The East and North Gates of Gloucester and associated sites

Excavations 1974-81

Carolyn Heighway

with contributions by
D. Bailey, J. Bayley, N.P. Bridgewater, D. Brown, R.M. Bryant,
C. Frost, A.P. Garrod, F.J. Green, C.E. Goudge, S. Greep, D. Harden,
K. Hartley, M. Hassall, M. Henig, J. Hillam, C. Ireland, R. Ling,
D.F. Mackreth, G. Lawson, N. Mayhew, J.M. Maltby, R. Morgan,
C. Morris, A.J. Parker, A.A. Peacey, D.P.S. Peacock, J. Price,
R. Reece, J.F. Rhodes, R.W. Sanderson, A. Saville, V. Tatton-Brown,
A.G. Vince, J.M. Vince, M.J. Watkins, D. Watts, G. Webster, F. Wild
and P. Windsor.



Western Archaeological Trust Excavation Monograph No.4

THE CLAY PIPES FROM THE EAST GATE SITE, GLOUCESTER by A.A. Peacey

The East Gate site is of particular value to the study of clay pipes in the Gloucester region because of its abundance of well-stratified material from the last quarter of the 17th and first quarter of the 18th centuries. Of the 316 stratified bowls recovered, 260 are within this date bracket.

Throughout the middle of the 17th century the Bristol pipemakers supplied Gloucester with pipes almost to a saturation level, but in the 1660's this situation altered dramatically, and few Bristol pipes occur in Gloucester after this date. This change appears to result from the rise of the industry in Broseley, pushing its products via the Severn to the West Country and South Wales, and the coinciding establishment and rapid growth of Gloucester's own pipemakers (Peacev 1979). The Gloucester Port Books record cargoes of pipes being carried through Gloucester on Bewdley vessels from 1684 to 1699 (S.W. Davies, pers. comm.) and though the origin is not given, it is clear from the archaeological record that these pipes were of Broseley manufacture. Four types are typical of this peak of the Broseley trade at the end of the 17th century. Types 2 and 3 (broadly contemporary) followed by 4 and 5 (also broadly contemporary). With the introduction of the very distinctive Type 5 came a new type of stamp, usually rectangular, with the marker's name in full, and in a few cases incorporating a date. Dated pipes of this type are known from eight different makers, the dates ranging from 1687 to 1697 (Atkinson 1975). It is certain, therefore, both from the archaeological and the documentary material, that Broseley pipes were coming into Gloucester at the end of the 17th century. The terminal date for production of Broseley Type 5 is given by Atkinson as 1730, though it seems probable from the archaeological material that by this time the form had been largely superceded by the longer-lived Type 4.

The table (3.37) shows the occurrence of pipe types in Period groupings. The Gloucester and Broseley types are arranged in chronological order with particular stamped pipes shown separately. The table highlights patterns of localised distribution which may be significant but which could equally reflect chance survival. For instance, evidence from the recent excavation of a pipe kiln dump off Quay Street, Gloucester

		ı	0	O II			PERIOD						12			PERIOD					13				PERIO			D	14	
TYPE		В	С	Α2	A6	Α7	Α	B1	B2	вз	СЗ	C4	D	E2	ЕЗ	Α	B1	В	C1	СЗ	C4	C6	C7	D	Α	В	C1	СЗ	C4	
Glos	1	1		1	ı			1	1			1					2													8
	2								2	2		ı				2							1							8
	3						2																							2
Bros	2														-		ı													1
	3																													
Glos	4		ı			ı	17		ı	7					2		3	1						2						35
	8	١				ı	8			4	١		1												ı					17
	(VB)					ı																								1
	5					١													3				ı							5
	6														1		2		6				2	10						21
	7																													
	10					ı	15			2				2.	12	2	7	12	24			1	3	21	2		2	ı		107
	9																6	2	3						2					13
	11	-														12	5			ī	3		2	3	4					31
	12																i							3						4
Bros	4															١														1
	5						1							1		5	6	3	2				1	ı	1					21
Glos	13														1		2	1						10					ω'	14
	PA (B)																2						1	2						5
	(B)																1						1							2
Bristol	HH																1													1
Glos	14														1			1					1	2						5
	15																													
	16																								2	3			1	6
	17																									5	1		2	8
																											TC)TA	۱L	316

Table 3.37

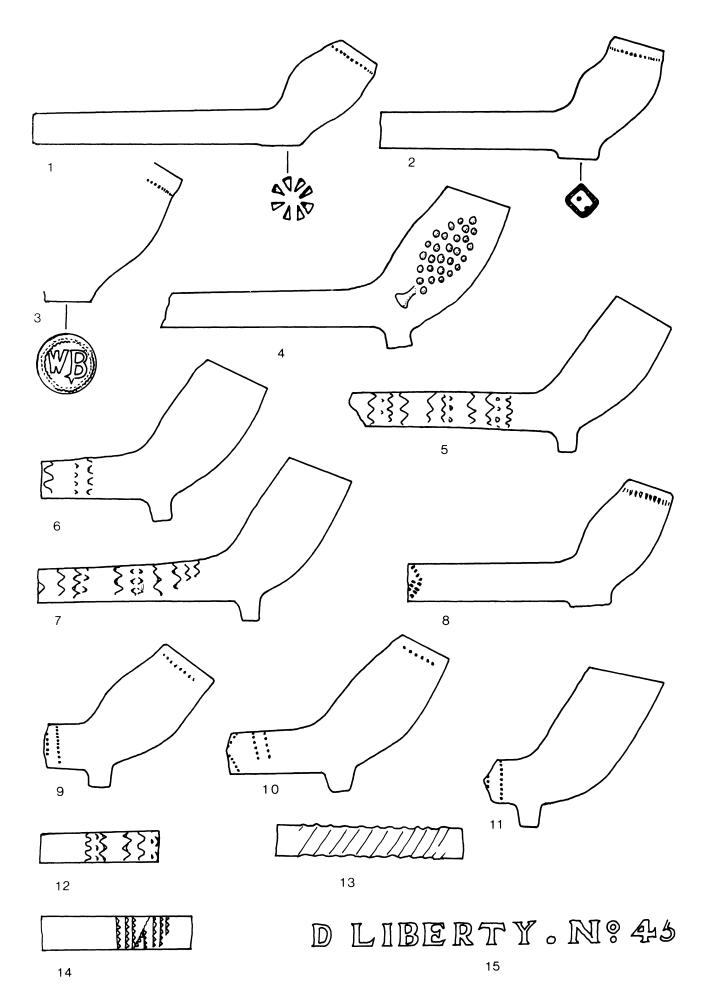


Figure 96. East Gate. Clay pipes. Drawn by A.A. Peacey. Scale 1/1.

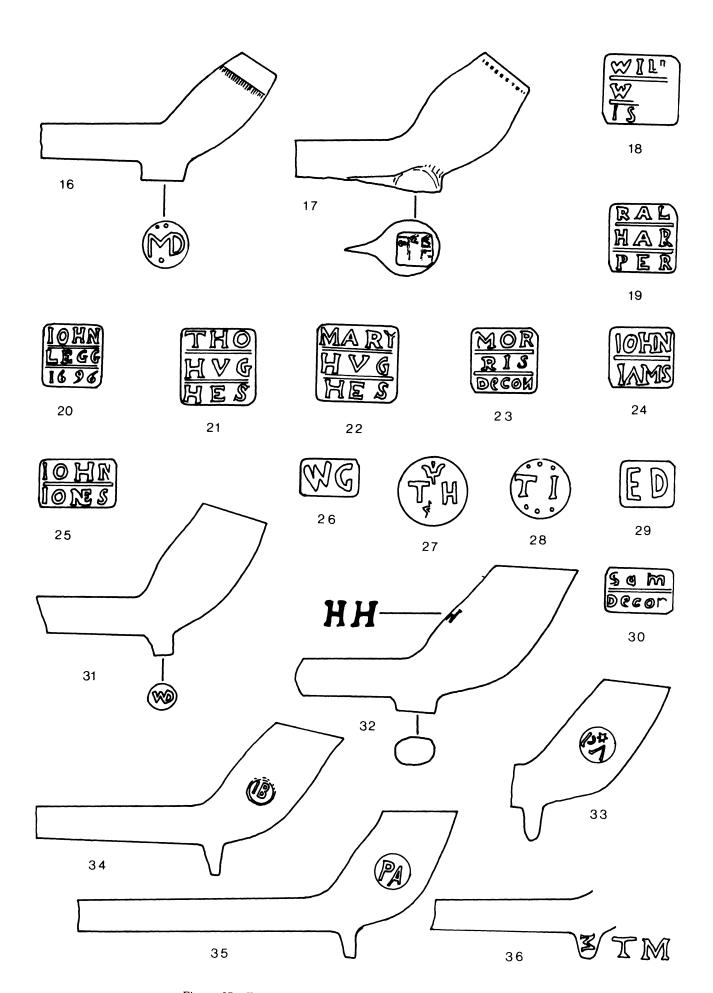


Figure 97. East Gate. Clay pipes. Drawn by A.A. Peacey. Scale 1/1.

(site 28/79, unpublished) where Gloucester Types 4 and 8 (Peacey 1979) were manufactured, showed them to be contemporary with Broseley Types 2 and 3, yet at the East Gate site, among Period 12 groups producing Types 4 and 8, there are no examples of the Broseley Types 2 and 3. It is also noticeable that whereas the East Gate site produced 21 stratified Broseley Type 5's, there is only one Broseley Type 4, yet they were produced contemporaneously, as is shown by the occurrence of the minute stamps, made for application to the end of the Type 4 spur, on the large heel of Type 5 pipes from Lower Wick, Tewkesbury, and the Tanners Hall, Gloucester (Peacey, forthcoming b). The Gloucester Type 10 is abundant in both Periods 12 and 13 whereas the broadly similar Type 6, with one exception, is only found in Period 13.

Period 13B1 is the earliest on the East Gate site to produce the early 18th century Type 13, with examples marked on a raised cartouche, on the right-hand side of the bowl, P A, a pipe that on distributional evidence is certainly a Gloucester product. The similarly marked I B pipe also has a distributional bias towards Gloucester but is found over a wider area and could be a Bristol product. The pipe with incuse marking H H on the back of the bowl is attributable to Henry Hoare of Bristol (Jackson and Price 1974), an apprentice of Robert Tippet II, who took his freedom on 22 July 1699 and in turn took apprentices between 1716 and 1723. Pipes recorded from Bristol marked in a cartouche on the side R. TIPPET and again incuses on the back of the bowl H H show that both methods of marking were in use in Bristol at the turn of the 17th century. The cartouche mark does not appear to have been used by the Gloucester makers much before 1725, but continued in use in Gloucester, and at Wickwar in south Gloucestershire, well into the third quarter of the 18th century.

Period 14 is marked by the occurrence of Gloucester Types 16 and 17, some of the latter bearing the initial spur mark of Robert Williams, working at Worcester Street, Gloucester from 1849 to 1866.

CATALOGUE OF ILLUSTRATED PIPES

- A mid 17th century pipe with impressed wheel mark on the heel. This type of mark is common in Herefordshire, occurring frequently in Gloucestershire to the West of the Severn but rarely to the East.
- Gloucester Type 3b, marked with an impressed square and two dots recorded also from Quay Street.
- Gloucester Type 4, marked W B recorded from Gloucester and Ross probably the work of a Gloucester maker, both Walter Barney and William Brimyard were working in this period.
- 4. Late 17th century 'mulberry' pipe, the bowl decorated with a mould-imparted arrangement of raised dots.

 These pipes have a widespread distribution but were made at several places. This example is typical of the locality.
- 5, 6 & 7. Gloucester Type 11, stems decorated with zig zag rouletting.
- 8. Gloucester Type 4, stem decorated with plain milling. Pipes of this type similarly decorated were made at Quay Street, Gloucester c. 1660-1680.
- Gloucester Type 8, stem decorated with plain milling. Pipes of this type similarly decorated were made at Quay Street, Gloucester c. 1660-1680.
- 10. The form of this pipe is suggestive of a source in Herefordshire. The stem is decorated with plain milling.
- 11. Early 18th century pipe with milling on the stem; a late example of this type of decoration which seems to have ceased at the same time as the use of milling to the bowl rim.
- 12. Stem decorated with zig zag rouletting.
- Stem decorated with a twist. Similar examples from Broseley are of mid 18th century date.
- 14. Stem decorated with triangular milling.
- 15. Stem, mould marked in relief...D Liberty No. 45, a commemorative reference to edition number 45 of *The North Briton*, a paper published in 1763 in which John Wilkes attacked the King's speech to Parliament. He was expelled from the Commons but was acclaimed by the working class.
- Broseley Type 2, impressed stamp with a conjoined M D and three dots in relief.
- 17. Broseley Type 5.
- 18-30. Makers stamps from the heels of Broseley Type 5 pipes. All are impressed with the letters, bars etc. in relief. No. 20 is an example of the dated stamp.

- 31. Broseley Type 4, with minute stamp on the base of the spur, impressed ground with conjoined W D in relief.
- 32. Bristol pipe of Henry Hoare with an incuse mark H H on the back of an early 18th century form.
- Gloucester Type 13, with a raised disc cartouche on the side of the bowl surmounted by the mark P A and a star in relief.
- 34. Gloucester Type 13, with relief I B in a circular cartouche.
- Gloucester Type 13, with a raised disc cartouche and the relief letters P A.
- Relief spur mark T M probably the work of Thomas Mathews working in Gloucester in the 18th century.

BIBLIOGRAPHY AND ABBREVIATIONS

Abbreviations of Journal titles are those used by the Council for British Archaeology, except for T.B.G.A.S., Transactions of the Bristol and Gloucestershire Archaeological Society.

ANDERSON, A.C., 1980 'A Guide to Roman Fine Wares' Vorda Research Series 1, 28-34.

ANDREWS, A.H. & NODDLE, B.A., 1975 'Absence of premolar teeth from ruminant mandibles found at archaeological sites', J. Archaeol.

Sci. 2, 137-144.

ANNABLE, F.K., 1961 'A Romano-British Pottery in Savernake Forest, Kilns 1-2', Wilts Archaeol Natur. Hist. Mag.

58, 142-55.

ANON, 1920 Grains and Grammes: A table of equivalents for the use of numismatists.

ARMITAGE K., PEARCE J., & VINCE

A.G., 1981

'Early medieval roof tiles from London', Antiq. J. 61, 359-62.

ARMITAGE, P.L. & CLUTTON-BROCK,

J., 1976

'A system for classification and description of the horn cores of cattle from archaeological sites'. J. Archaeol, Sci. 3, 329-48.

ARTHUR, P. 1978 'The Lead-glazed wares of Roman Britain', in Arthur and Marsh (eds.) 1978, 293-356.

ARTHUR, P. & MARSH G., (eds.) 1978 Early fine wares in Roman Britain (Brit. Archaeol. Rep. 57, Oxford).

ATKINSON, D. 1914 'A Hoard of Samian Ware from Pompeii', J. Roman Stud. 4, 27-64.

ATKINSON D.R., 1975 Tobacco Pipes of Broseley, Shropshire (private printing).

BAILLIE, M.G.L., 1982 Tree-ring dating and archaeology (London).

BAILLIE, M.G.L. & PILCHER, J.R., 1973

'A simple crossdating program for tree-ring research', Tree-Ring Bulletin 33, 7-14.

BARTON, K.J., 1961 'Some evidence of two types of pottery manufactured in Bristol in the early 18th century',

T.B.G.A.S. 80, 160-8.

BARTON, K.J., 1963 'A Medieval Pottery kiln at Ham Green, Bristol', T.B.G.A.S. 82, 95-127.

BARTON, K.J., 1964 'The Excavation of a medieval bastion at St. Nicholas Almshouses, King Street, Bristol'

Medieval Archaeol. 8, 184-212.

BARTON, K., 1965-7 'The medieval pottery of the City of Worcester' Trans. Worcester Archaeol. Soc. 3rd S. 1, 29-

BARTON K.J., 1969 'Two medieval vessels from the Bon Marche site, Gloucester', T.B. G.A. S., 88, 209-212.

'Non-ferrous metal and glass working in Anglo Scandinavian England: an interim statement'. BAYLEY, J., 1982

Proceedings of the 2nd Nordic Conference on the application of scientific methods in archaeology

PACT 7 (1 and 2).

BECKER, B., 1981 'Fällungsdaten römischer Bauhölzer', Fundberichte aus Baden-Württemberg 6, 369-86.

Bingen, Städtliche Altertumssammlung (Frankfurt). BEHRENS, G., 1920

'On the Ancient wall of Gloucester and some Roman Remains found in proximity to it' BELLOWS, J. 1877

Cotteswold Naturalists Field Club 6, 154-240.

BIDDLE, M. and BARCLAY, K., 1974 'Winchester Ware' in Evison, Hodges and Hurst 1974, 137-66.

BIDDLE, M. & HILL, D., 1971 'Late Saxon planned towns', Antiq. J. 51, 70-85.

BIRLEY, R., 1973 'Vindolanda - Chesterholm, 1969-72, some important material from the vicus' Archaeol, Aeliana

5th series 1, pp. 111-122.

BOARD OF HEALTH, 1852 Ten feet and two feet plans of Gloucester surveyed by the Ordnance Survey Department under

the provisions of the Public Health Act.

BOON, G.C., 1970 'Excavations on the site of the Basilica Principiorum at Caerleon, 1968-69', Archaeol.

Cambrensis 119, 10-63.

BOON, G.C., 1974 'Roman Glassware from Caerwent, 1855-1925', Monmouthshire Antig. 3.2, 111-23.

B.M., 1960 C. Wilson Peck, Standard Catalogue of Copper and Tin Coins in the British Museum 1560-

1960 (London).

BREARS, P.C.D., 1971 The English Country Pottery: its History and Techniques (Newton Abbot).

BRUCE-MITFORD, R.L.S., 1940 'Medieval Tripod Pitchers' Antiq. J. 20, 103-13.

'The church of St. Mary de Lode, Gloucester', Glevensis (Journal of the Gloucester and District BRYANT, R., 1980

Archaeological Research Group) 14, 4-12.

BUCKLEY, F., 1929 est Country Glasshouses', Trans. Soc. of Glass Technology 13, 124-9.

BUSHE-FOX, 1949 4th Report on the Excavations of the Roman Fort at Richborough, Kent (Soc. Antiqs. London

Res. Report 16).

CADBURY, D.A., HAWKES, J.G. &

READETT, R.C. 1971

A computer mapped flora: a study of the County of Warwickshire (London).

CALLENDER, M.H., 1965 Roman Amphorae, with Index of Stamps (London).

CARRINGTON, P., 1977 'Castle Esplanade Hoard, Pottery, and Crook Street 1973-4 Pit Group' in P.J. Davey (ed.)

Medieval Pottery from Excavations in the North West (Liverpool), 12-17.

HARTLEY, K., 1977 'Two major potteries producing Mortaria in the first century AD' in Dore & Greene 1977, 5-18. HASSAL, M., & RHODES, J., 1974 'Excavations at the new Market Hall, Gloucester 1966-7'. T.B.G.A.S. 93, 15-100. HAWKES, S.C., & DUNNING, G.C., 1961 'Soldiers and Settlers in Britain, fourth to fifth century' Med. Archaeol, 5, 1-70. HAWKES, C.F.C. & HULL, M.L., 1947 Camulodunum - First Report on Excavations at Colchester 1930-1939 (Soc. Antiq. Res. Report 14, London). HEIGHWAY, C.M., 1974 Archaeology in Gloucester: a policy for city and District (Gloucester). HEIGHWAY, C.M., 1978 'Excavations at Gloucester: Fourth Interim Report: St. Oswald's Priory, 1974-5' Antiq. J. 58, HEIGHWAY, C.M., 1980 'The cemeteries of Roman Gloucester' T.B.G.A.S. 98, 57-72. HEIGHWAY, C.M. forthcoming a. Anglo-Saxon Gloucester in J. Haslem (ed.) Anglo-Saxon Towns of Southern England (London and Chichester). HEIGHWAY, C.M., forthcoming b. 'Tanners Hall, Gloucester', T.B.G.A.S. 'Anglo-Saxon Gloucester to A.D. 1000' in M. Faull and T. Rowley. Anglo-Saxon Landscape HEIGHWAY, C.M., forthcoming c. Studies (Brit. Archaeol. Rep., Oxford). HEIGHWAY, C.M., & GARROD, A.P., 'Excavations at nos. 1 and 30 Westgate St., Gloucester'. Britannia 11, 73-114. 1980 HEIGHWAY, C.M. GARROD, A.P., & 'Excavations at 1 Westgate St., Gloucester 1975', Medieval Archaeol. 23, 159-213. VINCE, A.G. 1979 HEIGHWAY, C.M. & PARKER, A., 1982 'The Roman tilery at St. Oswald's, Gloucester', Britannia 13, 97-149. HEINZEL, H., FITTER, R.S.R., & The Birds of Britain and Europe (London). PARSLOW, J.L.F., 1972 HENIG, M., 1976 'The Seal of William de Melcombe', Proc. Dorset Natur. Hist. Archaeol, Soc. 98, 67-9. HENIG, M., 1978 A Corpus of Roman Engraved Gemstones from British Sites. (Brit. Archaeol. Rep. 8, 2nd edn., Oxford). HILLAM, J., 1979 'Tree-rings and archaeology: some problems explained', J. Archaeol. Sci. 6, 271-8. HILLAM, J. 1981 'An English tree-ring chronology, A.D. 404-1216', Medieval Archaeol. 25, 31-44. 'The dating of the Roman riverside wall at three sites in London', London Archaeol. 3(11), HILLAM, J. & MORGAN, R.A., 1979 HILLAM, J. & MORGAN, R.A. 1981a 'What value is dendrochronology to waterfront archaeology?' in G. Milne and B. Hobley (eds.) Waterfront Archaeology in Britain and Northern Europe (CBA Res. Rep. 41, London), 39-46. HILLAM, J. & MORGAN, R.A., 1981b 'Dendro Dates from Sheffield', Current Archaeol. 7 (9), 286-7. Historic Manuscripts Commission. 'The Records of the Corporation of Gloucester', 12th Report, **HMC** Appendix IX (London 1891), 400-537. HODDER, I., 1974 'The Distribution of Savernake Ware', Wilts Archaeol. Natur. Hist. Mag. 69, 67-84. HOLLING, F.W., 1971 'A preliminary note in the pottery industry in the Hampshire-Surrey borders' Surrey Archaeol. Collect. 68, 57-88. HOLLSTEIN, E., 1965 'Jahrringchronologische Datierung von Eichenhölzern ohne Waldkante', Bonner Jahrbuch 165, 12-27. HOLLSTEIN, E., 1967 'Jahrringchronologien aus vorrömanischer und römischer Zeit', Germania 45, 70-84. HOLLSTEIN, E., 1980 Mitteleuropäische Eichenchronologie (Zabern, Mainz am Rhein). HOWE, M.D., PERRIN, J.R., & Roman Pottery from the Nene Valley: A Guide (Peterborough City Mus. Occas. Pap. 2). MACKRETH, D.F. (1980) HOWITT, G.A. et. al. 1890 Gloucester's Ancient Walls and Gate Houses (Gloucester). State of the Prisons (Warrington). HOWARD, J., 1780 HUGHES, M.K., MILSOM, S.J. & 'Sapwood estimates in the interpretation of tree-ring dates', J. Archaeol. Sci. 8, 381-90. LEGGATT, P.A., 1981 Roman Colchester (Soc. Antiqs. London Res. Rep. 20) HULL, M.R., 1958 HUNTER, A.G., 1963 'Excavations at the Bon Marche site Gloucester 1958-9' T.B.G.A.S. 82, 25-65. HUNTER, A.G., 1981 'Building excavations at the Cross, Gloucester, 1960. Nos. 2-4 Northgate Street and 1-3 Eastgate St.' T.B.G.A.S. 99, 79-107. HURST, H., 1972 'Excavations at Gloucester 1968-71: first interim report', Antiq. J. 52, 24-69. HURST, H., 1974 'Excavations at Gloucester 1971-1973: second interim report'. Antiq. J. 54, 8-52. HURST, H., 1975 'Excavations at Gloucester, Third Interim Report, Kingsholm 1966-75', Antiq. J. 55, 267-94. 'Gloucester (Glevum): a Colonia in the West Country' in Keith Branigan and P.J. Fowler (eds.), HURST, H., 1976 The Roman West Country: Classical Culture and Celtic Society (Newton Abbot). HURST, H. 1978 'Viticulture in Gloucester' Antiq. J. 58, 162. HURST, J., 1964 'Tudor Green ware and stoneware jugs' in B. Cunliffe, Winchester Excavations 1949-60 140-3. HURST, J., 1974 'Sixteenth and seventeenth-century imported pottery from the Saintonge'in Evison, Hodges & Hurst 1974, 221-55.

'Spanish Pottery imported into medieval Britain', Medieval Archaeol. 21, 68-105.

HURST, J., 1977

HYETT, F.A., 1903 'Incidents in the early history of Gloucester', T.B.G.A.S. 26, 83-107. "The post-Roman pottery from excavation at Cirencester Abbey 1964-66" in D. Wilkinson IRELAND, C.A., forthcoming forthcoming Cirencester Abbey. 1964-66. JACKSON, R.G., & PRICE, R.H., 1974 Bristol Clay Pipes (Bristol). JACOBS, J., 1912 'Sigillatafunde aus einem römischen Keller zu Bregenz', Jahrbuch für Altertumskunde 6. JEFFCOAT, R., 1932 'The arms & badges of Edward Stafford 3rd Duke of Buckingham'. T.B.G.A.S. 54, 133-6. JONES, M., 1980 'The Defences of the Upper Roman Enclosure' (The Archaeology of Lincoln, 7/1, CBA, London). 'Medieval pottery kilns at Brill, Bucks; Preliminary report on Excavations in 1953' Record JOPE, E.M., 1953 Bucks 16 (1953-4), 39-42. JOPE, E.M., & DUNNING, G.C., 1954 'The use of Blue Slate for Roofing in Medieval England', Antiq. J. 34, 209-17. 'Suburban Growth' in M.W. Barley (ed.) The Plans & Topography of Medieval Towns in KEENE, D., 1976 England and Wales (London). KEEN, L., 1979 'Medieval decorated tile pavements at Worcester' British Archaeol. Assoc. Conference Trans. 1. KEEN, L., unpublished 'Index of medieval floor tiles from Blackfriars, Gloucester'. KEEPAX, C.A., & PARADINE, P.J., Environmental samples from Gloucester East Gate (Ancient Monuments laboratory report 2496 Series No. Environmental 19/78: M/S). KELLAWAY, G.A., & WELCH, F.B.A., British Regional Geology: Bristol and Gloucester District (London). KENYON, K.M., 1948 Excavations at the Jewry Wall Site, Leicester. (Soc. Antigs. Res. Rep. 15, Oxford). KENYON, R.L., 1884 The Gold Coins of England (London). KILMURRY, K., 1977 'The production of red painted pottery at Stamford, Lincolnshire', Medieval Archaeol. 21, 180-6. KILMURRY, K., 1980 'The Pottery Industry of Stamford...' (Brit. Archaeol. Rep. 84, Oxford). KIP, 1712 Prospect of Gloucester. KIRBY, I.M., 1967 A Catalogue of the Records of the Dean and Chapter including the former St. Peters Abbey (Gloucester). KNORR, R., 1919 Töpfer und Fabriken verzierter Terra Siggillata des ersten Jahrhunderts. KNORR, R., 1952 Terra-Sigillata-Gefässe des ersten Jahrhunderts mit Töpfernamen. LANGSTON, J.N., 1957 Old Gloucester Churches (bound typescript in Gloucester Library, Unpaginated, 2 vols. 1956-7). LAUR-BELART, R., 1935 Vindonissa, Lager und Vicus (Romisch-Germanische Forschungen 10, Berlin and Leipzig). LAWSON, R.G., 1978 "Medieval Tuning Pegs from Whitby, N. Yorkshire" Medieval Archaeol. 22, 139-41. LAWSON, R.G., forthcoming 'Musical instrument pegs' in 'Excavations at Battle Abbey, Sussex.' LEEDS, E.T., 1941 '17th and 18th century wine-bottles of Oxford taverns' Oxoniensia 6, 44-55. LEIBUNDGUT, A., 1977 Der römischen Lampen in der Schweiz (Bern). L.M.C., 1940 London Museum Medieval Catalogue (London). LOBEL, M. (ed.) 1969 'Gloucester' in Historic Towns Atlas, i. (London and Oxford). LOESCHCKE, S., 1919 Lampen aus Vindonissa (Zurich). LOWE, B.J., 1978 Medieval floor tiles of Keynsham Abbey (private printing). L.R.B.C. Carson, R.A.G., Hill, P.V. and Kent, J.P.C. Late Roman Bronze Coinage AD 324-498 (parts i and ii, London 1960). MAASKANT-KLEIBRINK, M., 1978 Catalogue of the Engraved Gems in the Royal Coin Cabinet, the Hague. The Greek, Etruscan and Roman Collections (The Hague). MacGREGOR, A., 1978 Roman Finds from Skeldergate and Bishophill (Archaeology of York 17/2; C.B.A., London). MACKRETH, D.F., 1977 Roman brooches from excavations at Gloucester 1968-74 (unpublished typescript, Gloucester City Museum Excavation Unit, January 1977). MALTBY, J.M., 1979 The Animal Bones from Exeter 1971-5 (Sheffield). The Review and Abstract of the Country Reports to the Board of Agriculture, vol. 2, Western. MARSHALL, W., 1809 (York, 1809; reprinted Newton Abbot). MAY, T., 1930 Catalogue of the Roman Pottery in the Colchester and Essex Museum. MEDLAND, H., 1886 'Some finds in Brunswick Road, near the Eastgate' (a paper read to the Bristol and Gloucestershire Archaeological Society). T.B. G.A.S. 10 (1885-6), 6-8. MELLOR, M., 1980 'Late Saxon pottery from Oxfordshire; evidence and speculation', Medieval Ceramics 4, 17-28. MORGAN, R.A., 1975 'The selection and sampling of timber from archaeological sites for identification and tree-ring analysis', J. Archaeol. Sci. 2, 221-30. MORRIS, C.A., 1979 'The Wooden Objects' in Heighway, Garrod and Vince 1979, 199-200. 'Wooden Objects' in N. Palmer. 'A Beaker Burial and Medieval Tenements' in the Hamel, MORRIS, C.A., 1980 Oxford, Oxoniensia 45. Microfiche C12. MORRIS, C.A., 1982 'Aspects of Anglo-Saxon and Anglo-Scandinavian Lathe-Turning' in S. McGrail (ed.)

Woodworking Techniques before 1500 A.D. (Brit. Archaeol. Rep. S129, Oxford) 245-61.

C.A. Morris in B. Dix, 'Excavations at Harrold Pit, Odell, Bedfordshire, 1974-78', Bedfordshire MORRIS, C.A., forthcoming Archaeol. J. 15 or 16. 'Medieval and Post-Medieval Pottery in Worcester: A Type Series' in M. Carver (ed.) Medieval MORRIS, E., 1980 Worcester (Trans. Worcestershire Archaeol. Soc. 3 ser, 7) 221-54. MUNSELL, 1954 ell Soil Colour Charts (Baltimore, USA, 1954 edn). MUSTY, J., 1973 "A preliminary account of the medieval pottery industry at Minety, N. Wilts". Wilts. Archaeol. Mag. 68, 79-88. NASH-WILLIAMS, V.E., 1969 The Roman Frontier in Wales (2nd edition revised by Michael G. Jarrett; Cardiff 1969). N.G. See Vince 1977b. N.M.H. See Hassall and Rhodes 1974. NODDLE, B.A., 1974 'The animal bones', in C. Platt and R. Coleman-Smith, Excavation in Medieval Southampton 1953-1969, vol. 1 (Leicester), 332-9. NODDLE, B.A., 1975 'A comparison of the animal bones from 8 medieval sites in southern Britain', in A.T. Clason (ed.), Archaeozoological Studies (Amsterdam), 248-60. NOEL-HUME, I., 1970 A guide to artefacts from Colonial America (New York). NORTH, J.J., 1960 English Hammered Coinage. F.Oswald, 'Index of Figure Types on Terra Sigillata', Supplement to Annals of Archaeology 23-4 (1936-7). O'NEIL, H.E., 1965 'Excavations in the Kings School Gardens, Gloucester, 1964'. T.B.G.A.S. 84, 15-27. O'NEIL, H.E., 1972 'Bourton Bridge Posting House: Part II - Pottery and finds' T.B.G.A.S. 91, 92-116. ORTON, C., forthcoming Contribution to G. Milne and C. Milne, 'Excavations at Trig Lane', London Middlesex Archaeol. Soc., Special Paper. OSWALD, F., 1948 The Terra Sigillata of Margidunum (Nottingham). PARKER, D.J., 1977 "Gloucesters Walls and Defences in early times". Gloucestershire Historical Studies 8 (Bristol), PARKER, A., 1982 'The Tile Stamps' in Heighway and Parker 1982, 60-75. **PAYNE, S., 1975** 'Partial recovery and sample bias', in A.T. Clason (ed.) Archaeozoological Studies (Amsterdam), PEACEY, A., (1979) Clay Tobacco Pipes in Gloucestershire (Bristol). PEACEY, A., forthcoming (a) 'Evidence of a clay pipe kiln at Lower Quay Street, Gloucester' in Garrod forthcoming. PEACEY, A., forthcoming (b) 'The Clay Pipes' in Heighway forthcoming (b). 'Romano-Britsh pottery production in the Malvern District of Worcestershire' Trans. PEACOCK, D.P.S., 1967 Worcestershire Archaeol. Soc. 3 ser, 1 (1965-67), 15-28. PEACOCK, D.P.S., 1968 'A petrological study of certain Iron Age Pottery from Western Britain.' Proc. Prehist. Soc. 34, 414-27. PEACOCK, D.P.S., 1971 'Roman Amphorae in Pre-Roman Britain', in Jesson M. & Hill D. The Iron Age & Its Hill Forts (Southampton). PEACOCK, D.P.S. (ed.) 1977a Pottery and Early Commerce: Characterisation and Trade in Roman and Later Ceramics (London). PEACOCK, D.P.S., 1977b 'Pomperian Red Ware' in Peacock 1977a, 147-162. PEACOCK, D.P.S., 1977c 'Roman amphorae: typology, fabric & origins'. Coll. Ecole. Franc Rome 32, 261-78. PHILLIPS, E.J., 1978 'The Gloucester Roman antefix: an interpretation'. T.B.G.A.S., 96, 74-7. POLLARD, W. (ed.), 1892, 1903 Laudboc sive registrum monasterii Winchelcumba vols. 1 & 2 (Exeter). PONSICH, M. 1979 Implantation Rurale Antique sur le Bas-Guadalquivir 2 (Paris). PRICE, J., 1977 'The Roman Glass' in Anne Gentry et al., 'Excavations at Lincoln Road, London Borough of Enfield, November 1974 - March 1976' Trans. London and Middlesex Archaeol. Soc. 28, 154-'The Glass from Felmongers, Harlow Essex Archaeol. J.

PRICE, J., forthcoming

PURNELL, F., & WILLIAMS, H.W., 1910

RAE, A., & RAE, V., 1974

RAHTZ, P., 1979

RALPH, E.K., MICHAEL, H.N. & HAN, M.C., 1973

RAWES, B., 1972 RAWES, B., 1978 R.C.H.M., 1962

R.C.H.M., 1972

Jubilee History of the Gloucester Co-operative and Industrial Society Ltd. (Gloucester).

'The Roman fort at Cramond, Edinburgh: Excavations 1954-66, Britannia 5, 163-316.

The Saxon and Medieval palaces of Cheddar (Brit. Archaeol. Rep. 65, Oxford).

'Radiocarbon dates and reality', MASCA Newsletter 9, 1-20.

'Roman pottery kilns at Gloucester' T.B.G.A.S. 91, 18-59.

'Roman pottery kilns at Gloucester: a supplementary note'. T.B.G.A.S. 96, 77-8.

Royal Commission on Historical Monuments, England, An Inventory of the Historical Monuments in the City of York i, Eboracum: Roman York (London).

Royal Commission on Historical Monuments, England. An Inventory of the Historical Monuments in the City of York: ii, The Defences (London).