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**A SAMPLE OF ROMAN GLASS VESSELS FROM YORK:
THE FORTRESS AND *CANABAE* SITES
(IN TWO VOLUMES)**

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**A Thesis Submitted to The University of Durham Department of Archaeology
In Accordance With the Requirement for
The Degree of Master of Arts**

Christine Margaret Sheard

1999



23 MAY 2000

A SAMPLE OF ROMAN GLASS VESSELS FROM YORK:

THE FORTRESS AND *CANABAE* SITES

VOLUME I

Declaration

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A SAMPLE OF ROMAN GLASS VESSELS FROM YORK: THE FORTRESS AND *CANABAE* SITES

Christine Margaret Sheard M.A. thesis 1999

Abstract

Research into a sample of Roman glass vessels represented in the York assemblages from the fortress, garrisoned *cAD* 71-*cAD* 410, and from the *canabae* - the industrial area outside the fortress - provides both an insight into the usage and function of the York fortress vessels throughout almost all the Romano-British period, and a case study for future research.

Investigations were carried out into the usage dates of the vessels in relation to those elsewhere in Britain, and, where applicable, elsewhere in the Roman Empire. The vessels functions were both discussed generally, and with reference to their fortress contexts.

Many of the patterns were found to be common to both military and major settlement sites assemblages in Roman Britain. Analysis suggests that most of the vessels are of first to second century date; that utilitarian vessels and unguentaria play a minor part, mainly in the first to third century; and that the majority throughout the period are tableware, and comprise both highly decorated vessels and/or imports as well as those with lesser degrees of decoration.

Uncommon patterns offer evidence for military use of glass vessels. They point to the bias in favour of beakers and cups, normally associated with villa sites; and of a preference for plain cups in the Flavian period; and for highly decorated first to second century beakers. The representation of a comparatively large number of good quality fourth century beakers and cups, both comparatively plain, and highly decorated imports, is, however, unparalleled on British sites elsewhere. Furthermore, the evidence suggests that while very highly decorated vessels, and/or imports, were used by the officers in the first to second century, in the later third to fourth century they may have been used mainly by the general soldiers.

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CHAPTER 1

INTRODUCTION

1.1 THE RESEARCH

1.1.1 The Proposal

1.1.1.1 The research was to centre on the glass vessel assemblages of the *canabae* and fortress sites of York. The choice was made for two main reasons. First, the fortress was garrisoned between cAD 71 and 410, and would therefore have been the focus of the marketing in the area, and probably in the north-east of England generally, throughout much of the period of Roman rule in Britain. Secondly, there were a number of fortress glass assemblages available from areas of differing status within the fortress, most of which had been analysed and discussed in depth. There was also a large glass assemblage from the *canabae* which was available for analysis, and this was expected to provide an adequate sample of a cross-section of the glass vessel forms in use at York generally, and in the fortress in particular, over more than three centuries, since it was felt that the fortress would have been the main source for the glass fragments in the *canabae*.

1.1.1.2 There were to be three areas of investigation. The *canabae* assemblage was to be discussed in relation to the forms in the fortress, and those elsewhere in Britain, and, where applicable, those elsewhere in the Roman Empire. The patterns in the combined York assemblages were to be investigated with regard to the usage dates of the types and forms. The function of the vessels were to be discussed in general, according to the individual characteristics of the types and forms, and in particular, with reference to their contexts within the fortress; and, where applicable, to the associated small finds. It was thus expected that the research would also provide material for a case study for use in research on other fortress sites and/or major civilian settlement sites.



1.2 THE ASSEMBLAGES

1.2.1 The Fortress Assemblages

1.2.1.1 The fortress assemblages under discussion comprise those already analysed and discussed from the Minster excavations (Price 19995a); from Blake Street; from the three minor sites of Swinegate, Little Stonegate (collectively known as the Swinegate sites); from the Purey Cust Hospital Site (Cool 1995; Cool *et al.*, 1995); and the extant assemblage from the Church Street sewer excavation, summarily analysed by Charlesworth (1976), which was analysed and catalogued for this thesis (*cf* Chapter 4; Appendix B).

1.2.2 The *Canabae* Assemblage

1.2.2.1 The assemblage, from the Coppergate excavation, was analysed and catalogued as part of the work for this thesis (*cf* Chapter 3; Appendix A). The supplementary data for this assemblage, including the dates for the contexts, are those supplied by David Evans (York Archaeological Trust). A preparatory list of the *canabae* fragments, which had been previously drawn up by Dr Hilary Cool, for the York Archaeological Trust, was also made available for use during the work.

1.3 THE METHODOLOGY

1.3.1 The Categories

1.3.1.1 The approach to the handling of the data, and similarly to the cataloguing of the two assemblages for the thesis, complied with that used for the remaining fortress assemblages, which is in keeping with the majority of work carried out on glass assemblages from British sites over the past few decades.

1.3.1.2 The forms were thus categorised for the catalogues according to the general manufacturing methods, by the casting, mould-blowing or blowing of the form, and according to colour and type. A distinction was also made, when apparent, between the glass of the early period (the first to third century), and of the late period (the fourth century, or the end of the third to the fourth century) - which was often found discoloured and containing impurities. Due to the high degree of fragmentation of the *canabae* fragments the use of estimated vessel equivalents (e.v.e.s) was not seen as appropriate, and, in common with the majority of glass reports, including those of the fortress assemblages, estimations of minimum numbers were provided.

1.3.1.3 Within these categories, the discussion in the text also made the distinction between the different types and forms of vessels according to certain general characteristics (*cf* below). They were therefore discussed as tableware forms associated with the consumption of food and drink or for the serving of liquids; as utilitarian ware for the containing or storage of liquids, solids or semi-solids; or as small flasks/unguentaria which were seen as being associated with other than culinary activities. With few exceptions, and in common with current publications, the forms were discussed according to their usage/manufacturing periods.

1.3.1.4 Extensive use has also been made of: the Colchester assemblages (Cool and Price 1995) referred to within the text as (Colchester,); the handbook on forms from British sites (Price and Cottam 1998b), referred to within the text as (Handbook,); and the classification of forms by Isings (1957), references for which are made within the text as 'Isings Form ...'.

The dating for the contexts for the Minster assemblage is made with reference to Carver (1995, 207-214); and those for the Blake Street assemblage with reference to Cool *et al* (1995).

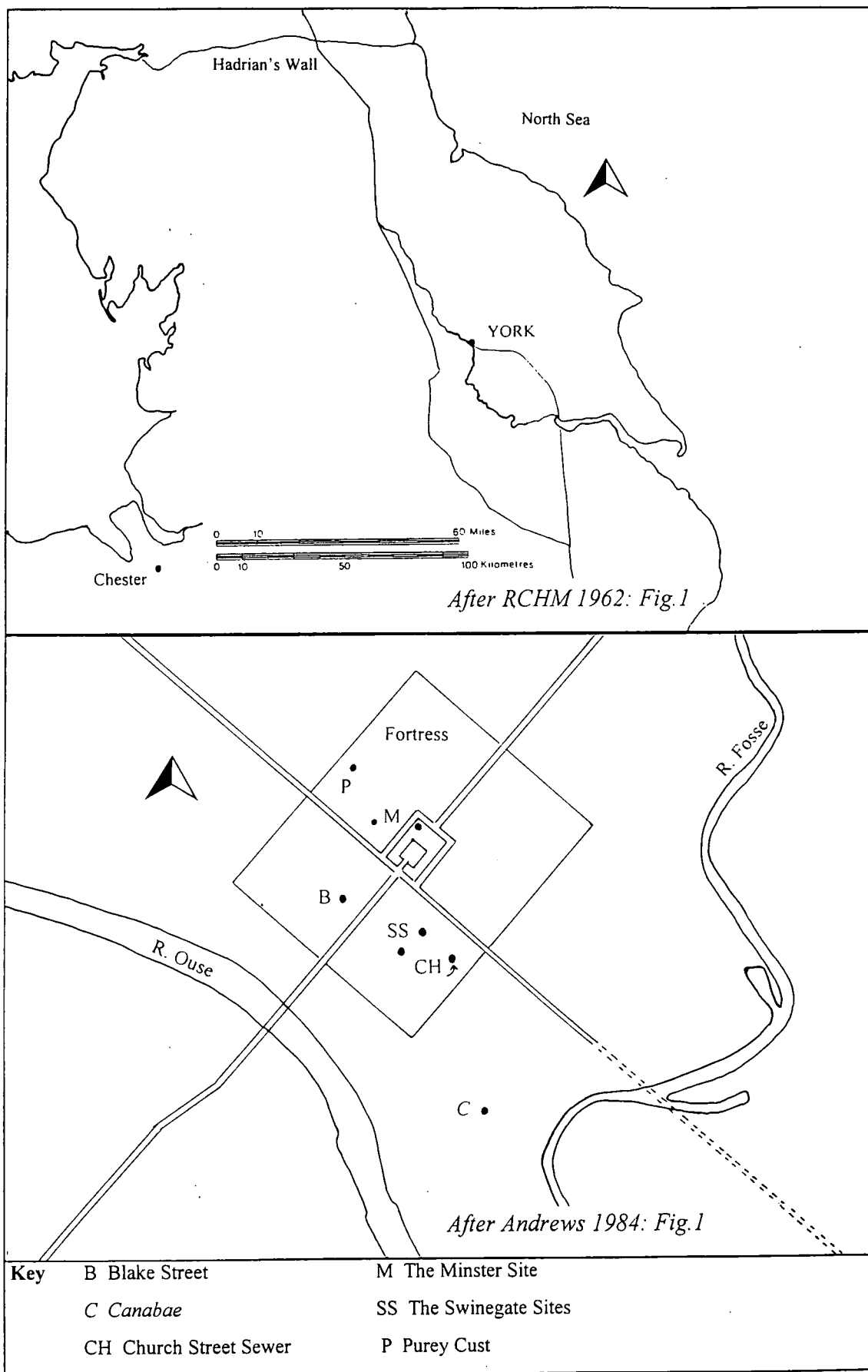


Figure 1.1 Location map: York, the fortress, and the sites under discussion

1.3.2 Definition of the Vessel Types: Open Forms: Beakers, Cups, and Bowls

1.3.2.1 The deciding factors for the definition for both cups and beakers are seen to be the rim form, and the ratio between the rim diameter and the height of the vessel: those vessels which are as tall as they are wide are defined as cups (Colchester, 9); those vessels which are taller than they are wide, but unlike jars have little trace of a neck, are beakers (Lith 1985, 420; Harden 1936, 132). The rims of both cups and beakers need to be vertical or near vertical (Colchester, 222).

1.3.2.2 Bowls are defined as those forms which are wider than they are tall (Lith and Randsborg 1985, 417), and which could have been used during the consumption of food, with the larger deep bowls possibly functioning as drinking vessels (Colchester, 222).

It is also noteworthy that such divisions cannot be viewed as absolute, since certain of the forms, such as the second to third century vessels with bands of facet-cut decoration, and the second to fourth century vessels with facet-cut geometric decoration, may be defined as either cups or bowls (*cf* Chapter 3).

1.3.3 Definition of the Vessel Types: Closed Forms: Bottles, Flasks, Jars, and Jugs.

1.3.3.1 This category is based on the comparatively small mouth opening or - in the case of the forms with large rim diameters - on the formation of the rim being suggestive of a function other than that of an individual tableware container. Thus those vessels with short necks and handles are classified as bottles - the exception being the short-necked bath flask which is classed as a flask; those handleless vessels with/without large reservoirs, having long, or longish, necks often with a constriction, are flasks. The closed forms with short constricted necks are jars. Those with long constricted necks and handles, with/without pouring spouts or lips are jugs (Colchester, 9).

1.3.4 The Problems of Dating and Size of Assemblage

1.3.4.1 Almost all of the *canabae* fragments are from residual contexts (*cf* Appendix A); it is therefore probable that the correlation between the remaining few and their Roman contexts should be viewed with caution. Similarly a high percentage of the fortress glass has residual contexts (Price 1995a, 346; Cool 1995, 1561, table 126; *cf* Chapters 5 and 6). Where applicable, therefore, use has been made of the contextual dating in other publications.

1.3.4.2 The difference in the numerical sizes of the assemblages (*cf* Chapter 4) has led to there being an inherent imbalance in the patterns which also needs to be taken into account.

1.4 THE FORTRESS AND THE *CANABAE*: GENERAL BACKGROUND

1.4.1 The Fortress

1.4.1.1 The fortress at York was built on a 50 acre site in the Vale of York, *c*AD 71 during the campaigns of Petillius Cerialis, and was garrisoned by the Ninth legion, IX Hispana. The garrison was changed *c*AD 120, when the Sixth legion, VI Victrix, was installed; and the latter remained at York until the troops were withdrawn from Britain in AD 410 (Ottaway, 1993, 11).

Apart from the four years when *Inchuthil* was being built, AD 83-6 (Pitts and St. Joseph 1985, 31), York was the most northerly fortress in Britain, and the role played by the garrison in the controlling of the region, throughout the period of military rule in Britain, appears to have been considerable. The Ninth legion took a major part in the Agricolaan campaigns in the north, for instance, in AD 78-84; and, up until the Roman withdrawal from Scotland to the Stanegate line, it would have controlled a vast area; and from the end of the Hadrianic period, the York garrison would have been responsible for the frontier zone as well as the northern forts. The Sixth Victrix would have taken part in

the conquest of Scotland under Lollius Urbicus; and in the Severan expedition into Scotland in the late second century (Hartley 1971, 58, 61, 65). The garrison was also involved in the construction of Hadrian's Wall and the Antonine Wall, as well as forts such as Corbridge under Hadrian, and Carpow in Scotland, under Severus (Breeze and Dobson 19, 72, 96 137, 152).

1.4.1.2 As already noted, York generally, and in particular the fortress, would have been the focal point for trade and industry. It was sited on Ermine Street, which was an arterial road running north-wards from London; and the fortress overlooked, and thus had control of, the Ouse to its south and the Fosse to its east (Figure 1.1). The latter, which flowed close to the south-east gate, apparently provided one of the two military harbours for the fortress (*cf* RCHM 1962, xxvii). The Ouse would have allowed a connection with the North Sea, at Brough-on-Humber; and would have allowed access, via the Trent, the Fossdyke, Witham and Cardyke, to the reclaimed Fenland which is seen as having been a corn-producing area in the Roman period (RCHM 1962, xxxi).

1.4.1.3 The first fortress was of timber construction, and its conversion to stone may not have been completed until the mid-second century (Heywood 1995, 1, 3). Little major structural change appears to have occurred until the early fourth century, when there was considerable rebuilding within the fortress on a grand scale. This included a new *basilica* superstructure, a new commanders' house, and renovations in barracks 1 and 3 and the baths (Heywood 1995, 7). At the same time the fortress defences were modified: alteration took place around the *praetentura* from the *porta principalis dextra* to the site of the *porta principalis sinistra* on the river front, and included a north-west gateway of considerable size and style (Butler 1971, 97-8), and a similarly impressive gateway in the south-west, at the *porta praetoria* (Ottaway 1993, 97).

1.4.2 The *Canabae*

1.4.2.1 It is probable that the *canabae* will have originated as booths or stalls set up outside the fortress to serve the garrison. These, supervised by the military, would have been largely occupied by civilians. Possibly as early as the late first century some of the

booths were replaced by timber structures, and, then later by stone buildings - such as is recorded at Coppergate (*cf* below). The more permanent structures were apparently of varying status since they included a grain warehouse, a bath house, and temples (Ottaway 1993, 67, 69).

1.4.3 Status

1.4.3.1 The status of the legion, and of York, would have risen in the early third century, when, on the division of Britain into two provinces, York became the capital of *Britannia Inferior*, and the legion's legate/commanding officer became *praetorian* governor of the new province. At approximately the same time, probably because of this, the status of York's civilian settlement to the south-west of the fortress was upgraded to that of *colonia* (Heywood 1995, 6).

It is probable that the fortress was visited by a number of Emperors, since on more than a few occasions they used York as a base. At the end of the second century, for example, when Severus and his sons were on campaign against the barbarian disruption in the north, he is known to have been at York, and subsequently died there; in AD 306, following the death at York of Constantius, Constantine was proclaimed Emperor by the Sixth Victrix; and the *Dux Britanniarum*, who was probably in charge of all the troops in the north of Britain in the fourth century, was also installed at York (Ottaway 1993, 62, 101-2).

1.5 THE ARCHAEOLOGICAL SITES. GENERAL DISCUSSION

1.5.1 The Fortress Sites

1.5.1.1 The Minster site lies close to the centre of the fortress, over the north section of the *principia* - the legionary headquarters and sections of several of the barracks and their associated alleyways and streets - which may have housed the first cohort (Ottaway

1993, 26) - and at least one further building ('Building 4') (Phillips and Heywood 1995a, fig.A back binding pull-out). The excavations appear to have covered c35% of the total of the suggested area of the legionary head quarters, the three barracks and the associated alleys and streets. Within this the percentage of the excavated area in the *principia* appears to be as low as 14%; and as low as 11% for the most westerly barracks (calculated from Phillips and Heywood 1995a, fig.A back binding pull-out), thus contributing to the potential imbalance of the data.

In common with the majority of the archaeology elsewhere within the first century fortress, the first *principia* appears to have been of timber, and it was apparently not until the late first to early second century that it was built in stone (*cf* Chapter 1); while barracks 1 and 2 were converted into stone later, in the Hadrianic period (Heywood 1995, 3). The only activity for the third century appears to have been associated with alterations to barracks 2 and 3. In the fourth century, however, the *principia* appears to have been almost totally rebuilt, again in stone, and then later in that century modified a second time (Heywood 1995, 7; *cf* Chapter 1).

1.5.1.2 The Blake Street site lies in the south-west quarter of the *praetentura* (Hall 1997, 305, fig.190). Activity there is datable from cAD 71 to the later fourth century, with the first timber buildings being erected cAD 71/79-c100 (Hall 1997, 307, 395). These were replaced by further timber buildings, cAD 100-160, apparently serving a variety of purposes associated with barrack life, with areas which may have been used for writing, for craft work/industrial activities, for food preparation and storage, and for a shrine or ritual activities. Following a possible break in occupation, in cAD 160 a building of higher status and a courtyard is recorded in the most northern extent of the area, with a narrow range to the south-west divided from the main range by a passageway; with extreme ends of two barracks to its south-west separated from the small range by a street. While the area of the main range and the areas flanking it were apparently cleared by the early fourth century, the smaller range was in use into at least the mid fourth century (Hall 1997, 327, 395, fig.210). In the later fourth century a major rearrangement of the area appears to have taken place: the street was covered by successive layers of loam, and a structure built on the street line, the archaeology suggesting new and different patterns of occupation or activity (Hall 1997, 395).

1.5.1.3 The Swinegate sites, in the north-east quarter of the *praetentura*, are seen as being associated with the baths which were served by the Church Street sewers. Activity there is first apparent as a sequence of later first century timber structures, one of which was subsequently replaced by a stone building, which, in its turn, was replaced in the earlier second century by another structure also in stone. A planked area is also recorded, which was resurfaced on several occasions during the second century, and which is interpreted as a courtyard, a parade ground, or a *palaestra* - an exercise area - within the baths complex (Cool *et al* 1995, 1601-2).

1.5.1.4 The Purey Cust Hospital site lies in the south-west of the *retentura*, close to the fortress defences. The first archaeology there is Flavian-Trajanic and takes the form of timber structures, strongly suggestive of barracks. In the second century these were succeeded by stone structures, probably with a similar function. For the remaining centuries however, there appears to be only tentative evidence for activity in the area (Hall 1995, 1615-6, fig.770).

1.5.1.5 The Church Street sewer excavations took place in the north-east quarter of the *praetentura*, between Church Street and Swinegate (Whitwell 1976, 1, 4, fig.2). The standing archaeology comprised a section of a main Roman sewer of substantial construction, which was connected to a number of side channels, short stretches of which were also investigated, together with a small area of an adjacent building to their north-east (Whitwell 1976).

The sewer is the only York fortress site to have a sealed context, for while the dating of the small finds - other than glass - indicates that most of the channels were in use between the mid-second, and the late fourth, to the turn of the fifth, century (Lee 1976, 43; Peacock 1976, 46), section 1a, of the main channel proved to have been blocked not later than the early third century (Sumpter 1976, 37), thus providing a loose *terminus ante quem* (*t.a.q.*) for its associated artefacts. Unfortunately this offers nothing for the dating of the glass fragments from this context, since most are no longer available for study and are listed by Charlesworth without qualifying detail; and of those which are typologically identifiable, they have usage/manufacturing dates which lie within this period.

The sewer is seen as being primarily associated with the baths (MacGregor 1976, 19). The presence in the sewer of seeds which are associated with medicine and food, and of animal bones (Greig 1976, 23-7; Rackham 1976, 38), however, suggests that the other associated areas could well include a hospital, and/or a domestic area, indeed the former suggestion is not unlikely since within the Caerleon fortress the hospital and the baths lie in juxtaposition (Zienkiewicz 1986a, fig.2 facing 21). The *coleoptera* and ant remains in the silt are similarly suggestive of domesticity, and also of grain stores, stables, and of rubbish heaps (Buckland 1976, 20-21).

1.5.2 The Coppergate Site

1.5.2.1 The Coppergate site is one of a number outside the fortress which have recorded evidence of non-domestic activity. To the south-west, at the Railway Station site, for example, and to the south in the *colonia*, at Bishophill Senior, there is evidence for jet-working and pottery-making (RCHM 1962, 142-3; Andrews 1984, 198), probably on a small scale. At the Borthwick Institute site, at Peaseholme Greene, approximately 300 metres to its east (O.S. 1988), a kiln dump has been recorded of both coarse ware and tile associated with the two York legions (King 1974, 214-7; Monaghan 1993, 705). There is also evidence for activity by late first to mid-second century potters at the Apple Tree Farm site, three kilometres to the east of York (Lawton 1989, 50; 1992-3, 8).

1.5.2.2 The Coppergate site lies just outside the fortress, to its south-east, c100 metres to the west of the River Fosse (O.S. 1988; *Figure 3.1.*). The majority of the site, excavated between 1976 and 1981, is of Post-Roman date; the excavation of the Roman contexts took place mainly between 1980 and 1981, with the time constraints limiting the investigations (David Evans pers.comm.).

The archaeology, as discussed by Evans (unpublished), has been dated by the pottery and coins to the second to fourth century, and suggests continuity of activity in the area for much of this time, during which a ditch apparently acted as a boundary between the area in the north-east which contained structural evidence, and the south-western extent, the archaeology of which recorded pits, dumping and other-non structural evidence. There

was also an open area which may have been used for the handling of cargo. The break in the continuity occurs in the third or fourth century, when there is evidence for a stone building being partly completed in the central and southern part of this area; and in the mid fourth century, when the area appears to have been used for an inhumation cemetery.

CHAPTER 2

THE HISTORY OF THE RESEARCH INTO THE GLASS OF ROMAN YORK

2.1 INTRODUCTION

2.1.1 Traditional Approaches to Roman Glass Studies

2.1.1.1 Until comparatively recently, glass vessels in general appear to have received scant attention in the research being carried out into Roman Britain. At best, in papers and publications of the nineteenth century, vessels would seem to have been singled out mainly as a means by which to illustrate discussions on various other aspects of the Roman culture; or to have been noted briefly, without adequate qualifying data, within historical or archaeological accounts. In a publication of the later nineteenth century on death and burial rites of the Roman Empire, for instance, glass vessels from an extra-mural cemetery at Wroxeter are alluded to as 'a large and remarkably handsome glass bowl found among the graves on the side of the bank', and 'small glass phials', and 'other vessels' (Wright 1872, 45). For York itself, which has proved no exception, various examples can be cited, including that of two unguentaria from an inhumation burial, unearthed during private development in the early nineteenth century, for while the burial is described in some detail, they are referred to as 'being at either side of the skull, one ... perfect, the other broken' (Banks 1812, 340). Needless to say only the 'perfect' vessel is illustrated, with no indication of size.

2.1.1.2 There can be no doubt that Gage, excavating the Bartlow Barrows in the early nineteenth century, was in the minority in his approach to the associated glass assemblages. His records of the vessels, often with illustrations, such as in his account of 1832 (1834, 1-34), include context, form, colour, certain of the dimensions, and, where available, a detailed discussion of the analysis of the vessels' contents (Gage 1834., 5, 7-8, 13-18, pl.2: figs.1-2, 8-9, pl.3: figs.5, 7-8).

2.1.1.3 At the lower end of the minimal scale would appear to be the private secreting, or the discarding, of the glass in the archaeological record, even, perhaps, whole, or only slightly damaged, vessels. This approach is certainly apparent in the treatment of the York vessels in previous centuries, for despite the probability that a large number have been recovered over a period of more than two and a half centuries (*cf* below), prior to the later twentieth century many appear to have been lost to the archaeological record.

Drake, in the early decades of the eighteenth century, for instance, commenting on the find of a blue-green glass cinerary urn from near the Mount - now apparently lost - notes the destruction or recycling of the archaeological small finds in York that was taking place at that time (1785, 63, 66-7, 86-87; *cf* Wellbeloved 1842, 129). A century or more later there appears to have been little change to this approach: Wellbeloved writes of the finds of 'abundant fragments (of glass) of varying sizes, forms and workmanship, often (indicative of vessels of) much beauty' (1842, 129) - probably unearthed during the first of the extensive railway developments which took place in York (Allen 1974). By the end of that century, however, these were represented in the Yorkshire Museum by a couple of scores of vessels or fragments, most of which appear to have been in the possession of, or to have been purchased from, private individuals (Y.M.H. 1891).

Many of these, together with further vessels, were discussed by Harden in the late 1940s (Price *pers.comm.*), the majority of which had also been unearthed during the railway developments (Harden 1962, 136-141), bringing the total to approximately sixty. It is also noticeable that the majority of the vessels are whole, sufficiently intact to allow the appearance of being complete, or have such detail on them to provide interest to the observer, such as the first to third century discoid unguentarium with the raised design impressed on its base, the fragment of the first to second to century facet-cut beaker, the variant of the first to third century bath flask with ring-shaped body, and the fourth century conical beaker (Harden 1962, nos.H.G.217, H.G.205.3, H.324.6 and H.G.144, 136-140, figs.88-9, pl.66), thus suggesting a bias to the detriment of the commonplace or highly fragmented vessel.

2.2 PUBLICATIONS ON ROMAN GLASS FROM YORK

2.2.1 Pre-Twentieth Century Records and Analyses

2.2.1.1 One of the first published records, with perfunctory analysis, may be that which was made by Drake in the 1730s of a cinerary urn (*cf* above). Less than a century later, notes on two unguentaria, with illustration, were published in relation to the inhumation burial, noted above (Banks 1812, 340, pl.47).

2.2.1.2 Between then and the early twentieth century, the Yorkshire Museum Handbook was probably the main source for the York glass collection. As already noted, the majority of these will have been those retrieved during York's railway developments, which, beginning in the 1830s (Allen 1974, 67-8), must have dwarfed any other development in the city and its hinterland for most of that century. The Handbook lists among its exhibits glass vessels from both the early and the late period, some of which are briefly analysed. Most appear to have come from private collections (*cf* above), or to have been recorded in the railway excavation reports (Y.M.H. 1891).

A brief analysis, with illustrations, of four flasks in the display was also published separately, with reference to an inhumation found earlier during the first railway development (Y.M.H. 1891, nos.146.1-4, 102; Roach Smith 1880, 174-6).

2.2.2 Twentieth Century Analysis

2.2.2.1 The first twentieth century published recording and analysis of York's Roman glass was carried out in the early decades following the find of a first century 'pale green' rim and body fragment of a pillar-moulded bowl during a 1925 excavation in the east corner of the fortress (Miller 1925, no.5, 184, fig.96). Another fragment, from a first century mould-blown almond-knobbed beaker in light-green glass, was also found during that year, possibly from the same excavation, details of which were not published until more than three decades later (Harden 1962, no.H.G.273, 136, 138, fig.88).

2.2.2.2 For the next two decades there were apparently no excavations for urban York (*cf* Andrews 1984, 196), and no glass was recorded; and work on the small glass assemblage from the St Mary's Abbey site to the west of the fortress, excavated 1951-55/56, was not to be carried out until the 1990s (Cool 1998).

2.2.2.3 In 1968 a brief catalogue, by Harden, with some qualifying detail was published for the small glass assemblage of vessel and window glass, from the 1951-9 excavations of the Trentholme Drive extra-mural Romano-British cemetery (1968, nos.1-14, 92-3, fig.35; Wenham 1968, 6, 16). In the late 1970s, two further pieces of work, both by Charlesworth, were published on glass collections from the excavations which took place during the extensive urban development in York in the later 1960s and 1970s. The first, as has been noted (*cf* Chapter 1), was on a glass assemblage of mainly vessel forms, from the fortress from the Church Street sewer excavations of 1972-4 (1976, 15-18, 21-2; MacGregor 1976, 1). The second was on a civilian glass assemblage from the *colonia*, from the Friends' Burial Ground, Skeldergate, and Bishophill sites (1978, 54-7, 59-60) excavated between 1973 and 1975 (MacGregor 1978, 31-3).

2.3 THE RESEARCH INTO THE YORK VESSEL GLASS

2.3.1 Work on the Pre-1960s Collections

2.3.1.1 The first research into York's Roman glass vessels was published in 1962 in the form of Harden's work from the 1940s, noted above. This comprised an analytical discussion on a good sample of the extant first to later fourth century vessels or fragments, covering such details as form, quality, decoration and usage, and citing parallels elsewhere within the Roman Empire including Britain. As important was the fact that it was incorporated with the R.C.H.M. publication on Roman York, '*Eburacum*' (RCHM 1962), since it made part of the York glass vessel assemblages more widely available for general study.

2.3.2 Civilian York

2.3.2.1 Up until the late 1960s it seems probable that the majority of the glass vessel fragments recorded and/or analysed, with few exceptions, were from contexts outside both the fortress and the *colonia*. Furthermore, from the data in the Yorkshire Museum Handbook (1891, 58, 101-4, 147-8), it would appear that of the 80% of those glass vessels which are from York contexts, over half are from burials, and only one - a tomb built with tiles of Legio VI Victrix - is associated with the legionaries (Y.M.H. 1891, 102). Since there is evidence for the recycling of such building materials by civilians (Y.M.H. 1891, 66-8), however, they may have also been part of a civilian burial.

Between the late '60s and the 1990s one piece of research, by Charlesworth, was published within the 1978 report noted above, on a second to third century cylindrical cup from the *colonia* (1978, 55-6).

2.3.3 The Fortress Glass: The 1960s-1990s

2.3.3.1 Subsequent work on a series of glass assemblages from other archaeological excavations during the development of York (*cf* above) corrected the previous imbalance, since the majority were from legionary contexts from within the fortress; however most of these were not to be published until the 1990s. These included the report on the large first to fourth century glass assemblage, representing mainly vessel forms, from the Minster site within the fortress, which was excavated 1967-73 (Phillips and Heywood 1995a, 5, fig.A back binding pull-out). The report, which was partially prepared by Charlesworth before her death, and then re-examined in 1987 by Price (Price pers.comm.), was published in the mid-1990s (Price 1995a, 346-371).

This proved to be a second milestone for the research into York's glass, for it provided both analysis and discussion in depth, together with a catalogue of the fragments with full qualifying data, some of which were incorporated into the volume's substantial 'assemblage summary' (Carver and Heywood 1995, 574-620). Furthermore, it not only placed the assemblage within the context of the other glass vessel assemblages from

Roman York, but in common with the more recent research on glass assemblages elsewhere, it also placed them within a wider context of Roman Britain and the Roman Empire as a whole.

2.3.3.2 A similarly detailed report with extensive overview was prepared between 1991 and 1993 for the large first to fourth century assemblage from the Blake Street site (Cool 1995, 1559-1588, 1650-61). This site, which was excavated in 1975-76, was again within the fortress (Cool *et al.*, 1513; Hall 1995, 1514, fig.707). The glass vessel assemblage which was published in 1995, also incorporated Cool's report on the assemblages of mainly first to second century vessel forms from the fortress sites of Swinegate and Little Stonegate, and the Purey Cust Hospital, which were excavated in 1989-90 and in 1985 respectively (Cool 1995, 1513, 1608-1611, 1668-9, 1623, 1672; Hall 1995, 1615, fig.770).

Cool's report on these assemblages (1995, 1585-88, 1626-47) was the third mile stone for York's glass vessels since, reflecting the growing trend in recent research as illustrated by the work on the Colchester glass assemblages (Colchester), it provided further discussion in depth on certain of the patterns apparent in the York assemblage, citing data associated with the small finds and from other pertinent glass assemblages outside York. The size of the Blake Street assemblage is also noteworthy since it is the largest published glass assemblage from York, with 1,571 vessel fragments representing a minimum of 115 vessels.

2.3.4 Current Research

2.3.4.1 Further work on York's Roman glass assemblages includes: Cool's analysis of the glass from the General Accident *colonia* site (Cool pers.comm.) and the first century glass fragments from the St Mary's Abbey site (Cool 1998); research on the production evidence from the *canabae*'s Coppergate site (Jackson *et al.*, 1998); and the present study of the Coppergate glass assemblage, of c1,869 fragments. Further work on the extant and/or recorded Church Street sewer assemblage has also been carried out for this research (cf Chapter 4; Appendix B).

CHAPTER 3

THE *CANABAE*

3.1 THE ASSEMBLAGE

3.1.1 Introduction

3.1.1.1 The glass assemblage from the *canabae* site is to date the largest of its kind associated with York, for, discounting the glass waste, beads and bracelet fragments, it comprises c1,869 fragments, 9% of which are from an indeterminate number of panes, or part panes, of window glass, and 91% of which is vessel glass; 27% of this is typologically identifiable/probably identifiable, from a minimum of 181 vessels (Table 3.1). For the catalogue of the assemblage refer to Appendix A.

Despite the dating of the *canabae* site (*cf* Chapter 1), the usage/manufacturing dates for the *canabae*'s glass vessel forms comply with the dates for the fortress (*cf* Chapter 1). Indeed it is possible that the polychrome cast pillar-moulded bowl 1, in dark blue with white streaks and the green cast bowl 6, with out-turned rim (*cf* below), may pre-date the fortress since by AD 71 cast vessels in polychrome and brightly coloured glass had mostly gone out of production (Price 1995a, 346).

3.1.2 Cast Tableware: Bowls. First to Second Century

3.1.2.1 The polychrome body fragment 1, already noted, together with eight blue-green rim and body fragments, 10-17 (Figure 3.1), represent a minimum of six pillar-moulded bowls, Isings Form 3. The form was also manufactured in strongly coloured glass, but more often found in the blue-green glass, and is the most common vessel form on first century sites in Britain, where it is more numerous in early post-conquest contexts (Cool 1995, 1563; Colchester, 16); the blue-green bowl is also occasionally found in early

second century contexts (Handbook, 44). Its being recorded in comparatively large numbers, however, may be due to the combination of the distinct characteristic of its rim form and its wide ribs which contribute to the strength of the body wall, and to its preservation often in comparatively large fragments which are more easily discernible than thin-walled plain forms, which are often highly fragmented.

	min. nos	cast	colourless	pale/light green	blue- green	other	c'less/pale green	dark green	poly/ bichrome	Total
bkr	18		8	1	1		6	7		23
bkr/bwl/cup	2						1	2		3
bkr/cup	7		12	1	1		4	1	1	20
bkr/jug				1						1
btle	15		7	1	201		3	1		213
btle/flsk	2		3	2						5
btle/flsk/jug			1		1	1				3
btle/jug	3		3		11	1	4			19
bwl	30	11	7	1	6	2	3	7	1	38
bwl/cup		1	3							4
bwl/jar	6		6							6
bwl/jug	1							1		1
bwl/plate	1						1			1
cup	46		53	2	8	1	4			68
flsk	15		5	1	14				1	21
flsk/jug	2		2	4	6				1	13
jar	6				6					6
jar/jug	1					1				1
jug	20			1	15	5		2		23
handle	1		2		10	2	1	3		18
misc	5		38	26	58	8	11	23	1	165
Total	181	12	150	41	338	21	38	47	5	652
		Key								
		bk beaker								
		bwl bowl								
		btle bottle								
		flsk flask								
		misc miscellaneous								

Table 3.1 The Canabae assemblage: minimum number, and numbers of glass fragments by colour

The form has a vertical or sloping rim with a ground rounded edge, a convex-curved body, which is usually found ribbed (*cf* below), and a flat or slightly concave base (Handbook, 44). There are two main variants, the shallow and the deep bowl (Isings 1957, 17-20), both of which have a plain zone separating the rim from the ribbed body which curves into a concave base (*cf* Harden *et al* 1987, nos. 26-8, 50-2). A third less common variant, generally found in early to mid first century contexts (Colchester, 18),

has ribs on the sides only (Isings 1957, 21); and there is a further - rare - bowl without ribs, as exemplified by the blue-green rim and body fragment from Fishbourne (Harden and Price 1971, no.16, 325, 329, fig.137), which is known elsewhere in Britain at Sheepen and Colchester (Colchester, no.184, 19, 26, fig.2.7).

The bowls are found in a wide range of sizes (Handbook, 44), as exemplified by six from the Minster site which have rim diameters ranging between 110mm and c220mm (Price 1995a, nos.1-6, 353-4, fig.141). There is also a variant of the deep bowl which has wider ribs, possibly associated with later first century manufacture (Colchester, 19), examples of which also appear to be represented in the *canabae*; large thick-walled and carelessly-finished bowls were also manufactured in the second half of the first century (Handbook, 44).

It is probable that the rim and body fragments 11 (Figure 3.1) and 16, and perhaps 14, are from the variant with wider ribs, and there would appear to be at least two further examples, from the Minster and the Blake Street sites (Price 1995a, no.1, 354, fig.141; Cool 1995, no.5851, 1562, fig.734), which have yielded a minimum of six and eleven bowls respectively, most of which are from late first, to early/mid-second, century contexts (Price 1995a, nos.1-6, 346, 353-4; fig.141; Cool 1995, nos.5845-90, 1562-3, 1650-1, fig.734).

3.1.2.2 As already noted, the polychrome body fragment 1 may have been an heirloom, and thus have arrived as personal luggage. It is not so unusual, however, to find these polychrome vessels represented in Flavian contexts on northern sites. There is, for example, a deep blue fragment with opaque white marbling from Newstead, and there are green fragments with opaque white speckles from Nether Denton and from Corbridge (Charlesworth 1959, 36). Charlesworth also cites examples from sites in Scotland which were outside the Roman Empire, at Tealing in Angus, and at Traprain Law (Charlesworth 1959, 36; cf Robertson 1970, 201, fig.1, table 4 facing 206).

Two further polychrome bowls are represented at York. One, unprovenanced, in mosaic glass, is dated generally by Harden to the first century (1962, no.H.G.203, 136), and one

in blue glass with white rods, from a military context, (AD 41-68), at the St Mary's Abbey site to the west of the fortress, is possibly of Claudio-Neronian date (Cool 1998a, no.1, 303, fig.2). There is also an unprovenanced fragment of green and yellow inlay (Harden 1962, no.H.G.168, 136).

3.1.2.3 A small number of the *canabae* fragments in monochrome represent two further cast forms. The bowl, 6 (Figure 3.1), in strongly coloured green glass, and probably an heirloom (*cf* above), has a rim which appears similar to the emerald green out-turned rim from Colchester (Colchester, no.198, 4, 33-5, fig.2.10).

3.1.2.4 The colourless rim fragments 7 and 9 are too small to be able to determine the exact rim form. It is possible, however, that the former is from an undecorated bowl with wide overhanging rim. Such bowls with this rim form and a foot ring, are found throughout the Empire (Grose 1991, 12, fig.2), and are known in various contexts in Britain dated between the last quarter of the first, to the third quarter of the second, century (Handbook, 56), and are seen as the most common of the colourless cast vessels in the late first to mid second century (Cool and Price 1993, 152). There is a rim fragment, for instance, from Wroxeter, associated with the late Neronian-Flavian fortress (Cool and Price forthcoming, no.30); there is one from a similarly dated context at Gloucester fortress (built cAD 64-6) (Charlesworth 1974, nos.4-5, 74-5, fig.29; Hassall and Rhodes 1974, 31); and there are two undecorated examples from a post-military context at Fishbourne, cAD 75-c100 (Harden and Price 1971, nos.4-5, 315, 332, 335, fig.138). There are also two from the Cramond fort of Antonine date (AD138-161) (Maxwell 1974, nos.6-7, 198, fig.16).

While no other fragments from this undecorated form are known from York, there is a rim fragment from the decorated variant in the Minster assemblage (Price 1995a, no.8, 346; *cf* Chapter 5).

3.1.2.5 The flat colourless base fragment, 8, from the *canabae* may also be from a cast bowl with this rim form, or, instead, from one with a wide lip on its out-turned rim, numerous examples of which have been found on sites of Roman Britain in Flavian to

early second century contexts including that of the Minster (Price 1995a, 347, no.10, 347, 356, fig.142), of Caerhun and Corbridge (Charlesworth 1959, no.4, 39-40, fig.3), and of Wroxeter (Cool and Price forthcoming, no.31).

There is also an unprovenanced rim and body fragment, from York, from this bowl form, which Harden dates generally to the second century (1962, no.H.G.218, 136, 138, fig.88).

3.1.3 Tableware: Beakers, Cups, and Bowls. First to Third Century

3.1.3.1 A small number of other vessel forms also known in the Flavian period, are represented in the *canabae* assemblage. These include the Hofheim cup, Isings Form 12, which is found in various bright colours, usually monochrome, as well as pale green, colourless/green-tinged and blue-green glass. The cup has a cracked off and ground rim, an almost straight, or a convex curved, body, often with horizontal wheel-cut lines, or abraded bands, and a concave base, or base with a central kick, the latter feature seen as possibly being largely associated with the post-mid first century form (Price 1995b, 159).

Well known in many parts of the Empire (Colchester, 65), it is the most common type of free-blown vessel on British sites from AD 43 up to the late Neronian/early Flavian period (Cool and Price forthcoming; Handbook, 72), and is found on a wide range of settlements including military sites (Price 1995b, 159). Thus by the time that the York fortress was being built one would therefore expect the cup to have been losing its popularity or to have been past its peak of production.

A minimum of 35 cups are represented in the assemblage from the Colchester Claudian fortress - the majority in blue-green glass, including four probable bases with the high central kick already discussed (Colchester, nos.259-60, 279-331, 58-9, 64-68, figs.4.1 and 5.2). Approximately 13 cups, almost all blue-green, are represented at the Neronian-Flavian Wroxeter fortress, and later civilian contexts including a possible base with a central kick (Cool and Price forthcoming, nos.279-223, 438 and 345). To date,

however, the largest known collection in Britain is recorded at the Neronian-Flavian fortress at Usk, which comprises approximately 44 cups, the majority of which are similarly in blue-green glass (Price 1995b, nos.37-45, 159).

The *canabae* fragments represent at least three cups: a yellow-green body fragment with a wheel-cut band, 180, a pale green body fragment with two wheel-cut grooves, 266 (Figure 3.1), and a blue-green base fragment, 331, with a concave base and a pronounced central kick (Figure 3.1). These, added to the minimum of five cups from Blake Street - one in emerald green, one in light yellow/brown glass, at least three light green cups, and possibly several more in blue-green glass (Cool 1995, nos.5895, 5898, 5914-16, 6030-4, and possibly nos.5917-19, 1563, 1656, fig.735), make a total of at least eight examples.

There is also a blue-green rim and body fragment from the St Mary's Abbey site, York (Cool 1998a, no.6, 303, fig.2).

For a cup which is seen as primarily of pre-Flavian date this large number for York is noteworthy. Indeed it is equivalent to the minimum number of cups from the Kingsholm Neronian fortress, (Price and Cool 1985, nos.21-23c, 41-5, figs.18-19, 49-50) and upholds Cool's suggestion of the cup possibly being more common at the beginning of the Flavian period than has previously been appreciated (1995, 1563). Further evidence to substantiate this may perhaps be found in the assemblage from Caerleon fortress, also established during the Flavian period (Zienkiewicz 1986a, 16), where there appear to be a minimum of seven examples in blue-green glass, including at least three (unpublished) noted by Price in relation to the Inchuthil glass vessels (Allen 1992, nos.4-5, 179; Zienkiewicz 1992, no.11, 5; Price 1985a, nos.37-8, 305; Price 1995c no.3, 82-3, fig.9).

3.1.3.2 The light green rim and body fragment, 259 (Figure 3.1), and the similarly coloured rim and body fragment 260, represent the wheel-cut beaker, Isings Form 29, which is contemporary with the Hofheim cup. It is likewise made in strong colours as well as pale green, colourless and blue-green, and, while having the same broad range of distribution, is apparently not known in such numbers. The form has a curved or vertical

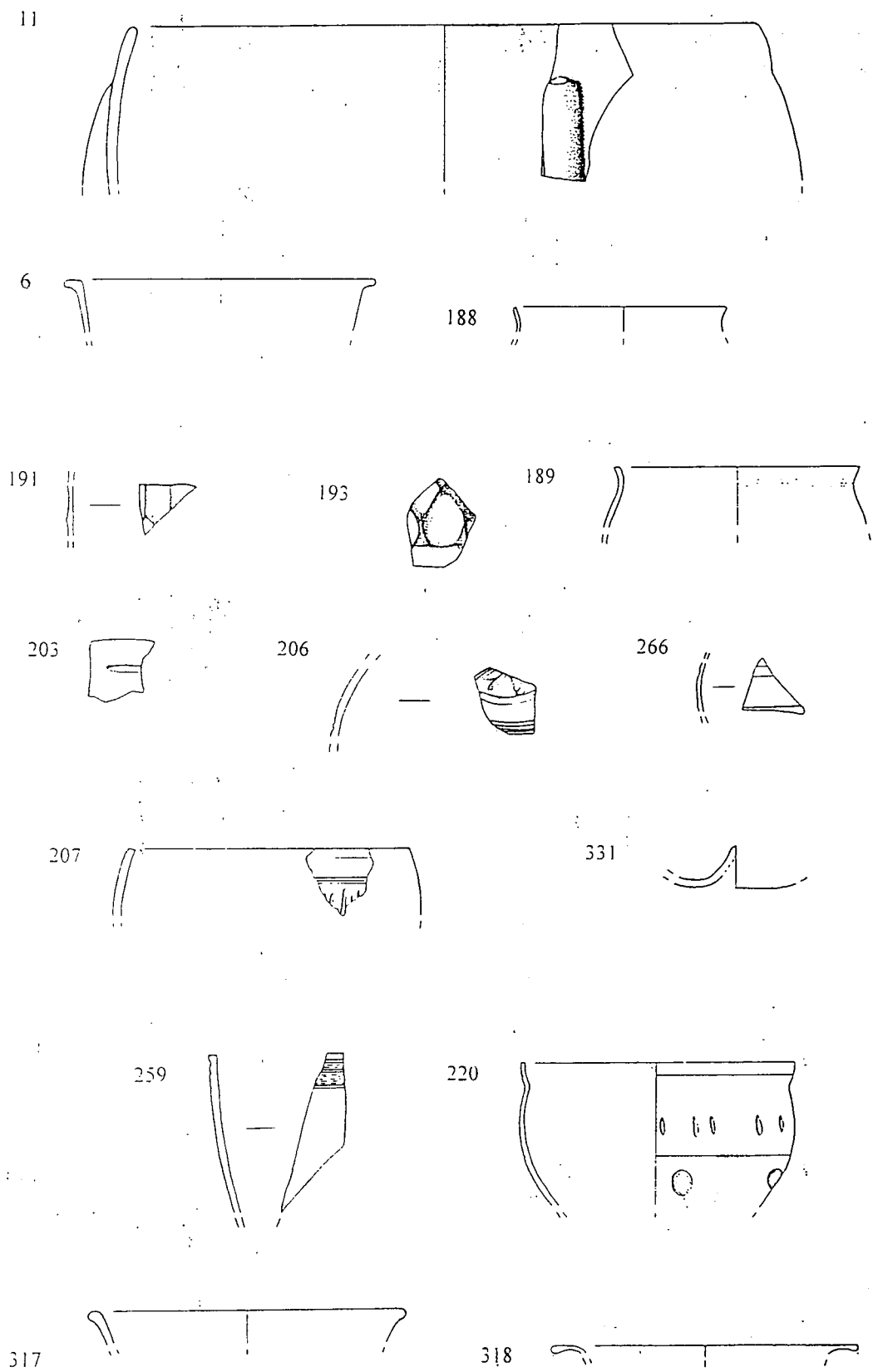


Figure 3.1 First to third century beaker, cup and bowl forms; scale 1:2

knocked-off and ground rim, and is decorated with horizontal wheel-cut lines and/or abraded bands. The body is slightly convex-curved, conical or cylindrical, and it has a small out-splayed, pushed-in tubular base ring and domed base (Colchester, 68).

The fragment, 260, has a curved rim form which appears to be similar to that in blue-green glass from Colchester (*op.cit*, 68) no.344, 69, fig.5.3). The fragment, 259, has a straight rim, a slightly convex-curved body with three wheel-cut grooves beneath the rim, inter-spaced by two abraded bands, and is similar in body form, though not in decoration, to the pale green/colourless beaker from a pre-Flavian context at Usk fortress. This latter example has a single wheel-cut line below the rim, and two pairs of wheel-cut grooves on the body - one on the upper and one on the lower area - and a small out-splayed folded, pushed-in, base ring and domed concave inner base (Price 1995b, no.46, 154, 162, fig.43). There is also a light green beaker from Greyhound Yard, Dorset, from a late first/early second century context, with a similar body form decorated with three single wheel-cut grooves, one below the rim, and one each on the middle and lower body (Cool and Price 1993, no.27, 151, 160-161, fig.85; Woodward 1993, 20).

Evidence also exists at a small number of sites for this variant in other colours, such as the blue-green body fragment from a Claudio-Neronian context at Sheepen, Colchester, which has a band of wheel-cut lines near the rim, one at the widest diameter of the body, and one lower down (Hawkes and Hull, 1947, 56; Harden 1947, no.77, 303, pl.38). A yellow-green rim and body fragment from a pre-Flavian context at Colchester fortress has with two narrow abraded bands on the upper body (Colchester, no.332, 6, 68-9, fig.5.3); and there is a yellow-green lower body fragment from a late Neronian context at Kingsholm fortress with seven horizontal abraded bands on the lower body, grouped as two and three and two single bands (Price and Cool 1985, no.32, 48-9, fig.18).

The only other wheel-cut beaker from York is represented at Blake Street, and, while in green-tinged colourless glass, it has the body form of 259, and is decorated with at least one wheel-cut line beneath the rim and probably two on the upper body; the base is domed and has an open pushed-in base ring (Cool 1995, no.5952, 1565, 1653, fig.736).

3.1.3.3 Another relatively common drinking vessel, the indented beaker, Isings Form 32, is represented at the *canabae* by the blue-green body fragment, 273. This is primarily a Flavian form, comparatively common on sites in Roman Britain, which may have continued into the second century (Colchester, 70). It was manufactured in a range of colours from yellow-green to pale/light green, blue-green and colourless and has a knocked-off and ground rim, beneath which is often found a wheel-cut or abraded band. Its body has four large indents; the base is shallow and concave or domed with a tubular pushed-in base ring (Colchester, 71; Cool and Price 1993, 151). A minimum of two of these beakers in colourless and blue-green glass are represented at Blake Street, including that of the uncommon very tall variant with wide indents and a concave base (Cool 1995, nos.5949-50 and 6040, 1571-2, 1653, 1656, fig.740), further examples of which are recorded in a late first century context at Doncaster (Buckland 1986, 17, fig.11).

3.1.3.4 The facet-cut beaker is represented at the *canabae* by the three body fragments, 190-1 and 193 (Figure 3.1), from a minimum of two vessels. This was the first drinking vessel always to be made in good quality colourless glass. It is commonly found, mostly on non-burial sites, and was manufactured during the last third of the first century, and into the early second century (Colchester, 71-2; Handbook, 81), or possibly the mid-second century (Cool 1995, 1567).

The form was first blown as a blank which was then partially ground away to produce the finished form including the decoration. It has a cracked-off and ground rim, a truncated conical body which is usually either tall or squat, and a low foot ring (Colchester, 71-2), as exemplified by the Barnwell, Cambridgeshire beaker dated to the second half of the first century, and the fragmented tall beaker from the Agricolan fort at Cardean, Carmarthenshire (Harden *et al.* 1987, no.104, 194-5; Wilson 1969, no.1, 202, pl.14).

The body fragments 190 and 193 both have curved facets: the former example is too small to be able to ascertain the repetition of the pattern; on the latter they are set in quincunx, and appear similar to two of the identifiable patterns on the beakers from the

late first century *vicus* at Castleford, Yorkshire (Cool and Price 1998, nos.133-4, 160, fig.55; Cool 1998b, 10), and fairly similar to those on the unprovenanced York fragment (Harden 1962, no.H.G.205.3, 138, fig.88). That the facets of 191 are straight-sided may make the decoration a design less usual than those with curved sides. There is a fairly similar example from the Parsonage Field site, Cirencester (Charlesworth 1971a, no.5, 84), with a thicker wall, which has facets of approximately the same width as that of 191. There are also two fragments 197, from the *canabae*, with part of one shallow rounded facet, from a facet-cut beaker or from a cup of similar date.

It is not possible to determine whether the *canabae* fragments represent those with or without a ridge below, and also often above, the decoration, Group 2 and Group 1 respectively (*cf* Oliver 1984, 36, figs.2 and 1). Both are identified within the Empire and beyond, with the former being slightly more common (Colchester, 72). The decoration on 191 however, appears very similar to that on the unprovenanced York fragment, which has a horizontal ridge beneath the facet cutting (Oliver 2).

The combination of the beaker fragments from the *canabae*, the York Minster, Blake Street and Swinegate fortress sites, from a minimum number of eight beakers (Price 1995a, nos.20-21, 348, 356, fig.142; Cool 1995, nos.5928-30 and 6442-6446, 1566, 1577, 1609, figs.737 and 765), offers a sample of six different types of facet-cut decoration. Two of the *canabae* fragments, together with one of the body fragments from Blake Street (Cool 1995, no.5929, fig.737) and the unprovenanced fragment, provide examples of the more regular facet-cutting, such as is found at Castleford, for instance (*cf* below), and Fishbourne villa (Harden and Price 1971, nos.42-4, 317, 343, fig.139). It is also apparent that the York collection of beakers, which includes the unprovenanced fragment, is only rivalled numerically in Britain by that at Castleford, which comprises a minimum number of twelve beakers (Cool and Price 1998, nos.105-6, 112-13, 116, 133-9 and 140-3, 145-6, 160, 163, fig.55-6).

3.1.3.5 A minimum of four tubular-rimmed bowls are represented in the *canabae* assemblage by the rim fragments 185, in olive green glass, 186, in dark green glass, 315-16a, in blue-green glass; the dark green rim fragment 187 may represent a fifth bowl.

The bowls, as discussed by Cool and Price (Colchester, 94-5), were manufactured in a number of colours, ranging from the early first century strong colours of deep blue, emerald green and yellow-brown, to the later colours of yellow-green, pale green and blue-green; those in the greenish colourless glass are rare. A few of the strongly-coloured bowls are found decorated with opaque white marvered blobs. The most usual rim form for these bowls, which is exemplified by the *canabae* fragments, is one that is bent outwards and down to produce the hollow tube or collar. The body can be either shallow or deep, Isings Forms 44 and 45 respectively, and is often cylindrical, with either a carination, or having a more smoothly-rounded change of angle to the lower body. On occasion the body is found decorated with vertical or diagonal ribs; the base usually has an applied true base ring or applied pad base. These are early bowls which become more numerous by the mid-first century AD, and from then until the mid-second century they are very common; they went out of use during the second half of that century.

A minimum of eight of these bowls, mostly in blue-green are represented at Usk fortress (Price 1995b, nos.58-67, 165-9, fig.44). Only two are represented at Gloucester fortress, one yellow-brown with optic blown ribs, and one in blue-green glass (Price and Cool 1986, no.24, 51, 53, fig.26; Price 1983a, no.7, 169, fig.98); there are only two possible bowls from the pre-Flavian fortress at Exeter (Charlesworth 1979, nos.23-4, 227; Holbrook and Bidwell 1991, 3) and none is recorded from the Caerleon sites. By comparison the bowls are well represented in the *canabae*, and there is a further example represented at the Minster site by the blue-green rim fragment, which has a ?tubular edge rolled up and in, and is possibly from a late first or second century bowl, as exemplified by the blue-green fragment from Canterbury which has a carinated body and tubular pushed-in base ring (Price 1995a, no.64, 351, 362, 364, fig.144; Charlesworth and Price 1987, no.16, 221, 223, fig.88).

3.1.3.6 A number of bowls, and variants, with wide, out-turned fire-rounded, rims, manufactured in blue-green, yellow-brown and the colourless/green or colourless glass, are represented in first and second, and also third, century contexts, both on the continent and in Britain (Colchester, 99-100, 103). The rim variants include those exemplified by the majority of the Colchester bowl rims, which have horizontal out-

turned rims and a rib on the underside (Colchester, nos.695-8, 99); and by the Hauxton bowls which have the out-turned, almost horizontal, rim and the rib noted above, and pushed-in tubular base rings (Harden 1958, nos.(a)-(b), 13, fig.7). The bowls, which are also found with trailed decoration, are known to have either the base rings noted above, small base rings, or concave bases, such as the example from Brougham (Colchester, 99; Cool 1990, no.7, 171, fig.2).

Four bowls with fire-rounded rims are represented in the *canabae* by two light green fragments, 264, with a body sloping inwards from the rim mouth; and 265 with out-turned rim; and in two blue-green glass, 318 (Figure 3.1), with a slightly inturned rim; and 317 (Figure 3.1), with an out-turned rim similar to the yellow/green example from Colchester (Colchester, no.713, 103-4, fig.6.7). There are three further blue-green rim fragments, 321, with an out-splayed rim, and 322-3 with out-turned rims, from either bowls or jars.

3.1.3.7 From the end of the first, to the later second, century a range of colourless biconical or cylindrical wheel-cut beakers/cups were on the market, which generally have a curved cracked-off and ground rim, horizontal wheel-cut decoration on the body, and a concave base or separately blown foot (Colchester, 79). A number of these, as represented at Fishbourne for example, have rims which taper inwards into upper bodies and then expand outwards into convex curved bodies (Harden and Price 1971, nos.55 and 57-60, 347-8, fig.140). The four examples from Verulamium include a vessel with a rim curving into an almost vertical body, which has a sharp carination tapering into a small outsplayed foot, and one with a carination on the lower body, and a concave base (Charlesworth 1972, nos.43-6, 207-8, fig.77). The three examples represented at Felmongers, Harlow, in a late second century context, have biconical bodies, and one has a conical foot (Price 1987, nos.8-10, 185, 189-91, 203, fig.2).

The vessels are represented in the *canabae* by a curved rim fragment, 188 (Figure 3.1). Two further fragments may also be from such forms: 189 (Figure 3.1), has a faint abrasion beneath the rim; and the body fragment 192 is decorated with at least five wheel-cut lines. Of the four vessels represented at the Minster site, two have rims

curving into convex-curved upper bodies (Price 1995a, nos.27-30, 349, 359, fig.143). Blake Street site has a minimum of six, two of which have cylindrical, two conical, bodies, one is ovoid, and one has a carinated form (Cool 1995, nos.5953-9, 1572-3, fig.740). There may also be further examples from Blake Street, four of which are from contexts dated between cAD 71/79 and c100 (Cool 1995, nos.5960-77, 1573, 1654).

The range of beakers/scups, found in both domestic and military contexts, is seen as constituting the most common forms of drinking vessel in use in the early and middle part of the second century in Britain (Colchester, 79), and while there is only one fragment firmly identifiable from the *canabae*, it is worth noting that their general scarcity on sites is seen to be due to the problem of identifying them from small fragments (Colchester, 80). This may be pertinent to York and particularly to the *canabae* since there are a minimum of 30 vessels represented in the Castleford fort and *vicus* assemblage (Cool and Price 1998, nos. 94, 99-100, 102-3, 108, 114, 160-64, 167-72 and 176-9, 141, 146-7, 159, 161, 16-5, figs.56-7), which lies only c28 kilometres to the south-west, on Ermine Street.

3.1.3.8 At least two of the *canabae* fragments, 222, and 242 with one wheel-cut line, represent a globular/ovoid-bodied, sometimes thin walled, cup, usually colourless, of mid- to later second century date. The form has an out-turned rim, cracked-off and ground, sometimes with a constriction above the wide body and a concave base, or, on occasion, a separately blown foot. The rim and body are found decorated with single or groups of horizontal wheel-cut or abraded lines (Handbook, 96-7). The form is quite commonly found (Handbook, 96), and examples include those from Fishbourne, Felmongers and Castleford in the assemblages noted above (Harden and Price 1971, no.56, 347-8, fig.140; Price 1987, no.14, 190, 203, fig.2; Cool and Price 1998, nos.165-6, 163-4, fig.56).

3.1.3.9 From the second century to the later third century, cut facets were used to decorate a variety of colourless vessels especially cups and bowls, although, contrary to the methods used on the facet-cut beakers, this did not necessitate the grinding away of the whole surface of the blank. The decoration, which often comprises horizontal zones

or bands of facets and wheel-cut lines, is widely found on hemispherical cups/bowls, Isings Form 96, with examples being known in Britain and in other western provinces as well as in Italy and in the Eastern Empire (Colchester, 76-7).

At least four examples of vessels with this decoration are represented in the *canabae* by the bowl rims 203, 205-6 (Figure 3.1), and by the cup rim and body fragment 220 (Figure 3.1). Both 203 and 205, have a rice-grain facet parallel to the rim, which may be part of a decoration similar to that on a third century vessel from Shakenoak villa, which has horizontal oval facets above an all-over pattern of wide and narrow vertical oval facets in quincunx (Harden 1971, no.94, 101, 103, fig.44.43). The extant rim fragment 206 has a more elaborate design, comprising two wheel-cut lines beneath the rim, below which are two ?circular wheel-cuts. While there appears to be no parallel to this, it is also possible that it may instead exemplify a more complex form of decoration, datable to the mid-second to the early fourth century, in which geometric designs are grouped into panelled and arcaded patterns (Colchester, 77; Charlesworth 1972, 96, 208; Allen 1988, 292). This type of decoration is found on a body fragment at the Minster site (Price 1995a, no.24, 349, 359, fig.143), and possibly on a base fragment from Blake Street (Cool 1995, no.6013, 1577-8, fig.744). It is also found on two fragments from the Railway cemetery, and on an unprovenanced vessel (Harden 1962, nos.H.G.162 , 210-211, 137-8, fig.88).

The fragment 220 has two wheel-cut lines, one beneath the rim, and one beneath the first of two bands of decoration, the upper band comprising pairs of slender vertical rice-grain facets of slightly varying sizes, the lower being single circles set at irregular intervals in relation to the above. This is fairly similar to the decoration on two examples from Caistor-on-Sea Saxon Shore fort, which are possibly part of a set and dated by their zoned decoration to the third century (Price and Cool 1993, nos.4-5, 141-2, fig.129, 148). For near parallels to the *canabae* example, however, it would appear that one would have to look to Reims in Gaul (Morin-Jean 1913, 234, 236, fig.319), or to Conimbriga in Portugal (Alarcão 1965, no.84, 67, est.3), the latter possibly being the closer.

There are further rim and body fragments, 207 (Figure 3.1), from a bowl or a cup, with vertical rice-grain facet-cuts of irregular height beneath a single wheel-cut line, followed by three further lines. The density of this rice-grain decoration is similar to that on the Colchester rim and body fragment, which has narrow closely-set rice-grain facets of varying heights (Colchester, no.412, 78, fig.5.8). There is also a rim fragment, 204 (Figure 3.2), with two wheel-cut lines below the rim and three faint abraded lines on the convex curve of the upper body, which may be from the less decorative variant, as exemplified by the two bowls from burial 23 from Skeleton Green (Charlesworth 1981, nos.2a-b, 268, 270, fig.105). There are two further fragments from York. One is a body fragment from the Minster site which is decorated with two horizontal rice-grain cuts (Price 1995a, no.25, 349, 356, fig.143). A second from the Railway cemetery, which is dated by Harden to the third century, is a rim, body and base fragment, decorated with horizontal wheel-cut lines and three bands of facets: one, on the upper body, of vertical rice-grain cuts; one, on the lower body, of vertical ovals; and one, on the curve into the base, of horizontal ovals (1962, no.H.G.205.1, 137-8, fig.88).

3.1.3.10 Similarly to the general pattern at many other sites, the cylindrical cup, Isings Form 85a, is well represented in the *canabae* assemblage, where there are rim and base fragments, 208-219, 221, 223-6, 228-9, 230 (Figure 3.2), 231, 232 (Figure 3.2), 239-241, 243-4, 246 (Figure 3.2), 247, 249, 250 (Figure 3.2), 251-2, 267, 324-330 (Figure 3.2), in colourless, light green and blue-green from a minimum of 32 vessels, which constitute 73% of the cups in the earlier assemblage. The colourless base fragment with trailed foot ring, 198 (Figure 3.2), is a possible variant, as exemplified by the cup fragment from Colchester (Colchester, no.529, 84-5, fig.5.12).

The cup was generally made in colourless glass, and, as noted above, is also found in blue-green, and sometimes pale greenish colourless, glass. It has a vertical, or very slightly in-turned, fire-rounded rim, an angular carination to a wide lower body, and a tubular, or closed, base ring with a central circular trail. It is sometimes found decorated, with horizontal trails around the rim and on the lower body, as exemplified by a bowl from a burial at Baldock and at least three in colourless, and one in pale greenish

colourless, glass from Lullingstone (Colchester, 82; Westell 1931, no.4828, 276, fig.6; Cool and Price 1987, nos.346-347, 368, 112, 128, 133, figs.54-5).

Occasionally it is found with the trailed foot ring noted above. Very occasionally it is found painted, or with wheel-cut scenes, an example of which is found on a rim and body fragment from the Bishophill *colonia* site with figure, architecture and flora details and the letters](?)LMP[(Charlesworth 1978 no.169, 55-56, 62, fig.30). The vessel was widespread in the north-west provinces, was in use towards the end of the third quarter of the second century, and was the dominant drinking vessel during the later second and early third century, which may have continued in production until the mid third century (Price 1995a, 350; Cool 1995, 1574-5; Colchester, 82-3). The form is found in a range of sizes, and a number of the cups from the *canabae* and fortress have proved no exception (*cf* Chapter 6).

The majority of the *canabae* cup fragments are colourless; and, excepting the light green base ring 267, the remainder are blue-green. Only one body fragment, 244, has the trailed decoration noted above. The form is also represented in three of the fortress assemblages: six cups are represented at the Minster site, in colourless glass, two of which have trailed decoration, and one of which has a base with an inner trailed ring (Price 1995a, nos. 49-54, 350, 362, fig.144); there are seven at Blake Street in colourless glass, with one having trailed decoration (Cool 1995, nos.5983-8, 5990-4, and possibly 5989, 1574-5, 1654-5, fig.742); at least six colourless and one pale green examples are represented in the Church Street sewer (Appendix B(ii), nos.12-17, and 24); and there are also fragments from at least one unprovenanced example (Harden 1962, nos.b and 202.6, 137-8, fig.88).

3.1.3.11 The *canabae* also has a colourless rim fragment, 227 (Figure 3.2), of the less common ovoid drinking cup, which was in use at the same time as, or a little later than, the cylindrical cups and has an out-turned fire-rounded rim and thick base. A further example of the rim is known from the King Harry Lane site, Verulamium (Price 1989, no.280, 41, 48, fig.26).

There are five other fragments of this form from York. Two from the Minster site comprise a colourless rim with two bands of wheel-cut lines and a bubbly greenish colourless lower body and base, (Price 1995a, nos.31 and 60, 349, 350-1, 359, 362-3, figs.143-4); there is a colourless lower body and base from the Church Street sewer (*cf* Chapter 4; Appendix B(ii) no.18); there are two from the *colonia*, at the General Accident site (*cf* Price 1995a, 349) and a greenish base from Bishophill (Charlesworth 1978, no.177, 55, 57, fig.30).

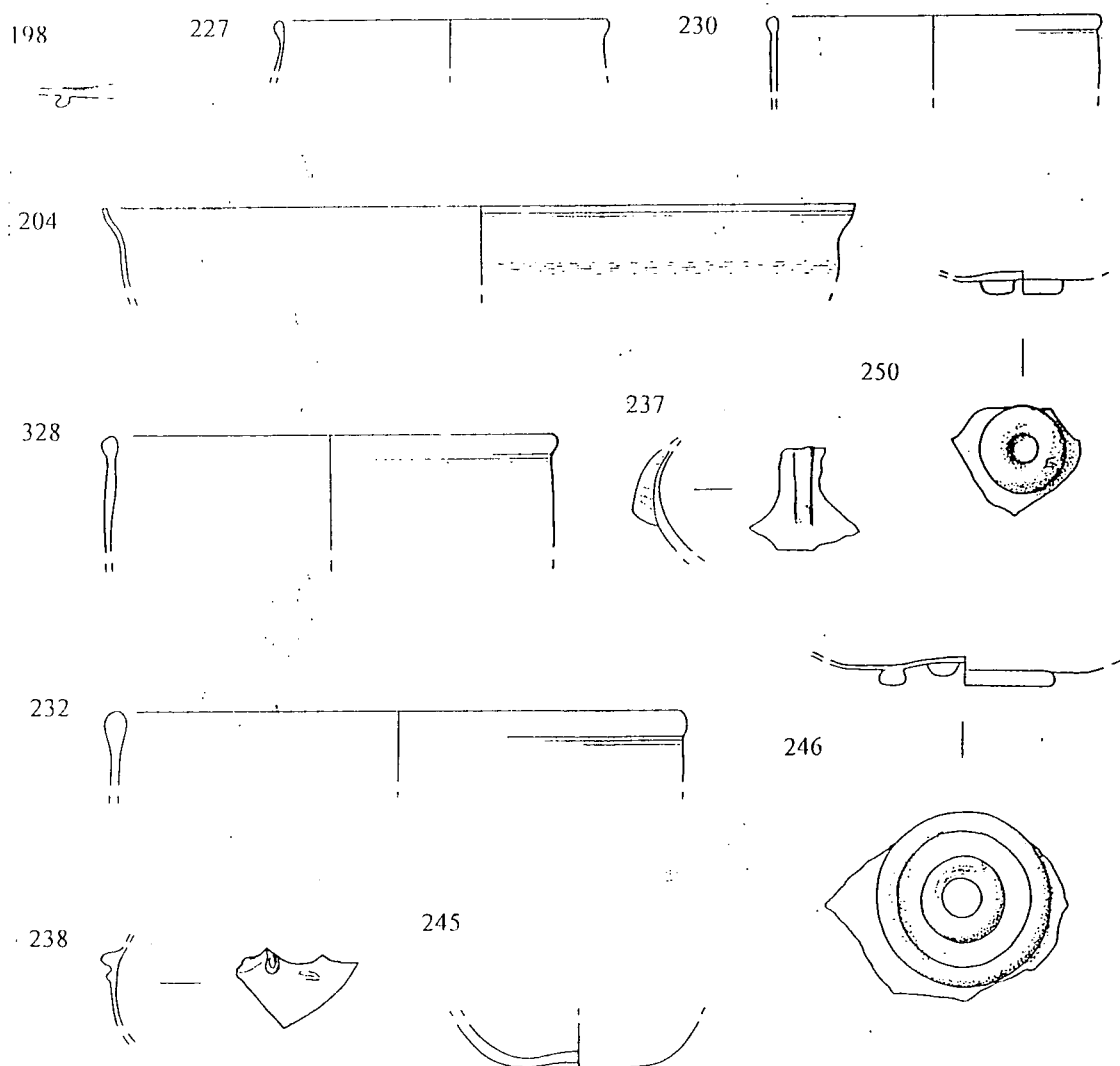


Figure 3.2 Second to third century beaker, cup, and bowl forms; scale 1:2

3.1.3.12 The colourless body fragments, 4 and 5 (Figure 3.3), decorated with snake thread may be from the stemmed beaker or flask, Isings Forms 86 and 93, which, while fairly contemporary with the cylindrical cup, are not very common (Colchester, 85).

Both these forms, are discussed in connection with the fragments from the fortress sites (*cf* Chapter 4).

3.1.3.13 The *canabae* has several fragments from the colourless or colourless/green-tinged hemispherical cup with fire-rounded, out-turned, rim, which was in use during the third century (Colchester, 86), and would thus have been a new form when the cylindrical cup was going out of production. It has a concave, sometimes thick, base, and a body which is either plain or decorated with lightly abraded horizontal bands on the upper body and pinched-up and tooled ribs, lugs and/or knobs on the lower body. While the decorated variant may sometimes be associated with late second century contexts, the cup is seen as primarily a third century form (Cool 1990, 170-71). There is also a beaker form similarly decorated, which is rarely found in the British province (Colchester, 86).

The cup is seen as the most common drinking vessel of the mid- to late third century, and a sample of assemblages from those cited by Cool and Price (Colchester, 86-7) suggests that it is not unusual for several to be recorded at any one site. There are, for instance, four fragments from the Brougham burial contexts (Cool 1990, nos.1-4, 169-70, fig.1); and four from Culver Street, Colchester (Colchester, 87, nos.544-7, fig.5.14). They are also found singly, such as at Greyhound Yard, Dorchester (Cool and Price, 1993, no.71, 162-3, fig.86), and Aldborough, Yorkshire (Charlesworth 1971b, fig.20.4, 69), and it is worth noting Cool's comment that the scarcity of these hemispherical cups could be due to the problem of recognising the body fragments of the undecorated form (1990, 172)

The three *canabae* body fragments, the colourless body fragments 236-236(b) and 238 (Figure 3.2), and the colourless/green-tinged 237 (Figure 3.2), are decorated either with pinched-up lugs or trails, and are probably from hemispherical cups, rather than from the rare beaker. There is also one colourless lower body and base fragment, 245 (Figure 3.2), which has a simple concave base similar to the cups from the Brougham site (Cool 1990, nos.2-4, 169, fig.1). At least one is represented at Blake Street (Cool, 1995, no.6001, 1574-5, fig.742); and there is a plain cup from the General Accident *colonia* site (Colchester, 87) bringing the minimum number to six. A similar undecorated

fragmented example is also known from the Vindolanda fort, Chesterholm (Price 1985b, no.7, 207, 209, fig.77).

3.1.3.14 Trailed decoration is known on a number of vessel forms, many of which are discussed in this chapter. These include: the later first century arcaded beaker; jars with fire-rounded rims (Colchester, 71, 114); the cylindrical cup Isings Form 85b (*cf* above); the first century flask, Isings Form 28a, an example of which is possibly represented in the Minster assemblage (Price 1995a no.15, 348, fig.142, 356); the first to third century bath flask as exemplified by the fragments from the Caerleon legionary bath drains (*cf* Chapter 4); spouted jugs (*cf* below); funnel-mouthed jugs of the second to fourth century (Colchester, 34); and fourth century hemispherical cups (Colchester, 89).

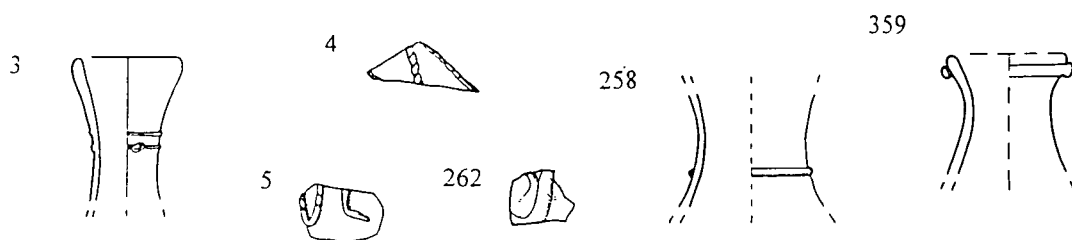


Figure 3.3 Fragments from the early period with trailed decoration; scale 1:2

There are various fragments with trailed decoration, from the *canabae*, however, which cannot be firmly ascribed to specific forms such as the light green body 262 (Figure 3.3), with two self-coloured overlapping unmarvered trails probably from a jug or a beaker; the blue-green jug rim and neck 359 (Figure 3.3), with a self-coloured trail beneath the rim; the colourless body fragment, 454, with self-coloured marvered trail which may be from a flask; the colourless/green-tinged body fragment, 258 (Figure 3.3), and the blue-green shoulder fragment, 350, both with a self-coloured trail, which may be from flasks or jugs; and small rim and neck fragment, 3 (Figure 3.3) from a yellow flask with two unmarvered blue-trails.

3.1.4 Tableware: Beakers, Bowls, and Cups. Late Third and Fourth Century

3.1.4.1 The most common drinking vessels of the fourth century, in Britain and on the continent, are the hemispherical cup and the truncated conical beaker which were usually made in the yellowish-green or greenish-colourless glass of the period. Both appear to have been developed in the last years of the third, and were in use throughout the fourth, century, and are seen to dominate the drinking vessel assemblage in much the same way in which the cylindrical cups dominated the later second and early third century drinking vessel assemblage (Colchester, 90).

These two forms have certain characteristics in common, as discussed by Cool and Price (Colchester, 88-90): both have flattened bases, and straight or curved cracked-off rims which are mostly unground and sometimes lightly smoothed on a wheel. On occasion when the rims are found to have been ground, it is usually on vessels which are made in better quality glass. Some variants have slightly convex sides which taper in, and the body of the hemispherical cup may curve abruptly, rather than smoothly, into the base. Both forms are found decorated with abrasion and, less often, horizontal wheel-cut lines associated with better quality glass, or trails or blobs. Vessels with the latter decoration were probably imported from the Rhineland and Gaul (Price 1979, 40).

Far more uncommon are the cups and beakers with more complex decoration such as the mould-blown honey comb design, as exemplified by the body fragments of cups from the Church Street sewer and the Minster (*cf* Chapter 4), or the wheel-cut and abraded figured scenes, again in good-quality glass, which are also represented in the *canabae* (*cf* below), and which are also seen as imports, many of which are from Köln or elsewhere in the Rhineland (*cf* Cool and Price 1987, 113-8; Harden 1960 77, fig.38).

A number of vessels, many in good quality colourless glass, are represented in the *canabae* by the body fragment 2, the rim and body fragments, 367-379 (Figure 3.4), 388-9, 394-401 (Figure 3.4), and probably 391, from at least six conical beakers, two hemispherical cups, and three vessels which are of either form. There are also two colourless/green-tinged fragments which are decorated with trails and blobs: the body

fragment, 2, has two blue applied blobs, and the body fragment 389 (Figure 3.4), has an unmarvered self-coloured trail

There would appear to be at least three beakers, one beaker/cup and one bowl/cup represented at the Minster site in yellow-green to green-colourless glass (Price 1995a, nos.35-9, 349, 359-360, fig.143), and another possible fragment from the Minster site, from a hemispherical cup which is decorated with a pinched spectacle trail (Price 1995a, no.46, 350, 362, fig.144). Blake Street has seven conical beakers, one hemispherical cup, and seven of either, one in blue-green, the remainder in greenish-colourless, glass - one of which is decorated with two emerald green blobs (Cool 1995, nos.6043-5, 6185 and 6187-6212, 1576-7, 1656, 1659, fig.744). There is a further rim fragment from Blake Street which may also be from a conical beaker (Cool 1995, no.6202, 1577, 1659-60, figure 744);

The two mould-blown variants of the hemispherical cup, represented in the fortress assemblages have already been noted.

While certain sites seem to have a bias in favour of one or the other of the blown forms (Price and Cool 1993, 149), approximately half of the *canabae* fragments may be from either, and it is therefore not possible to suggest a ratio. It is noteworthy, however, that, according to the available rim dimensions, a number of the *canabae* beakers may be larger, or wider than the average, and the fragments appear to be from the better quality vessels. Furthermore, while only three of the rims from the fortress are ground smooth, all the *canabae* rims are ground - and of these one, 372, has a very well finished rim.

There is also a rim fragment 380, from a beaker, cup or bowl which has four wheel-cuts and abraded bands.

3.1.4.2 A number of the body fragments have decoration which is associated with the far less common figured-cut scenes which decorate a small number of beakers, cups, and bowls, and which, while found in burials on the continent, are found in Britain on both urban and rural settlement sites (Handbook, 36).

There are three distinct styles and techniques of this type of decoration, as discussed by Price and Cottam (Handbook, 36-7). In the first, massed shallow wheel-cuts are used to create figures and features, while the details, such as the hair and eyes, are made with

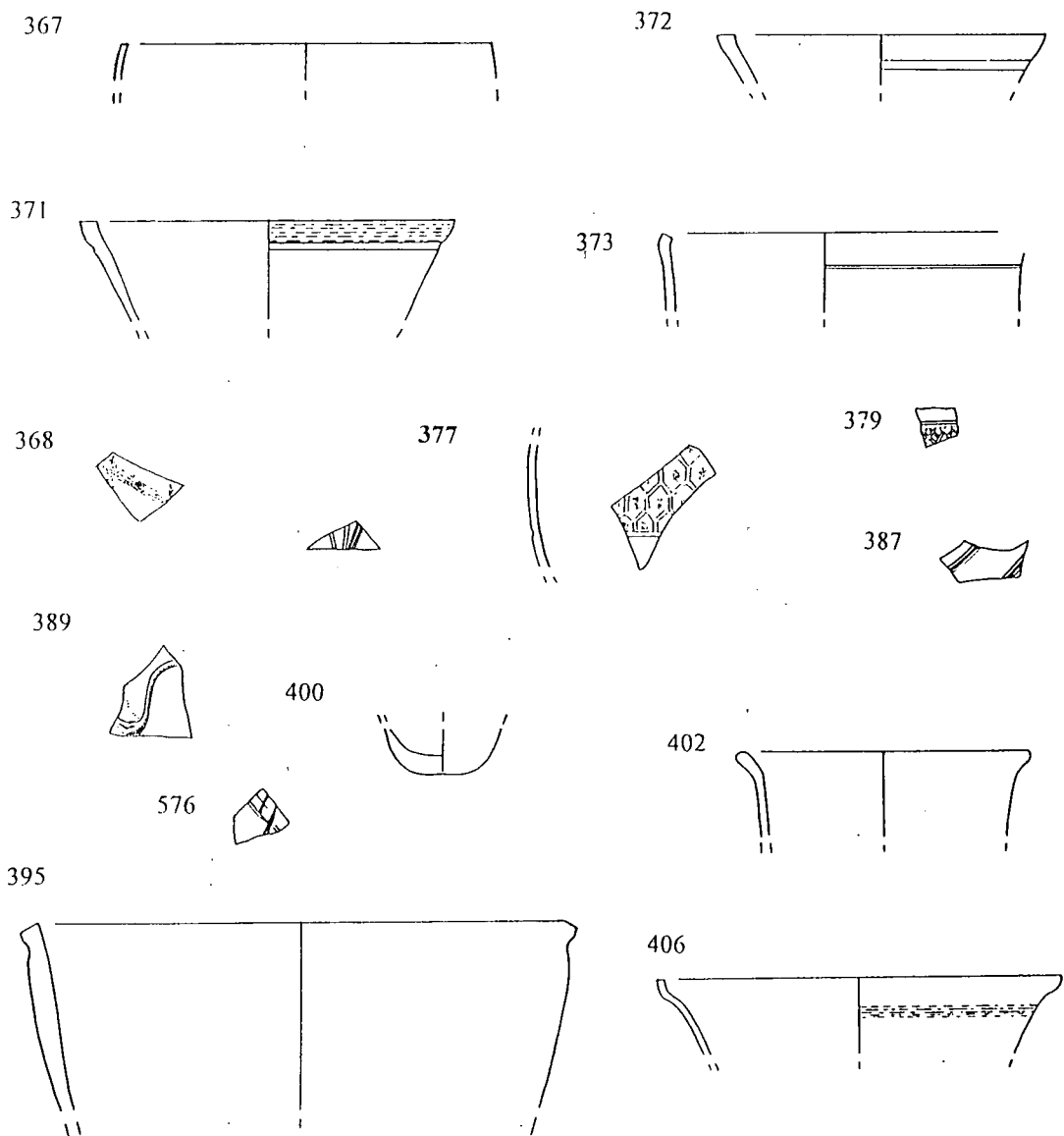


Figure 3.4 *Beaker, cup, and bowl forms of the late period; scale 1:2*

short narrower wheel-cuts. The themes include biblical scenes, dancing figures, human busts and figures within a circular frame. Examples depicting biblical scenes, for instance, are found on two green-tinged colourless hemispherical bowls from Lullingstone villa. On one the scene includes two figures separated by a tree with

forking branches; the figure on the left wears an ankle-length garment and holds a staff in the crook of the right arm. On the second the decoration represents drapery and a rock or trees. Both bowls have an eight-rayed star on their bases (Cool and Price 1987, no.338-9, 114-6, 128-30, fig.54).

An example of the second theme - of dancing figures - can be found on a colourless slightly green-tinged rim and body fragment from a conical beaker from the Frocester Court villa, in which four human figures face left, wearing straight tunics and carrying in each hand three wand-like objects, one with a plumed head, one with a long pointed head and one a plain stick (Price 1979, no.4, 38, 41, fig.16).

This style appears to have been used to decorate a conical beaker, represented by a light green fragment, 368 (Figure 3.4), from the *canabae* assemblage, on which the positioning of the three bands is similar to those forming the necks and shoulders of these latter figures. There is also a pale greenish colourless fragment from a hemispherical bowl from the Minster, which is decorated in the first style: it has a narrow horizontal abraded band, obscured by areas of pecking or abrasion, perhaps representing parts of an arm, body and legs of a human figure (Price 1995a, no.19, 348, 356-7, fig.142). The eight-rayed star design is also found on a colourless body fragment from the Bishophill *colonia* site (Charlesworth 1978, no.171, 55-6, fig.30).

The second style of decoration, which is found on beakers and bowl, comprises a combination of buffed areas, and sharp wheel-cut lines to depict a range of scenes including those of pagan cults, the circus, and hunting, and is characterised by the use of short wheel cuts to produce lozenge-shaped eyes on the human figures. The most complete example of the style is found on the greenish-colourless hemispherical bowl from Colliton Park, Dorchester, Dorset, in which two satyrs and three mænads are dancing, with musical instruments, in what is seen as a Bacchic dance (Harden 1969, 65, fig.8; Harden *et al*, 1987, 231).

The remaining linear decorations on the *canabae* fragments include the non-parallel wheel-cut lines on the colourless body fragment, 387 (Figure 3.4), from a bowl or plate;

those on a colourless green-tinged body fragment 374 (Figure 3.4), from a conical beaker or hemispherical cup; and the crossing lines on the very small colourless body fragment, 576 (Figure 3.4); and it is possible that they are all from vessels decorated in the second style. All these line formations, for instance can be found in the details on the greenish colourless shallow convex bowl from a burial at Köln-Braunsfeld. This has a circus theme, which includes four four-horse chariots, and drivers holding the reins in their left hands, two of whom look forward, and two look back; the background detail includes three *metae* as turning posts, and obelisks; and there is a central medallion in the form of a male bust in profile with a lozenge-shaped eye, and twelve radiate lines round the head (Harden *et al*, 1987, no.117, 210-11).

The detail of the regularly-crossed lines adjacent to a wheel-cut line on the colourless fragment 379 (Figure 3.4) of a conical beaker or hemispherical cup, are similar to those on a lower border of a scene on a greenish-colourless conical beaker from ?Bonn, decorated in the second style. The scene comprises four armed soldiers, with lozenge-shaped eyes, carrying oval shields and standing between four military standards. The upper border comprises a wheel-cut line, beneath the rim, and a wave-pattern between two wheel-cut lines; the lower border comprises the crossed lines noted above between two horizontal wheel-cut lines (Harden *et al*, 1987, no.131, 234).

There are two possible examples from the fortress which represent the second style of decoration. The first, from the Minster site is from a pale greenish colourless hemispherical bowl, with what may be a faint horizontal abraded band partially obscured by two lines of short joined wheel-cuts outlining an area (perhaps of a human limb) which is dulled by very fine wheel-marks; there is also another short-wheel-cut, and a facet (Price 1995a, no.19, 348, 356-7, fig.142). The second from Blake Street, is a rim fragment from a yellow-tinged colourless cup or a shallow convex bowl with a figured-cut design, in which the extant details comprises three wheel-cut lines below the rim with an abraded line beneath, below which are six short diagonal lines arranged in a vertical row (Cool 1995, no.6186, 1577-8, 1659, fig.744).

The third style is found on shallow convex bowls and a few cups, and comprises free-hand incisions, of short and long lines, made with a burin to depict biblical or pagan or hunting scenes. The features and figures are often outlined by single lines, with short lines aligned diagonally against one edge, the most complete example is that on the Winthill bowl from Banwell, Somerset (Harden 1960, no.46, 45-fig.2).

It is less easy to suggest similarities for the detail on the remaining colourless green-tinged, and light green fragments, 376-8 (Figure 3.4), from two conical beakers or hemispherical cups which have a regular honey-comb design with abrasion within each cell, which, on one fragment, terminates in a wheel-cut band. Indeed there appear to be only two examples elsewhere of details of hexagons and none of the cells has the central abrasion. The first is on a greenish-colourless rim and body fragment of a dish, from the *Forum Romanum*, Rome, which is decorated with a wheel-cut and engraved figured-scene in which three figures - with oval eyes - are depicted in front of a temple-like scene, with three columns of a building which have schematic Corinthian capitals, and a pediment on which there are three winged Victories. Beside one of the figures is a horse's head, and behind this is a loose pattern of a honey-comb/hexagons (Harden *et al.* 1987, no.124, 223-4), each cell of which appears to be defined by either two or three sets of lines.

In a second example, on a greenish plate fragment, the hexagons, each defined by two lines, are spaced apart in a single diagonal line, in a design which is part of a medallion on a tunic, embroidered with a hunting scene, which clothes a human figure (Oliver 1975, 68-70).

3.1.4.3 Two other vessel forms common to the fourth century, albeit not in such numbers as the beakers and cups, are the shallow convex bowl, Isings Form 116, and the convex bowl with indents, Isings Form 117. The former is found in the colourless, greenish-colourless, pale green or yellow/green, glass, the latter in the greenish-colourless, pale green, or yellow-green, glass, of the late period (Handbook, 124, 128).

The shallow convex bowl, often described as a segmental bowl, which is known to have been in use throughout the fourth century (Cool 1995, 1578), has a curved or inturned cracked-off rim which is either unworked or lightly smoothed, and a wide shallow convex body tapering into a convex base. It is often found decorated with horizontal bands of abrasions; less common decoration includes wheel- and facet-cutting, and free-hand incised and abraded designs (Handbook, 124), as noted above.

The convex bowl with indents, often described as a truncated conical bowl, was in use in the second half of the fourth century, and is also known in fifth century contexts. Fragments are quite often found in fourth century contexts in the north-west provinces, and in Britain are found at a number of different types of sites mainly in the south, including those of villas, such as Frocester Court, Barnsley Park, Gloucestershire and Shakenoak, Oxfordshire (Handbook, 128-9). The form has a curved cracked off rim, which is left unworked, a small concave base and a slightly convex body which is decorated with oval indents, and, in common with the former bowl, is often found with abraded lines below the rim (Handbook, 128).

A minimum of seven of these vessels are represented in the *canabae*. The colourless/green-tinged rim fragment, 384, is from a shallow convex bowl; the light green body and base fragment, 386, is from an indented bowl; five dark-green rim fragments, 404-8 (Figure 3.4), and possibly the light green rim fragment, 385, are from either form.

There are five indented convex bowls represented at the Minster site: four in pale green glass with a faint abraded band beneath the rim, and one in yellow-green glass, all with rims cracked-off and left unground (Price 1995a, nos.40-41, 349, 359-61, fig.143). There are fragments from a minimum of two of these bowls and at least four indented or shallow convex bowls from Blake Street, all but one are in light greenish-colourless bubbly glass, the exception is yellow-green (Cool 1995, nos.6213-4, 6220-6, 1578), bringing the combined minimum numbers for York to eighteen.

From the evidence available, as cited by Price and Cottam (Handbook, 124, 126, 128-9), it would appear that the majority of the sites elsewhere have between one and three examples of either of these vessels, and only Colchester, with three shallow convex bowls and six indented bowls (Colchester, nos.720-31, 104-5, figs.6.7-8), and Shakenoak villa, with seven shallow convex bowls and two indented bowls (Harden 1968b, nos.24 and 27, 77-9, fig.26 (no.9); 1973, nos.209-213 and 220, 101-3, fig.52), exceed the average. To date, however, there is no clear pattern to suggest that either form was associated with a specific type of site.

3.1.4.4 There is also a dark green fragment, 402 (Figure 3.4), from a beaker/bowl/cup with an out-turned fire-rounded rim similar to those found on several beakers from the Burgh Castle glass hoard which can be dated to between the mid fourth and early fifth century (Harden 1983, nos.85 and 88-9, 82-3, 88, fig.37), and also found on several bowls or cups from Towcester, which were probably in use by the mid-fourth century (Price and Cool 1983, nos.40-44, 117).

3.1.5 Tableware Containers for Serving Liquids: First to Third Century

3.1.5.1 The globular and the conical jug, Isings Form 52 and 55 respectively, represented in the *canabae* assemblage, are the most common forms of jug to be found in Britain in contexts of later first and early second century date; the conical jug is also found in contexts of mid-second century date. Both forms have common features in their folded rims, and their relatively long narrow necks which often have a constriction at the base. They are found either plain or with ribbed decoration produced by optic blowing, tooling, or trailing, or a combination of two of these methods. Jugs in polychrome are rare and they are usually found in strong colours - including dark blue and yellow brown - as well as blue-green, pale and light green and yellow-green. Some of the strong colours, however, were not used beyond the turn of the century (Colchester, 121, 123).

The globular jug has an open pushed-in base ring and concave base, similar to the base on the conical jug; it usually has an angular handle with narrow multiple ribs in high relief; and occasionally a ribbon handle, sometimes with a long pinched trail such as is found on the conical jug. The body of this latter form varies between the true conical to the piriform, and has either a slightly concave base or a carination leading to a wide lower body with open-pushed in base ring and concave base. It usually has a ribbon handle with central rib (Colchester, 121).

There are eleven fragments in the *canabae* assemblage, representing a minimum of eight of these jugs: one conical, one globular, and six conical and/or globular jugs, and constituting the 95% of the jug fragments for the earlier period.

There is a good range of colours, and at least some are from vessels with ribbed bodies. There are three ribbed body fragments and two handle fragments from one plain, and three decorated, jugs: the yellow-brown conical jug body 183 (Figure 3.5), and the possibly associated handle 412; the yellow conical/globular jug body 178; the blue-green globular jug body, 365 and the light green handle 419 from either jug. A further blue green conical/globular jug body fragment, 366 (Figure 3.5), is decorated with an ?optic blown spiral. There is also a rim, neck and handle fragment, 184 (Figure 3.5), from an early-dark green jug of either form, and four handle fragments, two blue-green, 429, and 431, and two light green, 420 and 421, which may similarly be from either jug.

There are further blue-green neck fragments 347, 349 and 362 (Figure 3.5), which have a constriction at the base of the neck - the latter fragment having irregular tooling marks which may likewise be from either jug, or from a vessel with a similar constricted neck, such as the ovoid flask.

There are a minimum of four jugs in yellow-green and blue-green glass from the Minster site, including one blue-green globular jug (Price 1995a, nos.43-4, 350, 361); there is one firmly identifiable yellow-green body fragment of a conical jug from Blake Street (Cool 1995, no.5900, 1573, 1652); and a possible light green example from the Swinegate sites (Cool 1995, nos.6438-40, 1609, 1668).

3.1.5.2 Several further first, or first to second, century jugs may also be represented in the assemblage, by the yellow-green neck fragment, 179, two body fragments in bright green and yellow-brown glass, 181-2; and by the blue-green base fragment, 351 (Figure 3.5).

3.1.5.3 Jugs with spouts, while being far less common than those with circular mouths, are nevertheless widespread in the north-west provinces, including Britain. The two main rim forms are the pinched-in (trefoil) spout, which is found on funnel-mouthed globular-bodied jugs, Isings Forms 56 and 88, and the pulled-up spout which is found on a jug which has either a globular or a discoid body. Both rims have rolled-in, or fire-rounded, edges. The jugs are found in pale green and blue-green glass; the globular jug is also known in strong colours (Colchester, 131; Handbook, 157, 159) and colourless glass although the latter is rare before the mid-second century (Cool 1995, 1576). Either form can have vertical ribs, or a horizontal or spiral self-coloured trail (Handbook, 159).

The jug with pinched-in spout has a cylindrical neck - which is often found to be wider on examples from earlier contexts; it has a rod or ribbon handle, a concave base, and may occasionally have a base ring (Colchester, 131; Handbook, 157).

It appears to have been in use between the later first and the early third century, and would thus have been in production before the jug with the pulled-up spout (*cf* below) (Handbook, 157). The earliest example may possibly be represented by blue-green body and base fragments at Castleford, which displays the very distinctive short ribs associated with an early form (Cool and Price 1998, no.256, 148, 171-2, fig.60). There are also early examples from Claydon Pike, Gloucestershire, in a context dated to AD100-150 (*cf* Colchester, 131).

The globular or discoid jugs with pulled-up spouts were in use during the second half of the second century and probably into the third (Colchester, 131-3). Similar to the former jug they have a funnel mouth, cylindrical neck and concave base; occasionally they may sometimes have a tubular base ring, and, on occasion, the handle is set at right angles to, instead of opposite, the spout (Handbook, 159).

Fourth century variants with pulled-out spouts are also known, with squashed conical bodies and base rings (Colchester, 132).

Jugs with pinched-in spouts are not an uncommon find. Examples cited by Price and Cottam include those from Lincoln, Aldborough in Yorkshire, Ham Hill, Somerset, Godmanchester, Cambridgeshire (Handbook., 159-161), and one from the Caerleon drain with a squashed spherical body (Allen 1986, no.57, 109-110, fig.42). From this evidence it would appear that the majority of sites have a maximum of two jugs. Since only the rims can be identified with certainty (Colchester, 132), however, it is possible that there are fragments which remain unrecognised.

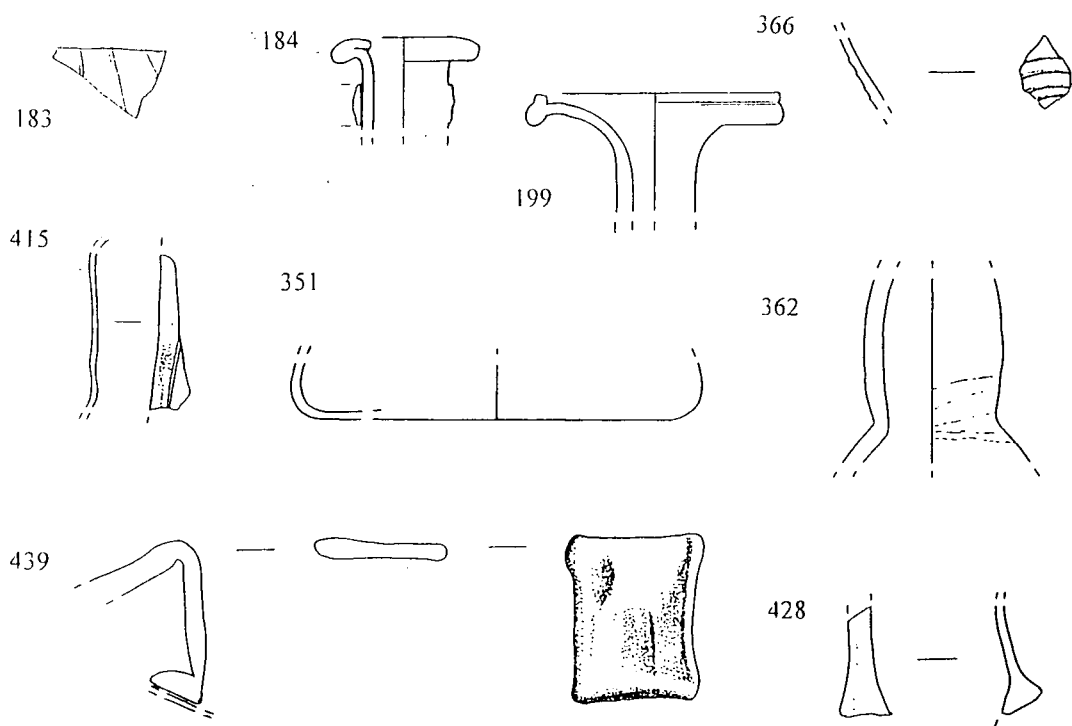


Figure 3.5 First to third century bottle, flask, and jug forms; scale 1:2

At least three spouted jugs are represented in the *canabae*: the pale green fragment 272, and the blue-green fragment 360 have rims which are rolled inwards; the pale green rim 271 is fire rounded and slightly out-turned. The blue-green body fragment 364, has a convex body with a trail from the junction of the mouth and neck. These fragments are

too small, however, for the jug form to be defined. The very small blue-green rim fragment, 361, may also be from one of these jugs.

The Church Street sewer assemblage has a blue-green fire-rounded rim, from a jug with pinched-in spout; and there is also a pale green fragment with a pinched rim and marvered trails on the shoulder from a possible variant, or from a variant of a beaker or cup (*cf* Chapter 4). Another jug is represented at Blake Street by a colourless fragment with a fire-rounded rim and pinched-spout, from a late first century context (Cool 1995, no.6002, 1575-6, fig.743), which, is in itself unusual, since, as already noted, examples rarely occur in such early contexts.

3.1.5.4 The *canabae* has one colourless/light green rim fragment, 199 (Figure 3.5), and several similar coloured handle fragments, 416, of the cylindrical decorated bottle which was in use in the later second and early third century and had a distribution in the North-west similar to that of the colourless cylindrical cup, Isings Form 85b (Colchester, 200). There are also four body fragments from the Minster site with either five or six wheel-cut lines representing a further two vessels (Price 1995a, nos.33-4, 349, 359, 365, fig.143).

This bottle is made in good quality colourless glass, and has an out-turned rim with the edge folded diagonally down and up, a short cylindrical neck, horizontal shoulder, and a folded attachment on the neck and the underside of the rim. Its cylindrical body tapers slightly in towards the base, and is decorated with bands of horizontal wheel-cut or abraded lines. The angular ribbon handle is usually reeded, but can be plain. While often recorded in Romano-British contexts, it is unusual to find more than a few fragments at any one site, and in common with certain other forms (*cf* above), there may be problems with their identification from small fragments (Colchester, 200).

3.1.5.5 A number of jug/possible jug fragments, such as the blue green handle fragment, 430, the colourless/green-tinged rim fragment, 257 and the pale/light green body fragments 269-70, can be assigned solely by general form, wall thickness, rim diameter, or colour to the earlier period.

3.1.5.6 According to the thickness of the walls, and the colour and quality of the glass, further fragments in colourless, colourless/green-tinged or blue-green glass, are probably from bottles, jugs, or flasks of the earlier period. These include the body and base fragments 201-2, 303-314; the ?ribbon handle 415 (Figure 3.5); the short angular narrow ribbon handle with pronounced side ribs 428 (Figure 3.5); the strap handle 439 (Figure 3.5); and the ribbon handle 429, with a single rib. There is also a blue-green fragment, 560, which may be from a bowl or lid, or from a window pane as exemplified by the fragment from the Blackfriars site, Carlisle (Price 1990, no.79, 178-9, fig.164).

3.1.6 Tableware Bottles, Flasks, and Jugs: Third to Fourth Century

3.1.6.1 The *canabae* has several colourless fragments, the neck, 253, with a band of faint wheel-cut lines, and the neck and shoulder, 255, with a wheel-cut band on the shoulder, which may be from the spherical flask, Isings Form 103. There is a further fragment, 336, in blue-green glass, with two sets of wheel-cut lines on the neck which is possibly also from this flask.

The fragment, 392 (Figure 3.6), found in the colourless/green-tinged glass of the late period may similarly be from this form. It has ten almost horizontal bands of abrasion, joined by three further, vertical, bands, with at least one more band above this touching the latter. One would expect parallels for this on sites outside Britain such as Köln, where flasks have been found with wide bands of abrasions circling the flask bodies in various designs (Fremersdorf, 1967, pls.112-115). There is, however, an example of this complex wheel-cutting on a colourless body fragment of a globular flask from Witcombe villa, Gloucestershire, which is decorated with pairs of interwoven concentric circular lines intersected by more widely spaced horizontal lines (Price and Cottam 1998a, no.22, 79-80, fig.22). There is also a body fragment, from Verulamium, decorated with two sets of lines which cross diagonally, which Charlesworth dates to the second to third century (1972, 207-8, no.7, fig.77,47).

The spherical flask is datable from the middle half of the third century, at the earliest, to possibly the first half of the fourth century (Colchester, 154). The form, usually in colourless, greenish colourless or blue-green glass, has a cylindrical neck with a rim which is sometimes left unground, and there is a constriction at the junction between the lower neck and body. The base is shallowly concave. The flask is found plain, or decorated, usually with abrasions or wheel-cuts in horizontal lines at intervals down the body. There is also an unusual variant which has wheel-abraded designs which combine inscriptions and pictorial decoration of Italian town scenes (Painter 1975, 54-60).

The spherical flask is common in the Rhineland and north Gaul (Colchester, 153-4). To date, however, examples of the flask on sites in Britain are usually recorded as single finds, although this may be due to the problem of its identification from small fragments (Cool 1995, 1579).

Examples elsewhere in York are distinguishable by decoration or by base form. The Blake Street site has one definite example, in a rim fragment in green-tinged, colourless bubbly glass with an abraded band beneath and two bands on the neck (Cool 1995, no.6232, 1579, fig.745, 1660). There are also two possible examples represented by a body fragment in colourless glass decorated with two horizontal wheel-cut lines with an area in between infilled by narrow horizontal abraded bands, and by a base fragment also in green-tinged, colourless bubbly glass, with a concave base and small central kick, (*op.cit.*, nos.6028, 6233, 1579, fig.745, 1656, 1660).

There is also an unprovenanced colourless example, with a constriction at the base of its neck which has bands of horizontal wheel-incisions on its neck and body (Harden 1962, no.H.G.33, 141, pl.67); and a colourless fragment found in a residual context at Bootham Bar - an area associated with the north-west gate of the fortress (RCHM 1962, 25)- which may be from the variant with wheel-abraded designs, noted above (Wright 1968, no.38, 210-211;.

3.1.6.2 Further thin-walled fragments 254, 256, 333, 340, 342 and 344 in the colourless or blue-green glass of the early period, may also be from flasks.

3.1.6.3 In the third, and more commonly the fourth, century, a bottle and a flask were being manufactured with an out-turned fire-rounded rim, which was either flattened, or, more commonly, had an applied trail beneath it, Isings Form 102a and 102b respectively (Colchester, 201). The forms, which are normally colourless or greenish-colourless, are funnel-mouthed, with a short cylindrical neck, a horizontal shoulder, and a cylindrical body tapering slightly inwards to a concave base with pontil scar. The bottle has either one or two ribbon handles. Either body is found plain, or decorated usually with horizontal abrasion or wheel-cut lines (Colchester, 201), as exemplified by two from the York burials, which have five lines and bands of wheel-cuts of varying widths (Harden 1962., nos.H.G.146.3-4, 139-40, figs.89-90, pl.67).

At least one colourless bottle or flask is represented in the *canabae*, by the rim fragment 382 (Figure 3.6) which, however, appears to be an amalgamation of the two known rim forms, since while it has the applied trail beneath the rim, the rim itself is flattened. The pale/light green base fragment 393 may similarly be from one of these forms; two others, the ?base fragment 263 and the body fragment 383, could possibly be from either vessel. The poorly made handle, 439, in the light green bubbly glass of the fourth century, is probably from the bottle.

These forms are not very common on British sites, and some are found in burials (Handbook, 184, 204), as exemplified at York, where only one is represented in the fortress (Price 1995a, no.68, 351, 365, fig.145), while Harden provides details for three of the flasks from the York burials, one of which is undecorated (1962, nos.H.13, H.G.146.1-2, 139-140, figs.89-90, pl.67), and also writes of 'a number of other examples' (1962, 140).

3.1.6.4 There are three fragments from the *canabae*, from bottles in the later colourless/green-tinged glass. The convex-curved body fragment 381 may be from the cylindrical dolphin-handled bottle, Isings Form 100a; the body fragment; 177 (Figure 3.6), is from the variant with the ribbed mould-blown hexagonal body; the colourless handle, 417 (Figure 2), may either be from one of these forms, or from a bath flask. There is a body fragment from the Minster, from a green-colourless hexagonal-bodied

bottle (Price 1995a, no.78, 352, 365, fig.145), and a fragmented cylindrical bottle from the York burials (Harden 1962, no.H.G.182, 139, fig.89). A further light green fragment with corrugations, 487 (Figure 3.6), may either be from the ribbed variant or a window pane (Price pers.comm.).

Both the cylindrical and hexagonal bottles appear to have come into use during the second half of the third century; the majority are found in fourth century contexts, however, and have a distribution in the North-west provinces, including Britain. Both are normally found in the colourless, or the greenish-colourless bubbly, glass, typical of the fourth century; they have a cracked-off rim, horizontal shoulder, a pair of loop-handles attached to the lower part of the neck and shoulder, and bases which are normally concave. The mould-blown body has the diagonal ribs as exemplified by the York fragments; the neck and the body of the cylindrical bottle is decorated with abraded bands (Colchester, 207), such as those which are found on the body from the York burials noted above.

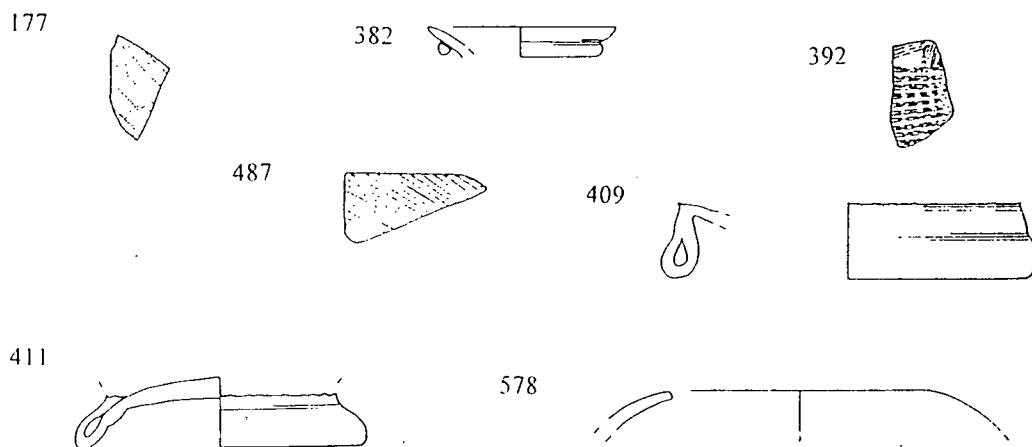


Figure 3.6 *Bottle/flask, jar, and jug forms of the late period; scale 1:2*

By comparison with the cylindrical form, few fragments of the hexagonal bottle have been found in Britain: Cool and Price cite seven examples from the Midlands and the south of Britain (Colchester, 207). There is also an example represented at Beadlam villa, Yorkshire (Price and Cottam 1996, no.28, 94, 96-7, fig.55). The York fragments thus represent two of the three examples from northern Britain. There is a further, rare,

variant of the hexagonal form with plain walls from Beadlam villa (Price and Cottam 1996, no.27, 94, 98, fig.55), which may also be represented in the *canabae* by two further fragments, 175-6, from a prismatic-bodied form in colourless/green-tinged glass devoid of bubbles, which one would associate with good quality fourth century mould-blown vessels.

3.1.6.5 There are at least two examples in the *canabae* assemblage of base rings in the dark green glass of the fourth century which are probably from funnel-mouthed jugs with thick trails beneath their rims - the most common form of jug in the fourth century (Cool and Price 1993, 155). The typical fourth century form has an ovoid body which curves out smoothly from the neck to a round carination high on the body and then slopes into a base ring, as exemplified by the good quality miniature jug from a York burial at Sycamore Terrace (Colchester, 134; Harden 1962, no.H.12, 140-1, pl.67). The fragment 410, has a base pushed in to form a concave foot with open base ring; 411 (Figure 3.6), has a concave base pushed in to form a foot with a tubular base ring, with a ridge-effect on the outer surface. This is fairly similar to the base of the green funnel mouthed jug from Lankhills which has trails beneath the rim, an ovoid body, and a ribbon handle with prominent ribs: features which are general to fourth century jugs (Harden, 1979a, no.310, 212, fig.27; Colchester, 134, 146-7, fig.8.11; cf Isings Form 120 and 121). The *canabae* examples, however, do not have the central domed kick.

The fragment from Blake Street, which is probably also from this form, is in the lighter glass which is normally associated with this jug (Cool 1995, no.6230, 1578, fig.745, 1587, 1660; Colchester, 134). The example from Sycamore Terrace, noted above, is in dark blue glass (Harden 1962, 140), however, and it may thus be significant to this find that a small number of dark blue thin-walled fragments are recorded in the *canabae* assemblage (Appendix A, nos.604-7, 695).

3.1.6.6 Further jugs in light green glass are represented by three handle fragments, 440 and 437-438, the latter ribbed, and a handle and neck fragment, 436.

3.1.6.7 Tubular pushed in base rings are frequently found in the western provinces on jugs and bowls of the late period (Price 1979, 43), and also on some beakers. There are two bowls, and two conical beakers with this base ring from Burgh Castle for instance, the latter already discussed in connection with their rim form (*cf* above), which Harden dates to the second half of the fourth, and the first half of the fifth century (1983, nos.81-2 and 88-9, 81-5, 87-8, fig.37). The *canabae* has a dark green base fragment 409 (Figure 3.6), from a bowl or jug which has a similar form to 411 discussed above. The dark green base fragment 403, from a beaker/cup/bowl, has a pontil mark, which suggests that the vessel had a fire-rounded rim. Other similar coloured base fragments include 601, with a pushed in tubular base ring and pontil mark, and 583 and 585, with pushed-in tubular base rings, the latter asymmetrically formed.

There is also a fragment from the Minster of a yellow-green concave base with an outplayed tubular base-ring, central kick and pontil mark, from a small bowl or cup dated by its colour to the fourth century (Price 1995a, no.62, 351, 362-4, fig.144).

3.1.7 Tableware Container Vessels: Jars. First to Second Century

3.1.7.1 There is one blue-green rim fragment, 358, possibly from a collared jar, either from the less common form with a plain ovoid body, Isings Form 67b, or the common ribbed globular body, Isings Form 67c, both of which have an open pushed-in base ring and a concave base, and both are seen as items of tableware (*cf* Chapter 6). The main period of use for both jars is the Neronian into the second century; the vessels probably went out of use quite early in the second half of the second century. Neither form is found in colourless glass. Both are very common on sites, and are found mainly in blue-green glass (Colchester, 106-7; Handbook, 137).

It is also possible that the rim, 358, could instead be from the less commonly-found square jar, Isings Form 62, which also has a collared rim, as exemplified by the jar from Cirencester (Thorpe 1935, pl.2c). This form, which was manufactured in blue-green glass, is known from contexts mainly dated between the Flavian period and the third

century (*cf* Colchester, 185; Isings 1957, 81), and is probably represented in the Church Street sewer (*cf* Chapter 4).

There are at least four other collared jars in light green and blue-green glass represented in the fortress, from the Blake Street and Swinegate sites (Cool 1995, nos.5903-4, 5906, 6047-8 and 6450, 1573, 1609, 1652, 1668, fig.765).

3.1.8 Containers/Storage Vessels: Bottles and Jars. First to Second/Third Century

3.1.8.1 The most common utilitarian vessel forms of the earlier period, represented on sites in Roman Britain, are the blue-green free-blown cylindrical bottle, Isings Form 51, and the prismatic bottle with mould-blown body and base; the latter category encompassing the square and hexagonal, Isings Form 50, the far less common rectangular, Isings Form 90, and the rare octagonal, bottle (Colchester, 179).

Both the cylindrical and the square bottle are found in Claudian contexts; and the former is a common find in the Flavian period, although it went out of production at the end of the first or early second century (Colchester, 184). The larger square bottles appear to have been introduced in the Neronian period, thus most of the earlier square bottles, such as those found at the pre-Flavian fortress of Usk, are small in size (Price 1995b, nos.124-143, 186). Square bottles are very common from the later first to the second half of the second century, and continue into the late second, or even early third, century (Colchester, 184-5). They usually out-number the cylindrical bottles, although, on occasion, on first century sites, the latter are found to be in the majority, as is the case at the Flavian fortress site of Inchtuthil, Scotland (Price 1985a, 307-8).

The hexagonal bottle is known in Claudio-Neronian contexts, and appears to have been used in burials in the second half of the second century; it is also known in burials in Normandy which are dated to the early third century. The rectangular bottle was

apparently first manufactured in the second century; and examples from dated contexts in Britain have a mid-second century date (Colchester, 184-5).

The cylindrical and prismatic forms have similar rims and necks. The rim is generally folded out, up and in, and the neck is short and cylindrical, and tooling marks are frequently found at the junction of the neck and shoulder (Colchester, 179). There is also a very small folded rim associated with first century bottles, which has a triangular section which hardly projects beyond the neck (Price 1995b, 186). Both main forms and the hexagonal bottle have one handle which is usually reeded, while the rectangular bottle and octagonal bottle have two handles. The cylindrical bottle frequently has a slight bulge below the shoulder and its base is concave and undecorated. The base of the prismatic bottle, which is slightly concave, has a raised design, the most common being that of concentric circles (Colchester, 179).

The square bottle is found in two main variants, as defined by Charlesworth: one is as tall as it is wide; the second has a height which exceeds the width, as often occurs on the mould-blown bottle. The range of sizes is extensive, from the miniature, with a height of 40mm, to the excessively large, with a height over 400mm (1966, 28).

Fragments of the prismatic bottle are found in all the fortress sites under discussion (Price 1995a, nos.71-6,366; Cool 1995, nos.6169-80, 6467-70 and 6520-2, 1581, 1623, 1669; Appendix B(ii), nos.4 and 8); the cylindrical bottle is represented at all but the Church Street sewer and Purey Cust sites (Price 1995a, 351; Cool 1995, nos.6155-62 and 6471, 1658, 1669).

The 200 *canabae* fragments, 18-174, and 275-302, 434, and possibly 433, which are mostly from the prismatic bottle, represent a minimum number of five cylindrical, four prismatic, and three cylindrical/prismatic, bottles. The fragments constitute 31% of the assemblage, which is close to the percentage of the blue-green bottle fragments in the much smaller Minster assemblage (Price 1995a, 351); and to that of the fragments from the Swinegate sites, where they constitute 28% of the total. These figures contrast noticeably with the Blake Street assemblage, where only 13% of the 1,571 fragments are

from these bottles (calculated from Cool 1995, 1561, table 126). That the Church Street sewer and Purey Cusp sites have markedly contrasting data may be due to the loss to the record: at the former site the fragments from the prismatic bottle constitute only 3% of the assemblage; at the latter the three fragments from a prismatic bottle constitute the total assemblage (*cf* Chapter 4 and Appendix B(i)).

Two, 169 and 171, of the four extant base fragments, 169-172, are so small that it is unclear whether or not the designs are examples of the very common concentric circles noted above, or the single circle, which is less commonly found, examples of the latter being known, for instance, at the Antonine fort of Birrens (Robertson 1975, no.5, 134, fig.46); from Colchester (Colchester, no.2162, 196, fig.11.10) and the civilian sites of Stonea Grange and Milton East Waste, Cambridgeshire (Price 1996, no.67, 392, fig.133; Sheard forthcoming, no.1).

Only two base fragments, 170 and 172 (Figure 3.7), exhibit evidence to suggest that they were part of anything other than these simple designs. The latter has an irregular pattern or letter ?inside a circle, a parallel for which is unknown to the writer. The former appears to be four branches of foliage off a main stem. While such base designs are not uncommon on sites in southern Europe (Colchester, 190), they are rare on square bottles in the north-west provinces, and only three others are known in Britain. One, from Colchester, has short diagonal straight bars branching off alternately on either side of what may be part of foliage (Colchester, no.2205, 190, 198, fig.11.12). One from Chester has branches that are paired off (*cf* Colchester, 190), and one from Springhead, Kent has straight paired-off branches (Charlesworth 1958, no.2, 93, 105, fig.9).

Fairly similar details are also found on a base from Torre de Palma, Portugal, where foliage within a circle has the four, straight, lower branches paired off (Alarcão 1975, no. 36, 48-9). A more similar design however, is on found on a base from Conimbriga, Portugal, which comprises a circle from which emanate four small designs, one in each corner of the base, which have curved arms/branches (Alarcão 1975, no. 33, 48-9).

Other base fragments with anything other than a circular design include one from the Minster with perhaps part of a central lozenge motive, probably from an hexagonal bottle (Price 1995a, no.75, 365-6, fig.145); one on a tall, narrow bottle from York's Trentholme Drive burials, with the letters 'S I L' in retrograde within a circle; and one on a small hexagonal bottle from the Railway cemetery which has six triangular pellets round a central circle (Harden 1968a, no.1, 92, fig.35; 1962, no.H.34c, 137-8, fig.88). The extant design on one of the fragments from Blake Street has the raised letters](?I)AL(?.)[, which is similar in formation to part of the lettering on the base of a rectangular bottle from the Bearsden fort on the Antonine Wall, on which are two lines CNASINI MARTIAL (Cool 1995, no.6180, 1581-2, fig.747; RIB 2, no.2419.106, 112).

3.1.8.2 The *canabae* has three blue-green fragments from funnel-mouthed jars with rolled or out-turned rims: 352, with out-turned rim (Figure 3.7), 353 with rim rolled in, and 357 (Figure 3.7), with rim turned out, up and in. There are also two blue-green funnel-mouth fragments with out-turned rims 319-20, from either jars, or from bowls which are found in third century contexts (*cf* above). The jars, which are more often found with rolled in rims, have globular or ovoid bodies and concave bases, and were made in yellow-brown/green, light or pale green, but mainly in blue-green, glass. Primarily a second century form, they were also in use during the first century. While not seen as uncommon, it is possible that jars with rolled rims may occur more often than the record suggests, since, when on domestic sites, they are usually found in such small fragments that it is hard to identify the form (Colchester, 112).

At least four of these jars are represented at Blake Street, the out-turned rims of which are variously bent down, in and flattened; bent up and in; or down, up and in (Cool 1995, nos.6049-53 and 6081-3, 1581).

3.1.8.3 The *canabae* has three blue-green rim fragments, 354-6, from jars with tubular rims, the former having an edge rolled out, down and in, the two latter having edges rolled out, up and in. These may therefore be a less common variant of the jar with a rolled rim, which is more tubular in form and may be associated with smaller jars (Colchester, 109). The Colchester examples with this rim form have diameters of 30-

40mm (Colchester, nos.765-770, 109-11, fig.7.4). It is therefore noteworthy that, while the smallness of the *canabae* fragments does not allow a precise measurement, they appear to have diameters of between 70 and 90mm.

The jars, which are found with ovoid or globular bodies and concave bases, were manufactured in strongly-coloured, but mostly blue-green, glass. They are common in the western provinces including Britain, and were in use, for a good length of time, being found in contexts ranging between the mid-first century and the early third century (Colchester, 109-110).

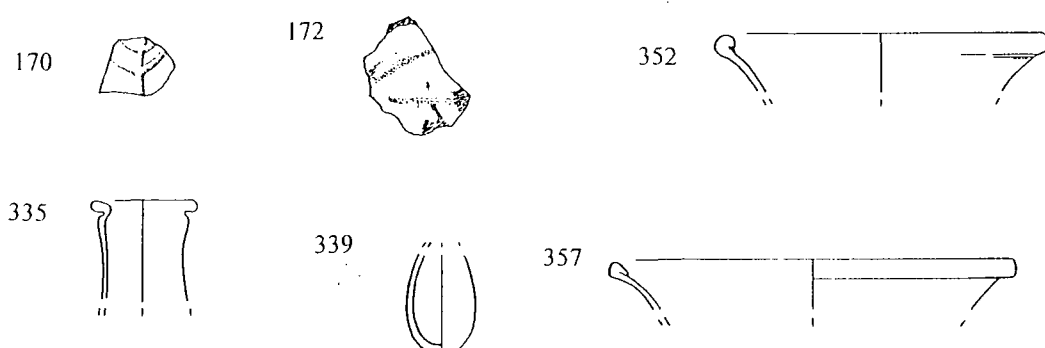


Figure 3.7 First to third century small flask/unguentarium, and jar forms; scale 1:2

3.1.9 Containers/Storage Vessels: Jars. Third to Fourth Century

3.1.9.1 There is only one form in this category, represented by a fragment in the colourless/green-tinged glass of the late period, 578 (Figure 3.6), which, if ceramic, could be described as a 'hole-mouth' jar, since it has an inward-turning mouth - rather than a rim - which appears to be cracked-off and ground. The only rim/mouth form in Britain which appears close to this is found on two jars from a York inhumation (Harden 1962, nos.H.G.146.1-2, 140, fig.90, pl.67), which have fire-rounded rims (Price pers.comm.), folded inwards, downwards and outwards, and bodies which are cylindrical, and decorated with bands of single and multiple wheel-cut lines, and which taper gently inwards to slightly concave bases. These two jars appear to represent a decorated variant of the third to fourth century cylindrical jar, Isings Form 130, which

has a rim/mouth which curves inwards and down, and which is recorded in burials from Strasbourg and Köln (Isings 1957, 159-60). There is also a jar in greenish bubbly glass, from a burial at St Aldegund, Zell (Austria), with a similar body form, which has a rim form more akin to that of the *canabae* fragment, although fire-rounded (Haberey and Röder, 1961, no.1, 134, 140, fig.3).

3.1.10 Small Flasks/Unguentaria. First to Third Century

3.1.10.1 There is no firm evidence for bath flasks in the *canabae* assemblage since the small blue-green base fragment, 345 is not firmly definable as such; the handle 417, in colourless glass, may either be from the flask or from a dolphin-handled bottle (*cf* above); and the blue-green rim which is rolled up and in and flattened, 334, may be either from a bath flask or a tubular unguentarium. The presence, however, of a colourless bath flask in the assemblage would be noteworthy since these appear far less common, and are normally decorated with wheel-cut lines, cut facets, or snake-thread decoration (*cf* Chapter 4).

3.1.10.2 The *canabae* has further blue-green fragments representing a minimum of six unguentaria from at least two forms: the tubular unguentarium, noted above, and the conical unguentarium.

The tubular unguentarium with an out-turned sheared rim, Isings Form 8, is first known in early first century contexts, was most numerous throughout the western Empire during the middle part of the century (Colchester, 159), and in Britain is normally found in *c*AD 43-75/80 contexts (Handbook, 169). The variant with rolled or fire-rounded rim appears to be a later, less common, variant, known in the third quarter of the first century, and probably also the later second to early third century (Handbook, 169). While both were made in strong colours, and yellowish-green glass, they are mainly in blue-green glass. They have long necks, with a constriction, sometimes with tooling marks at the beginning of the tubular body, which thickens markedly towards a convex, or sometimes flattened, base (Colchester, 159-160).

Examples of the unguentarium with sheared rim in blue-green glass are common on settlement sites and in burials (Handbook, 169-171), and include three from the Caerleon drain in contexts dated to *c*AD 75-85 (Allen 1986 nos.8a-c, 98-9, 100-2, fig.40). While there is apparently none firmly identifiable from either the fortress or the *canabae*, there is a vessel recorded in light blue glass from the Railway cemetery, from a tomb made with Sixth Victrix tiles (Harden 1962, no.H.G.32, 137, 139, fig.89; RCHM 1962, 85), thus having a *t.p.q.* of *c*AD 120 (*cf* Chapter 1). There are also 'numerous similar unguentaria', from York, noted by Cool, in dark blue, light green and blue-green glass (*cf* Handbook, 171).

Examples of the variant with rolled rim are also known from the Caerleon drains from the early contexts noted above (Allen 1986, nos.1, and 9-10, 98-9, 100-2, fig.40).

Two fragments from the *canabae*, the body fragment 337, and the base fragment, 339 (Figure 3.7), could be from either form; the fragment 335 (Figure 3.7) has a rolled rim associated with the later variant. Blake Street has a rim fragment which could be from either form (Cool 1995, no.6074, 1583, 1656, fig.748), and there is a body and base of the later variant, with rolled in rim, from the Railway cemetery burials (Harden 1962, no.H.G.231, 137, 139, fig.89).

At least one conical unguentarium, 341, is represented in the *canabae* assemblage. This vessel, which was common throughout the Empire including the western provinces, and which is found with or without a constriction at the base of the neck, Isings Form 82B1 or B2 respectively, has two variants, as discussed by Cool and Price (Colchester, 161). The first, primarily a late first or very early second century form, has a small body, a long neck and an out-turned rim which was sheared or rolled-in. The second, in use from the end of the first into the third century, has a rim which is folded at the edge, a neck which is normally long and narrow, which may have a constriction at its base, and a wide body (Colchester, 161).

The body and base, 341, is too small, however, to allow a precise identification of the variant, and a general date of the late first, to the third, century could therefore be suggested. A further body fragment, 338 may also be from either vessel.

There are at least three further examples of the earlier form: one in blue-green glass from Blake Street (Cool 1995, no.6070-1, 1583, fig.748, 1657), and two from the burials (Harden 1962, no.H.G.36.1-2, 137, pl.66).

3.1.10.3 There is a small light green thin-walled neck fragment, 268, which is from an unidentifiable unguentarium form. and two further fragments, a convex curved thin walled, body fragment, 343 and a lower body fragment with a slightly concave base, 345, both in blue-green glass, which are also probably from unguentaria.

3.2 DISCUSSION

3.2.1 Introduction

3.2.1.1 There are several factors which contribute towards making this assemblage of some significance to future research. First, the identifiable fragments represent a comparatively large number of vessel forms which span almost all of the Romano-British period. Secondly, the majority of the forms are table ware, with the emphasis on the beaker, bowl, and cup forms in both the early and the late period. Lastly, the forms provide examples of the unusual, and sometimes the rare, as well as the common and the less common forms.

3.2.2 Common Patterns

3.2.1.1 In some aspects the assemblage is similar to many other glass assemblages of Roman Britain. The blue-green fragments which are commonly found on sites, from both table ware and utilitarian containers, for instance, constitute well over half of the

assemblage, approximately a third of which are from the cylindrical and prismatic bottles of the earlier period. Many of the common forms are represented, including the conical and globular jugs; the cylindrical cup; the third century hemispherical cup of the earlier period; and the shallow bowl and the indented convex bowl as well as the hemispherical cups and conical beakers, of the late period.

The less common forms such as the first century wheel-cut beaker, the indented beaker, the ovoid cup, the spouted jug, and the colourless cylindrical wheel-cut bottle are similarly represented.

In many instances the numerical ratio between the common and less common forms, corresponds with those in assemblages elsewhere. The fragments of the blue-green prismatic bottles are more numerous than the common cylindrical bottle; the conical and globular jugs are represented by more vessels than the less common spouted jugs. There is only one of the fairly uncommon ovoid cup which is fairly contemporary with the cylindrical cup. In the late period, the numbers of the common conical beakers and hemispherical cups exceed those of the less commonly found convex and indented bowls.

3.2.3 Uncommon Patterns

3.2.3.1 Not all the patterns, however, reflect those generally found elsewhere. Comparatively large numbers of Hofheim cups are not usual on Flavian sites, for instance, and, conversely, the first to second century collared jar is very much under-represented, as is the very common late first to late second century colourless biconical or cylindrical wheel-cut beakers/cups, although, as noted, this may be due to problems in their identification.

3.2.3.2 A number of uncommon or very unusual variants are represented in the *canabae*. These include the tall indented beaker, the cylindrical cup with a trailed base ring, the hexagonal-bodied mould-blown dolphin-handled bottle and the 'hole-mouth' jar, many or most of which will have been imports. The uncommon base designs on

several of the bases from prismatic bottles are also noteworthy, and at least one, with the curved arms/branches, would have been an import.

3.2.3.3 There are also instances where the uncommon variant is equal in number to, or outnumbers, the more common form, or where only the variant is represented. There are two fragments, from the *canabae* for instance, from both the common form and the less usual variant of the first century wheel-cut beaker - and only the latter is represented in the Blake Street assemblage. All the tubular-rimmed jars have the uncommon rim form. The common fourth century funnel-mouthed jug represented in the *canabae* is in the dark green glass rather than the usual lighter glass - which is found at Blake Street - and both *canabae* and fortress base rings are without the usual central domed kick. There is only one possible later third to fourth century cylindrical dolphin-handled bottle, although, as already noted, there are fragments in the *canabae* and Minster assemblages of the far less commonly found hexagonal mould-blown variant; and the rare hexagonal plain-bodied variant may also be represented in the *canabae*.

3.2.3.4 Variations occur in the sizes of the cylindrical cups, and the fourth century beakers. One of the more noticeable deviations from the norm, however, is in the evidence from the *canabae* assemblage for the comparatively large number of fourth century beakers, many of which are in good quality glass and are decorated with the less usual wheel-cut and/or abraded horizontal lines, and all of which, either in this better glass, or the poorer glass, have well finished rims.

As noteworthy is the comparatively large number of very unusual variants represented in the *canabae*, of the beakers, cups, and/or bowls of the late period which are decorated with figured-cut scenes, all of which will have been costly imports. These variants, which are often represented on villa sites in Britain, are usually found in small numbers. To have half a dozen such vessels represented in one assemblage is unparalleled numerically on British sites.

CHAPTER 4

THE FORTRESS GLASS INCLUDING AN ANALYSIS OF THE CHURCH STREET SEWER ASSEMBLAGE

4.1 INTRODUCTION

4.1.1 The Work on the Fortress Assemblages

4.1.1.1 The fortress glass under discussion, as already noted (*cf* Chapter 1), comprises the assemblages from the Minster and Blake Street sites; the Swinegate sites; the Purey Cust Hospital; and the Church Street sewer (Figure 1.1). Of these assemblages, the five former have been previously analysed and discussed in detail (Price 1995a, 346-371; Cool 1995, 1559-1588, 1608-1611, 1623, 1650-1661, 1668-9, 1672). The summary, by Charlesworth, of the Church Street sewer fragments (1976, 15-18) comprised only a part of the excavated assemblage, however (Appendix B(i)). The total extant and/or known assemblage has therefore been analysed here, in order that the fortress sites can be discussed in similar depth. This chapter thus provides general background details for the fortress glass assemblages regarding their size and date range; and then an analysis of the Church Street sewer fragments.

4.2 THE GLASS ASSEMBLAGES. GENERAL DISCUSSION

4.2.1 The Variations in Numerical Size

4.2.1.1 The problem associated with the high number of residual contexts has already been noted, together with the variation in the numerical size of each assemblage (*cf* Chapter 1). The Purey Cust and the Swinegate assemblages, for instance, comprise three fragments and 118 fragments, respectively (Cool 1995, 1672, 1608). There are a total of 69 vessel fragments in the known assemblage from the Church Street sewer (Appendix

B(i) and (ii)), over 600 fragments from the Minster site (Price 1995a, 346), and 1,571 fragments from Blake Street (Cool 1995, 1560).

4.2.2 The Range of Usage/Production Dates

4.2.1.1 The date-ranges of the glass assemblages also vary. The Purey Cust fragments represent forms with usage/production dates ranging between the later first, and later second/early third, century (Cool 1995, 1623). The range of forms represented in the Swinegate sites assemblage suggests that it can be dated by the presence of the collared jar, the prismatic bottle (*cf* Chapter 3), and the two-handled jug/flask (*cf* Chapter 5) to between *c*AD 71 and the end of the third century. The Church Street fragments represent forms with known usage/production dates between the Neronian period and the fourth century; none of the fragments, however, would have been out of context in the sewer (*cf* below).

	min. nos	colourless	pale/light green	blue-green	pale green	polychrome	no colour	Total
beaker/flask	2	4						4
bottle	1			1			1	1
?bottle/?flask	2	7						7
bottle/jug				1				1
?bowl/jug	2			3			1	4
cup	9	12	1		1			14
flask	12	4		9				13
?flask	1	1						1
?flask/?jug	1					2		0
jar	1			1				1
jug	3	1		3				4
beaker/cup/jug	1		1					1
miscellaneous		8	1	6				15
Total	35	37	3	24	1	2	2	69
		Key						
		min.nos	minimum numbers					

Table 4.1 The Church Street sewer assemblage: minimum numbers, and number of glass fragments by colour

The date range of the larger assemblages of the Minster and Blake Street sites can be

seen to correspond with those of the fortress (AD 71 to cAD 410) (Price 1995a, 346; Cool 1995, 1560).

4.3 THE CHURCH STREET SEWER GLASS ASSEMBLAGE

4.3.1 Introduction

4.3.1.1 The assemblage is one of the smallest from the fortress, and comprises 15 fragments from at least five window panes, a fragment of stirring rod, and 69 fragments of vessel glass (*cf* above) from a minimum of 35 vessels (Table 4.1), for the catalogue of which refer to Appendix B(ii).

4.3.2 Tableware: Beakers, Bowls, and Cups. Second to Third Century

4.3.2.1 The four colourless fragments, 9-10 (Figure 4.1), are from the feet of two stemmed beakers or flasks, Isings Forms 86 or 93, respectively. The flask has a funnel mouth and long neck, and both forms appear to have an ovoid body, and a short stem and circular, near-horizontal, foot with fire-rounded edge (Colchester, 85; Isings 1957, 103, 110). Both forms are found either in colourless or blue-green glass (Handbook, 105), and it is not unusual to find them decorated with snake-thread, or with trailed decoration (Colchester, 85), such as occurs on the colourless lower stem and foot from the Parsonage Field site, Cirencester, which has an opaque yellow trail (Charlesworth 1971, no.15, 85-6, fig.11).

These forms are found in burials in the Köln region, where they were probably produced (Price 1995a, 350) They are dated to between the second half of the second, and the early third, century, and while neither is very common (Colchester, 85-6), they are found throughout the British province. Cool and Price, for instance, cite examples from the south of the province: from Colchester, and from Lullingstone villa in Kent; from the Midlands: from Parsonage Field, Cirencester, already noted, Silchester, Gloucester, and

Witcombe, Gloucestershire, and Lincoln; from the south-west: from Caerwent, South Wales; from the north: from Aldborough in Yorkshire and Cramond in Scotland. All are in colourless glass, and several have coloured trails, such as occurs on the example from Cirencester, already noted, and the body fragment from Greyhound Yard, Dorchester, Dorset, which has an opaque blue and white trail (Cool and Price 1993, no.16, 157, 159, fig.84); or they have coloured snake thread decoration, such as is found on the lower body and stem fragment from Silchester, which is in opaque white and yellow (Thorpe 1935, no.2k, 34, 37). The available data suggests that the majority of the fragments discussed above are colourless, and that only one vessel is represented at each of the sites, excepting those of Lullingstone villa and Colchester, and Cramond in Scotland, where two vessels are recorded at each (Cool and Price 1987, nos.350-1, 112, 128, fig.54, 131; Colchester, nos.541-2, 86, fig.5.13; Maxwell 1974, nos.1-2, 197-8).

The Minster has colourless lower body fragments with an unmarvered self-coloured trail from a beaker (Price 1995a, no.48-48a, 350, 361-2, fig.144), and Blake Street has at least two beakers or flasks in colourless glass, represented by three stem and foot fragments, as well as a colourless body fragment with self-coloured snake thread decoration, which is probably from a beaker (Cool 1995, nos.5997-6000, 1574, fig.742, 1575, 1655), making a possible minimum number of six vessels for the fortress.

There are also a lower body fragment with snake-thread decoration from the General Accident *colonia* site (*cf* Colchester, 86) and a colourless stem and foot with the lower end of a vertical trail, from the Fishergate civilian site (Hunter and Jackson 1993, no.4673, 1336, fig.647).

It is also feasible that the light green neck fragments, 1-2, each with a marvered white wavy trail, from the sewer, may similarly come from such a flask. There are probably also two more represented in the *canabae*, in the colourless fragments with snake thread decoration: one, possibly from the flask, is decorated with one dark blue, and two white, lengths of snake-thread; a second, possibly from the beaker, is decorated with two extant lengths of white snake-thread (*cf* Chapter 3; Appendix A, nos.4-5; Figure 3.3)

4.3.2.2 There is a minimum of seven of the very common later second to mid-third century cylindrical cups (*cf* Chapter 3), in the assemblage represented by the colourless rims and bases, **12-17** (Figure 4.1), the pale-green/colourless rim, **24**, and the base fragment, **16** (Figure 4.1), the latter providing further evidence for the use of the larger cups at York (*cf* Chapters 3 and 6).

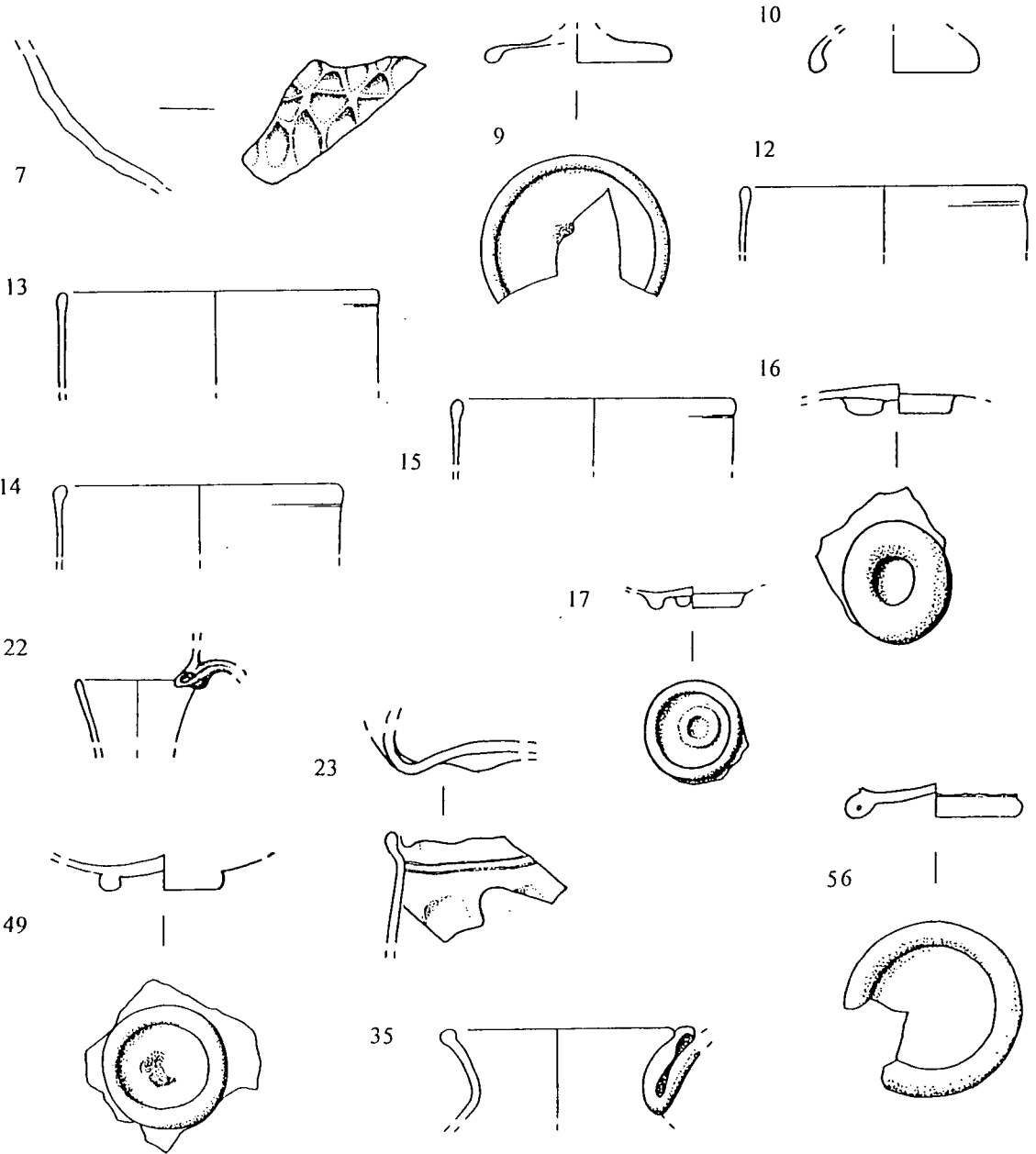


Figure 4.1 Tableware forms; scale 1:2

4.3.2.3 The colourless base fragment, 18, represents the ovoid drinking cup, which, while fairly contemporary with the cylindrical cup, was far less common; it is also represented in the Minster and *canabae* assemblages and two of the *colonia* sites (*cf* Chapter 3).

4.3.2.4 There are three fragments with pushed in tubular base rings: the blue-green lower body and base, 56, with an asymmetrical ring (Figure 4.1); the base fragment 59 (no colour recorded) with a trail; and the colourless lower body and base fragment, 49, with an asymmetrical ring, and a pontil mark on the base (Figure 4.1). As already noted, such base rings are found on a number of first to third century vessels, including bowls with fire-rounded rims as exemplified by those from Hauxton (*cf* Chapter 3). They are also found on forms such as the funnel mouth jug of second to fourth century date, and second to third century spouted jugs with pulled-up spouts (*cf* Chapter 3).

4.3.3 Tableware: Cups. Fourth Century

4.3.3.1 The pale green fragment, 7 (Figure 4.1), is from the less than common mould-blown variant of the common fourth century hemispherical cup. The fragment has a decoration comprising four rows of ovals/diamonds in quincunx. A further yellow-green fragment from this variant is found at the Minster site, and has a cracked off and smoothed rim, and is decorated with a horizontal row of small circles and four rows of hexagons in quincunx (Price 1995a, no.14, 347, 356, fig.142).

Fourth century mould-blown cups, beakers and bowls with a variety of decoration are known from various parts of the Roman Empire including the Rhineland and northern Gaul, where they are mostly found in burials (Price and Cottam 1995, 235-8). Conversely the majority of the fragments from Britain are often from settlement sites, and seldom from burials (Price and Cottam 1995, 238, 241, fig.21.3). Of the 34 fragments cited by Price and Cottam which have firmly identifiable forms, including the two from York (1995, 240-2), almost half are from hemispherical cups, and 65% of the total vessels are decorated with rows of hexagons (calculated from Price and Cottam 1995, 240-42).

Other decoration, which are found mostly on bowls (*cf* Handbook, 240-2), includes: spiral ribs ending in a circular cordon, on a ?bowl from Frocester villa, Gloucestershire, (Price 1979, no.46, 45, fig.18); godroons and a clockwise curved motif, and round-ended arcading respectively, on two pale yellow-green body fragments from shallow bowls, from Beadlam villa, Yorkshire (Price and Cottam 1995, nos.b-c, 237, 240, fig.21.2); and three rows of lozenges on the colourless fragment, possibly from a hemispherical cup from the Uley shrine (Price 1993, no.10, 212, 214, fig.158). The only decoration which may be similar to the Church Street sewer is to be found on a pale green truncated conical beaker represented at Winchester (Brook Street site, 1969) (*cf* Price and Cottam 1995, 242 (o)); however, none appears similar to that on the Minster fragment.

4.3.4 Tableware: Containers for Serving Liquids. (First/Second to Third Century

4.3.4.1 A minimum of four jugs are represented in the sewer assemblage by a blue-green rim fragment, **34**, from a spouted jug, which is either from a later first to early third century jug with pinched-in spout or from a second to third century jug with pulled out spout (*cf* Chapter 3); by the colourless fragment of handle and in-turned rim, **22** (Figure 4.1), from a jug; and by the rim neck and handle fragment, **35** (Figure 4.1), and the handle fragment, **36**, both in blue-green glass.

There is also a pale green fragment, **23**, with a pinched-in rim and marvered trails on the shoulder, (Figure 4.1) from a possible variant of a spouted jug, or from a variant of a beaker or cup (Price pers.comm.). There are several other fragments including the colourless body fragments, **45-6**, which may also be from jugs, and a blue-green body fragment, **25**, which may possibly be from a bottle or jug.

4.3.4.2 Further fragments, probably all from tableware include: the colourless rim and neck fragment, **11**, from a bottle or flask; six colourless fragments, **37-8**, **41** (Figure 4.2) and **44**, decorated with marvered self-coloured trails, and the body fragment, **42**, which may similarly all be from bottles or flasks; the light-green-colourless body fragment, **43**,

which may be from a beaker or flask; and three further fragments, the light green lower body and base, 50 (Figure 4.2), and the colourless body and base fragments, 21 and 47, which may be from flasks.

4.3.4.3 Charlesworth lists, without qualification, two blue-green body fragments, 51-2, with trails. As already noted (*cf* Chapter 3), such trailed decoration is found on various first to third century types and forms, other than those already discussed, which include bowls with fire rounded rims and tubular pushed-in base rings or concave bases; and cylindrical cups. It is also found on second to fourth century globular and ovoid jugs with funnel mouths and jars with fire-rounded rims. It is found as a spectacle trail on second or third century funnel-mouth globular flasks or fourth century hemispherical cups (*cf* Chapter 3). It can also be tooled into lattice-work decoration, as exemplified by the colourless greenish-tinged oval-bodied flask from Hauxton, Cambridgeshire, of second to third century date, which has an out-turned rim with a horizontal trail beneath, a long cylindrical neck with a marked constriction at its base, and a base ring in the form of an added pad with a knocked-off and ground edge (Harden 1958, 12-13, 16, fig.5).

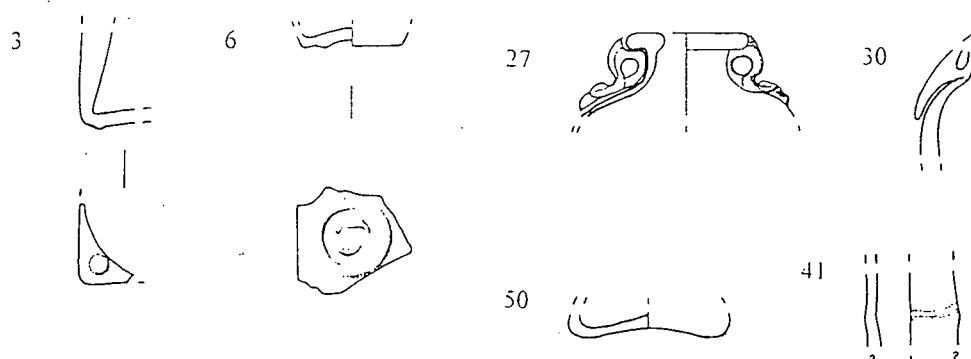


Figure 4.2 (First/second to third century forms, scale 1:2

4.3.5 Containers/Storage Vessels. (First/Second to Third Century

4.3.5.1 The very common blue-green prismatic bottle is noticeably under represented in this assemblage (*cf* Chapter 3), since there are only two fragments, the base and body fragment, 4, and the body fragment, 8 which may be from this form; the body fragment, 25, may be from such a bottle, or from a jug.

4.3.5.2 The sewer assemblage has one blue-green fragment, 33, the rim of which is found both on the collared jar of Neronian to early second century date, already discussed (*cf* Chapter 3), and on the less common square jar, which is datable to between the Flavian and third century (*cf* Chapter 3). The dating of the sewer, however, suggests that the fragment may be from the latter form.

4.3.6 Small Flasks. (First/Second to Third Century)

4.3.6.1 The pale green colourless body and base, 3 (Figure 4.2), and the blue-green base, 6 (Figure 4.2), with a moulded circle and raised mark, represent the Mercury flask, Isings Form 84; and fragments from at least two more, in pale green, and colourless, glass, have been found at Blake Street (Cool 1995, nos.5909-13 and 6029, 1583-4, 1652, 1656, fig.748).

This form, which was usually manufactured in colourless or greenish glass, and sometimes in pale green and blue-green glass, was primarily in use between the late second, and third, century, although it is occasionally found in fourth century burial contexts in the Rhineland (Colchester, 153; Handbook, 179). The vessels have folded rims, long cylindrical necks, and tall narrow mould-blown bodies of square section, as exemplified by the flask from Burial 43, Ospringe, Kent (Whiting 1926, no.151, 127-128, pl.17; Whiting *et al* 1931, no.151, pl.17; *cf* Handbook, 180, fig.81), and are known with raised patterns on their bases, and less commonly, on their sides (Colchester, 153), which sometimes include the figure of Mercury from which the name of the flask derives (Stern 1977, 65). The designs can be a combination of marks and lettering, the latter perhaps being indicative of the proprietor of a firm, or possibly, on occasion, of the town where the glass was produced (Stern 1977, 70). The flasks are found in the western provinces, and are most numerous in north Gaul and the Rhineland, but also occur in southern Gaul, Italy and Pannonia (Colchester, 153). Variants with hexagonal-sectioned bodies are rare (Handbook, 179): examples are known from Trier, in blue-green glass, dated to the second century (*cf* Allen 1986, 111); there is one (unprovenanced) now in Cologne (*cf* Stern 1977, no.10, 68); and there is a possible example in Britain represented by a colourless body fragment from a late second to third century drain deposit from the Baths drain of Caerleon fortress (Allen 1986, no.77a, 111-3, fig.43).

The flask is not often recorded in Britain, and is usually found on settlement sites including those of the military at Chester, Piercebridge and Catterick, where they are mostly represented as single examples (Colchester, 153; *cf* Price 1996, 390). The three exceptions, excluding York, are at Colchester, where two flasks are represented by a pale green body, and a colourless body and base, fragment (Colchester, nos.1182-3, 153, fig.9.6); at Ospringe, which has the flask already noted, and 'fragments of another' (Whiting *op.cit*, 127); and Stonea, Cambridgeshire, where two flasks are represented, in colourless and in green-tinged glass (Price 1996, no.60-60(b), 390-1, 394, fig.132).

There is also a blue-green lower body and base fragment, 5, from the sewer, which may possibly be from the hexagonal-bodied variant noted above. The body and base walls are only c1mm thick, however, whereas the flasks generally appear to have thicker walls. The Stonea fragment, for instance, has a wall thickness of 3.5-6mm (*op.cit*, no.60, 403; the two Colchester fragments have walls between 3-5mm thick (Colchester, 153); and the hexagonal fragment from the Caerleon drain (Allen 1986, fig.43, 112) appears to be c4mm thick. Similarly the two fragments from the sewer, discussed above, have wall thicknesses of c6mm and c2mm respectively. It is therefore worth noting that there is a body and base fragment from a small blue-green hexagonal-bodied form represented in the Caerleon drain, from a mid-second to third century context, which appears to have a base dimensions of similar size to the sewer fragment, and has walls which are less than 1mm thick, and which is seen to resemble a miniature hexagonal bottle (Allen 1986, no.29, 104, 106-7, fig.41).

4.3.6.2 At least nine bath flasks are represented, by the blue-green fragments, 26-32 (Figure 4.2), and by two colourless fragments 19-20, a colour which, as already noted, is associated with decorated bath flasks (*cf* Chapter 3 and below). The blue-green rim and body fragment, 26, is decorated on the shoulder and upper body with a self-coloured spiral trail.

The flask, which would have contained oil for use in the baths (Price 1995b, 172), and is also occasionally found in burials, is datable from the third quarter of the first, to the mid-third, century, with its main period of use being the second century (Handbook, 189). Some of the first century flasks have small diagonally-folded rims with triangular

profiles, and handles applied to the shoulder in the form of a small ring and then attached to the neck, with the surplus trail running along the handle (Price 1995b, 172).

The standard form has a folded and flattened rim, short cylindrical neck, globular body with ring-shaped short handles between the upper body, neck and rim, and concave base (Colchester, 156; Price 1995b, 172). Plain blue-green bath flasks vary in size and quality, and many have thick walls, such as those found on three blue-green base fragments from the Caerleon drain deposit (Allen 1986, nos.39-42, 104, 106-7, fig.41). Variants are also found in the early to mid-second century, which are small and rather roughly made and have flimsy handles and thin walls, as exemplified by two blue-green base fragments from the Caerleon drain (Colchester, 156; Allen 1986, nos.37-8, 104-7, fig.41). In later second to third century contexts in the north-west provinces, including the Rhineland, variants are also found with funnel mouths, cylindrical necks and knocked-off rim edges, discoid bodies and base rings (Colchester, 156-7). There is also a variant with a ring-shaped body, as exemplified by the fragmentary vessel from York, from a Railway cemetery inhumation (Harden 1962, no.H.324.6, 138, 140, fig.88; RCHM 1962., 84(b)), similar examples of which are noted by Morin-Jean as being in the museums of Rouen, Amiens, and Bonn (1913, 88-9, figs.97-100).

Later variants were sometimes decorated with applied trails (Allen 1986, no.56, 109-10, fig.42), as exemplified by the blue-green fragment, 26 (*cf* above), and with facet-cuts, the latter being fairly common in the east. In Britain there are two examples of the more complex form of decoration in the assemblages of Fishbourne and Caerleon where the vessels are decorated with facets and wheel-cuts (Harden and Price 1971, no.45, 343-4, fig.139; Allen 1986, no.55, 104, 107-10, fig.42). Linear-cut decoration is also found in Britain in a Flavian context from Berkeley Street Gloucester (*cf* Colchester, 56), and on three colourless body and base fragments from the Caerleon drain (Allen 1986, no 52-4, 104, 107-10, fig.42).

There is a further handle fragment from York, unprovenanced, from a bath flask (Harden 1962, no.H.G.227, 138, 141, fig.88).

Only the one Church Street sewer fragment, noted above, appears to be from the later variant with trailed decoration, unless Charlesworth's identification of the fragment 31 (no longer available for study), as probably being from a third century bath flask, stems from her observation of the thinness of its wall (1976, no.42, 16). There are, however, variations in the forming of the handle on the fragment, 26, which may be relevant to further research on later variants: it appears to be attached to the shoulder, drawn up to the rim, looped over and returned; and the handle represented by the fragment 30 may have been similarly formed.

4.4 DISCUSSION

4.4.1 Common Patterns

4.4.1.1 The morphology of the assemblage suggests that in many aspects it differs considerably from the three main assemblages - the *canabae*, the Minster and Blake Street - both in the types and the forms it represents.

Over half of the fragments are colourless, and while the majority of the forms would have been tableware, the emphasis is on the bottles, flasks, and jugs. Common forms are present, such as the spouted jug, and the cylindrical cup which constitutes a fifth of the vessels represented in the assemblage. The bath flasks, logically, constitute over a quarter of the minimum number of vessels, and two fragments represent the less common colourless variant.

4.4.2 Uncommon Patterns

4.4.2.1 Compared to the relevant data from many sites in Roman Britain, including those from the majority of the York sites under discussion (*cf* Chapter 3), the common prismatic bottle, although present, is very much under represented. Furthermore, despite the dating of the sewer, there is only one form represented for the late period, that of the

very uncommon imported mould-blown hemispherical cup, despite the numbers of blown tableware cup, beaker, and bowl forms of the late period, which are common finds at York, and are also represented in the Caerleon drain (Allen 1986, nos.85-88 and 92-3, 114-6, fig. 44).

4.4.2.2 Post-excavation loss, already noted, may account for the absence in the sewer of the later first to mid-second century facet-cut beaker, which is also seen to be associated with the baths, since it is represented both at the Swinegate sites, and in the Caerleon Baths drain assemblage (Allen 1986, no.17, 101-2 fig.40). Such loss may similarly explain why there are so few prismatic bottle fragments; nevertheless it is noteworthy that very few fragments from this form are known from the Caerleon drain although the first contexts there are of *c*AD 75 date (Allen 1986, nos.5a-f and 14a-16, 99-101). These are negative factors which may possibly only be resolved by further excavation of the sewer deposits.

4.4.2.3 There are, however, other unusual patterns in the sewer assemblage, or in the combination of the sewer assemblage and those elsewhere at York, which may be significant for future research. The presence of the imported fourth century mould-blown hemispherical cup in the sewer provides the second example for York. The two stemmed beakers or flasks together with those elsewhere in the fortress possibly represent six of these vessels, making a potential eight for York generally. Similarly the combination of the fragments of the uncommon imported Mercury flask from the sewer and Blake Street represent a minimum of four vessels, in contrast with the numbers of one or two flask on sites elsewhere in Britain. Furthermore, one of the sewer fragments is from one of the less common blue-green examples.

4.4.2.4 There are also fragments which may be from a rare miniature hexagonal bottle; and a unique decorated variant of a spouted jug, or indented beaker/cup, both of which provide evidence which may similarly supplement future research.

CHAPTER 5
THE *CANABAE* AND FORTRESS VESSEL TYPES AND FORMS IN USE
cAD 71-410.
A GENERAL OVERVIEW

5.1 INTRODUCTION

5.1.1 The Approach

5.1.1.1 The discussion so far has centred on the investigation into the identifiable vessel types and forms represented in the fortress and *canabae* assemblages. This raises the question of their function - their '*raison d'être*', which thus necessitates an investigation into the relationship between the vessels and their contexts in the various functional areas of the fortress. A general overview is therefore needed, prior to this, of the usage patterns of these vessel types and forms.

5.1.2 Supplementary Data

5.1.2.1 When not mentioned in previous chapters, the forms and variants discussed will be provided with detail and references; the contexts dates for the *canabae* are those supplied by David Evans (*cf* Chapter 1). All forms, unless otherwise qualified, are of blown vessels. Tables 5.1-2, Appendix C, list the vessel types and forms represented in the *canabae* and the fortress assemblages by century and part century, with an indication of the peak production, or usage, periods, where known.

5.1.2.2 As already noted, the contextual dates for the fortress assemblages, other than that from the Church Street sewer, are made with reference to the publications on the sites.

5.2 TABLEWARE VESSELS IN USE IN THE FIRST TO SECOND CENTURY

5.2.1 Beakers, Bowls, and Cups

5.2.1.1 As already noted (*cf* Chapter 3), it is possible that two of the cast bowls represented in the assemblage, the cast polychrome pillar-moulded bowl, and cast bowl with out-turned rim, were heirlooms. There is also a blue-green fragment from the Minster, with a curved and cracked-off rim, with a horizontal abraded band beneath, which may be from a cylindrical cup which had similarly already gone out of production (Price 1995a, no.26, 349, 357, 359, fig.143). Its rim and body form is exemplified by a blue-green fragment decorated with wheel-cut bands from Sheepen, Camulodunum from a Claudio-Neronian context (Harden 1947, no.78, 303, pl.88; Hawkes and Hull 1947, 56).

5.2.1.2 It is apparent that a good number of the glass vessel forms represented in the York assemblages could have been used by the early garrison, since over a third would have been in production *c*AD 71. Not all would have been at the peak of production however (*cf* Tables 4.1-2). Of the two mould-blown tableware vessels represented at the fortress, for instance, the manufacture of the blue-green ovoid-bodied cup with vertical ribs, at Blake Street, may have been in decline, since the main hemispherical-bodied ribbed form is usually found in Claudio-Neronian contexts, and went out of use in the early Flavian period (Cool 1995, no.5894, 1564-5, 1651, fig.736; Cool 1998a, 304; Price 1991, 65, 67). Nevertheless this main form is found at a number of sites including those of the northern forts of Castleford (Cool and Price 1998, nos. 38-40, 142, 155, fig.52), Carlisle (Price 1990, nos.6-7, 165-6, fig.159), Vindolanda (Price 1985b, no.1, 206) and Binchester, Co. Durham, which were established after AD 70 (*cf* Price 1991, 70). A second example of the variant, also in blue-green glass, is represented at the ?pre-Flavian site at St Mary's Abbey, York (Cool 1998a, no.4, 303-4, fig.2);

The hemispherical-bodied ribbed bowl and variant are among a number of mould-blown forms made in brightly coloured and blue-green glass, which were in use in the western Empire and Mediterranean region between the Tiberian, and the early Flavian, period,

and which include the truncated conical beaker and the sports cups (Price 1991, 64-71), both of which are represented at York.

5.2.1.3 A colourless fragment of the truncated conical beaker, Isings Form 31, is recorded at the Minster site (Price 1995a, no.13, 347, 355, fig.142), and another, in light green glass, is recorded from the east corner of the fortress (*cf* Chapter 2). This form, which is less commonly found in colourless glass, was in use during the late Neronian/early Flavian period, and is found decorated with different motifs in high relief, including those of mythological scenes, almond-shaped, oval and circular bosses sometimes with lattice work, and a variety of shells, rings, peltas, meanders, scrolls, spirals and foliage (Price 1995b, 150; 1991, 69-71). A yellowish-green beaker from Syria exemplifies the complete form which has a knocked-off vertical rim, and a body which tapers slightly inwards to a flat base with concave inner wall, and is decorated in four horizontal zones with oval discs and peltas, ivy and rosettes, a square meander with ?mussel shells and oval discs, and laurel leaves and peltas (Harden *et al* 1987, no.79, 157).

The Minster fragment is decorated with a square meander and oval disc in relief, and, among the dozen beaker fragments known in Britain, is one of only five colourless examples: from Verulamium (Charlesworth 1984, no.15, 146, fig.61, 150), from Wroxeter (Cool and Price forthcoming, no.51); from Winchester and from Bitchester (*cf* Handbook, 65-6). None of these has a design similar to the Minster fragment, however the decoration of almond-shaped bosses and circular pellets on the light-green fragment from York is not uncommon. It is found on two further fragments from Wroxeter, in dark blue glass (Cool and Price forthcoming, nos.41-2); on the pale green fragment from Usk (Price 1995b, no.23, 150, 153-4, fig.43); on the yellow-brown and dark blue fragments from Caersws (Cool and Price 1989, nos.15-17, 38, fig.20); on the yellow/green fragment from Leadenhall Court London (Shepherd 1996, no.88, 107, fig.63); and on the light-green fragment from Castleford (Cool and Price 1998, no.33, 142, 155, fig.52).

It is noteworthy that fragments from beakers decorated with almond-shaped bosses, and one with a square meander and raised rings, are also found at the Nijmegen *canabae*,

which is associated either with Legio X or with the later garrison of the Ninth Hispana, and has a *t.a.q.* of *c*AD 105, (Isings 1980, nos.1/67.1, 3-6, 8, 281, 292-3, figs.6-7).

5.2.1.4 The blue-green fragment decorated with part of a chariot-racing scene, found, unprovenanced, at York (Harden 1962, no.a, 136, 138, fig.88), represents one of the sports cups (*cf* above). These were often decorated in two friezes and are possibly some of the best known early Imperial mould-blown vessels. Other designs include scenes of gladiatorial combat in which are incorporated the names of competitors (Price 1991, 67-9). The York cup is one of six examples from Britain, one of which is from Colchester, from a context dated to AD60/1-*c*75/80 (Colchester, no.232, 45, 49, fig.3.1), with the remainder being from London and Southwark (*cf* Colchester, 45). These are part of a large group of cups, represented elsewhere at sites in the Rhineland, and in central and northern France, which are known as the 'Couvin group', since the most complete example, which preserves all the details of the inscriptions and principle decorative zones, comes from a burial at Couvin, Belgium (*cf* Colchester, 45). These cups are decorated in one frieze, which comprises the names of four charioteers displayed above the main decorative zone which shows charioteers driving four-horse chariots in the circus, separated by *metae*, an obelisk and an *ovarium* (lap counter) (Colchester, 45).

5.2.1.5 A second truncated beaker which is blown, and is represented by a colourless fragment from the Minster site, may have been in use at the same time as the former mould-blown beaker. The blown fragment has a horizontal ridge ground out of its lower body above which is probably a painted design of horizontal scrolls of leaves and stylised flowers with pairs of dots, between two horizontal lines; parts of this may also have been cut into the surface prior to the colour being applied (Price 1995a, no.17, 348, 356, 356-7, fig.142; Colchester, 63). Two other fragments of painted beakers have been found at Silchester and Usk (*cf* Colchester, 63).

The painting of vessels was unusual in the Roman Empire. Most of the designs are found to occur on the early to mid-first century Hofheim cups, although some truncated conical beakers of the later first century, such as the Minster example, were painted, and some were also facet-cut. Further examples occur in the first century amphoriskoi, the

later second to mid-third century cylindrical cup, and, occasionally, the mid-third to early fourth century spherical flasks (Colchester, 56, 62-3).

5.2.1.6 In contrast to the above, the blown forms of the Hofheim cup and the wheel-cut beaker, which are represented at the *canabae* and Blake Street, have comparatively little decoration (*cf* Chapter 3). These two contemporary forms are mainly found in pre-Flavian context, and so would only have been in use at the fortress in the early years, although an extended period of usage at York for the cups is also suggested (*cf* Chapter 3). The three context for the Blake Street fragments offer usage dates ranging from *c*AD 71 to *c*AD 100-160 and beyond (Cool 1995, no.5952, 1653-4), and while the later contexts appear to be an indication of the residuality of the fragments, it is worth noting that the variant represented at Greyhound Yard, Dorset has a context date of the late first/early second century (*cf* Chapter 3).

5.2.1.7 The indented beaker, which is represented in the *canabae* and Blake Street assemblages in colourless and blue-green glass (*cf* Chapter 3), has a rim form which was similarly plainly decorated, however the indented body would have made it noticeably different to the two forms previously discussed (*cf* Chapter 3). This fairly common form primarily of Flavian date may have continued in production into the second century; similarly the uncommon very tall variant represented at Blake Street in blue-green glass, is also found at Doncaster in a late first/early second century context (*cf* Chapter 3).

5.2.1.8 As opposed to the single incidence of the decorated mould-blown and blown truncated beakers, discussed above, York has one of the larger collections for Roman Britain of the colourless facet-cut beaker, which is seen as one of the more common forms of the Flavian period (*cf* Chapter 3). The form, represented at the majority of the sites under discussion, could have remained in use at the fortress into the early or mid-second century (*cf* Chapter 3). The earliest of the contexts has a date of *c*AD 160-280 (Cool 1995, nos. 5928-9, 1653), however, suggesting that, unless all the facet-cut beakers at Blake Street were in use at the end of their production life, many of them may have had residual contexts.

5.2.1.9 Further fragments from Blake Street represent an indeterminate number of the variant decorated with low relief, which, in common with those decorated with high-relief (*cf* below), are contemporary with the facet-cut beaker (Cool 1995, nos.5933-42, 1566-7, fig.737). The rim and upper body of the former variant is exemplified by the fragments from Colchester in contexts dated to *c*AD 65/80 and AD 80 respectively (Colchester, nos.407-8, 4-5, 74, fig.5.6). There may be further examples, represented at the Minster and the Swinegate sites (Price 1995a, no.27, 358-9, fig.143; Cool 1995, nos.6441 and 6447, 1609, fig.765). One of the fragments from Blake Street also has a context date of *c*AD 160-280 (Cool 1995, no.5940, 1653).

5.2.1.10 The less uncommon of the two sub-variants decorated in high relief has ground motifs which rise above the surface of the vessel as solid blocks with straight sides, at least one example of which is represented at Blake Street in a context with a *t.a.q.* of AD 161, one fragment having a rounded end of a ?raised oval with four vertical wheel-cuts (Cool 1995, nos.5926-7, 1569-7, 1652-3, fig.737). Elsewhere in the western provinces, including the Rhineland, examples from a number of different forms, including beakers, provide details of various designs such as vine leaves, shells, rosettes and lancet-like leaves (von Saldern 1991, 117). In Britain examples are known from Lincoln, and Gloucester (*cf* Handbook, 83), from Fishbourne in an AD 75-100 context (Harden and Price 1971, no.30, 333, 335-6, fig.138, pl.26), from Park Street villa, St Albans (Harden 1945, no.2, 69-70, fig.11), and Verulamium (Charlesworth 1984, no.15, 146, 150, fig.61). Three are known from London sites, from Southwark Street (Shepherd 1995, no.59, 125, fig.38), from the Old Jewry rubbish pit, Leadenhall Street. and from Ironmonger Lane, the designs on the two latter including ovals (Wheeler 1930, no.7, 122-3, fig.42; Harden 1970, no.18, 8). The only other example from a northern site is from Castleford, Yorkshire, and has a ?leaf motif, possibly similar to the beaker from Leadenhall Street, (Cool and Price, 1998, no.132, 145, 160, fig.55).

On the second sub-variant the motifs are deeply undercut and in places may have open-work similar to that of the fourth century cage cups (Cool 1995, 1568-9). Only two fragments from these beakers have been found in Britain: the example from Blake Street has a leaf motif decorated with diagonal wheel-cuts in a cross-hatching pattern, with two diagonal wheel-cut lines on the stem (Cool 1995, no.5923, 1566-9, 1652, figs.737-8);

one, from the early second century cullet dump in London at Guildhall Yard - situated outside the fort - (Shepherd pers.comm.) is decorated with a leaf motif (*cf* Handbook, 83). Three further examples with this open-work relief are known from Nijmegen, from Rome, and from Begram, Afghanistan (Koster and Whitehouse, 1989, 28-30).

5.2.1.11 Two further colourless thin-walled facet-cut beakers are represented at the Minster. This form has a separately blown foot, and the facets decorating the body are widely spaced and oval, and are bordered by two close-set horizontal wheel-cut lines, rather than a ground-out ridge. The form is fairly common in the western provinces in the later first and early second century (Price 1995a, nos.22-3, 348, 356, fig.142), and during much of its production period could have been in use at the same time as the facet-cut beaker.

5.2.1.11 Two further colourless thin-walled facet-cut beakers are represented at the Minster. This form has a separately blown foot, and widely spaced oval facets, with two close-set horizontal wheel-cut lines, rather than a ground out ridge, as a border for the facets. It is fairly common in the western provinces in the later first and early second century (Price 1995a, nos.22-3, 348, 356, fig.142), and, during much of its production period, could have been in use at the same time as the facet-cut beaker.

5.2.1.12 There are also a number of bowls which could similarly have been in use at York from *c* AD 71 up until the beginning of the early second century, or beyond. These include the common blue-green cast pillar-moulded bowl (*cf* Chapter 3), since, while it is generally found in contexts of the second half of the first century, it is sometimes recorded in early second century contexts, as is indeed the case for several of the fortress fragments (*cf* Price 1995a, nos.1-2, 4, 353).

The fine colourless cast bowl with out-turned rim and foot ring, is another form which was common on sites in Britain between the Flavian period and the early second century (*cf* Chapter 3), and which is represented at the Minster site, and by an unprovenanced fragment from York, and possibly by one from the *canabae*.

Another cast bowl, the decorated variant of the form with wide overhanging rim is also represented at the Minster site, while the plain variant is possibly represented in the *canabae* (*cf* Chapter 3). Both are found with two sub-variants: one with a deep body, and one a shallow convex body, which tapers inwards to a high diagonal base ring, as exemplified by one of the Colchester bowls (Colchester, no.212, 39, fig.2.11). The plain bowl could have been in use longer than the two former bowls, since it is commonly found throughout the Empire in contexts dated between the late Flavian and the third quarter of the second century (*cf* Chapter 3).

The decorated fragment from the Minster is from the rare variant with a deep body, noted above, which has 'egg and dart' cutting on the rim, and, in this case, also circular facets and pairs of short lines on its underside (Price 1995a, nos.8-9, 347, 355-6, fig.142). A small number of examples of the variant are known elsewhere in Britain: from Castleford, and Richborough, where the rims similarly have circular facet-cuts on the underside (Cool and Price 1998, no.28, 143-4, 154, fig.51; *cf* Yadin 1963, 107 fn.24, 109, fig.40a); from Fishbourne (Harden and Price 1971, no.33, 334-6, fig.138, pl.26), from London, where two examples are represented at Hibernia Wharf, Southwark and Southwark Street (*cf* Handbook, 58); and from Wroxeter from the *macellum* with a *t.a.q* of AD 120, which has oval facets on the rim, body and base (Charlesworth 1975, 404-6).

Close parallels are known elsewhere in the Western Empire, including Cosa, Italy, Portugal and France (*cf* Price 1995a, 347; *cf* Grose 1971, 14, fig.14) and in the Mediterranean region, at the Cave of Letters, Judaean Desert, Israel, where the bowl has alternate round facets and double lines within two thick lines on the underside of the rim and base (Yadin 1963, no.12, 101, 106-7, fig.40, pl.29).

The fourth fragment, from the Minster, is from a very shallow bowl, or plate of late first to early second century date (Price 1995a, no.9, 347, 356, fig.142), which, from among the small number of such vessels known in Britain, is one of only two with carved handles, the other exceptions being a small bowl from Wroxeter and, as a closer parallel, a circular bowl from the same site (Price 1995a, 347). There are three further examples elsewhere with handles: two are circular bowls, from Crain (Yonne, France), and Adria (Italy); and the third is an oval plate from Zara (Croatia) (*cf* Price 1995a, 347).

5.2.1.13 Blue-green blown bowls, which would have been more cheaply produced than the cast forms, could also have been in use at York in the early decades. These include tubular-rimmed bowls which are represented at the *canabae* and the Minster site (*cf* Chapter 3). These forms are generally dated to between the early first to the later second century, with a peak of production between the mid-first to mid-second century. Since two of the *canabae* fragments are from vessels in the strongly coloured glass usually found in the pre-Flavian period, it is probable that they represent bowls which were being utilised at York in the first decades; while the blue-green Minster fragment, may have a late first century/second century date (*cf* Chapter 3).

There are also fragments, from the *canabae* and possibly the Church Street sewer assemblage, from variants with fire-rounded rims which were manufactured during the first to third century (*cf* Chapters 3 and 4); a further bowl may be represented in the Minster assemblage which is dated by its colour to the second to third century (Price 1995a, no.61, 351, 362-4, fig.144).

5.2.1.14 There are fragments in the three larger assemblages representing forms from the range of colourless biconical or cylindrical drinking beakers/cups which were in production from the end of the first until the later second century, and which were very common in the first half and middle of the second century (*cf* Chapter 3). All have bodies which are simply decorated with horizontal wheel-cut lines, and would have been cheap to produce. Four of the fragments from Blake Street are from contexts with a *t.a.q.* of AD 101 (*cf* Chapter 3), suggesting that some of the cups were in use at the beginning of their production period. However since fragments of the thin-walled wheel-cut cup of mid- to later second century date are often found with fragments of these beakers/cups (*cf* Chapter 3), it is possible that at least some may have been in use at York towards the latter end of their period.

5.3 TABLEWARE: SERVING VESSELS IN USE IN THE FIRST TO SECOND/THIRD CENTURY

5.3.1 Jugs

5.3.1.1 The very common conical and globular jugs are represented in all the assemblages under discussion, excepting those from the sewer and the Purey Cust site (*cf* Chapter 3). Their main period of use is the later first into the second century with the conical jug continuing into the middle of that century; the fragment from the *canabae* in the early-dark green glass, however, is suggestive of a later first, rather than a second, century date (*cf* Chapter 3).

5.3.1.2 The third form, the jug with pinched-in spout, which is represented at the *canabae*, the Church Street sewer and possibly at Blake Street, and is widespread in the north-west provinces including Britain (*cf* Chapters 3 and 4), was in use generally between the late first and the early third century. The early context date for the colourless jug from Blake Street, (*cf* Chapter 3) suggests that it was in use there in the early years of its production, and thus at the same time as the dark green conical/globular jug (*cf* above). The blue-green jug represented in the sewer assemblage (*cf* Chapter 4) could, however, have been utilised at any time between the mid-second century to the end of its general usage or production period.

5.4 TABLEWARE OR UTILITARIAN CONTAINERS/STORAGE VESSELS IN USE IN THE FIRST TO SECOND/THIRD CENTURY

5.4.1 Jars

5.4.1.1 Fragments from a number of the jar forms of the early period which were mainly manufactured in blue-green glass, are found in the *canabae* and fortress assemblages. One, the collared jar, which is seen as an item of tableware, is represented at the

canabae, Blake Street and the Swinegate sites, by fragments in blue-green and light green glass from either the common variant with a globular ribbed body, or the less common variant with a plain ovoid body (*cf* Chapter 3). Both are known first in Neronian contexts and probably went out of use quite early in the second half of the second century (*cf* Chapter 3). The context dates of *cAD* 71 and *cAD* 71/79-100 for two of the jars represented at Blake Street in light green glass, and for *cAD* 71 for the Swinegate jar, (Cool 1995, nos.5903, 6047-8 and 5450, 1652, 1656, 1668) suggests that at least some may have been in use when the fortress was newly constructed.

5.4.1.2 Another form, represented in the *canabae* and Blake Street, is that of the funnel-mouthed jar with rolled rim (*cf* Chapter 3). This form was in use between the first and second century, and though the form is primarily of second century date, the fragment from Blake Street has a context date of *cAD* 71/79-100 (Cool 1995, no.6082, 1657), and therefore could have been in use at the same time as the former jar.

5.4.1.3 At least two variants with fire-rounded rims are represented at the Swinegate sites (Cool 1995, nos.6451-3, 1610, 1668, fig.766). This rim form is known on blue-green jars with globular and ovoid bodies, and also on jars with indented bodies, as is found at Gloucester, for instance (Colchester, 113; Charlesworth 1974, no.6, 74, 76, fig.29); and on jars with a convex-curved body as at Colchester (Colchester, no.832, 113-4, fig.7.7). Since the forms were in use from the early years of the conquest until at least the mid-second century (*cf* Colchester, 113), the context for the larger jar, which has a *t.p.q.* of the mid-second century (Cool 1995, nos.6451-2, 1669), suggests that it may have been in use towards the end of its manufacturing period.

5.4.1.4. The blue-green ovoid or globular bodied jars with tubular rims, which are represented in the *canabae* (*cf* Chapter 3), are generally found in contexts which have dates ranging from between the mid-first century and the early third century.

5.4.1.5 The square-bodied form with collared rim, which is probably represented in the Church Street sewer and possibly the *canabae* (*cf* Chapters 3-4), is a form which is found in Flavian to third century contexts; the context of the sewer fragment, as already noted, has a general mid-second to third century deposition date.

5.5 CONTAINERS/STORAGE VESSELS IN USE IN THE FIRST TO SECOND/THIRD CENTURY

5.5.1 Bottles

5.5.1.1 The common blue-green blown cylindrical bottle, which is represented in the *canabae*, at Blake Street and at the Swinegate sites, is found in contexts dated from the Claudian period to the late first or early second century, while the main period of use is in the third and fourth quarter of the first century (*cf* Chapter 3). Exceptions do occur, however, such as for that of the large cylindrical bottle from a York cremation on the Mount which is associated with other small finds which have a *t.p.q.* of the late second century date (Harden 1962, no.H.G.53, 136, pl.66; RCHM 1962, 95-7).

5.5.1.2 The common blue-green prismatic bottles - of square - or hexagonal-bodied form - are also first found in Claudian contexts, with the larger square bottle being known from the late Neronian/early Flavian period into the later second and even the early third century, and being very common from the last quarter of the first century onwards (*cf* Chapter 3). The hexagonal bottle was most common during the later first and early second century, and was probably in decline during the second quarter of the second century, although it is still known in mid-second century contexts, and there are a few instances of it being found in later use (Colchester, 185), as exemplified by the bottle from a third to fourth century York burial (Harden 1962, no.H.34.c, 137, 138, fig.88; RCHM 1962, 91). The uncommon rectangular bottle, possibly represented at the fortress by one of the Blake Street base fragments (*cf* Chapter 3), was in use between the second and third quarters of the second century (Handbook, 210).

Prismatic bottles appear to have been in use at York throughout the main period of usage. The earliest context for the prismatic bottle, for instance, is recorded at both the Swinegate, and the Blake Street, sites, where three fragments have a context date of *cAD* 71/79-100 (Cool 1995, nos. 6462 and 6176 and, 1658-9, 1669). Fragments from the Minster from at least three square bottles, including one large example, have late first to early second century context dates (Price 1995a, nos. 72, 74, and 74c, 366); and one

of the Swinegate fragments has a context date of cAD 100-120 (Cool 1995, no.6468, 1669). There are also a small number of fragments, from both of these sites, with context dates lying between cAD 100 and 160 (Cool 1995, nos.6115-8, 6121, 6131-43, 6146, 6172, 6178-9, 6177, 6461, 6463, 6465-7, 6467, 1658-9, 1669).

5.5.2 Small Flasks/Unguentaria

5.5.2.1 A number of unguentaria forms were in use at York, one of the earliest of which, represented in the *canabae*, is that of the variant of the tubular unguentarium with sheared rim (*cf* Chapter 3). This less common variant, with a rolled rim, which is also found in the Railway cemetery, was in use in the later first century, and is also known in second century contexts, and possibly later (*cf* Chapter 3). The earlier form with sheared rim, which may also be represented at Blake Street and in the *canabae* assemblage, is common on mid-first century settlement sites in Britain (*cf* Chapter 3). Its presence in a York burial which has a *t.p.q.* of the turn of the second century (*cf* Chapter 3), therefore suggests its use as an heirloom.

One of the *canabae* fragments - from either variant - has a 'second+' century date. One should be wary however, of using this single queried context date as evidence for the later use in a domestic context of either of these unguentaria, since, similar to the majority of the fragments from the *canabae* assemblage, the find may be residual.

5.5.2.2 The most simple form of flask found, unstratified, at the fortress, in the Swinegate sites assemblage is that of the test tube unguentarium, Isings Form 27, which is known from the Neronian-Flavian period onwards (Isings 1957, 41). The complete form, as exemplified by the York vessel, has a rolled rim and a simple tubular body which curves slightly inwards between the rim and the convex-curved base (Cool 1995, no.6455, 1610-11, 1669, fig.766). It is common in Pompeii and Herculanium and is known at Dura-Europos, and also in the Rhineland (Isings 1957, 41), but is rare on British sites. To date there are two in blue-green glass: one from Eynesbury, Huntingdonshire, from a later first century burial context (Rudd and Daines 1968, no.2, 16-17, fig.4); and one with a fire rounded rim, from the Tower of London site, from a

late second century/early third century context (Shepherd 1985, no.112, 71; Parnell 1985, 4).

5.5.2.3 The conical-bodied unguentarium, which has a larger reserve than the two latter forms, is represented at Blake Street and possibly in the *canabae*; and there are two complete vessels from the burials (*cf* Chapter 3). This form was in use generally between the first and early second century and is also known in mid-second century contexts or later (Cool 1995, 1583). The context for the Blake Street vessel has a date of *c*AD 100-160 (Cool 1995, 1657) and could thus have been in use between the end of the first to the mid-second century.

5.5.2.4 The discoid unguentaria, with or without a constricted neck, Isings Form 82A1 or A2, which is represented at Blake Street and in the burials, have the folded rim, the comparatively wide constricted neck and the wide body found on the conical-bodied unguentarium. They were in use at the same time as this form, but remained in production into the third century (Colchester, 161).

There are two sub-variants: the common plain form, and the less common form which has an impressed design on its base (Colchester, 161) which is represented at Blake Street by a blue-green base fragment (Cool 1995, no.6072, 1583, 1657, fig.748), and by an unprovenanced vessel from York with a design which Harden describes as a 'winged victory and a V', on the base (1962, no.H.G.16, 137, 139, fig.89) with an apparent diameter of *c*88mm. This design is known on two other examples: one, from Felmongers, Harlow, on a blue-green long-necked flask, with a base diameter of 90mm, on which the letters CS·ACO [...] are stamped around a figure which is defined as a cockerel (Price 1987, no.28, 198, 205, fig.4; RIB 1991, no.2419.199, 112); and on the greenish-colourless vessel from Lancaster, where the letters CSC are similarly round a cockerel (RIB 1991, no.2419.110, 112).

There is a further sub-variant with a shorter neck (Colchester, 161), as exemplified by the vessel from the Railway cemetery, with PATRIMON[I] ('product of the (Imperial) estates') impressed on its base (Harden 1962, no.H.G.217, 137, 139, fig.89; RIB 1991, 117), which has an apparent diameter of *c*56mm. Four other examples of this design are

known or suggested: on a flask from Chesters, Northumberland, with a base diameter of 52.4mm, on which are the letters PATRIMON(I)I (RIB 1991, no.2419.130, 175); on a flask from Lincoln, with a base diameter which appears to have been larger than the York example, on which the letters]ONI[curve round an indistinguishable design (RIB 1991, no.2419.132, 175; Harden 1949, no.9, 77, pl.60); on a vessel from Aquae Sulis, Bath which comprises the letters ']PAT[RI]MON(I)I[(RIB 1991, no.2419.133, 175); and on one from Funtington, West Sussex, on which the letters]RIMO[are around a figure (RIB 1991, no.2419. 34, 175).

5.6 TABLEWARE VESSELS IN USE IN THE SECOND TO THIRD CENTURY

5.6.1 Beakers, Bowls, and Cups

5.6.1.1 The colourless globular/ovoid-bodied thin-walled cup, represented in the *canabae* assemblage, is a quite common, plainly decorated, form of mid- to later second century date, which, as already noted, is often found in association with the biconical wheel-cut beakers/cups (*cf* above and Chapter 3).

5.6.1.2 The main, usually undecorated, form for this period, however, is the common cylindrical cup, which is represented in all but the two smaller assemblages, and which was in use during the period between the later second and mid-third century (*cf* Chapter 3). It may thus have been used in place of the colourless drinking cups of the late first to later second century, although it was not always manufactured in colourless glass (*cf* Chapter 3). The far less common plain form - the ovoid cup - which was in use at approximately the same time, is represented in the Minster, the Church Street sewer, the *canabae* assemblages, and in the *colonia*. This form has a thick, slightly concave, base (*cf* Chapter 3), making it, perhaps, a slightly sturdier form than that of the cylindrical cup.

5.6.1.3 The cup/small bowl with a convex curved body decorated with bands of either circular or rice-grain facet-cuts, which is represented in the *canabae* and the Minster

assemblages, has a general second, to later third, century date (*cf* Chapter 3) and would have been in the early decades of its production when the facet-cut beakers and variants were going out of use. At least two of the examples, from the Minster and the Railway cemetery, however, would probably have been in use in the third century (*cf* Chapter 3). The form could also have been used at the fortress at the same time as the cup/bowl with geometric design, which has a date range of the mid-second to early fourth century and which is represented at the Minster, Blake Street, in the Railway cemetery, and is found as an unprovenanced vessel from York (*cf* Chapter 3).

5.6.1.4 The imported colourless stemmed beaker or flask decorated with trails, or with snake thread which one could suggest would have been an attractive type of decoration, is represented in three of the assemblages - the *canabae*, Blake Street and the Church Street sewer - and the beaker is represented at the Minster and possibly Blake Street. Both are dated to the second half of the second, and into the early third, century, (*cf* Chapter 4).

5.6.2 Bottles and Jugs

5.6.2.1 It is not certain whether the jug with pulled-up spout is represented at the fortress. This is a form which is generally found in contexts dated from the second half of the second, into the third, century (*cf* Chapter 3), by which time the jug with pinched-in spout would have been in production for over half a century. Both went out of use at approximately the same time.

5.6.2.2 The colourless cylindrical bottle, which is represented at the *canabae*, and at the Minster site, is known generally in later second and early third century contexts (*cf* Chapter 3). Since two of the Minster fragments have an early third century context (Price 1995a, nos.33 and 34(b), 358), the bottle could have been used at table with one or both of the latter jug forms towards the end of their production/usage period, if not before. Compared to the jugs, however, with their decorative mouths and also on occasion decorated handles, the bottle form, decorated with wheel-cut or abraded lines, appears comparatively plain.

5.6.3 Small Flasks

5.6.3.1 The bath flask, which has its main period in the second century, is datable to between the third quarter of the first to the mid-third, century (*cf* Chapter 4). Thin-walled variants with flimsy handles, such as are found in the Church Street sewer, were introduced in the early to mid-second century, while later variants were sometimes decorated with applied trails or occasionally with facet-cut decoration. The combination of the thin walled variants, the example with trails, and the dating of the sewer, therefore suggests that the flasks could have been in use in the Baths complex, between the early/mid-second and mid-third century.

5.6.3.2 The imported Mercury flask, represented at the Blake Street site and in the Church Street Sewer, is primarily of later second and third century date (*cf* Chapter 3), and the context for the two flasks represented at the former site, of *cAD* 160-280 date (Cool 1995, nos.5911-12, 1652), concurs with this.

5.7 TABLEWARE VESSELS IN USE IN THE THIRD/THIRD TO FOURTH CENTURY

5.7.1 Beakers and Cups

5.7.1.1 The decorated variant of the third century hemispherical cup, is represented at the *canabae*, at Blake Street and the plain variant at the General Accident *colonia* site (*cf* Chapter 3). This cup, which may have been in use at the end of the previous century, was the most common drinking vessel of the mid- to late third century. Despite the decoration which may have made the cup more attractive to the eye, the extra cost for this work would have been minimal, and this, together with the fact that it is a common form, suggests that it could have superseded the common cylindrical cup of later second to mid-third century date.

5.7.1.2 The truncated conical beaker, represented in the *canabae* and fortress (*cf* Chapter 3), was common throughout the fourth century and is known in the early fifth century. It occurs in contexts of the last decade of the third century (*cf* Chapter 3), as is the case for the colourless green tinged fragment from a second to the third century context at the *canabae* (Appendix A no.370). In general, there appear to have been several standards/variants of the beaker: one in the poorer quality glass, with unground rim and with little or no decoration; one, less common, in a better quality glass decorated with the horizontal lines or with trails or blobs, and more likely to have a ground rim; a very uncommon imported variant also in the better quality glass, which has a ground rim and is decorated with wheel-cut and abraded figure scenes. All three standards/variants of beaker appear to be represented at York; although the very uncommon beaker with a figured scene is represented only in the *canabae* assemblage (*cf* Chapter 3).

5.7.1.3 The hemispherical cup, also represented in the *canabae* and fortress (*cf* Chapter 3), which is generally associated with the fourth century, and which was as common then as the truncated conical beaker, may also have been manufactured in the last decade of the third century (*cf* Chapter 3). Similarly, the ground rim and the horizontal wheel-cut lines and abraded decoration are associated with a less commonly found, better quality cup, as are the imports with trailed decoration and blobs or the more complex figured design, which are represented in the *canabae*, and possibly the Blake Street, assemblage (*cf* Chapter 3). The mould-blown decorated variant, which is also imported, is represented in the Minster and Church Street sewer assemblages (*cf* Chapter 4).

5.8 TABLEWARE: SERVING VESSELS IN USE IN THE THIRD/THIRD TO FOURTH CENTURY

5.8.1 Bottles, Flasks, and Jugs

5.8.1.1 The spherical flask, which is represented in the fortress, probably in the *canabae*, and elsewhere in York, unprovenanced (*cf* Chapter 3), was generally in use from the middle of the third century, at the earliest, until possibly the first half of the fourth

century (*cf* Chapter 3). One of the three Blake Street fragments, in colourless glass has a context with a *t.p.q* of the late third century; two in green-tinged and in light green glass are from contexts with a *t.p.q* of the later fourth or the fifth century (Cool 1995, nos.6028 and 6232-33, 1656, 1660). One of the decorated body fragments from the *canabae*, which is probably from an import from Köln, is also in the colourless/green-tinged glass of the late period (*cf* Chapter 3). The form may thus have been in use at York during the time that it was in general production, and perhaps beyond.

5.8.1.2 The funnel-mouthed bottle and flask with the distinctive out-turned rim and trail beneath were in production in the third, and more commonly the fourth, century. Either, or both, are represented in the *canabae* assemblage, and there are three flasks from the York burials (*cf* Chapter 3). Out of those York examples or fragments with relevant context dates, that from the *canabae* has only a general third to fourth century date (Appendix A, no.383). The context date for the plain variant from the burials however, has a *t.a.q.* of AD 327 (Harden 1962, no.H.13, 140), suggesting that at least one of the vessels may have been in use in a domestic context in the early fourth century.

5.8.1.3 The common cylindrical dolphin-handled bottle, and the less common variant with a mould-blown hexagonal-body, are both represented in the *canabae*. The latter is also represented in the Minster assemblage and the former in the burials (*cf* Chapter 3). The body of the cylindrical form is decorated with abraded horizontal bands while the hexagonal body has diagonal ribbing; the very uncommon plain hexagonal-bodied variant may also be represented in the assemblage (*cf* Chapter 3).

Few of these bottles are known from mid-third century contexts (*cf* Colchester, 207), and they are mostly found in contexts of fourth century date, as is the case for the fragment of the hexagonal ribbed variant in the *canabae* assemblage (Appendix A, no.177).

5.8.1.4 There is a pale-blue-green fragment in the Minster assemblage from the Frontinus bottle with a cylindrical mould-blown body and base (Price 1995a, no.77, 352-3, 365-6, fig.145). The form, which is fairly common, is of later third to fourth century date, and has an out-turned rim with an edge rolled-in or folded out, up and in, a

cylindrical neck, a horizontal shoulder and one or two reeded or ribbed angular ribbon handles. The body is decorated with horizontal corrugations, in upper and lower zones, and a design in low relief on the base, usually of concentric circles and letters, many of which are abbreviations of 'Frontinus' (Handbook, 209-211). The Minster fragment is from a fourth century context (Price 1995a, 366); the bottle could thus have been in use at the same time as the hexagonal-bodied bottle discussed above.

5.9 CONTAINER VESSELS IN USE IN THE THIRD/THIRD TO FOURTH CENTURY

5.9.1 Jars

5.9.1.1 An imported jar of third to fourth century is represented in the *canabae*, and two are recorded in the burials in association with two of the third to fourth century funnel-mouthed flasks which have trails beneath the rim (*cf* Chapter 3). Unfortunately the burial is not closely datable.

5.10 CONTAINERS/STORAGE VESSELS IN USE IN THE THIRD TO FOURTH CENTURY

5.10.1 Small Flasks/Unguentaria

5.10.1.1 The fourth century pipette unguentaria, Isings Forms 105, is represented by a colourless rim and neck fragment from the Minster site (Price 1995a, no.65, 351, 364, fig.145). This form has a rim which is rolled in or folded out, up and in, sometimes forming a funnel mouth with narrow aperture; it has a long straight neck and upper body which expands outwards to the middle and contracts inwards towards a convex base (Handbook, 187). Two are also recorded from the York burials (Harden 1962, H.G.6-7,

139-40, fig.89), and Harden notes a 'further half-a-dozen or more' from the burials (Harden 1962, 140).

5.11 TABLEWARE VESSELS INTRODUCED IN THE FOURTH CENTURY

5.11.1 Bowls

5.11.1.1 The main bowl forms of fourth century date at York are the shallow convex bowl and the convex bowl with indents. The former, represented at the *canabae* and Blake Street, was in use throughout the century (*cf* Chapter 3). The body, which is often decorated with bands of abrasion, is also known with facet-cutting, and free-hand incised and abraded designs, and is possibly exemplified at York by the fragment from Blake Street (*cf* Chapter 3). Since the more plainly decorated form is a common one in Britain, its absence from the Minster site is surprising. The second form, which is represented at the *canabae*, the Minster and Blake Street (*cf* Chapter 3), is known to have been in use during the second half of the fourth, and in the earlier fifth, century.

5.11.1.2 A hemispherical form decorated with figured cutting is also represented at the Minster, in the *colonia*, and possibly also in the *canabae* (*cf* Chapter 3). The variant, which is usually associated with villa sites, is known in the second and third quarters of the fourth century (*cf* Chapter 3; *cf* Handbook, 119-121), at the same time as the latter form.

5.11.1.3 Fourth century variants of the first to third century bowls, with fire-rounded rims and tubular base rings may possibly also have been in use at the fortress in the late period (*cf* Chapter 3).

5.12 TABLEWARE: SERVING VESSELS INTRODUCED IN THE FOURTH CENTURY

5.12.1 Jugs

5.12.1.1 There would have been at least two fourth century jug forms available for use at York. One, the funnel-mouthed jug, represented in the *canabae* and Blake Street assemblages, is the most common jug form of the fourth century (*cf* Chapter 3).

5.12.1.2 A second form, the later fourth century two-handled globular jug, as discussed by Price and Cottam (Handbook, 167-8) is represented by a blue-green neck fragment from Blake Street (Cool 1995, no.6454, 1609, fig.765). It is not very common, and is occasionally found in burials such as at Winchester, where it is recorded in a late fourth century context in pale green glass (Harden 1979b, no.450, 219, fig.27), and at Mitcham, Surrey (Harden 1956, no.A:f.1, pl.15k). The form has an out-turned rim with an edge bent in and flattened or fire-rounded, a cylindrical neck which usually has a horizontal trail pinched into a projecting ring, and a constriction at its base. The body is wide and convex and has a tubular or applied base ring and a concave base. Curved ribbon handles are applied to the upper body and attached to the neck or neck ring. It is normally found in pale green or yellow-green glass; very occasionally it is found in blue-green glass or polychrome.

It is known to have been in use in the later fourth century; the range of its usage dates is uncertain, however (Handbook, 167). The blue-green glass of the Blake Street fragment may therefore be indicative of the form being manufactured, and in use, at the beginning of its production period.

5.12.1.3 A third jug form may be represented by the massive splayed base ring from Blake Street, which is similar to one found on a large carinated jug from a burial at Bonn, dated to the first half of the fourth century Cool 1995, no.6231, 1578-9, fig.745). Such jugs, however, are unknown elsewhere in Britain (Cool 1995, 1578-9).

5.13 DISCUSSION

5.13.1 Dating

5.13.1.1 Due to the residual nature of the majority of the fragments in the York assemblages, it has not been possible to use contextual dates to suggest an overall rise and fall in the popularity/usage specific to the individual forms represented at York. Nevertheless, on the number of occasions when dated contexts are available they conform with those generally found elsewhere, or, in some instances confirm the suggestion of an early or late use of a form. The date for one of the fragments of the variant of the first century wheel-cut beaker, for example, suggests that it may have been in use longer than is generally supposed; similarly the relationship between the date of the building of the fortress and the comparatively large numbers of Hofheim cups represented at York, suggests an extension in the form's common usage. Conversely, a date for a truncated beaker fragment confirms its early use at York in the late third century before it was commonly in production; and the colour of the two-handled jug of the late period suggests that it was also in use at the beginning of its production period.

5.13.2 General Patterns

5.13.2.1 Despite the dating problems, certain general patterns of usage are discernible in this overview. It is apparent, for example, that a good cross-section of the vessel types and forms which were generally in production in Britain in the Roman period were available for use at York. It is also apparent that the number of forms in use decreases as the centuries progress. Out of the total identified for York, 66% may have been in use in the first century, almost half of which are Flavian forms. During the second century there is a decrease to 62% of the total, only a fifth of which were first manufactured in that century, however, with almost all the remainder being of Flavian origin. By the third century the number of forms in use is reduced to 28%, with a third being introduced in that century. In the fourth century, the number in use is further reduced to 17%, two-fifths of which were introduced in that century.



This overall decrease, which is also noticeable in the *canabae* assemblage (*cf* Chapter 3), appears not uncommon in settlement site assemblages generally, such as those for Colchester (Colchester, 229, 236, table 15.15), for instance, and for Greyhound Yard which, with the exception of the under representation of the second to third century forms, is seen as typical of many of the assemblages from Romano-British sites (Cool and Price 1993, 157).

5.13.2.2 Similarly, in common with the patterns in the *canabae* assemblage (*cf* Chapter 3), it is clear that most of the vessel forms in use at the fortress would have been tableware. Of the total forms, for instance, 54% comprises the beakers, bowls and cups, and 16% the jugs, and tableware bottles and flasks; and at least one tableware jar was in use at York.

5.13.2.3 While there is no guarantee that a form was in use at York throughout all its known production/usage period, one can suggest that it is possible for there to have been continuity in the use of the majority of the identified vessel types, although on a number of occasions this continuity relies on the use of unusual or rare forms which include imported ware.

The first exception lies in the beakers since there is a gap in their production generally, between the early third century when the stemmed form went out of use, and the end of the third century when the truncated conical form came into production.

The second exception lies in the jugs, for which there is a gap at York between the early third century, when the jug with pinched-in spout went out of production, and the end of the third century, when the two-handled jug may have been in use, or the beginning of the fourth century, when the funnel-mouthed jugs could have been in use. The presence of a further jug form in light green glass, with a funnel-mouth and convex body and a ribbon handle, from the burials (RCHM 1962, 108, *cf* Handbook, 161, 163; Harden 1962, no.H.G.44, 140, pl.67) only serves to reinforce this suggestion, since although this form is also known in late second to third century contexts (Handbook, 161), the York jug is made from glass which is full of bubbles and impurities, and is described by Harden as 'a typical late piece' (Handbook, 140).

The known dates of the flask forms suggest that their use as items of tableware could have begun at York in the later second century with the stemmed flask, and continued until the end of the fourth century, when the flask with the applied trail beneath its rim may still have been in use, although the single dated context for this form at York is that of the early fourth century.

The jar forms are almost all of first to mid- or late second, or early third, century date, excepting the imported variants of the third to later fourth century 'hole-mouth' jar. This is noteworthy in itself, since the use of glass jars in Britain appears to have ceased generally by the end of the second century (*cf* Handbook, 214).

Both utilitarian and tableware bottles were also in use at York. The available contextual dates do not allow an indication of whether the prismatic bottles continued in use there into the third century, however, and it is a moot point whether there could have been a relationship between the use of these very sturdy utilitarian vessels and the colourless thinner-walled tableware bottles. These latter forms, which first came into production in the later second century (Colchester, 199), are initially represented at York by the late second to early third century colourless cylindrical wheel-cut bottle. Tableware bottles, were therefore in use at York between then and the end of the fourth century, in the form of the funnel-mouthed bottle with applied trail beneath its rim, the dolphin-handled bottles, and the Frontinus bottle.

5.13.2.4 It is also noticeable that there need never have been a period of time when bowls and cups - and to a larger extent beakers - were not available for use at York, either with a minimal, or a high, degree of decoration.

The main examples of the former are found in the common Hofheim cup and wheel-cut beaker of the first century, the colourless drinking cups and beakers of the later first to later second century, the later second to mid-third century cylindrical cup, the third century hemispherical cup and the commonly found later third and fourth century hemispherical cup and truncated beaker, as well as the common fourth century shallow convex bowl. These could have provided a succession of forms decorated with horizontal abraded and wheel-cut lines, or trails, or, in the case of the third century cup,

pinched up lugs, and blobs: all of which would have taken a minimum amount of labour to produce. Other fairly simple but effective forms of decoration include the indents on the first to second century beaker and the common fourth century bowl, the ribs on the cast pillar-moulded bowl and the mould blown cup of the first century.

Examples of forms or variants with more labour-intensive decoration, could have been available from AD 71 onwards, including the painted truncated beaker, the cast plate with handles and the cast bowl with cut facets on the rim, all apparently imports. The forms more numerous represented, however, are the later first to mid-second century beakers, which, at York, offer a variety of facet-cut designs, and the beakers, bowls and cups of the late period with figured decoration. Sometime during the second to third and second to fourth century, there would have been bowls/cups decorated with wheel-cuts and facets, or with geometric design, available.

By comparison the decoration on the remaining types appears less labour-intensive, even that of the third to fourth century spherical flask with multiple wheel-cut circles, the hexagonal-bodied dolphin-handled bottle and the frontinus bottle: all of which appear to have been imported ware.

5.13.2.5 It is not so easy to suggest a cohesive usage pattern for the eight small flask/unguentarium forms, since they are not all associated with domestic functions. Nevertheless it is apparent that these small vessels could have been in use throughout much of the garrisoning of the fortress, and that, similar to the vessels already discussed, there are both common and uncommon forms represented - a number of which will have been imports. The former include the first century tubular-rimmed unguentarium and the first to early second century conical unguentarium, the common blue-green bath flasks and the less common bath flask in colourless glass. The imports include the rare test-tube form, the less common variant of the discoid unguentaria with a raised design on its base, the Mercury flask, and the uncommon fourth century 'pipette' unguentarium.

CHAPTER 6

A QUESTION OF FUNCTION

6.1 FORMS AND FUNCTION

6.1.1 Introduction

6.1.1.1 In common with Roman glass vessels generally, the York vessels under discussion have been defined and categorised according to their general forms (*cf* Chapter 1) in order that they can be discussed in relation to each other at York and to finds in assemblages from sites elsewhere. Most of the categories, such as those of the bowl, jug, bottle, or flask suggest a general function similar to their twentieth century counterparts. Similarly, in common with published analyses and reports, certain general - and logical - functions have been suggested or implied, within the text, by the use of the terms such as 'drinking cups' or drinking vessels' or 'containers for liquids'.

6.1.1.2 It is apparent, however, that the question of the function is not necessarily clear cut. On the one hand we need to take into account the apparent function of a form - as an item of tableware used for food, for instance. On the other hand, the varying degrees of decoration, and the apparent rarity value of some of the forms would suggest that there was a hierarchy of social status for the glass ware. One would expect, for example, that the work on the facet-cut beakers would have attracted a higher degree of social status because of the additional and noticeable production cost; and that the variants decorated in high relief (*cf* Chapter 5) would have been afforded a far greater degree of social status because of their additional production and transport costs, and value as rare imports; while the presence on a few British sites of the hemispherical cup of the late period, decorated with blobs (*cf* Chapter 3), suggests that, despite its minimal decoration and thus relatively low production costs, as an import from the Rhineland or Gaul (*cf* Chapter 3) with the ensuing transport costs, it had not a little degree of status.

The general finish and quality of vessel glass may also have played some importance, as in the case of the fourth century truncated conical beakers, for instance, which, when found in poor quality glass, have poorly finished rims and are often devoid of the simple horizontal wheel-cut lines, yet when found with well finished rims, are often in the better quality colourless glass and decorated either with the horizontal wheel-cut or abraded lines, or with figured-cut scenes (*cf* Chapter 3).

The first part of this discussion will therefore look at the possible function of the vessels generally. The second part will centre on the relationship between the York forms and their context within the fortress.

6.1.2 Tableware: Open forms: Beakers and Cups

6.1.2.1 Within this category, those forms which are as tall as they are wide are defined as cups, and those which are taller than they are wide, and with little trace of a neck, are defined as beakers: both are usually found with vertical or only slightly curved rims (*cf* Chapter 1), and are assumed to have functioned as drinking vessels for the individual; and indeed, such examples can be found in first century pictorial sources in Italy. In a wall painting from Herculaneum, for instance, a wheel-cut cup with a convex-curved body, appearing similar in form to the common Hofheim cup represented in the *canabae* and at Blake Street (*cf* Chapter 3), is reversed over the mouth and neck of a jug (Naumann-Steckner 1991, 92, 96, pl.23a), indicating its readiness as a container for the liquid inside the larger vessel; and a skyphos in a wall-painting, now in Naples, holds liquid, presumably wine (Naumann-Steckner 1991, 91, 95, pl.22a).

6.1.2.2 Certain forms are also found, on occasion, with larger rim and base dimensions, and one could expect them to have functioned either as drinking vessels which were meant to be held in two hands, or as communal containers for liquids, and/or, perhaps, as food containers, despite the nomenclature. A two-handled cast cup decorated with vine leaves and clusters of grapes, from a burial outside Köln, for example, has a rim diameter of 123mm (Harden *et al.* 1987, no.99, 189), the decoration suggesting that it may have been intended to hold wine. A Cage-cup, from an inhumation in Novara, in Italy, in

colourless, light blue, and emerald green glass, with an out-turned rim of similar diameter, is decorated below the rim with the motto 'DRINK! MAY YOU LIVE FOR MANY YEARS' (Harden *et al.* 1987, no.134, 239), the form, the dimension of the rim and the inscription all suggesting that it may have originally been intended as a larger container for wine. It is also apparent from the context that the original function, as suggested by the motto, had been superseded.

There are larger variants of the late second to mid-third century cylindrical cup at a number of sites in Britain which have rim diameters of c120mm, as opposed to the average c80mm or c90mm for this form, which may also place them in the categories suggested above. These sites include Blackfriars Street, Carlisle (Price 1990, nos.25-6, 171), Colchester (Colchester, no.477, 85), and Stonea, Cambridge (Price 1996, no.22, 400), and York, where there are at least five from the *canabae* assemblage, in colourless and blue-green glass (Appendix A, nos.208, 226, 240, 328 and 330); and one each from the Minster and the Blake Street assemblages in colourless glass (Price 1995a, no 51, 326; Cool 1995, no.5984, 1654). Less common are the cylindrical cups with even wider rims with diameters of 130-150mm, which are represented in the York *canabae* in colourless and blue-green glass (Appendix A, nos.214-5, 232, 329), and in colourless glass at Stonea (Price 1996, no.17, 400). There are also two large bases in colourless glass from the Church Street sewer, with an inner trail, diameter c34mm, and one from the Caerleon *canabae*, with an inner trail and tubular base ring, which have diameters of c30mm and c70mm respectively (Appendix B(ii), no.16; Boon, Caerleon Bear House Field, Archive box 543S9A1 Misc.), instead of the average c10-c20mm and c30-c50mm, respectively, for base diameters in assemblages from British sites.

It is also noteworthy that a fourth century truncated conical beaker from the *canabae*, in good quality dark green glass, has a cracked off and ground vertical rim with a diameter of 140mm, and a wall thickness of 4mm (Appendix A, no.395) - not too thick to make the vessel uncomfortable to drink from, however. Similarly, either the beaker or a hemispherical cup is represented at Blake Street, in yellow-green glass, with the same wall thickness and a rim diameter of 120mm (Cool 1995a, no.6202, 1659-60).

6.1.2.3 There is also evidence to suggest that certain of the beakers and cups may have had diverse, if logical, primary/secondary functions. At Karanis, in Egypt, for example a yellowish-green cone beaker, from the late period, with unworked ?smoothed rim - maximum diameter 107mm - and hollow flattened base, and decorated with horizontal wheel-cut lines and blue-blobs, contained dice (Harden 1936, no.460, 162-3). Some of the fourth century mould-blown decorated cups may have had a secondary function as lamps, as exemplified by one from Cairo which has post-manufacture slots which would have allowed it to have been suspended (Stern 1977, no.16, 91, 93).

Certain forms or variants may have functioned primarily as lamps, however. Some of the cone beakers from the later period, at Karanis, for instance, have burnt and oily stains on the inside; and one from north Gaul also has oily internal stains (*cf* Harden 1936, no.453, 155, fn.2, 162); and one can suggest that the out-turned rim and small, often pointed, base (*cf* Harden 1936, 155) would make the form unsatisfactory as a drinking vessel. There are also three examples of third to fourth century cage cups with large diameters, which change colour when viewed in transmitted light (Harden and Toynbee 1959, 187-8). The Lycurgus cup, for example, which has an outer rim diameter of 132mm, is in opaque green glass, with yellowish areas, which change to a transparent wine colour with areas of transparent amethystine purple (Harden and Toynbee 1959, 187-8).

6.1.2.4 Yet again, some of the forms may have acted as souvenirs, such as the mould-blown cylindrical sports cups which have zoned decoration of scenes of chariot races or gladiatorial fighting (*cf* Handbook, 63). A number of the ovoid mould-blown variants with zoned decoration and Greek lettering, have unground rims, suggesting that perhaps they were intended for display purposes only. These include three cylindrical beakers with raised lettering 'KATAIXAIPE KAI EYΦOPAONOIY' ('rejoice and be happy') (Harden 1935, nos.Fi(d) and (f)), 172-3); a third with lettering which includes 'ΛABE THN NIKHN' (loosely translated as 'good wishes for your success') (Harden 1935, no. K1(i), 177, 183); and an ovoid beaker with the letters 'MNHCΦH O AΓOPACAC' (loosely translated as 'let the buyer be remembered') (Harden 1935, nos.C(a)-(b), 169-70, pl.24.b) 183).

It is possible that many of the fourth century truncated conical beaker and the hemispherical cup of the late period may also have been unsatisfactory as drinking vessels because of their unground rims (*cf* Chapters 3 and 5).

6.1.2.5 The novelty value of the transparency of the glass vessels (Price 1983b, 207) is perhaps also demonstrated in the first century AD wall paintings in Italy, where in a frieze in the House of Livia, Rome, two 'slim tall' beakers *c*150mm' in height, are depicted containing fruit (*cf* Naumann-Steckner 1991, 88). Similarly a 'goblet with a short stem' on a wall painting from Herculaneum is depicted containing a dozen or so eggs (*cf* Naumann-Steckner 1991, 96); and a large conical beaker, or bowl, in a wall-painting in an Ostian tavern on the *Via di Diana*, is depicted containing eggs or peaches floating in liquid (Hermansen 1982, 131, fig.55).

6.1.3 Tableware: Open forms: Plates and Bowls

6.1.3.1 One would expect that plates would normally have been used for food. Similar to twentieth century custom, however, there would be no reason for them not to have held one or more of a number of small objects, as suggested by the wall-painting in Naples (*cf* above) in which a pottery or glass plate with out-turned rim, a vertical body wall and a base ring, similar in form to the plate, Isings Form 22, contains dates, figs, almonds and coins (Naumann-Steckner 1991, 91, 95, pl.22a).

The use of shallow vessels as souvenirs is also suggested by the greenish-colourless fragment, from the *Forum Romanum*, Rome, from a mid-fourth century dish which has figured-cut decoration (*cf* Chapter 3), and was apparently manufactured to celebrate the vicennalia of an Emperor, possibly Constantine the Great. It has been suggested that the subject of the design places the vessel on a par with the most valuable silver presentation dishes covered with inscriptions or decorated with figures, which were distributed by the Emperor or high officials at important occasions (Harden *et al.* 1987, 224). If this had been the case then the relatively low cost of the material, compared to that of the silver, would have been over-ridden by the status conferred by the association with the donor.

6.1.3.2 Bowls, defined as those forms which are wider than they are tall (*cf* Chapter 1), are, logically, also depicted in the wall paintings as communal food vessels. The glass bowl with ?tubular rim and ?tubular base ring in a wall painting from the House of Julia Felix, Pompeii, for instance, holds a selection of fruit (Naumann-Steckner 1991, 93, pl.24b), as does the two handled globular bowl with out-turned/folded rim and ?pushed in ring in the wall-painting in Room 23 in the post-mid first century villa at Oplontis (*cf* Naumann-Steckner 1991, 89, pl.20a). Similarly a bowl with outsplayed rim curving into body walls which appear almost concave - akin, perhaps, to those on the first century bowl, Isings Form 41b - is depicted containing cherries (*cf* Naumann-Steckner 1991, 97, fig.19); while in the *Villa Publius Fannius*, at Boscoreale, a bowl with out-turned/tubular rim ?and base ring holds fruit and nuts (*cf* Naumann-Steckner 1991, 87, 90, pl.21a).

It is also feasible for some of the pillar-moulded bowls to have functioned as drinking vessels, since the form has a near vertical rim and was manufactured in a range of sizes (*cf* Chapter 3). An example from the Minster site, for instance, has a rim diameter of 110mm (Price 1995a, no.1, 353-4, fig.141).

Wide mouthed bowls may also have been used as drinking vessels in various periods. The pictorial decoration on a two-handled glass cup with a *t.a.q.* of the early first century AD, for example, depicts a figure holding a wide-mouthed ?pottery bowl to its lips (Harden *et al.* 1987, no.31, 68); and on a mid-fourth century calendar from Trier, a seated male is depicted drinking from a bowl (Fremersdorf 1967, 20); Fremersdorf suggests that the fact that the inscriptions on the outer surface of fourth century bowls are to be read from the right, is indicative of their function as drinking vessels (Fremersdorf 1967, 20). Similarly, in a fourth century burial from Köln a shallow convex bowl with a rim diameter of 200mm, has a figured scene with a Christian theme which includes the inscription 'Rejoice in God, drink, and may you live' (Harden *et al.* 1987, no.128, 68); and Cool and Price uphold this idea of the wide-mouthed fourth century bowls functioning as drinking vessels by suggesting that the indented bowls may have been used as such (Colchester, 222).

In common with the plates, bowls are depicted as receptacles for non-consumable goods, although this may not necessarily have mirrored such functions in real life (*cf* Colchester,

222). In two wall paintings, for instance, in The House of Augustus on the Palatine, and in portico G in the *Villa Farnasina*, bowls with outsplayed rims and convex-curved bodies - possibly similar to Isings Form 41b (*cf* above) but with three small globular feet - are depicted as holding small flasks. In a third painting, in a tomb at Morlupo, a bowl of similar form holds several small flasks or unguentaria and rods and/or spatulas (Naumann-Steckner 1991, 88, 93-4, pl.24a).

6.1.4 Table ware: Closed Forms: Bottles, Flasks, and Jugs

6.1.4.1 This category is based on forms which have small mouth openings (*cf* Chapter 1). Those with short necks and handles are defined as bottles; handleless forms with large reservoirs and longish, often constricted, necks are defined as flasks; and those with necks similar to the latter, but with handles and pouring spouts/lips are defined as jugs.

Their general function must be seen to be as tableware containers for the serving of liquids. The diversity of bottle forms such as the distinctive dolphin-handled bottle, the funnel-mouthed bottle or flask with trail beneath the rim, and the Frontinus bottles, all of which are represented at York, may perhaps be indicative, however, of specific contents or function. It is possible that one or more of the forms with large reservoirs and long constricted necks contained water for hand-washing.

Those variants of the mid-third to earlier fourth century spherical flask decorated with inscriptions and town scenes (*cf* Chapter 3), may also have been manufactured as souvenirs (Isings 1957, 122). At York this flask may be represented by a colourless fragment found in a residual context at Bootham Bar (Wright 1968, no.38, 210-211), an area associated with the north-west gate of the fortress (RCHM 1962, 25).

The common cylindrical and prismatic bottles of the earlier period probably functioned as transit or storage containers, transported, perhaps, in wooden or basketry containers; with the straight walls of the prismatic bottles making them well suited for this (Handbook, 194; Isings 1957, 63). They are found in many sizes (*cf* Chapter 3), and the variety of base designs associated with the prismatic bottles suggests that they were

perhaps manufactured by different glass houses, or for industries dealing with culinary products, or that the designs are indicative of their contents. Certainly the fact that they were apparently so common and yet not replaced suggests that they were manufactured as containers for specific contents. Cool and Price note that the comparatively wide mouths of some of the larger bottles, together with the uniform shape of their bodies, would have made them suitable for storing solids and semi-solids (Colchester, 222).

6.1.5 Table ware: Closed Forms: Jars

6.1.5.1 This category comprises closed forms with short constricted necks (*cf* Chapter 1) which may normally have been used as storage containers for food; the number of different forms perhaps being indicative of the variety of uses. Cool and Price suggest that the ribbed collared jar, Isings Form 67c, together with a small number of brightly coloured examples, are likely to have been tableware, whereas the rest of the forms in blue-green glass should be seen as most likely to have been utilitarian containers for solids or semi-solids (Colchester, 222). This would include the square jar, which is probably represented in the *canabae* and at Church Street (*cf* Chapters 3 and 4), which could have contained preserves in honey or brine (Isings 1957, 5).

Two wall paintings, one now in Naples (Naumann-Steckner 1991, 89, pl.20b), and one in the *Casa dei Cervi*, in Herculaneum, depict jars containing liquids; and in the latter painting fruit is suspended in the liquid (Naumann-Steckner 1991, 94). In common with those instances discussed above, however, these may have been solely executed to demonstrate their transparent property.

6.1.5.2 There are examples of second century, colourless globular bodied jars with knocked-off out-turned rims, and slightly concave bases, which one would expect to have been prestigious vessels: one, from the Mediterranean region, has a lid which is painted, which is a rare occurrence (*cf* Chapter 5); one, unprovenanced, has a figured-cut hunting scene decorated in the first style (*cf* Chapter 3), which includes the lettering 'Let us fortunate ones enjoy a good life' (Harden *et al.* 1987, nos.148 and 115, 270, 207).

6.1.6 Table ware: Closed Forms: Small Flasks/Unguentaria

6.1.6.1 As already noted (*cf* Chapter 5) these can be seen as being in a separate category to many of the flasks discussed above, since they do not appear to be necessarily associated with culinary functions. Isings, for example, suggests that some of the Italian small flasks or unguentaria were used as perfume containers (1957, 5). One can also suggest that their small capacities, such as that of the test-tube unguentarium, found at the Swinegate sites, would make them fitting containers for expensive ointments, oils, or medicines. There is a possibility, for instance, that two further York forms, the first century small-bodied tubular unguentarium with sheared rim, and the later first to second century tubular unguentarium with a rolled rim, functioned as containers for bathing oil in the Neronian and early Flavian period when the bath flask was still a new form and not widely available (Price 1995b, 172).

6.1.7 Imitation

6.1.7.1 A number of glass forms may have been produced in imitation of forms in more costly material. Grose, for example, notes that the cast bowls with overhanging rims - such as those which are represented in the *canabae* and the Minster assemblages - are inspired by Roman bronze and silver plate (1991, 13-14); and von Saldern writes, in relation to decorated glass forms, that 'the more elaborate the decoration of a glass vessel, the more likely it is that it was inspired by prototypes in more expensive (material)' including those in high relief (1991, no.c, 112, 114), which are also found at York. By comparison with these forms the replication of relief-decorated metal work and carved stone in mould-blown forms would have been quick and cheap, once the moulds had been made (*cf* Price 1991, 56). This would have included the mould-blown almond-knobbed beaker which imitated embossed metal ware (*cf* Isings 1957, 45; Martial, Ep. 11.11), and which is represented at the Minster site and elsewhere at York (*cf* Chapter 5).

Other copies of metal ware, such as the skyphos and cantharos, were made in cast and blown forms, and are also found in rock crystal and agate (*cf* Saldern 1991, nos.a and d,

114; Isings 1957, 55). Similarly the bath flask is found in both bronze and ceramic ware (Isings 1957, 78).

6.1.8 Rarity and Cost

6.1.8.1 As already noted, the rarity of a glass form, its production cost, or its cost as an import, will no doubt have increased its status. Even those with a low degree of decoration, or none at all, such as the test tube unguentarium, the mould-blown bodied Mercury flask, or the 'hole-mouth' jar of the late period, from contexts in York (*cf* Chapters 3-5), would surely have had a good degree of status.

6.1.9 Burials

6.1.9.1 The extent to which the function of a form changed when in a burial context is not a main issue in this discussion. Nevertheless it is clear that it may have been considerable, as in the case of the cylindrical and prismatic bottle, which, while functioning as common utilitarian ware on most domestic sites, in burials, as cremation urns, will have become a focal point in the ritual. Indeed it is suggested that in certain circumstances, glass vessels were used in burials generally to uphold or re-enforce the status of the living (Randsborg 1985, 437).

6.1.10 Fragments

6.1.10.1 The use of the glass fragments as cullet for recycling was probably a common practice (Price and Cool 1991, 23-4). Fragments were also reworked for use as gaming counters, or as tools, a number of which are found at York, in the fortress and *canabae* assemblages (Table 6.2; Appendix A, nos.25, 125, 281, 411, 1407).

6.2 THE FUNCTION OF THE YORK GLASS FORMS

6.2.1 Introduction

6.2.1.1 The discussion so far has allowed a suggestion of the range of probable and possible functions for various forms and variants, a number of which are represented at York. The second part of the discussion focuses on the patterns in the relationship between the glass vessel forms, their contexts and, where applicable, the associated artefacts. The forms have therefore been grouped according to their probable/possible general function, including their use as status indicators. The commonly-found table ware forms which are decorated with horizontal wheel-cut lines, or which are plain, have been placed in a general 'lower status' category. Those tableware forms with a greater degree of decoration, such as the facet-cut beaker, or variants with trails, such as the decorated later second to mid-third century cylindrical cup, are placed in a 'high status' category. The uncommon variant of the latter cup which has a trailed foot ring is also placed in this category. Imports with a very high degree of decoration, or those which are rare, have been placed in the highest status category of 'very costly/imports'. Utilitarian ware and unguentaria have separate categories. It must be stressed, however, that the grouping is very general.

6.2.1.2 Since most contextual dates are residual (*cf* Chapters 1 and 5), in common with the analyses in previous chapters the forms and the associated artefacts have been allocated to general periods, according to their known usage/manufacturing dates. All the fragments from the site of the headquarters are from the area of the *basilica*. When collating the fortress data from the Minster and Blake Street sites, it has been assumed that the rubbish in the open areas, such as the streets and alleyway, could have emanated from adjacent buildings.

Both the dumping of rubbish outside the buildings and the residuality of many of the contexts of the small finds, including the glass, however, raises the question of the approach to the disposal of rubbish at the fortress during the Roman period; Cool, for example, suggests a fluctuation in the efficiency in dealing with the rubbish (1995, 1560).

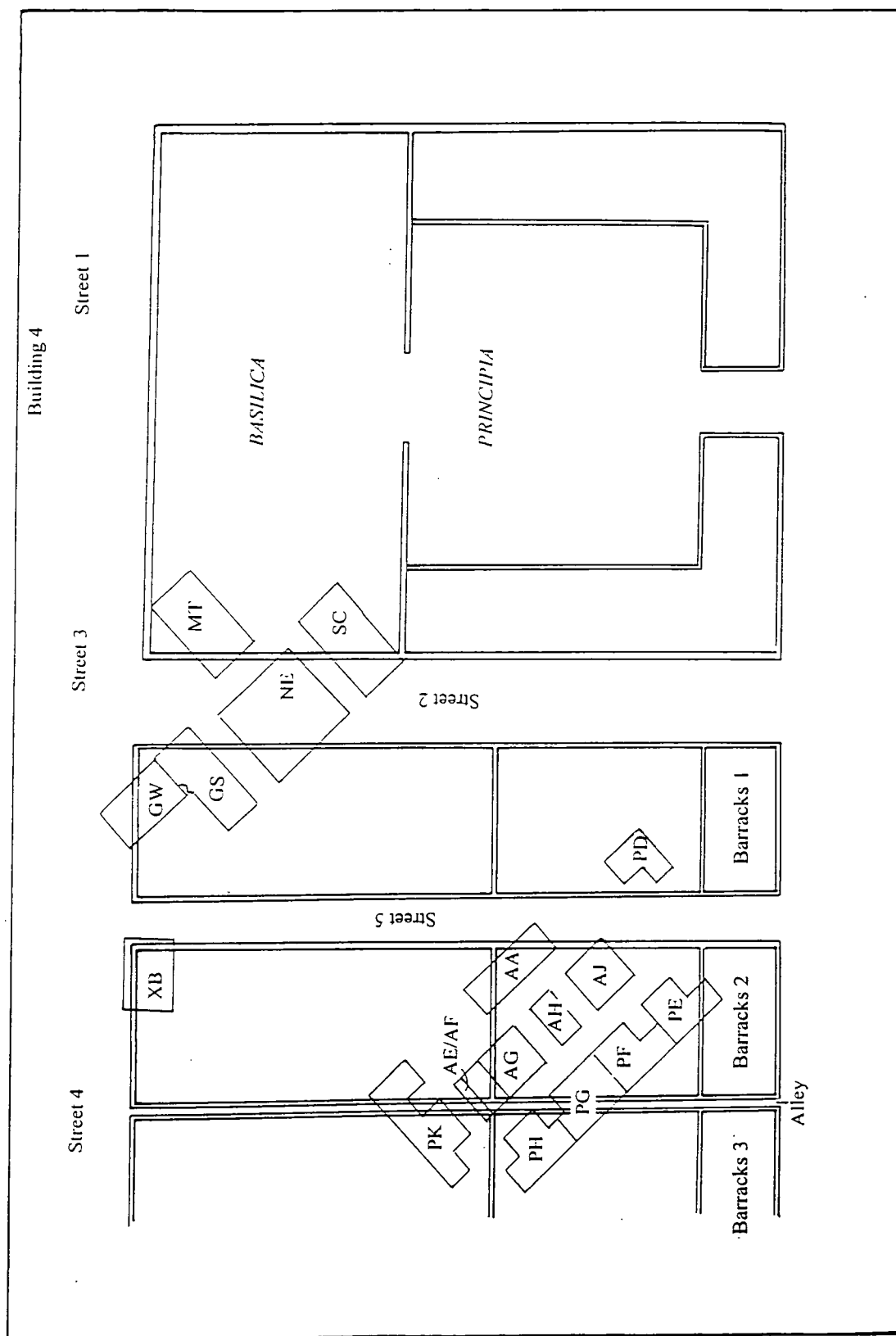


Figure 6.1 The location of the Minster contexts; after Phillips and Heywood 1995a, Fig. A

Furthermore, while in most instances it could be assumed that the material was redeposited within the same status area, within or outside a *contubernium*, or a centurion's quarters, for example, the degree of movement is logically an unknown factor. Similarly, it is not possible to estimate the percentage of the fortress glass which was collected for recycling in the *canabae*, and of the artefacts which were redeposited within the fortress during site development especially during the fourth century (*cf* Chapter 1). Thus the data must be viewed as displaying very general patterns of usage.

6.2.1.3 The vessel forms and their context areas within the fortress, together with other contexts including that of the *canabae*, are plotted in Table 6.1 (Appendix C). The data plotted in Table 6.2 (Appendix C) comprise the fortress glass forms and the associated small finds, excluding the pottery other than samian ware. Since the analysis of the pottery from the Minster provides only a sample of the ceramic coarse ware assemblage from the excavations, these have been excluded from the table. 6.2.1.4 To allow cross reference between Tables 6.1 and 6.2, the forms have been allocated individual numbers; and, for Table 6.2, with the exception of the unguentaria or small flasks, abbreviations have been added. Thus, for example, in Table 6.2 the Hofheim cup is noted as (41)cp, and the conical unguentaria as (71), and these abbreviations and/or numbers have also been used during the discussion.

Unless stated otherwise, the glass fragments and forms discussed in this section have been previously discussed with full references in Chapters 3-5. The remaining data for the Minster contexts, including the associated small finds, have been collated from Carver and Heywood (1995); the remaining data for the Blake Street and Swinegate sites are from Hall (1995) and Cool *et al.* (1995) including Tables 133-4 (*op cit*, 1628-30); and the remaining data for the Church Street sewer, from MacGregor (1976, 21-3).

6.2.1.5 The specific function of the Blake Street area is unclear; and a distinction in status for the two main areas is only suggested for the period between the mid-second and the end of the third/early fourth century (*cf* Chapter 1). Nevertheless the presence of high status glass forms, of first to second century date, in the north-eastern area and their absence in the south-western area (Table 6.2), suggest either that these forms were in use there at the end of their production period or that a similar division may have existed

prior to the mid-second century (*cf* below). The area has thus been divided generally, for ease of reference within the text, as Areas 'A' and 'B' (*cf* Table 6.2). For the location of the Minster contexts refer to Figure 6.1.

6.2.2 The Status of the Sites

6.2.2.1 The vessels are represented in a number of areas within the fortress which would have had varying social status (*cf* Chapter 1). The *principia* - the home of the legate - the legion's commander (Keppie 1984, 176) - would have had the highest status, thus the *basilica* was perhaps one of the more prestigious of the areas within the *principia*, since it partly served as a focus for the legion's *aides* (the chapel of the standards) (Phillips 1995, 33). Of the remaining recorded areas at the Minster site, the centurions' quarters would naturally have been of higher status than those of the *contubernia*. The function of the area recorded at the Blake Street site appears to have changed over time, and in one period, *c*AD 160-*c*280, included a narrow range, a main range of high-status, and two small areas of barracks (*cf* Chapter 1). The Church Street sewer is mainly associated with the baths, as are the Swinegate sites (*cf* Chapter 1), which one would expect to have acted as a communal area for the garrison. The Purey Cust site has not been used, since only one prismatic bottle is represented there (*cf* Chapter 4).

6.2.3 General Patterns. The First to Second Century

6.2.3.1 The majority of glass forms are tableware associated with the consumption of liquids, with the emphasis on the use of beakers. Several of the general tableware forms were in use in this period, including the first century Hofheim cup, ((41)cp) which, however, is only represented at the Blake Street sites; and the common wheel-cut beaker of the first to second century, ((27)bk/cp) which is found in half of the fortress areas under discussion, including Area NS in the *basilica*. The ribbed cup ((17)cp), which was an heirloom, is also represented in Area 'A'.

This common pillar-moulded bowl ((30)bwl), is represented in several of the contexts in the centurions' quarters, and at both Areas of Blake Street, although it is absent from the *contubernia*. The remaining bowl forms are represented in the centurions' quarters: the tubular-rimmed bowl is represented in Area AA, and three further plain cast bowls, in Area PG.

The common conical and globular jugs, for serving liquids at table, are represented in Areas PD, AA and PH in the centurions' quarters, in Areas PK and XB of the *contubernia*; and in Area 'B'. The jug with pinched-in spout ((56)jg) is represented and in Area XB.

6.2.3.2 Jars are represented at Blake Street and the Swinegate sites only: the collared jar, ((52)jr), as an item of table ware for containing solids or semi-solids, is represented in both areas; the jar with fire-rounded rim ((63)jr), the funnel-mouthed jar, and the jar with rolled rim (62)jr - all utilitarian ware - are represented at the Swinegate sites and Areas 'A' and 'B', respectively.

6.2.3.3 The common utilitarian bottles ((59,60)btl) were in use at both areas of Blake Street; and the prismatic bottle is also recorded in well over half of the barrack areas, in association either with high status glass forms or with general tableware.

6.2.3.4 One imported test-tube unguentarium (68) is represented at the Swinegate sites; and two forms, the tubular and the conical unguentaria (69/70,71), are represented in Area 'A', where a further discoid form, probably also an import, is represented by a grozed fragment (72). The associated small finds at the Swinegate sites include a pin, and if this is indicative of females at the site (Cool 1990b, 150; 1995, 1627), it is possible for at least one of these vessels to have contained toiletries such as perfume.

6.2.3.5 The more commonly found high status forms, almost all of which are beakers, are represented in the centurions' quarters, the *contubernia*, Area 'A' and at the Swinegate sites.

The rare and/or the most costly forms are represented in Area PG, of the centurion's quarters, Areas AE/AF and XB, in the *contubernia*, and Area 'A'. In the former area, these comprise the cast bowl with overhanging rim decorated with 'egg and dart' cut facets ((12)bwl) and the cast plate with handles ((24)plate), and, together with the three general cast tableware bowls, suggest a possible preference there for food containers. In Area XB, the presence of the mould-blown conical beaker ((bk)1), together with two other beaker forms, the facet-cut beaker ((6)bk) and the wheel-cut beaker ((27)bk), suggests a preference for drinking vessel forms. Similarly in Area 'A' both of the very costly variants of the facet-cut beaker - decorated in high relief - together with the majority of the remaining forms, are drinking vessels, mainly beakers.

It is also noticeable that the two forms of high status in area XB of the *contubernia*, the mould-blown conical beaker ((1)bk) and the thin-walled variant of the facet-cut beaker ((6)bk) would have been less costly to produce than the majority of the remaining high-status forms.

6.2.3.6 In summary: the patterns suggest that the general preference in this period was for forms for use in the consumption of liquids, some of which would have had considerable status. The associated small finds suggest that the glass ware was generally used in domestic or social areas. The exceptions lie in Areas AA and AH, centurion's quarters 2, and Area 'A', at Blake Street, where a number of the small finds are associated with industrial activity.

The absence of high status forms from the *basilica* may be explained by the limited excavations in the headquarters. Similarly the loss to the archaeological record may account for the absence from the *contubernia* of the facet-cut beakers and of the pillar moulded bowls.

The absence of the common collared jar, ((52)jr), from all but the Blake Street site Area 'B' and the Swinegate sites, and the absence of the first century Hofheim cup, ((41)cp), from any of the Minster sites, is noteworthy, however, especially in the latter case, since there is evidence for the cup's use at York in comparatively large numbers (*cf* Chapter 3). It is worth bearing in mind, however, that the pillar-moulded bowl ((30)bwl),

represented in Area PH, centurion's quarters 3, with a rim diameter of 110mm, is small enough to have functioned as a drinking cup (*cf* above).

6.2.4 General Patterns. The Second to Third Century

6.2.4.1 Various patterns for this period are suggestive of change. There is, for instance, a reduction in the areas where the glass forms are recorded, and in many cases only one form is represented for each area. Nevertheless, the emphasis is still on drinking vessels, mainly the common cylindrical cup ((44)cp) which is found at three-quarters of the sites where glass is recorded. The second form recorded at this latter site is that of the contemporary ovoid cup ((45)cp), and both may have been used as general tableware.

Bowl forms, also for general use, are represented only in the Church Street sewer, although a number of the cylindrical cups are large enough to have functioned as bowls (*cf* above). One of these is recorded in Area PG, *contubernia* 2/3, one in Area 'B' at Blake Street, and two in the sewer assemblage.

Several high status forms are represented in this period, only one of which, the bowl with geometric decoration ((14)bwl), represented in the centurion's quarters, Area PG, might be seen to have had the same degree of status as the previous highly decorated forms and/or imports, since it would have been costly to produce.

With the exception of the cup/bowl with cut-facet decoration ((13)cp/bwl), which is represented in the centurion's quarters, Area PF, the majority of the remaining high-status forms comprise the less commonly found stemmed beaker/flask decorated with trailed or snake thread decoration. The beaker ((7)bk) is represented in at least one area, Area XB, in the *contubernia* and either the beaker or flask ((8)bk/flsk) - the latter used for the serving of liquids - is represented in both areas at Blake Street, at the Swinegate sites and in the sewer. None is found in the centurions' quarters. It may thus be significant that the colourless wheel-cut bottle ((48)btl), which would also have been used for the serving of liquids, is found only in the centurions' quarters, in Areas AG and PG.

A further small form, the Mercury flask (73) is found at Blake Street in both areas, and is also represented in the Church Street sewer, where, excepting the bath flask (74) and the possible miniature hexagonal bottle (*cf* Chapter 4), the remaining forms represent a small cross-section of those found elsewhere in the assemblages.

6.2.4.2 The small finds are generally associated with domestic activity, and/or the consumption of food or drink. The exceptions are those for the Area PG, centurion's quarters 2/3, which extends over the alley between the two barracks, and therefore may partially represent discarded rubbish; and for Area 'A', where the small finds are of a military nature, and, as suggested, reflect various activities associated with barrack life (*cf* Chapter 1). The presence of the Mercury flask in Area 'B' together with the find of the hair pin, might suggest its use as a toiletry container, although the small finds associated with Area 'A' where the flask was also in use, are of a military nature.

6.2.4.3 In summary: the general pattern suggests that while there is a continuation in the presence of glass vessels for drinking activities, there is a decrease in glass ware generally. That this may be due to usage, rather than a reflection of a more rigorous approach to the disposal of rubbish, is suggested by the data from Blake Street where 69% of the glass fragments are from contexts dated to between the beginning of the second, to the mid-second, century, and between the second to later third century (calculated from Cool 1995, 1561, table 126). Thus the decrease in the number of very high status glass forms may similarly be an indication of a deliberate move away from using them (*cf* Chapter 5).

6.2.5 General Patterns. Late Third to Fourth/Fourth Century

6.2.5.1 In common with the previous period, the patterns suggest both change and continuity. There is, for example, a further reduction in the numbers of areas in the barracks where the glass forms are represented. This is severe in the centurion's quarters, where glass vessels are recorded in only two areas. In the *contubernia*, Area XB, however, the number of different forms in use appears to be comparable to that of the first to second century. The presence of the two imports, the hexagonal-bodied

bottle ((20)btl), and the hemispherical cup ((18)cp, decorated with a spectacle trail, in two areas of the *basilica*, MT and SC, respectively, is noteworthy. It must also be noted, however, that the latter fragment is 'unlocated', and, since context SC also encompasses the area outside the building which could have been used as a communal place for the disposal of rubbish, the bottle may be associated with the adjacent *contubernium*.

6.2.5.2 Drinking vessels with a minimal amount of decoration are still well represented, and comprise the truncate conical beaker ((28)bk) and the hemispherical cup ((47)cp). These are found in over half the areas where glass forms are represented, including the *basilica*. Some of the beakers, however, may have had other functions since a number have poorly-finished rims, and at least one at in Area 'B' has a larger than average diameter (*cf* above).

6.2.5.3 Shallow convex and indented bowls ((39,40)bwl) are represented in Area AA of the centurion's quarters; in Area XB, *contubernium* 2, and Area 'B'. As already noted, these may have been used in the consumption of liquids as well as for food (*cf* above).

6.2.5.4 The hemispherical bowl and cup with figured-cutting - and thus with a high degree of status - are also represented in area XB *contubernium* 2, and Area 'B', and in Area 'A' a further hemispherical cup is represented decorated with blobs.

6.2.5.5 Tableware forms for serving liquids are now well represented and this is noteworthy, since there are a variety of bottle and jug forms and at least one flask form, in use, and at least three of these, in Area XB, *contubernium* 2, Area 'A' and Area SC ?in the *basilica*, are imports. Furthermore the presence in the *basilica* of the imported hemispherical cup (*cf* above), and also possibly the imported bottle, represents a distinct change in the usage patterns at this site, since in the previous periods only beakers and cups with a general degree of status have been represented there.

It is also noteworthy that, out of the seven high status forms or variants, three - the hemispherical cup ((19)cp), the Frontinus bottle ((21)btl) from Area XB, and the hexagonal-bodied dolphin-handled bottle ((20)btl) from the *basilica* - are mould-blown

and as such would have been less costly to produce than the blown figured-cut forms. A second mould-blown hemispherical cup is represented in the sewer, and is the only high status form in this assemblage.

6.2.5.6 Unguentaria are absent from any the sites, excepting Area XB, *contubernium* 2, where the 'pipette' form is recorded. A number of the associated small finds for this area, however, are indicative of industrial activity, which thus appears in complete contrast to the nature of the three high status forms. Since at all but the Swinegate sites the small finds include those of an industrial nature, however, it is probable that they may represent a later use of the areas for rubbish disposal, and a more efficient cleaning of the areas in general use, and thus account for the fluctuation in the number of contexts where the glass is recorded.

6.3 DISCUSSION

6.3.1 The Bias in the Archaeological Record

6.3.1.1 The loss to the archaeological record may have resulted in a bias which is considerable, as suggested by the absence of the Hofheim cup from the barracks and *basilica*, and of the pillar-moulded bowl and facet-cut beaker from the *contubernia*, since both of the latter are represented in the centurions' quarters, both areas of Blake Street, and the *canabae*, together with the reduction in the number of contexts of the later period which recorded glass.

6.3.2 General Patterns

6.3.2.1 It is clear that the majority of forms in use were tableware, with a bias towards the use of cups and beakers in the first to second century. In the later period, out of the few areas where the glass is recorded, the emphasis in over half of these is on the use of

beakers and/or cups. In the remaining areas the preference is varied, with the exception of the Swinegate sites where only flask and jug forms are represented.

The common utilitarian bottles of the early period are represented in most areas; utilitarian jars are completely absent from the barracks and the *basilica*, although they are represented in both Areas of Blake Street, in the sewer and at the Swinegate sites.

Both common, uncommon and rare first to third century unguentaria or small flasks are represented at Blake Street, at the Swinegate sites, and in the sewer. For the fourth century, however, an uncommon unguentarium, which, by contrast, is very common at York, is represented in an area of the *contubernia*.

6.3.2.2 In the second to third centuries, there is a decrease in the number of forms generally; and the apparent resurgence in interest in the later period forms a different pattern of usage for the high status vessels.

In the first to second century, for instance, these are represented both in the centurions' quarters and the *contubernia*, and at both areas of Blake Street. The evidence for the second to third century suggests a reduction in the number of areas where glass vessels were in use, or were being discarded, and a reduction in the use of costly and/or rare high status vessels, since only one of the latter is represented in a single context area of the centurions' quarters, and none is found elsewhere. In the later period, when there is a further reduction in the number of areas where glass is recorded, probably due to a change in the approach to the disposal of rubbish, high status forms are absent from the centurions' quarters, from Area 'A' and from the Swinegate sites; and for the first time they are represented in the *basilica*. Furthermore, the high status forms now include those associated with the serving of liquids.

6.3.2.3 As already noted, it is not possible to ascertain to what extent the loss to the archaeological record has affected the patterns noted above, and data is not available for the civilian sites at York. Nevertheless a fairly similar general bias is suggested by the forms represented in the *canabae*, with the added emphasis in the later period on the use

of the good quality hemispherical cups and truncated conical beakers, and the variants with the figured-cut decoration (*cf* Chapter 3).

6.3.2.4 Data from a sample of sites in the North-west provinces, including those in Britain, suggest that the emphasis on the use of tableware may be general to military and major settlement as well as villa sites (*cf* Lith and Randsborg 1985, 435-6; *cf* Harden 1979a; 1983; *cf* Price and Cool 1983; *cf* Cool and Price 1993; *cf* Price 1979; *cf* 1983). The data for the first to third century suggests, however, that while the emphasis is on the use of beakers, cups, and bowls, the latter are more prominent in the record than is suggested at York - except for the villa sites, where cups and beakers take precedence (*cf* Lith and Randsborg 1985, 436). It is therefore worth stressing that the large cylindrical cup in the earlier period, which is represented in one of the centurion's quarters, in Area 'B' at Blake Street, in the sewer, and also in the *canabae*, could also have functioned as a bowl.

Data calculated by the writer from a sample of fourth century sites of varying status in Britain provide a pattern of mixed preferences, where again bowls are prominent. At the two military Saxon Shore forts of Burgh Castle and Porchester, for example, the preference appears to have been for bowls, and for bowls and cups respectively (*cf* Harden 1979a; 1983). The two villas of Barnsley Park and Frocester also suggest a preference for bowls (*cf* Price 1979; *cf* 1983). For the major towns of Towcester and Dorchester, Dorset, however, the preferences may have been for jugs, and for beakers respectively (*cf* Price and Cool 1983; *cf* Cool and Price 1993).

6.3.2.5 A good number of generalisations have been made concerning the patterns in the data. There appear to be various anomalies, however, which may only be resolved by further excavations within the fortress. These include the absence of high status forms from the centurions' quarters in the later period; and, conversely, their absence from the *basilica*, until then.

CHAPTER 7.

SUMMARY

7.1 THE RESEARCH

7.1.1 The Material

7.1.1.1 The research centred on a number of the York assemblages from the fortress and the *canabae*, the three largest of which had a date range of *cAD* 71-410, which were therefore expected to represent an adequate sample of a cross-section of the glass vessel forms in use at York generally, and in particular in the fortress, throughout almost all the Romano-British period. The research was thus expected to provide an insight into the usage and function of the York glass vessels, as well as a case study which could be used in future research on Roman glass vessels from York, or from military installations or major civilian settlement sites elsewhere.

7.1.2 The Areas of Investigation

7.1.2.1 There were three areas of investigation. The *canabae* assemblage was discussed in relation to the forms in the fortress, and those elsewhere in Britain, and, where applicable, those elsewhere in the Roman Empire. The patterns in the combined York assemblages were investigated with regard to the usage dates of the types and forms. The function of the vessels was discussed in general, according to the individual characteristics of the types and forms, and in particular, with reference to their contexts within the fortress and, where applicable, the associated small finds.

7.1.3 The Problems

7.1.3.1 The main problems encountered stemmed from the high fragmentation of the vessel forms represented in the *canabae* assemblage, and the residuality of many of the contexts of all the assemblages under discussion, especially those of the fragments in the *canabae*. Both problems appear to have substantially contributed to the loss of the potential data.

It was therefore rarely possible to suggest dates for the usage of the forms which were specific to York, or to ascertain whether the absence of a form from an assemblage was necessarily indicative of the York patterns of usage.

7.2 THE CONCLUSIONS

7.2.1 The General Patterns in the Data

7.2.1.1 Despite the problems of identification, various patterns were apparent in the assemblages collectively. In common with sites in Britain generally, for instance, there was a decrease in the number of forms in use at York as the centuries progressed. The common utilitarian bottles and jars were in use in the early period, as were the majority of the unguentaria. The majority of vessel types were tableware, however, and constituted forms and variants, both common and uncommon or rare, with varying degrees of status suggested by their rarity, as imports, and/or by their decoration.

7.2.1.2 Similar to glass assemblages generally, there is evidence in the *canabae* and/or the fortress assemblages, for the use in both periods of uncommon forms, variants and rare forms. The latter include the third to fourth century jar, and the jug with outsplayed base ring, neither of which are represented elsewhere in Britain. They also include a second to third century jug/ beaker/cup which may be unique to York.

7.2.2 Vessel Function

7.2.2.1 For the research, the general function of the forms was first discussed with reference to the different categories, to the specific characteristics of size, vessel finish and degree of decoration, to the pictorial evidence, and where relevant, the associated artefacts. The discussion then centred on the relationship between the forms, their suggested functions and the contexts within the various areas of the fortress, which ranged from those of high status in the head quarters, to those of lesser status in the *contubernia*, and in the areas mainly associated with the baths.

7.2.2.2 The patterns suggested there was an emphasis, especially in the early period, on the use of cups and beakers, both as general tableware, and as high status vessels. This preference for cups and beakers may be less than common for such sites, however, since the evidence suggests that bowl forms are prominent in the archaeological record at both military and civilian settlement sites; and that the preference for beakers and cups in the early period may reflect the usage patterns at villa sites.

7.2.2.3 There are several instances of forms or variants being represented in such numbers as to suggest an uncommon preference for their use. The Hofheim cup, for instance, is comparatively well represented at York at a time when in general, elsewhere, its use was decreasing. The collection of facet-cut beakers of the first to second century, is only rivalled numerically by one other collection in a northern fort.

The collections represented in the *canabae* assemblage of the hemispherical cups and truncated beakers of the late period, in good quality glass with a general degree of decoration; or with figure-cut decoration, are unparalleled numerically in Britain.

7.2.2.4 The usage patterns for the rare and costly high status forms in use at the fortress are also noteworthy; and, in common with a number of the uncommon patterns in the assemblages, may provide material for future research.

In the first to second century, for example, when they are associated with the consumption of liquids and with food, they are represented in both the centurions'

quarters and the *contubernia* and the one area of Blake Street which may been of high status; none is found in the *basilica*. In the second to third century only one of these forms is represented, and this is recorded in the centurion's quarters.

For the third to fourth century the pattern has changed, since comparatively little glassware is recorded in the centurions' quarters, and the forms there appear to have been general tableware. A number of the very uncommon or rare forms would have been used for the serving of liquids; many of them were mould-blown, however, and thus would have been less costly to produce. It is also noteworthy that these forms are represented in both areas of Blake Street, and in the *contubernia*, and - for the first time - in the *basilica*.

Bibliography

Abbreviations

BAR	British Archaeological Reports
CBA	Council for British Archaeology
Colchester	Cool, H.E.M. and Price, J. 1995: Roman vessel glass from excavations in Colchester, 1971-85. Colchester Archaeological Report,8. Colchester.
Isings Form	refers to forms cited in: Isings, C. 1957: Roman glass from dated contexts. Gronigen.
Handbook	Price, J. and Cottam, S. 1998b: Romano-British glass vessels: A handbook. Practical Handbook in Archaeology, CBA,14. York.
Y.M.H.	Yorkshire Museum Handbook

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