfield.

Derbyshire wares

The many problems surrounding the study of medieval pottery in Derbyshire have been outlined in one of the papers resulting from this study (Cumberpatch in press 1) as well as in reports on specific assemblages (Beswick 1999, unpublished, Cumberpatch unpublished 2) which should be read before the reference collection is consulted for details of the specific types. It is clear that the situation is one that will change rapidly as work in the county progresses. It is hoped that the published discussion and the contents of the reference collection will act together to focus attention on the problems and potential represented by the material that is currently held in museums and by that which will emerge from new excavations. Further work on rural sites is needed as demonstrated by the results obtained from current fieldwork projects in the area (Beswick 1996, Allen, in prep., Bevan 2003) and also on groups from the principal towns in the county; Chesterfield and Derby (Cumberpatch and Thorpe 2002, Coppack 1972, 2002, Crooks 2002, Cumberpatch, Unpublished 2, 2004a).

East Yorkshire and the Humber Basin
Humberwares

The Humberware industry is one which is of particular importance in South and East Yorkshire, although Humberwares are rare in north Derbyshire. The publications of Colin Hayfield are of particular significance with regard to this type of pottery and should be consulted alongside the database (Hayfield 1980, 1985, 1988, 1992, 1990, Hayfield and Grieg 1989, 1990, Mayes and Hayfield 1980; see also Jennings 1994). Examples of Humberwares from Holme-upon-Spalding Moor, West Cowick and Cowick Moat are included in the collection, but these are unlikely to be the only potteries involved in Humberware production (as discussed in more detail by Hayfield in his various articles), which may explain the diversity in texture seen between samples not directly attributable to these sites. Additional examples of Humberware from 16-20 Church Street Bawtry have also been included in order to represent the range of variation within the class. Later Humberwares (Late Humberware and Purple Glazed Humberware) have also been included, the latter represented by an example from Beverley in East Yorkshire.

Beverley wares

Our knowledge of the products of the Beverley potteries has advanced rapidly in recent years. In 1987 Watkins defined a group of distinctive wares which were named Orangewares (Watkins 1987) but subsequent work in Beverley demonstrated that these were of local manufacture and the name was changed to the more appropriate Beverley ware (Watkins 1991, Didsbury and Watkins 1992). Subsequent work has resulted in the refinement of the fabric series and a revised type series is in preparation (Didsbury, pers. comm.).The samples included in the reference collection were donated by Mr. J.G. Watkins and a fuller account of the industry can be found in the recent series of reports from the town. Examples of the full range of wares form part of the East Yorkshire type series held by the Humber Archaeology Partnership in Hull (Slowikowski, Nenk and Pearce 2001: Appendix 4). In order to facilitate comparison between Beverley and other East Yorkshire wares a correlation table showing the relationship between East Yorkshire, Lincolnshire and South Yorkshire / north Derbyshire has been included on the website.

Post-medieval and later wares

As noted above, the post-medieval and early modern pottery which forms part of the reference collection has been collected on a less systematic basis than has the medieval material so that, while the collection is quite large, it does not pretend to be comprehensive. A future project will attempt to improve the situation, but for the present some brief notes on the material will have to suffice. The significance of the medieval to post-medieval transition has been discussed in greater detail elsewhere (Cumberpatch 2003c) and this article should be read as background to the material in the reference collection and the information included in the database.

No petrological or chemical analysis of post-medieval material was undertaken and the fabrics have not been photographed as the material lay outside the scope of the English Heritage funded project (and to have attempted to include post-medieval wares comprehensively would have required the investment of considerably more time and money), but examples of all the material described in the database can be found in the reference collection. Most of this is derived from excavations in South Yorkshire and relatively little is from Derbyshire. Apart from Ticknall, which lay beyond the boundary of the study area, post-medieval and early modern potteries are hardly known from Derbyshire and the sources of the post-medieval pottery from Derbyshire sites are largely unknown. The same is not true of the later early-modern and recent periods when north-east Derbyshire was the site of important stoneware factories (Brampton near Chesterfield, Alfreton, Bolsover as well as the better known Nottingham and Derby factories). It may be presumed that this industry had counterparts producing utilitarian earthenwares as well as, in the 19th century, factories producing refined earthenwares and other finewares.

Midlands Purple wares

The collection of Midland Purple type wares (MPG) is based upon that from 16-20 Church Street, Bawtry. A provisional type series was published as part of the report on this excavation (Cumberpatch 1996) but as part of the revision of the type series a number of sherds have been redefined and reallocated. With the exception of these types, the system used in the Bawtry report has been retained and the missing numbers (MPG7, MPG9 and MPG11) have not been reused.

16-20 Church St Bawtry	SYND Reference collection	Notes
MPG type 7	Brown Glazed Coarseware 16	
MPG type 9	Brown Glazed Coarseware 7	
MPG type 11	Sample not located	Possibly a Blackware

Table 1. Midlands Purple and Brown Glazed Coarsewares

The relationship between the Midland Purple wares and types such as the Purple Glazed Humberware remains to be fully established.

Brown Glazed Coarseware

The widespread manufacture of Brown Glazed Coarsewares for domestic and industrial use (Brears 1971, Cumberpatch 2003d, 2003e) has yet to be tackled seriously by archaeologists and no 'country potteries' producing this type of ware have yet been excavated within the study area, although a number dating to the 18th and 19th century are known from documentary evidence (Lawrence 1974). The Brown Glazed Coarsewares in the reference collection are from 16 – 20 Church Street, Bawtry, Church Way, Doncaster and Orgreave Hall, Rotherham (Cumberpatch 1996, unpublished 3), the scheme proposed in the Bawtry report having been extended to admit new fabric types. As might be expected given this situation, the fabric types included in the collection represent an unknown proportion of the total number of fabrics manufactured between the 17th and early 20th centuries. Further work on the Brown Glazed Coarseware industry is required before it is fully understood. What is clear from excavations on all types of site is that the Brown Glazed Coarsewares were a significant component of the early modern and recent pottery industry and one that deserves to be better understood. The role of the Brown Glazed Coarsewares in other industries is of particular interest within Sheffield as it is clear that vessel were being made for specific industrial purposes (Cumberpatch 2003d, 2003e), although how this production fitted into the wider production of utilitarian domestic pottery is unknown.

Slipware

Slipwares were manufactured at a number of sites in South Yorkshire, including Silkstone (Cumberpatch 2002b), Midhope (Kenworthy 1928, Cumberpatch 2002b), Bolsterstone (Ashurst 1987, 2002, Cumberpatch 2002b) and Swinton (Cox and Cox 2001), as set out in Table 2. The reference collection incorporates the type series which was created by the author as part of the report on the excavations undertaken by the English Heritage Centre for Archaeology on the site of the Silkstone pottery in 2002 (Dungworth *et al* in prep.). When the reference project was initiated it was not known that this work would take place and the subsequent incorporation of the type series into the collection may serve as a model for the future enhancement of the type series.

Site	Date range	Products	Reference
Sheffield Manor	Post 1708 – post 1715	Manganese Mottled wares	Beswick, pers. comm., 1978
Midhope / Midhopestones	1720 – c. 1845	Slipware, Brown Glazed Coarsewares, Redware	Lawrence 1974, Ashurst 1987
Swinton	1745 - 68	Slipwares; flatware, hollow ware	Cox and Cox 2001
Silkstone	c.1754 - 1802	Slipwares, Manganese Mottled wares, Brown Glazed Coarsewares	Brears 1971, Lawrence 1974, Cumberpatch 2002
Bolsterstone	c. 1778 – 1796	Slipware, Black Glazed Coarsewares	Ashurst 1987, 2002

Table 2. Archaeologically attested 18th century potteries in South Yorkshire

Of the other slipwares included in the collection (Slipwares 01 to 13), all but one (Slipware 13, a stray find from Calver in north Derbyshire supplied by Ms. S. Whiteley) are from sites in South Yorkshire; Orgreave Hall (Cumberpatch, unpublished 1), Hellaby Hall (Holbrey unpublished), 16-20 Church Street, Bawtry (Cumberpatch 1996) and Doncaster Church Way. Of these Slipwares type 1, 1A and 1B are the commonest and perhaps the most distinctive, having a red body, very similar to that of Redware (REDW) and often distinguished only by the presence of the white glaze which characteristically appears yellow under the clear glaze. Hollow wares in Slipware 1 are practically unknown and the typical form is an open dish or shallow pancheon with curvilinear trailed slip decoration internally. Other slipwares occur in both hollow and flatware forms and, given that these wares are primarily known from a small number of sites, it is probable that other forms await identification.

Manganese Mottled wares

Like Slipwares, Manganese Mottled wares were an important component of the pottery used by 18th century households. At present only two potteries are known to have produced such wares in South Yorkshire (see Table 2), although it is hardly conceivable that these were the only such potteries. Work is currently pending on the important assemblage from Sheffield Manor, and it is known that the products of this pottery were reaching Chesterfield (Beswick 1978). The reference collection includes examples of Manganese Mottled wares from Orgreave Hall, 16-20 Church Street, Bawtry and Church Way, Doncaster. Should funding become available for the publication of the material from Sheffield Manor, then the type series to be created for this site will be incorporated into the reference collection on completion of the report.

Industrial ceramics

Industrial ceramics are a significant part of the 17th to 20th century archaeology of Sheffield and surrounding industrial towns and a number of sherds from different types of industrial vessels are included in the collection. These are:

- Steel crucibles
- Glass crucibles
- Saggars

Brown Glazed Coarsewares also have industrial uses but as yet these are poorly understood (Cumberpatch 2003d, 2003e) and so have not been included at the present time. Future work will, it is hoped, rectify this situation. Saggars from Rawmarsh which are of unknown date have been included together with examples of 18th and 19th century saggars which occur in a much grittier and more friable fabric (Cumberpatch 2003g, 2004b). The examples of saggars from Wrenthorpe are of later 16th to 17th century date (Moorhouse and Slowikowski 1992).

The glass crucible sherd is from Silkstone (Wilmott 2003) and a larger collection of crucibles from the glassworks at Bolsterstone can be found in Sheffield City Museum together with pottery sherds and wasters from the later pottery on the same site.

The website and the database

In the following sections the components of the website and the database will be described and explained. The database forms the core of the website, but a number of additional elements have also been included in order to expand the scope of the website. These include detailed reports on a number of sites and collections, the results of the programme of scientific analysis and correlations between the SY/ND collection and comparable collections covering neighbouring areas.

The A.D.S. website

The website consists of a number of elements. These are:

- Introductory text
- The database, including photographs of both the fabrics and selected vessels and sherds;
- Articles and data tables describing particular assemblages; Brackenfield, Rawmarsh, Doncaster Frenchgate
- Petrological descriptions of the fabrics by J.A. Cathie and D. Williams;
- Results and interpretation of the ICPS analyses by M. Hughes and N. Walsh
- Supporting data including correlations with other regional type series;

These elements are intended to be read together with the relevant reports compiled as part of the reference collection project and published in *Medieval Ceramics* and with the synthetic articles published in the *Derbyshire Archaeological Journal* (Cumberpatch in prep. 1) and elsewhere

(Cumberpatch 1997, 2003c) and with the articles by numerous authors listed in the bibliography and, more specifically, referenced in the database alongside specific wares and types.

Once the 'front page' is reached, five options are available:

- Introduction
- Overview
- Downloads
- Query by name
- Query by attributes

Clicking on these will take the viewer to two general descriptions of the project ('Introduction' and 'Overview') which should be read before using the database. The Downloads section contains the articles, reports and concordance tables that support the database. The correct bibliographic reference information appears at the top of each screen, e.g.

Cumberpatch, C.G. 2004 *Medieval pottery from excavations Brackenfield, Chesterfield, Derbyshire (LO72)* http://dx.doi.org/10.5284/1000242

Clicking on either of the 'Query' options will take the viewer to the database query screen which are described below.

The database

The database which is accessible on the A.D.S. website is accessible via query forms which allow the user to view the data in a number of ways. The basic query forms are shown in Figures 1 and 2.

Figure 1. The database 'query by name' form

The methods of searching the database are relatively straightforward. Using the 'Query by name' form (Figure 1) the user can either enter the name of a ware type in the left hand section of the form or select from a list of all of the types in the database using the drop-down menu on the left hand side of the form. Entering the full name of a ware type will take the user to a short summary description of that ware type (Figure 1). Clicking on the type name will then take the user to the full entry for the ware type. Entering part of a name will produce a list of all ware types containing that element (Figure 3). Any of the names can be selected to move to the full description.

Figure 2. Results of a 'Query by name', in this case 'King Street Duffield 01

Your search returned 5 ware types

Click on the ware name to get its full description

King Street Duffield 01
        Fabric: buff/orange, hard, sandy, oxidised; coiled, slab and wheel finished
        Glaze: unglazed, unglazed
        ?12th to early 13th century
King Street Duffield 02
        Fabric: buff/orange, hard, sandy, oxidised; coiled, slab and wheel finished
        Glaze: unglazed, unglazed
        ?12th to early 13th century
King Street Duffield 03
        Fabric: buff/orange, hard, sandy, oxidised; coiled, slab and wheel finished
        Glaze: clear/green, spots and blobs
        ?12th to early 13th century
King Street Duffield 04
        Fabric: dull red, hard, sandy, reduced; coiled, slab and wheel finished
        Glaze: unglazed, unglazed
        ?12th to early 13th century
King Street Duffield type
        Fabric: dull red, hard, sandy, reduced; coiled, slab and wheel finished
        Glaze: unglazed, unglazed
        ?12th to early 13th century

Figure 3. Results of a query on 'Name or part of name' in this case 'King Street'.

    Selecting a specific ware type from the drop-down menu on the right hand side of the screen shown in Figure 1 (click on the inverted black triangle to see the full list) will take the viewer directly to the entry under the name selected. All of the information will appear on the same screen, but to view the photographs at a larger size, click on the 'thumbnail' image and wait for the full picture to emerge. Photographs are of two types; those showing the fabric and those showing examples of particular vessels, decorative motifs and designs or vessel parts. Some of the pictures are duplicated or even triplicated; the intention behind this was to 'bracket' exposures in order to obtain the best image possible under the prevailing light conditions, but the alternatives have been retained in the hope that viewers will be able to select an exposure which best suits their particular monitor.

    The second method of enquiry, 'Query by attribute', uses the characteristics of the vessels as a means of searching the database. A series of drop-down menus offer alternative attributes upon which to search, as shown in Figure 4 and using any one of these will produce a list of ware types which possess that particular characteristic or attribute together with a short description of the ware type. Clicking on the name of one of the ware types will then take the user to the full entry for that particular ware type.

Select one or more values from the lists to find wares which match the selected attributes.

Identify wares by their attributes

    Vessel type: [Any   ▼]
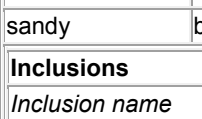
        Fabric   Glaze
        Colour: [▼]   Type: [▼]

Figure 4. The database 'query by attribute form'

All of the drop-down menus can be used in a similar way, selecting from the options provided in order to produce a list of the wares with the specified characteristics. The subjective (and, indeed, vague) nature of the descriptions may prove to be a contentious issue, but this is an issue which has never been satisfactorily resolved in pottery studies and no final solution can be provided here.

Ware type		Ware code	Sample code
King Street Duffield 01		KSD001	KSD001
Description			
King Street, Duffield 783-66: Three sample sherds, one of which (a rim) has the typical shallow impressed lines around the vessel. See Cumberpatch in press for full details of the assemblage and fabrics			
Date range		?12th to early 13th century	
Vessel types		jar 1 jar 2	
Photographs (Click on thumbnail for enlargement)			
		Fabric	
		Fabric	
		Fabric	
		Fabric	
		Fabric	
		Fabric	

Fabric			
Texture	*Colour*	*Character*	*Manufacture*
sandy	buff/orange	oxidised	coiled, slab and wheel finished

Inclusions			
Inclusion name	*Size range*	*Frequency*	*Shape*
quartz	0.1 - 0.2mm	abundant	rounded to sub-rounded
red non-crystalline	Up to 0.6mm, occasionally 1.0mm	abundant	rounded to sub-rounded

Inclusions; microscopic description

Inclusion name	Size	Frequency	Shape	Sorting	Sample number	Notes
quartz	<0.4mm	common	not recorded	moderately well sorted	KSD001	Mainly mono-crystalline but some poly crystalline
iron oxide	Variable	common	not recorded	scattered	KSD001	Prominent variable sized pieces of opaque Iron Oxide
chert	Not recorded	rare	not recorded	sparse	KSD001	Small amounts of chert
mica (white)	Not recorded	rare	not recorded	sparse	KSD001	Some shreds of white mica
plagioclase felspar	Not recorded	rare	not recorded	sparse	KSD001	A few small discrete grains of plagioclase felspar
voids	Long	sparse	not recorded	sparse	KSD001	A number of long, straggly air-pocket voids

Glaze

Glaze type	Glaze colour
unglazed	unglazed

Bibliography

Cumberpatch, C.G. (in press)   Medieval pottery from King Street, Duffield, Derby *Medieval Ceramics*

Hughes, M. and Walsh, N (2003)   *Medieval pottery reference collection project: ICPS analysis and interpretation*, E.H. Project report

Williams, D. (2003)   *Medieval pottery reference collection project: Petrological descriptions*, E.H. Project report

Sites

Site name	King Street Duffield [783-66]
Location	Duffield, Derby, Derbys.
Grid ref	SK434437
SMR PIN	Derbys. 19411
PSDB code	129
Site type	Pottery production
Archive location	Derby Museum
Excavator	Not known
Notes	Code number 783-66 on pots - this could be a site code or an accession code

Bibliography

(1967) Medieval Britain in 1966   In: Wilson, D.M. and Hurst D.G (ed) Derbyshire: Duffield *Medieval Britain in 1966*, **11**; pp. 316.

Figure 5. An example of a 'query by name' (King Street Duffield 01). The thumbnail images can be enlarged on the screen.

Definitions and terms used in the database:

It is expected that the terms used in the database will be familiar to most users as they are drawn from the conventional vocabulary of the archaeological ceramicist. Reference to the standard works published by the M.P.R.G. and P.C.R.G. should clarify any problems and the following notes are intended as a basic guide to those terms employed in the database and the articles which accompany it.

Frequency

Although the assessment of such factors as frequency and shape (see below) is to a degree subjective (and the frequency of inclusions will vary within a single vessel), the terms used are based upon those used by the Prehistoric Ceramics Research Group (PCRG 1992: Appendix 3) with the intention of providing some sort of standard against which the description used can be judged. The following terms have been used:

Description
Rare
Sparse
Moderate
Common
Abundant
Not recorded
Not applicable

The 'not applicable' category has been used principally where there are no visible inclusions, as in stonewares and refined earthenwares.

Shape

As with frequency, the assessment of shape is to a degree subjective (and the shape of inclusions may vary within a single vessel), the names are based upon those used by the Prehistoric Ceramics Research Group (P.C.R.G. 1992: Appendices 5 and 6, see also Orton, Tyers and Vince 1993). The following terms have been used:

Description
Rounded
Sub-rounded
Sub-angular
Angular
Not recorded
Rounded to sub-rounded
Angular to sub-angular
Platey
Not applicable

Inclusions

The inclusions fields contain details of the inclusions which are visible with a X10 hand lense. The information is intended as guide to identification, so the mineral grains visible are, generally, described rather than simply named and basic details given which should be read along with the photographs of the relevant fabric. Note that the photographs show only one view of a given sherd, whereas the description of the visible inclusions is based upon an examination of the sherd which inevitably involves moving it and looking at different breaks – so the characteristics described in the table may not match exactly with the picture. Fabric description is not a precise process and the composition of pottery fabrics is highly variable even within a single fabric, so a degree of interpretation is required from the user.

Sites

The sites field contains details of the sites from which samples of pottery have been taken for inclusion in the reference collection. Note that it is not a list of all sites upon which the various wares have been found. It includes both production sites and those consumer sites from which samples were taken. The details are as follows:

Database field	Description
Site name	The commonly used name for the site
Town	Nearest town or large village
District	Local district
County	County (as in 2003)
Site code	Excavators site code
Grid reference	National grid reference
SMR PIN	County Sites and Monuments record number
PSDB code	Code number used in the Production Sites Database
Site type	The character of the site, where known
Archive location	Museum or archaeological unit holding the site archive
Excavator	Individual, society or unit responsible for the excavation
Reference	Bibliographic reference (Harvard style)
Notes	Additional information

Inclusions; microscopic description

The 'Inclusions; microscopic description' field contains details of the fabrics taken from the petrological descriptions provided by Williams (2003), Cathie (2003) and Vince and Walsh (1998-1999). The fields are as follows:

Field	Description
Ware type	Ware type name
Inclusion name	Type of mineral grain
Size	Size range
Shape ID	Shape as defined in the Shape Table
Sorting	Sorting, as described by the analyst
Inclusion ID	Inclusion ID number taken from ? Table
Frequency ID	Frequency as defined in the Frequency Table
Sample Number	Sample Code as defined in the Ware Type Table
Reference	Bibliographic reference (Harvard format)
Notes	Notes and observations

Vessel type

The Vessel Type field lists the types of vessel known to have occurred in each fabric. Further details and illustrations can be found in the appropriate articles and reports. Inevitably new excavations will turn up new types not hitherto documented, so this table will need regular updating. The descriptions of the vessel types are taken from the M.P.R.G. Glossary (M.P.R.G. 1998) with modifications as described in the relevant articles.

The range of vessel types listed in this table has been compiled from the primary sources listed in the bibliography. In the case of regional imports (including the Beverley wares and Lincolnshire wares) not all of the forms listed have necessarily been found within the study area, although all are known from the source area.

In cases where multiple examples of a single ware type are present (indicated by a number in brackets after the ware type name), the vessel forms have been given under the first example (1). This is simply for convenience and has no further significance.

As regards the imported wares, only a few of the many possible vessel forms have actually been identified in the study area (Cumberpatch 1996, 2003h) and it is these that are listed in the database. For more detailed discussions of the wares and the vessel types associated with them see Gaimster (1997), Hurst, Neal and van Beuningen (1998), Watkins (1987) and Brown (2002). Similar considerations apply to Cistercian and Blackware (Moorhouse and Slowikowski 1992),

Ware type

The Ware Type field is based upon the principal table around which was used during the development process as the core of the database.

Nomenclature

Ware type names have been allocated using the site name together with a number to differentiate the various types distinguishable within the assemblage. A number of points should be noted regarding this process.

The naming of medieval pottery types has been inconsistent over the years and it is not possible to rectify this situation without causing more chaos than would be acceptable. Names have been allocated based upon the place at which the pottery was made (e.g. Firsby-Rawmarsh ware, Hallgate A), the characteristics of the fabric (e.g. Gritty ware, Sandy ware), a type site where they were first defined (e.g. Hillam ware), technological characteristics, usually combined with a description of the fabric (e.g. Splash Glazed Sandy Ware). The same criteria have been used in naming the type defined during the course of the project. Those wares which have been identified and linked to a specific manufacturing site have the name of the site plus a number to identify them and an associated code, usually a combination of letters and numbers. Thus Brackenfield ware type 1 is Brackenfield 001 or BRK001. These names are expected to be retained for the foreseeable future.

Wares which have been identified on a consumer site or on sites within a particular area have been named according to their physical and/or technological characteristics (e.g. Chesterfield Local Gritty ware 2, Derbyshire Medieval Gritty ware 1). It is hoped that at some stage these will be linked to a specific pottery at which time the name will either be retained for convenience or changed to ensure logical consistency and integrity. This is not likely to happen in the immediate future, but when it does some provision will have to be made to amend the database.

In a number of cases the name of a ware is followed not by a number indicating a particular variation but by the word Type. There are three reasons for this:

- there are many cases where no definite decision was made as to the relationship between a group of sherds and a particular type; the colour, density, proportion, sorting and other characteristics differed in a number of ways from the basic Ware Type and adding 'Type' was a way of avoiding the necessity to come to a hard and fast decision regarding the status of the group (e.g. Humberware type);

- in some cases the Photograph reference table required a link with a record in the Ware Type table where, for some reason, it was impossible to link to a specific Ware Type (as, for example, where a group of sherds of different fabrics is shown to illustrate the variety of decorative motifs or where the fabric has not been definitely identified, such as with reconstructed vessels). In these cases a 'dummy' record was created to provide something to link to. Such general characteristics as were relevant are provided in this record, but where this is not possible N/A has been entered in the table and the reason for the creation of the record is outlined in the Notes column. The user of the database would be well advised therefore to consult the Notes whenever a '… Type' record is encountered in order to determine the exact nature of the record;

- in some cases it has been deemed useful to link a particular Ware type with a publication or publications describing that ware. In some cases these are of a general nature or include reference to a particular ware type or group of wares as a whole. In these cases it was not possible to link with a particular variety of that ware as defined in the database and it was deemed necessary to link to a 'dummy' record to avoid any potential confusion.

How different is different and what does difference mean?

Some of the ware types distinguished by different names and codes have been shown to be petrologically and chemically similar (see Cathie 2003, Williams 2003, Hughes and Walsh 2003,

Vince and Walsh 1998-1999). These compositionally different wares have not, however, always been subsumed into each other but have been retained as distinct wares type as they are visually different when examined with the naked eye or a hand lense. The Notes field in the database indicates when the composition of such wares has been shown to be identical or similar. Some may find this logically inconsistent and perhaps a ware type should be defined so as to cover a range of appearances, but it was felt that this would lead to confusion and so it was not adopted. Some will, no doubt, disagree with this decision but a decision had to be made and this is the one that was felt to be most useful, given that the majority of work carried out on pottery is at the macroscopic level and does not involve petrological or chemical analysis.

Multiple samples of the same ware type

The database will not allow duplicate entries in the 'Ware Type' field of the 'Ware Type' table but in some cases several samples of the same fabric are recorded as separate records (as, for example, when more than one sample was sent for TS / ICPS analysis or where several samples are included to illustrate the range of variation within a ware type). In these cases a decision had to be made as to whether two or more samples should be combined in one record or whether the different records should be distinguished in some way. For a variety of reasons it was decided to include each sample as a different record and to distinguish them by using a number in brackets following the type name. There are, therefore, (to take one example) three samples of the Doncaster Frenchgate 01 fabric, listed as Doncaster Frenchgate 01 (1), Doncaster Frenchgate 01 (2), Doncaster Frenchgate 01 (3). These correspond to the three samples sent for analysis (Sample codes DFG01A, DFG01B and DFG01C).

The general principle is therefore that *numbers in brackets* attached to the Ware Type name are **NOT** part of the name but serve only to distinguish different examples of the same ware type within the database.

It is inevitable that the names of the ware types will differ according to the usage of different authors (see above). The Ware type names used are those used in the database and are connected as closely as possible with those used by the authors cited. Thus Watkins discusses 'Cistercian ware' (1887:114) and this has been linked with 'Cistercian ware (1)' in the database. Where more sub-types have been identified than in other accounts of pottery from the region, the link is made with the first of my types; thus Watkins 'Brown Glazed Coarseware' is linked in the database with Brown Glazed Coarseware 01 as Watkins mentions only that the fabric shows 'much variation (1987:115). This principal, of linking with the first of multiple samples has been followed throughout the database, so where such a link is made it will benefit the user to look at the other samples, in addition to the one specifically indicated.

The bibliography

The bibliography is intended to take the user of the website and the reference collection to the considerable literature which has grown up around the subject. It is hoped that the references to works concerned with the study area is reasonably complete (note that the emphasis is on pottery reports rather than on work concerned with the archaeology of particular sites or areas more generally), but that for the country as a whole is more selective, although it is hoped that the selection is reasonably comprehensive. The Medieval Pottery Research Group has, for many years, published a cumulative bibliography in successive volumes of Medieval Ceramics and an on-line version is available at http://ntserver002.liv.ac.uk/mprg/ and this will provide a more comprehensive, national, guide to pottery reports and synthetic articles than that created specifically for this reference collection.

As some of the names of the wares are newly coined or relate to smaller sub-divisions of earlier ware classes, it has been necessary to create some 'dummy' records which cover earlier uses or terms which have not been used in the reference collection. These are intended to take the user to references which are of considerable value, even if they do not conform exactly to the terms as used to describe the material in the reference collection. In some cases an alternative name has been preferred to that used in an earlier publication; thus for example, Gooder (1984) refers to 'English Delftware' but the convention in the type series is to use the term 'Tin Glazed Earthenware'. No particular criticism of the earlier work is intended as in these cases both terms are frequently used

interchangeably. The relationship between such alternative names can be found in the 'Cross-Ref' table.   In other cases, particularly where multiple samples of the same ware have been included (as described above by numbers in brackets following the ware type name), reference has been made only to the first of the samples (Blackware (1) for example). This slightly clumsy method of referencing is not ideal, but should work so long as the user recognises that one of the purposes of the database and reference collection is to draw together earlier work and, in so far as is possible, to present a way to proceed in future which uses more precise terms defined with reference to specific examples of ware types.

Articles, reports and tables

In addition to the database, the website includes a number of other items. These include articles and supporting data which were too large or unwieldy for conventional publication. While the current tendency for full publication to be viewed as 'an expensive luxury' (see Cumberpatch and Blinkhorn 2001 for a critique of the background to such comments) rather than a critical and central element in the process of archaeological research, is to be regretted, the extent of control over archaeological funding by the development industry and a lack of investment by central and local government means that budgets for publication are a fraction of what they ought to be. As a result it is, in practice, impossible to publish pottery reports in full, even in connection with a project such as this one. It is hoped that the downloadable articles will provide a useful and useable substitute for conventional publication and I particular that this method of publication will make complete datasets available for interpretation and re-interpretation.

Reports on individual assemblages cover the material from Brackenfield (also known as Little Ogston) near Chesterfield, Green Lane, Rawmarsh near Rotherham and Frenchgate in Doncaster. The descriptive text is supported by numerous data tables, drawings and, in the case of Brackenfield, by photographs of the site kindly supplied by the excavator, Dr. P. Strange.

The full texts of the reports on the scientific analyses undertaken as part of the project are available as individual 'stand-alone' texts, in addition to having been incorporated into the database. Concordance data, intended to link the type series established for different areas for comparative purposes are presented in tabular form.

 A full list of the resources is provided on the entry page of the website with appropriate links to each element.

The physical reference collection

The physical reference collection consists of examples of each of the ware types listed and described in the database. The sherds are grouped by ware type and are named, as is traditional in ceramic studies, according to either their place of origin with a code to distinguish different wares types produced at the pottery (e.g. Hallgate A, Brackenfield 001) or according to their characteristics (e.g. Brown Glazed Coarseware, Blackware, Midlands Purple ware). In the first case the place of origin may be a particular pottery (as established by the identification of kilns or obvious kiln wasters; e.g. Brackenfield, Burley Hill, Hallgate etc.) or a type site (e.g. Hillam ware). Each type should have a corresponding entry in the database and many are the subject of specific studies or articles, so it is inappropriate to provide a full description of all of the wares here. The physical collection is intended to be used alongside the database with examination of the latter preceding the former.

Conclusion

There will, no doubt, be many aspects of this project which will be criticised. The author is fully aware of many of these and regrets them deeply. The hope is, however, that the various elements of the project will be of some value in certain circumstances and that this will, to some extent, outweigh (or at least compensate for) some of the inadequacies of the project. In particular it cannot be emphasised sufficiently that neither the website of the physical collection is intended to be a substitute for experience or working with pottery and writing pottery reports. There are no short cuts when it comes to the creation of usable bodies of archaeological data from the partial and contingent assemblages created as a result of excavation and survey. The 'archaeological record', as a discrete

entity, cannot be said to exist without an interpretative input from an observer and the acts of interpretation, categorisation and archiving which are involved in its creation are inevitably subjective ones. While we may strive for the production of replicable, transmissible and communicable categories in respect of material culture, the enormous number of ways in which the physical world may be described and categorised and the extent of possible variation within a material such as pottery means that no single classificatory system or scheme will ever be deemed satisfactory by all observers. Some of the failings of the type series presented here will follow from the more or less arbitrary decisions that have been made in relation to the material examined and the choice of descriptors used to define the boundaries between one type and another. Other problems are due to the limitations of the dataset from which the material has been taken; although archaeology has developed a relatively sophisticated methodology, we still lack the physical means and financial resources to investigate the majority of elementary problems which beset the discipline. Finally, the decisions made by the author have significantly affected the outcome of the project; more samples of pottery could have been analysed and more time could have been devoted to individual assemblages from consumer sites. It is hoped that future research will not only build on the foundation presented here, but that as the collection is used, individuals will feel able to attempt the creation of parallel collections for neighbouring areas and will use the failings of this scheme to create improved versions and that ultimately a thorough revision of the collection presented here will be undertaken.

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