

# Medieval 'Bronze' Tripod Ewers from Wales

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*THIS PAPER DESCRIBES six complete and one fragmentary tripod ewer found in Wales, and discusses their form, its origin, and their metallic composition. Six are simplified versions of a more elaborate prototype, and are of a type widely distributed and copied in Britain and N. Europe, which probably signals the more general adoption of metal vessels in 14th-century households.*

## INTRODUCTION

The archaeological evidence from the Middle Ages for the use of pottery tableware far outweighs that for the use of metal. There are various reasons for this. To some extent it must reflect the true situation, in that there must always have been more pottery than metal vessels in use, but this situation is exaggerated in the record by the nature of the materials. It is an archaeological cliché that pottery vessels are fragile and so need frequent replacing, while their remains are of little use but are in general practically indestructible; metal vessels on the other hand have a far longer working life so that fewer were produced, while their remains are not only subject to corrosion but are also in demand for recycling. Scrap metal has thus always been in demand, and its collection and commercialization more or less organized. The 15th-century port books of Southampton, for instance, list quantities of 'broken brass' and 'old brass cauldrons' among ships' cargoes,<sup>1</sup> while the 16th-century port books of W. Wales reveal small but regular quantities of old brass or 'scruff' being shipped by Welsh and English merchants to Barnstaple and Bristol.<sup>2</sup> Such examples could be multiplied without difficulty.

The primary agent of collection must have been the tinker, repairing worn vessels and replacing those beyond repair, which eventually were returned to the foundry. The surviving vessels are therefore those that have escaped the tinker's attentions. The likelihood of this happening must have depended to a large extent on location, hence the comparative rarity of such finds from towns and accessible sites generally other than as inconsiderable fragments from rubbish deposits, but their greater incidence from upland sites, where they have either remained to be handed

down as antiques or have been discarded or used as hoard containers, to turn up in the course of peat-cutting or other clearance operations.

This paper describes six complete 'bronze' tripod vessels ('lavers' or 'ewers') of the 14th century from Wales, and the fragmentary remains of another. There is nothing in the least local or native about them or their forms. The centres of the non-ferrous metal industry in the Middle Ages were relatively few. The industry depended on raw materials that were expensive to extract and often had to be brought together over long distances by means of complex transport operations; the process of manufacture was complicated, its mastery requiring a lengthy apprenticeship. As a consequence metalware was not only traded over longer distances but was also less subject to local variation in design than were the products of most other crafts. This is illustrated notably in the case of the second group of vessels described here (Group B, nos. 2-6), which are of a form common throughout the British Isles and much of northern Europe.

All the vessels were probably 'lavers' or 'ewers' used for washing, specifically for hand-washing at meals.<sup>3</sup> Several facts point to this identification. Some such vessels, including the Gower item described here (no. 1), carry inscriptions stating as much.<sup>4</sup> They are also frequently recognizable as having this use in contemporary manuscript illustrations and in paintings of the 15th-century Flemish School.<sup>5</sup> It is clear from these representations that they were normally paired with basins, also of metal, but these have rarely survived, perhaps because they were of thinner, beaten metal more subject to corrosion.<sup>6</sup>

The vessels under consideration have been sampled for analysis and are here considered from the standpoint both of style and of their alloy composition. On both these grounds they may be divided into three groups:

- A Vessel 1: inscribed ewer with pouring lip
- B Vessels 2-6: ewers with curved tubular spouts, undecorated except for the spout ends
- C Vessel 7: ewer with straight tubular spout, decorated with three cordons around the body.

TABLE 1  
MEDIEVAL TRIPOD EWERS

	<i>Height</i>	<i>Maximum diameter</i>	<i>Rim diameter</i>	<i>Weight</i>	<i>Capacity</i>
	(Measurements in mm)			(kg)	(litres)
1. Gower	260	140	85	1.989	1.215 (2¼ pints)
2. 'Kenfig'	230	123	78	1.877	1.02 (1¾ pints)
3. 'Strata Florida'	230	134	84	1.508	1.27 (2¼ pints)
4. Llandefalle	228	120	83	1.491	0.94 (1½ pints)
5. Corwen	174	91	59	0.561	0.44 (¾ pint)
7. Llanrwst	228	127	92	2.196	1.00 (1¾ pints)

## THE VESSELS

For dimensions, weights and capacities, see Table 1.

A 1. *Inscribed ewer from Gower* (Fig. 1; Pl. VI, 1)

This vessel was exhibited at the Swansea meeting of the Cambrian Archaeological Association in 1861 and published four years later as having been found in Gower, the peninsula extending westward of Swansea.<sup>7</sup> It is now in Swansea Museum (formerly the Royal Institution of South Wales), reg. no. A879.1.

It has an elegant, pear-shaped profile, with a curved handle springing from the neck; it has a simple pouring lip unlike the majority of these vessels, which have tubular spouts; the feet are ribbed across the instep. It is in good condition apart from lacking its lid, the hinge for which remains. There is a moulded cordon round the neck and a two-line French inscription in Lombardic capitals round the body, reading:

+ IESVI: LAWR: GILEBERT: K/I: MEMBLERA: MAL: IDEDERT:

(I am the laver Gilbert, who carries me off may he obtain evil from it)

The letters are raised and form a continuous band, with the individual letters not raised on separate pads as is sometimes the case in inscriptions.

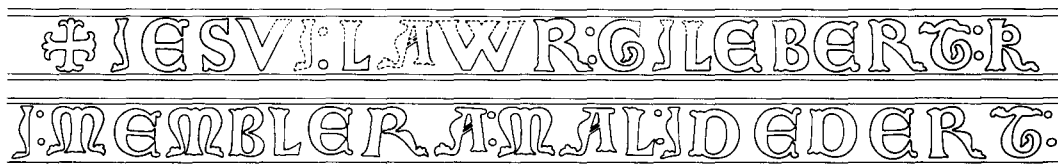
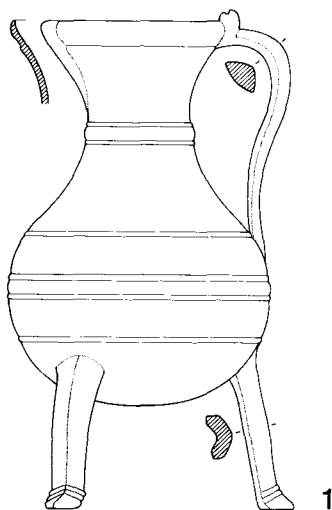


FIG. 1

The Gower ewer and its inscription. Scales: ewer 1:4, inscription 1:3

Several other comparable vessels with inscriptions are known. One with a single-line inscription *VENEZ LAVER* was exhibited at Norwich in 1847 and published with an illustration in 1856.<sup>8</sup> Another, of Scottish provenance, was acquired by the British Museum in 1975; apart from its tubular spout this bears a strong resemblance to the Gower vessel, having a similar cordon round its neck and a two-line inscription reading: +IE: SVI: APELLE: LAWR/IE: SERF: TVT: PAR: AMVR CF (I am called a laver, I serve all for love); it has been suggested that CF may be the initials of the maker.<sup>9</sup> A strange vessel in Liverpool Museum is a ewer with its neck removed to turn it into a skillet (Nelson Collection, 53.113); it has a similar inscription: I SVI APELLE LAV[R]E/SERF TVT PAR AMVR.<sup>10</sup>

The style of the inscriptions on all these vessels is reminiscent of those on church bells, which accords well with the idea that such vessels were the everyday products of bell founders. Evidence for this is to be found, for example, on the 14th-century seal of Sandre (perhaps 'Alexander') of Gloucester, which in addition to a bell bears an inscribed ewer with a tubular spout, reminiscent of the British Museum vessel.<sup>11</sup> Such men probably belong to at least the second generation of founders of the English metalware industry of the high Middle Ages. *Dinanderie* was being imported from at least the 1270s, the English merchants involved in the trade being commonly referred to as 'potters', but whether this implied at that date an involvement with manufacture is not clear, though there is a known instance in 1277 of a merchant (Walter the Potter) helping to set up a working coppersmith in business; by 1316, however, London craftsmen were becoming jealous about manufacturing standards, implying that the industry was becoming established.<sup>12</sup> The style of the lettering and of the initial cross-fleury on the Gower inscription is in fact very similar to those used by certain London bell-founders of the early 14th century. The most striking parallel noted is on a bell at Bisley, Surrey,<sup>13</sup> but there is also a general similarity to the inscription on a bell at Goring cast by Richard Wymbish,<sup>14</sup> a London founder known to have cast a bell for Holy Trinity, Aldgate in 1312, and on another bell ascribed to the founders Walter Wymbish and John Aleyn.<sup>15</sup> Whether or not lettering styles were exclusive enough to individual workshops to justify the ascription of the Gower ewer to one of these, the similarity is striking enough to suggest that it must at least be of London make, and of the first quarter of the 14th century in date, though there is always a possibility that stamps may have continued to be used over a long period.

There is support for this 14th-century date in the data from the analysis of this ewer (Table 2). It is seen to be made of latten<sup>16</sup> with a relatively high zinc content and much smaller amounts of tin and lead. The alloy conforms almost exactly with a typical 'specification' drawn up on the basis of analyses of the better quality steelyard weights of the late 13th century.<sup>17</sup> It is believed that these weights were made in England (in all likelihood in London) using imported latten, essentially the only source of such alloys at the time being the Meuse area, with which trade was conducted *via* the rivers of Flanders and the North Sea.

In addition to the close match of levels of the main alloying elements with those of the steelyard-weight alloys, the impurity contents are also similar, including the high iron content. Of particular significance in relation to dating is the low level of

nickel, which is believed to be a good indicator in this respect. Alloys of the 11th/13th centuries have very low nickel levels ( $<0.10\%$  and often  $<0.06\%$  Ni); those of the 14th century show variability, with some still low but others showing an increase in level (up to  $\approx 0.2\%$  Ni), while later medieval and immediately post-medieval alloys have higher levels still.<sup>18</sup> The proposal of an early 14th-century date is therefore entirely consistent with the analytical findings. The relative consistency in the alloy pattern of the latten of the steelyard weights with that of the ewer suggests that in both instances the expensive imported material was used without significant dilution with other cheaper metals.

The inscribed vessel in the British Museum referred to above has also been analysed and shown to be of a high-tin bronze with insignificant zinc content.<sup>19</sup> Such an alloy may be regarded as more typical of an English foundry at the time, since tin was available indigenously while zinc-containing metal had to be imported. However, the argument for such importation has been established in the case of the steelyard weights, and could no doubt apply to other English-made items important enough to justify the cost.

The use of French for the inscription, the conceit it employs of giving a favourite object its own name, together with the use of an expensive alloy, all indicate that the vessel was made for use in a courtly *milieu*. The presence of a vessel of such quality and sophistication in the rural hinterland of Swansea invites the speculation that it might have been associated with the presence of Edward II and his court in the town in 1327.<sup>20</sup>

TABLE 2  
ALLOY COMPOSITIONS BY PERCENTAGE

No.	Lab. No.	Provenance	Copper	Zinc	Tin	Lead	Nickel	Iron	Anti-mony	Arsenic	Silver
1.	E108	Gower	74.3	18.3	2.02	3.24	0.08	1.58	0.15	0.33	0.03
2.	E81	'Kenfig'	79.3	6.23	2.19	10.2	0.09	0.8	0.92	0.33	0.04
3.	E32	'Strata Florida'	76.2	10.3	4.8	4.31	0.03	0.57	2.96	0.62	0.21
4.	E107	Llandefalle	86.9	5.36	0.05	4.38	0.07	0.71	1.92	0.48	0.13
5.	E31	Corwen	67.1	4.87	6.59	18.8	$<0.03$	0.33	1.95	0.39	0.04
6.	E33	Criccieth	75.4	7.41	5.58	8.1	0.07	0.79	2.18	0.39	0.06
7	E28	Llanrwst	80.8	1.47	9.49	6.65	0.03	0.51	0.38	0.58	0.05

*B Plain ewers with curved tubular spouts (Fig. 2; Pl. VI, 2-5)*

These vessels form a single group, resembling each other very closely in form and differing only in size.

2. 'Kenfig', *W. Glam. National Museum of Wales*, 82.31H

This vessel was purchased by the National Museum in 1982, having previously belonged to a relative of Thomas Gray, the author of *The Buried City of Kenfig* (London, 1909) and was claimed as a find made at the site of the sand-covered borough (approx. SS 800 824)

sometime before that date. The vessel is not mentioned in Gray's book and there is no means of substantiating the claim, though it is not inherently improbable.

3. *'Strata Florida Abbey', Dyfed. National Museum of Wales, 27.319/1*

Acquired by the National Museum in 1927, this vessel had been in the same family since the mid 19th century and traditionally held to have come from Strata Florida Abbey (SN 746 656). Again the association cannot be proved.

4. *Llandefalle, Powys. Brecknock Museum, R 1053*

Found in the 19th century 'in an old well accidentally brought to light while digging a drain in a bog'<sup>21</sup> (SO 10 35).

5. *Corwen, Gwynedd. National Museum of Wales, 42.357/3*

Found in 1855 during the ploughing of a field at Hendreforfydd (SJ 125 456). In the possession of the family of Williams Wynne of Peniarth until it came to the National Museum.<sup>22</sup>

6. *Criccieth Castle, Gwynedd. National Museum of Wales, 40.*

Found in a 'black layer on the floor of the Leyburn Tower' (SH 499 377).<sup>23</sup> Similar in size and shape to the legs of nos. 2-5, but with a single moulded ridge across the instep.

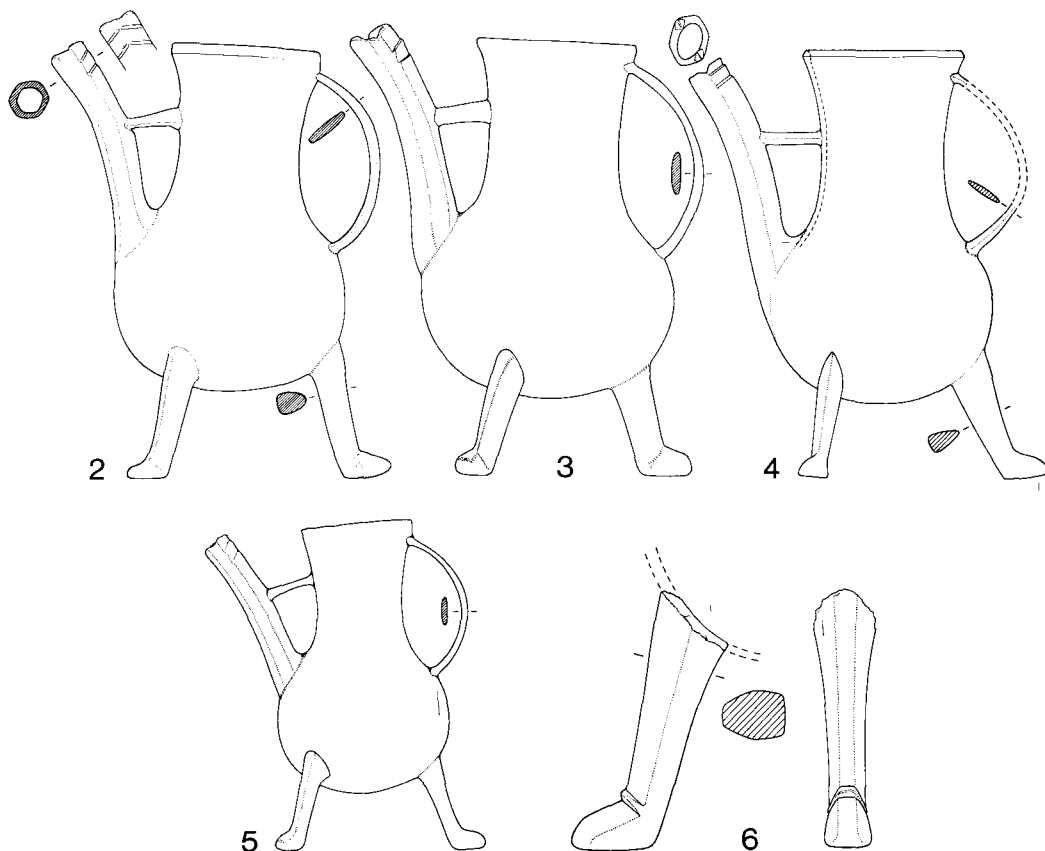


FIG. 2

Group B ewers: 2. Kenfig; 3. Strata Florida; 4. Llandefalle; 5. Corwen; 6. Criccieth.

Scale: 2-5, 1:4; 6, 1:2

*Form and manufacture*

All four vessels are remarkably similar in form: each has a plain, pear-shaped body and a curved, tubular spout of hexagonal section supported by a strut joining it to the neck, which is cylindrical. The spout is notched on each side at the mouth, and has a pair of notched chevrons on top. Each has a plain strap handle and three plain legs of sub-triangular section ending in a plain foot. The surface finish and appearance vary very slightly. The surface of 5 is smooth, showing small random raised lines derived from the mould, but little or no sign of subsequent finishing with a file or rasp. The bottom of 2 has patches of parallel corrugations, also derived from the casting. The lower part of 4 has a rough 'sand-paper' texture, but the upper body and neck have been finished with a file: they exhibit narrow vertical strips made up of horizontal striations, which give the neck a faceted appearance in places. Similarly 3 has patches of oblique striations, showing that it had been finished with a file; this vessel has been painted at some time with a black oil-paint which covers much of the

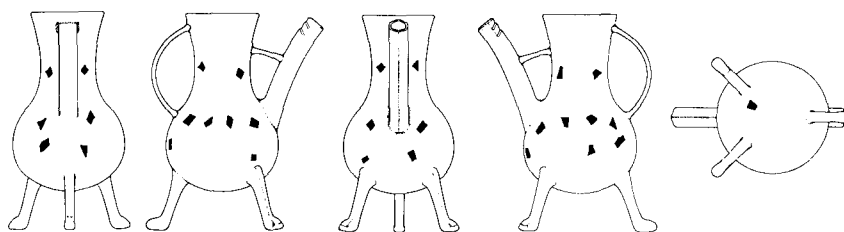
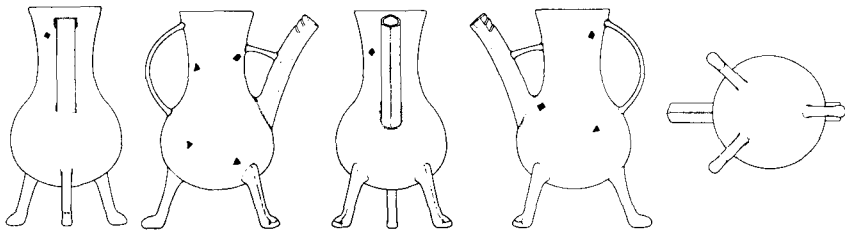
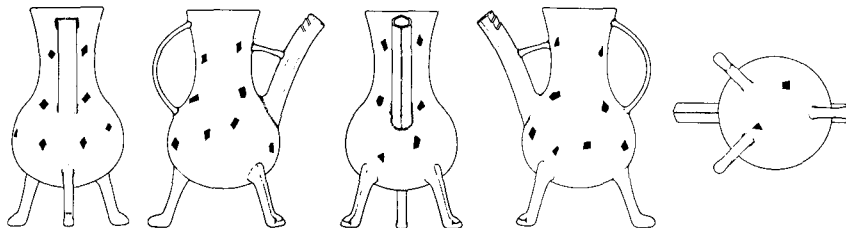
**2 KENFIG****4 LLANDEFALLE****5 CORWEN**

FIG. 3

Arrangements of chaplets on nos. 2, 4 and 5

surface and obscures details. The surfaces of 2 and 5 on the other hand exhibit clearly the metal chaplets or spacers, whose function was to keep the inner and outer elements of the mould apart, which show up as small triangular or polygonal patches in the surface (Fig. 3). In 5 they are slightly thinner than the wall of the vessel, so that they appear as small sunken patches on one or both sides of the metal; even where they are of the correct thickness their incorporation into the vessel wall has seldom been perfect, so that their shapes are detectable. 4 on the other hand seems to have been a more successful casting, altogether more refined in manufacture: few chaplets are visible, and those rather smaller than in the other vessels. Comparison of the pattern and character of the chaplets seems to offer a possible means of differentiating between workshops. All four vessels were cast in one piece and in a single mould: there is no sign of a seam, which would imply a two-part mould fitted round a central core; spout, handles and legs are all integral with the body. It therefore appears that they were made by the lost-wax process.

### *Dating*

This form of ewer seems to have been current for most of the 14th and perhaps into the 15th century. It is the type represented in the early 14th-century manuscript London BL Royal 10 E.iv cited above.<sup>24</sup> It is represented in a hoard of domestic metalware found on the site of a medieval house (Huys te Haerlem) near Beverwijk in North Holland, which was probably buried *c.* 1351 and belonged to the years 1328–51.<sup>25</sup> It is also represented in the Luttrell Psalter of *c.* 1335–40.<sup>26</sup> Finally, ewers of this form were used to contain two British coin hoards, those of Balcombe (Sussex) and Fortrose (Cromarty), dated *c.* 1380 and *c.* 1400–06 respectively.<sup>27</sup> The low nickel contents of the alloys of the ewers (Table 2) are also consistent with 14th-century dates, but especially in the first half of the century. The later dates implied by the coin hoards may simply reflect the ewers' durability, or the use for this purpose of vessels that were no longer serviceable.

### *Origin and distribution*

Spouts in the form of animal heads are not unusual in ewers of all forms, and the characteristic moulding on the spouts of this group is clearly derived from such animal-head prototypes. Such a spout can be seen on a vessel in the Musée Cluny in Paris (Cl. 9325), which has the typical undecorated, pear-shaped profile, but with a spout ending in a true animal head, with small pricked ears, prominent brow ridges above pointed-oval eyes, and a mouth from which issues a short hexagonal spout. In this vessel the spout is no more than a moulded finish to the face, but there is usually a clear distinction between the spout and the mouth, the former issuing as a cylindrical tube from the animal's parted lips. The way the side notches on the spouts of 2–5 were derived from such forms can be seen in a ewer from Cologne (Appendix I, 38). The distinctive chevrons on top are stylized versions of the marked brow ridges which appear to be normal in the animal forms. Some vessels illustrate intermediate stages on the way to the final stylized version. Thus the ewer from Hawick (Appendix I, 19) has a spout somewhat nearer a true animal head and feet resembling paws, as have two vessels from German collections,<sup>28</sup> which on the



grounds of profile have not been included in Appendix I, though they do illustrate the gradual stylization of true animal forms.

Ewers of precisely the same form as 2-5 are numerous and widely distributed, occurring as provenanced finds but oftener as unprovenanced museum items in Great Britain and Ireland, Belgium, Holland, France, Germany and Austria (see Appendix I). The series includes a version in which the spout bifurcates above the strut but is otherwise identical.<sup>29</sup> Some of the vessels have been made in two-part moulds, for example the Ashmolean Museum vessel (Appendix I, 16) and some of the numerous examples in the National Museum of Antiquities at Edinburgh, which suggests 'local' copying of *cire perdue* originals.

Where did the form originate? There is a natural tendency to look for an origin on the Continent, especially in Flanders or N. Germany, the source of so much medieval metalware and the heartland of the continental industry. The fact that, as we have seen, intermediate forms seem to occur notably among continental examples suggests that some simplification of the design was taking place there, if not the final emergence of the simplest form. Examples of this are most numerous in Britain, and there appears to be no technological reason why it should not have originated here in view of the fine workmanship and sophistication represented by the inscribed vessels considered above, whose London manufacture seems certain.

There are also metallurgical reasons for regarding them as English. Analysis of the alloys of the ewers from Wales (Table 2), along with those of several vessels of Group B type from elsewhere, has shown that the latten used contains less zinc (approximately 5-12% Zn) than that used in making the Gower ewer (1); the tin and lead levels are, however, in general higher. Two possible explanations of these differences present themselves. First, in the interest of lowering the cost of this type of ewer, an imported, relatively high-zinc alloy, such as that used for 1, might have been diluted on melting with tin, lead or copper, or combinations of these metals, perhaps in the form of scrap bronze. There is ample evidence for this practice in the 15th century in the case of candlesticks made in England.<sup>30</sup> It should be noted incidentally that this dilution model would also account for the reduction in the iron from the high levels that appear typical of the high-zinc latten alloys of the period to the more modest level (<1.0% Fe) found in the present Group B. The second possibility would assume the manufacture in this country of the zinc-containing alloy from the requisite raw materials, *viz.* copper and calamine, but the use of a technique inferior to that of the continental metalworkers, which would lead to relatively low-zinc alloys. This explanation would undermine the accepted view that this method of manufacture did not begin in Britain until the late 16th century under the auspices of the Society for Mineral and Battery Works. Recent documentary evidence has, however, come to light which suggests the application of this process at the end of the 14th century.<sup>31</sup> Whether this or the alternative dilution model be accepted, the likelihood is that the ewers analysed were of English rather than continental manufacture.

Household vessels of metal certainly seem to have become more common in England during the 14th century. In 1301, 44% of the taxable population of Colchester — including even the poorest, whose total valuation may have amounted

to no more than a few shillings — owned one or more 'brass' vessels.<sup>32</sup> By the second half of the century such vessels appear to have become standard equipment even in peasant households, for it has been demonstrated from the Worcester Court Rolls for the period 1354–1440 that 90% of peasant holdings included a 'brass' pot and pan among their *principalia*; two of the larger of these modest households in the 1390s owned ewers and basins.<sup>33</sup> With metalware in general use at this lowly social level, its general use in the community at large can be assumed,<sup>34</sup> and it is tempting to see in this series of plain yet elegant vessels evidence for this expansion.

C. *Ewer with straight tubular spout* (Fig. 4; Pl. VI, 7)

7. *Llanrwst, Gwynedd. National Museum of Wales 44.166*

Found 'in the valley east of Carnedd Dafydd' (SH 76 S.W.) c. 1880.<sup>35</sup> It differs from 2–5: its neck flares markedly towards the rim, and its profile is broken by three narrow cordons. It was cast in one piece but with rather less skill than the other vessels; it is considerably heavier, and is coarser in design and workmanship than those of Group B, the surface and edges of the metal bearing coarse file marks.

Its profile and the addition of cordons seem to relate this to a different series of continental vessels. Two early examples of the form can be seen in ewers at Amsterdam and Frankfurt,<sup>36</sup> and related to these is an old find from Kilnoon, Co. Monaghan, which has cordons, a double spout with animal heads, and feet in the form of paws.<sup>37</sup> Although the Llanrwst ewer is far removed from these more elaborate vessels by its low standard of refinement and workmanship, the basic similarities are obvious. Its closest parallels are ewers from York and Westhills, Annan.<sup>38</sup> The lack of sophistication of these three vessels suggests 'local manufacture', though what that would mean in terms of their precise origin it is not yet possible to suggest. It may be noted that all three are from the northern half of the country.

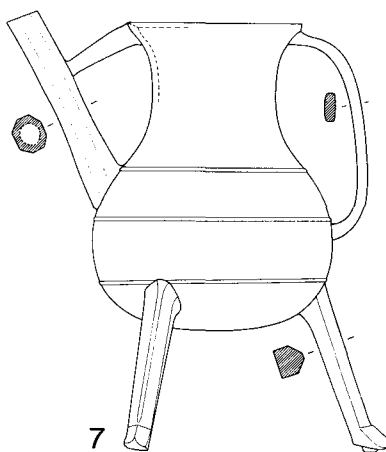


FIG. 4

The Llanrwst ewer. Scale: 1:4

In addition to their differences in form, the alloy compositions of the Llanrwst, York and Westhills vessels contrast with those of Group B ewers in being leaded bronzes of relatively high tin content, but with negligible zinc content. There was thus no attempt to achieve the golden colour of the latten vessels. Amongst the impurity elements, the very low nickel level and the relatively low antimony and arsenic levels are of interest in the matter of their dating. Such an impurity profile, together with a high tin content, can be found in as yet unpublished data on medieval cooking vessels believed to belong to the 14th century.<sup>39</sup> These cauldrons and skillets have a body profile not unlike the lower part of the Llanrwst ewer and they are often decorated with cordons, nearly always three in number. The Llanrwst ewer may well therefore be contemporary with those of Group B, but made in some region remote from the main centres of metalware production, as is suggested by the relative crudity of its design and finish, and by the use of leaded bronze rather than latten in its manufacture.

#### CONCLUSION

This collection of 'bronze' ewers from Wales thus appears to comprise three elements: a London-made vessel of high quality (A, 1); a series of less sophisticated vessels of a type common in Britain and on the Continent but perhaps predominantly of English manufacture (B, 2-6), which seems to represent evidence for the increasing adoption of metal for household goods in the 14th century; and a British provincial version of a form developed from a different continental prototype (C, 7). All are considered to date from the 14th century with the Gower vessel probably the earliest and the Llanrwst vessel probably the latest in the series.

#### APPENDIX I

##### List of Type B Vessels

##### ENGLAND

- |  |   |
|--|---|
| <p>1. Ashby de la Zouch Castle<br/>Victoria and Albert Museum: M25.1939<br/><i>Antiq. J.</i>, 18 (1938), 179.</p> <p>2. Balcombe, Sussex<br/><i>Sussex Archaeol. Coll.</i>, 42 (1899), 209-13<br/>J. D. A. Thompson, <i>Inventory of British Coin Hoards</i> (Royal Numismatic Soc. Spec. Pub. 1, 1956)/no. 22, pl. 1c.</p> <p>3. Battersea, London<br/>Museum of London: A2752<br/><i>London Museum Medieval Cat.</i>, 201, pl. 53.</p> <p>4. Southampton<br/>Southampton Museum: A6.1983.</p> <p>5. Southampton<br/>Southampton Museum: SOU 122.547.</p> | <p>6. Unprovenanced<br/>Whitehaven Museum<br/>C. Richardson, 'Two medieval vessels at Whitehaven Museum', <i>Trans. Cumberland Westmorland Antiq. Archaeol. Soc.</i>, 78 (1978), 210, pl. 11.</p> <p>7. Unprovenanced<br/>Yorkshire Museum 1978.52.</p> <p>8. Unprovenanced<br/>Yorkshire Museum.</p> <p>9. Unprovenanced<br/>Carlisle Museum: RF 458 (Ferguson Collection)<br/>R. Brownsword, E. E. H. Pitt and C. Richardson, 'Medieval tripod ewers in</p> |
|--|---|

- Carlisle Museum', *Trans. Cumberland Westmorland Antiq. Archaeol. Soc.*, 81 (1981), 49, fig. 1.
10. Unprovenanced  
Carlisle Museum: OM 159  
*Loc. cit.*, No. 9, fig. 3.
11. Unprovenanced  
British Museum: 1902, 8-24, 1.
12. Unprovenanced  
British Museum: 54, 7-14, 318.
13. Unprovenanced  
British Museum: 1910, 12-20, 1.
14. Unprovenanced, ?London  
Museum of London: 8083.
15. Unprovenanced  
Victoria and Albert Museum:  
M202.1926.
16. Unprovenanced  
Ashmolean Museum: 1952.181.

### SCOTLAND

17. Closeburn, Dumfries  
National Museum of Antiquities, Edinburgh: MC 14.  
*Archaeologia*, II (1789), 429.
18. Fortrose, Cromarty  
Nat. Mus. of Antiqs, Edinburgh: MC 16  
*Proc. Soc. Antiq. Scotland*, 14 (1880), 182-219.  
J. D. A. Thompson, *Inventory of British Coin Hoards*, no. 165, pl. III.
19. Hawick, Roxburghshire  
Carlisle Museum: RF 59 (Ferguson Collection)
- R. Brownsword, E. E. H. Pitt and C. Richardson, 'Medieval tripod ewers in Carlisle Museum', *Trans. Cumberland Westmorland Antiq. Archaeol. Soc.*, 81 (1981), 49, fig. 2.
20. Innermessan, Stranraer  
Nat. Mus. of Antiqs Edinburgh: MC4  
*Cat. of the Nat. Mus. of Antiqs of Scotland* (Edinburgh, 1892), 321.
- Note: The National Museum of Antiquities has several more vessels of the same form. They are listed in the 1892 Catalogue among the series MC 1-21.

### IRELAND

21. Drumnaspar, co. Tyrone  
W. R. Wilde, *Cat. of the Antiquities in the Museum of the Royal Irish Academy* (Dublin, 1861), pp. 535-36, no. 55, fig. 417.
22. Grey Abbey, Ardes, co. Down  
Camden's *Britannia* (Gough ed. 1789), III, pl. 33, no. 6.
- 23-24. Two others, ?unprovenanced  
W. R. Wilde, *loc. cit.*
25. ?Unprovenanced  
Museum of Trinity College, Dublin  
*Collectanea*, IV, 42.
26. Unprovenanced  
Belfast Museum  
*Ulster J. Archaeol.*, 3rd ser. III (1950), 68.

### BELGIUM

27. Antwerp  
Vleeshuis Museum: Inv. 1876  
*Vleeshuis Catalogue 10: Koper en Bronz*, no. 310, pl. VIII.
28. Antwerp  
Museum Mayer van den Bergh: Cat. no. 255.
29. Deurne-Antwerp  
Het Sterckshof Museum: Inv. S.631  
*Aanwisten der Provinciale en Gemeentelijke Musea 1945-1967* (Brussels, 1968), no. 382.

### HOLLAND

30. ?Unprovenanced (double spout)  
Rijksmuseum, Amsterdam: Inv. NM100.
31. ?Unprovenanced  
Museum Boymans-van Beuningen, Rotterdam: Frederiks Collection Kb24  
*Bulletin Mus. Boymans-van Beuningen*, 21 (1971), 70, pl. 61.
32. Another, ?unprovenanced  
Frederiks Collection Kb28  
*Loc. cit.* No. 31.

## FRANCE

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| <p>33. Paris<br/>Musée Carnavalet: C94 AM8.</p> <p>34. Paris<br/>Found 1974, in private hands<br/>(inf. Dr M. Perrin, Musée Carnavalet).</p> <p>35. Paris<br/>Musée Cluny: Cl.9325.</p> | <p>36. Étretat, Seine Maritime<br/>Musée des Antiquités, Rouen, no. 1835.</p> <p>37. Unprovenanced<br/>Musée des Antiquités, Rouen, no. 1871.</p> <p>38. Unprovenanced<br/>Musée des Antiquités, Rouen, no. 542.</p> |
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## GERMANY

39. Cologne  
Kunstgewerbemuseum H1 165  
*Spiegel des täglichen Lebens* (Kölnisches  
Stadtmuseum, 1982), 17, pl. 27.

## AUSTRIA

40. Vienna  
Figdor collection  
H. P. Lockner, *Messing: ein Handbuch über  
Messinggerät des 15-17 Jahrhunderts*  
(Munich, 1982), pl. 158.

## NOTES

<sup>1</sup> E.g. D. B. Quinn (ed.), *The port books of local customs accounts of Southampton for the reign of Edward IV: Vol. I, 1469-71* (Southampton Rec. Ser. 37, 1937), 21, 28.

<sup>2</sup> In each of the years 1566, 1586, 1587, 1593 and 1603 up to four cargoes a year included small consignments (up to a maximum of about a ton for the year in total) being sent from Milford, Haverford, Tenby and Carmarthen to Barnstaple and Bristol; in 1586 a consignment of old brass from Ireland to Milford is listed. Information extracted from E. A. Lewis, *The Welsh Port Books 1550-1603* (Cymmrodorion Rec. Ser. xii, London 1927).

<sup>3</sup> *O.E.D.* does not cite an occurrence of the word 'laver' earlier than the 1380s, but the inscriptions on the vessels themselves, which almost certainly belong to the first quarter of the century, show that the term was in use earlier. The term 'cwer' was also in use, *O.E.D.* citing an example of its use in 1325. This term continued in use until the 18th century and into recent times. It may be that 'laver', the common term in the 14th century, subsequently became specialized by attachment to 'hanging lavers', an entirely different form of vessel, when these were introduced from Flanders in the 15th century. The term 'ewer' is used here to prevent confusion with these hanging vessels.

<sup>4</sup> See pp. 82-83 below.

<sup>5</sup> Cf. London, BL Royal 10 E.IV, an early 14th-century copy of the Decretals of Gregory IX, where on 25<sup>v</sup> a man is illustrated carrying a laver in his left hand and a large flat-rimmed dish or bowl in his right. The picture represents Joseph welcoming his brothers, the next in the series being a feast with them all seated at table. The figure is used in J. Seymour Lindsay, *Iron and brass implements of the English house* (London, 1964), 28. For 15th-century examples, see A. E. Theuerkauff-Liederwald, 'Die Formen der Messingkannen im 15. und 16. Jahrhunderts', *Rotterdam Papers*, II (Rotterdam, 1975), 177-200.

<sup>6</sup> For the tendency of sheet metal vessels to corrosion, cf. a small bowl excavated in Cardiff, *Archaeol. Cambrensis*, 126 (1977), 100-02, fig. 6a, pl. viii.

<sup>7</sup> *Archaeol. Cambrensis* (1861), 368; *Proc. Soc. Antiq. London* (1865), 199.

<sup>8</sup> *Archaeol. J.*, xiii (1856), 74.

<sup>9</sup> Reg. no. 1975, 10-1, 10. See *British Museum Yearbook II: Collectors and Collections 1977*, 199-201.

<sup>10</sup> Nelson Collection 53.113. For further inscribed vessels, including 19th-century finds, see a note in *Archaeol. J.*, 17 (1860), 184-85.

<sup>11</sup> A. B. Tonnochy, *Catalogue of British Seal-Dies in the British Museum* (London, 1952), no. 620.

<sup>12</sup> G. Unwin (ed.), *Finance and trade under Edward III* (Manchester, 1918), 31-33.

<sup>13</sup> J. C. L. Stahlschmidt, *Surrey bells and London bell-founders* (London, 1884), plate xi, nos. 152-54 and 156-59; pp. 78-79 and 132-33.

<sup>14</sup> *Ibid.*, pl. ii; pp. 6-9.

<sup>15</sup> *Ibid.*, pl. iv; pp. 9-10.

<sup>16</sup> The term 'latten' is used to describe copper alloys of golden colour (when free of patina or corrosion products). They all contain some zinc, but the level is variable within a wide range, influenced in part by the tin content: the higher the latter, the lower the zinc content necessary to achieve the desired colour. To use the term 'brass' might be misleading since the modern usage implies a copper-zinc alloy with a negligible amount of tin. The medieval term

'brasse' was used with little or no precision to cover brass (copper-zinc alloys) and also what are now known to be leaded bronzes (copper-lead-tin alloys), or even copper itself. Therefore medieval copper alloys of golden colour are best described as of 'latten' since in many instances they achieve the golden colour through a relatively low zinc content in combination with a significant tin content. Cast alloys, as in the case of this group of objects, also contain several per cent of lead. There is documentary support for the use of the term 'latten' in the late medieval period for these complex copper-zinc-tin-lead alloys (e.g. the Beauchamp memorial effigy of 1453 was ordered to be made . . . 'of the finest latten'. See *Archaeol. J.*, 131 (1974), 229).

<sup>17</sup> R. Brownsword and E. E. H. Pitt, 'A Technical Study of Some Medieval Steelyard Weights', *Proc. Dorset Natur. Hist. Archaeol. Soc.*, 105 (1983), 83-88.

<sup>18</sup> O. Werner, 'Analysen mittelalterlicher Bronzen und Messinge: I', *Archäol. u. Naturwissenschaften*, 1 (1977), 144-220.

<sup>19</sup> Analysis gave the following results: Copper 79.8%, Zinc 0.02%, Tin 13.2%, Lead 5.82%, Nickel 0.04%, Iron 0.03%, Antimony 0.32%, Arsenic 0.45%, Silver 0.06%.

<sup>20</sup> For possible dispersal of royal treasure in Gower at the time, see W. Rees, 'Gower and the March of Wales', *Archaeol. Cambrensis*, 110 (1961), 1-29. See also *Archaeol. Cambrensis* (1887), 5 (find of the contract of affiance of Edward II) and *Jewellery Studies*, 2 (1985), 21-28 (the Oxwich Castle gold brooch).

<sup>21</sup> *Archaeol. Cambrensis* (1888), 166.

<sup>22</sup> *Archaeol. Cambrensis* (1858), 416; *ibid.* (1859), 150.

<sup>23</sup> *Archaeol. Cambrensis* (1944-45), 40.

<sup>24</sup> See note 5.

<sup>25</sup> J. G. N. Renaud, 'Twee Vondsten van Middeleeuws Brons', *Bull. Kon. Nederlandse Oudheidkundige Bond*, 6th ser. (1963), 1-12.

<sup>26</sup> f. 157b, see E. G. Miller, *The Luttrell Psalter* (London, 1932). The form depicted could equally well represent C7, below.

<sup>27</sup> Balcombe: J. D. A. Thompson, *Inventory of British Coin Hoards* (Royal Numismatic Soc. Spec. Pub. 1, 1956), no. 22, pl. 1c; *Num. Chron.*, 18 (1898), 8 ff., pl. 1-v. Fortrose: Thompson, *op. cit.*, no. 165, pl. 1d; *Proc. Soc. Antiq. Scotland*, 14 (1879-80), 182 ff.

<sup>28</sup> T. Dexel, *Gebrauchsgerätypen, Band II* (Munich, 1981), pl. 404; H. P. Lockner, *Messing: ein Handbuch über Messinggerät des 15-17 Jahrhunderts* (Munich, 1982), pl. 159.

<sup>29</sup> Rijksmuseum, Inv. NM 100.

<sup>30</sup> R. Brownsword, E. E. H. Pitt and R. A. Rutland, 'Latten candlesticks in the Leicestershire Museums' Collection', *Trans. Leicestershire Archaeol. Hist. Soc.*, 57 (1981-82), 17-25.

<sup>31</sup> *Antiq. J.*, LXVI (1986), 82-90.

<sup>32</sup> H. E. J. le Patourel, 'Documentary evidence and the medieval pottery industry', *Medieval Archaeol.*, 12 (1968), 101-26.

<sup>33</sup> R. K. Field, 'Worcestershire peasant buildings, household goods and farming equipment in the later Middle Ages', *Medieval Archaeol.*, 9 (1965), 105-45.

<sup>34</sup> As to evidence from Wales, the inventory of the goods of Ieuan ap Kenric Vaghan (1361) suggests that metal pots were in general use in the Llyn peninsula of N. Wales, though they may have been regarded as prized possessions: he had four pots — presumably cauldrons or skillets — all held as pledges against loans, which was not unusual (*Archaeol. Cambrensis* (1865), 265).

<sup>35</sup> Information given at the time of its acquisition by the National Museum of Wales. It was illustrated (as a 'mead vessel') in W. Bezant Lowe, *The Heart of Northern Wales*, Vol. 2 (Llanfairfechan, 1927), fig. 99.

<sup>36</sup> Rijksmuseum, RBK 16428; Museum für Kunsthandwerk (Lockner, *op. cit.* in note 28, pl. 161).

<sup>37</sup> *Proc. Soc. of Antiq. London*, 2nd ser. VII (1876-78), 341-42; photograph in a volume of illustrations entitled *Utensils and Furniture* in the Library of the Society of Antiquaries, Burlington House, London.

<sup>38</sup> York: find made during the alterations to the Golden Lion public house, Church Street in 1970, now in the Yorkshire Museum; Westhills, Annan: Carlisle Museum, see R. Brownsword, E. E. H. Pitt and C. Richardson, 'Medieval tripod ewers in Carlisle Museum', *Trans. Cumberland Westmorland Antiq. Archaeol. Soc.*, 81 (1981), 52-53, fig. 4.

<sup>39</sup> An extensive programme of metal analysis on samples from a wide range of cauldrons and skillets is in progress at Coventry Polytechnic. This approach has been combined with stylistic assessment, with a measure of success in correlating the two aspects. Unfortunately few such objects are dated (some with 16th- or 17th-century dates have been included), but a few others have firm *terminus ante quem* dates. A reasonably clear picture is emerging of a broad classification of cooking vessels, of which those with a near-spherical body (probably late 13th/14th century) have a high tin content and low levels of antimony and nickel, while those with sloping sides and a flatter base (probably 16th/17th century) have a low tin content and high levels of antimony and nickel. Those with transitional forms and intermediate alloy compositions are probably of the 15th century. However, it is likely that development in form and composition was gradual, so that the above comments should not be treated as definitive statements but rather as general indications. There is support for the validity of these broad changes in alloy composition with date in the case of other objects made of leaded bronze, many of which are satisfactorily dated.