The Glass from The Undercroft at Well Hall, Bedale

Hugh Willmott

All the glass found in the undercroft is post-medieval in date and can grouped into three categories, bottle, vessel and window By far the largest of these groups is bottle glass, the majority of which is greatly fragmented and unidentifiable and for this reason only diagnostic fragments have been selected for the catalogue and discussion. All the vessels are dealt with chronologically rather than by context, although this is noted in the catalogue, as there appears to be no relationship between the relative dates of the vessels and the contexts that they were found in. All the glass is quite heavily weathered and much of it is starting to exfoliate.

Wine Bottles

All the fragments of bottles from the undercroft are from wine bottles, spanning a production date range over the whole of the eighteenth century. Wine bottles were first produced in England in the middle of the seventeenth century but by 1696 there were forty two bottle producing furnaces, with a turnout of nearly three million bottles a year (Nöel Hume 1961: 93). It is generally assumed that wine bottles became popular as they provided the new opportunity to securely age wine However it is clear that they replaced pottery vessels as acting as a 'decanter' to transfer wine from the cask in the cellar to the table (Banks 1997:23). Consequently they might in some cases have undergone a considerable period of use, so any datmg must be regarded as relating to the production rather than the deposition of the vessel.

Bottle Type	Date Range	Minimum Number
Shaft & Globe	1675-1700	1
Onion	1700-1730	3
Mallet	1720-1750	5
Squat Cylindrical	1740-1780	7
Tall Cylindrical	1770-1820	3
		19

The earliest fragment, no 1, is from the rim and neck of a 'shaft & globe', this is the earliest form of wine bottle. This type of bottle consisted of a round, almost spherical body with a tall slightly tapering neck. The fragment from the undercroft has the characteristic simple sheared off rim and crudely applied string cord, consisting of a thick horizontal trail. Although there is some evidence that this form might have been produced before 1650, the style suggests production in the last quarter of the seventeenth century (Marshall 1996· 409).

Fragments 2 to 5 are from 'onion' bottles, 2 and 3 being complete necks and 4 and 5 being near complete bases. The two necks are short and taper out as they go down with crude sheared of rims and heavily applied string cords Both the bases are wide with a low push-in, made with a large pontil iron. The now missing body fragments would have been rounded and bulbous, consequently giving this form its name. It is impossible to tell for certain whether the necks can be identified as belonging to the same vessels as the bases. Fragments 2 and 5 are of a similar colour

and metal, so it is possible that they might relate to the same vessel. There is a far greater variance between fragments 3 and 4, so they are probably different vessels. 'Onion' bottles are known from the very late seventeenth century, but were much more common in the first third of the eighteenth century.

Fragments 6 to 10 probably are from a 'mallet' bottle, a variation of the onion type. Nos.6 and 10 have a complete rim and tapering neck which broadens out to a rounded shoulder. Nos.7 to 9 are similar, but broken just above the shoulder. All have sheared off rims, but the string cords are finer and marvered slightly into the neck causing its triangulation and a slight constriction of the neck. The bodies of these vessels would have squat and similar to the onion bottles, but slightly flattened in the vertical. The production of 'mallet' bottles overlaps with that of the onion, being made between around 1720 and 1750. Fragment no.10 still retains its original cork stopper, the significance of which is discussed below.

The majority of the fragments come from the later development of the wine bottle, the squat cylindrical variety. The most complete is no.11, which consists of a sheared rim, triangular string cord and near vertical neck. The shoulder is curved and leads to a vertical, often slightly concave side. Fragments 12 to 15 are all portions of upper neck and rim, whilst 16 and 17 are parts of the lower neck and upper shoulder. Fragment 18 is a complete base of a squat cylindrical bottle, with a tall round pushed in base with a large square pontil mark. The very lower side of this fragment is nearly vertical. It is impossible to relate this base specifically to having come from the same vessel as any of the necks. Fragment 14 still retains a complete protruding cord stopper.

The final form of wine bottle represented in this assemblage is the tall cylindrical bottle, with three fragments, 19 to 21 being of this type. All three fragments are from the most distinctive part of the vessel, the rim and neck. In these later vessels the rim is folded out and over, to produce a smooth thick rounded edge. A string cord is still applied under this, but it is smaller and often flattened. The actual neck itself is slightly convex in appearance, narrowing slightly both at the rim and the turn of the shoulder. Fragments 19 and 21 are broken on the curve of the shoulder, showing quite a narrow body to the vessel Fragment 20 is of an identical form, but broken half way up the neck. This was the last form of bottle was produced entirely by free-blowing. In 1811 a process was developed by which the main body of the vessel was blown into a fixed mould, thus producing a consistent bottle volume (Nöel Hume 1961: 94). Despite this new process tall cylindrical bottles continued to be produced into the 1820's.

Two of the fragments, nos.10 and 14 still have their original cork stoppers. This is very unusual for vessels from archaeological contexts and this is almost certainly due to the faet that they easily degrade in normal soil conditions. The cork in no.10, dating from 1720-50 is firmly in place and broken off at the level of the rim. The other fragment contains a nearly complete cork which protrudes from the rim and is wider on the outside than the inside of the vessel. Such a cork would have acted more as a removable stopper than a fixed seal, as in the case of a modern wine bottle.

Other Vessels

Only fragments of three other vessels came from the undercroft. The earliest and most important is the central portion of a potash pedestal goblet, no.22. The fragment is

part of the upper base, central knop and lower bowl, being made from a single parison of glass. The body would have been trumpet shaped, tapering to a flattened ring knop. The base is flaring and pushed-in so that it joins itself and the lower base would have ended in a hollow enclosed base ring (see fig. 1). The goblet is made in the second half of the sixteenth or early seventeenth century in potash or forest glass. It is possible that it is an English product, a similar vessel was found at the furnace site at Rosedale, North Yorkshire (Charleston 1972: 142 no.61:36). However this form is a much more common type in France, so the possibility that it is an import can not be ruled out (Barrera 1991:350 nos.3-5).

The second vessel fragment, no. 23, is a small piece of a plain pushed-in base. This has a high rounded kick and curved around to a narrow vertical side. This is almost certainly a fragment of apothecaries flask, made in a good quality green clear potash glass. This form of vessel was usually tall and narrow, being roughly cylindrical in shape with a small short neck and out turned rim. These were common vessels in the late seventeenth and first half of the eighteenth centuries, being used to contain ointments and other such substances. Such vessels were found in greater numbers in a similar cellar context at the Old Hall in Temple Balsall, Warwickshire (Gooder 1984: 222-5).

The final vessel fragment is the complete rim of a small jar made in lead glass. The rim is everted and flat and the upper neck is vertical. Unfortunately there is not enough of the rest of this vessel to indicate its precise form. However such vessels were in use throughout the eighteenth century and this is its most likely date.

Window Glass

The final category from the undercroft is window glass. Twenty fragments were recovered as well as four pieces of holding lead with four fragments of the glass being still *in situ* in the lead. Despite the outwards appearance, caused by fairly heavy weathering, the window glass was plain, having just a slight natural green tint. The glass is more weathered on one surface than the other, indicating that the window was external and in place for some period of time. Usually plain window glass is very hard to date Glass of this quality can normally just be identified as being 'post-medieval' on the basis of its quality. However it is possible to date the original window by its leads. Medieval window leads were hand made and highly variable, but in the mid-sixteenth century a mechanical milling process was developed (Knight 1986: 31). This process produced a far more consistent shaped lead with an even 'H' shape cross section. The leads from the undercroft are quite thin and have a distinctive raised edging. Additionally they have a broad faint internal tooth span of approximately one tooth every five millimetres. This is characteristic of lead produced in the second half of the seventeenth century (ibid.).

Unfortunately not quite enough of either the glass or the leading remains to be able to accurately reconstruct the window. From those leads remaining three pane shapes and sizes can be identified. Full diamonds with eight centimetre sides probably made up the central portion of the window, with half diamonds of the same proportions and parallelograms eight centimetres by four and a half making up the edges. However one of the large sections of remaining leads appears to be from a corner section, as one side of the lead strips has been pinched closed to fit it into the frame. This corner is at an angle of around 55°, indicating that the window was triangular or had sloping sides. In this fragment of lead the half diamond pattern runs

along the bottom with the parallelograms up the side, allowing a partial conjecture of its shape (fig.2). However the exact size of the window can not be determined

Conclusion

The sample of glass from the excavations in the undercroft is of some interest, especially in the context of the building. Wine bottles are common finds in most excavations, but there relatively large quantity from a small area is more unusual. They represent all the forms in use during the eighteenth century, but that there are no fragments of later glass would suggests that this deposit was the result of a single action, some time around or just before 1800. The majority of the bottles date from the second half of that century and the fact that it includes some earlier ones should be of no surprise, given the potential time span of their use. Certainly the minimum number of nineteen is far less than the actual total, but this can not be accurately assessed.

With the exception of the one sixteenth century goblet fragment, all the vessel and window glass would fit in with a depositional date in the very late eighteenth century. The window, which would have been around one hundred years old at this point, shows considerable weathering on one face of the glass, suggesting it was in use for a significant period of time. In the eighteenth and nineteenth centuries it was not uncommon for glass to be incorporated in mortar bonding and this is probably why so much occurs in the floor context 1001

On a social scale the glass is of wider interest. Given that it was almost certainly being used in the household in which was found helps illuminate part of the life style of the inhabitants. Evidently in the eighteenth century significant quantities of wine were being consumed. It is a shame that with the assemblage there were no botfle seals giving owners names or initials, which would have allowed the identificafion of individuals In a similar fashion it might be possible to identify the window from which the glass originally came. The glazing of it dates to the late seventeenth century and it was, in part, triangular in shape. Even if it no longer exists the glass might be related to any physical or documentary evidence which suggests that an old window was replaced or blocked at the end of the eighteenth century. The presence of seventeenth century window glass alone suggests some degree of affluence in this period, glazing was still expensive and largely the preserve of the rich. The glass group as a whole is surprisingly large and diverse, hopefully providing information not only to glass studies, but also for the context of the building as a whole.

References

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Catalogue

1) 1 fragment of rim and upper vertical neck of a 'shaft & globe' wine bottle with thick rounded string rim *Context 1001*

2) 1 complete rim and tapering neck of an 'onion bottle' with a thick rounded string rim *Context 1001 east end*

3) 1 complete rim and tapering neck of an 'onion bottle' with a thick rounded string rim *Context 1001 east end*

4) 1 near complete shallow pushed-in base from an 'onion bottle' *Context 1001 east end*

5) 1 complete shallow pushed-in base and lower side from an 'onion bottle' *Context 1001 east end*

6) 1 complete rim and neck from a 'mallet bottle' with a fine triangular string rim *Context 1001 east end*

7) 1 complete rim and upper neck from a 'mallet bottle' with a fine triangular string rim *Context 1001 east end*

8) 1 complete rim and upper neck from a 'mallet bottle' with a fine triangular string rim *Context 1001 east end near south door*

9) 1 complete rim and upper neck from a 'mallet bottle' with a fine triangular string rim *Context 1001 east end near south door*

10) 1 complete rim and neck from a 'mallet bottle' with a fine triangular string rim and remains of cork in situ *Context 1001 east end*

11) 2 joining fragments of complete rim neck and part of upper side from a 'squat cylindrical' bottle with a fine string rim. *Context 1001 east end*

12) 1 complete rim and upper neck from a 'squat cylindrical' bottle with a fine string rim *Context 1001 east end*

13) 1 complete rim and upper neck from a 'squat cylindrical' bottle with a fine string rim *Context 1001 east end*

14) 1 complete rim and upper neck from a 'squat cylindrical' bottle with a fine string rim and near complete cork m situ. *Context 1001*

15) 1 fragment of rim and upper neck from a 'squat cylindrical' bottle with a fine string rim *Context 1001 east end*

16) 1 fragment of near vertical neck from a 'tall cylindrical' bottle? *Context 1001 east end*

17) 1 fragment of near vertical neck from a 'tall cylindrical' bottle? *Context 1001 east end*

18) 1 complete pushed-in base with rounded kick and square pontil mark from a 'tall cylindrical' bottle *Context 1001*

19) 1 complete rim and neck from a 'tall cylindrical' bottle with rounded rim and string cord *Context 1001 east end*

20) 1 complete rim and neck from a 'tall cylindrical' bottle with rounded rim and string cord *Context 1001 east end*

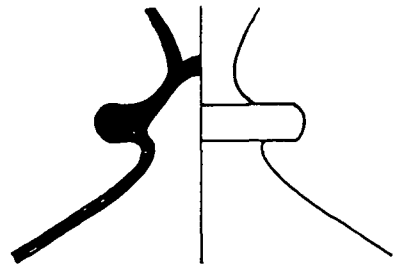
21) 1 complete rim and neck from a 'tall cylindrical' bottle with rounded rim and string cord. *Context 1001 east end*

22) 1 fragment of central knop from a potash goblet The knop is a two piece fold, from a single parison of glass, and flattened slightly The upper base is flaring and the bowl is trumpet shaped *Context 1001*

23) 1 fragment of base from a potash phial The base is a simple rounded push-in, no base ring and the remains of a vertical side *Context 1001*

24) 1 complete rim and upper neck from a lead glass jar The rim is everted and flattened and the neck plain and vertical *Context 1006*

Fig. 1 Late Sixteenth Century Goblet
Fragment and Reconstruction



1:1

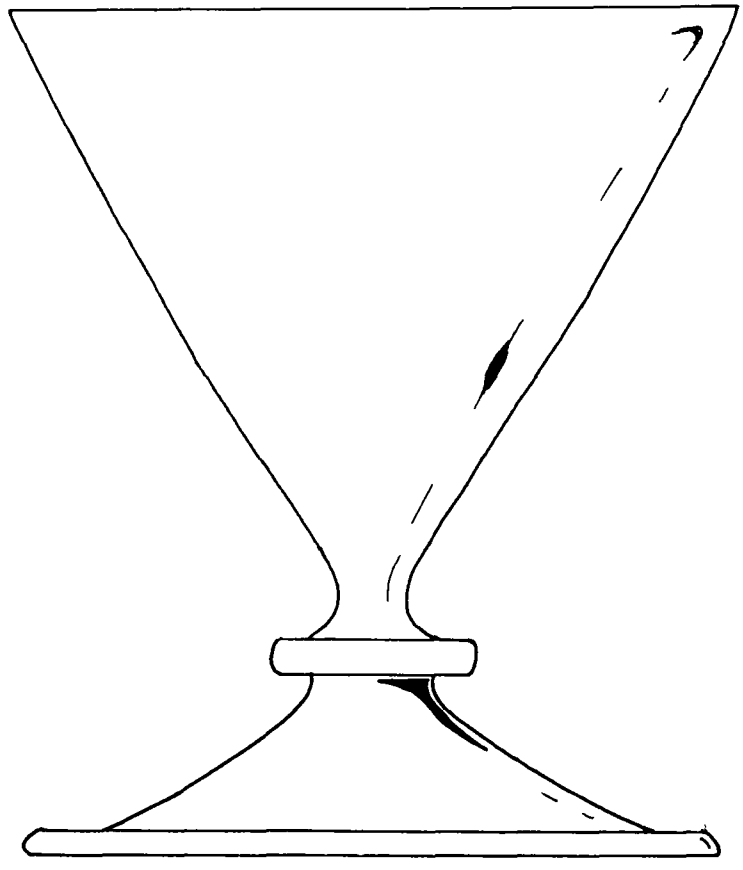
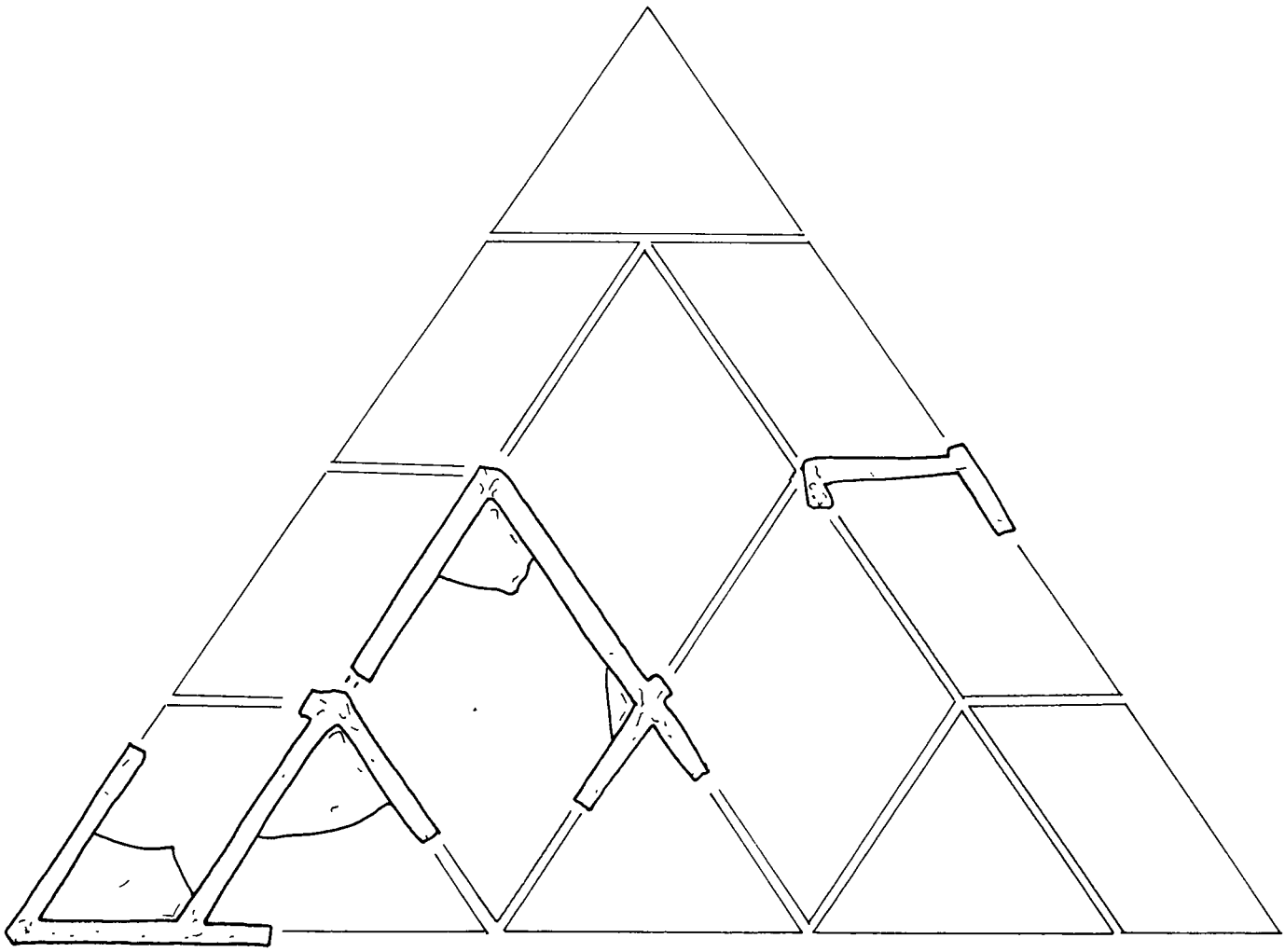


Fig 2 Possible Window Glass Reconstruction



1:2